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March 2013

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All India Institute of Medical Sciences

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

The Institute has comprehensive facilities for teaching, research and patient-care. AIIMS conducts teaching programmes in medical and para-medical courses both at the undergraduate and postgraduate levels and awards its own degrees. Teaching and research is conducted in 52 disciplines. AIIMS is a leader in the field of medical research having more than 1500 research publications by its faculty and researchers in a year. AIIMS also runs a College of Nursing, training students for B. Sc. (Hons.) Nursing and B. Sc. Nursing (Post-Certificate) degrees.

Thirty-eight departments and seven super-speciality centres manage practically all types of disease conditions with support from pre-clinical and para-clinical services. AIIMS also runs a 50-bedded hospital and the Comprehensive Rural Health Centre at Ballabgarh in Haryana and provides health cover to about 7.7 lakh people through the Centre for Community Medicine.
# AIIMS AT A GLANCE
## 2011-2012

### Year of establishment 1956

<table>
<thead>
<tr>
<th>Teaching Departments and Centres</th>
<th>52</th>
<th>Medical graduates</th>
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<td>8702</td>
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<td>No. of Postgraduate students</td>
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<td>Chapters in Books / monographs</td>
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### Hospital Services

<table>
<thead>
<tr>
<th>Hospital/Centre</th>
<th>Outpatient Attendance (including Casualty)</th>
<th>Admission</th>
<th>Surgery (Operations/ Procedures)</th>
<th>Bed (Gen.)</th>
<th>Bed (Pvt.)</th>
<th>Total Bed Strength</th>
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<tr>
<td>Main Hosp.</td>
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<td>982</td>
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<td>1147</td>
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<td>397538</td>
<td>33881</td>
<td>32879</td>
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<td>Dr.BRA,IRCH</td>
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<td>NDDTC</td>
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<td>C.C.M.</td>
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<td>2328</td>
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</tbody>
</table>

*1 bed (pvt.) is used 6 months by CT Centre and 6 months by NS Centre

Average Length of stay* : 5.5 days

Average Bed Occupancy rate (%)* : 81.6%

Net Death Rate (%)* : 2.2%

Combined Crude Infection Rate (%)* : 8.3%

*These figures are for AIIMS Main Hospital only.
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I am glad to present the Fifty-sixth Annual Report and audited statement of accounts for the year 2011–2012. The achievements of the All India Institute of Medical Sciences (AIIMS) community reflect a shared dedication to core values of education, research and service. I am pleased to highlight in this report a few of the past year’s remarkable accomplishments, and I am privileged to acknowledge my debt to the many members of the AIIMS community who serve it in so many ways.

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, AIIMS continually seeks to achieve a high standard of healthcare education, research and service. It is recognized in India and globally, as a healthcare institution that best combines excellent medical education with cutting edge research and quality healthcare.

**Education: Leaders in India and seeking global partnerships**

AIIMS has a manpower of over 10,000 including 750 faculty members, supported by resident doctors, nurses, paramedics, scientists, non-medical officers and staff. It produces a large number of specialists (MD/MS), superspecialists (DM/MCh), PhD scholars and allied health and basic sciences experts, including nurses and paramedical professionals. In the year 2011–2012 it awarded 465 degrees in various disciplines. Under its short term training scheme, the institute provided postgraduate training to 649 short and 5 long-term trainees. In addition 32 WHO Fellows (Foreign National) under WHO fellowship programme, 12 WHO Fellows (Indian National) for WHO-In-Country Fellowship training programme (2011–12), 51 postgraduate and 35 undergraduate foreign nationals were imparted training at AIIMS.

To prepare tomorrow’s leaders, AIIMS continually reviews how medicine based on science and technology is taught. It tries to integrate the best in medical education in the world with wisdom honed from dedicated training in India. During 2011–2012, AIIMS and Meiji Pharmaceutical University, Japan, signed a memorandum of understanding for collaborative development of mutually agreed areas of health sciences. The areas of cooperation will include exchange of faculty members, training and exchange of students, cooperation in research activities, organising academic programmes on mutually agreed topics and sharing of scientific knowledge based on research and experience in both institutions. The institute also introduced new postgraduate courses (DM, MCh, MD) in Pulmonary Medicine, Surgical Oncology and Geriatric Medicine during the year. Newer skill acquisition methods through medical simulation systems for practical skill development in experimental laboratories and surgical situation are being put into operation for the benefit of students and resident doctors. We also have a strong rural healthcare training programme at Ballabgarh community hospital for training both under- and postgraduate students in rural and public health practices.

It is due to its single-minded devotion to developing dynamic leaders with creativity, intellectual rigour and professionalism fit for 21st century healthcare, that AIIMS, retained its position at the top of the India Today’s Best Medical Schools survey even when the league table saw major upheavals in the subsequent positions. AIIMS continued to be the most-respected medical institute in India in an overwhelming majority of parameters assessed: funding, staff, students, values, reputation, teaching, research and clinical care. Our scholars lead institutes of medicine, science and education and biomedical laboratories in India and abroad. Importantly, they also serve on many expert groups on healthcare issues of national importance. It is, therefore, not surprising that the central government has recently opened MBBS courses modelled on our curriculum in six AIIMS-like institutions in different states. AIIMS is likely to play a major role in nurturing and mentoring these institutions through collaboration with national knowledge network using communication technology and establishing virtual learning environments.

In an effort to foster a culture that values and promotes diversity inclusion, mentoring and service, AIIMS appointed a Students’ Welfare Officer to look after the interests of its diverse student community. It also finalized a new orientation programme for newly admitted MBBS students for their personality and academic enrichment.
Research: State of the Art research with an Indian touch

The Institute is committed to high quality basic and clinical research. Over 600 research projects were conducted in the year 2010–2011 and the institute attracted extramural research grants of more than Rs. 65 crores, a creditable increase of over 25% from last year. Our faculty have succeeded in bringing significant international research grants in frontier and cutting edge biomedical areas such as structural biology, viral hepatitis, immunology, biotechnology, virology, neonatology, foetal medicine, diabetes, epidemiology and cancer. Hopefully, these projects would lead to impressive results and benefit our people. During the year the faculty and the scientists of the institute published over 1700 research papers in national and international journals and over 200 monographs, chapters in books and books. Various departments organised over 150 medical conferences, workshops, CMEs, both national and international, during the year.

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, Government of India, to support research and develop projects that would provide innovative healthcare products at affordable costs. Similarly, AIIMS continued to play an important role in the Stanford-India Biodesign Programme funded by the Department of Biotechnology, Ministry of Science and Technology, and Stanford University. National bodies like the Indian Council of Medical Research regularly request different departments of AIIMS to conduct studies on health issues of public importance and national relevance.

AIIMS took up key initiatives to encourage integration and collaboration across disciplines to accelerate translational breakthroughs. The Convergence Centre will foster broad clinical and translational collaborations while identifying ways to speed new therapies to patients. It will serve as a knowledge hub by generating databases for various research activities, including clinical experiences at AIIMS and house additional facilities for the departments of anatomy, pathology, physiology, biochemistry, pharmacology and microbiology.

In an effort to develop animal-friendly infrastructure, AIIMS upgraded enclosures and run in spaces for animals housed in its central animal facility. Some old animals were also rehabilitated at Sanjay Gandhi Animal Care Centre. AIIMS also introduced a training programme for its technical assistants on animal upkeep and hygiene.

Essential to the enterprise of discovery and learning at AIIMS is the constant drive to develop effective new methods for educating the next generation of physicians and scientists, teaching them how to incorporate both the art and science of medicine into practice to meet the demands of a rapidly evolving healthcare profession. To lead this effort, the Research Section was augmented and reorganized under the Dean and Sub Dean, Research. Intramural grants to the tune of Rs. 3 crores disbursed to talented young faculty for undertaking 126 new projects in areas such as stroke, brain tumour, stem cell studies, drug designing, protein research, genetics and immunology, clearly indicate the success of these efforts.

The unparalleled size and scope of the research enterprise sometimes obscures the countless stories of long hours, late nights, insights, setbacks and advances. The research highlighted below provides a small glimpse into the breadth of exploration and discovery at AIIMS. The paediatrics department prepared a medicine that can prevent neonatal deaths from infant respiratory distress syndrome (IRDS). The orthopaedics department developed a new non-surgical healing technique that involves injection of platelets in fracture sites as an alternative to bone graft surgery in non-healing fractures. The cardiology department as a part of a multicentre study from India demonstrated that SeQplasty, a balloon like device coated with drugs, could be a good replacement for stents in many cases. Oncologists at AIIMS have demonstrated the utility of ginger root powder in reducing the severity of chemotherapy induced nausea and vomiting. An animal study conducted at the pharmacology department suggested that coriander plays a significant therapeutic role in managing rheumatoid arthritis. A study conducted by clinical psychologists suggested that strict enforcement of rules and regulations, user-friendly public transport, and practical (e.g. avoiding rush hours, taking alternative routes) and emotional (e.g. listening to music, distracting oneself) coping strategies could help in preventing cases of road rage.
As a tribute to high achievers in biomedical sciences in India and abroad, AIIMS awarded prestigious orations (Dr Urmil B.K. Kapoor Oration, Dr L.K. Bhutani Oration, Professor Kesho Ram Laumas Memorial Oration, Sarveshwari Memorial Oration, and N. Gopinath Oration) to the following scientists and doctors: Dr Mayil Vahanan Natarajan, Vice Chancellor, Tamilnadu MGR University, Chennai; Dr Y.K. Chawla, Director, PGIMER, Chandigarh; Dr Sujoy K. Guha, Professor of Biomedical Engineering, School of Medical Science and Technology, IIT, Kharagpur; Dr Takeshi Kawase, Hon. Professor, Department of Neurosurgery, School of Medicine, Keio University, Tokyo; and Dr Shitij Kapur, Dean and Head of School, Institute of Psychiatry, King’s College, London, UK. It is noteworthy that Dr Shitij Kapur trained as an undergraduate at AIIMS.

Clinical care: quality with compassion

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 (RAPCOS), the Centre for Dental Education and Research (CDER) and the Centre for Behavioural Sciences (National Drug Dependence Treatment Centre, NDDTC)—have a total bed strength of over 2400, including day care beds. During the year 2010–2011, the institute attended to over 25 lakh OPD patients, admitted about 1.7 lakh patients and performed close to 1.4 lakh surgical procedures, which included highly sophisticated procedures. The Institute has maintained an ideal parameter in patient care services with an average bed occupancy of over 80%, and average hospital stay of about 6 days. The AIIMS hospital reported a net death rate of below 3%. With its inclusive approach, the AIIMS community embraces the developing world without borders. 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, oncolgy and surgery.

Work on building the new AIIMS campus at Jhajjar, Haryana, has started. In addition to service provision, the campus will house centres for excellence in infectious diseases, molecular medicine, nutrition, control of non-communicable diseases including cancer, vaccine development and regenerative sciences. A Geriatric Medicine department was created at AIIMS to support the National Programme for Health Care of Elderly (NPHCE). The NPHCE programme envisages establishment of geriatric wards, rehabilitation centres and geriatric clinics at various levels in the district healthcare delivery system; and introduction of preventive, curative and rehabilitative interventions in geriatrics.

Keeping up with advancements in technology, AIIMS replaced its existing gamma knife with a new gamma knife for treatment of brain disorders. Gamma knife treatment involves delivering a single, high dose of radiation to a small and critically located target in the brain. The new state-of-the-art machines radically expand the reach of treatment to a wider range of anatomical structures. The new technology promises less trauma, faster recovery, shorter hospital stays and fewer surgery-related complications. AIIMS has also acquired a new intra-operative MRI machine also known as ‘brain suites,’ that would help improve the outcome of brain surgeries and ensure speedy recovery. It will enable doctors to watch live multiple 3D-scans of the area of the brain while they operate, thus increasing the precision of surgery. Detection of breast cancer is all set to get better with the entry of breast tomosynthesis, a quicker, and more accurate and detailed 3-D imaging technology, now available at AIIMS. Breast tomosynthesis bridges the gap between conventional imaging and the high-end imaging technology like MRI and CT scan. AIIMS employed platform-based technologies for diagnosis of diseases in pathology and laboratory medicine, besides research in cell biology, vaccine development and biotechnology. These innovations have brought high quality patient care delivery within the reach of each citizen of the country.

People must be at the heart of advances in health and delivery of healthcare. The uniqueness of AIIMS stems from its being people-centric in its functioning. In line with the Planning Commission’s Expert Group on Universal Health Coverage recommendation regarding ensuring availability of free essential medicines by increasing public spending on drug procurement, the Governing Body and the Institute Body of AIIMS have approved the plan for setting up an integrated medicine management system, under which a pharmacy will dispense ‘essential medicines’ free of cost to
patients. In addition, a round-the-clock pharmacy opened at the hospital with a mandate to provide medicines and surgical consumables prescribed to outpatients at AIIMS at a 56% discount on maximum retail price. The Institute Body also decided that free treatment should be provided to all BPL (below poverty line) card holders. AIIMS also decided to get all its diagnostic services and the DNA laboratory accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) to standardize services.

AIIMS doctors and staff pooled their knowledge and creativity as never before in the service of alleviation of human suffering caused by ill-health. Pioneering patient care work in cardiothoracic surgery, neurosurgery, orthopaedics, eye surgery, diabetes, robotic and minimally invasive surgery has been done. Doctors at trauma centre have developed a safe practice protocol and guidelines for acute and emergency care medicine. Otolaryngology (ENT) doctors performed the first robotic surgery for throat cancer in India. They used a trans-oral robotic route for surgery (TORS) in which the robotic arms go inside the throat through the mouth and no external incisions are made. In a proactive move towards tackling the grave problem of drug addiction in various states in India, the National Drug Dependence Treatment Centre (NDDTC) of AIIMS and the United Nations Office On Drugs and Crime (UNODC), have launched a methadone maintenance treatment (MMT) programme for drug users in Bhatinda, Kapurthala, Delhi, Mumbai and Imphal. AIIMS continued to play a lead role on health issues of public importance. The Institute’s contribution to national programmes including the Integrated Child Development Services, Iodine Deficiency Disease Control program, Reproductive and Child Health, diarrhoeal disease, AIDS control and noncommunicable diseases is noteworthy.

Our 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 concentrates in areas such as primary care, infectious disease, maternal and newborn health, surgery, non-communicable diseases and health systems, to name a few. The Dr Rajendra Prasad Centre for Ophthalmic Sciences continues to play a key role in the National Program for Control of Blindness.

AIIMS has made a sincere effort to live up to the mandate given to it by Parliament. It strives to assist the government in its endeavour to provide quality healthcare to our people. I hope that with its vast reservoir of faculty talent, patients, extensive collaborative network and commitment to the nation, AIIMS will continue to steer health education, research and services for national and global communities.

[Signature]
Professor R. C. Deka
Director, AIIMS

AIIMS 2011-2012 / 4
2. The Institute and its Committees

INSTITUTE BODY

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

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

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

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

5. **Professor Dinesh Singh**
   Vice Chancellor, University of Delhi, Delhi 110007

6. **Shri K. Chandramauni**
   Secretary (Health), Ministry of Health and Family Welfare
   Government of India, Nirman Bhawan, New Delhi 110011
   Member (up to 31 August 2011)

   **Shri Anil Kumar**
   Secretary (Health), Ministry of Health and Family Welfare
   Government of India, Nirman Bhawan, New Delhi 110011
   Member (14 October to 16 November 2011)

   **Shri P.K. Pradhan**
   Secretary (Health), Ministry of Health and Family Welfare
   Government of India, Nirman Bhawan, New Delhi 110011
   Member (w.e.f. 17 November 2011)

7. **Dr R.K. Srivastava**
   Director General of Health Services
   Government of India, Nirman Bhawan, New Delhi 110011
   Member (Ex-Officio) (up to 30 November 2011)

   **Dr Jagdish Prasad**
   Director General of Health Services
   Government of India, Nirman Bhawan, New Delhi 110011
   Member (Ex-Officio) (w.e.f. 1 December 2011)

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

   **Shri K. Chandramauni**
   Secretary (Health), Ministry of Health and Family Welfare
   Government of India, Nirman Bhawan, New Delhi 110011
   Member (up to 31 August 2011)

   **Shri Anil Kumar**
   Secretary (Health), Ministry of Health and Family Welfare
   Government of India, Nirman Bhawan, New Delhi 110011
   Member (14 October to 16 November 2011)

   **Shri P.K. Pradhan**
   Secretary (Health), Ministry of Health and Family Welfare
   Government of India, Nirman Bhawan, New Delhi 110011
   Member (w.e.f. 17 November 2011)

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AIIMS 2011-2012 / 5
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position</th>
</tr>
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<tbody>
<tr>
<td>9.</td>
<td>Dr S.P. Agarwal</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>Secretary General, Indian Red Cross Society, Rafi Marg, New Delhi</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Professor K.C. Pandey</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>Department of Zoology, Lucknow University, Lucknow 226007</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Ms Vibha Puri Das</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>Secretary, Department of Higher Education, Ministry of Human Resource Development, Shastri Bhawan, New Delhi 110001</td>
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</tr>
<tr>
<td>12.</td>
<td>Professor K.K. Talwar</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>President, National Academy of Medical Sciences, Ansari Nagar, New Delhi 110029</td>
<td></td>
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<td>13.</td>
<td>Dr R.A Badwe</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>Director, Tata Memorial Hospital, Dr. E. Borges Road, Lower Parel, Mumbai</td>
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<td>14.</td>
<td>Dr Ramakant Panda</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>Vice Chairman, Asian Heart Institute, Bandra East, Mumbai, Maharashtra</td>
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<tr>
<td>15.</td>
<td>Dr Abdul Hamid Zargar</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>Director, Sher-I-Kashmir Institute of Medical Sciences, Soura, Srinagar 190011, Kashmir</td>
<td></td>
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<tr>
<td>16.</td>
<td>Shri Naved Masood</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>Additional Secretary and Financial Adviser, Ministry of Health and Family Welfare, Nirman Bhawan, New Delhi 110011 (up to 31 August 2011)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shri R.K. Jain</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>Additional Secretary and Financial Adviser, Ministry of Health and Family Welfare, Nirman Bhawan, New Delhi 110011 (w.e.f. 14 October 2011)</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Professor R.C. Deka</td>
<td>Member-Secretary</td>
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<tr>
<td></td>
<td>Director, All India Institute of Medical Sciences</td>
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<tr>
<td>18.</td>
<td>Shri Debasish Panda</td>
<td>Special Invitee</td>
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<tr>
<td></td>
<td>Joint Secretary, Ministry of Health and Family Welfare, Nirman Bhawan, New Delhi 110011</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Dr Rani Kumar</td>
<td>Special Invitee</td>
</tr>
<tr>
<td></td>
<td>Dean, All India Institute of Medical Sciences</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Dr D.K. Sharma</td>
<td>Special Invitee</td>
</tr>
<tr>
<td></td>
<td>Medical Superintendent, All India Institute of Medical Sciences</td>
<td></td>
</tr>
</tbody>
</table>
## 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**

5. Shri K. Chandramauli  
   **Member (up to 31 August 2011)**

   Shri P.K. Pradhan  
   **Member (w.e.f. 12 December 2011)**

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

7. Dr R.A. Badwe  
   **Member**

8. Dr R.K. Srivastava  
   **Member (up to 30 November-2011)**

   Dr Jagdish Prasad  
   **Member (w.e.f. 11 November 2012)**

9. Dr S.P. Agarwal  
   **Member**

10. Shri Naved Masood  
    **Member (up to 31 August 2011)**

    Shri R.K. Jain  
    **Member (w.e.f. 12 December 2011)**

11. Professor R. C. Deka  
    **Member Secretary**

12. Shri Debasish Panda  
    **Special Invitee**

13. Dr Rani Kumar  
    **Special Invitee**

14. Dr D.K. Sharma  
    **Special Invitee**
STANDING FINANCE COMMITTEE

1. Shri K. Chandramauli Chairman (up to 31 August 2011)
   Shri P.K. Pradhan Chairman (w.e.f. 12 December 2011)
2. Shri Motilal Vora, MP (Rajya Sabha) Member
3. Dr R. K. Srivastava Member (up to 30 November 2011)
   Dr Jagdish Prasad Member (w.e.f. 11 January 2012)
4. Shri Naved Masood Member (up to 31 August 2011)
   Shri R.K. Jain Member (w.e.f. 12 December 2011)
5. Ms Vibha Puri Das Member
6. Dr S.P. Agarwal Member
7. Professor Dinesh Singh Member
8. Professor R.C. Deka Member-Secretary
9. Dr Rani Kumar Special Invitee
10. Shri Debasish Panda Special Invitee

STANDING ACADEMIC COMMITTEE

1. Dr R. K. Srivastava Chairman (up to 30 November 2011)
2. Dr Jyoti Mirdha, MP (Lok Sabha) Member
3. Professor Dinesh Singh Member
4. Dr M. K. Bhan Member
5. Ms Vibha Puri Das Member
6. Dr Ramakant Panda Member
7. Professor K.C. Pandey Member
8. Dr Abdul Hamid Zargar Member
9. Professor R.C. Deka Member-Secretary
### STANDING SELECTION COMMITTEE

1. Dr R.A. Badwe **Chairman**
2. Dr R.K. Srivastava **Member (up to 30 November 2011)**
   - Dr Jagdish Prasad **Member (w.e.f. 11 January 2012)**
3. Ms Vibha Puri Das **Member**
4. Dr M.K. Bhan **Member**
5. Professor K.K. Talwar **Member**
6. Dr Ramakant Panda **Member**
7. Dr Abdul Hamid Zargar **Member**
8. Professor R.C. Deka **Member-Secretary**

### STANDING ESTATE COMMITTEE

1. Dr S.P. Agarwal **Chairman**
2. Dr Jyoti Mirdha, MP (Lok Sabha) **Member**
3. Shri Naved Masood **Member (up to 31 August 2011)**
   - Shri R.K. Jain **Member (w.e.f. 12 December 2011)**
4. Dr M.K. Bhan **Member**
5. Professor R.A. Badwe **Member**
6. Dr R.K. Srivastava **Member (up to 30 November 2011)**
   - Dr Jagdish Prasad **Member (w.e.f. 11 January 2012)**
7. Dr K.K. Talwar **Member**
8. Professor R.C. Deka **Member-Secretary**

### STANDING HOSPITAL AFFAIRS COMMITTEE

1. Shri Motilal Vora, MP (Rajya Sabha) **Chairman**
2. Dr Jyoti Mirdha, MP (Lok Sabha) **Member**
3. Dr R. A. Badwe **Member**
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**
EDUCATION
The Academic Section develops policies and plans, and executes academic activities. These activities encompass the undergraduate, postgraduate and doctoral programmes for medical, nursing and paramedical courses. These activities are conducted by the undergraduate, postgraduate and paramedical cells.

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

Bachelor of Medicine and Bachelor of Surgery (MBBS)
The present pattern of education at the undergraduate level was reviewed and implemented from July 2004. The duration of the MBBS course continues to be 5½ years, including one year compulsory internship training. The training during this period is as follows:

- One year: Pre-clinical training
- One-and-a-half years: Paraclinical training
- Two years: Clinical training
- One year: Rotating internship (compulsory)

From August 2008, there has been an increase in the number of MBBS seats from 50 to 77. Of these 77 seats, 5 are reserved for foreign nationals and the admission for these students is done on the recommendation of the Ministry of External Affairs, Government of India. For the remaining 72 seats (11 for Scheduled Caste, 6 for Scheduled Tribe, 19 Other Backward Castes and 36 General Category), students are selected on the basis of their performance in an All-India Entrance Examination. Further, 3% seats are reserved for orthopaedic physically handicapped candidates on an horizontal basis. During 2011–12, there were 40,551 applicants, and 29,054 candidates appeared in the entrance examination held on 1 June 2011. The total number of MBBS students on rolls as on 31st March 2012 was 311 including 56 interns.

Merit scholarships of ‘750 per month and ‘500 per month were awarded to 6 students who secured first and second position in the 1st, 2nd and final MBBS examinations.

Summer fellowships are available for MBBS students which carry a stipend of ‘500 per month. Students work under the supervision of a faculty member.
PARAMEDICAL AND NURSING EDUCATION CELL

All activities pertaining to the admission and training of paramedical and nursing students are handled by this cell. Sixty-two students were admitted to the BSc (Hons) Nursing course and 26 students were admitted to the BSc Nursing (Post-Certificate) course in August 2011. Fifteen students were admitted to the BSc (Hons) Ophthalmic Techniques and 9 students were admitted to the BSc (Hons) Medical Technology in Radiography in August 2011.

The current student strength for the nursing and paramedical courses is as follows:

<table>
<thead>
<tr>
<th>Nursing courses</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc Nursing (Post-Certificate)</td>
<td>51</td>
</tr>
<tr>
<td>BSc (Hons) Nursing</td>
<td>245</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paramedical courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc (Hons) Ophthalmic Techniques</td>
<td>42</td>
</tr>
<tr>
<td>BSc (Hons) Medical Technology in Radiography</td>
<td>24</td>
</tr>
</tbody>
</table>

POSTGRADUATE EDUCATION CELL

The Academic Section looks after all activities pertaining to admission, selection and training of postgraduate students including junior and senior residents. It also deals with service matters relating to senior residents. It handles all activities of PhD, DM, MCh, MD, MS, MDS, MHA, MSc and MBiotech courses in different disciplines.

The admission to all postgraduate courses is done by an All-India Entrance Examination held twice a year (except MSc and MBiotech where admissions are once a year). Foreign nationals are also admitted through an entrance examination.

A total of 500 students, including sponsored/foreign national students were admitted to the above mentioned courses during 2011–12. The details are as under:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the course</th>
<th>Admissions of July 2011 Session</th>
<th>Admissions of January 2012 Session</th>
<th>Total Admissions Open/Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>MSc/MBiotech/MSc Nursing</td>
<td>51</td>
<td>NA*</td>
<td>51</td>
</tr>
<tr>
<td>2.</td>
<td>MD/MS/MDS/MHA</td>
<td>148</td>
<td>131</td>
<td>279</td>
</tr>
<tr>
<td>3.</td>
<td>DM/MCh</td>
<td>32</td>
<td>38</td>
<td>70</td>
</tr>
<tr>
<td>4.</td>
<td>PhD</td>
<td>44</td>
<td>56</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>275</td>
<td>225</td>
<td>500</td>
</tr>
</tbody>
</table>

*Admissions are done once a year.

The number of postgraduate and doctoral students on 31 March 2012 was 1383. The break-up of 1383 postgraduate students including Ph.D students on rolls as on 31.03.2012 is as below:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the course</th>
<th>No. of students enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PhD</td>
<td>448</td>
</tr>
<tr>
<td>2.</td>
<td>DM</td>
<td>139</td>
</tr>
<tr>
<td>3.</td>
<td>MCh</td>
<td>86</td>
</tr>
<tr>
<td>4.</td>
<td>MD/MHA</td>
<td>491</td>
</tr>
<tr>
<td>5.</td>
<td>MS</td>
<td>84</td>
</tr>
<tr>
<td>6.</td>
<td>MDS</td>
<td>35</td>
</tr>
<tr>
<td>7.</td>
<td>MSc/MBiotech/MSc Nursing</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1383</td>
</tr>
</tbody>
</table>
The subject-wise distribution of postgraduate students is as below.

<table>
<thead>
<tr>
<th>Subject</th>
<th>PhD</th>
<th>Open</th>
<th>Sponsored/Foreign National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biochemistry</td>
<td>40</td>
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<td></td>
</tr>
<tr>
<td>Biophysics</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biostatistics</td>
<td>05</td>
<td>1 (in service)</td>
<td></td>
</tr>
<tr>
<td>Biotechnology</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiology</td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiac Biochemistry</td>
<td>03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiac Radiology</td>
<td>03</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Dermatology and Venereology</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forensic Medicine</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>01</td>
<td>2 (in service)</td>
<td></td>
</tr>
<tr>
<td>Haematology</td>
<td>13</td>
<td>1 (in service)</td>
<td></td>
</tr>
<tr>
<td>Cardiothoracic and Vascular Surgery</td>
<td>05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory Medicine</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Oncology</td>
<td>04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Physics</td>
<td>04</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Medicine</td>
<td>13</td>
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<tr>
<td>Microbiology</td>
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<td></td>
</tr>
<tr>
<td>Neurology</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear Magnetic Resonance</td>
<td>09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>05</td>
<td></td>
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</tr>
<tr>
<td>Otorhinolaryngology (ENT)</td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>10</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Ocular Pharmacology</td>
<td>02</td>
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</tr>
<tr>
<td>Ocular Microbiology</td>
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</tr>
<tr>
<td>Community Ophthalmology</td>
<td>03</td>
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</tr>
<tr>
<td>Ocular Pathology</td>
<td>03</td>
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<tr>
<td>Ocular Biochemistry</td>
<td>04</td>
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</tr>
<tr>
<td>Paediatrics</td>
<td>20</td>
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<tr>
<td>Pathology</td>
<td>10</td>
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</tr>
<tr>
<td>Centre for Community Medicine</td>
<td>02</td>
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</tr>
<tr>
<td>Endocrinology</td>
<td>08</td>
<td></td>
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</tr>
<tr>
<td>Paediatric Surgery</td>
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<tr>
<td>Neurobiochemistry</td>
<td>08</td>
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<tr>
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<tr>
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<td>and Immunogenetics</td>
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**TOTAL** 448 436 12
<table>
<thead>
<tr>
<th>DM</th>
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<td>6</td>
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<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>8</td>
<td>3</td>
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<tr>
<td>Gastroenterology</td>
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<td>3</td>
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<tr>
<td>Haemato-Pathology</td>
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</tr>
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<td>Neuroradiology</td>
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<tr>
<td>Paediatric Neurology</td>
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</tr>
<tr>
<td>Clinical Pharmacology</td>
<td>3</td>
<td>–</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>139</strong></td>
<td><strong>108</strong></td>
</tr>
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<table>
<thead>
<tr>
<th>MCh</th>
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<tbody>
<tr>
<td>Cardiothoracic &amp; Vascular Surgery</td>
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</tr>
<tr>
<td>Gastrointestinal Surgery</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Neurosurgery</td>
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<td>2</td>
</tr>
<tr>
<td>Paediatric Surgery</td>
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<td>3</td>
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<td>Urology</td>
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<td><strong>TOTAL</strong></td>
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<td><strong>73</strong></td>
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<tbody>
<tr>
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</tr>
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<td>Anatomy</td>
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<td>Biochemistry</td>
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<td>Biophysics</td>
<td>11</td>
<td>–</td>
</tr>
<tr>
<td>Community Medicine</td>
<td>19</td>
<td>–</td>
</tr>
<tr>
<td>Dermatology &amp; Venereology</td>
<td>12</td>
<td>03</td>
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<tr>
<td>Forensic Medicine</td>
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<td>–</td>
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<tr>
<td>Hospital Administration</td>
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<tr>
<td>Laboratory Medicine</td>
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<tr>
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</tr>
<tr>
<td>Nuclear Medicine</td>
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AIIMS 2011-2012 / 13
<table>
<thead>
<tr>
<th>Department</th>
<th>MS</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>36</td>
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<td></td>
</tr>
<tr>
<td>Ophthalmology</td>
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<td>01</td>
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<td>Pathology</td>
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<td>01</td>
<td></td>
</tr>
<tr>
<td>Pharmacology</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Medicine and Rehabilitation</td>
<td>08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physiology</td>
<td>16</td>
<td></td>
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</tr>
<tr>
<td>Psychiatry</td>
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</tr>
<tr>
<td>Radiodiagnosis</td>
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<td>03</td>
<td></td>
</tr>
<tr>
<td>Radiotherapy</td>
<td>09</td>
<td></td>
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</tr>
<tr>
<td>Geriatric Medicine</td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>491</td>
<td>463</td>
<td>28</td>
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<table>
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<tr>
<th>Department</th>
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<tbody>
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<td>Orthopaedics</td>
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<tr>
<td>Otorhinolaryngology</td>
<td>17</td>
<td>02</td>
<td></td>
</tr>
<tr>
<td>Surgery</td>
<td>42</td>
<td>03</td>
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<td><strong>TOTAL</strong></td>
<td>84</td>
<td>76</td>
<td>08</td>
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<tr>
<th>Department</th>
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</thead>
<tbody>
<tr>
<td>Conservative Dentistry and Endodontics</td>
<td>08</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>Orthodontics</td>
<td>08</td>
<td>02</td>
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</tr>
<tr>
<td>Prosthodontics</td>
<td>07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral and Maxillofacial Surgery</td>
<td>08</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>35</td>
<td>31</td>
<td>04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department</th>
<th>MSc</th>
<th>Open</th>
<th>Sponsored</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biochemistry</td>
<td>06</td>
<td>03</td>
<td></td>
</tr>
<tr>
<td>Biophysics</td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perfusion Technology</td>
<td>05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MBiotechnology</td>
<td>24</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>Nuclear Medicine Technology</td>
<td>05</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>Pharmacology</td>
<td>07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physiology</td>
<td>04</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>100</td>
<td>93</td>
<td>07</td>
</tr>
</tbody>
</table>

**Salaries:** The present salaries of residents, as recommended by the Sixth Pay Commission are:

- **Junior Residents:** ₹ 15600–39100 + (GP ₹ 5400) plus allowances as per rules
- **Senior Residents:** ₹ 15600–39100 + (GP ₹ 6600) plus allowances as per rules.
TRAINING PROGRAMMES
The section handles activities regarding training programmes of short and long term durations for both medical and paramedical personnel. During the year, there were 649 short and 5 long-term trainees. In addition 32 WHO Fellows (Foreign National), under WHO fellowship programme, 12 WHO Fellows (Indian National) for WHO-In-Country Fellowship training programme (2011–12) and 51 foreign nationals were imparted training in various departments. The elective posting of foreign undergraduate medical students is also handled by the section—35 foreign undergraduate medical students underwent elective training during the year.

COMMITTEE MEETINGS
The Academic Section is responsible for arranging meetings of the Academic committee, Staff Council, Faculty and Dean’s Committee. The number of meetings held were:

<table>
<thead>
<tr>
<th>Committee</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Committee</td>
<td>03</td>
</tr>
<tr>
<td>Staff Council</td>
<td>01</td>
</tr>
<tr>
<td>Faculty</td>
<td>07</td>
</tr>
<tr>
<td>Research Presentation</td>
<td>06</td>
</tr>
</tbody>
</table>

ORATIONS
The following Orations were arranged during 2011–12.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Oration</th>
<th>Orator</th>
<th>Date of oration, time and venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Third Dr Urmil B.K. Kapoor Oration</td>
<td>Dr Mayil Vahanan Natarajan, Vice Chancellor, The Tamilnadu MGR University, Chennai</td>
<td>21 October 2011, 4 PM, Lecture Theatre I</td>
</tr>
<tr>
<td>2.</td>
<td>Third Dr L.K. Bhutani Oration</td>
<td>Dr. Y.K. Chawla, Director, PGIMER, Chandigarh</td>
<td>28 November 2011, 4 PM, Lecture Theatre I</td>
</tr>
<tr>
<td>3.</td>
<td>Fourth Professor Kesho Ram Laumas Memorial Oration</td>
<td>Dr Sujoy K. Guha, Professor of Biomedical Engineering, School of Medical Science and Technology, IIT, Kharagpur</td>
<td>12 December 2011, 4 PM, Lecture Theatre I</td>
</tr>
<tr>
<td>4.</td>
<td>Twenty Second Sarveshwari Memorial Oration</td>
<td>Dr Takeshi Kawase, Hon. Professor, Department of Neurosurgery, School of Medicine</td>
<td>14 February 2012, 4 PM, Jawaharlal Auditorium</td>
</tr>
<tr>
<td>5.</td>
<td>Third Dr N. Gopinath Oration</td>
<td>Dr Shitij Kapur, Dean and Head of School, Institute of Psychiatry, King’s College, London, UK</td>
<td>24 February 2012, 4 PM, Lecture Theatre I</td>
</tr>
</tbody>
</table>

CONVOCATION
The 39th Annual Convocation of the Institute was held on 21 December 2011 at the Jawaharlal Auditorium. Shrimati Sonia Gandhi, President of NAC addressed the Convocation. She distributed Institute Medals/Awards to the outstanding students and addressed the gathering. The President, AIIMS and Hon’ble Minister of Health and Family Welfare, Sh. Ghulam Nabi Azad distributed the degrees.

RESEARCH
The intramural research funds and its allocation which was being handled by the Academic Section earlier was handed over to the Research Section this year.
During 2011–12, the following professional and entrance examinations were conducted.

**POSTGRADUATE AND UNDER GRADUATE PROFESSIONAL EXAMINATIONS**

**Professional examinations**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Month and year</th>
<th>Examination</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Appeared</td>
</tr>
<tr>
<td>1.</td>
<td>May 2011</td>
<td>Final Postgraduate/Postdoctoral (MD/MS/MDS/DM/MCh/MHA)</td>
<td>133</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>7</td>
</tr>
<tr>
<td>5.</td>
<td>-do-</td>
<td>Final MBBS (Supplementary)</td>
<td>7</td>
</tr>
<tr>
<td>6.</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase IV</td>
<td>49</td>
</tr>
<tr>
<td>7.</td>
<td>-do-</td>
<td>BSc (Post-certificate) Nursing Phase II</td>
<td>21</td>
</tr>
<tr>
<td>8.</td>
<td>-do-</td>
<td>BSc (Post-certificate) Nursing Phase I</td>
<td>23</td>
</tr>
<tr>
<td>9.</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase I</td>
<td>63</td>
</tr>
<tr>
<td>10.</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase III</td>
<td>59</td>
</tr>
<tr>
<td>11.</td>
<td>-do-</td>
<td>BSc (Hons) Nursing Phase II</td>
<td>57</td>
</tr>
<tr>
<td>12.</td>
<td>July 2011</td>
<td>BSc (Hons) Ophthalmic Techniques Phase III</td>
<td>10</td>
</tr>
<tr>
<td>13.</td>
<td>-do-</td>
<td>BSc (Hons) Medical Tech. in Radiography Phase II</td>
<td>6</td>
</tr>
<tr>
<td>14.</td>
<td>-do-</td>
<td>BSc (Hons) Medical Tech. in Radiography Phase III</td>
<td>7</td>
</tr>
<tr>
<td>15.</td>
<td>-do-</td>
<td>First MBBS Professional</td>
<td>81</td>
</tr>
<tr>
<td>16.</td>
<td>-do-</td>
<td>BSc (Hons) Medical Tech. in Radiography Phase I</td>
<td>9</td>
</tr>
<tr>
<td>S.No.</td>
<td>Courses</td>
<td>Date of examination</td>
<td>No. of candidates applied</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------------------------------</td>
<td>---------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>MD/MS/MDS (AIIMS) July 2010</td>
<td>09-05-2010</td>
<td>19506</td>
</tr>
<tr>
<td>2.</td>
<td>DM/MCh/MHA July 2010</td>
<td>16-05-2010</td>
<td>1629</td>
</tr>
<tr>
<td>1.</td>
<td>MD/MS/MDS (AIIMS) July 2011</td>
<td>08.05.211</td>
<td>22381</td>
</tr>
<tr>
<td>2.</td>
<td>DM/MCh/MHA July 2011</td>
<td>15.05.2011</td>
<td>1745</td>
</tr>
</tbody>
</table>
3. MBBS (AIIMS) August 2011 01.06.211 40551 29054
4. BSc (Hons) Nursing 2011 12.06.2011 1175 782
5. BSc Nursing (Post-certificate) 2011 18.06.2011 141 82
6. BSc (Hons) Paramedical courses 2011 04.06.2011 205 158
7. MSc courses 2011 09.07.2011 344 200
8. MSc Nursing 2011 26.06.2011 779 605
10. Senior Residents Recruitment Examination, July 2011 17.07.2011 1264 892
11 PhD July 2011 03.07.2011 482 331
12. Senior Residents Recruitment Examination, Jan 2012 15.01.2012 485 418
13. MD/MS/MCh (6 years)/MDS (AIIMS) January 2012 13.11.2011 47432 38532
15. All India PG Entrance Exam: MD/MS/Diploma/ MDS-2012 08.01.2012 71968 69069
16. PhD January 2012 22.01.2012 497 312

Grand Total 192134 163737

Candidates passed in PhD Viva-Voce Examination 1 April 2011–31 March 2012: 52

Examination for Recruitment

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of examination</th>
<th>Written examination</th>
<th>Interview</th>
<th>Applied</th>
<th>Appeared</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Ophthalmic Technique Grade I</td>
<td>07.08.2011</td>
<td>–</td>
<td>120</td>
<td>100</td>
<td>Stage I 08.08.2012</td>
</tr>
<tr>
<td>5.</td>
<td>Technician (Radiology) Grade II</td>
<td>04.02.2012</td>
<td>17, 19, 30 March 2012</td>
<td>343</td>
<td>277</td>
<td>30.03.2011</td>
</tr>
<tr>
<td>6.</td>
<td>MSSO Grade II</td>
<td>26.02.2012</td>
<td>28.03.2012</td>
<td>370</td>
<td>264</td>
<td>30.03.2011</td>
</tr>
<tr>
<td></td>
<td>Grand Total</td>
<td></td>
<td></td>
<td>35093</td>
<td>29018</td>
<td></td>
</tr>
</tbody>
</table>

Entrance Examinations conducted

1. All India PG Entrance Examination for admission to MD/MS/Diploma/MDS courses against 50% open merit seats was held at 156 centres (local 36, outstation 120) in 15 cities of India on 08.01.2012. The results were declared on 3 March 2012.

2. AIIMS PG Entrance Examination for admission to MD/MS/MDS courses was conducted on 8 May 2011 for July 2011 session at 52 (local 22, outstation 30) centres and 13 November 2011 for January 2012 session at 86 (local 28, outstation 58) centres. The results were declared on 27 May 2011 and 29 November 2011.
3. Selections for various post-doctoral (superspecialty) courses, viz. DM/MCh and Master in Hospital Administration for July 2011 and January 2012 sessions were made on the basis of a two stage performance evaluation on 15 and 23 May 2011, and 11 and 19 December 2011, respectively.

4. Written test for the post of Senior Residents/Senior Demonstrators for July 2011 and January 2012 session on 17 July 2011 and 15 January 2012, respectively.

5. Selection of candidates to PhD programme for July 2011 and January 2012 sessions were held on 4 July 2011 and 22 January 2012. The results were declared on 12 July 2010 and 30 January 2012, respectively.

6. Entrance Examination for admission to MBBS was held in 88 (local 35, outstation 53) centres in 11 cities on 1 June 2011.

7. BSc (Hons) Nursing Entrance Examination was held in Delhi and Thiruvananthapuram on 12 June 2011.

8. Entrance Examination for admission to MSc and MBiotechnology courses, August 2011 session was held in Delhi on 9 July 2011 and 16 July 2011, respectively.

9. Entrance Examination for admission to MSc Nursing course was held on 26 June 2011 in Delhi. Admission was done on merit basis through counselling held on 15 and 19 July 2011.

10. BSc Nursing (Post-Certificate) Entrance Examination was held in Delhi on 18 June 2011 followed by personal assessment of candidates on 22 June 2011.

11. The entrance examination for admission to paramedical courses, viz. BSc (Hons) Ophthalmic Techniques and BSc (Hons) Medical Technology in Radiography for August 2011 session was held in Delhi on 4 June 2011. Admissions to these two courses were made by allotment of seats on merit through counselling on 14 and 21 July 2011.

12. Written/skill test for recruitment to the following posts at the Institute:
   i) Junior Engineer on 6 March 2011. Interviews were conducted on 19 April 2011.
   ii) Ophthalmic Technician Grade I on 7 August 2011.
   iii) Sister Grade II on 21 August 2011. Interviews held from 26 September 2011 to 1 October 2011.
   v) Technician (Radiology) Grade II on 4 February 2012. Interview held on 17, 19 and 20 March 2012.
   vi) M.S.S.O. Grade II on 26 February 2012. Interview held on 28 March 2012.

Participation in other events
1. The Examination Section actively participates in the counselling for admission to AIIMS-PG, BSc (Hons) Para-medical, MSc (Nursing) courses and personal assessment for BSc (Nursing) Post-certificate course.
2. The Examination Section helps in the evaluation of theses (about 59) of PG students from B.P. Koirala Institute of Health Sciences, Dharan, Nepal.
3. The section also conducts the MBBS Entrance Examination of North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong, Meghalaya since 2011 and this year the examination was held on 24 July 2011.
4. Examination Section is also providing technical expertise to various universities and institutions in India and abroad for conduct of their entrance examinations.

SIGNIFICANT EVENTS
The Examination Section, as a step towards introduction of more checks and balances, and to maintain complete confidentiality and integrity of the examination system, has started keeping question papers for outstation centres in the
custody of approved banks. In order to avoid any impersonation, thumb impressions are obtained during the entrance examinations. In addition, physical frisking with the help of metal detectors has also been started.

The section has been inviting online applications for all entrance examination from January 2010. Candidates can now apply online and download their admit cards from the internet. This has been done to overcome difficulties faced by candidates in obtaining the prospectus and application forms. Since the 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 has also introduced integrated mode of payment (Debit card, Credit card, online transfer, etc.) for submission of application fee from the 2012 session. Candidates are provided stationary items for the examination. This is done to prevent cheating by using electronic gadgets. Photography (Snapshot) is being done in case of doubt in genuineness of identity of a candidate during the course of the examination or if they could not bring the photograph for the purpose.

Cash transaction by AIIMS representative to meet examination expenditure has been minimized by sending 90%—95% of the amount through Demand Draft/Bankers Cheque in advance to the designated examination 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, IAS

Chief Administrative Officer
Attar Singh

Senior Administrative Officers
E.L. Lakra (up to 31.12.2011)  K.K. Vaid

Administrative Officers
Hospital/CNC
R.K. Sharma (w.e.f. 11.10.2011)

General, Estate and Transport
V.V. Mishra  A.K. Nim

Facility Cell
Lalit Kumar  Dheeraj

Recruitment & Hostel
Ravi Chauhan

Legal Cell
Bhagirath Jha
(up to 01.08.2011)

Establishment Section (DO)
Research Section
S.K. Gautam

Assistant Administrative Officers
NDDTC
Uday Singh  Mahesh Kumar Sharma

CT & NS Centre
Shyam Lal

CDER
Dr. BRA IRCH
Narender Kumar  Renu Bhardwaj

ESD
Lalit Oraon

JPNATC

SECURITY
Superintendent Engineer
B.S. Anand

Deputy Chief Security Officers
Rajiv Lochan

Stores Officers
S.S. Bhaduria  Pradeep Kumar Gupta
V.M.S. Gandhi (up to 08.08.2011)

ESD Finance Division
Lalit Oraon  Ashok Kumar Gupta

R.S. Rawat

STORES
K.D. Sharma

ENGINEERING SERVICES DEPARTMENT
M. Rastogi  S. Bhasker

Superintending Engineer
B.S. Anand

Executive Engineers

The General Administration, including personnel and establishment, security, estate, matters related to engineering services, stores, vigilance and public relations activities are controlled and supervised by the Deputy Director (Administration). 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 activities of these branches is given below.

AIIMS 2011-2012 / 21
All matters relating to Establishment Section and General Administration including appointment of staff, arranging meetings of statutory committees, management of estate and property, purchase of equipments, materials and consumables, security arrangements, employees’ welfare are looked after by the administration.

The total sanctioned staff of AIIMS is 11,670, including the main hospital, all the centres and administration. These include the following:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Category/group</th>
<th>Sanctioned strength</th>
<th>In position staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Faculty</td>
<td>823</td>
<td>498</td>
</tr>
<tr>
<td>2.</td>
<td>Group A (Non-faculty)</td>
<td>553</td>
<td>406</td>
</tr>
<tr>
<td>3.</td>
<td>Group B</td>
<td>5,531</td>
<td>4,344</td>
</tr>
<tr>
<td>4.</td>
<td>Groups C and D</td>
<td>4,763</td>
<td>3,952</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>11,670</strong></td>
<td><strong>9,200</strong></td>
</tr>
</tbody>
</table>

**SC/ST Cell**

**Liaison Officer**
V.K. Paul, Professor and Head, Department of Paediatrics

**Administrative Officer**
A.K. Nim

**Assistant Administrative Officer**
Mahesh Kumar Sharma

The representations received from SC/ST category employees during the year were as under:

Representations received : 12
Cases resolved/disposed off : 10  Cases under consideration : 02

A brief summary of the cases is detailed below:

1. A representation was received from Dr Rajpal, Additional Professor, through Research Officer, National Commission for Scheduled Castes regarding promotion appointment to the post of Professor of Ophthalmology, Dr R. P. Centre, AIIMS. A reply has been sent to the National Commission for Scheduled Castes.
2. A representation was received from Shri Harish Rajan, through Research Officer, National Commission for Scheduled Castes regarding appointment in service. A reply has been sent to the National Commission for Scheduled Castes.
3. A representation was received from Shri Rajender Singh, Laundry Supervisor through, Deputy Secretary, National Commission for Scheduled Castes regarding promotion to the post of Laundry Manager. A para-wise comment has been sent to the National Commission for Scheduled Castes.
4. A representation was received from Shri Sunil Kumar, Ex-Hospital Attendant through General Secretary, AIIMS SC/ST Employees Welfare Association. A reply has been sent to the applicant.
5. A representation was received from Mrs Santosh wife of Late Sudesh Kumar, Ex-Hospital Attendant through General Secretary, AIIMS SC/ST Employees Welfare Association regarding providing service on compassionate grounds at AIIMS. A reply has been sent to the Association.
6. A representation was received from Shri Maheswar Nath, AAO, AIIMS through Research Officer, National Commission for Scheduled Castes regarding Promotion. A reply has been sent to the National Commission for Scheduled Castes.
7. A representation received from Shri Ganesh Meena, Junior Physiotherapist, Neurosciences Centre regarding long pending case of discrimination in promotion to the post of Physiotherapist. A reply has been sent to the applicant.

8. A representation of Shri Prem Singh, Masalchi Bearer was received through General Secretary, AIIMS SC/ST Employees Welfare Association regarding promotion to the post of Head Bearer at AIIMS. The matter is under consideration with the Competent Authority.

9. A representation of Shri Pawan Kumar, Senior Technical Officer, Dr R.P. Centre against Dr. R.B. Vajpayee, Professor of Ophthalmology, Dr R. P. Centre regarding passing castism words. The matter was considered by the Competent Authority and a committee has been constituted to investigate the matter. However, the report of the Committee is still awaited.

10. A representation was received from Shri Om Prakash Benwal, Senior Steward, Dr R.P. Centre, AIIMS, through Research Officer, National Commission for Scheduled Castes regarding promotion. A reply has been sent to the National Commission for Scheduled Castes.

11. A representation of Shri Satya Pal Singh was received through Research Officer, National Commission for Scheduled Castes regarding Promotion. The facts/comments of the Institute in the matter have been sent to the National Commission for Scheduled Castes.

12. A representation was received from Scheduled Castes Uplifts Union regarding discrimination against SC/ST students in AIIMS. The facts/comments of the Institute in the matter have been sent to the Scheduled Casts uplift Union.
6. Main Hospital

Medical Superintendent
D.K. Sharma

Professor
Siddhartha Satpathy

Additional Professor
I.B. Singh

<table>
<thead>
<tr>
<th>Beds</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main hospital and private wards</td>
<td>1045</td>
</tr>
<tr>
<td>Bassinets</td>
<td>25</td>
</tr>
<tr>
<td>Cardiothoracic and Neurosciences Centre</td>
<td>411</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hospital performance indices</th>
<th>2011–12</th>
<th>2010–11</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>5.4</td>
<td>6.7</td>
<td>5.3</td>
</tr>
<tr>
<td>Average bed occupancy rate (%)</td>
<td>81.6</td>
<td>77.4</td>
<td>80.9</td>
</tr>
<tr>
<td>Net death rate (%)</td>
<td>2.2</td>
<td>3.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Combined crude infection rate (%)</td>
<td>8.3</td>
<td>—</td>
<td>8.1</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

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**EDUCATION AND TRAINING**

The following groups of students visited the Medical Record Section (Main Hospital) and Out Patient Department. A brief lecture on Medical Record Management at AIIMS was delivered by Shri N.K. Sharma to these groups.

1. 10 students of Bachelor Medical Record Science Course and MRT Course from St. Stephens Hospital, New Delhi, 8 April 2011.
2. 23 MSc (PC) Nursing students of College of Nursing, AIIMS, 19 April 2011.
3. BSc (PC) Nursing students, College of Nursing, AIIMS, 4 August 2011.
4. 15 students of Bachelor Medical Record Science Course, Christian Medical College, Vellore, Tamil Nadu, 7 February 2012.

**MEETINGS**

A number of meetings were attended by various officers of this section. These are listed below:

1. Regarding software associated with medically certified causes of deaths (MCCD) in the office of MOH, Health Department, NDMC, Palika Kendra, New Delhi, 11 April 2011.
2. Review meeting on status of implementation of online notification of Dengue/Chikungunya cases in the office of Dr SPM Civic Centre, JLN Marg, New Delhi, 20 May 2011.
3. Training in work of registration of Births and Deaths organized by Chief Registrar (Births and Deaths), Government of NCT of Delhi, Delhi Secretariat, 29 November 2011.
5. Annual National Conference on Medical Records (MEDRECON), Rajiv Gandhi Cancer Institute and Research Centre and Health Records Association of India, Rohini, Delhi, 3–4 February 2012.

**COURT ATTENDANCE**

A total of 1123 summons/notices (about 4 per day) were received from various Courts of Delhi and outside.

**COMPUTERIZATION OF MEDICAL RECORDS**

Central Admission Office and Hospital Enquiry of Main Hospital has been computerized.

**IN-PATIENT SERVICES**

The hospital has maintained its tradition of services and quality of patient care, inspite of ever increasing number of patients that come to this hospital from all over the country as well as from abroad. A total of 95,611 patients were admitted during the year in the various clinical units of the Main Hospital and Cardiothoracic and Neurosciences Centre (Table I). The department, state and gender-wise admissions are given in Tables II to IV. The number of surgical procedures performed in different surgical disciplines is given in Table V.
The medical records of indoor patients are systematically classified and categorized for easy retrievals. These records are stored in compactors. All in-patient records of the Cardiothoracic and Neurosciences Centre are also maintained by this section.

CENTRAL ADMISSION OFFICE AND HOSPITAL ENQUIRY
This functions round the clock for 365 days a year. All admissions to inpatient areas of the Main Hospital and Cardiothoracic and Neurosciences Centre are done through this office. It performs important functions like patient registration, creation of the admission slip (Face Sheet), issuing of attendant passes and general enquiry to provide prompt and accurate information regarding patients and AIIMS. The staff work on shift duties and the office is manned by receptionists, junior medical record officer, medical record technicians and other ministerial and hospital staff.

OUTPATIENT DEPARTMENT AND SPECIALTY CLINICS
A total of 1522821 patients attended various general outpatient and specialty clinics of AIIMS (Table VI).

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**TABLE II. Department-wise admission, discharges and death rates (Main hospital + CN centre)**
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<th>Of SM</th>
<th>Of RN</th>
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### Table III. State-wise distribution of in-patients

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<td><strong>18413</strong></td>
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### Table IV. Gender-wise distribution of in-patients (Main Hospital + CN Centre)

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### Table V. Surgical procedures

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**TABLE VI. Attendance in OPDs and speciality clinics**

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**Paediatrics**

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<tr>
<td>(vi) High risk neonatal</td>
<td>298</td>
<td>2873</td>
<td>3171</td>
</tr>
<tr>
<td>(vii) Genetic and birth defects</td>
<td>2622</td>
<td>1469</td>
<td>4091</td>
</tr>
<tr>
<td>(viii) Oncology</td>
<td>196</td>
<td>1357</td>
<td>1553</td>
</tr>
<tr>
<td>(ix) Child development</td>
<td>139</td>
<td>143</td>
<td>282</td>
</tr>
<tr>
<td>(x) Endocrinology</td>
<td>443</td>
<td>1245</td>
<td>1688</td>
</tr>
<tr>
<td>(xi) Neurocysticeriosis</td>
<td>352</td>
<td>1378</td>
<td>1730</td>
</tr>
<tr>
<td>(xii) PCSC</td>
<td>62</td>
<td>486</td>
<td>548</td>
</tr>
<tr>
<td>(xiii) Rheumatiology</td>
<td>191</td>
<td>1501</td>
<td>1692</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>(xiv) Myopathy</td>
<td>457</td>
<td>755</td>
<td>1212</td>
</tr>
</tbody>
</table>

**Dermatology**

1. General OPD            | 32003 | 38013 | 70016 |
2. Specialty Clinics      |       |       |       |
   (i) Sexually transmitted diseases | 751  | 429   | 1180  |
   (ii) Allergy             | 507   | 1258  | 1765  |
   (iii) Leprosy            | 427   | 2225  | 2652  |
   (iv) Pigmentation        | 371   | 1915  | 2286  |
   (v) Psychosexual         | –     | –     | –     |
   (vi) Derma-Surgery       | 468   | 805   | 1273  |

**Psychiatry**

1. General OPD            | 1790  | –     | 1790  |
2. Specialty Clinics      |       |       |       |
   (i) Walk-in             | 12078 | 30069 | 42147 |
   (ii) Child guidance     | 507   | 560   | 1067  |

**Surgical Disciplines**

<table>
<thead>
<tr>
<th>Surgical Discipline</th>
<th>New cases</th>
<th>Old cases</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Discipline</td>
<td>38720</td>
<td>27235</td>
<td>65955</td>
</tr>
<tr>
<td>Urology</td>
<td>12978</td>
<td>31594</td>
<td>44572</td>
</tr>
<tr>
<td>Gastrointestinal Surgery</td>
<td>2047</td>
<td>5583</td>
<td>7630</td>
</tr>
</tbody>
</table>

**Paediatric Surgery**

1. General OPD            | 5521     | 11520    | 17041  |
2. Speciality Clinic      |          |          |        |
   (i) Hydrocephalus      | 6        | 144      | 150    |
   (ii) Intersex          | 3        | 151      | 154    |
   (iii) Paediatric urology | 423   | 3247    | 3670   |
   (iv) Craniosynostosis  | 3        | 9        | 12     |

**Anaesthesia**

1. Pain                  | 914      | 2004     | 2918   |
2. Pre-anaesthesia        | 6680     | 1307     | 7987   |

**Orthopaedics**

1. General OPD            | 44762    | 42962    | 87724  |
2. Speciality Clinics     |          |          |        |
   (i) Physiotherapy       | 21449    | 30952    | 52401  |
   (ii) Occupational Therapy | 1274 | 9320    | 10594  |
   (iii) Hydrotherapy      | 4311     | 8901     | 13212  |
<table>
<thead>
<tr>
<th>Description</th>
<th>OPD Count</th>
<th>OPD Outstation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(iv) Follow up</td>
<td>–</td>
<td>8258</td>
<td>8258</td>
</tr>
<tr>
<td>(v) Tuberculosis</td>
<td>254</td>
<td>890</td>
<td>1144</td>
</tr>
<tr>
<td>(vi) Polio</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>(vii) Scoliosis</td>
<td>596</td>
<td>1498</td>
<td>2094</td>
</tr>
<tr>
<td>(viii) Hand</td>
<td>997</td>
<td>1370</td>
<td>2367</td>
</tr>
<tr>
<td>(ix) CTEV</td>
<td>132</td>
<td>1270</td>
<td>1402</td>
</tr>
<tr>
<td>(x) Arthritis</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>(xi) Sports</td>
<td>139</td>
<td>129</td>
<td>268</td>
</tr>
<tr>
<td>Otorhinolaryngology including RUAS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. General OPD</td>
<td>38558</td>
<td>39322</td>
<td>77880</td>
</tr>
<tr>
<td>2. Speciality Clinic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Audiology</td>
<td>92</td>
<td>56</td>
<td>148</td>
</tr>
<tr>
<td>(ii) Speech</td>
<td>1101</td>
<td>1391</td>
<td>2492</td>
</tr>
<tr>
<td>(iii) Hearing</td>
<td>723</td>
<td>1706</td>
<td>2429</td>
</tr>
<tr>
<td>(iv) Voice</td>
<td>712</td>
<td>819</td>
<td>1531</td>
</tr>
<tr>
<td>(v) Vertigo</td>
<td>74</td>
<td>49</td>
<td>123</td>
</tr>
<tr>
<td>(vi) Rhinology</td>
<td>76</td>
<td>47</td>
<td>123</td>
</tr>
<tr>
<td>Obstetrics and Gynaecology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. General OPD</td>
<td>30016</td>
<td>55343</td>
<td>85359</td>
</tr>
<tr>
<td>2. Specialty Clinics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Post Natal</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>(ii) Infertility</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>(iii) IVF</td>
<td>408</td>
<td>1847</td>
<td>2255</td>
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<tr>
<td>(iv) Family welfare</td>
<td>8286</td>
<td>4324</td>
<td>12610</td>
</tr>
<tr>
<td>(v) Antenatal</td>
<td>676</td>
<td>3912</td>
<td>4588</td>
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<tr>
<td>(vi) Endo-gynaecology</td>
<td>72</td>
<td>107</td>
<td>179</td>
</tr>
<tr>
<td>(vii) High risk pregnancy</td>
<td>2153</td>
<td>12504</td>
<td>14657</td>
</tr>
<tr>
<td>(viii) Postoperative (gynaecology)</td>
<td>165</td>
<td>17</td>
<td>182</td>
</tr>
<tr>
<td>(ix) Menopause</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Radiotherapy</td>
<td>633</td>
<td>41297</td>
<td>41930</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Casualty</td>
<td>113092</td>
<td>–</td>
<td>113092</td>
</tr>
<tr>
<td>2. Employees health scheme</td>
<td>97671</td>
<td>68445</td>
<td>166116</td>
</tr>
<tr>
<td>3. Nutrition</td>
<td>4317</td>
<td>1190</td>
<td>5507</td>
</tr>
<tr>
<td>4. Physical medicine and rehabilitation</td>
<td>23550</td>
<td>82166</td>
<td>105716</td>
</tr>
<tr>
<td>5. Sex and marriage counseling</td>
<td>1830</td>
<td>1903</td>
<td>3733</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>666136</strong></td>
<td><strong>856685</strong></td>
<td><strong>1522821</strong></td>
</tr>
</tbody>
</table>

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### 6.2 Hospital Dietetics Services

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Dietician</td>
<td>Dr (Mrs) Alka Mohan Chutani</td>
</tr>
<tr>
<td>Sr. Dietician</td>
<td>Dr (Mrs) Parmeet Kaur</td>
</tr>
<tr>
<td>Dietician</td>
<td>Mrs Swapna Chaturvedi</td>
</tr>
<tr>
<td>Assistant Dietician</td>
<td>Mrs Gurdeep Kaur</td>
</tr>
<tr>
<td></td>
<td>Ms Vasundhara Singh</td>
</tr>
<tr>
<td></td>
<td>Ms Richa Jaiswal</td>
</tr>
<tr>
<td></td>
<td>Mrs Anjali Bhola</td>
</tr>
<tr>
<td></td>
<td>Ms Monita Gahlot</td>
</tr>
</tbody>
</table>

#### Number of indoor patients served different diets (Main Hospital and Centres)

<table>
<thead>
<tr>
<th>Diet Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of diets</td>
<td>6,51,630</td>
</tr>
<tr>
<td>Normal diets</td>
<td>3,39,295</td>
</tr>
<tr>
<td>Semisolid</td>
<td>30,656</td>
</tr>
<tr>
<td>Therapeutic diets</td>
<td>1,45,410</td>
</tr>
<tr>
<td>Enteral feeds</td>
<td>32,517</td>
</tr>
<tr>
<td>Private ward diets</td>
<td>1,03,752</td>
</tr>
</tbody>
</table>

#### Nutrition counseling

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>New OPD patients</td>
<td>4317</td>
</tr>
<tr>
<td>Male</td>
<td>2245</td>
</tr>
<tr>
<td>Female</td>
<td>2072</td>
</tr>
<tr>
<td>Old OPD patients</td>
<td>1190</td>
</tr>
<tr>
<td>Male</td>
<td>647</td>
</tr>
<tr>
<td>Female</td>
<td>543</td>
</tr>
<tr>
<td>Inpatient</td>
<td>6875</td>
</tr>
</tbody>
</table>

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

**PATIENTS’ WELFARE**

**Patient care: ₹38,64,000 (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>3,25,000</td>
<td>Indo Global Social Service Society</td>
</tr>
<tr>
<td></td>
<td>2,54,851</td>
<td>Sahu Jain Trust</td>
</tr>
<tr>
<td></td>
<td>1,62,000</td>
<td>Bai Nath Bhandari Public Charitable Trust</td>
</tr>
<tr>
<td></td>
<td>1,26,401</td>
<td>Lal Devi Charitable Trust</td>
</tr>
<tr>
<td></td>
<td>1,20,000</td>
<td>Jawahar Bhawan Trust</td>
</tr>
<tr>
<td></td>
<td>66,500</td>
<td>Chetnalya</td>
</tr>
<tr>
<td></td>
<td>25,000</td>
<td>Sewa Prakalp Mahila Mandal Trust</td>
</tr>
<tr>
<td></td>
<td>16,000</td>
<td>Vijay Gujral Foundation</td>
</tr>
<tr>
<td></td>
<td>2,46,000</td>
<td>Other donors</td>
</tr>
<tr>
<td>AIIMS Poor Fund Account</td>
<td>35,000</td>
<td>Col Yash Bhatnagar</td>
</tr>
<tr>
<td></td>
<td>12,000</td>
<td>Mrs Anjana Ahluwalia</td>
</tr>
<tr>
<td></td>
<td>5,000</td>
<td>Major Ranjit Singh</td>
</tr>
<tr>
<td>Anti-cancer drugs provided free to patients</td>
<td>22,76,028</td>
<td>Gopal Foundation</td>
</tr>
<tr>
<td></td>
<td>1,94,246</td>
<td>Dr Chetan Memorial Divine Trust</td>
</tr>
</tbody>
</table>

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

**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 the distressed relatives to their homes/crematorium in Delhi.

**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 14,000 patients and their attendants who were undergoing treatment at AIIMS Main hospital and its centres. In special cases, food was arranged through donors for the poor and needy boarders of the Vishram Sadans. A to and fro, pick and drop facility from the dharamshalas to the hospital was also run by the Institute for the benefit of patients and their attendants. An NGO Sapna distributed dry ration once a week to below the poverty line (BPL) inmates of Rajgarhia Vishram Sadan. In addition, half a litre
milk was distributed every day to each patient staying at Rajgarhia Vishram Sadan. Free yoga classes were organized once a week through Cancer Patients Aid Association for the benefit of the boarders of the Vishram Sadans.

**EMPLOYEES WELFARE**

*Appointment on compassionate grounds*

Cases for appointments on compassionate grounds were dealt with. Counselling services and moral support was provided to family members so as to assist them to accept/overcome the bereavement suffered by them and enable them to shoulder their responsibilities. Where needed, assistance for funeral expenses was provided to relatives of deceased employees.

*Counselling services*

These 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.

*Recreation and amenities club (R&AC)*

The welfare unit initiated and supervised elections of the R&AC so as to reactivate the activities for the benefit of employees. The unit also facilitated participation of our employees in inter-ministry tournaments.

*Talk on sexual harassment at work place*

The employees welfare committee organised a talk on ‘Sexual Harassment at Work Place’ by Mrs Kuljit Kaur, Member, All India Women’s Conference on 20 July 2011 for the benefit of Faculty, Resident doctors, Officers, Nurses, Staff and Students.
6.4 Hospital Billing Section

The donations received and payments made to patients in 2011–12 are as follows:

Donations received from donors
(\text{Bank interest + donations + poor fund boxes})
\text{₹ 2,88,574}

Payment made to 194 (149 + 45) patients
\text{₹ 78,295}

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

6.5. Medical Social Welfare Unit

Chief Medical Social Service Officer
R. C. Mishra

The unit acts as a central social welfare unit under the direct supervision of the Medical Superintendent and Officer Incharge, MSSO. This unit has 9 Medical Social Service Officers including one Chief Medical Social Service Officer, one Supervising Medical Social Service Officer, 4 Medical Social Service Officers Grade I and 3 Medical Social Service Officers Grade II.

The unit acts as a link between patients and doctors and plays a vital role between the Hospital Administration, Faculty and Staff. The following services were rendered by the unit in 2011–12.

1. Private referral: As per the judgment of the Honourable Delhi High Court, it is compulsory for private hospitals to provide the free treatment to patients belonging to Economically Weaker Sections (EWS) who are referred by government hospitals to private hospitals. The unit identified 114 EWS patients and after completion of their paper work with co-ordination of the Nodal Officer, AIIMS and other private hospitals, these patients were referred to identified private hospitals for free treatment and further management.

2. Rehabilitation: The unit after interviews and discussions with patients, relatives, employees, police personnel and other government and non-government agencies was able to successfully rehabilitate 350 patients to destitute homes, shelter homes and their own families.

3. Counselling: About 60,000 patients were counselled about long procedures and complicated investigations regarding their disease, its prognosis, the treatment and the importance of follow up. Health education was also given to families on how to maintain a healthy lifestyle.

4. Financial assistance: Under National Health Programmes and as per guidelines of the National Illness Assistance Fund (NIAF), 329 applications were scrutinized, assessed and presented to the NIAF sub-committee. A sum of \text{₹ 10,83,73,858} was sanctioned to these patients who were getting treatment for life threatening diseases at AIIMS.

5. Disbursement of poor fund: A sum of \text{₹ 30,000} was disbursed to 151 poor patients who needed immediate financial assistance for their treatment and other needs from the hospital poor fund.

6. Welfare and administrative activities:
   (i) About 12,215 patients were provided medicinal and other help through voluntary donors amounting to about \text{₹ 7,50,000}. These patients were helped with medicines, blankets, catheters and other equipments in the main OPD block in co-ordination with Medical Social Welfare Unit.
(ii) The unit was able to help 25 very needy patients through voluntary agencies such as Sant Kaur Memorial Trust, Vikas Jyoti, Aawahan and voluntary donor Mr Vivek.

(iii) Diwali festival was celebrated in the children’s ward to make them feel at home. Fruits, toys and sweets were distributed among the children. Puja was also performed. The Director, Medical Superintendent, Head of Department and other staff participated in the function.

7. **Railway concessions facilities:** About 7,000 patients suffering from Cancer, TB, Leprosy, Thalassaemia, Deaf and Dumb patients, and patients with Kidney disease were provided railway concession forms for travel to their destination and return for follow up. This facility is very useful for the patients coming from outside Delhi.

8. **Accommodation:** 2230 patients and their relatives were provided shelter in different dharamsalas near the hospital.

9. **Exemption of levy charges**

   Over 4500 patients belonging to below poverty line (BPL) category were considered for exemption of charges for different investigations such as X-rays, blood tests, CT scan, MRI, HLA matching test, etc. after proper verification. In some cases MSSO took the initiative to assist patients who were genuinely poor but did not have any documentary evidence.

10. **Consultations and requisitions from wards**

   Approximately 475 indoor patients who were unable to afford the treatment were referred to us by the Faculty from different wards to assess their socioeconomic status for medicinal, surgical and other equipments. After evaluation of the socioeconomic status of the patient, proper recommendations were made for the needful. Apart from this, private attendants were provided to unknown patients and those without attendants.

11. **Referral**

   Medical Social Service Officers are providing round-the-clock services in the casualty to solve psychosocial and economic problems of patients. They co-ordinate with the medical team to transfer/shift patients to Safdarjung hospital and other government hospitals in case of non-availability of beds. They motivate and counsel patients and their attendants to go to other private hospitals for admission and treatment. During the year 11414 patients were motivated and transferred to other hospitals.

12. **Health education**

   Activities were conducted in children’s surgical and gynecological wards with the help of students of social work and National Service Scheme (NSS) workers on personal hygiene, balanced nutrition, health and family welfare, and preoperative and postoperative care.

13. **Training and teaching:**

   13 MSW students from the following universities were given training:

   - IGNOU
   - Marian College of Kuttikkanam, Kerala
   - Kashi Vidyapeeth, UP
   - Jamia Milia Islamia, Delhi
   - Bhimrao Ambedkar University, Delhi

(i) Mr B.R. Shekhar, Supervising Medical Social Service Officer organized orientation regarding hospital services and the role of the Medical Social Welfare Unit to 25 MSW students and 2 faculty members from the Department of Social Work, St. Joseph College, Devagiri, Kerala.
(ii) Mr. B.R. Shekhar, Supervising Medical Social Service Officer organized orientation regarding hospital services and role of Medical Social Welfare Unit to 30 MSW students and 4 faculty members from Department of Social Work, Bhopal School of Social Work during their visit to AIIMS.

14. Authorization for renal transplant:
Under the Human Organ Transplant Act 1995, the Chief Medical Social Service Officer was given the responsibility as Coordinator and Nodal Officer for Renal Authorization Committee AIIMS. With the assistance of Mr Anil Mali, Medical Social Service Officer, 34 cases of unrelated kidney transplant were assessed. Contact and relevant communication was undertaken with different State Renal Authorization Committees and Embassies of other countries for no objection certificates. Kidney donors along with their next of kin were briefed about the consequences of a renal transplant. Required documents as per the Act were obtained and checked to avoid commercial arrangements in organ transplantation. Cases were presented in the authorization committee meeting for discussion and recording. After the approval, the files were deposited in the MS office for record. Records of these files are maintained in the office of the MS.

15. Guidance:
To provide proper information about hospital procedures and services, 25 Hospital Social Guides were trained and posted at different counters of the hospital/casualty. A large number of patients were given information about hospital services.

6.6. Blood bank (Hospital)

I. Donor room

1. Donors: relatives 9043
2. Donors: voluntary 25882
   From donation camps 6632
   From AIIMS Blood Bank 19250
3. Single donor platelet 919
4. Collected from CN Centre 996
   Indian Red Cross Society 729
   Others 3541
   JPNA Trauma centre 354

Total collection 41264
Total camps organized 83

II. Routine Laboratory

1. Total patients 51770
2. ABO grouping 134298
3. Rh 91457
4. OPD grouping and Rh 4211
5. Cross-match (Emergency and routine) 70169
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>Donor grouping</td>
<td>82528</td>
</tr>
<tr>
<td>7.</td>
<td>Indirect Coombs Test</td>
<td>1271</td>
</tr>
<tr>
<td>8.</td>
<td>Total titre</td>
<td>161</td>
</tr>
<tr>
<td>9.</td>
<td>Total A/B</td>
<td>47559</td>
</tr>
<tr>
<td>10.</td>
<td>Direct Coombs test</td>
<td>701</td>
</tr>
<tr>
<td>11.</td>
<td>Blood issued</td>
<td>39006</td>
</tr>
<tr>
<td>12.</td>
<td>Received back</td>
<td>725</td>
</tr>
<tr>
<td>13.</td>
<td>Small units</td>
<td>863</td>
</tr>
<tr>
<td>14.</td>
<td>Blood discarded</td>
<td>1616</td>
</tr>
<tr>
<td>15.</td>
<td>Blood issued but not transfused</td>
<td>Nil</td>
</tr>
<tr>
<td>16.</td>
<td>Blood issued to private ward</td>
<td>2468</td>
</tr>
<tr>
<td>17.</td>
<td>Components issued to private ward</td>
<td>2699</td>
</tr>
<tr>
<td>18.</td>
<td>Blood issued outside hospital</td>
<td>622</td>
</tr>
<tr>
<td>19.</td>
<td>Components issued outside hospital</td>
<td>68</td>
</tr>
<tr>
<td>20.</td>
<td>Cross-match but not transfused</td>
<td>11732</td>
</tr>
<tr>
<td>21.</td>
<td>Blood issued to IRCH</td>
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</tr>
<tr>
<td>22.</td>
<td>Blood issued to Indian Red Cross Society</td>
<td>12</td>
</tr>
<tr>
<td>23.</td>
<td>Blood issued to CNC</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>549849</strong></td>
</tr>
</tbody>
</table>

### III. Special Procedure Laboratory

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Minor grouping</td>
<td>4417</td>
</tr>
<tr>
<td>2.</td>
<td>Reagent cell thawing</td>
<td>1028</td>
</tr>
<tr>
<td>3.</td>
<td>DAT</td>
<td>351</td>
</tr>
<tr>
<td>4.</td>
<td>Cross-matching discrepancy</td>
<td>422</td>
</tr>
<tr>
<td>5.</td>
<td>Group discrepancy</td>
<td>42</td>
</tr>
<tr>
<td>6.</td>
<td>AB screening</td>
<td>329</td>
</tr>
<tr>
<td>7.</td>
<td>Component QC</td>
<td>114</td>
</tr>
<tr>
<td>8.</td>
<td>EQAS</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>Antibody identification</td>
<td>152</td>
</tr>
<tr>
<td>10.</td>
<td>Antisera QC</td>
<td>157</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>7014</strong></td>
</tr>
</tbody>
</table>

### IV. Component Laboratory

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Platelet rich concentrate</td>
<td>31860</td>
</tr>
<tr>
<td>2.</td>
<td>Fresh frozen plasma</td>
<td>23010</td>
</tr>
<tr>
<td>3.</td>
<td>Liquid plasma</td>
<td>13958</td>
</tr>
<tr>
<td>4.</td>
<td>Cryoprecipitate</td>
<td>945</td>
</tr>
<tr>
<td>5.</td>
<td>Red blood cells</td>
<td>39137</td>
</tr>
<tr>
<td></td>
<td><strong>Total components prepared</strong></td>
<td><strong>108910</strong></td>
</tr>
</tbody>
</table>
V. Infection Laboratory

1. HIV test 30098
2. HBV test 40800
3. HCV test 41652
4. VDRL 37614

Total 150164

6.7. Nursing services

Organization of Nursing Services

Chief nursing officer (CNO) ↓
Nursing Superintendents ↓
Deputy Nursing Superintendents (DNS) ↓
Assistant Nursing Superintendents (ANS) ↓
Staff Nurses Grade I ↓
Staff Nurses Grade II

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

Staff strength

The main nursing workforce 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>Staff Category</th>
<th>Number</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>83</td>
</tr>
<tr>
<td>Grade I Nursing staff</td>
<td>423</td>
</tr>
<tr>
<td>Grade II Nursing staff</td>
<td>1139</td>
</tr>
<tr>
<td>Total</td>
<td>1661</td>
</tr>
</tbody>
</table>

AIIMS 2011-2012 / 40
**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 provide an overview of the policies and functioning of the hospital in general and of the nursing services in particular.

In 2011–12, 114 newly recruited nurses were provided orientation regarding various aspects, viz. hospital layout, various departments, OPD schedules and their professional duties and responsibilities.

In 2012, a structured orientation programme of one week duration (15–22 January 2012) was conducted by experts from the in-service education department for 222 newly recruited nurses. Experts from the nursing service 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 standards of nursing care.

**Nursing in-service education programme**

A well structured in-service education programme is in place since January 2011. Initially it was started with classes twice in a week of one hour duration each, with a plan to increase to 4 hours a week.

Facilitator: Mrs S.B. Samuel, CNO (Acting)

Mentor: Mrs Asha B.S. Bedi, Nursing Superintendent up to January 2012

Mrs Ansamma Neelakantan, DNS, w.e.f February 2012

Educator: Mrs. Rebecca J. Herald, Grade I Nursing staff

During 2011–12, 2450 nurses from different departments in the main hospital attended the programme. The lectures were delivered based on the following schedule:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Topic</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Induction and orientation program</td>
<td>January</td>
</tr>
<tr>
<td>2.</td>
<td>Health care associated infection and infection control</td>
<td>February–Mid-March</td>
</tr>
<tr>
<td>3.</td>
<td>Pre and post operative nursing care</td>
<td>Mid-March–April</td>
</tr>
<tr>
<td>4.</td>
<td>Safe nursing practices in health care settings</td>
<td>May–Mid-June</td>
</tr>
<tr>
<td>5.</td>
<td>Mechanical ventilation</td>
<td>Mid-June–July</td>
</tr>
<tr>
<td>6.</td>
<td>Cardiopulmonary resuscitation</td>
<td>August–Mid-September</td>
</tr>
<tr>
<td>7.</td>
<td>Emergency nursing</td>
<td>Mid-September–October</td>
</tr>
<tr>
<td>8.</td>
<td>Admission and discharge of the patient</td>
<td>November–Mid-December</td>
</tr>
</tbody>
</table>

In addition to in-service classes, lectures were also arranged for updating the knowledge and clinical skills of nursing staff. These included:

1. Nuclear medicine and nursing care. September 2011 (Dept. of Nuclear Medicine)
2. Basics of radiation safety in nuclear medicine. September–October 2011 (Dept. of Nuclear Medicine; 4 classes)
3. Nosocomial infections and effective interventions. 14 December 2011 (Dept. of Hospital Administration)
Higher studies in Nursing
Nursing services at AIIMS focus on improving 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 4 nurses are doing post-basic BSc Nursing programme and 2 are doing an MSc nursing programme. Higher degree allowance is given to the nurses who are graduates in nursing.

Conferences and workshops attended
During 2011–12 nurses from different departments in the main hospital attended several national and international conferences/workshops.

1. 12th Annual Conference on ENDOCON, 2–24 April 2011, Mumbai.
2. Workshops on managerial skill updates for ward sisters, 4–10 May 2011, RML Hospital, New Delhi
3. Breast feeding and lactation management, 2 August 2011, AIIMS.
4. Nursing management of Newborn and young children, Aug. 2011, TNAI.
5. Importance of nursing care focusing on quality competency and research, 10 September 2011, CMC, Ludhiana.
6. 7th Indo-US emergency medicine summit and ENCON, 6th Emergency nursing conference, 30 September–2 October 2011, AIIMS.
7. 1st International summit and workshop on cost-effective use of technologies in emergency healthcare, 27 October 2011, AIIMS.
8. Bed sore challenges organized by Cavilon NSBF, 8 November 2011, AIIMS.
9. 4th International conference and CME on live workshop on ‘Connecting crisis to care’. 9–13 November 2011, Jai Prakash Narayan Apex Trauma Centre, AIIMS.
10. 21st Annual General Meeting, Indian Ostomy Society, 20 November 2011, AIIMS.
11. Indian Organ Donation day, 28 November 2011, AIIMS.
13. 3rd Annual conference of Indian Association of Neonatal Nurses, 9–11 December 2011, RKG Medical college & Govt. CON, SSM hospital, West Bengal.
14. Nutrition week, Department of Dietetics (3 topics), AIIMS.
16. Nursing administration and supervision for effective patient care, 11–18 January 2012, TNAI.

Consultancy and participation as experts
Nurses from different departments participated and performed as facilitators at skill stations and hands-on-training sessions in various workshops conducted last year.

Visitors from various educational institutions
Nursing experts at AIIMS conducted orientation for groups from different educational institutions across India as listed below:

1. RNS College of Nursing, NH-17, Murudeshwar, Karnataka. 7 April 2011 (40 final year BSc Nursing students and faculty).
2. College of Nursing, CMC Vellore. 21 September 2011 (9 MSc Nursing 2nd year students and faculty).
3. SDPS College of Nursing, Khandura Road, Indore, 12 October 2011 (18 BSc Nursing 4th year students and faculty).

4. PD Hinduja National Hospital and Medical Research Centre, Andheri East, Mumbai, 17 October 2011 (19 MSc Nursing 2nd year and 30 BSc Nursing 4th year students).

5. College of Nursing, Sri Ramakrishna Institute of Paramedical sciences, Coimbatore, 20 October 2011 (48 MSc Nursing 1st and 2nd year students and faculty).

6. St. George College of Nursing, Bangalore, 24 October 2011 (21 4th year BSc Nursing and 2nd year GNM students).

7. College of Nursing, Armed Forces Medical College, Pune, 16th November 2011 (16 trainee officers).
7. College of Nursing

**Principal**
Dr Manju Vatsa

**Lecturer**
Ms Meena Agarwal  
Dr Sandhya Gupta  
Ms Rachel Andrews  
(on deputation)

Ms Ashia Qureshi  
Ms Deepika C Khakha  
Ms Kamlesh Sharma

**Senior Nursing Tutor**
Ms Geeta Razdan

**Nursing Tutor**
Ms Kiran Singh Simak  
Ms Gayatri Batra  
Ms Poonam Joshi  
(on study leave)

Ms Sucheta  
Ms Shashi Mawar  
Ms Babita Sahoo

Ms Philomena Thomas  
Ms Meena Ara  
Ms Seema Sachdeva

Ms Ujjwal Dahiya  
Ms Anubha D.  
Ms Aditi Sinha

Ms Neelima  
Ms Nemkholam  
Ms Hansaram

**HIGHLIGHTS**
The College of Nursing conducted 10 workshops and trained 700 nurses.

**EDUCATION**

**Undergraduate**
1. BSc (Hons) Nursing: 55 students graduated from the 4-year course.

2. BSc Nursing (Post-certificate): 22 students graduated from the 2-year course.

**Postgraduate**
1. MSc Nursing: 19 students graduated from the 2-year course. Nineteen students joined the program this year in the following specialties:
   a. Paediatric Nursing
   
   b. Psychiatric Nursing
   
   c. Cardiology/CTVS Nursing
   
   d. Neurosciences Nursing

2. The College of Nursing conducted orientation/briefing sessions for 11 groups of visitors from various educational institutions from India.

3. Faculty members of the college attended 20 workshops/conferences and delivered lectures for continuing nursing/medical education programmes and workshops held during the year.

4. Faculty members acted as examiners for several universities in India.
Continuing Nursing Education (CNE)
The College of Nursing has organized the following CNE programmes/Short term courses/Symposium/Workshops:

1. ‘Critical care Nursing Update’, 7–8 February 2011. A total of 33 nurses from AIIMS hospital attended the workshop. Ms Kamlesh Sharma, Lecturer and Ms Poonam Joshi, Tutor were the coordinators.

2. Workshop on ‘Nursing update on management of Cardiac emergencies’, 13–15 February 2011. In all 36 nurses from AIIMS hospital attended the workshop. Mrs Rachel Andrews was the coordinator.

3. Workshop on ‘Effective human relations and communication skills in nursing’, 16–17 February 2011. A total of 25 nurses from AIIMS Hospitals attended the workshop. Mrs Ashia Qureshi, Lecturer was the coordinator.

4. Workshop on ‘Nursing update on care of critically ill children’, 27–29 February, 2011. Workshop on neonatal resuscitation programme was also held. A total of 26 nurses from AIIMS hospital attended the workshop. Ms Poonam Joshi, Tutor, was the coordinator.

5. Workshop on ‘Kangaroo Mother care for Nurses’ in collaboration with National Neonatology Forum, Delhi, 8 September 2011, held at Chacha Nehru Bal Chikitsalaya, Delhi. More than 60 nurses from various Delhi hospitals attended the workshop. Dr Manju Vatsa, Principal, coordinated the workshop.

6. Symposium on ‘Active and healthy ageing’, during college annual day, 14 October 2011. More than 370 nurse participants, students and others from AIIMS hospital attended the program. Ms R. Andrews, Lecturer was the coordinator.

7. ‘Neuro science Nursing Update’, 5–7 March 2011. In all 25 nurses from AIIMS hospital attended the workshop. Ms Meena Agarwal, Lecturer was the coordinator.

8. Workshop on ‘Nursing update on prevention of mental illness’, 21–23 March 2011. In all 25 nurses from AIIMS hospital attended the workshop. Ms Deepika Khakha, Lecturer was the coordinator.

National and International conferences organized

1. Workshop on Evidence-based Nursing practice held as part of 3rd Annual Conference, Indian Association of Neonatal Nurses, Kolkata. More than 40 nurses attended the workshop and more than 350 nurses from all over India attended the conference. Dr Manju Vatsa, Principal, coordinated the workshop and the Conference.

2. Workshop on Neonatal Resuscitation Program was held as part of XXXI Annual Convention of National Neonatology Forum, 15 December 2011, Chennai. More than 60 nurses attended the workshop. Dr Manju Vatsa, Principal was the chairperson.

Lectures delivered

Dr Manju Vatsa

1. ‘Overview & principals of resuscitation of neonates’, Workshop on nursing management of newborn and young children, Trained Nurses Association of India, New Delhi.

2. ‘Experimental research designs’, Video conferencing, PhD consortium, Indian Nursing Council, New Delhi.

3. ‘Evidence based practice’, Video conferencing, PhD consortium, Indian Nursing Council, New Delhi.

4. ‘Research critique’, Video conferencing, PhD consortium, Indian Nursing Council, New Delhi.


6. ‘Quality assurance in nursing education and services’, Guest Lecture, CNE, Foundation day programme, College of Nursing, RIMS, Manipur.


10. ‘Ethical and legal issues in critical care nursing’, Critical care nursing update, College of nursing, AIIMS.

11. Neonatal resuscitation program: Introduction & physiology, Nursing update on care of critically ill children, College of nursing, AIIMS.

12. ‘Ethical issues in Mental Health Nursing’, Mental Health Update: Prevention of mental illness, College of nursing, AIIMS.

Mrs M. Aggarwal
3. Difference between adult and paediatric GCS, International Conference on the theme connecting crisis to care at JPNA Trauma Centre.
4. Overview of evidence based practice in Health Sciences, Experimental Research studies provide quality care, 15th NRSI Conference, Faridkot.

Mrs Rachel Andrews

Mrs Ashia Qureshi
1. Legal considerations in EM department, International EM Summit 2011 on Skill development in Emergency & Trauma organized by AIIMS Trauma Centre.
2. Challenges for Nurses in Geriatric care, In symposium on Active and Healthy aging, Annual day, College of Nursing, AIIMS.

Mrs Deepika C. Khakha
2. ‘Management of anxiety disorders’, 2 sessions, IGNOU, Telecast by Gyandarshan channel of Doordarshan.
5. Guest Lecture on Study Designs, 15th Annual Conference of Nursing Research Society of India, 17 November 2011, Baba Farid University, Punjab.
8. ‘Conflict management, resolving transference and counter transference’, Session for Supportive Supervision of GFATMR-7, Department of Social Work, Jamia Milia Islamia.
11. ‘Communication and IPR’, Critical Care Nursing Update Workshop, College of Nursing, AIIMS.
12. ‘Counselling Skills to improve Human Relations’, Effective Human Relations Nursing Update Workshop at AIIMS.

Mrs Kamlesh Sharma
2. ‘Leadership in Nursing’, Workshop on Effective human relations and communication skills in Nursing’, College of Nursing, AIIMS.
3. ‘Initial steps of NRP’, Nursing Update on Care of Critically Ill Children, College of Nursing, AIIMS.
4. ‘Role of nurses in prevention of mental illnesses’, Update on prevention of mental illnesses, College of Nursing, AIIMS.
5. Developing conceptual framework for research study, Workshop on Research Methodology, College of Nursing, PGIMS, Rohtak, Haryana.

Ms Poonam Joshi
1. Nursing management of patients undergoing orthopaedic surgeries, CME program of PAN African–e-network under Telemedicine facility, AIIMS.
2. Care of child with hydrocephalus, CME program of PAN African–e-network under telemedicine facility, AIIMS.

Ms Shashi Mawar
2. ‘Problem of elderly and their management’, Telemedicine for PAN-AFRICA.
3. ‘Basic Life Suport’, Telemedicine for PAN-AFRICA.
4. ‘Conflict management’, Workshop on Nursing Administration, AIIMS.
5. ‘Staff development’, Workshop on Nursing Administration, AIIMS.
Ms Aditi Sinha
1. ‘Management of Medical emergencies’, Critical Care Nursing Update, AIIMS.
2. ‘Thrombolytic therapy’ Cardio Nursing Update, February 2012, AIIMS.

Ms Monika Sabharwal
1. Inter Personal Relationship, Nursing Update, College of Nursing, AIIMS.
3. Crisis Intervention, Nursing Update, Prevention of Mental Illness, College of Nursing, AIIMS.

Ms Seema Sachdeva
1. ‘Handing Defibrillator and doing CPR’, Critical Care Nursing Update, February 2012, AIIMS.

Mrs Nemkholam
1. ‘Management of Surgical Emergencies’, Critical Care Nursing Update, 7–8 February 2012, AIIMS.

RESEARCH
Ongoing
Departmental projects
1. A study to identify the periodicity of deliveries on the basis of data on deliveries from selected hospitals in India, Ms Philomina Thomas.
2. Is antenatal breast feeding education useful for improving breast feeding practice? A study conducted on primigravidae, Ms Philomina Thomas.

PUBLICATIONS
Journals : 3
Chapters in books : 2
Books : 1
Abstracts : 3

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:
   i) Participated in 4 rounds of Pulse Polio program at 6 centres of South Delhi, organized by Govt of NCT of Delhi. Ms Shashi Mawar coordinated/ supervised the programme.
   ii) 62 health education sessions in rural areas and over 118 in urban slums and OPDs of AIIMS on various health issues such as Hypertension, Immunization, New born care, Postnatal care, etc.
   iii) Eighteen exhibitions and 18 role plays on various health prevention and promotion related topics for urban slums, on all health related days, e.g. TB day, Leprosy day, No tobacco day, cancer HIV/AIDS, etc.
iv) Conducted 9 surveys in various blocks of Ambedkar Nagar, identified the problems existing in these blocks and implemented 9 preventive interventions.

v) Conducted 58 health teaching sessions for Cardiology and CTVS patients on Care after surgery, prevention of secondary complications, importance of advising treatment modalities, general care and follow up.

vi) Celebrated breast feeding week and Newborn week in RAK Pediatric OPD and Ambedkar Nagar, New Delhi and organized Poster competition for nursing students in College of Nursing, AIIMS.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Manju Vatsa
Nominated member of Board of studies in nursing for PhD, M.M. University, Ambala; Nominated UG & PG board of studies in nursing, PGI, Rohtak; Nominated Dean, faculty of nursing, Baba Farid University of Health Sciences, Faridkot, Punjab; Nominated member, Finance committee, Academic council and Planning board, Baba Farid University of Health Sciences, Faridkot, Punjab; Member National Editorial Advisory Board of (i) Prism’s Nursing Practice-Journal of clinical nursing—education, training and career development, (earlier called The Journal of Nursing), Quarterly publication of Prism books, Bangalore, since its inception in 2005; (ii) Journal of Nursing Practice & Research, Publication of SKIMS Srinagar; (iii) International Journal of Nursing Education, Published from New Delhi; Nominated member International advisory board, Journal of Neonatal Nursing, official journal of neonatal nurses association, published by Elsevier; Invited as resource person for Workshop on development of procedure manual for Department of Nursing, BPKIHS, Dharan, Nepal; Invited Guest of Honour, Foundation day program, College of nursing, RIMS, Manipur; Elected President of Indian Association of Neonatal Nurses; nominated member of Technical Resource Group on maternal health, Ministry of Health and Family Welfare; Core group member of INC PhD Consortium; Executive Member of Indian Nursing Council, Member working group on strengthening Health systems & services-US-India Health Initiative, MOHFW; Member, working group on strategy for strengthening nursing sector for XII plan, MOHFW; Member curriculum committee for BSc (Community Health) of MCI; Chaired, session on Role of nurses in trauma care, International congress & 4th Annual Conference, Indian Society for Trauma & acute care, JPN Apex trauma center, AIIMS; Moderator, Panel discussion, Specialization in neonatal nursing- Research priorities, need for specialization, emerging role of nurses in neonatal care, Plenary session: Workshop on evidence based practice, 3rd Annual Conference of Indian Association of Neonatal nurses, Kolkata

Mrs M. Aggarwal
Participated in panel discussions on issues related to Nursing education during the 15th NRSI Conference held at Faridkot; Chaired scientific session at NRSI and Annual Neuro Conference held at Bangalore in December.

Mrs Ashia Qureshi
Chaired session in 1st International Summit & Workshop on Cost-effective use of Technology in Emergency Health Care organized by JPN Apex Trauma Center

Ms Deepika Khakha
Secretary, North Zone, Nursing Research Society of India; Member of Curriculum design committee of Diploma in Psychiatric Nursing of IGNOU; Chaired a session on Free paper presentation at 15 Annual Conference of Nursing Research Society of India at Baba Farid University, Punjab

Ms Kamlesh Sharma
Acted as ad-hoc inspector of Indian Nursing Council to inspect colleges/schools of nursing in Haryana and Punjab in June and August 2011; Panelist for Panel Discussion on Implementation of HPV Screening in India, Satellite Symposium, The International Gynecologic Cancer Society (IGCS) Regional Meeting on Gynecologic Cancers, New Delhi, 2
April 2011; chaired session on oral paper presentations, Nursing Symposium, The International Gynecologic Cancer Society (IGCS) Regional Meeting on Gynecologic Cancers, 2–3 April 2011, New Delhi; chaired session in TRAUMA 2011—an International Conference, CME cum Live Workshop and Fourth Conference of the Indian Society for Trauma and Acute Care (ISTAC), AIIMS, New Delhi; chaired session on Humanized approach to neonatal nursing, 3rd Annual Conference of Indian Association of Neonatal Nurses, Kolkata; chaired session on Management of common emergencies, Critical Care Nursing Update, College of Nursing, AIIMS, New Delhi.

Ms Shashi Mawar
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 AIIMS drew extramural grants for various research projects from National and International agencies amounting to nearly ₹68 crores. At present, 636 extramurally funded projects are being conducted at AIIMS.

This section deals with the administration of all extramural research conducted at the 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 & Research, Pune  
   Member
3. Professor Sayed Hasnain, Distinguish Professor of  
   Biological Sciences, Indian Institute of Technology, Delhi  
   Member
4. Professor N.R. Jagannathan, Head, NMR Facility, AIIMS  
   Member
5. Professor S.P. Thiagarajan, Director and Chief Advisor  
   Sri Ramachandran University, Porur, Chennai  
   Member
6. Professor Balram Bhargava, Department of Cardiology/Bio-designs, AIIMS  
   Member
7. Professor Anand Mohan, Department of Electronics  
   Institute of Technology, Banaras Hindu University, Varanasi  
   Member
8. Professor Madhu Khullar, Department of Experimental  
   Medicine, PGIMER, Chandigarh  
   Member
9. Professor A.B. Dey, Dean, Research Section, AIIMS  
   Member-Secretary

**Research Advisory Council (Clinical)**

1. Professor R.C. Deka, Director, AIIMS  
   Chairman
2. Professor T.M. Mohapatra, Director, Institute of Medical  
   Sciences–Banaras Hindu University, Varanasi  
   Member
3. Professor S.K. Shankar, Director, NIMHANS, Bangalore  
   Member
4. Professor N. K. Mehra, Head, Department of  
   Transplant Immunology and Immunogenetics, AIIMS  
   Member
5. Professor S.K. Panda, Head, Department of Pathology, AIIMS  
   Member
6. Professor Narendra K. Arora, Executive Director, Member
    Inelen Trust India, New Delhi

7. Professor K.M. Shyam Prasad, Chancellor Member
    Martin L. Christian University, Shillong, Meghalaya

8. Professor Neeraj K. Seth, Senior Advisor (Health) Member
    Planning Commission, New Delhi

9. Professor A.B. Dey, Dean, Research Section, AIIMS Member-Secretary
9.1 Anaesthesiology

**Professor and Head**
Chandralekha

**Professors**
M.K. Arora
S. Rajeshwari
L. Kashyap
D.K. Pawar
Anjan Trikha
Dilip Shende
Ravinder Kumar Batra
Maya Dehran
Ganga Prasad

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

**Associate Professors**
Jyotsna Punj
R. Pandey
Rashmi Ramachandran
Renu Sinha
Anjolie Chhabra

**Assistant Professors**
A.P. Bhalla
Dalim Baidya
Devlina Goswami

**EDUCATION**
Continuing Medical Education

**Organized**
- AIIMS–BIDMC Anaesthesia update and Workshops on (i) USG Nerve blocks (ii) Research Methodology (iii) TEE at AIIMS, New Delhi, in collaboration with Beth Israel Hospital, a teaching hospital of Harvard Medical School, 3–4 March 2012.

**Conducted**
- Workshop on difficult airway, Airway 2012, Dr R.M.L. Hospital, New Delhi.

**Lectures delivered**
Chandralekha: 5
M.K. Arora: 4
D.K. Pawar: 11
S. Rajeshwari: 4
Anjan Trikha: 10
Vimi Rewari: 9
Anjolie Chhabra: 3
Ganga Prasad: 1
Rashmi Ramachandran: 3
V. Darlong: 1
Ravinder Kumar Pandey: 2

**RESEARCH**
Departmental projects

**Ongoing**
1. Incidence of accidental venous cannulation during epidural catheter placement after prior epidural injection of normal saline and head down position.
2. Comparison of bispectral index and entropy for assessment of sedation in critically ill patients.
3. Reducing blood loss in Functional Endoscopic Sinus Surgery (FESS): Safety and efficacy of diltiazem and magnesium sulphate (MgSO₄) as adjuncts to total intravenous anaesthesia (TIVA).
5. AirQ ILA as a conduit for orotracheal intubation in children: An interventional clinical trial.
6. A prospective randomised double-blinded comparison of crystalloid versus colloid coload with phenylephrine infusion during spinal anaesthesia for elective caesarean delivery: The effects on maternal haemodynamics and foetal acid–base status.
7. Use of spectral entropy to monitor sedation in patient undergoing surgery in subarachnoid block.
8. Requirement of isoflurane and vecuronium in patients with diabetic autoneuropathy by using entropy and NMT.
9. To evaluate the efficacy of analgesic regimens in patients undergoing laparoscopic cholecystectomy.
10. Cuff pressure monitoring in Proseal LMA using oxygen, oxygen-nitrous oxide, oxygen-air, and air in adult patients and postoperative pharyngolaryngeal morbidity.
11. Comparison of morphine and nalbuphine for intraoperative and postoperative analgesia in patients undergoing open gynaecological surgery.
12. Safety and efficacy of dexmedetomidine in providing perioperative analgesia for patients undergoing tubal ligation and MTP under local anaesthesia.
13. Safety and efficacy of intravenous paracetamol as adjunct to caudal block in children undergoing infra umbilical surgery.
15. Analgesic efficacy of transversus abdominis plane block for laparoscopic inguinal hernia repair in adult patients: a randomized controlled trial.
16. Entropy monitoring for titrating anaesthetic requirements with TCI-TIVA in adults undergoing laryngeal surgery under propofol or propofol-dexmedetomidine anaesthesia.
17. Comparison of intravenous paracetamol and intravenous fentanyl for intraoperative analgesia in paediatric patients undergoing cataract surgery under general anaesthesia.
18. Efficacy of Subtenon’s block in paediatric squint surgery for prevention of perioperative pain and intraoperative oculocardiac reflex: A randomized controlled trial.

**Completed**
1. To study the safety and efficacy profile of paravertebral bupivacaine as compared to intravenous fentanyl for adults undergoing percutaneous nephrolithotomy under general anaesthesia.
2. Comparison of MgSO₄ and diltiazem as adjuncts to propofol TIVA in reducing blood loss in patients undergoing FESS.
3. Comparison of long-term outcome and quality of life following laparoscopic repair of incisional and ventral hernia with tackers or sutured mesh fixation- a prospective, randomized, controlled study.
4. Comparison of chronic groin pain and quality of life following TEP and TAPP techniques for laparoscopic inguinal hernia repair—a randomized controlled study.
5. Effect on oxygenation of pressure controlled ventilation and volume controlled ventilation in morbidly obese patients undergoing laparoscopic sleeve gastrectomy and effect of alveolar recruitment on oxygenation.
6. Chronic groin pain, testicular function and quality of life after laparoscopic and open inguinal hernia repair—a randomised control trial.
7. Analysis of factors increasing risk and morbidity in surgical patients during hospitalization—a retrospective analysis.
8. Efficacy of paravertebral block in perioperative analgesia after PCNL.
9. Comparison of analgesic techniques for laparoscopic cholecystectomy.
10. Feasibility and comparison of the technique of ultrasound guided central venous catheter placement via internal jugular vein in three different patient position—conventional (15° Trendelenburg), semi-sitting (30° head up) and left lateral position.

**Collaborative projects**
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).

**PUBLICATIONS**

**Journals:** 43  
**Abstracts:** 2  
**Chapter in Book:** 2

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Chandralekha** awarded Fellowship of Indian College of Anaesthesiologists (FICA); Nominated Executive Member, Bureau of Indian Standards (BIS) and Chairperson Anaesthetic, resuscitation and allied equipment sectional committee MHD-11; Nominated Chairperson, Academic Committee, Indian College of Anaesthesiologists; Nominated Trust Member, Board of Trustees, Indian College of Anaesthesiologists; Nominated Member, Governing Body, Indian College of Anaesthesiologists; Nominated Member of Senate, Mahatma Gandhi Medical University of Health Sciences, Navi Mumbai; Chaired a session during (i) International Conference on Airway, KGMC, Lucknow, 14 May 2011, (ii) Cardiac Anaesthesia Conference, AIIMS, New Delhi, 14 May 2011, (iii) Paediatric Anaesthesia during Anesthesia update, AIIMS, New Delhi, 3–4 March 2012, (iv) Teaching and training, Annual Conference, Indian Society of Anesthesiologist, Delhi Branch, Manekshaw Center, Delhi Cantt, 7–8 April 2012, (v) Symposium VIII Blood and Coagulation, Indian College of Anesthesiologist Midterm Conference and Convocation, Medanta Hospital, The Medicity, Gurgaon, 1 July 2012, (vi) CME on Changing Trends in Obstetric Anesthesia, MAMC, New Delhi, 3 December 2011.

**Professor M.K. Arora** won the best paper award at Regional Anaesthesia and pain session, Canadian Anaesthesia Society Conference, Toronto, 24–28 June 2011; Presented two papers, Canadian Anesthesia Society meeting, 24–28 June 2011; Participated in Panel discussion, Difficult Airway Conference, RML Hospital, New Delhi, 6 November 2011.

**Professor S. Rajeshwari** was Visiting Faculty, Washington School of Medicine, St. Louis, 1–21 November 2011 (conducted interactive sessions on management of trachea-oesophageal fistula and discussions on the use of simulators for undergraduate training).

**Dr Vimi Rewari** was Moderator, Case discussions in the AIIMS–BIDMC Anaesthesia Update, AIIMS, New Delhi, 3–4 March 2012.

**PATIENT CARE**

**Number of surgery/procedures done**

**Main operation theatres**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>General surgery</td>
<td>3995</td>
</tr>
<tr>
<td>Urology</td>
<td>1311</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>1058</td>
</tr>
<tr>
<td>Dental surgery</td>
<td>89</td>
</tr>
<tr>
<td>Gastrointestinal surgery</td>
<td>507</td>
</tr>
<tr>
<td>Otorhinolaryngology</td>
<td>991</td>
</tr>
<tr>
<td>Paediatric surgery</td>
<td>1784</td>
</tr>
</tbody>
</table>
**Peripheral operation theatres**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Maternity and IVF</th>
<th>Orthopaedics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr R.P. Centre for Ophthalmic Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Routine under GA</td>
<td>2635</td>
<td>2226</td>
</tr>
<tr>
<td>Surgery under MAC</td>
<td>5461</td>
<td>144</td>
</tr>
</tbody>
</table>

**Interventional pain management procedures**

- Modified electroconvulsive therapy: 99
- Paediatric ultrasound (RP Centre): 126
- Extracorporeal shockwave lithotripsy: 2
- CT/MRI scan: 1141
- Digital subtraction angiography: 47
- Extracorporeal shockwave lithotripsy: 2

**Intensive care unit (AB8)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients admitted</td>
<td>364</td>
<td>268</td>
</tr>
<tr>
<td>Patients died</td>
<td>85</td>
<td></td>
</tr>
</tbody>
</table>

**Emergency procedures**

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases done</td>
<td>2898</td>
<td>2070</td>
</tr>
<tr>
<td>Calls attended</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pre-anaesthesia clinic**

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old cases</td>
<td>814</td>
<td>6814</td>
</tr>
<tr>
<td>New cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7628</td>
<td></td>
</tr>
</tbody>
</table>
HIGHLIGHTS

The department has established an eLearning Facility and a learning management system for the first time at AIIMS. This is a State-of-the-Art facility to cater to the teaching and learning activities of the department using high speed intranet. 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 such as Neurosurgery, Orthopaedics, Dental Surgery, 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 the students have presented their research work in various national and international fora and won several awards for their poster and platform presentations in different aspects of anatomy including neurosciences, embryology and genetics. The faculty is engaged in research work funded by intra and extramural grants 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 both within and outside India. They have also served as members of the editorial board of several national and international journals and have acted as reviewers for intramural and extramural research projects. The department has also provided hospital services 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 eLearning Facility (AIIMSeLF) has been created which comprises of a high speed intranet in the department, powered by two servers running Ubuntu (a popular Linux distribution) Server Operating System, which is Free and Open Source Software (FOSS). The AIIMSeLF is currently accessible by the faculty, postgraduate and undergraduate students from within the department. The facility is highly scalable and can be made accessible throughout AIIMS, as well as the Internet.

A Learning Management System (LMS) has been implemented in the eLearning Facility to administer the teaching–learning activities of the department. This LMS is based on the Modular Object Oriented Dynamic Learning Environment (MOODLE), a very powerful and popular free and open source virtual learning environment, with an installed base of more than 75,000 educational institutions across the world. The LMS is currently being used to manage courses in
Anatomy. However, it can easily be extended to other departments as well, which will greatly facilitate the creation and sharing of learning resource materials and integration of teaching–learning activities across AIIMS.

**Short and long term training**

Two MSc and four BTech Biotechnology students, and one MSc student from JNU received training in neuroanatomical techniques, cryosectioning, immunohistochemistry, western blotting, lyophilization of tissue for nuclear magnetic resonance studies (NMR), and various cytogenetics and molecular genetics techniques. Faculty from the department took lectures on Neuroanatomy and Human Genetics for MSc Neuroscience and MSc Human Molecular Genetic students, Jiwaji University, Gwalior. Faculty from GMC Nagpur was imparted training in the basic techniques of cytogenetics and tissue culture. Ten Kishore Vagyanik Puraskar Yojana (KVPY) students undertook small projects in the department of which one student was awarded the fellowship.

**Workshops**

The department facilitated organization of seven cadaver workshops for the departments of Neurosurgery, Orthopaedics, Dental Surgery and Anaesthesia during the year.

**Lectures delivered**

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Lectures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shashi Wadhwa</td>
<td>2</td>
</tr>
<tr>
<td>R.D. Mehra</td>
<td>2</td>
</tr>
<tr>
<td>T.S. Roy</td>
<td>6</td>
</tr>
<tr>
<td>Pushpa Dhar</td>
<td>1</td>
</tr>
<tr>
<td>Rima Dada</td>
<td>8</td>
</tr>
<tr>
<td>Arundhati Sharma</td>
<td>2</td>
</tr>
</tbody>
</table>

**National and International Conferences**

**Oral papers/posters presented:** 48

**RESEARCH**

**Funded projects**

**Ongoing**

1. "Influence of prenatal chronic noise exposure on brain stem auditory nuclei, hippocampus and spatial memory in chicks." Shashi Wadhwa, DBT, 2008–12, Rs 65.49 lakhs.
2. "Molecular studies of the excitatory and inhibitory synapses of the auditory cortex in developing chick (Gallus domesticus) exposed to prenatal chronic noise." Shashi Wadhwa, CSIR, 2011–13, Rs 13.2 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, 2011–14, Rs 28.0 lakhs.
8. "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." SB Ray, DBT, 2011–14, Rs 80.05 lakhs.
10. "Role of sperm factor (oxidative stress, DNA damage) in RSA." R Dada, DBT, 2010–13, Rs 15 lakhs.

**Completed**

1. To study the effects of antioxidant supplementation on neuronal populations of rat hippocampus following sodium arsenite exposure during early postnatal period. P Dhar, Institute Research Grant, 2009–11, Rs 1.70 lakhs.

**Departmental projects**

**Ongoing**

1. Effect of prenatal chronic noise exposure on histone acetylation in the brain stem auditory nuclei, hippocampus and auditory cortex in chicks.
2. Brain aging and neurodegeneration: Neuroprotective and biomodulatory roles of estrogens and glucocorticoids.
3. Development of the human auditory system.
5. Effect of antioxidants on sodium arsenite induced neurotoxicity in the developing rat cerebellum.
6. Effect of Exogenous Alpha Lipoic Acid on Arsenic Induced Oxidative Stress in developing rat kidney.
7. Effect of arsenic exposure during early post natal period on rat kidney.
8. Radiographic evaluation of morphological and morphometric features of mental foramen.
10. Immune regulation of neuroprotective and anti-inflammatory properties of estrogen and tamoxifen in female rat hippocampus.
11. Morphometry of mitral and tricuspid valves in cadaveric adult human heart.
12. A study on the expression of selective neurotransmitters, neuromodulators and their receptors in the spinal cord and dorsal root ganglion during postoperative pain in the rat.
13. Morphometry of the lumbar pedicle using CT scans and digital images.
14. Role of circulating angiogenic factors in pathogenesis of pre eclampsia.
15. Role of s-VEGFR in endoplasmic reticulum stress in preeclampsia.
16. Evaluation of genetics of high myopia in Indian population: an explorative study.
17. Clinical, histopathological and genetic characterization of corneal endothelial dystrophies.
18. Assessment of fine needle aspiration cytology for molecular genetic analysis in neuroblastoma.
19. Morphological and biochemical changes in neonatal chick retina following exposure to variable photoperiods.
**Completed**

1. Expression of calcium binding protein – calbindin in the chick hippocampus following prenatal excessive sound stimulation.
2. Expression of Na+/K+ ATPase and glutamine synthetase in post hatch day 1 chick hippocampus and auditory nuclei following prenatal patterned and unpatterned sound stimulation.
3. Effects of prenatal chronic noise exposure on the morphology of auditory cortex in chick.
4. Age changes in the human trochlear, abducent and cochlear nerve.
5. Effect of lipoic acid as an antioxidant supplement on arsenic induced toxicity in developing rat hippocampus.

**Collaborative projects**

**Ongoing**

1. Role of TNF-á in the pathogenesis of experimental acute pancreatitis and the effect of anti-TNF-á therapy in attenuating the severity of pancreatitis and in the subsequent regeneration of the pancreas (Department of 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 (Department of Neurology).
3. Phase III clinical trial with intravasal injectable Male contraceptive RISUG (Department of Biochemistry).
5. Investigation of genetic variations in CH13L1 and effect of YKL-40 production in Indian Asthmatic patients (Department of Biophysics).
6. Molecular analysis in congenital cataract (RP Centre).
7. Evaluation of reflexology as an adjunctive therapy in patients with Lennox Gastaut syndrome, Mutation screening of GPR-65 in LGS (Department of Biophysics)
8. Randomised controlled trial to compare the efficacy of doxycycline alone and in combination with diclofenac on oxidative status in infertile men (Department of Obstetrics and Gynaecology, LHMC, New Delhi)
9. Markers of stress and their contribution with mild cognitive impairment and dementia (Department of Biophysics).
10. A study of chronic exposure to magnetic field on pain status of fibromyalgia patients (Department of Physiology).
11. Molecular clinical profile in intractable epilepsy (Department of Neurosurgery).
13. A study on the molecular etiology underlying skeletal dysplasia (Department of Endocrinology).
14. Modulation of genes to understand the biology of program in CML patients (Department of Hematology).
15. A study on the association of monoaminergic pathway gene polymorphisms and alcohol dependence (Department of NDDTC).
16. The spectrum of 11p13 and 11p15 deletions in Wilms’ tumor with histological correlation (Department of Pathology).
17. Feasibility study of a novel intraosseus access device for emergency vascular access (Department of cardiac radiology supported by Stanford India Biodesign in collaboration with IIT and Stanford University).
18. Functional development of the visual cortex following prenatal repetitive auditory stimulation in chicks (Gallus domesticus): role of noradrenaline (Department of Physiology).

**Completed**

1. Studies on pharmacological and molecular mechanisms to investigate an angiotensin type I receptor blocker, Irbesartan in experimental model of ischemia-reperfusion injury (Department of Pharmacology).
PUBLICATIONS

Journals: 26  Abstracts: 8  Chapters in Books: 6

PATIENT CARE

Genetic diagnostic and counselling services

Yq microdeletion analysis by PCR 54  Seminal ROS estimation 202
Karyotyping 490  Karyotyping of cardiac cases 20

Embalming of dead bodies

For transportation 847  For teaching/research 25

Fluorosis Diagnostic Laboratory: Fluoride estimation

Urine Blood/serum 102  Drinking water 141

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shashi Wadhwa

served as an expert member for assessment committee for regularization of scientists, 26 May 2011, National Brain Research Centre, Manesar, Haryana; was Guest of Honour and inaugurated DST sponsored Inspire Internship Programme, 2 November 2011, Amity University Campus, Haryana; visited Bhutan 4–7 November 2011, member of faculty team from AIIMS for developing the course curriculum for the MBBS programme at Bhutan Institute of Medical Sciences (BIMS); Member, National Apex Committee for Stem Cell Research and Therapy; Inspector, Medical Council of India; Participated and chaired symposium on ‘Problem based Learning – Experience from India and South Asian Region’, Symposium cum workshop on ‘PBL – promises and pitfalls’, CMET, AIIMS, New Delhi, 21 February 2012; Paper setter for integrated PhD course, NBRC, Manesar; Moderator and onsite assessor for DNB in Anatomy at NBE, Dwarka, New Delhi; External examiner, PhD thesis from Hyderabad University; Member, Prize award committee, National Research Development Corporation (NRDC), enterprise of DSIR, Ministry of Science and Technology, Government of India; Member, CSIR travel grant committee; Invited by Department of Health Research, Government of India to participate in the meeting of the expert group to identify Medical Colleges/Institutes for association with DHR short/long training programs at NIMS, ICMR Campus, New Delhi, 13 March 2012; Officer in Charge, Electron Microscope Facility, Estate Officer (Public Premises) and Central Public Information Officer (CPIO) for disclosure under RTI for Anatomy Department as well as administrative matters of estate and transport; Various AIIMS committees: Chairperson, Teaching Schedule Committee; Member, Deans committee; Member, Patent cell committee; Member, Institutional committee for stem cell research and therapy; Member, Editorial Board, J Anatomical Society of India; Reviewed neuroscience research projects and annual project reports for ICMR and DBT.

Professor Raj Mehra

was awarded ‘Kshanika Oration Award’ for 2007, Indian Council of Medical Research, Department of Health Research, Government of India, November 2011; ‘Kashmir Education Culture and Sciences Society (KECSS) Achievers Award’ in the field of Medical Research by KECSS, February 2012; Selection Committee member for selection of faculty in Anatomy, CSM. Medical University, Lucknow, April, 2011; Selection Committee member for selection of faculty in Biosciences, Central University of Punjab, Bathinda, April 2011; Member, Chronic Disease Biology – Neuroscience Task Force of DBT and attended meetings in May, July, December 2011 and February 2012; Reviewer for Jyotsna Raghunath Battacharya Prize of the Academy and for selection of ‘Fellows for the Academy’; served as Inspector, MCI for Assessment of the physical and other teaching facilities for starting MD (Anatomy) at four medical colleges in different states of the country; Chaired sessions at ‘International Symposium on ‘Neurodegeneration and Neuroprotection: Concepts and Mechanisms’, 29th Conference of Indian Academy of Neurosciences, 30 October–1 November 2011, New Delhi, the 59th National Conference of Anatomical Society of India, December 2011, Indore; Member, Organizing Committee, Federation of Immunological Societies of Asia Oceania, International Congress and chaired a session, March 2012; Chairperson, 56th Institute Day celebrations including the Exhibition, Symposium ‘Care of patient with high blood pressure’ and cultural programme; Co-chair,
Symposium ‘Use of Modern Technology in MBBS Education: An effort by AIIMS and PETA (People for Ethical Treatment of Animal in India) January 2012; Examiner for MBBS, MD (Anatomy), MSc (Neurosci) and PhD at several institutions and universities; 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; Chairperson of Window AC Committee, AIIMS; Member, Animal Ethics Committee, AIIMS; Nominated, Election Commissioner, AIIMS Students Union elections, February 2012 and ‘Observer’ for RDA elections.

Professor T.S. Roy continued to be a member of the editorial board of Pancreas; was coordinator and member of the Medical Council of India expert committee for evaluation of medical colleges in India; Member, Board of Studies, Department of Anatomy, Aligarh Muslim University, Aligarh; Reviewed manuscripts for the journals: Clinical Anatomy, Pancreas, National Medical Journal of India, Brain Research, Clinics and Practice and Neuroscience Letters and projects on neurosciences of various research organizations submitted to government funding agencies; participated in 12th Hands on Workshop on endoscopic transnasal approaches to the skull base, department of neurosurgery, Krankenhaus der, Barmherzigen Brüder Trier, Germany; Visited the Institute of Functional and Clinical Anatomy, Universitats Medizin, Mainz, Germany; participated in ‘Neuroscience 2011’, 41st Annual Meeting, Society for Neuroscience, Washington DC, USA, 12–16 November 2011; Attended 29th Annual Conference, Indian Academy of Neurosciences, New Delhi, 2011; Chaired a session at the International Conference on Cardiovascular Research Convergence, AIIMS, New Delhi, 17–18 February 2012.

Dr Pushpa Dhar continues to be Member, Teaching Schedule Committee for MBBS, Phase 1 and Resource Person for workshops of CME programmes at CCH (Government of India); Chaired Scientific Session in Workshop ‘Preservation Techniques in Human Body, Embalming and Museum Techniques’, 23–24 March 2012, Department of Anatomy, Maulana Azad Medical College, Delhi.

Dr S.B. Ray is visiting faculty at Jiwaji University, Gwalior, for teaching MSc Neuroscience students; three MBBS students undertook summer research projects on various aspects of neurobiology; Reviewer for manuscripts submitted to European Journal of Pain, Indian Journal of Experimental Biology and the Indian Journal of Medical Research; reviewed research projects for various funding agencies.

Dr Rima Dada and her student were felicitated in student trainee and mentor session and received Lalor Foundation award at 35th Annual Meeting, American Congress of Andrology, Montreal, Canada, 1–2 April 2011; attended 44th annual postgraduate programme at the ASRM meeting, Orlando Florida, 14 October 2011; received first prize for ‘Pathogenic Mt sequence variations in ova and blastocyst—Impact on ART’, International Conference held in Chandigarh; An MBBS student worked on Sperm DNA damage and was awarded the KVPY fellowship; Jury member for Medical Research Council fellowships, Edinburgh and for Royan International research awards in Reproductive Biomedicine and Stem cells, Iran; Editorial board member, Journal of Paediatric Neurology, Journal of Paediatric Biochemistry, The Open Andrology Journal and International Journal of Medicine; nominated as member of American Society of Andrology and Indian Society of Fertility; member of ICMR task force on male infertility; reviewer for Journal of Reproduction and Contraception, PLOS One, American Journal of Human Genetics, RBM online, Indian Journal of Medical Research, Andrologia, Fertility and Sterility, Mitochondrian, BMJ case report, Andrologia, Journal of Paediatric Neurology, Journal of Paediatric Biochemistry, Indian Journal of Urology, Genetics and Molecular Research, Current Paediatric Research, Human Reproduction, Expert Reviews in Gynaecology and Obstetrics, Asian Journal of Andrology, Indian Journal of Biochemistry and Biophysics, Breast Cancer Research and Treatment and projects submitted to DBT, ICMR, Indo-US Science and Technology Forum and Wellcome Trust; evaluated three MD and 2 PhD theses in Genetics; served as external examiner for advanced genetics course in GNDU, November 2011 and BSc Genetics at Pt BD Sharma University of Rohtak, August 2011; Member Core committee for AIIMS convocation, AIIMS institute day exhibition and cultural evening, and anti-ragging committee, Member of Institute Biosafety Committee on Recombinant DNA Research, Member Institute Committee to look at improvement of standard of research activities in autonomous institutions;
article on Telomere and aging and how life style modifications can dramatically improve reproductive health published by *Times of India*; received NIH award 2011 for Dada R. Role of father in RSA, 36th Meeting of American Society of Andrology, Montreal, Canada; Best poster award for Dada R. Sperm molecular factors role in idiopathic infertility, International Conference on Genes, Genetics and Genomics: Today and Tomorrow – Human Concerns, Indian Society of Human Genetics, 3–5 March 2012, Punjab University, Chandigarh, India.

**Dr Arundhati Sharma** served as Expert member of core committee of MCI for devising Medical Genetics curriculum for DM course throughout India; involved in formulation and subsequent revision of the same which has been submitted to MCI; her team’s work on genetic basis of growth hormone deficiency was awarded a gold medal by an international jury at Pune; Life member of Gynaecological Endocrine Society of India (GESI); External faculty for Genetics, Department of Molecular Human Genetics, Jiwaji University, Gwalior; participated in Institute day poster exhibition and workshop on health and medical research to popularise importance of genetic testing; imparted training to senior faculty and MBBS students in the field of genetics; External examiner for Practical and viva-voce examinations, MSc Molecular Human Genetics, Jiwaji University, Gwalior; External examiner, PhD thesis, Osmania University, Hyderabad; reviewed projects for DBT and CSIR and reviewed papers from National and International journals.

**Dr Renu Dhingra** was appointed member of international scientific committee in January 2012 for ICP2012 to be held in Beijing, China; Executive member, DASMOS and Member, Teaching schedule committee of AIIMS; Member, Academic advisory panel for virtual teaching, AIIMS; Member, Committee for rules for student conduct; Member, Editorial Board and Reviewer, *Journal of International Society of Plastination*; Member, International Society of Plastination; Reviewer for research projects submitted to ICMR.

**Dr T.C. Nag** was reviewer for *Pharmaceutical Biology* and *Indian Journal of Ophthalmology*; Member, International Society for Eye Research, USA.

Ms Shweta Birla, PhD student was awarded AS Seth medal for best oral presentation for the paper: Birla S, Jyotsana VP, Khadgawat R, Jain V, Garg MK, Sharma A. Genetic studies in patients with isolated and combined pituitary growth hormone deficiency from North India, 41st Annual Conference of the Endocrine Society of India, 1–3 December 2011, Pune, India.

Dr Saroj Sharma, PhD student was awarded SS Plamar award for best poster presentation for the paper: Sharma S, Nag TC, Bhardwaj D, Roy TS. Stereological study of the human cochlear nucleus, Proceedings of the 29th Annual Conference of the Indian Academy of Neuroscience 2011, 30 October–1 November 2011, DIPAS, New Delhi.
9.3 Biochemistry

Professor and Head
Neeta Singh

Professors
D N Rao
Nibhriti Das
Subrata Sinha
(On deputation)
S. S. Chauhan
M R Rajeswari

Additional Professors
P. P. Chattopadhyay
Kalpana Luthra
Alpana Sharma
Kunzang Chosdol

Assistant Professor
N C. Chandra (Adhoc)

HIGHLIGHTS
• An innovative teaching module, objectively structured practical examination (OSPE) has been introduced for MBBS students.
• Five MBBS students who did summer research projects in the department were awarded the prestigious KVPY fellowship by DST.
• There are 35 ongoing research projects in the department funded by various national and international agencies such as DBT, DST, ICMR, CSIR, DRDO, Indo-Canadian and Indo-US, amounting to Rs 12.86 crores.
• 49 publications and 39 abstracts were published in indexed national and international journals.
• The department faculty presented their research work at various national and international scientific fora.
• Three guest lecturers were delivered in the department from eminent scientists from abroad.
• A number of tumour marker tests are being done free of cost for patient care.

EDUCATION

Undergraduate
The department continues with its undergraduate teaching programmes which include MBBS (two semesters), Nursing (one semester) and BSc (Hons) Nursing (one semester). New problem-based learning modules have been incorporated for small group discussions to facilitate self-directed and contextual learning of biochemical concepts. Undergraduate students now perform selected basic immunological and molecular biology techniques at the bench level.

Postgraduate
These include 10 MSc, 13 MD and 35 registered PhD students.

Short-term training
Provided two weeks training to two WHO fellows from Burma, 6–17 June 2011; and four WHO fellows from Korea, 31 October–22 November 2011. Summer training in research was provided to MBBS students from AIIMS. Eleven MBBS (1st year) students did their summer research projects. Eight PG/UG students from all over India received short-term training.

Lectures delivered
Neeta Singh: 4  D.N. Rao: 10  Nibhriti Das: 5  S.S. Chauhan: 1
M.R. Rajeswari: 10  P. Chattopadhyay: 1  Alpana Sharma: 1

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RESEARCH
Funded projects

Completed
3. Multiple antigen peptide approach (MAP) incorporating B-T constructs of F1 and V antigens of Y. pestis in nanoparticles for plague vaccine. D.N. Rao, DBT, 2008–11, Rs 47.36 lakhs.
5. Mechanism(s) of regulation of human dipeptidyl peptidase III expression in tumor cell lines. S.S. Chauhan, DRDO, 2008–11, Rs 50.86 lakhs.
10. A comparative study on expression and/or transcription between LDL receptor (LDLR) and tumor suppressor proteins (p53, pRb) in presence of insulin, thyroxin and benzo-(á)-pyrene. N.C. Chandra, AIIMS, 2008–11, Rs 3 lakhs.

Ongoing
7. To evaluate the FoxP3 mediated immune suppression mechanism via chromatin remodelling during the leprosy disease progression. D.N. Rao, ICMR, 2011–13, Rs 12 lakhs.
9. To clone and expression E1, E2 and E3 proteins of Chikungunya virus and synthesize peptide spanning these sequences to identify B & T cell epitope to develop subunit vaccine for Chikungunya virus. D.N. Rao, DRDO, 2011–14, Rs 36 lakhs.
11. Complement receptor-1, TNF-á, nitric oxide and the respective gene polymorphisms in relation to the pathophysiology and susceptibility to severe malaria. Nibhriti Das, ICMR, 2009–12, Rs 29.95 lakhs.
22. Hypoxia and p54-HIC1 axis in stemness of glial tumors and cell lines. P. Chattopadhyay, DBT, 2009–12, Rs 51.50 lakhs.
23. Promoter mediated tumor cell targeting by siRNA mediated gene silencing. P. Chattopadhyay, DBT, 2011–13, Rs 33.54 lakhs.
28. Study of circulatory levels of fibulin-1 and nidogen (Extracellular matrix proteins) in multiple myeloma. Alpana Sharma, AIIMS, 2011–12, Rs 2 lakhs.
30. 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.
31. Hypoxia and notch signaling in glioblastoma: Implications for an adverse phenotype. Kunzang Chosdol, DBT, 2011–14, Rs 47.81 lakhs.
32. A comparison of gene expression in glioblastoma cell lines under short and long term exposure to hypoxia with reference to the key cellular regulatory and adaptive pathways. Kunzang Chosdol, ICMR, 2009–12, Rs 30.50 lakhs.
33. Intracellular cholesterol homeostasis and cell proliferation. N.C. Chandra, Department of Atomic Energy, Board of Research in Nuclear Sciences, 2009–12, Rs 15 lakhs.

34. Studies on nuclear cholesterol and expression of cell cycle proteins in normal and tumor cell lines. N.C. Chandra, ICMR, 2010–13, Rs 30.48 lakhs.

35. Metabolomic role of dimethylarsinic acid (DME) on the regulatory aspects of cholesterol homeostasis, cell proliferation and immune responses. N.C. Chandra, ICMR, 2011–14, Rs 32 lakhs.

**Departmental projects**

**Completed**

1. Generation of potentially neutralizing recombinant antibodies against Hepatitis B virus

**Ongoing**

1. Insights into the role of one carbon metabolism in the progression of cervical carcinogenesis.
3. Analysis and correlation of molecular markers with treatment outcome in epithelial ovarian cancer.
4. Targeting apoptotic pathways for the treatment of primary epithelial ovarian cancer.
5. Development of HPV 18 candidate vaccine prototype.
7. Interaction of mycobacterium tuberculosis secretory antigens ESAT-6 and CEP-10 with complement receptors, calcium signaling and antimicrobial functions of macrophages.
8. Levels of complement receptor 1 and 2 (CR1 and CR2) in the blood cells in relation to Rheumatoid Arthritis.
10. Relationship between apo-A4 gene polymorphisms (Thr347Ser and Gln360His) and coronary artery disease in Northern Indian subjects.
11. Expression and modulation of leukocyte Complement Receptor 1 and CD59 (Protectin) in relation to rheumatoid arthritis.
12. Expression and modulation of complement regulatory proteins DAF (CD55) and MCP (CD46) in relation to the pathophysiology and clinical disease activity of rheumatoid arthritis.
13. Thermodynamic stability of binding of triplex forming Oligonucleotides with different regions of hmgal gene and their effect on hmgal expression.
14. 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.
15. Biochemical and biophysical studies on Carbapenemase (a-Lactamase) and proteomics of inner membrane of Acinetobacter baumannii.
16. In vitro stability and thermodynamics of DNA triple helices, targeted to hmgb1 and their effect on HMGB1 expression in cancer.
18. dsRNA mediated modulation of HIV-1 expression.
19. Development of targeted therapeutics utilizing the alpha-fetoprotein promoter.
20. Use of placental-like alkaline phosphatase for tumor specific targeting.
21. Oxygen concentration, p53-HIC1 axis and stemness characteristics of glial tumor cell lines.
22. Immunological Characterization of HIV-1 Clade-C Virus.
23. Genetic polymorphism of PPARã, IRS-1 and TNF-ã in insulin resistance and their association with metabolic profile.
25. Generation and characterization of Single Chain Variable Region (ScFv) antibody against envelope gp120 of HIV-1 Clade C.
27. Th1 and Th2 Cytokine gene polymorphism in parthenium induced contact dermatitis.
28. Study of cytokines, transcription factors, chemokine receptors and their ligands of Th17 and Treg cells in pemphigus vulgaris.
31. Notch and related pathways: Their interaction in glial tumorigenesis and hypoxia.
32. Generation and characterization of recombinant immune antibody libraries for Hepatitis B virus.
33. FAT1 and inflammation related pathways in glioma.
34. To study and correlate the expression of Notch signaling molecules, Epithelial-mesenchymal transition (EMT) markers and HIF1 alpha in glioblastoma multiforme.
35. FAT1 and YAP1: Functional interaction and role in glioma cells survival and proliferation
37. Modulation of oxidized-LDL-receptor and its effect on pro- and anti-inflammatory cytokines.
40. Study of feedback regulation of intracellular cholesterol and immunogenic response by T cells using immunogen, mitogen and chemical carcinogen in mice model.
41. Cholesterol homeostasis and immunogenic responses on B cell proliferation in mice model by immunogen, mitogen and carcinogen
42. Studies on intracellular cholesterol homeostasis and cell-cycle proteins.
43. Molecular role of insulin on intracellular cholesterol homeostasis.

Collaborative projects

Completed
1. Evaluation of circulating tumor DNA in serum of breast cancer patients (Department of Medical Oncology).
2. Role of cobalt chloride induced hypoxia on MA10 cells, (Department of Reproductive Biology).
3. Isolation and analysis of the outer membrane proteins, beta lactamases of Acinetobacter baumannii (Department of Microbiology).
4. A comparative evaluation of levels of interleukin-1-â in GCF during canine distraction and canine refraction, (Department of Dental Surgery).

Ongoing
1. Clinical Proteomics, CNA and other biochemical parameters of Neurological disorders Freidreich’s ataxia and spinocerebellar ataxia, 2, 3,12. (Department of Neurology).
2. To study the safety and efficacy of estrogen as therapeutic adjuvants for the treatment of hemorrhagic shock patients. (Trauma Centre).
3. Role of recombinant human erythropoietin in trauma victims with hemorrhagic shock patients and invitro approach through stem cell differentiation. (Trauma Centre).
4. Mitochondrial CNA, CNA and other biochemical parameters of Neurological disorders Freidreich’s ataxia and spinocerebellar ataxia, 2, 3,12. (Department of Neurology).
5. Development of diagnostic panel of blood biomarkers for acute ischemic stroke. (Department. of Neurology).
6. Proteomic analysis of host parasite interactive proteins of Cryptosporidium. (Department of Microbiology).
7. Characterization of Salmonella enterica Serotype Typhi strains from North India. (Department of Microbiology).
8. A comparative evaluation of levels of interleukin-1-â in GCF during canine distraction and canine refraction. (Department of Dental Surgery).
9. Structural characterization of *plasmodium vivax* tryptophan rich antigens. (Department of Biotechnology).
10. Evaluation of cytokines in patients undergoing total hip replacement and their correlation with osteolysis. (Department of Orthopaedics).
11. Role of T helper cytokines in skin autoimmune disorder Pemphigus vulgaris. (Department of Dermatology and Venereology).
12. Study of catecholamines in melanocyte transplanted patients of vitiligo (Department of Dermatology and Venereology).
13. Study of T regulatory cells in vitiligo (Department of Dermatology and Venereology).

**Publications**

<table>
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<tr>
<th>Journals:</th>
<th>Abstracts:</th>
<th>Chapters in Books:</th>
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<td>49</td>
<td>39</td>
<td>3</td>
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**PATIENT CARE**

**Tumor markers:** 907

- Prostate specific antigen: 42 samples
- CA 19.9: 361 samples
- CEA: 482 samples
- AFP: 22 samples

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

The following students of the department won awards:

- Mr Rajesh Kumar, PhD student, Medal for the Best Poster, paper titled ‘Generation and characterization of human monoclonal single chain variable fragments (scFvs) against envelope third variable region (V3) of HIV-1 Clade C’, International Science Symposium on HIV and Infectious diseases, 20–22 January 2012.
- Mr Vivek Anand, PhD student, Best Paper Award and Travel Bursary, paper titled ‘Augmented telomerase activity and cytokines in TH cells of parthenium dermatitis patients’, International Congress of European Academy of Allergy and Clinical Immunology (EAACI), Istanbul, Turkey, 11–15 June 2011.
- Ms Devyani Anand, PhD student, First Prize for Oral Presentation, paper titled ‘Expression and significance of complement receptor 1, TNF-â and IL-10 in rheumatoid arthritis’, Symposium on Opening New Horizons in Clinical Biochemistry (ACBI Delhi chapter), New Delhi, 21 January 2012.
- Ms Albina Arjuman, PhD student, Dr Arun Fotedar Memorial AIIMSONIANS Award for the best published work by a PhD scholar, 1 October 2011 and Best Poster Award, paper titled ‘Evaluation of a double-blind oral contraceptive (desogestrel and ethinyl estradiol) on the functional effectiveness of low density lipoprotein receptor (LDLR) in vitro’ 44th Annual Conference of the Indian Pharmacological Society, Manipal, Karnataka, 19–21 December 2011.
- Ms Seema Chugh, MSc student, Best Poster Award, paper titled ‘Role of Th 17 cells in transitional cell carcinoma of urinary bladder’, Vth Congress of the Federation of Immunological Societies of Asia Oceania (FIMSA), New Delhi, 14–17 March 2012.

**Professor Neeta Singh** was elected Vice President, Indian Association for Cancer Research, 2012–14; was Editorial Board member, Indian Journal of Clinical Biochemistry, Secretary (Delhi Chapter) of Indian Association for Cancer Research, continues to be member of 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 Radicals Research in India, IACR, ACBI; Was subject expert/committee member for Life Sciences committee of Women Scientists Scheme of DST, member of CCRH expert/scientific committee;
Member, B. B. Dixit Library Committee, Hospital Management Committee and anti ragging committee of AIIMS; Member, Institutional Ethics Committee of JNU, New Delhi; Paper setter, moderator and onsite assessor for NBE in Biochemistry, MCI Inspector, member of selection committee for faculty posts at ESI corporation, New Delhi; Project reviewer for DBT, DST, ICMR, CSIR, CCRHN, Council for Science and Technology – UP, Indo-French, Indo-US; Reviewer for Molecular and Cellular Biology, Intl. J. Gynecol. Cancer, Indian Journal of Clinical Biochemistry, Current Science; External examiner for JNU, Mumbai University, Kerala University, etc; Chaired session on ‘Potential targets in cancer cervix’, 27th Ranbaxy Science Foundation Round Table Conference on ‘Targeted therapy in Malignancy: Where the future is’, AIIMS, New Delhi, 12 November 12 2011; Co-chaired a session at 31st Annual Convention, Indian Association for Cancer Research, Mumbai, 26–29 January 2012.

Professor D.N. Rao was elected Vice President of FIMSA for three years; elected Secretary of Indian Immunology Society; was Officer In-charge of CAF and Ethics Committee member of various institutions in Delhi; SAC member, project review member of various extramural funding agencies; selection committee member in various medical colleges and universities; ethical committee member of small animals, human and stem cell of AIIMS and other institutes in Delhi.

Professor Nibhriti Das was Treasurer, Indian Immunology Society; Member, American Heart Association; Executive committee of IARS; Chaired a session at the International Conference on Cardiovascular Research Convergence, AIIMS, 17–18 February 2012; Joint Organizing Secretary of Symposium-cum-workshop, PBL – promises and pitfalls; Chaired session on ‘Vasculature: basic biology to engineering’, International Conference on Cardiovascular Research Convergence, AIIMS, New Delhi, 17–18 February 2012; Co-chaired the workshop session, Workshop on Problem-based Learning: Promises and Pitfalls, K.L. Wig CMET, AIIMS, New Delhi, 21 February 2012.

Professor S.S. Chauhan was elected founder Vice President of Indian Academy of Biomedical Sciences; Member, Central recruitment committee of research staff, Apex condemnation committee, Institute day celebration committee and Biotechnology teaching advisory committee of AIIMS.

Professor M.R. Rajeswari was awarded fellowship by Friedreich’s Ataxia Research Alliance, USA to present paper at FARA-conference, Strasbourg, France, 5-7 May 2011; Elected member of Executive Council, 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 and committees of UGC and selection committee of NABL; Associate Editor, Journal of Integrated Omics; Reviewer for International Journal of Paediatric Biochemistry, PlosOne, Journal of Molecular Biology Reports, Journal of Molecular Structure, Journal of Physical Chemistry, Molecular Biosystems, American Chemical Society, DNA and Cell Biology; Reviewer, project proposals for ICMR; External examiner for PhD and MTech thesis of University of Delhi and JNU; Participated in the International Conference on Mathematical Biology, Indian Institute of Science, Bangalore, 4–7 July 2011.

Dr Kalpana Luthra won the Best Oral Paper award and medal for the paper titled ‘Neutralization of tier-2 viruses and epitope profiling of plasma antibodies from subtype-C HIV-1 infected North Indians: Implications for MPER directed HIV-1 neutralization’ presented at International Science Symposium on HIV and Infectious Diseases, Chennai, 20–22 January 2012.

VISITING SCIENTISTS
1. Dr Roman Reddy Ganta, Professor, Kansas State University, Manhattan, USA delivered a talk on ‘Evaluation of Ehrlichia Chaffeensis adaptation to vertebrate and tick hosts’, 13 June 2011.
2. Dr Jasimuddin Ahamed, Department of Clinical Investigation, Rockfeller University, New York, USA delivered a talk on ‘Listen to your heart! The link between tissue factor and platelets in heart attacks and sudden death’, 21 November 2011.
3. Dr Suresh K Alahari delivered a talk on ‘Understanding the important role of microRNAs in breast cancer progression’, 13 February 2012.

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## 9.4 Biomedical Engineering

**Professor and Head**  
Alok R. Ray

**Professors**  
Sneh Anand  
Harpal Singh

**Associate Professor**  
Veena Koul

**Principal Scientific Officer-I**  
Nivendita K. Gohil

**Senior Design Engineer**  
S.M.K. Rahman

**Scientist**  
J.C. Bhardwaj

**Emeritus Fellow**  
D. Mohan

### EDUCATION

**Lectures/Scientific presentations delivered**

| D. Mohan: 7 | S. Anand: 1 | Harpal Singh: 1 |

### RESEARCH

**Funded Projects**


15. Interaction of endothelial cells with advanced glycation end products. Nivedita K Gohil, CSIR, Rs 8.4 lakhs.

16. Clinical Trial of Hb-AGE as a novel long term glycemic index using its autofluorescence. Nivedita K Gohil, DBT, Rs 33.7 lakhs


Inter-departmental co-ordination for research projects
1. Projects on humans, Dr D.N. Rao, Department of Biochemistry
2. Project on rabbits, Dr Sandeep Mathur, Department of Pathology
3. Biochemical parameters, Dr A.K. Srivastava, Department of Laboratory Medicine
4. Project on rats, Dr T.K. Das, Department of Anatomy

Technology transfer and patents


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

PUBLICATIONS

Journals: 24  Scientific Presentations in International Conferences: 3

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor D. Mohan received Distinguished Career Award from University of Delaware, Newark (DE), USA, 1 June 2012; attended the Annual Volvo Research and Educational Foundation Workshop, Beijing, China, 25–27 October 2011; attended meeting of International Association of Traffic and Safety Sciences (IATSS), Tokyo, Japan, 12 April 2012; attended meeting of the International Research Council on the Biomechanics of Impacts (IRCOBI), Palma, Spain, 20–27 January 2012; attended The International Transport Forum 2011: Transport for Society, Leipzig,
Germany, 17–27 May 2011; attended Meeting of Scientific Committee of WCTRS, Lyon, France, 30 June 2011; attended the 20th International Safe Community Conference, Falum, Dalarna, Sweden, the Council Meeting and chair of session at International Research Council on the Biomechanics of Injury (IRCOBI) at Krakow, Poland, 1–16 September 2011.

Professor A.R. Ray attended the meeting SDST–JST Workshop on Biomedical Engineering, University of Waseda, Japan, 27 February 2012–1 March 2012.

Dr Veena Koul attended NANOBIO 2012: Second International Conference on Nanotechnology at the Biomedical Interface, Kochi, Kerala, 21–23 December 2012.

Dr J.C. Bhardwaj attended the International Conference on Reproductive Health with Emphasis on Strategies for Family Planning and 22nd Annual Meeting of the Indian Society for the Study of Reproduction and Fertility (ISSRF), New Delhi, 19–21 February 2012; attended Workshop on Intellectual Property and Innovation Management in Medical Research, Organized by NRDC and ICMR, New Delhi, 11–12 November 2011.
# 9.5 Biophysics

**Distinguished Biotechnology Research Professor**  
T.P. Singh

**Additional Professor and Head**  
Punit Kaur

**Additional Professors**  
Savita Yadav  
Sujata Sharma

**Associate Professors**  
Krishna Dalal  
A. Srinivasan

**Scientists**  
Sharmishtha Dey  
S. Baskar Singh  
Asha Bhushan

## EDUCATION

### Postgraduate

The faculty and scientists are actively involved in teaching and guiding students for PhD degree, MSc (Biophysics) and MD (Biophysics).

## Short and Long term Training

Summer training in research was provided to MBBS students from AIIMS. Five MBBS (1st year) students have conducted projects work for the *Kishore Vaigyanik Puruskar Yojna* (KVPY) Scheme of the DST in different laboratories of the department and four students have been awarded the fellowships. The Department also imparted long- and short-term training to MSc and MTech students from different institutes and universities.

## CMEs/Workshops/Symposia/National and International conferences

### Conferences organised

2. Informatics in Medicine, 16–18 February 2012, Dr Punit Kaur.
3. Communication for creating better work environment 2011, Workshop, June 2011, Dr Savita Yadav.

### Lectures delivered

- **T.P. Singh:** 9  
- **Punit Kaur:** 4  
- **Savita Yadav:** 1  
- **Sujata Sharma:** 1  
- **Krishna Dalal:** 3

### Papers/posters presented: 7

## RESEARCH

### Funded projects

#### Ongoing

1. Protein structure determination and drug design, T.P. Singh, DBT, Rs 55 lakhs, 2009–14.
2. Biomedical Informatics Centres of ICMR, Punit Kaur, ICMR, Rs 80 lakhs, 2006–12.
5. Isolation and purification of anti-diabetic protein(s) from Syzygium cumini seeds. Savita Yadav (as mentor), DST, 2010–13.
9. Diversity of shell proteins from mollusks along Parangipettai coast (East Coast of India), A. Srinivasan, DBT, Rs 34.35 lakhs, 2012–15.
13. 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, Rs 41 lakhs, 2011–14.

Completed
1. Isolation, purification and structural and functional characterization of new proteins from seminal plasma, Savita Yadav, DST, 2008–12

Departmental projects
1. Molecular modeling and structure-based ligand design
2. Database on mutations observed in Indian patients
3. Structural and functional studies of venom and plant allergens
4. Structural and functional studies of agents that reduce NSAID-induced gastropathy
5. Structure based drug design against proteins that aid breast cancer cells
6. Structure based drug design against inflammatory disorders
7. Structural studies of Lactoferrin and its fragments and ligand design
8. Determination of efficacy of reflexology in management of patients suffering from chronic osteoarthritis pain
9. Determination of the efficacy of reflexology over pharmacological therapy in the management of patients suffering from diabetic nephropathy with and without hypertension
10. Evaluation of reflexology as an adjunctive therapy in children with intractable epilepsy
11. Evaluation of reflexology as an adjunctive therapy in children with spastic cerebral palsy
12. Investigation of genetic variations in CHI3L1 and effect on YKL40 production in Indian asthmatic patients
13. Estimation of the level of Cartilage Oligomeric Matrix Protein (COMP) in osteoarthritis and designing of an inhibitor to control the progression of osteoarthritis

14. Relationship of ACE coding and promoter region gene polymorphisms with GDM

15. Estimation of bio-molecules related to stress and their contributions in persons with mild cognitive impairment dementia

16. Multimodal characterization of reflexology areas by optical coherence tomography, optical imaging and Raman spectroscopic techniques

Collaborative projects
1. Infertility in crossbred bulls: Search for spermatogenic cell markers for early prediction of fertility, Indian Council of Agricultural Research (ICAR), NDRI, Karnal, 2012–16.

PUBLICATIONS
Journals: 25

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

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor T.P. Singh was awarded the Jawaharlal Nehru Birth Centenary Award of INSA, New Delhi, 2011; awarded the Annual Award of Instrumentation Society of India, Bangalore, 2011; Brahma’s YT Thathachari Award for Life Sciences, Mysore, 2011; Member, Governing Board, DAE–UGC Consortium for Scientific Research, Indore, 2011–13; Member, Governing Council, Indian Statistical Institute, Kolkata, 2011–12; organized and chaired a session at 40th National Seminar on Crystallography, Hyderabad, 26–28 November 2011.

Dr Punit Kaur chaired a session of the 40th National Seminar on Crystallography, Hyderabad, 26–28 November 2011.

Dr Sujata Sharma was awarded National Bioscientist Award for Career Development (2011), Department of Biotechnology, Government of India.

Dr Krishna Dalal was peer reviewer in 2012, 2nd International Conference on Electronics and Optoelectronics, Shenyang, China, 27–29 July 2012; Government nominee of West Bengal Council of Naturopathy.

VISITING SCIENTISTS
The following scientists and eminent academicians visited the department to present lectures and cooperate in scientific programs: Professor Ch. Betzel, Germany; Professor Faizan Ahmad, New Delhi; Dr Pushkar Sharma, New Delhi; Dr Ajay K. Saxena, New Delhi; Professor M.N. Gupta, New Delhi; Professor N.K. Gupta, New Delhi, Professor M. Vijayan, Bangalore; Dr Krishan Lal, New Delhi; Dr D.M. Salunke, New Delhi; Professor D. Velmurugan, Chennai; Professor K.S. Rangappa, Mysore; Dr A. Arora, Lucknow.
### 9.6 Biostatistics

<table>
<thead>
<tr>
<th>Professor and Head</th>
<th>R.M. Pandey</th>
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<tbody>
<tr>
<td>Professor</td>
<td>S.N. Dwivedi</td>
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<tr>
<td>(on long leave)</td>
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<tr>
<td>Additional Professor</td>
<td>V. Sreenivas</td>
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<tr>
<td>Scientists</td>
<td>R.K. Ahuja, Guresh Kumar, M. Kalaivani</td>
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<td>(Superannuated December 2011)</td>
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#### HIGHLIGHTS
During the period under report, one student was awarded PhD degree. The Department had over 30 ongoing research projects, generally collaborative in nature; and 18 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 and were invited members of various scientific committees of ICMR, DBT, DST, AYUSH; served on Data Safety Monitoring Boards (DSMB) of several National and International Clinical Trials; delivered more than thirty invited lectures all over India during various workshops on Research Methodology and biostatistics; and were appointed examiners to various universities. In the past one year, faculty and scientists had 87 research publications in various peer reviewed medical journals. Faculty members and scientists continued to be reviewers for almost all the major medical journals in India and for a number of international medical journals of various medical specialities.

#### EDUCATION
The department continued teaching ‘Biostatistics and Essentials of Research Methods’ for the undergraduate, paramedical and postgraduate courses, viz. MBBS, BSc (Hons.) in Medical Technology in Radiology, MBiotech, BSc and MSc Nursing, and MD Community Medicine. As in the past, a series of 14 evening classes on ‘Essentials of Biostatistical Methods and Research Methodology’ was organised for residents, PhD students and other research staff in the Institute. On request, faculty members delivered a series of lectures for residents, PhD students in several centres/departments in the Institute. On request, faculty and scientists 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 in the Institute as co-guides, doctoral committee members of PhD, DM, MCh and MD/MS students. With an objective to build capacity of data management and statistical analysis, four workshops on ‘Hands on Training in using STATA’ of 3–6 days duration were organised for PhD students, MD students in community medicine, and DM oncology students of the Institute. Also, departmental faculty and scientists delivered over 30 invited lectures in various national workshops/conferences across the country. A postgraduate in statistics completed her short term training in the department for a period of six months.

#### CMEs/Workshops/Symposia/National and International Conference

<table>
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<th>Lectures delivered</th>
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<td>R.M. Pandey: 8</td>
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<td>S.N. Dwivedi: 7</td>
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<td>V. Sreenivas: 4</td>
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<td>Guresh Kumar: 1</td>
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</table>

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RESEARCH

Funded Projects

Ongoing
1. Newborn screening for congenital hypothyroidism and congenital adrenal hyperplasia, a multi centric study; Data Coordinating Centre. R.M. Pandey, ICMR, 2007–12, Rs 13.0 lakhs.
2. Hepatitis C–The Indian Face (National coordination of 11 centre study funded by Bristol Myers Squibb Foundation), V. Sreenivas.
3. A Study to Quantify the Research Output of the Faculty of AIIMS. V. Sreenivas, AIIMS.

Completed
1. A Multicentric Randomized Controlled Trial of Adefovir, Adefovir + Lamivudine and combination of Adefovir and Glycyrrhizin in HBV related decompensated Cirrhosis. (Coordination of a seven centre trial, funded by the ICMR), V. Sreenivas.

Departmental Projects

Ongoing
2. A study on appropriate statistical models to determine quality of life and in-hospital mortality in head injured trauma patients.
3. Multi level modelling to identify the risk factors associated with neonatal and post neonatal mortality in India.

Completed
1. A Comparison of Cox-proportional hazard model, parametric proportional hazard model, and accelerated failure time models in the survival of acute liver failure.

Collaborative Projects

Ongoing
1. Role of Circulating Angiogenetic Factors in the Pathogenesis of Pre Eclampsia (Department of Anatomy).
2. Role of Fluoride Toxicity on Renal Pathogenesis in Childhood Nephrotic Syndrom: an Ultra structural, Biochemical and Proteomic Study (Department of Anatomy).
3. To study the changes in predictors of difficult intubation during pregnancy (Department of Anaesthesiology).
4. Insights into the Role of One-carbon Metabolism in Progression of Cervical Carcinogenesis (Department of Biochemistry).
5. 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).
6. Epidemiology of Gallbladder Cancer with Special Reference to Nutritional Risk Factors (Department of Gastroenterology and Human Nutrition).
7. Efficacy of daily iron folic acid supplementation in correction of iron deficiency anemia amongst children aged 3–5 years of age (Department of Gastroenterology and Human Nutrition).
8. Assessment of Zink Deficiency amongst Children in 6 months to 60 months of age in different regions of India (Department of Gastroenterology and Human Nutrition).
9. Evaluation of Risk Factors Associated with Hospital Mortality: A Case Control Study (Department of Medicine).
10. Intestinal Parasitic Co-Infections in Patients with HIV/ AIDS and its effect on CD4 count, Viral Load, and Antiretroviral Drug Resistance (Department of Microbiology).
11. Assessment of therapeutic response of radiolabeled anti CD20antibodies 131Iodine Rituximab/90 in Delhi and adjoining area (Department of Microbiology).
12. Molecular characterization of Neisseria meningitides isolated from cases of acute bacterial meningitides in Delhi and adjoining area (Department of Microbiology).
13. Randomized controlled trial (RCT) of early versus late surgery in childhood intractable epilepsy (Department of Neurology).
14. Study of Cognition and Quality of Life in Chronic Intractable Epilepsy using Functional Magnetic Resonance Imaging (FMRI) (Department of Neurology).
15. Study of the prevalence and pattern of periodic limb movements of sleep in patients with spinal cord lesions (Department of Neurosurgery).
17. Magnetic Resonance Spectroscopic Imaging (MRSI) and Diffusion Weighted MRI (DW-MRI) in the non-invasive detection, assessment of treatment response and tumour metabolism in breast cancer (Department of NMR).
18. Role of various Magnetic Resonance Imaging and Spectroscopic methods in the evaluation of prostate cancer (Department of NMR).
19. Multiparametric approach to the study of breast cancer and its correlation with molecular markers (Department of NMR).
20. Dosimetric Studies in Radionuclide Therapy of Neuroendocrine Tumors with 177Lu DOTA-TATE (Department of Nuclear Medicine).
21. Detection of Minimal Residual Disease (MRD) in B-cell Lineage Acute Lymphoblastic Leukemia by Flow Cytometry at end of Induction (Department of Paediatrics).
22. Genomic and Proteomic Analysis of SCF/C-Kit gene in a paediatric neoplasm, Neuroblastoma (Department of Pediatric Surgery).
24. Effect of Exercise on C reactive Protein Level in Obese Patients (Department of Physical Medicine and Rehabilitation).
25. An Exploratory Study on Psychological and Drug-Use Correlates of Adult ADHD with Heroin Dependence (Department of Psychiatry).
26. Neuropsychological and Psychosocial Aspects of Chronic Pain Syndromes (Department of Psychiatry).
27. High risk behaviours in in-patients with alcohol-dependence and opioid-dependence (IDUs): Relationship with Personality (Department of Psychiatry).
28. Epidemiological Study of Respiratory Pathogens in ARTI among children and Elderly in India (Centre for Community Medicine).
29. Development of Neonatal Health Care Services Model for Rural India (Centre for Community Medicine).
30. Establishment of networking for Neisseria gonorrhoeae surveillance in India (Department of Microbiology).
31. Centre for Newborn Care (ICMR Centre for Advanced Research) (Department of Paediatrics).
32. Prevalence of Vitamin D deficiency and rickets in children with ichthyosiform erythroderma (Department of Dermatology).
33. Randomized trial of systemic steroids (prednisolone) and propranolol in the treatment of infantile hemangioma (Department of Dermatology).
34. Randomized Control Trial of N-Acetylcysteine in Prevention of Renal Failure in Hepatocellular Carcinoma Patients Undergoing Transarterial Chemotherapy and Transarterial Chemoembolisation (Department of Gastroenterology).
35. Non-invasive assessment of liver fibrosis in patients with chronic liver disease using Transient elastography, Shear wave real time ultrasound elastography and serum biochemical markers (Department of Gastroenterology).
36. Role of contrast enhanced ultrasound in the diagnosis of Hepatocellular carcinoma (Department of Gastroenterology).
37. Role of contrast enhanced ultrasound for the assessment of therapeutic response following locoregional therapy (percutaneous ablation and transarterial chemoembolisation) in patients of hepatocellular carcinoma (Department of Gastroenterology).

38. A Randomized Controlled Trial Comparing modified Gemcitabine + Oxaliplatin (mGEMOX) to Gemcitabine + Cisplatin in Management of Unresectable Gall Bladder Cancer (Medical Oncology, IRCH).

39. Evaluation of VEGF Expression in IRSS stage II and stage III Retinoblastoma and correlation with outcome and pathology (Medical Oncology, IRCH).

40. Serial assessment of cellular and humoral immunity in pediatric patients undergoing chemotherapy for Acute Myeloid Leukemia-A Prospective study (Medical Oncology, IRCH).

41. Serial assessment of Regulatory T Cell in children undergoing chemotherapy for Acute Myeloid Leukemia – A Prospective study (Medical Oncology, IRCH).

42. Biological and clinical significance of proliferative and apoptotic markers in acute myeloid leukemia (Medical Oncology, IRCH).

43. Analysis of mediastinal T Lymphoblastic Lymphomas – A single institution study (Medical Oncology, IRCH).

44. Assessment of regulatory T cell kinetics in patients of neuroblastoma and PNET- A prospective study (Medical Oncology, IRCH).

45. Role of Dual Energy CT in assessment of renal calculi (Department of Radiodiagnosis).

46. Role of dual energy computed tomography in diagnosis of gout (Department of Radiodiagnosis).

47. Evaluation of neck masses using diffusion weighted MR imaging and ultrasound elastography (Department of Radiodiagnosis).

Completed

1. Assessment of Beta Cell Function in Children of Families with Type-2 Diabetes Mellitus. (Department of Endocrinology and Metabolism).

2. Development and validation of high throughput assays for the rapid diagnosis of tuberculosis (Department of Biotechnology).

3. Studies on Plasmodium falciparum dihydrofolate reductase and dihydropteroate synthase mutations associated with sulfadoxine and pyrimethamine resistance (Department of Biotechnology).

4. The Correlation of VEGF and TGF Betal Expression to Clinico-Pathological Response, ER, PR and HER2/neu Status in Locally Advanced Breast Cancer: A Pilot Study (Department of Radiotherapy).

PUBLICATIONS

Journals: 81  Chapters in Books: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor R.M. Pandey was a United Nations Statistical Consultant to Government of Maldives for one year to provide technical assistance in planning, analysis and report writing for research project ‘National Drug Use Survey in Maldives (NDUS)’ funded by European Commission through United Nations Office for Drug and Crime (UNODC); On request organised a symposium during the IEA World Epidemiology Congress at Edinburgh, Scotland, 7–11 August 2011; Member, Proposal/Project review committees of DBT and ICMR; Member, Research Committee, National Institute of Health and Family Welfare (NIHFW); Member, Ethics Committee, Indian Institute of Public Health, Delhi; Member, Operations Research Group on RNTCP, Tuberculosis Control Programme, Government of India; Member, DSMB, UMPIRE drug trial in India and Europe, coordinated by University of Cambridge and CCDC (PHFI); Member, CARRS Translational Trial; Member, Technical Advisory Group (TAG) of the DBT-ICMR joint group on Severely Acutely Malnourished (SAM) Children in India; Member, Institutional Review Board of PHFI; Member, of both DSMB and Technical Advisory Group (TAG) of the Chlorohexadine cord care in newborns, a hospital and community based trial being conducted in Tanzania and Zambia by The Bloomberg School of Public Health, Johns Hopkins University, USA; Scientific reviewer for almost all peer reviewed medical journals in India;
Nominated member, Editorial Board, Indian Journal of Paediatrics; Coordinator and resource faculty for workshop on ‘Data Analysis using statistical software’, BPKIHS, Dharan, Nepal, 3–6 July 2011; Resource person, Biostatistics Workshop, Govt Medical College, Tiruvananthapuram, Kerala, 17–19 January 2012; conducted a Workshop on Essential of Biostatistics at the Pacific University, Udaipur, 4–5 February 2012.

**Professor S.N. Dwivedi** was external expert for interim analysis of ‘A Randomized Trial to Evaluate the Influence of Mobile Phone Reminders on Adherence to First Line Antiretroviral Treatment in South India’, Department of Public Health Sciences, Karolinska Institute, Sweden; Member, Doctoral Committee, PhD Student, Department of Biostatistics and Health Informatics, SGPGIMS, Lucknow; Member, panel of experts in health regarding evaluation of research projects for funding at Indian Council of Social Science Research (ICSSR), New Delhi; Member, Technical Advisory Committee to evaluate a research proposal ‘Evaluation of Pilot Program for Prevention of Burn Injuries (PPPBI)’, National Institute of Health and Family Welfare, New Delhi; Scientific Advisory Committee, National Institute of Medical Statistics, New Delhi; Member, Expert Group, To review ‘Draft Technical Report on Population Based Long Term Epidemiological Studies (1996–2005)’ related to Bhopal toxic gas exposed population; Member, Selection Committee, Central Council for Research in Ayurvedic Sciences, New Delhi; Reviewer for research projects of Mathematical Sciences Office, Department of Science and Technology, Ministry of Science and Technology, Government of India; External examiner for MSc and PhD thesis from BHU and Manipal University, respectively; Editorial board member, Demography India, Indian Journal of Chest Diseases and Allied Sciences; Scientific reviewer for International Society for Clinical Biostatistics, Contribution to Applied and Mathematical Statistics, Demography India, Indian Journal of Medical Research, Biomedical Central (Pregnancy and Child Birth), UK; Organizing Committee member and chaired several sessions in various national conferences/workshops.

**Dr V. Sreenivas** was co-author of a paper published in New England Journal of Medicine (highest impact factor in biomedical research); Member, Research Committee, All India Institute of Medical Sciences, New Delhi; Member, Expert Group, Seroprevalence study to determine the impact of Hepatitis B vaccination, ICMR; Member, Data and Safety Monitoring Board (DSMB) for three research projects, Department of Biotechnology (DBT), Government of India; Member, Expert Group on Immuno-modulation, DBT; Member, Expert Group on Tuberculosis, DBT; Member, Task Force group, Division of Reproduction and Child Nutrition, ICMR; Scientific reviewer for Indian Journal of Medical Research, Indian Journal of Paediatrics, Journal of Indian Association for Child and Adolescent Mental Health; Statistical advisor to the Journal of Neonatology, India Resource Person for the section on Data Analysis and Interpretation during a workshop on Research Methodology, Faculty Up gradation Programme, Rufaida College of Nursing, Jamia Hamdard, New Delhi, 31 July 2011.

**Dr Guresh Kumar** was a scientific reviewer of Indian Journal of Medical and Paediatric Oncology, and Indian Journal of Medical Research; Resource person during the workshop on ‘Essential of Biostatistics’, Pacific University, Udaipur, 4–5 February 2012; Resource person in a workshop on “Data Analysis Using Statistical Software”, 3–6 July 2011, Dharan, Nepal.

**VISITING SCIENTIST**
Dr M.B. Rao, Professor of Statistical Genetics, University of Cincinnati, USA, delivered a talk on ‘Algebraic Statistics and Applicati
9.7 Biotechnology

Professor and Head
Y.D. Sharma

Professors
J.S. Tyagi  H.K. Prasad  S.N. Das

Assistant Professor
Anushree Gupta

HIGHLIGHTS
The department runs a Masters in Biotechnology course with specialization in Medical Biotechnology admitting 12–13 students per batch. The department also runs a PhD programme. About 45 students are admitted to the MSc and PhD courses each year. The department also provides support to the Fellowship programme of the National Science Academies. Large numbers of extramural research grants are attracted by the faculty from the 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 good impact journals.

EDUCATION

Postgraduate
The department continues with its 2 year postgraduate programme in Medical Biotechnology leading to MBiotech degree. The teaching programme includes theory and practical classes, seminar presentations and a research project (dissertation) on 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 its PhD programme in the area of Medical Biotechnology.

National and International Conferences

Lectures delivered
Y.D. Sharma: 3  J.S. Tyagi: 7  H.K. Prasad: 6  S.N. Das: 1

Poster presentations: 4

RESEARCH

Funded Projects

Ongoing
2. Post Graduate Training Programme in Biotechnology with special application to Biomedicine, Y.D. Sharma, DBT, 2009–14, Rs 22.58 lakhs per year.
5. 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.
7. 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.
9. Studies on FAS (CD95) and FAS L (CD95L) gene polymorphism and their association with tobacco related oral carcinomas, SN Das, ICMR, 2008–11, Rs 6 lakhs.

**Completed**
1. Malaria vaccine related field studies in Jabalpur, Y.D. Sharma, ICMR, 2005–10, Rs 77 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
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. Phenotypic and functional characterization of T\textsubscript{H}17 cells in patients with oral squamous cell carcinoma.
8. Phenotypic and functional characterization of CD4\textsuperscript{+}CD25\textsuperscript{+}Foxp3\textsuperscript{+} regulatory T cells (T\textsubscript{reg}) in patients with oral squamous cell carcinoma

**Completed**
2. Role of MLH1 promoter methylation in oral squamous cell carcinoma patients.

**Collaborative Projects**

**Ongoing**
2. National Alliance Programme for Biodesign and in-vitro diagnostics between Translational Health Science and Technology Institute and All India Institute of Medical Sciences, J.S. Tyagi, 2010–15.
3. Evaluation of nano level expression of p38α MAP kinase, a cell signaling protein in oral cancer and design of structure based peptide inhibitors against the same (Department of Biophysics).
4. Clinical correlation of ER, PR, HER2, neu expression and BRCA1 gene mutations in Indian Breast cancer patients (BRA-IRCH).
5. Podoplanin expression in patients of oral cavity carcinoma and its clinical significance (Department of Otorhinolaryngology).
PUBLICATIONS

Journals: 21

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Y.D. Sharma is a Fellow of all the three National Science Academies; Member of DBT Task Force Subcommittee on Human Resources Development; Member, ‘Tata Innovation Fellowship and Ramalingaswami Fellowship’, Committee of DBT; Member, DBT-JRF examination committee; DBT Special Committee for malaria vaccine projects; Chairman, DST Project monitoring Committee on Malaria; Member, Academic Committee, Guru Nanak Dev University, Amritsar; Member, Board of Studies of Biotechnology, Jawaharlal Nehru University, New Delhi; UGC-Science Advisory Panel, Centre for Molecular Medicine, JNU, New Delhi; Expert Member, Board of PG Studies in Biotechnology, Vanasthali Vidyapeeth; Expert Member, Board of studies, South Asian University; Expert Member, Teaching Advisory Committee, Banaras Hindu University, Varanasi; Member, Himachal University, Shimla; Member, Board of Studies, University of Delhi, South Campus, Delhi; Member, Board of Studies, Manipal Sikkim Institute of Medical Sciences, Gangtok; Member, Board of Studies in Neurosciences, Jiwaji University, Gwalior; Expert in Doctoral Committee of Faculty of Engineering and Interdisciplinary Sciences, Jamia Hamdard University, New Delhi; Member, Editorial Board of *J Vect Borne Dis*; Member, Research Committees, AIIMS; Member, Store Purchase Committee, AIIMS; Chairman, Negotiation Committee, AIIMS; Member, Committee for Continuing Medical Education and Technology, AIIMS; Chairman, Patent Cell of AIIMS; Chairman, Central Recruitment Committee of Research staff in projects in AIIMS; Chairman, Committee for evaluation of Intramural Research projects; Member, Facility for Nanotechnology, AIIMS; Member, Committee for publicity events; Member, Computerization of AIIMS Committee; Member, DPC for Scientists at AIIMS; Member, Selection Committee for faculty positions at several universities and research institutions; Expert member of Biosafety Committee of University College of Medical Sciences (UCMS), Delhi; Invited panelist, Meeting on Diagnostics of Public Health Importance in India organized by National Institute of Immunology, 21 February 2012.

Professor J. S. Tyagi is Central Public Information Officer (CPIO) to look after the work under the RTI Act 2005 in the Department of Biotechnology, AIIMS; Member, RAP-SAC National Institute of Immunology, New Delhi; Governing Body, National Institute of Immunology, New Delhi; RAP-SAC Bose Institute, Kolkata; SAC, CDFD, Hyderabad; SAC, TRC, Chennai; AIIMS Patent Committee; AIIMS Research Committee.

Professor H.K. Prasad is Expert Member, Technical Committee of NRDC, ICMR and National JALMA Institute for Leprosy and Other Mycobacterial Diseases, Agra; Purchase Committee, School of Environmental Sciences and South Asian University, Old School of Physical Sciences, JNU; Selection Committee of ICMR, LRS Institute of Tuberculosis and Respiratory Diseases and Jawaharlal Nehru Fellowship, JNU; Editorial Board, *Indian Journal of Leprosy*; Project Monitoring Committee (PMC), SBIRI-BCIL, Department of Biotechnology, Ministry of Science and Technology; Board of Studies in Biotechnology, Jiwaji University, Gwalior; Committee to assess the quality of abstract for International Conferences of Research Section, AIIMS; ICMR Immunology Task Force Committee; Project Review Committee of ICMR, DBT, DST and AIIMS; and Examiner at various Universities and Institutions.

Professor S.N. Das is elected Fellow of the National Academy of Medical Sciences, continues to be Fellow, 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; Life Member, The Cytometry Society, India; Member, Task Force group on Cancer Biology, DBT, Ministry of Science and Technology, Government 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; Editorial Board, *Open Journal of Toxicology, International Journal of...*

VISITING SCIENTIST

1. Dr Anwar Murtaza, PhD, Senior Scientist III, Abbott Bioresearch Center, Worcester, MA, 01581, USA, visited the department and delivered a lecture ‘Rheumatoid arthritis-the search for next generation therapies’, 3 November 2011.

2. Dr Amit Singhal, PhD, Research Scientist, Singapore Immunology Network (SIgN), Singapore visited the department and delivered a lecture ‘System biology and new animal models to understand host-pathogen interaction during tuberculosis’, 12 March 2012.

3. Professor A. Rassoly, Chief, Disparities Research Branch, National Cancer Institute, Bathesda, MD, USA, delivered a lecture ‘Lab on Chip’, 7 December 2011.

4. Professor R. P. Singh, Division of Rheumatology, Department of Medicine, University of California, LA, USA, delivered a lecture ‘Genes, Immune tolerance and Regulatory T-cells in autoimmunity: A gender approach’, 25 January 2012.

OTHER ACTIVITITES

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.
**9.8 Centre for Community Medicine**

**Professor and Head**
Chandrakant S. Pandav

**Professors**
Bir Singh (deceased 30 March 2012)
Shashi Kant
Sanjeev Kumar Gupta

**Additional Professors**
Kiran Goswami
Anand Krishnan
Baridalyne Nongkynrih

**Associate Professors**
Puneet Misra
Sanjay Kumar Rai
Y. S. Kusuma Kumari

**Supervising Medical Social Service Officer**
Anil Goswami

**EDUCATION**

**Undergraduate**

**Rural posting:** The duration of the programme remains 5 weeks in the VII semester. It is a residential posting and the focus is on learning practical skills for working as a doctor at primary and secondary level of healthcare. Teaching techniques such as small group studies, case studies, video films and problem-based learning are used. The feedback of the students has been very positive.

**Interns:** The programme remains unchanged. The interns are posted for 6 weeks at Ballabgarh hospital and six weeks at either of the Primary Health Centres—Dayalpur or Chhainsa.

**Postgraduates**
The department postgraduates are posted in rural areas for 18 months. This gives them adequate time to gain necessary experience both at a referral hospital and at Primary Health Centres. With the advent of computer facility, postgraduate students are encouraged to use computers for analysis of the data collected for their thesis. Besides this, they also do different field-based exercises during the posting. The regular teaching exercises include seminars, family and case presentations, etc.

**CMEs/Workshops/Symposia/National and International conference:**
The Centre for Community Medicine organizes guest lectures, which are of public health relevance and importance. During 2011–12 the department organized the following guest lectures.

1. Professor Harry Campbell, Professor of Genetic Epidemiology and Public Health, University of Edinburgh, UK delivered a lecture ‘enome wide association studies–where we are, and what is the future?’, 8 December 2012.
2. Dr Gopal Basisht, Internal Medicine and Rheumatology Practitioner, Orlando Regional Medical Centre, Florida Hospital, Orlando, Florida delivered a lecture ‘Management of Rheumatoid Arthritis using Symbiohealth’, 19 January 2012.

**Oral papers/posters presented:** 7

**RESEARCH**

**Funded Projects**

**Ongoing**

1. Epidemiological study of Respiratory Pathogens in Acute Respiratory Tract Infection among Children and elderly in India. Anand Krishnan, CDC Atlanta, 2011–16, Rs 4.5 crores per annum.
2. 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.
4. 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
5. Migration, poverty, and access to healthcare: a study on people’s access and health system’s responsiveness in Delhi. Y.S. Kusuma, ICMR, 30 months (2011–13).
8. Innovative Culturally Appropriate Intervention Package to Reduce Low Birth Weight, Department of Science and Technology, Government of India. Puneet Misra, Rs 23 lakhs.
9. 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.

**Completed**


**Departmental projects**

**Ongoing**

1. Implementing and monitoring healthy settings approach for prevention of non-communicable diseases in middle schools of rural Ballabgarh, District Faridabad, Haryana, India.
2. Assessment of neonatal care services in Ballabgarh, Block, Haryana
3. Epidemiological study of injury cases coming at Apex Trauma Center in New Delhi
4. Reproductive health issues among adolescent girls in rural Ballabgarh
5. Anthropometric characteristics and under-nutrition among elderly in rural Ballabgarh, Haryana.
6. Assessment of under-nutrition in under-five children in rural Ballabgarh, Haryana.
7. Functional disability among elderly in rural Ballabgarh, Haryana.
8. An assessment of sexual high risk behavior among female factory workers in Faridabad, Haryana
9. HIV Risk Behaviour and its Association with Selected Socio-demographic Variables in Male Migrant Workers of a Factory in Faridabad, Haryana
11. A Study of Prevalence of Work Related Neck Pain in Desk Job Workers at All India Institute of Medical Sciences, New Delhi.
Completed
1. Study of selected chronic conditions among elderly in an urban slum of Delhi.
2. Study of gender differentials in health among households of rural Ballabgarh by using life-course approach.
3. Study on oral health problems among elderly in an urban resettlement colony.
5. Validation of available risk assessment scores for Non communicable diseases in adults.

Collaborative projects
Ongoing
1. Community-based epidemiological study on corneal disorders (Department of 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 (Department of 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. Addressing Emerging Infectious Disease in the Republic India: Influenza Disease Burden in Rural Communities in India (Center for Disease Control, USA and Department of Microbiology).
5. Direct and Indirect Protection by Influenza Vaccine Given to Children in India (Centre for Disease Control, USA and Department of Microbiology).
6. Multisite influenza surveillance in India Phase-II (Centre for Disease Control, USA and Department of Microbiology).
7. Determinants of the functional status of the older Indian (Collaborating Department not mentioned).
8. Evaluation of atraumatic restorative treatment (ART) for dental caries in geriatric patients in a resettlement colony of Delhi.
9. Prevalence of Celiac Disease in indigenous populations of southern, northern and north-eastern part of India and Identification of reasons for difference in its prevalence. (Department of Gastroenterology and Human Nutrition).
10. To study the prevalence of Rheumatic Heart Disease among children of 5–15 years age group in Ballabhgarh block of Haryana using echocardiography with Doppler (Department of Cardiology)
11. Congenital cytomegalovirus infection and hearing loss in rural Indian population (Department of Microbiology).

Completed
1. Evaluation of quality of life in patients with glaucoma (Dr R. P. Centre for Ophthalmic Sciences).
2. A study to assess knowledge about newborn danger signs among mothers of infants in rural and urban areas (College of Nursing).
4. Indoor air pollutants and behaviour assessment of rural community to reduce health effects. (TERI and UNICEF).

PUBLICATIONS
Journals: 38 Chapter in Books: 2

PATIENT CARE
Community Health Services at CRSHP Ballabgarh
This comprises of the two Primary Health Centres, Dayalpur and Chhainsa. Outpatient, domiciliary and referral services are being provided.

Indices
1. Population 90240
2. Birth Rate per 1000 population 23.22
3. Death Rate per 1000 population 6.69
4. Neonatal Mortality Rate per 1000 live births 27.21
5. Infant mortality rate per 1000 live births 48.21
6. Maternal Mortality Rate per 100,000 live births 95.47

**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.

1. Total antenatal cases (new registration) 2386
2. Pregnant women receiving AN care 100%
3. Complete TT coverage of registered cases 96%
4. Deliveries conducted by staff or hospital 1619
5. Eligible couple protection rate 63.14%
6. Total number of persons who accepted Family Planning methods 1835
   - Tubectomy 382
   - Vasectomy 7
   - IUD 323
   - CC users 816
   - Oral pills 307

**Expanded Programme on Immunization**

*Coverage of 12 to 23 month of age*

- BCG 96.7%
- OPV (3 doses) 98.8%
- DPT (3 doses) 98.8%
- Measles 97.0%

**National Programmes**

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

- Total number of slides collected 11008
- Total number of positive cases 31
- Annual blood examination rate 12.21%
- Annual parasite incidence rate 0.32/1000 population
- Slide positivity rate 0.24%

*Tuberculosis*

The Revised National Tuberculosis Control Programme carried out 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:

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td>75</td>
</tr>
<tr>
<td>Category 2</td>
<td>30</td>
</tr>
<tr>
<td>Category 3</td>
<td>Nil</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>105</td>
</tr>
</tbody>
</table>

**Medical Social Services** (Dr Anil Goswami and Neena Chawla)

More than 1044 patients/clients were identified and provided Medical Social Services. This included a variety of services such as counselling, helping them to get medical and financial help and referral to various social welfare institutions/organizations.
National Service Scheme (NSS) Unit, AIIMS

An ‘Orientation programme of National Service Scheme (NSS)’ was conducted for new batch of MBBS students on 02.08.2011 at CCM, AIIMS.

AIDS Education and Training Cell (AETC)

Professor Bir Singh was the coordinator of this Cell. The following activities were organized by the cell in 2011–12:

- The telephone helpline on HIV/AIDS, Sex related issues and contraception (‘Shubhchintak’) continued to be operated with usual popularity, attracting a good number of calls daily.
- The Internet based helpline ‘E-shubhchintak’ continued to be operated. On an average, 1–2 requisitions for IEC materials, apart from queries on HIV/AIDS, sexual problems, STDs, contraception, etc. were received daily.
- The Cell produced and disseminated educational material on HIV/AIDS to general public in 2011–12 also.

Health Education Activities at Dr. Ambedkar Nagar

Total number of health talks given on different health topics: 145
80 (Under Graduates) + 65 (Nursing students)

**Organizing events/exhibitions**

<table>
<thead>
<tr>
<th>Activities held on</th>
<th>Name of activity</th>
<th>No. of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 April 2011</td>
<td>Project interventions on ‘KABP regarding Seizures and Stigma attached to it’ at six places in Block No. 02 Dakshinpuri Extension, Dr Ambedkar Nagar</td>
<td>180</td>
</tr>
<tr>
<td>27 April 2011</td>
<td>Co-ordinated (with Dr. Bir Singh) in the organization of 9th Health Education Lecture for People (HELP) on ‘Dengue and Chikungunya’</td>
<td>400</td>
</tr>
<tr>
<td>20 July 2011</td>
<td>Project Interventions on “Maternal and Child Nutrition” at six places in Block No 03 of Dakshinpuri Extension, Dr. Ambedkar Nagar</td>
<td>180</td>
</tr>
<tr>
<td>04 August 2011</td>
<td>An exhibition was organized on ‘Breast feeding’ on the eve of Breast feeding week and a role play was performed by nursing students</td>
<td>90+20</td>
</tr>
<tr>
<td>29 August 2011</td>
<td>Project Interventions on at six places in Block No 6 Dakshinpuri Extension, Dr Ambedkar Nagar</td>
<td>200</td>
</tr>
<tr>
<td>05 September 2011</td>
<td>Family Health Advisory Service (FHAS) intervention programme (Role Plays) held on ‘TB, Alcohol, Small Family Norms’ at Block no 12 &amp; 13 Park, Dakshinpuri extension, Dr Ambedkar Nagar</td>
<td>150</td>
</tr>
<tr>
<td>12 September 2011</td>
<td>Family Health Advisory Service (FHAS) intervention programme (Role Plays) held on ‘Dengue, Seizures, Over Crowding, Moral Values’ at Block no. 12 and 13 Park, Dakshinpuri extension, Dr Ambedkar Nagar</td>
<td>225</td>
</tr>
<tr>
<td>01 December 2011</td>
<td>Organized an Exhibition on ‘World AIDS Day’ at Dakshinpuri extension, Dr Ambedkar Nagar</td>
<td>110</td>
</tr>
</tbody>
</table>

Health Promotion and Health Communication (HPHC) Unit, CCM

Professor Bir Singh was Faculty Incharge of the unit. Thirty posters were developed covering varied health issues. Three film shows were conducted under various teaching and training programmes. Three hundred and thirty-two teaching sessions were projected and 14 sessions were photographed. Public Address System was used for 13 events. Four role-plays by medical students and two by nursing students were performed in the community on Alcoholism, Drug-addiction, Family Planning, Polio, Personal Hygiene, Obesity, Mother and Child Health and Female Infanticide, Accidents, Healthy life style, Gender Bias, Small family norms.
AWARDS, HONOURS AND SIGNIFICANT EVENTS

Centre for Community Medicine was designated as WHO Collaborating Centre for Capacity Building and Research in Community Based Non-communicable Disease, prevention and control.

**Professor C.S. Pandav** was elected President of The Indian Public Health Association of (IPHA) for the year 2010–12; Member, Working Group on Disease Burden (Communicable and non-communicable diseases) for the formulation of the Twelfth Five Year Plan (2012–17) by the Planning Commission, Government of India; selected for Dr R.V. Rajam Oration for the year 2011–12 by the National Academy of Medical Sciences; attended Stakeholder’s Consultation on Regulation for Fortification of Staple Food, 15 April 2011, National Institute of Nutrition, ICMR, Hyderabad, Andhra Pradesh; attended Pre-Scientific Advisory Committee Meeting of NARI, 26–27 August 2011, Pune; attended Sixty-Fourth Session of the WHO Regional Committee Meeting for South East Asia, Jaipur, 6–9 September 2011; attended Scientific Advisory Committee Meeting of National AIDS Research Institute, 26 September 2011, Pune; participated in 56th Foundation Day Celebrations, 159th CC Meeting and WHO Meeting organized by IPHA, 28–29 September 2011, Kolkata; participated in Workshop on Informal Consultation on Public Health Implications of Salt Consumption of the WHO Regional Office for South-East Asia in collaboration with the Department of Food and Nutrition Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, 11–13 October 2011; participated in ‘Expert Consultation on Non-Communicable Diseases’, Bangalore, 2–5 November 2011; attended Annual Meeting of Indian Public Health Institutions Network (IndiaPHEIN) of the Institute of Health Management Research, 14–15 November 2011, IIHMR, Jaipur; participated in Symposium on Non-Communicable Disease – Lifestyle Modification, 31 January–3 February 2012, Pune, Maharashtra; attended 56th National Annual Conference of the Indian Public Health Association (IPHA), 10–12 February 2012, Kochi, Kerala; attended the 39th Annual National Conference of the Indian Association of Preventive and Social Medicine (IAPSM), 27–29 February 2012 at Tanda, Himachal Pradesh; participated in Regional Workshop on ‘Good Practices and Documentations Techniques’, Ahmedabad, Gujarat, 13 March 2012; participated in Symposium on ‘Public Health Importance – Continuing Medical Education’, 27–29 March 2012, Goa Medical College, Goa; invited External Examiner to conduct MD (Community Medicine/Community Dentistry) Parts I and II Examination, 8–13 August 2011, Colombo, Sri Lanka; Member of Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health, United States Department of Health and Human Services, constituted ‘Biomarkers of Nutrition for Development (BOND), Expert panel on Iodine; Member of expert group of Access to Nutrition Index (ATNI) Project, a collaborative effort by GAIN (the Global Alliance for Improved Nutrition), the Wellcome Trust, and the Bill and Melinda Gates Foundation.

**Professor Sanjeev Kumar Gupta** was Member, Stores Purchase Committee of the Centre for Dental Education and Research; Core Committee of AIIMS, under Revised National Tuberculosis Control Programme; Reviewer, *Indian Journal of Community Medicine, The National Medical Journal of India* and *Indian Journal of Medical Research*; Member, Selection Committee, Selection of contractual faculty in Department of PSM at Lady Hardinge Medical College, New Delhi, 27 March 2012; Member, Doctoral Committee of two PhD students in the Department of Community Ophthalmology, Dr. R. P. Centre, AIIMS; Coordinator for the theme Public Health and Nutrition, for compilation of Research Activities at the AIIMS; Member, Staff Council, AIIMS; Examiner, Theses of MD (Community Medicine), University of Delhi South Campus, August/September 2011; Member, Board of Examiners, MD (Community Health Administration) Examination, National Institute of Health and Family Welfare, Munirka, New Delhi, 18–19 April and 17 October 2011.

**Dr Kiran Goswami** was Central Coordination Team Member in ongoing INCLEN Projects of Determinants of Under nutrition in U5 children and In-depth Analysis of Cold Chain, Vaccine Supply and Logistic Management for Routine Immunization in three India States; gave talk on All India Radio on Mumps in February 2012.

**Dr Anand Krishnan** was awarded M K Seshadri Award for Best Research in Community Medicine for his work in the area of non-communicable diseases for the year 2008; Head of the WHO Collaborating Centre for Capacity
Building and Research in Community Based Non-communicable Disease – prevention and Control, attended the Project Review Group Meeting of Media Lab Asia, Department of IT, Trivandrum, 18 July 2011; participated in panel discussion on primary health care approach to NCDs during the National summit on NCDs, Delhi, 23–24 August 2011; attended Indo-US programme on environmental and occupational health, Mumbai, 25–26 August 2011; conducted training for STEPs NCD risk factor Surveys in Male, Maldives, 18–22 September 2011; completed research methodology and biostatistics course and a course of Research Ethics from Umea University, Sweden, October–November 2011; delivered an invited lecture on Study Designs in Clinical Research at the 3rd National Conference and CME cum workshop of Indian Society of Rational Pharmacotherapeutics, Jammu, 25–27 November 2011; attended the meeting for review of the WHO verbal autopsy instruments, Geneva, Switzerland, 19–22 December 2011; attended 56th Annual National Conference, Indian Public Health Association, Kochi, Kerala, 10–12 February 2012 and presented a paper; attended and presented a poster, International Conference on Emerging Infectious Diseases, Atlanta, US, 11–14 March 2012, Member, Institute Ethics Committee, Institute of Human Behavior and Allied Sciences; Reviewer for *Lancet*, *Bull World Health Organ*, *BMC Public Health*, *Indian Journal of Community Medicine*, *The National Medical Journal of India*, *Indian Journal of Medical Research*, *Indian Pediatrics*, *Indian Journal of Pediatrics*; was an undergraduate examiner at Regional Institute of Medical Sciences Imphal, Manipur, and BP Koirala Institute of Health Sciences, Darhan, Nepal; Organized Swasthya Chintan Sammelan a meeting with community based stakeholders of health in April 2011.

**Dr Baridalyne Nongkynrih** was resource person in workshop ‘Strengthening of post-graduate practical training in Community Medicine’, Maulana Azad Medical College, Delhi, April 2011; was involved in MCI curriculum revision in May 2011; Preparation of programme managers kit for monitoring and evaluation of National Programme for Diabetes, CVD and Stroke; reviewer for *Indian Journal of Community Medicine, Global Health Action, Indian Journal of Maternal and Child Health*.

**Dr Sanjay Rai** delivered ‘JE Park Memorial Oration’, 56th All India Annual Conference of IPHA, Kochi, 13 February 2012; delivered lecture on ‘Estimating Disease Burden through Population-based Surveillance’, CDC Influenza Division International Partners and Disease Burden Meeting, Atlanta, Georgia, USA, 9–11 July 2010; Member, Sub-committee on ‘Developing PG curriculum in community medicine’ and ‘Immunization’, Academy of Indian Public Health Association; Organized ‘Post round review meeting of HIV sentinel surveillance 2010 (Central Zone)’, New Delhi, 15–16 October 2011; Reviewer for *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, Bihar, 2–4 March 2012; Conducted several supervisory field visits of Bihar, Jharkhand, Delhi and UP to monitor HIV Sentinel Surveillance of India.

**Dr Puneet Misra** was Member, Programme Advisory Council Member, Department of Science and Technology; Member, Telemedicine Committee, AIIMS; attended IAPSM conference 2012, Tanda (HP), and IPHA conference 2012, Kochi (Kerala); Member HSS, NACO; attended Annual health chintan, Ballabgarh, 19 April 2011; was a Rural Trauma training facilitator; was an Examiner for NIHFW, 26–29 July 2011, Health management course; was Examiner UCMS MBBS exam, 21–24 November 2011.

Dr Anil Goswami delivered lectures on Communication Skills and on Dengue to Group D staff of AIIMS, 7 September 2011 to 20 January 2012; participated as a panelist in the workshop of ‘How to prevent the misuse of antibiotics’, 7th April 2011; ‘World Health Day Event’, Ministry of Health and Family Welfare, WHO and Health Fitness Society Trust, Talkatora Indoor Stadium; carried out activities as member of ‘Disease Prevention and Outbreak Response Cell (DPORC), Horticulture and Sanitation Advisory Committee’; attended meeting to Review Status of Vector Borne Diseases in Delhi and NCR, Nirman Bhawan; attended 3rd South-Central Zone and 13th M.P. State chapter of Indian Association of Preventive and Social Medicine, Department of Community Medicine, N.S.C.B. Medical College, Jabalpur, MP, 11–13 November 2011; attended meeting of ‘Parivar Kalyan Karyakarama Slahakar Samiti’, Rehearsal Hall, Prasaran Bhawan, New Delhi, 1 January 2012; participated in ‘Workshop on Prevention and Control of Vector and Water Borne Diseases’, National Centre for Disease Control (NCDC), Sham Nath Marg, 16 March 2012; participated in sensitization programme on Human Rights Day, Teen Murthi Bhawan, New Delhi, 10 December 2011 (Organized by National Human Rights Commission); Attended 39th Annual National Conference of Indian Association of Preventive and Social Medicine, Department of Community Medicine, Tanda, Himachal Pradesh, 27–29 February 2012; Treasurer, Indian Association of Preventive Medicine (IAPSM) (A National Body), 2011–12 for a second consecutive term.
9.9 Dermatology and Venereology

Professor and Head
Vinod Kumar Sharma

Professors
Neena Khanna
Kaushal K. Verma
M. Ramam

Additional Professors
Binod K Khaitan
Sujay Khandpur
G. Sethuraman

Associate Professor
Somesh Gupta

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

Conferences, CMEs

Lectures delivered
V.K. Sharma: 8
Kaushal K. Verma: 7
M. Ramam: 12
Sujay Khandpur: 1
G. Sethuraman: 3
Somesh Gupta: 4

RESEARCH

Funded projects
1. Genetic Analysis of Psoriasis and Arthritis in Indians, V.K. Sharma, National Institute of Health (NIH), USA, 4 years, Rs 58 lakhs.
2. Programme support for skin pigmentation and melanocyte keratinocyte biology, V.K. Sharma, DBT, 4 years, Rs 33 lakhs.
3. Elucidating FoxP3 expression and FoxP3 promoter methylation level in active non-segmental vitiligo, V.K. Sharma, DBT, 3 years, Rs 58 lakhs.
5. Urologic evaluation of dermatologic patients on chronic cyclophosphamide therapy. Sujay Khandpur, AIIMS, 1 year, Rs 1 lakh.
6. Prevalence of vitamin D deficiency and rickets in children with ichthyosiform erythroderma, G. Sethuraman, ICMR, 3 years, Rs 18 lakhs.
7. Randomized trial of systemic steroids (prednisolone) and propranolol in the treatment of infantile hemangiomas, G. Sethuraman, ICMR; 3 years, 2012–2015, Rs 18 lakhs.
8. 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, 3 years, Rs 10 lakhs plus staff.
9. A comparative study of effectiveness of immunotherapy with intrallesional injection of killed mycobacterium w vaccine and imiquimod cream in clinical resolution of external anogenital warts and reduction of viral load: A randomized trial. Somesh Gupta, DBT, 3+1 years, Rs 49.3 lakhs.
10. Comparison of hair follicle stem cells differentiation into melanocytes from grey hair and pigmented hair, Indian Association of Dermatologists Venereologists and Leprologists, 3 years, Rs 2,96,758.
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. Weekly azathioprine pulse therapy versus betamethasone oral mini pulse therapy in the treatment of moderate to severe alopecia areata
7. Supervised drug administration in patients with drug eruptions
8. Further validation and responsiveness of a rating scale to measure the psycho-social impact of vitiligo
9. Clinico-pathological study of cutaneous T cell lymphomas
10. Clinico-pathological study of inflammatory leg nodules
11. Comparison of efficacy of PUVA versus PUVAsol in vitiligo
12. Histological evaluation of palmoplantar psoriasis
13. Comparison of Daivobet ointment versus coal tar in chronic plaque psoriasis
14. Utility of ELISA testing in establishing the activity of pemphigus vulgaris
15. Role of cyclophosphamide pulse as adjuvant therapy in pemphigus vulgaris
16. Involvement of Th1/Th2 cytokines in the pathogenesis of pemphigus vulgaris
17. Open label trial to determine long-term safety of Safinamide in Parkinson’s disease patients
18. Combination regimen of topical PUVAsol and mometasone furoate in treatment of segmental vitiligo
19. Urological evaluation of dermatological patients on chronic cyclophosphamide therapy
20. Clinico-histological evaluation of erythematous tender nodules on extremities
21. Efficacy of pulsed dye laser 595 nm in facial portwine stains
22. Comparison of three treatment regimes in palmoplantar psoriasis
23. Role of Th-17 and T-reg cells in pemphigus vulgaris
24. Role of immunohistochemistry in Epidermolysis bullosa
25. Molecular genetic studies in Indian patients with ichthyosis and ectodermal dysplasia
27. Levels of urinary and plasma catecholamines in patients with generalised vitiligo before and after autologous melanocyte transplantation

PUBLICATIONS
Journals: 37         Books/Chapters in books: 9
AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor V.K. Sharma was Expert for Standing Selection Committee for Group A faculty posts in Dermatology and STD in Ministry of Health and Family Welfare, Government of India, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong, 19 July 2011; External Examiner for MD (Dermatology, Ven. and Leprology) Practical Examination, PGIMER, Chandigarh; Editorial Board Member, Contact Dermatitis, Dermatitis; President, International Congress of Dermatology 2013; Vice Chairman, Organising Committee, World Congress of IUSTI, 2–5 November 2011; awarded Fellowship Indian Academy of Dermatology (FIAD); Chaired session on Asian Face of Dermatology, 22nd World Congress of Dermatology, Seoul, Korea, 24–28 May 2011; chaired Scientific session, 7th South Asian Regional Conference of Dermatology (SARCD), Dhaka, Bangladesh, 2–3 December 2011; Chairman, Scientific session, Workshop on Lasers in Aesthetic Plastic Surgery, Medanta, The Medicity, Gurgaon, 11 November 2011; Chairman, Scientific session, ‘Scar Wars’, IADVL Delhi Branch conference, 11 December 2011; Moderator, Debate on ‘Sunscreens in normal individuals’, XVI South Zone Conference of IADVL (DERMAZONE SOUTH 2010), Mysore, Bangalore, 15 August 2011.

Professor Kaushal K. Verma was awarded Dr BM Ambady Oration by the Indian Association of Dermatologists, Venereologists and Leprologists at Annual national Conference, Jaipur, 10–12 February 2012; Professor In-charge (Examinations), AIIMS, June 2010 till date; Hon. Secretary, International Union against Sexually Transmitted Diseases, Asia Pacific (IUSTI–AP), 2008–12; President, Indian Association of Dermatologists, Venereologists and Leprologists (Delhi), 2012; President, Pemphigus and Pulse Therapy Foundation, 2011–13; Member, Academic Committee, B.P. Koirala Institute of Health Sciences, Dharan, Nepal; Member, Academic Committee, Jiwaji University, Gwalior, Madhya Pradesh.

Professor M. Ramam was awarded the Dr Ganapati Panja Award of the IADVL; was Visiting Professor, University of California, San Francisco; Member, Editorial Board, Journal of Cutaneous Pathology; Member, Editorial Board, International Journal of Dermatology.

Dr Sujay Khandpur was awarded the ICMR International Fellowship in Dermatopathology, University of California, San Francisco, USA, for 6 months; was Associate Editor, Indian Journal of Dermatology, Venereology and Leprology 2011; Hon. Secretary, IADVL (Delhi State Branch), 2011; Joint Secretary, Dermatopathology Society of India; participated in panel discussion, Atopic Dermatitis, Annual IADVL Delhi Branch Conference, New Delhi, December 2011.

Dr G. Sethuraman was awarded Fellowship of the Indian Academy of Dermatology (FIAD), February 2012, DERMACON 2012; Reviewer for British J Dermatol, Clin Exp Dermatol, Arch Dermatol, JEADV, IJDVL, Indian J Pediatrics.

Dr Somesh Gupta was Nominated Editor-in-Chief, Journal of Cutaneous and Aesthetic Surgery and Joint Editor, Sexual Health (Australia).
HIGHLIGHTS
The Department was created in May 2011. It is one of few such departments in India. To train future faculty for such departments, the Department started a year long fellowship programme for the existing faculty in various disciplines from other medical colleges. Dr Praveen Aggarwal was elected Dean of the newly created Academic College of Emergency Experts in India. The Department organized an international conference on Emergency Medicine with the aim to train doctors, nurses and paramedics in this field. To train its own residents, the Department has procured a high-fidelity simulator.

EDUCATION
The Faculty organized several life support courses (both basic and advanced) for undergraduates and postgraduates posted in Emergency Medicine. The department runs a schedule of academic activities for the residents of Emergency Medicine (seminars, journal clubs, case discussions) twice 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 9 undergraduate students from Europe, Australia and USA.

CONTINUING MEDICAL EDUCATION
Conferences/seminars/workshops organized
2. 7th Indo-US Emergency Medicine Summit–2011 (INDUS-EM 2011), AIIMS, 30 September–2 October 2011. The collaborating partners were University of South Florida, USA and State University of New York, Downstate Medical Center, USA.

Lectures delivered at CME/National and International Conferences
Praveen Aggarwal: 5

PUBLICATIONS
Journals: 3 Book : 1

PATIENT CARE
Average no. of patients: 9,014 per month
Total number of Patients 1,08,173

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor Praveen Aggarwal was awarded the Fellowship of the Academic College of Emergency Experts in India (FACEE); continues to be the Chief co-Editor of the Journal of Emergencies, Trauma and Shock, an international journal, indexed in PubMed; elected as the Founding Dean of the Academic College of Emergency Experts in India.
(ACEE-India); nominated as Member, Scientific Body, Indian Pharmacopoeia Commission, Ministry of Health & Family Welfare, Government of India; nominated as Co-Chairman, Data Safety Monitoring Board for Clinical Trials Involving Stem Cells, All India Institute of Medical Sciences, New Delhi

Professor L.R. Murmu continues to be the Chief co-Editor of *Journal of Emergencies, Trauma and Shock*, an international journal, indexed in PubMed.
HIGHLIGHTS
The department runs daily outpatient facilities. It provides facilities such as bone density measurements and hormone assays to patients catered by other departments. The department has many academic activities such as Endocrine-pathology conference every two weeks, Endocrinology–Surgery–Nuclear medicine and Endocrinology–Radiodiagnosis meeting once every week. We hold DM seminar and journal club every week. The topics of utmost clinical importance and recent high impact articles, respectively, are discussed in these activities.

EDUCATION
The department has 11 DM students and 2 rotatory junior residents from the department of Medicine. In the preceding year two candidates completed their DM (Endocrinology) and two new candidates joined the department for DM (Endocrinology) course. One PhD student completed his degree and two new students have joined PhD course. Five candidates coming from various institutions of the country and two candidates of Germany completed short term training.

CME/Workshops/Symposia/National and International Conferences
2. ‘Diabetes of Young Registry’ in the workshop for participating centres of ICMR project, Delhi.

Lectures delivered: 28

RESEARCH
Funded projects

Completed
### 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, Merck, USA, 2009–14.


5. Childhood Obesity: Inflammatory markers, gene variation and epidemics, an association study in urban and rural areas of north India. N Tandon. DBT, 2011–14.


11. Th1 and Th2 expression pattern and HLA predisposition in patients with sporadic idiopathic hypoparathyroidism, R Goswami, DBT, 2011–14, Rs 48 lakhs.


### Collaborative Projects

#### Ongoing


PUBLICATIONS

Journals: 42

PATIENT CARE

The department of Endocrinology and Metabolism is one of the important clinical super specialty catering to diseases such as diabetes mellitus, thyroid dysfunction, pituitary disorders, disorders of adrenal, pancreas, growth, bone, reproduction and sexual differentiation.

The department runs daily morning OPD with two specialty clinics, viz., Paediatric Endocrinology and Diabetes of Young (DOY). Department have OPD on all six working days with two specialty clinics, Paediatric ad Adolescent Endocrinology clinic, PAEC (Every Monday, 2–5 pm) and Diabetes of Young clinic, DOY (Every Saturday 9 am to 1 pm). In addition to state of the art hormone and metabolic laboratory, there are two DEXA machines which provide facilities to patients following both endocrine and non endocrine services. In the preceding year a total of 66,558 hormone tests were done with breakup as follows:

<table>
<thead>
<tr>
<th>No.</th>
<th>Hormone</th>
<th>Tube assays</th>
<th>No</th>
<th>Hormone</th>
<th>Tube assays</th>
<th>No</th>
<th>Hormone</th>
<th>Tube assays</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>T4</td>
<td>10,875</td>
<td>9</td>
<td>DHEA</td>
<td>750</td>
<td>16</td>
<td>GH</td>
<td>747</td>
</tr>
<tr>
<td>2.</td>
<td>TSH</td>
<td>14903</td>
<td>10</td>
<td>OHP</td>
<td>348</td>
<td>17</td>
<td>GAD</td>
<td>258</td>
</tr>
<tr>
<td>3.</td>
<td>TPO</td>
<td>1568</td>
<td>11</td>
<td>ACTH</td>
<td>2100</td>
<td>18</td>
<td>FT4</td>
<td>756</td>
</tr>
<tr>
<td>4.</td>
<td>LH</td>
<td>3131</td>
<td>12</td>
<td>PTH</td>
<td>4682</td>
<td>19</td>
<td>IGF 1</td>
<td>124</td>
</tr>
<tr>
<td>5.</td>
<td>FSH</td>
<td>2965</td>
<td>13</td>
<td>VitaminD</td>
<td>5661</td>
<td>20</td>
<td>Ferritin</td>
<td>1069</td>
</tr>
<tr>
<td>6.</td>
<td>PRL</td>
<td>2144</td>
<td>14</td>
<td>INSULIN</td>
<td>5010</td>
<td>21</td>
<td>IA2</td>
<td>10</td>
</tr>
<tr>
<td>7.</td>
<td>CORTISOL</td>
<td>3831</td>
<td>15</td>
<td>C peptide</td>
<td>2657</td>
<td>22</td>
<td>T3</td>
<td>4682</td>
</tr>
<tr>
<td>8.</td>
<td>Testosterone</td>
<td>2978</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

April 2011 to March 2012

Endocrine OPD

<table>
<thead>
<tr>
<th>Month</th>
<th>New Cases</th>
<th>Old cases</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2011</td>
<td>758</td>
<td>1876</td>
<td>2634</td>
</tr>
<tr>
<td>May 2011</td>
<td>847</td>
<td>2008</td>
<td>2855</td>
</tr>
<tr>
<td>June 2011</td>
<td>874</td>
<td>1945</td>
<td>2819</td>
</tr>
<tr>
<td>July 2011</td>
<td>750</td>
<td>1957</td>
<td>2707</td>
</tr>
<tr>
<td>August 2011</td>
<td>653</td>
<td>2701</td>
<td>3354</td>
</tr>
<tr>
<td>September 2011</td>
<td>931</td>
<td>2136</td>
<td>3067</td>
</tr>
<tr>
<td>October 2011</td>
<td>704</td>
<td>1759</td>
<td>2463</td>
</tr>
<tr>
<td>November 2011</td>
<td>800</td>
<td>2005</td>
<td>2805</td>
</tr>
<tr>
<td>December 2011</td>
<td>726</td>
<td>2038</td>
<td>2764</td>
</tr>
<tr>
<td>January 2012</td>
<td>751</td>
<td>1920</td>
<td>2671</td>
</tr>
<tr>
<td>February 2012</td>
<td>845</td>
<td>2947</td>
<td>3792</td>
</tr>
<tr>
<td>March 2012</td>
<td>926</td>
<td>3261</td>
<td>4187</td>
</tr>
<tr>
<td>Total</td>
<td>9565</td>
<td>26553</td>
<td>36118</td>
</tr>
</tbody>
</table>
Biochemical investigations done in the Metabolic Laboratory for Patient Care (April 2011–March 2012)

<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>10954</td>
</tr>
<tr>
<td>2</td>
<td>Glycated haemoglobin</td>
<td>10892</td>
</tr>
<tr>
<td>3</td>
<td>Urine pH</td>
<td>400</td>
</tr>
<tr>
<td>4</td>
<td>Osmolality</td>
<td>350</td>
</tr>
</tbody>
</table>

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor N. Tandon was Member Technical Screening Committee of the SBIRI, Programme of DBT; Co-Chairman of the Task Force for Chronic Disease Biology – DBT; B.C. Guha Endorsement Lecture of the Indian Science Congress Association; Ramalingaswamy Memorial Lecture, Centre for Molecular Medicine, JNU; Vice-President of Nutritional Academy of Sciences; Elective Fellow of the National Academy of Medical Sciences; Participated in panel discussion as panelist on “Endocrinology – Doc my child is not growing”, 49th National Conference of the Indian Academy of Paediatrics, 18–21 January 2012, Gurgaon.

Dr 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 ICMR 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 Science; Awarded Fellowship of the National Academy of Science, Allahabad, India; Received Prestigious Dr RV Rajam Oration of the National Academy of the Medical Science; Member of the committee for screening Ramalingaswami Fellowship, DBT till date.

Dr Rajesh Khadgawat was awarded Best paper award in National conference of Gynae Endocrinology Society of India (GESI), 2011; Best paper (Oral) Award’ and AR Seth Award in Annual Conference of Endocrine Society of India (ESICON), Pune; First Prize, IJEM Annual Awards 2011 for Excellence in Endocrine Writing, Endocrine Society of India (ESI); Second Prize, IJEM Annual Awards 2011 for Excellence in Endocrine Writing, Endocrine Society of India (ESI).

VISITING SCIENTISTS

1. Professor Paul Saenger, a Paediatric Endocrinologist from New York, USA, delivered a talk on “GH therapy for GH deficient children”.

2. Professor Stuart Baird from Glasgow’s Southern General Hospital, UK, delivered a talk “Treatment and management of diabetic foot”.

3. Dr. K. N. Pandey, Professor, Department of Physiology, Tulane University, New Orleans, USA, delivered a talk on “Role of Natriuretic Peptide in Health and Disease”
HIGHLIGHTS
The department is an apex referral centre for complicated medicolegal problems. Cases are referred from various honorable courts all over India for opinion as well as by investigating agencies like CBI, State Crime Branch, Delhi Police and various state police. It is providing medicolegal services to South and Southeast Police District of Delhi. The department is actively engaged in imparting training to undergraduates, postgraduates and students of other universities all over India. Training is also provided in DNA Finger Printing and Toxicology. Ten departmental research projects are continuing and two have been completed. Clinical Forensic Medicine services are also provided by the department to various investigating agencies and courts. DNA profiling has also been done in selected cases. Toxicology laboratory services are provided for research and diagnosis. The department provides histopathology services in medicolegal autopsies conducted at AIIMS. The faculty took lectures at CBI Academy, Delhi Judicial Academy, NICFS and also in various training programmes. Thirteen research papers were published in various scientific journals. One faculty was awarded fellowship at UK and also visiting faculty at Cambridge (UK). Various conferences and cadaveric workshops were organized in collaboration with other departments. Professor Dogra continued as President of Indian Congress of Forensic Medicine and Toxicology (ICFMT). The faculty was also summoned by various honourable courts as court witness to assist and opine on medicolegal issues. A total of 2334 medicolegal autopsies were conducted by us and 1113 summons were attended including those related to CBI cases.

EDUCATION
The Department is actively engaged in undergraduate and postgraduate teaching. Currently, nine postgraduate (MD) students and three PhD students are enrolled in the department. The department is also imparting training in DNA-Fingerprinting and Toxicology to BSc/MSc students of other Indian Universities from all over India.

CONTINUING MEDICAL EDUCATION
1. AO Pelvis Course, organized in collaboration with Department of Orthopaedics
2. AO-CMF Course, organized in collaboration with Centre for Dental Education and Research
3. Cadaveric Rhinoplasty, organized in collaboration with Department of ENT
CME/Workshops/Symposia/National and International Conferences

Lectures delivered
TD Dogra: 5  SK Gupta: 3  Sanjeev Lalwani: 8  Adarsh Kumar: 5
Anupuma Raina: 5  Papers presented: 6

RESEARCH

Departmental projects

Completed
1. Qualitative and quantitative assessment of Aluminum and Zinc in fatal poisoning cases, reported at AIIMS mortuary using trace metal analyzer.
2. Qualitative and quantitative extraction of DNA from decomposed tissues.

Collaborative projects

Completed
1. Evaluation of vitreous humour as a biomatrix for the quantification of drugs and chemicals in postmortem forensic investigation.

Ongoing
1. Effect of acute and chronic exposure of combination of Triazophos and Butylated hydroxyanisde on oxidative stress related parameters in Wistar Rats.
2. Influence of exposure to combination of pesticides cypermethrin and endosulfan on sub cellular changes in viscera’s of Wistar Rats.
3. Identification of reliable source among forensic exhibits for individualization with STR markers in novel forensic situations.
4. Influence of exposure to combination of pesticide (Cypermethrin and Endosulfan) on subcellular changes in viscera of Wistar rats.
6. Histological study of conduction system of heart in sudden natural death cases.
7. Prevalence of Coronary atherosclerosis in young Indian Population – An autopsy study at AIIMS.
10. Study of various injuries in neck due to ligature pressure in cases of hanging.

PUBLICATIONS

Journals: 13  Books: 1

PATIENT CARE

Casualty Services
The department continued to provide round the clock coverage to the casualty in medicolegal cases in injury, sexual offences, poisoning and other complicated medicolegal cases. The department attends all the calls pertaining to medical examination in police and judicial custody.

Medicolegal postmortems performed: 1438 + 896 JPNATC = 2334
Doctors of the department also participated in board postmortems constituted by competent authorities including exhumation. Doctors of the department also attended court in CBI cases as an expert witness. Court attendance by the members of the department: 1113

AIIMS 2011-2012 / 104
Clinical Forensic Medicine
The department examined cases of age estimation, medical examination, marriage disputes, potency, DNA fingerprinting, etc., referred by honorable courts, CBI and other investigating agencies. 46 such cases were dealt in 2011–12.

DNA Fingerprinting
The department is providing training to the candidates of various universities. It is performing DNA fingerprinting test in selected medicolegal cases. Twenty-seven samples were analysed during 2011–12.

Medical Toxicology
Tests for various poisons, e.g. heavy metals, opiates, benzodiazepines and alcohol were done in the toxicology laboratory. 454 tests were conducted during 2011–12 in the toxicology laboratory.

COMMUNITY SERVICES
The department participated in training programmes for CBI officials, police officers, medical officers, judges, public prosecutors and forensic science experts from all over country.

FORENSIC PATHOLOGY
The department provides histopathology service for the samples of medico-legal autopsy cases in AIIMS and also for research purposes. Six hundred and twenty-five samples were analysed in histopathology laboratory.

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Best Poster Award for ‘Café coronary syndrome in young adult’, Conference SIMLA–2011, Kozhikode, Kerala, 2-4 September 2011, presented by K Krishna and authored by Kumar Adarsh, Bhardwaj DN.

Professor TD Dogra was Chief Guest at the inauguration of several workshops and valedictory functions organized by LNJN-NICFS.

Dr Adarsh Kumar was awarded Fellowship of the Royal Society of Medicine, London, UK under section Clinical Forensic and Legal Medicine and Commonwealth Academic Staff Fellowship at Dundee, UK.

Dr Anupama Raina was resource person in programme organized by Genomic Research Group, Department of Microbiology, UNNAB Nigeria.

Dr AK Jaiswal was awarded fellowship of the Indian Science Congress Association (FISCA) at Indore, India.
HIGHLIGHTS
The department organized World Hepatitis Day at the Jawaharlal Nehru Auditorium, AIIMS on 28 July 2012. On this occasion, public lectures were organized to increase the awareness of Viral Hepatitis in India. This has the potential to save many lives. The main message was that Hepatitis B and C, major causes of cirrhosis of liver and liver cancer in India, are preventable and treatable. This event was attended by more than 1000 patients, general public.

EDUCATION
Short term training
10 trainees had undertaken training during 2011–12 for a period 3 to 6 months.

Long term training
13 DM candidates, 6 PhD candidates.

CME/Workshops/Symposia/National and International Conferences
Lectures delivered: 49

RESEARCH
Funded projects
Completed
1. ICMR Centre of Excellence: Total fund 2 Crores
   - Anti tuberculosis therapy induced acute liver failure. S.K. Acharya, ICMR for 5 years.
   - Ammonia kinetics in acute liver failure. S.K. Acharya, ICMR for 5 years.
   - An insight into Pathogenesis of ‘Non-alcoholic fatty liver disease in Indian Patients’. S.K. Acharya, ICMR for 5 years.
2. Efficacy of daily iron folic acid supplementation in correction of iron deficiency anemia in children aged 3–5 years. Umesh Kapil, ICMR, for 2 years, Rs. 20 lakhs.
3. Validity of Spot Testing Kits in the Assessment of Iodine Content of Salt – A Multicentric Study. Umesh Kapil, MBI Kits, for 1 year, Rs. 4,98,520.
5. A Study of Mutational and Histopathological risk factors for Gallbladder Cancer in Patients with Gallstones. Pramod Garg, DBT, 3 years, Rs. 32 lakhs.
Ongoing

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

2. An open level responses adaptative study of Telbivudine in adults with HBeAg compensated chronic hepatitis B. S.K. Acharya, Novartis, for 3 years, Rs. 11.11 lakhs.

3. An open level responses adaptative study of Telbivudine in adults with HBeAg negative compensated chronic hepatitis B. S.K. Acharya, Novartis, for 3 years, Support of drugs and investigation.


5. Multicentric randomized controlled clinical trial of adefovir, adefovir + Lamivudine and combination of Adefovir and Glycyrrhizin in HBV related decompensated cirrhosis. S.K. Acharya, ICMR, for 3 years, Rs. 18.47 lakhs.

6. Natural Course of Immunotolent Patients with chronic HBV infection. S.K. Acharya, MSD, (Fulford India), for 3 years, Rs. 18,79,750.

7. 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), for 3 years, Rs. 42,27,933.

8. 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.

9. 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.

10. 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.

11. Resolution of Bitot’s spot after administration of megadose of Vitamin A in a cohort of children in 1–5 years of age with Bitot’s spot. Umesh Kapil, ICMR, for 2 years, Rs. 25 lakhs.

12. 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 aged 6–59 months. Umesh Kapil, ICMR, for 15 months, Rs. 54 lakhs.

13. Iodine Status in Three Regions of Uttrakhand State, India, Umesh Kapil, ICMR, for 2 years, Rs. 60 lakhs.

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

15. 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, for 2 years, Rs. 29 lakhs.

16. ‘Role of TNF-á in the pathogenesis of experimental acute pancreatitis and the effect of anti-TNF-á therapy in attenuating the severity of pancreatitis and in the subsequent regeneration of the pancreas’. Pramod Garg, ICMR, for 3 years, Rs. 29 lakhs.

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

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

20. A Phase 3, Randomised, Placebo-Controlled, Blinded, Multicentre Study of the Induction and Maintenance of Clinical Response and Remission by MLN0002 in Patients with Moderate to Severe Ulcerative Colitis. Vineet Ahuja, Millenium Pharma, Boston, MA, for 5 years, Rs. 5 lakhs approx.

21. A Phase 3, Randomized, Placebo Controlled, Blinded, Multicenter, Multiple Dose Study to Determine the Efficacy and Safety of MLN0002 for the Induction and Maintenance of Clinical Response and Remission in Patients with Active Crohn’s Disease. Vineet Ahuja, Millenium Pharma, Boston, MA, for 5 years, Rs. 5 lakhs approx.

22. 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 programmed. Govind Makaria, Central TB Division (Ministry of Health and Family Welfare), for 4 years, Rs. 57 lakhs.


24. Protocol for Correlating Enteropathic Severity and Small Intestinal CYP3A4 Activity in Patients with Celiac Disease. Govind K Makaria, Flamentera, AG (Switzerland), for 3 years, Rs. 11 lakhs.

25. Pathophysiology of paracellular permeability and tight junctions in the first degree relatives of patients with celiac disease. Govind K. Makaria, Department of Biotechnology, for 3 years, Rs. 43.82 lakhs.

26. Small intestinal and whole gut metagenome in patients with celiac disease, their first degree relatives and controls. Govind K. Makaria, Department of Biotechnology, for 2 years, Rs. 39.47 lakhs.

27. 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. Makaria, ICMR, for 2 years, Rs. 75.42 lakhs.

28. Detection of Markers of villous atrophy. Govind K Makaria, AIIMS (intramural grant), for 1 year, Rs. 5 lakhs.

**Departmental projects**

**Completed**

1. Acute Viral hepatitis in Diabetics: Evaluation of Natural course.
2. Three month treatment of chronic hepatitis – C with Interferon α2b and Ribavirine.
3. Hematological Abnormalities in Cirrhosis of liver.
4. Spleenectomy for hyperspleenism in cirrhosis.
5. Role of MRI in the evaluation of infected pancreatic necrosis for conservative treatment including non-surgical drainage.
6. Frequency, natural course, and predictors of resolution of acute fluid collections in acute pancreatitis.

**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
5. Comparison of Phenotype and Genotype of Young Patients with Chronic Pancreatitis from Different Geographical and Ethnic Background of the World: Implications for Etiopathogenesis.
6. To evaluate the pancreatic tissue perfusion and vascular changes and their inflammatory mediators in the pathogenesis of acute necrotizing pancreatitis in humans.
7. Cytokine profile in acute pancreatitis.
Collaborative projects

**Completed**

1. Role of surface promoter mutations in hepatitis B surface antigen production and secretion in occult hepatitis B virus infection.
2. Cellular and humoral immunity studies among patients with acute hepatitis E virus infection.
4. Effect of addition of short course of prednisolone to gluten free diet and gluten free diet alone in the recovery of clinical, histological and immunological features in naive adult patients with celiac disease: A pilot randomized controlled trial.
7. Screening of patients with functional bowel disease, short structure, metabolic bone disease, amenorrhea and infertility for celiac disease.

**Ongoing**

3. A randomized trial of endoscopic versus laparoscopic drainage of pancreatic pseudocysts. (Surgery).
4. 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. A randomized trial of surgery versus endoscopic therapy for chronic pancreatitis. (Department of GI Surgery).
6. Minimally invasive surgery (VARD) for infected pancreatic necrosis. (GI Surgery).
7. Role of perfusion CT scan in acute pancreatitis and pancreatic cancer. (Radiology).
8. Detection, identification and molecular characterization of Intestinal coccidia and Microsporidia in patients with chronic diarrhea and malabsorption syndrome. (Microbiology, PhD thesis).
9. Detection of Metabolic signature of patients with celiac disease using in-vitro 1H magnetic resonance spectroscopy.
10. A study for the search of biomarker for celiac disease using proteomics.
11. Basic constitution (Prakriti) analysis of patients with various stages of Non alcoholic fatty liver disease (NAFLD), chronic hepatitis B (CHB) and Celiac disease.
13. Familial prevalence amongst first and second degree relatives of patients with celiac disease.
14. Markers of villous atrophy

**PUBLICATIONS**

- Journals: 52
- Abstracts: 11
- Books: 2
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>1135</td>
<td>16991</td>
</tr>
<tr>
<td>Pancreas</td>
<td>507</td>
<td>2005</td>
</tr>
<tr>
<td>IBD and ulcer</td>
<td>363</td>
<td>2894</td>
</tr>
<tr>
<td>Interventional</td>
<td>357</td>
<td>273</td>
</tr>
</tbody>
</table>

Routine clinic

New cases: 16997
Old cases: 23223

Procedures

Diagnostic and therapeutic endoscopies: 14565
Diagnostic and therapeutic colonoscopies: 1765
Diagnostic sigmoidoscopies: 2050
EST and EVL: 3520
Side viewing endoscopy: 425
Endoscopic retrograde cholangiopancreatography: 2045
Endoscopic ultrasound (Diagnostic and therapeutic): 425

Tests done in the department

<table>
<thead>
<tr>
<th>Test</th>
<th>New cases</th>
<th>Old cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBV (Real Time PCR)</td>
<td>4500</td>
<td>150</td>
</tr>
<tr>
<td>HBV Basal Core Promoter (PCR)</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>HBV (PCR)</td>
<td>510</td>
<td>10</td>
</tr>
<tr>
<td>HCV RNA Real time PCR</td>
<td>1450</td>
<td>465</td>
</tr>
<tr>
<td>HCV Genotyping</td>
<td>100</td>
<td>300</td>
</tr>
<tr>
<td>Free radical antioxidant potential (FRAP)</td>
<td>1916</td>
<td>1916</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>1916</td>
<td>1916</td>
</tr>
<tr>
<td>Nitric Oxide</td>
<td>250</td>
<td>300</td>
</tr>
<tr>
<td>Total cholesterol</td>
<td>240</td>
<td>240</td>
</tr>
<tr>
<td>HDL</td>
<td>240</td>
<td>1916</td>
</tr>
<tr>
<td>Endotoxin assay</td>
<td>50</td>
<td>768</td>
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<tr>
<td>Serum Copper</td>
<td>733</td>
<td>766</td>
</tr>
<tr>
<td>Phagocyte function test (Flow cytometer)</td>
<td>22</td>
<td>300</td>
</tr>
<tr>
<td>CD4 (Flow cytometer)</td>
<td>300</td>
<td>240</td>
</tr>
<tr>
<td>IL23r (Real time PCR)</td>
<td>240</td>
<td>240</td>
</tr>
<tr>
<td>TGF-â¹ (Real time PCR)</td>
<td>240</td>
<td>240</td>
</tr>
<tr>
<td>Assay</td>
<td>Assay</td>
<td>Quantity</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>--------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>TGF-α³ (Real time PCR)</td>
<td>Z01 (Real time PCR)</td>
<td>240</td>
</tr>
<tr>
<td>HEV (ELISA)</td>
<td>HCV (ELISA)</td>
<td>96</td>
</tr>
<tr>
<td>Leptin (ELISA)</td>
<td>TtG-IGA (ELISA)</td>
<td>96</td>
</tr>
<tr>
<td>Melatonin (ELISA)</td>
<td>P16</td>
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<tr>
<td>Muc-4</td>
<td>Reg-4</td>
<td>20</td>
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<tr>
<td>TNF-α (ELISA)</td>
<td>IL-6 (ELISA)</td>
<td>192</td>
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<td>IL-1α (ELISA)</td>
<td>Adiponectin (ELISA)</td>
<td>192</td>
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<tr>
<td>Insulin (ELISA)</td>
<td>Glucose</td>
<td>96</td>
</tr>
<tr>
<td>SGPT</td>
<td>SGOT</td>
<td>888</td>
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<tr>
<td>Matrix Metalloproteinase-2 (ELISA)</td>
<td>Haemoglobin</td>
<td>192</td>
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<tr>
<td>Zonulin (ELISA)</td>
<td>IGg4</td>
<td>96</td>
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<tr>
<td>D-Xylose</td>
<td>Faecal Fat</td>
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</tr>
<tr>
<td>Faecal Chymotrypsin</td>
<td>Hydrogen Breath Test</td>
<td>113</td>
</tr>
<tr>
<td>Blood ammonia</td>
<td>Prothrombin time</td>
<td>305</td>
</tr>
<tr>
<td>DNA PCR product analysis (bioanalyzer)</td>
<td>DNA Purity (Pico drop)</td>
<td>60</td>
</tr>
<tr>
<td>Z01 (PCR)</td>
<td>Kras mutation (PCR)</td>
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<tr>
<td>p53 mutation (PCR)</td>
<td>GAPDH (PCR)</td>
<td>50</td>
</tr>
<tr>
<td>Tight junction proteins (Western blot)</td>
<td>Occludin</td>
<td>20</td>
</tr>
<tr>
<td>Claudin 2</td>
<td>Claudin 3</td>
<td>10</td>
</tr>
<tr>
<td>Junctional adhesion molecule</td>
<td>Z01</td>
<td>10</td>
</tr>
<tr>
<td>Myo9B</td>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Umesh Kapil** was elected President of Indian Association of Preventive and Social Medicine 2011–12; Nominated Member of the Advisory Panel of National Academy of Medical Sciences (NAMS) for assessing suitability of candidates for selection of Fellowship of the National Academy of Medical Sciences in the discipline Nutrition; Nominated Expert of WHO Expert Advisory Panel on Nutrition; Member, National Technical Specification Committee for procurement of Salt Testing Kits organized by Directorate General of Health Services, Nirman Bhawan, New Delhi; National Expert, Indian Council of Medical Research, New Delhi for proposed Centre at G. B. Pant University of Agriculture and Technology Pant Nagar, Uttarakhand to establish Center of Excellence in the Field of Nutrition; National Expert, Indian Council of Medical Research, New Delhi for proposed Centre at Government Medical College, Jammu to establish Center of Excellence in the Field of Nutrition; Member, Research Advisory Committee, Centre for Early Childhood Development and Research, Jamia Millia Islamia; Member, Steering Committee and Technical Advisor Group of the Translational Health Science and Technology Institute, Gurgaon for implementation and development of Practical and Scalable regimens to Medically Rehabilitate Children suffering from Severe Acute Malnutrition (SAM) without serious complications at Home/Community Level and/or at Peripheral Inpatient facilities; Member, Expert Committee constituted by the Ministry of Health and Family Welfare, Government of India to review the Iodization Policy of India; Co-Chairperson, ‘Action Group on Nutrition’, Ministry of Health and Family Welfare, Government of India, Nirman Bhawan, New Delhi; Member, Steering Committee to review progress of the project integrated Indian
Dr Pramod Garg was Associate Editor, Frontiers in Gastrointestinal Sciences; Contributing Associate Editor-in-chief of World journal of Gastroenterology.

Dr Govind Makharia was Steering committee member, World Digestive Health Day – 2012 by World Gastroenterology Organization; Member, ICMR Taskforce on celiac disease; Member, Drug Selection Committee, AIIMS; Editorial board, Indian Society of Gastroenterology; Coordinator Indian Society of Gastroenterology; Coordinator, Young Clinician Program, organized by Indian Society of Gastroenterology; Coordinator, Taskforce on Inflammatory Bowel Disease.

VISITING SCIENTISTS
1. Dr Sandeep Gupta, Prof. of Clinical Paediatrics and Medicine, Riley Hospital for Children USA, 6 April 2011.
2. Dr Rohit Loomba, USA, 22 November 2011.
4. Professor C.J.J. Mulder, Department of Gastroenterology, VU University Medical Center, Amsterdam, The Netherlands, 5 March 2012.
9.14 Gastrointestinal Surgery and Liver Transplantation

Professor and Head
T.K. Chattopadhyay (30.9.2011) Peush Sahni (w.e.f. 1.10.2011)

Associate Professors
Sujoy Pal Nihar Ranjan Dash

EDUCATION
The faculty of the department is involved in the didactic teaching program for undergraduates, surgical 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 observership for a period of one month to three months. Presently 13 MCh students and one observer are in the department. Dr Andrew Wandera of Moi referral and teaching hospital, Kenya joined as Observer for one year from January 2012.

Lectures delivered: 18

RESEARCH

Funded projects

Ongoing

Completed

Departmental projects

Ongoing
1. Posterior (SMA first) approach vs standard pancreatico-duodenectomy in patients with periampullary carcinoma: a prospective comparison
2. Concurrent vs sequential neoadjuvant chemo-radiotherapy followed by surgery in operable carcinoma of Gall bladder (up to stage IVA) patients: A pilot study.
3. Preoperative biliary drainage and surgery versus early surgery in obstructive jaundice due to periampullary and pancreatic head tumour: a randomized controlled trial.
5. Outcome following pyloric ring resecting pancreatico-duodenectomy versus classical Whipple’s pancreatico-duodenectomy: A randomized controlled trial.
10. Prospective evaluation of choledochoscopy for various biliary tract disorders.
11. Prospective evaluation of the role of intra-operative enteroscopy in the management of obscure gastrointestinal bleeding.

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


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

**Completed**

1. Role of neck ultrasound, CT and PET scan in assessment of cervical lymph node metastasis in middle third oesophageal carcinoma.
2. Wound infection after ileostomy closure: A prospective randomized study comparing primary versus circumferential subcuticular closure techniques.

**Collaborative Projects**

**Completed**

1. The role of endoscopic ultrasound in the evaluation of periampullary tumours (with Gastroenterology).

**Ongoing**

1. Role of PET/CT in response evaluation following neoadjuvant therapy and assessment of distant metastasis in patients with carcinoma gallbladder (with Medical Oncology, Radiotherapy and Nuclear Medicine).
2. Role of PET/CT in assessment of metabolic response of neoadjuvant chemo-radiotherapy in patients with carcinoma oesophagus (with 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 (with Gastroenterology).
4. Development of a device for faecal incontinence. (with Stanford-India Bio-design project)
5. Prospective study on the effect of lienorenal shunt on pericholedochal collaterals causing portal hypertensive biliopathy (with Gastroenterology)
6. A randomized controlled clinical trial of preoperative cholecysto-jejunostomy versus endoscopic stenting in surgical obstructive jaundice due to periampullary carcinoma (with Gastroenterology).
7. A randomized controlled trial comparing surgery versus endoscopic treatment for chronic pancreatitis (with Gastroenterology).
8. Functional outcome following necrotizing pancreatitis (with Gastroenterology).

**PUBLICATIONS**

**Journals:** 12  **Abstracts:** 8  **Chapters in books:** 1  **Books:** 1+1

**PATIENT CARE**

**OPD and specialty clinics**

New patients: 2047  Old patients: 5583

**Special laboratory facilities**

Anal manometry, oesophageal manometry, 24-hour ambulatory oesophageal pH monitoring

**Inpatients**

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

Total admissions: 724
Surgical procedures

Total number performed: 556

Elective: 399
Emergencies: 157

Biliary obstruction: 125
Portal hypertension: 64

Oesophageal cancer: 45
Carcinoma gall bladder: 29

Ulcerative colitis: 55
Upper GI haemorrhage: 16

Lower GI haemorrhage: 10
Acute pancreatitis: 16

Chronic pancreatitis: 15
Biliary strictures: 15

Pancreato-duodenectomy: 40
Liver resections: 25

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor T. K. Chattopadhyay delivered the Col. Pandalai oration during the annual conference of the Association of Surgeons of India at the ASICON meeting in 2010 in Delhi. He is Member, Task Force of Medical Council of India and continues to be Editor, G. I. Surgery Annual.

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, G. I. Surgery Annual. He is also Member of Specialty Board (Surgical Gastroenterology), National Board of Examination.

Dr Nihar Ranjan Dash was re elected for the third time and he continues as President, Ostomy Society of India. The 1500 plus member society offers selfless social service in terms of providing counseling and materials at no profit cost to the stoma patients. The society celebrated its 20th annual day on 14 November. Public lectures were organized.

VISITING SCIENTISTS

Dr M. Yamamoto, Professor and Head, Department of HPB Surgery, Tokyo Women’s University, Tokyo, Japan visited the department and delivered a lecture on ‘Management of hilar cholangiocarcinoma’.
9.15 Haematology

Professor and Head
R Saxena

Professor
HP Pati

Additional Professors
S.Tyagi
M Mahapatra

Associate Professor
Tulika Seth
Pravas Mishra

Scientist Gd. 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 haematological disorders. It was involved in routine diagnosis and management of patients with haematological disorders. Till date the department has completed 120 allogenic blood and marrow transplants for patients with aplastic anemia, thalassaemia, leukaemia and myelodysplastic syndrome. Autologous transplants for myelomas, acute myeloid leukaemias, lymphomas and one case of multiple sclerosis were also done. The outcome of the transplant from the unit has been comparable to the best in the world. The department coordinated the ISHTM-AIIMS EQAP programme for haemogram. It also interacted with NGOs such as National Thalassaemia Welfare Society and Haemophilic Federation of India.

The 1st State and Zonal Quiz for the national quiz held at the National Conference of the Indian Society of Hematology and Transfusion medicine was organized by the department.

Drs Renu Saxena and M. Mahapatra were visiting professors at University of Manitoba under the Partnership Development Seed Grant 2011–12 awarded by the Shastri Indo-Canadian Institute and funded by the Canadian International Development Agency on CLL. Drs Gibson and Johnston from University of Manitoba visited the department, delivered talks and interacted with DM students. The faculty members and students represented AIIMS at various prestigious national and international conferences including the ISHTM, annual API meeting, PEDICON, BTG Singapore, ISTM Taipei and the Excel program at London.

EDUCATION
The department offers DM courses in Clinical Haematology and Haematopathology. This year, one candidate passed DM Clinical Haematology and two passed the DM Haematopathology examination. Six residents are undergoing training in DM Clinical Haematology and four in DM Haematopathology. Six students are registered for PhD in Haematology.

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

Short-and long-term training
The department has provided training in the field of clinical and laboratory haematology to 31 doctors from other institutions for periods varying from 1 to 6 months. 98 MSc students also undertook short-term training in molecular haematology for periods varying from 1 to 6 months during this year.
CME/Workshops/Symposia/National and International Conferences
Organized by department

1. National consultative meet with ICMR, on Recent Advances on Management of Langerhans cell histiocytosis. 28 April 2012, AIIMS.
2. State and central zone quiz for the 1st ISHTM National Hematology Quiz for post graduates. PGI-ISHTM Chandigarh, PGI Hospital, Chandigarh, 10–12 November 2011.

Lectures delivered: 50

RESEARCH
Funded projects

Completed
1. Molecular Characterization and treatment of Acute Lymphoid Leukemia on protocol modified MCP 841. International Network for Cancer Treatment and Research. R. Saxena. INCTR, 200112. Rs. 4.5 lakhs per year.

Ongoing
1. Modulation of genes to understand the biology of stage progression in chronic myeloid leukemia patients. R. Saxena. ICMR, 2008–12. Rs. 8,90,000 per year.

Departmental projects

Completed
1. Study of Syndecan levels in CLL
2. Role of CD 34 and CD 3 in acute and chronic GVHD in hematopoietic stem cell transplant.
3. To evaluate role of Day 14 bone marrow biopsy in AML.

Ongoing
1. To evaluate role of npm1 mutation in AML by IHC.

Collaborative projects

Completed
1. To evaluate the efficacy of tranexamic acid in reducing perioperative blood loss and its effect on shunt patency in Lieno Renal Shunt surgeries – a prospective, randomized double blind, placebo control study (Anaesthesia).
2. Zinc as an immunomodulator in the treatment of possible serious bacterial infections in infants more than 7 days and up to 4 months of age (Paediatrics)
3. Evaluation of Platelet Receptor Polymorphism and Thrombogenic Mutation in Patients with Coronary Artery Disease (Cardiology).
4. Correlation of erythropoietin levels and serum transferrin receptor levels with other Hematological indices in patients with iron deficiency anemia in the third trimester of pregnancy (Obstetrics and Gynae).
5. Role of hepcidine receptor in anemia in newborns (Paediatrics).

**Ongoing**
1. Prevalence of Thrombotic thrombocytopenic purpura in systemic lupus erythematosus (Medicine)

**PUBLICATIONS**

**Journals: 36**

**Chapters in Books: 17**

**Books: 2**

**PATIENT CARE**

**In Patient Treatment**
The 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, 28 allogeneic transplants were performed successfully. The department also has a Day Care Centre for chemotherapy, procedures and blood product transfusions.

**Total inpatients: 852.**

**General wards (including emergency): 500**

**Private wards (old and new): 352**

**Haematology Day Care Centre**

<table>
<thead>
<tr>
<th>Month</th>
<th>Admission Transfusion</th>
<th>Blood Therapy</th>
<th>Chemo</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>630</td>
<td>264</td>
<td>156</td>
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<td>134</td>
<td>9</td>
<td>1</td>
<td>3</td>
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<td>630</td>
<td>715</td>
</tr>
<tr>
<td>May</td>
<td>768</td>
<td>298</td>
<td>195</td>
<td>41</td>
<td>5</td>
<td>155</td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>150</td>
<td>768</td>
<td>859</td>
</tr>
<tr>
<td>June</td>
<td>739</td>
<td>301</td>
<td>192</td>
<td>57</td>
<td>5</td>
<td>163</td>
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<td>1</td>
<td>5</td>
<td>120</td>
<td>739</td>
<td>854</td>
</tr>
<tr>
<td>July</td>
<td>817</td>
<td>328</td>
<td>272</td>
<td>53</td>
<td>0</td>
<td>161</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td>125</td>
<td>817</td>
<td>957</td>
</tr>
<tr>
<td>August</td>
<td>720</td>
<td>260</td>
<td>220</td>
<td>45</td>
<td>1</td>
<td>125</td>
<td>14</td>
<td>5</td>
<td>0</td>
<td>106</td>
<td>720</td>
<td>776</td>
</tr>
<tr>
<td>September</td>
<td>808</td>
<td>302</td>
<td>252</td>
<td>64</td>
<td>5</td>
<td>142</td>
<td>12</td>
<td>14</td>
<td>5</td>
<td>115</td>
<td>808</td>
<td>911</td>
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<tr>
<td>October</td>
<td>675</td>
<td>273</td>
<td>206</td>
<td>42</td>
<td>8</td>
<td>108</td>
<td>10</td>
<td>10</td>
<td>1</td>
<td>100</td>
<td>675</td>
<td>758</td>
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<tr>
<td>November</td>
<td>668</td>
<td>268</td>
<td>210</td>
<td>35</td>
<td>5</td>
<td>91</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>100</td>
<td>668</td>
<td>725</td>
</tr>
<tr>
<td>December</td>
<td>821</td>
<td>294</td>
<td>294</td>
<td>48</td>
<td>7</td>
<td>142</td>
<td>13</td>
<td>10</td>
<td>2</td>
<td>115</td>
<td>821</td>
<td>925</td>
</tr>
<tr>
<td>January</td>
<td>710</td>
<td>270</td>
<td>294</td>
<td>47</td>
<td>8</td>
<td>115</td>
<td>13</td>
<td>6</td>
<td>1</td>
<td>126</td>
<td>710</td>
<td>786</td>
</tr>
<tr>
<td>February</td>
<td>661</td>
<td>264</td>
<td>195</td>
<td>43</td>
<td>2</td>
<td>81</td>
<td>4</td>
<td>9</td>
<td>0</td>
<td>127</td>
<td>661</td>
<td>725</td>
</tr>
<tr>
<td>March</td>
<td>752</td>
<td>307</td>
<td>208</td>
<td>35</td>
<td>4</td>
<td>103</td>
<td>11</td>
<td>4</td>
<td>6</td>
<td>125</td>
<td>752</td>
<td>803</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8769</td>
<td>3429</td>
<td>2694</td>
<td>540</td>
<td>53</td>
<td>1520</td>
<td>119</td>
<td>76</td>
<td>32</td>
<td>1424</td>
<td>8769</td>
<td>9794</td>
</tr>
</tbody>
</table>

**Clinical Apheresis**

Single donor platelets: 1679  
Peripheral blood stem cell collection: 31
Outpatient department
The haematology OPD is on Monday/Wednesday/Friday from 9.30 am to 6.00 pm. Oncology patients are seen on Monday in the Haemato-oncology clinic (HO). The specialty care clinics, e.g. Haematopoietic Stem Cell Transplant clinic on Tuesday morning, Haemostasis Clinic (HC) on Thursday morning, and a Long Term Leukaemia survivor clinic on Saturday morning.

OPD census

<table>
<thead>
<tr>
<th>Cases</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>HO</th>
<th>HC</th>
<th>HA</th>
<th>CML</th>
<th>HS</th>
<th>HT</th>
<th>HL</th>
<th>Grand total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old</td>
<td>13203</td>
<td>7613</td>
<td>20816</td>
<td>5100</td>
<td>2805</td>
<td>1357</td>
<td>4050</td>
<td>1611</td>
<td>644</td>
<td>362</td>
<td>15929</td>
</tr>
<tr>
<td>New</td>
<td>5450</td>
<td>3330</td>
<td>8780</td>
<td>318</td>
<td>171</td>
<td>139</td>
<td>294</td>
<td>214</td>
<td>35</td>
<td>48</td>
<td>1219</td>
</tr>
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</table>

External Haematology Proficiency Testing Program
The programme is being conducted in the department in the basic parameters namely Hb. HCT, WBC, RBC, Retic, MCV, MCH, MCHC and Plt. alongwith P.S. assessment. The number of participating labs stood at about 910 in April 2011 which has risen to 1100 in the corresponding period in 2012. The program has received prominence due to its contribution in maintaining the accuracy and credibility of participating labs throughout India.

Laboratory Services
The department has a full-fledged haematology laboratory and conducted the following tests

Tests for anaemia

<table>
<thead>
<tr>
<th>Test</th>
<th>No.</th>
<th>Test</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPLC</td>
<td>1816</td>
<td>Sickling</td>
<td>79</td>
</tr>
<tr>
<td>G6PD</td>
<td>746</td>
<td>S Iron</td>
<td>2064</td>
</tr>
<tr>
<td>Coombs</td>
<td>364</td>
<td>PNH Gel card CD55/CD59</td>
<td>128</td>
</tr>
<tr>
<td>PNH (Ham’s test)</td>
<td>31</td>
<td>Plasma Haemoglobin</td>
<td>120</td>
</tr>
<tr>
<td>Osmotic Fragility/Incubated osmotic fragility</td>
<td>202</td>
<td>Urine hemosiderin</td>
<td>108</td>
</tr>
<tr>
<td>Heinz bodies</td>
<td>20</td>
<td>Hb electrophoresis</td>
<td>33</td>
</tr>
<tr>
<td>H inclusion</td>
<td>19</td>
<td>Iron stain</td>
<td>364</td>
</tr>
</tbody>
</table>

Haemogram and Biopsy

<table>
<thead>
<tr>
<th>Test</th>
<th>No.</th>
<th>Test</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemogram</td>
<td>22206</td>
<td>Reticulocyte count</td>
<td>7172</td>
</tr>
<tr>
<td>Bone marrow aspirate</td>
<td>2485</td>
<td>Biopsy</td>
<td>2260</td>
</tr>
<tr>
<td>Reticulin special stain</td>
<td>221</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tests for Hemostasis

<table>
<thead>
<tr>
<th>Test</th>
<th>No.</th>
<th>Test</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short screening coagulogram</td>
<td>5570</td>
<td>Factor assay</td>
<td>684</td>
</tr>
<tr>
<td>Inhibitors screening</td>
<td>300</td>
<td>Factor inhibitors assay</td>
<td>14</td>
</tr>
<tr>
<td>INR</td>
<td>3750</td>
<td>Lupus anticoagulant</td>
<td>2500</td>
</tr>
<tr>
<td>Platelet Function Test</td>
<td>1170</td>
<td>D. Dimer</td>
<td>1720</td>
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<tr>
<td>Proglob C</td>
<td>1203</td>
<td>Fibrinogen</td>
<td>580</td>
</tr>
<tr>
<td>Protein C</td>
<td>900</td>
<td>Protein S</td>
<td>900</td>
</tr>
<tr>
<td>Test</td>
<td>Code</td>
<td>Description</td>
<td>Price</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------</td>
<td>------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>APCR</td>
<td>900</td>
<td>AT-III</td>
<td>500</td>
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<tr>
<td>P2GP</td>
<td>1200</td>
<td>S. Homocysteine</td>
<td>350</td>
</tr>
<tr>
<td>VWD</td>
<td>340</td>
<td>DNA Parental detection</td>
<td>11</td>
</tr>
<tr>
<td>DNA: Carrier detection</td>
<td>44</td>
<td>FV Leiden</td>
<td>196</td>
</tr>
<tr>
<td>MTHFR</td>
<td>20</td>
<td>Clot solubility test</td>
<td>300</td>
</tr>
<tr>
<td>P2010</td>
<td>20</td>
<td>Thalassemia molecular test</td>
<td>52</td>
</tr>
<tr>
<td>Hemophilia B</td>
<td>05</td>
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</table>

**Tests for Leukaemia**

<table>
<thead>
<tr>
<th>Test</th>
<th>Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT PCR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CML</td>
<td>573</td>
<td>AML</td>
<td>168</td>
</tr>
<tr>
<td>ALL</td>
<td>73</td>
<td>JAK MPD</td>
<td>111</td>
</tr>
<tr>
<td>Cytochemistry</td>
<td>457</td>
<td>LAP</td>
<td>215</td>
</tr>
</tbody>
</table>

**Flow cytometry**

<table>
<thead>
<tr>
<th>Test</th>
<th>Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute leukemia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLPD</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD34</td>
<td>38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNH</td>
<td>244</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Platelet function disorders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>285</td>
<td>244</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Community Services**

The department provided consultative services to patients of thalassaemia, in coordination with National Thalassaemia Welfare Society. Care to haemophilia patients was provided in coordination with Haemophilia Federation of India.

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

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

Professor HP Pati continued to be General Secretary of ISHTM.

Dr M Mahapatra received prestigious Manorama Sapre Oration Award from Indian Society of Hematology and Blood Transfusion, 52nd annual meeting at Chandigarh, 10–12 November 2011; continued to be the Treasurer of ISHTM.
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

EDUCATION
The department runs a postgraduate degree programme for medical graduates, viz., MHA (Masters in Hospital Administration) which is in its 45th year of inception. It was started in February 1966, for the first time in India and has since been recognized as a distinct postgraduate discipline. The residency program in Hospital Administration focuses on ‘hands on’ training, where resident administrators man the ‘Control Room’ of the hospital, round the clock as ‘Duty Officers’, and coordinate all hospital activities after duty hours.

The department introduced a paradigm shift in the academic programme by launching Integrated Learning Modules for residents of the department from 1 January 2008. This includes lectures, discussions, problem based learning, case studies, journal club, seminars, etc. Various guest lectures were organised in the department to broaden the horizon of teaching.

Faculty members conducted several training programs for doctors working in various organizations including central and state governments, paramilitary forces and in various PSUs, such as IICM, Ranchi and private sector management institutes.

Short-and long-term training
1. Four students from Sikkim Manipal University, Sikkim, from July to September 2011.
2. Two students from Shri Ram Rai Institute of Sciences and Technology, Dehradun, from October 2011 to January 2012.
3. One management student from Faculty of Management Sciences, University of Delhi, from January to March 2012.
4. Twenty-four students from Division of Health Management, School of Medical Education, Mahatma Gandhi University, Kottyam, from 13 February 2012 to 1 March 2012.

CME/Workshops/Symposia/National and International Conferences
1. Workshop during 5th and 6th National Initiative on Patient Safety organized by Department of Hospital Administration, AIIMS, in collaboration with WHO – India office, New Delhi, 7–9 April 2011.
2. Workshop during 7th and 8th National Initiative on Patient Safety, organized by Department of Hospital Administration, AIIMS, in collaboration with WHO – India office, New Delhi, 17–19 August 2011.
3. CME on ‘Patient Safety’, organized by Department of Hospital Administration, AIIMS, at Govt. Medical College, Jammu, 20 August 2011.
4. ‘Healthcare Executive Management Development Programmes’, for senior Healthcare Professionals, organized by Department of Hospital Administration, AIIMS, in collaboration with WHO–India office, New Delhi, 18–23 December 2011.

5. International Conference on ‘Emergency Medical Service Systems- EMS-2012’, organized by Department of Hospital Administration, AIIMS, AIIMS, New Delhi, 9–11 February 2012, attended by 1300 experts and delegates from 27 countries.

6. The Department organised poster making, collage, and ceramic painting competition for creating awareness about Emergency Medical Service among medical students in the annual festival of AIIMS, Pulse, September 2011.

Lectures delivered

<table>
<thead>
<tr>
<th>Name</th>
<th>Lectures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shakti Kumar Gupta</td>
<td>8</td>
</tr>
<tr>
<td>D. K. Sharma</td>
<td>1</td>
</tr>
<tr>
<td>Sidhartha Satpathy</td>
<td>12</td>
</tr>
<tr>
<td>I. B Singh</td>
<td>2</td>
</tr>
<tr>
<td>Sanjay Arya</td>
<td>2</td>
</tr>
<tr>
<td>Aarti Vij</td>
<td>5</td>
</tr>
</tbody>
</table>

RESEARCH

Departmental projects

Completed

1. To study the Costing of Gastroenterology and Endoscopy Procedures at AIIMS.
2. To study the Security Management and Preparedness at AIIMS.
3. To study the Equipment Management System of sophisticated electro-medical equipment with reference to utilization at AIIMS.
4. To study the Faculty time utilization for research, education and patient care at AIIMS.

Ongoing

1. To study the disinfection and sterilization practices of medical equipment and instruments at AIIMS, 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 Main Hospital, AIIMS.
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.
7. Study to determine the prevalence and circumstances of needle stick injury (NSI) among health care workers at AIIMS, New Delhi.
8. Study of medic-co-legal documentation at JPNATC, AIIMS, and to develop a standard template for electronic medicolegaldocumentation.
9. Study on the training needs of nursing personnel at AIIMS and identification of preferred approaches to performance improvement.
10. 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.
11. Assessment of the training needs and developing the template for leadership development programme for healthcare executives.

PUBLICATIONS

| Journals: 1 | Abstract: 1 | Books: 1 |

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PATIENT CARE
The department is closely associated with 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 the patient care services by revamping the support services to aid in provision of a quality clinical service. Extensive renovations and upgradation of support services was carried out.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shakti Kumar Gupta was Elected Fellow of International Medical Sciences Academy; Chairman, Expert Committee for Formulation of National Ambulance Code for India under Ministry of Road Transport and Highways; Working Group on Emergency Care relating to Road Safety under Ministry of Road Transport and Highways; Member, Sub-Group on ‘Road Transport and Human Resource Management’ under the working group on Road Transport constituted by the Planning Commission for the Formulation of Twelfth Five-year Plan (2012–17); Working Group for development of the National Action Plan for Hospital Safety constituted by National Disaster Management Authority, New Delhi; Elected President, Research Foundation of Hospital and Healthcare Administration, New Delhi, for the second year 2011–12; Nominated Member of Board of Studies for the Master of Hospital Administration of the Siksha ‘O’ Anusandhan University, Bhubneshwar; Member, Expert team for the purpose of providing technical consultancy establishing EMS system under National Rural Health Mission, Govt. of Maharashtra; Expert, Selection Committee for selection of Medical Superintendents for Shaheed Hasan Khan Govt. Medical College, Mewat and Govt. Medical College for Women, Khanpur, Kalan; Member, Governing Council of NABH; Leader of delegation, Ministry of External Affairs, to conduct workshop for developing the course curriculum of MBBS students for Bhutan Institute of Medical Sciences, Thimbu, Bhutan. The syllabus has been prepared by experts from AIIMS; Programme Director, Workshop during 5th and 6th ‘National Initiative on Patient Safety’, Department of Hospital Administration, AIIMS, in collaboration with WHO-India, New Delhi, 7–9 April 2011; Workshop during 7th and 8th National Initiative on Patient Safety, Department of Hospital Administration, AIIMS, in collaboration with WHO-India office, New Delhi, 17 –19 August 2011; CME on ‘Patient Safety’, Department of Hospital Administration, AIIMS, Govt. Medical College, Jammu, 20 August 2011; Chairman, Scientific Working Group, draft Hospital Infection Control Guidelines, AIIMS, New Delhi, 5 October 2011; Programme Director, ‘Healthcare Executive Management Development Programmes’, for senior Healthcare Professionals, Department of Hospital Administration, AIIMS, in collaboration with WHO-India office, Indian Council for Agricultural Research, Pusa, New Delhi, 18–23 December 2011; Chairman, International Conference on ‘Emergency Medical Service Systems EMS-2012’, Department of Hospital Administration, AIIMS, 9–11 February 2012.

Professor D. K. Sharma served as Chairman/Member of various intra- as well as extra-mural policy making and 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; Invited as Chief Guest/Guest of honor/Guest faculty, etc., in various national and international symposia, workshops and conferences; Served as subject expert and member of selection committees of various organizations including State Public Service Commissions, Public sector undertakings, Medical Institutions, IITs, 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’ and ‘B’ staff; Nominated Chairman/Principal Member of various committees of Bureau of Indian Standards (BIS), India, on hospital planning, medical equipment, 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.

Professor Sidhartha Satpathy was Editor, Journal of Academy of Hospital Administration (JAHA); Member, Bureau of Indian Standards (MHR-14) involved in preparation/review of Indian Standards on Health Care Facilities; Expert member, National Accreditation Board for Education and Training (NABET) under aegis of QCI; Conducted office
assessment of several organizations to determine compliance with prescribed standards; Technical Committee for preparation of Detailed Project Report (DPR) on behalf of Educational Consultants of India (Ltd.) for setting up Medical College at Amarkantak, MP; Sectional Committee on Bio-medical Waste Management (MHD-22) at Bureau of Indian Standards (BIS); ‘Building Committee’ of National Brain Research Centre, Manesar an autonomous Institute of Dept. of Biotechnology, Ministry of Science and Technology, Govt. of India; Visited Gandhar NTPC Project Hospital near Baroda as expert committee member for assessment of hospitals for ‘Best Health Care Service Awards’; Visited NTPC Project Hospitals at Unchahar, Singrauli, Korba and Kahalgaon as expert committee member for assessment of hospitals for ‘Best Health Care Service Awards’; Attended meeting for DPR establishment Medical College and Hospital at IGNTU, Amarkantak, Madhya Pradesh (Technical Expert).

**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; Expert Technical Evaluation Committee to expedite evaluation of recommendations of inspection team constituted under the Central Scheme of Strengthening and Up-gradation of State Government Medical Colleges by central funding during Twelfth plan for increasing PG seats/systeming new courses; Member, Committee for Medical Care Arrangements for the ‘Fourth BRICS Summit’ held in New Delhi, 28–29 of March 2012; Visited Coal India Ltd., Ranchi as resource faculty as well as Chief Guest for concluding and valedictory sessions in ‘Hospital Management and Administration Training Programme’ for training of senior doctors, 30 January–3 March 2012.

**Dr Sanjay Arya** was invited by Jawaharlal Nehru University, New Delhi for viva-voce examination in connection with PHD thesis, 21 April 2011; External Examiner at NIHFW for Certificate Course in Hospital Administration through Distance Learning, 8 August to 12 August 2011.

**Dr Aarti Vij** was Member, Standing Committee of Ministry of Health and Family Welfare, Govt. of India to review Life Saving Drugs, Kits and Equipments specified for Custom Duty Exemption/Reduction; Organized Ist Orientation Programme for Officers of Delhi Police on Organ Donation issues, New Delhi, 29 October 2011; Organized National Consultation on Screening of Potential Multi Organ Donor, AIIMS, 26 November 2011; Organising Secretary, Indian Organ Donation Day 2011, organized by AIIMS under aegis of Directorate General of Health Services, Ministry of Health and Family Welfare, Govt. of India, New Delhi, 28 November 2011; Organized 2nd Orientation Programme for Officers of Delhi Police on Organ Donation issues, AIIMS, 22 February 2012; Expert in the Scientific Working Group Meeting to frame guidelines for National policies on Patient Safety, Infection Control and Accident Prevention, organized by Department of Hospital Administration, AIIMS, in collaboration with WHO–India Office, Goa, India, 21–24 April 2011; Attended ‘Commemorative Programme for those noble departed souls, who by donating their eyes, illuminated the worlds of corneal blind persons’, organized by Dr Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS.
HIGHLIGHTS
Laboratory Medicine is the principal and central laboratory of AIIMS which caters to hospital and emergency services of various centres. The department has performed 84,58,289 investigations this year in its Clinical Chemistry, Clinical Haematology, Clinical Microbiology and Clinical Pathology sections. The department is ready for implementation of the LIS system at AIIMS. The department imparted education to MBBS, MD, PhD and Nursing students as also training to a number of residents from Departments of Pathology and Biochemistry and trainees from other colleges/institutes. Four international scientists of repute visited the department. The department has conducted three Workshops/CME programs. The faculty delivered lectures as keynote speaker and chaired sessions on relevant topics in various national and international conferences. Senior and Junior Residents presented papers and posters at international conferences held in India and abroad. The faculty continued to draw grants from a wide array of funding agencies including ICMR, DST, DBT, WHO, etc. The faculty also brought accolades to the department and AIIMS by securing national and international awards, delivering orations and being nominated on committees of various awards and selections, as detailed below.

The Clinical Biochemistry Division is set-up to receive more than 1000 patients’ blood samples each day for investigations. To streamline the process, every effort is made to produce quality test results and reporting on time. For this, computerized registration, on-line reporting, easy accessibility to patients’ reports, etc., are in the process of evolution. Moreover, all analytical procedures in this set-up are being controlled and monitored by external and internal quality control programs with the help of international agencies. This set-up is under process of accreditation by NABL.

The TB Laboratory has been accredited by Central TB Division of the Government of India.

EDUCATION
Short-term training
Seven trainees, one from Jamia Millia Islamia, New Delhi, four from Jiwaji University, Gwalior, and one each from Kurukshetra University, Haryana, and Vikram University, Ujjain, underwent short-term training in different sections. The last 6 trainees opted for training only in Clinical Microbiology and Molecular Biology.

CME/Workshops/Symposia/National and International Conferences
1. Clinical Haematology section organized a day long workshop on Prevention of pre-analytical error, 22 February 2012.
2. Clinical Microbiology Section organized MULTIPLEX PCR (Rapid Molecular test for detection of TB), 4–6 May 2011.
3. Clinical Microbiology Section organized CRYSTAL TB confirm immune-chromatographic rapid visual test for detection and confirmation of M. tuberculosis from cultures, 2–3 May 2011.

AIIMS 2011-2012/ 125
Lectures delivered: 17  
Papers presented: 11

RESEARCH

Funded projects

Completed

2. Cloning, sequencing and expression of different genomic regions of transfusion transmitted virus (TTV) prevalent in Indian population. M. Irshad, ICMR, 2008–10, Rs. 27 lakhs.
6. Genotyping of mycobacterium tuberculosis isolates from an endemic area of Delhi and determining their transmission dynamics in the household contacts and the community using molecular methods. Sarman Singh, ICMR, 2007–11, Rs. 47,41,150.

Ongoing

2. Effect of Yoga on Serum Interleukin Levels in Adolescents with Depression. AK Mukhopadhyay, CCRYN, 2008–11, Rs. 21.46 lakhs.
3. The role of neurotrophins, cytokines and genetic polymorphisms in clinical manifestation of depression in adolescents. AK Mukhopadhyay, DBT, 2010–13, Rs. 35.99 lakhs.
4. The study of mitochondrial mutations, mitochondrial function and oxidative stress in Parkinson’s Disease. AK Mukhopadhyay, DBT, 2011–2014, Rs. 35.67 lakhs.
5. To develop a single step multiplex real time PCR (RT-PCR) for the detection of A–G hepatitis viral infections in patients’ blood. M. Irshad, ICMR, 2012–13, Rs.16.30 lakhs.
9. Zinc supplementation in childhood tuberculosis patients in Delhi, India. Sarman Singh, University of Norway, 2007–12, Rs. 42 lakhs.
10. Doctor’s office diagnostic instrument for detection of M. tuberculosis in field conditions adapted for use by unskilled personnel. Sarman Singh, DBT, 2009–12, Rs. 11.5 lakhs.
Sarman Singh, DBT, 2011–14, Rs. 63 lakhs.
18. Detection and differentiation of visceral leishmaniasis (VL) and post kala-azar-dermal-Leishmaniasis (PKDL) causing strains of leishmania donovani in clinical samples. Sarman Singh, AIIMS, Rs. 1 lakh.

Departmental projects

Ongoing
1. Insulin resistance in liver diseases.
2. Role of TTV in renal failure patients.
3. Epidemiological studies on CRF in Indian Communities.
5. Genotyping of TTV in Indian population.
6. Real time PCR for sero detection of HCV genotypes.
7. Significance of HCV-genotypes in Cirrhosis/HCC.
8. Multiplexing assays for hepatitis viruses.
9. Significance of ARF-protein (HCV) in HCC.
10. Transmission rate of HBV and HCV in family members of dually infected patients (with Gastroenterology).
12. Comparative evaluation of various PCR primers for the rapid and sensitive diagnosis of tuberculosis.
13. Standardization and evaluation of Multiplex PCR for the species specific diagnosis of various Mycobacterial infections.
14. Prevalence and treatment response of coccidian parasitic infections in HIV positive patients at AIIMS (with Department of Medicine).
15. To study reintroduction of anti-tuberculosis drugs and risk factors for anti-tuberculosis treatment induced hepatotoxicity (with Medicine).
16. Study of Mycobacteremia in patients with miliary and extrapulmonary and tuberculosis (with Medicine).
17. To study the prevalence of ESBL of urinary pathogens using disk diffusion method and e-Test.
18. To study the immune response in acute Toxoplasmosis using Western Blot Method.
20. Comparative evaluation of various TORCH test kits.
22. Toxoplasma gondii IgG avidity assays in pregnant women attending AIIMS.
23. Sequence based diagnosis of Mycobacterial isolates from HIV positive and HIV negative patients.
24. Nested polymerase chain reaction for the diagnosis of congenital CMV infection.
25. Opportunistic infections in AIDS patients attending AIIMS.

Collaborative projects
1. Correlation between first trimester glucose screening and serum insulin levels with development of gestational diabetes mellitus in pregnancy. (Laboratory Medicine and Endocrinology and Metabolism).
2. A multicentric study on Chronic Renal Failure (CRF) in Indian population. (Laboratory Medicine and Nephrology).
PUBLICATIONS
Journals: 20  Abstracts: 8  Chapters in books: 5

PATIENT CARE
Centralised Blood Collection facility: 84,58,289

I. Phlebotomy
Total number of phlebotomy and sample (Primary and Post Prandial): 74,789

II. Distribution of blood Samples
To Dept of Lab Medicine
Cl. Chemistry Section: 56,204  Cl. Haematology Section: 48,974
Cl. Microbiology Section: 2,521  Cl. Pathology: 157

To Laboratories outside the department
CNC: 6,755  Department of Microbiology: 10,060
Department of Transfusion Medicine: 2,409

III. Investigations Performed
Bleeding time, Clotting time: 580  Prothrombin time: 5,115
Total: 5,695

Emergency Laboratory Service (Round the clock)

Critical Care Laboratory

Clinical Biochemistry

<table>
<thead>
<tr>
<th>Test</th>
<th>Number</th>
<th>Haemogram and Body fluids</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amylase:</td>
<td>35251</td>
<td>TLC:</td>
<td>107703</td>
</tr>
<tr>
<td>Bilirubin (Total):</td>
<td>70208</td>
<td>Platelets:</td>
<td>107703</td>
</tr>
<tr>
<td>Calcium (Total):</td>
<td>117852</td>
<td>Prothrombin time:</td>
<td>34060</td>
</tr>
<tr>
<td>Calcium (Ionized):</td>
<td>117852</td>
<td>Malarial parasite:</td>
<td>2199</td>
</tr>
<tr>
<td>Chloride:</td>
<td>117852</td>
<td>CSF cells:</td>
<td>8337</td>
</tr>
<tr>
<td>Creatinine:</td>
<td>103425</td>
<td>Urine:</td>
<td>1077</td>
</tr>
<tr>
<td>Glucose:</td>
<td>14912</td>
<td>Micro. CSF:</td>
<td>2219</td>
</tr>
<tr>
<td>pH:</td>
<td>117852</td>
<td>Gram Stain:</td>
<td>1080</td>
</tr>
<tr>
<td>Potassium:</td>
<td>117852</td>
<td>Slide Stain, Giemsa:</td>
<td>1531</td>
</tr>
<tr>
<td>Sodium:</td>
<td>117852</td>
<td>Stool. Hanging Drop:</td>
<td>255</td>
</tr>
<tr>
<td>Urea:</td>
<td>103425</td>
<td>MCV:</td>
<td>–</td>
</tr>
<tr>
<td>ABG:</td>
<td>21022</td>
<td>MCH:</td>
<td>107703</td>
</tr>
<tr>
<td>Hct:</td>
<td>21022</td>
<td>MCHC:</td>
<td>107703</td>
</tr>
</tbody>
</table>
tHb: 21022  PCV: 107703
O₂ Hb: 21022  RBC: 107703
CO Hb: 21022  Total: 8,10,909
Met. Hb: 21022
Na⁺: 21022
K⁺: 21022
Cl⁻: 21022
Ca²⁺: 21022
Total: 14,60,087
Grand Total: 22,70,996

Note: Arterial blood gas (ABG) includes pH, pCO₂, pO₂, BE, BEecf, BB, HCO₃⁻, st HCO₃⁻, TCO₂, st. pH, CH⁺, O₂ saturation, A-aDO₂, RQ, dBE/dTHb, all measured as a single test within the same time frame

Clinical Biochemistry Section

<table>
<thead>
<tr>
<th>Test</th>
<th>Blood</th>
<th>Urine</th>
<th>Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar:</td>
<td>1,40,000</td>
<td>232</td>
<td>1,204</td>
</tr>
<tr>
<td>Urea:</td>
<td>2,56,102</td>
<td>240</td>
<td>–</td>
</tr>
<tr>
<td>T. Protein:</td>
<td>2,48,952</td>
<td>–</td>
<td>1,204</td>
</tr>
<tr>
<td>Albumin:</td>
<td>2,48,952</td>
<td>–</td>
<td>1,204</td>
</tr>
<tr>
<td>24h Albumin:</td>
<td>–</td>
<td>39,300</td>
<td>–</td>
</tr>
<tr>
<td>Bilirubin:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Total:</td>
<td>2,44,502</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>ii) Conj.</td>
<td>2,44,502</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Alk. Phosphatase:</td>
<td>2,36,100</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Cholesterol:</td>
<td>60,703</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Na:</td>
<td>2,40,532</td>
<td>3,600</td>
<td>–</td>
</tr>
<tr>
<td>K:</td>
<td>2,40,532</td>
<td>3,600</td>
<td>–</td>
</tr>
<tr>
<td>Calcium:</td>
<td>1,72,401</td>
<td>5,152</td>
<td>–</td>
</tr>
<tr>
<td>Phosphate:</td>
<td>1,73,432</td>
<td>5,152</td>
<td>–</td>
</tr>
<tr>
<td>Uric Acid:</td>
<td>1,69,105</td>
<td>3,905</td>
<td>–</td>
</tr>
<tr>
<td>Amylase:</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Creatinine:</td>
<td>2,30,112</td>
<td>12,240</td>
<td>–</td>
</tr>
<tr>
<td>SGOT:</td>
<td>2,36,901</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>SGPT:</td>
<td>2,36,901</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>ABG:</td>
<td>801</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Total:</td>
<td>33, 86, 137</td>
<td>73, 421</td>
<td>3,612</td>
</tr>
</tbody>
</table>

Note: Arterial blood gas (ABG) includes pCO₂, pH, pO₂, HCO₃⁻, CO₂, AsDO₂, O₂ sat., BE, all measured as a single test within the same time frame
### Tests on request

<table>
<thead>
<tr>
<th>Test</th>
<th>Number</th>
<th>Test</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBsAg</td>
<td>500</td>
<td>IgM anti HBc</td>
<td>500</td>
</tr>
<tr>
<td>HBeAg</td>
<td>500</td>
<td>Anti HCV</td>
<td>1000</td>
</tr>
<tr>
<td>Anti HEV</td>
<td>300</td>
<td>IgM Anti HDV</td>
<td>200</td>
</tr>
<tr>
<td>IgM Anti HAV</td>
<td>300</td>
<td>HCV- RNA</td>
<td>1500</td>
</tr>
<tr>
<td>TTV-DNA</td>
<td>700</td>
<td>Superoxide dismutase</td>
<td>200</td>
</tr>
<tr>
<td>T. Antioxidant</td>
<td>200</td>
<td>Apoprotein A</td>
<td>200</td>
</tr>
<tr>
<td>Apoprotein B</td>
<td>200</td>
<td>Lp(a)</td>
<td>200</td>
</tr>
<tr>
<td>CK</td>
<td>200</td>
<td>LDH</td>
<td>200</td>
</tr>
<tr>
<td>GGT</td>
<td>200</td>
<td>TG</td>
<td>200</td>
</tr>
<tr>
<td>LDLC</td>
<td>200</td>
<td>HDLC</td>
<td>200</td>
</tr>
<tr>
<td>MDA</td>
<td>200</td>
<td>GPO</td>
<td>200</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>7,700</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grand Total:</strong></td>
<td><strong>34,70,870</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Services from room no. 18

- **Adenosine Deaminase assay (ADA)**: 1699 Neurocysticercosis 121

**Total:** 1820

### Miscellaneous: New Investigations

- **Vit B₁₂**: 366 Folate 315
- **Ferritin**: 142

### Tumour Marker

- **iPTH**: 129 CEA 83
- **CA 19-9**: 59 CA 15-3 46

### DIC study

- **APTT**: 1111 TT 469
- **D. Dimer**: 341

**Total** 3056

**Grand Total** 4876

### Haematology section

<table>
<thead>
<tr>
<th>Test</th>
<th>OPD</th>
<th>Ward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hb</td>
<td>87889</td>
<td>73860</td>
</tr>
<tr>
<td>TLC</td>
<td>87889</td>
<td>73860</td>
</tr>
<tr>
<td>PCV</td>
<td>87889</td>
<td>73860</td>
</tr>
<tr>
<td>Test</td>
<td>O.P.D</td>
<td>WARD</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>DLC</td>
<td>87889</td>
<td>73860</td>
</tr>
<tr>
<td>ESR</td>
<td>74988</td>
<td>44595</td>
</tr>
<tr>
<td>D/M</td>
<td>87889</td>
<td>21473</td>
</tr>
<tr>
<td>PLT</td>
<td>87889</td>
<td>73860</td>
</tr>
<tr>
<td>Retic Count</td>
<td>13674</td>
<td>10328</td>
</tr>
<tr>
<td>ABS Count</td>
<td>25724</td>
<td>–</td>
</tr>
<tr>
<td>MP</td>
<td>48507</td>
<td>13372</td>
</tr>
<tr>
<td>RDW</td>
<td>87889</td>
<td>73860</td>
</tr>
<tr>
<td>MCV</td>
<td>87889</td>
<td>73860</td>
</tr>
<tr>
<td>MCH</td>
<td>87889</td>
<td>73860</td>
</tr>
<tr>
<td>MCHC</td>
<td>87889</td>
<td>73860</td>
</tr>
<tr>
<td>RBC</td>
<td>87889</td>
<td>73860</td>
</tr>
<tr>
<td>PT</td>
<td></td>
<td>12384</td>
</tr>
<tr>
<td>Others*</td>
<td>18560</td>
<td>12350</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1148232</strong></td>
<td><strong>853102</strong></td>
</tr>
<tr>
<td><strong>Grand Total:</strong></td>
<td><strong>20,01,334</strong></td>
<td></td>
</tr>
</tbody>
</table>

* 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.

**Microbiology section**

**Routine Investigations**

1. **Urine**

<table>
<thead>
<tr>
<th>Name of the Tests</th>
<th>O.P.D</th>
<th>WARD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical board</td>
<td></td>
<td></td>
<td>9010</td>
</tr>
<tr>
<td>Routine</td>
<td>31632</td>
<td>27526</td>
<td>59158</td>
</tr>
<tr>
<td>Microscopic</td>
<td>28830</td>
<td>27526</td>
<td>56356</td>
</tr>
<tr>
<td>pH</td>
<td>28830</td>
<td>27526</td>
<td>56356</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>28830</td>
<td>27526</td>
<td>56356</td>
</tr>
<tr>
<td>Acetone</td>
<td>28830</td>
<td>27526</td>
<td>56356</td>
</tr>
<tr>
<td>Bile pigment/salt</td>
<td>28830</td>
<td>27526</td>
<td>56356</td>
</tr>
<tr>
<td>Urobilinogen</td>
<td>28830</td>
<td>27526</td>
<td>56356</td>
</tr>
<tr>
<td>Blood</td>
<td>28830</td>
<td>27526</td>
<td>56356</td>
</tr>
<tr>
<td>Bence Jones Protein</td>
<td>411</td>
<td>121</td>
<td>532</td>
</tr>
<tr>
<td>Chyluria</td>
<td>78</td>
<td>91</td>
<td>169</td>
</tr>
<tr>
<td>Porphobilinogen</td>
<td>30</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>Test</td>
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<tr>
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<tr>
<td><strong>Myoglobinuria</strong></td>
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<td><strong>Microalbumin</strong></td>
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<td><strong>Urine Cultures</strong></td>
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<td><strong>Antibiotic Sensitivity</strong></td>
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<td><strong>Subtotal</strong></td>
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2. **Stool Investigations**

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<tbody>
<tr>
<td>Wet mount saline</td>
<td>17787</td>
<td>6627</td>
<td>24414</td>
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<tr>
<td>Wet Iodine stain</td>
<td>17787</td>
<td>6627</td>
<td>24414</td>
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<tr>
<td>Occult blood in stool</td>
<td>1935</td>
<td>704</td>
<td>2639</td>
</tr>
<tr>
<td>Fat globules</td>
<td>271</td>
<td>201</td>
<td>472</td>
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<tr>
<td>Special stains for stool Z-N stain, Modified Z-N stain, Trichrome and chromotope</td>
<td>1392</td>
<td>1164</td>
<td>2556</td>
</tr>
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<td><strong>Subtotal</strong></td>
<td>39172</td>
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3. **Semen analysis**

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<td>Routine</td>
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<tr>
<td>No. of Reactions</td>
<td>2466</td>
<td>–</td>
<td>2466</td>
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<tr>
<td>Motility</td>
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<td>2466</td>
</tr>
<tr>
<td>Count</td>
<td>1817</td>
<td>–</td>
<td>1817</td>
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<tr>
<td>Fructose</td>
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<td>–</td>
<td>649</td>
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<tr>
<td>Morphology</td>
<td>1817</td>
<td>–</td>
<td>1817</td>
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<tr>
<td><strong>Subtotal</strong></td>
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4. **Sputum analysis**

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<td>Z-N Staining for AFB</td>
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**Specialised Investigations**

**Serology and Molecular Biology**

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</thead>
<tbody>
<tr>
<td><strong>TORCH</strong></td>
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<tr>
<td>Toxoplasma gondii IgG</td>
<td>2094</td>
<td>Toxoplasma gondii IgM</td>
<td>2130</td>
</tr>
<tr>
<td>Rubella IgG</td>
<td>239</td>
<td>Rubella IgM</td>
<td>261</td>
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<tr>
<td>Cytomegalovirus IgG</td>
<td>500</td>
<td>Cytomegalovirus IgM</td>
<td>519</td>
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<tr>
<td>Herpes Simplex virus IgG</td>
<td>236</td>
<td>Herpes Simplex virus 2 IgG</td>
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<tr>
<td>Herpes Simplex virus (1+2) IgM</td>
<td>245</td>
<td>Toxoplasma gondii IgG avidity</td>
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<td>Rubella IgG avidity</td>
<td>24</td>
<td>Cytomegalovirus IgG avidity</td>
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<td>Parvo virus B19 IgG</td>
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<td>Parvo virus B19 IgM</td>
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<td><strong>Sub Total</strong></td>
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<tr>
<td>Viral Marker and HIV</td>
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<td></td>
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<tr>
<td>---------------------------------------------------------</td>
<td>------</td>
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<tr>
<td>Anti HAV IgM</td>
<td>476</td>
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<td>Anti HBc IgM</td>
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<td>Anti HBe</td>
<td>333</td>
<td>Anti HBs</td>
<td>362</td>
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<td>Anti HCV antibody</td>
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<td>HBsAg (spot)</td>
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<tr>
<td>HCV (spot)</td>
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<td><strong>Subtotal</strong></td>
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<tr>
<td>Measles IgG</td>
<td>53</td>
<td>Measles IgM</td>
<td>38</td>
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<tr>
<td>Mumps IgG</td>
<td>8</td>
<td>Mumps IgM</td>
<td>8</td>
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<tr>
<td>Varicella IgG</td>
<td>121</td>
<td>Varicella IgM</td>
<td>112</td>
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<tr>
<td>EBV IgG</td>
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<td>EBV IgM</td>
<td>123</td>
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<td>Malaria Ag</td>
<td>20</td>
<td>HHV-6 IgG</td>
<td>100</td>
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<td>HHV-7 IgG</td>
<td>100</td>
<td>HHV-8 IgG</td>
<td>100</td>
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<tr>
<td>Dengue</td>
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<td>Latex Agg</td>
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<td>TBlgG/IgM/IgA</td>
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<td>Leishmania PCR</td>
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<tr>
<td>TB PCR</td>
<td>9413</td>
<td>HHV-6 PCR</td>
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<tr>
<td>EBV PCR</td>
<td>106</td>
<td>HSV (192) PCR</td>
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<tr>
<td>CMV (RT PCR)</td>
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<td>HBV DNA Quantitative</td>
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<td>HCV RNA Quantitative</td>
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<td>HIV Viral Load (NASBA)</td>
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<td>Miscroscopy for L.D</td>
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<tr>
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<td>AFB microscopy performed</td>
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AIIMS 2011-2012/ 133
<table>
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<td>ZN staining</td>
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<td>AR staining</td>
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<td>Mycobacterial culture and maintenance</td>
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<td>performed</td>
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<td>LJ medium inoculated</td>
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<td>BACTEC MGIT 960 inoculated</td>
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<td>Drug susceptibility testing performed</td>
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<td>BACTEC MGIT 960</td>
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<td>Agar Proportionate method</td>
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<tr>
<td>Tetrazolium Microplate assay</td>
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<td>Biochemical analysis performed</td>
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<tr>
<td>Tuberculin Skin Test Performed (PPD)</td>
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<td>TB Culture confirmation test performed by</td>
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<td>Line Probe assay (HAIN’S Test)</td>
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<td>Cultures cryopreserved</td>
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<td>susceptibility)</td>
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**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor A.K. Mukhopadhyay** is Selection Committee Member of IGNOU; delivered Professor S. N. Sengupta Memorial Oration at Bankura Sammilani Medical College, West Bengal, on Teacher’s Day; Honoured Member of Nominating Council for 2011 BBVA Foundation Frontiers of Knowledge Awards, Spain; As in previous two years honoured as member of Nominating Council for Infosys Science Foundation Award, 2011; Project evaluator for ‘Budding innovator’s award and Innovation award of the year’ of National Research Development Corporation, An Enterprise of DSIIR, Ministry of Science and Technology, Government of India; Resource person, International Workshop in developing a syllabus on ‘Biologically Inspired Systems Science’ at Jodhpur, IIT; Partner in activity of collating knowledge, Public Health Foundation of India; One of three judges in inter-college debate on ‘Life after life’ held in Delhi.


**Professor Sarman Singh** honoured with Prof. BK Aikat Oration Award of Indian Council of Medical Research for work on Leishmaniasis; Currently CPCSEA (Ministry of Environment, Government of India) nominee for Institutional Animal Ethics Committees (IAEC) of University of Delhi, National Institute of Malaria Research (ICMR), Institute of Genomics and Integrative Biology (IGIB), Army Medical College, Delhi, Defence Institute of Physiology and Allied (DIPAS), Panacea Biotech, New Delhi; Member, Condemnation Board of ICMR 2011 onwards; Expert Member, Senior Research Fellowship Award committee, ICMR, 2011; Member Equipment Purchase Committee of ICMR 2011 onwards; Member Task Force of DBT for North Eastern Region-Biotechnology Programme Management Cell (NER-BPMC), 2010 onwards; Expert Panel Member of SERC (FAST TRACK SCHEME) of Department of Science and Technology, Government of India. 2004-till date; Editor-in-Chief, Journal of Laboratory Physicians; Chairman, Selection committee for Scientist ‘C’, at ICMR; Member, Post-Doctoral Fellowship Award committee of Indian ICMR 2009, 2010, 2011; Member, Expert committee of ICMR for re-employment of retired ICMR scientists, 2010 onwards; Member standing selection committee of ICMR for promotion of ICMR Scientists for grade D, E and F, 2010-onwards; Member, Kala-azar elimination High power committee constituted by DGHS, Govt. of India, 2005–13; Member Model Rural Health Research Unit (MRHRU), Department of Health Research, Government of India, 2010 onwards; Elected Member, Editorial Board, ‘The Open AIDS Journal’ Bentham Publications, USA,
Journal of Infection in Developing Countries, Clinical Medicine: Dermatology; Editor, Tuberculosis Research and Treatment. Hindawi Publishing Corporation; Abstract Reviewer for International AIDS Society (IAS) world AIDS conference and 16th International Conference on AIDS and STIs in Africa (ICASA); Peer Reviewer many national and international journals such as Lancet, JAMA, Clinical Infectious Diseases, Maternal and Child Health, and more.

VISITING SCIENTISTS
1. Professor Leonid Margolis, Chief, Section of Intracellular Interactions, Laboratory of Cellular and Molecular Biophysics, NICHD, National Institute of Health, Bethesda, MD, USA.
2. Dr Andreas Hillemann, Technical and Scientific Supervisor, Hain Lifescience GmbH, Nehren, Germany.
3. Manjit Hanspal, Program Director, Div of Blood Diseases and Resources, National Heart, Lung and Blood Institute, Maryland, USA.
4. Dr Gerald Moeller, Chair of the Board, Foundation for Innovation and Diagnostics, Bethesda, MD, USA.
**9.18 Medicine**

<table>
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<tbody>
<tr>
<td><strong>Professor and Head</strong></td>
<td>S.K. Sharma</td>
</tr>
<tr>
<td><strong>Professors</strong></td>
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<tr>
<td>Rita Sood</td>
<td>A.B. Dey</td>
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<tr>
<td><strong>Additional Professors</strong></td>
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<tr>
<td>Naveet Wig</td>
<td>Ashutosh Biswas</td>
</tr>
<tr>
<td></td>
<td>Uma Kumar</td>
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<tr>
<td></td>
<td>Sanjeev Sinha</td>
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<tr>
<td><strong>Associate Professor</strong></td>
<td>Naval K. Vikram</td>
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<tr>
<td><strong>Assistant Professors</strong></td>
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</tr>
<tr>
<td>Manish Soneja</td>
<td>Piyush Ranjan</td>
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</tbody>
</table>

**EDUCATION**

The department runs a comprehensive undergraduate and post graduate 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.

**Continuing Medical Education**

**Organized by the department**

1. Organized Medicine Update 2012 in association with Association of Physicians of India (API) Delhi State Chapter, New Delhi, February 2012.

2. Patient Awareness Programme on Arthritis, Conference Hall, AIIMS, New Delhi, 11 October 2011.

**Short-and long-term training**

38 postgraduate and undergraduate students from USA, UK, Singapore, Australia, and Germany received training in the Department of Medicine during the year.

**CME/Workshops/Symposia/National and International Conferences**

**Lectures delivered:** 40

**RESEARCH**

**Funded projects**

**Completed**

1. Efficacy of thrice weekly intermittent short course antituberculosis chemotherapy in tuberculosis patients with and without HIV infection. SK Sharma, National AIDS Control Organization (NACO), Ministry of Health and Family Welfare, Govt. of India, 5 years, Rs 45,42,000.

2. Evaluation of the efficacy of thrice weekly DOTS regimen in TB pleural effusion at six months (multicenter project). SK Sharma, Revised National TB Control Programme, NCT of Delhi, 4 years, Rs 14,36,615.

3. Impact of HIV infection on latent TB among patients with HIV-TB co-infection (Facility has been designated as National Facility). SK Sharma, Department of Biotechnology, Ministry of Science and Technology, Govt. of India, 4 years, Rs 219,96,000.
4. Comparison of tuberculin skin test (TST) and interferon-release assay in latent TB infection and tuberculosis disease. SK Sharma, Revised National TB Control Programme, NCT of Delhi, 3 years, Rs 4,99,937.

**Ongoing**

1. Immune reconstitution inflammatory syndrome (IRIS) in HIV/AIDS patients with and without tuberculosis co-infection (TB) receiving HAART. SK Sharma, ICMR, 4 years, Rs 45,48,957.
2. Proteomic study of tuberculosis pleural fluid to identify potential biomarker(s) for early and definitive diagnosis of tuberculosis. SK Sharma, ICMR, 2 years, Rs 35 lakhs.
4. Association of OSA with metabolic syndrome, insulin resistance and TNF-á, IL6 and ACE polymorphism. SK Sharma, ICMR, 4 years, Rs 46,67,424.
5. Antiretroviral Treatment (ART) Center 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.
6. Nodal Centre for free treatment of TB. SK Sharma, Revised National TB Control Programme, NCT of Delhi, through the area District TB Centre, 2005–till date, Rs 4.32 lakhs.
7. 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, Department of Biotechnology, Ministry of Science and Technology, Govt. of India, 5 years, Rs 90.9 lakhs.
8. 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, Department of Biotechnology, Ministry of Science and Technology, Govt. of India, 5 years, Rs 63.38 lakhs.
9. Efficacy and safety of immuno-modulator *Mw* as an adjunct therapy in category I pulmonary tuberculosis, along with assessment of immunological parameters (Double-blind, Randomized, Placebo-Controlled, Multicentre Clinical Trial). SK Sharma, Department of Biotechnology, Ministry of Science and Technology, Govt. of India, 5 years, Rs 76.81 lakhs.
10. Sustaining research momentum over the coming decades: mentoring the next generation of researchers for tuberculosis. SK Sharma, European Union Frame Programme & Work, 3 years, Rs 67.84 lakhs.
11. A Phase II, placebo-controlled, double-blind, randomized trial to evaluate the anti-bacterial activity, safety, and tolerability of TMC207 in subjects with sputum smear-positive pulmonary infection with multi-drug resistant Mycobacterium tuberculosis (MDR-TB). SK Sharma, Tibotec BVBA, General De Wittelaan LIIB3, Mechelen, Belgium, 3 years, Rs 26,24,460.
13. Genome sciences and predictive medicine. Uma Kumar, Department of Biotechnology, 2009–13, Rs 32.75 lakhs.
14. Representation trafficking and functional interaction of effector and regulatory T cells. Uma Kumar, Department of Science and Technology, 2012–2015, Rs 18.70 lakhs.


17. ASHA HIV Health Promotion Intervention in India. S Sinha, NIH, USA, (A collaborative project by UCLA, USA, and AIIMS), 2008, Rs 12.5 lakhs.


19. Development and clinical evaluation of novel fixed dose combination of rifampicin and isoniazid designed to improve stability and bioavailability of rifampicin for the treatment of TB. S Sinha, Department of Pharmaceuticals, Govt. of India. (A collaborative project between NIPER, Ahmadabad, and AIIMS), 2010, Rs 48 lakhs.

**Departmental Projects**

**Completed**

2. Adrenal functions in patients with severe sepsis and septic shock.
3. Factors affecting adherence to antiretroviral therapy at AIIMS: An exploratory study.
4. Study of Mycobacteremia in miliary and disseminated tuberculosis.
5. Study of acute febrile illnesses with cytopenias.
6. To determine the predictors of mortality/morbidity in ICU in patients with sepsis, severe sepsis and septic shock.
7. Role of inflammatory markers hsCRP, TNF á and sIL2R in assessing disease activity and response to treatment in sarcoidosis.

**Ongoing**

1. Outcome implications of implementing sepsis resuscitation bundle in AIIMS medicine department.
2. Assessment of current CPR practices and effects of implementing guideline compliant CPR.
3. Incidence and outcome of acute kidney injury associated with severe malaria.
4. Evaluation of current management practices of chronic obstructive pulmonary disease and the outcome of implementing the current guidelines in a tertiary care centre.
5. Diagnostic utility of PET CT using $^{18}$F-FDG PET in pyrexia of unknown origin.
7. Outcome implications of implementing a ventilator associated pneumonia prevention bundle in patients on mechanical ventilation.
8. Clinical, investigative and therapeutic profile of patients presenting with hemoptysis (Pulmonary Medicine).
11. Role of MTHFR mutation and serum Vitamin D level in predicting the response of MTX in RA.
12. Utility of bronchoalveolar lavage in assessment of disease activity and response to immunosuppressive therapy in systemic sclerosis patients with ILD.
13. Effects of implementing a ventilator associated pneumonia (VAP) prevention bundle on outcome in patients on mechanical ventilation.
Collaborative projects

Ongoing
1. Evaluation of various parameters for early detection of ethambutol toxicity to retina and optic nerve (Ophthalmology).
2. Detection and differentiation of Visceral Leishmaniasis (VL) and Post Kala-azar-dermal leishmaniasis (PKDL) causing strains of Leishmania donovani in Clinical Samples (Laboratory Medicine).
3. Expression and modulation of leucocytes complement and receptor1 and CD59 (protectin) in relation to Rheumatoid arthritis. (Biochemistry).
4. Expression of leucocyte CR1 and CR2 (Complement receptor 1 and 2) and its significance in the pathophysiology and clinical disease activity of rheumatoid arthritis. (Biochemistry).
5. 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).
6. Genetic analysis of psoriasis and psoriatic arthritis in Indian (Dermatology).
8. To study the role of Th-17 cells in arthritis patients in Indian population. (Anatomy).

PUBLICATIONS

Journals: 34

Chapters in Books: 14

Books: 2

Monographs: 2

PATIENT CARE

Infectious Disease Clinic (Monday 2 p.m.)

Sleep Related Breathing Disorder (SRBD) Clinic (Monday 2 p.m.)

Antiretroviral center

• Total registered till March 2012 6745
• ART started till March 2012 2702
• Regular follow up till March 2012 1430
• ART started in 2011–12 365

AIIMS DOTS Centre

• Total patients on DOTS (April 2011–March 2012) 2425
• CAT I 1604
• CAT II 821

Rheumatology Clinic (Wednesday 2 p.m.)

• New cases registered 42
• Number of follow up visits 6565
• Total 6607

Laboratories

Sleep laboratory

• Sleep studies 254
ADA/ACE laboratory
- Adenosine deaminase tests 940
- ACE tests 101

RNTCP
- Sputum investigation performed 2890

DOTS PLUS
- Drug susceptibility test 1213

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

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<td>C3</td>
<td>1927</td>
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<tr>
<td>Serum IgG, IgA and IgM</td>
<td>2620</td>
<td>Cryoglobulins</td>
<td>169</td>
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<tr>
<td>ANCA</td>
<td>2640</td>
<td>aCL</td>
<td>3414</td>
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<tr>
<td>Anti-LKM-1</td>
<td>881</td>
<td>ASMA</td>
<td>847</td>
</tr>
<tr>
<td>Synovial fluid examination</td>
<td>150</td>
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</tbody>
</table>

(including polarizing light microscopy)

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor SK Sharma received Dr RC Jain Lifetime Achievement Award of Tuberculosis Association of India and Dr Krishnan and Dr Sri Kala Medicine Chair Oration of SVIMS, Tirupati; Edited Davidson’s Clinical Cases (2nd edition). Edinburgh (UK): Churchill, Livingstone Elsevier Ltd; 2012 and API Textbook of Medicine (Ninth Edition) 2012; Chairman of the Expert Committee on issue of safety of consumption of lauki juice, ICMR; Adviser to National Task Force on the Involvement of Medical Colleges in TB Control of India, Ministry of Health and Family Welfare; Vice Chairperson, Steering Committee meeting on RNTCP CB NAAT Project; Chairman, Board of Speciality in Pulmonary Medicine constituted by Medical Council of India for drafting/updating the curriculum for MD and diploma courses in specialty of Pulmonary Medicine; Member of Scientific Advisory Committee of Infectious Diseases, ICMR since 2004; World Lung Health [initiative of International Union Against Tuberculosis and Lung Diseases (IUATLD)] since 2004; Appointed as a Co-ordinator of IMPACT (Indian Medical Professional Association’s Coalition Against Tuberculosis) on behalf of the Association of Physicians of India; Chairperson of DOTS Plus Committee of Ministry of Health and Family Welfare; Central Standing Committee for Operational Research on RNTCP related project; Vice President, Society for Tobacco Control of India since 2010; Elected member of Faculty Council of the Indian College of Physician for the period 2011-2014; Member of Indian Chest Society, American Thoracic Society, National Academy of Medical Sciences of India, International Union Against Tuberculosis and Lung Diseases, Indian Association of Sarcoidosis and other Granulomatous Disorders (IASOG); Editor of Indian Journal of Chest Diseases and Allied Sciences continuing since 2001, Section Editor of Lung India since 2010 and Associate Editor of Indian Journal of Tuberculosis since 2006; Reviewer for many journals including The Lancet, The Lancet Infectious Disease, American Journal of Respiratory and Critical Care Medicine, Chest, and others.

Professor Rita Sood participated in the implementation meeting of GCSA (Global Consensus for Social Accountability) of Medical Schools in Yvoire, France; Nominated Global Task force member of GCSA; President, South East Asian
Regional Association for Medical Education (SEARAME) wef 1 January 2012; Executive council member of World Federation of Medical Education (WFME) wef January 2012; Nominated permanent Board member, Board of Studies, and Maharashtra University of Health Sciences; Attended the meeting of Board of studies at Pune; Awarded fellowship (Salzburg global fellowship) by the Dartmouth Centre for Healthcare Delivery Science to participate in seminar on ‘Innovating for Value in Healthcare Delivery: Better cross-border learning, smarter adaptation and adoption’, Schloss Leopoldskron, Salzburg, Austria; Nominated by MCI as the Core Faculty for development of curriculum for basic and advanced course in medical education for medical teachers and as Core faculty for the CISP (Curriculum Implementation Support Programme) to facilitate implementation of curricular reforms as envisaged in MCI, Vision 2015; Attended the expert group meeting in WHO/SEARO for planning the Regional meeting on the ‘Role of medical education to address the current health challenges’.

**Dr Naveet Wig** was Member, Expert Group of ICMR, on establishment of Antimicrobial Resistance Surveillance Network; Member, HIV/AIDS Project review committee, ICMR; Member, ICMR Technical Resource Group on HIV/AIDS; Member, IndiaCLEN Programme Evaluation group.

**Dr Uma Kumar** organized Patient Awareness Programme on Arthritis, AIIMS, New Delhi, 11 October 2011.

**Dr S Sinha** is member of Medical Board Antarctica Expedition, Govt. of India, Goa and Member of Scientific Committee, NACO, Ministry of Health and Family Welfare, Govt. of India; Member of Association of Physician of India, Member of National Academy of Medical Sciences (MNAMS), Member of Indian Chest Society, Member of Indian Thyroid Society, Member of American Thoracic Society and Member of International AIDS Society.
HIGHLIGHTS

The major interests of microbiology laboratory are parasitology, bacteriology including tuberculosis, hospital infection, anaerobic and sexually transmitted diseases, virology including HIV, immunology and mycology. The anaerobic bacteriology and mycoplasma section under the supervision of Drs Rama Chaudhry and Benu Dhawan are focusing on study of *C. difficile* with special reference to genotyping by PFGE and MLST. The other areas of interest are *Mycoplasma pneumoniae* and genital mycoplasmas. The various adhesion proteins of *M. pneumoniae* have been cloned and recombinant proteins generated for rapid diagnosis. The antimicrobial susceptibility of genital mycoplasmas is done to monitor therapy in these cases.

The parasitology lab under the supervision of Drs J.C. Samantaray and B.R. Mirdha is focusing on studies of intestinal coccidian pathogens, *Pneumocystis jirovecii* and other parasitic diseases in understanding their transmission dynamics and pathogenesis at the molecular level. 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. Mutilocus sequence analysis of these micro-organisms have shown both anthropoontic and zoonotic transmission and are expected to provide more meaningful insights. Extensive study on molecular epidemiology of *Pneumocystis jirovecii* infection (*Pneumocystis carinii* pneumonia [PCP]) in our laboratory for the first time has been able to establish the molecular detection of *P. jirovecii* in clinical samples for patient care in the country. Genotypic analysis has shown various circulating strains of *P. jirovecii*. Innovative algorithms for diagnosis of malaria and kala-azar have been developed and successfully applied in routine diagnosis of these diseases.

EDUCATION

1. Dr Rama Chaudhry attended academic meeting of the close up ceremony of Global network project, Asian Institute of Public Health, Bhubaneswar, 5–6 February 2012.

Short-and long-term training

Short term training was provided to 10 MSc students

CME/Workshops/Symposia/National and International Conferences

Lectures delivered

<table>
<thead>
<tr>
<th>S. Broor: 3</th>
<th>Rama Chaudhry: 3</th>
<th>Arti Kapil: 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.R. Mirdha: 1</td>
<td>Lalit Dar: 2</td>
<td>Madhu Vajpayee: 4</td>
</tr>
</tbody>
</table>

Urvashi B Singh: 1

Papers presented: 34

AIIMS 2011-2012 / 142
RESEARCH

Funded projects

Completed

3. To Study colonization and immuno-modulatory effect of probiotic strain in Indian Children. Rama Chaudhry. DBT, June 2006–April 2011, Rs. 98.20 lakhs.
5. Administration of Lactobacillus rhamnosus GG for the prevention of Clostridium difficile infection and subsequent diarrhea in Indian population. Rama Chaudhry. DBT, December 2007–February 2012, Rs. 85,186 lakhs.

Ongoing

2. Direct and indirect protection by influenza vaccine given to children in India. S. Broor. Center for Disease Control, USA, 2008–12. Rs. 10,36,26,600.
7. Analysis of human gastrointestinal microbial diversity by molecular methods and application of metagenomics for isolation of novel bacteriocins. Rama Chaudhry. DBT (Collaborative project with TERI), 7 September 2011. Rs. 1,00,422 lakhs.
14. Detection and quantification of *Pneumocystis jirovecii* in respiratory samples by Real-Time PCR for clinical management of *Pneumocystis carinii* pneumonia (PCP) in human immunodeficiency virus (HIV) infected and uninfected individuals. B.R. Mirdha, ICMR, 2009–12, Rs. 15 lakhs.
16. LAMP as Point-of-Care Test for Gonorrhoea. Seema Sood. Department of Biotechnology, 2009–12, Rs. 44 lakhs.
20. Anti retroviral Therapy (ART) programme for CD4/CD3 testing under DSACS. M. Vajpayee. Delhi State AIDS Control Society. Rs. 50,000 per year.
21. Role of newly identified T<sub>11</sub>7 cells: its interplay with other T helper (T<sub>IL</sub>) subsets and consequence on disease progression, in HIV infected Indian individuals. M. Vajpayee. Institute Research Grant, 2010–13, Rs. 1 lakh per year.
22. A detailed study of T cell immune exhaustion: Its causes and repercussion on disease progression, in HIV infected Indian individuals. M. Vajpayee. Indian Council of Medical Research, 2011–14, Rs. 40.64 lakhs.
28. Paediatric population: Expediting the diagnosis of intra-thoracic tuberculosis and multidrug resistant tuberculosis, Urvashi B Singh, AIIMS.

**Departmental projects**

*Completed*

1. Evaluation of Biosensor technology in the laboratory diagnosis of gonorrhea.
2. Genotyping of *C. difficile* by PCR sequencing and PFGE from fecal samples in HIV and non-HIV patients.
3. Comparison of real time PCR assay with Reverse transcriptase based assay for HIV-1 viral load quantitation.
4. Detection of *Campylobacter jejuni* using culture and PCR.
5. Cloning and characterization of cytophherence region(s) of *Mycoplasma pneumonia* P1 gene.
6. Characterization of *Salmonella enterica* serotype Typhi strains from North India-PhD.
7. A prospective study on nosocomial infections in pediatric high risk units with special reference to device associated infections –MD.
8. Evaluation of Biosensor technology in the laboratory diagnosis of gonorrhea.

**Ongoing**
1. Detection and genotyping of human cytomegalovirus from renal transplant recipients.
2. Detection and typing of 37 human papillomavirus types by PCR and reverse hybridization.
4. Diagnosis of *Legionella pneumophila* infection by molecular methods and analysis of clinical and environmental isolates of *Legionella pneumophila* using molecular markers.
5. MLVA (Multilocus Variable-Number Tandem-Repeat Analysis) Typing and Subtyping of *C. difficile* isolates.
6. Detection of *Mycoplasma pneumoniae* in respiratory tract infection using real time PCR.
7. Sequencing and phylogenetic analysis of dengue and chikungunya virus strains from Delhi.
9. A study on alternate antimicrobial agents against Typhoidal *Salmonella*.
10. A prospective cohort study for the incidence and risk factors for Central Line Associated Blood Stream Infection (CLABSI) in Pediatric ICU (PICU).
11. Molecular characterization of *Neisseria gonorrhoeae* strains with decreased susceptibility to extended spectrum cephalosporins. In-vitro evaluation of alternate antimicrobial options for *Neisseria gonorrhoeae*.

**Collaborative Projects**
**Completed**
1. Administration of *Lactobacillus rhamnosus* GG for the prevention and treatment of *Clostridium difficile* infection and subsequent diarrhea in Indian population. R. Chaudhry. DBT, 18 months, 2007–2011, Rs. 37.30 lakhs.
2. A comparative study of effectiveness of immunotherapy with intralesional injection of *Mycobacterium W* vaccine in clinical resolution of external anogenital warts and reduction of viral load: A randomized trial. Lalit Dar, Somesh Gupta (Dermatology), Department of Biotechnology (DBT), 2009–12.

**Ongoing**
1. Epidemiological study of Respiratory Pathogens in Acute Respiratory Tract Infections among Children and Elderly in India (with CCM).
3. Prevalence of antibiotic resistant propionibacterium acne in adolescent and periadolescent acne before and after treatment with oral reinoids. (with Dermatology and Venereology).
4. Surveillance of infection in neonates – An ICMR task force study (ICMR head quarters and six centres in India).
5. Prevalence of Pneumocystis jirovecii on induced sputum of <15 year immunocompromised children with pneumonia by Gomori Methenamine Silver stain and Polymerase Chain Reaction. (with Paediatrics)
6. Development of Nanosilver nanohydrogels for biomedical applications. (DBT, New Delhi).
8. To study the effect of highly active antiretroviral therapy on B cell sub-populations in HIV infected children (with Paediatrics).
**PUBLICATIONS**

Journals: 56  
Abstracts: 1  
Chapters in Books: 4

**PATIENT CARE**

**Bacteriology section**

<table>
<thead>
<tr>
<th>Clinical samples</th>
<th>Number</th>
<th>Clinical samples</th>
<th>Number</th>
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<tbody>
<tr>
<td>Sputum</td>
<td>18,150</td>
<td>CSF</td>
<td>9,830</td>
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<tr>
<td>Stool</td>
<td>1,230</td>
<td>Blood</td>
<td>35,515</td>
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<tr>
<td>Urine</td>
<td>32,850</td>
<td>Pus</td>
<td>19,201</td>
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<td><strong>Total</strong></td>
<td><strong>1,16,776</strong></td>
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**Antimicrobial Susceptibility Tests**

<table>
<thead>
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<th>Clinical samples</th>
<th>Number</th>
<th>Clinical samples</th>
<th>Number</th>
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<tbody>
<tr>
<td>Sputum</td>
<td>9,338</td>
<td>CSF</td>
<td>295</td>
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<tr>
<td>Stool</td>
<td>25</td>
<td>Blood</td>
<td>4,670</td>
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<tr>
<td>Urine</td>
<td>9,300</td>
<td>Pus</td>
<td>8,972</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>32,600</strong></td>
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**Hospital Infection and Water bacteriology**

<table>
<thead>
<tr>
<th>Clinical samples</th>
<th>Number</th>
<th>Clinical samples</th>
<th>Number</th>
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<tbody>
<tr>
<td>Hospital infection control samples</td>
<td>18,897</td>
<td>Water samples</td>
<td>1,255</td>
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<td><strong>Total</strong></td>
<td><strong>20,152</strong></td>
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**Serology section**

<table>
<thead>
<tr>
<th>Clinical samples</th>
<th>Number</th>
<th>Clinical samples</th>
<th>Number</th>
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<tr>
<td>VDRL</td>
<td>6,899</td>
<td>TPHA</td>
<td>108</td>
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<tr>
<td>Widal test</td>
<td>4,952</td>
<td>Anti Streptolysin O antibody titre</td>
<td>70</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>12,029</strong></td>
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**Sexually transmitted diseases (STD) section**

**Clinical samples**

<table>
<thead>
<tr>
<th>Clinical samples</th>
<th>Number</th>
<th>Clinical samples</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>High vaginal swabs (HVS)</td>
<td>340</td>
<td>Semen</td>
<td>512</td>
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<tr>
<td>Expressed prostatic secretions (EPS)</td>
<td>71</td>
<td>Urethral discharge</td>
<td>40</td>
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<tr>
<td>Vaginal discharge</td>
<td>19</td>
<td>Cervical discharge</td>
<td>17</td>
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<tr>
<td><strong>Total</strong></td>
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**Antimicrobial susceptibility testing**

<table>
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<th>Clinical samples</th>
<th>Number</th>
<th>Clinical samples</th>
<th>Number</th>
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<tbody>
<tr>
<td>HVS</td>
<td>66</td>
<td>Semen</td>
<td>44</td>
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<tr>
<td>EPS</td>
<td>8</td>
<td>Urethral discharge</td>
<td>15</td>
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<tr>
<td>Vaginal discharge</td>
<td>0</td>
<td>Cervical discharge</td>
<td>0</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>133</strong></td>
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**Anaerobic Bacteriology and Mycoplasma section**

<table>
<thead>
<tr>
<th>Clinical samples</th>
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<tr>
<td>Anaerobic culture</td>
<td>856</td>
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<tr>
<td>Stool culture for Clostridium difficile</td>
<td>180</td>
</tr>
</tbody>
</table>
ELISA for *C. difficile*-toxin A and toxin B 172
Antibiotic susceptibility testing of anaerobic isolates 50
Culture for *Propionibacterium acnes* 247
Antibiotic Susceptibility Testing of *Propionibacterium acnes* 131
Culture for *Campylobacter jejuni* 53
Culture for *Leptospira* spp. 126
ELISA for *Leptospira* IgM antibodies 149
Recombinant ELISA for *Salmonella Typhi* IgM antibodies 42
Polymerase Chain Reaction
for *Salmonella Typhi* 31
for *C. difficile* – *tcdA, tcdB* and *tcdC* 66

**Mycoplasma**

ELISA for *Mycoplasma pneumoniae*

<table>
<thead>
<tr>
<th>Antibodies</th>
<th>144</th>
<th>142</th>
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<tbody>
<tr>
<td>IgM</td>
<td></td>
<td></td>
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<tr>
<td>IgA</td>
<td>100</td>
<td><em>Mycoplasma pneumoniae</em> culture</td>
</tr>
<tr>
<td><em>Mycoplasma hominis</em> culture</td>
<td>220</td>
<td><em>Ureaplasma urealyticum</em> culture</td>
</tr>
</tbody>
</table>

Antibiotic Susceptibility

for *Mycoplasma hominis* 5
for *Ureaplasma urealyticum* 15

ELISA for *Chlamydia pneumoniae*

<table>
<thead>
<tr>
<th>Antibodies</th>
<th>101</th>
<th>114</th>
<th>87</th>
</tr>
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<tbody>
<tr>
<td>IgM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IgA</td>
<td></td>
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</table>

ELISA for *Legionella pneumophila* IgG antibodies 87

**Polymerase Chain Reaction**

for *Mycoplasma pneumonia* 72
for *Mycoplasma hominis* 220
for *Ureaplasma urealyticum* 220
for *Legionella pneumophila* 65

**Total** 4,043

**Virology Section**

**Viral culture and identification**

(HSV, dengue, chikungunya etc) 99

**Viral antibody detection**

<table>
<thead>
<tr>
<th>Test</th>
<th>102</th>
<th>45</th>
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<tbody>
<tr>
<td>HSV CFT (serum and CSF)</td>
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<tr>
<td>Dengue IgM antibody ELISA</td>
<td>1,027</td>
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</table>

**Viral antigen detection and qualitative PCR**

<table>
<thead>
<tr>
<th>Antigen</th>
<th>70</th>
<th>261</th>
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</thead>
<tbody>
<tr>
<td>Dengue NS1 antigen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSV PCR</td>
<td>272</td>
<td></td>
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</table>
### Viral Real-time PCR

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza (diagnosis and surveillance, including novel H1N1)</td>
<td>12,196</td>
</tr>
<tr>
<td>Miscellaneous (Tzanck smear etc.)</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14,443</strong></td>
</tr>
</tbody>
</table>

### Parasitology section

#### Serological investigations

- Amoebic Serology of anti-amoebic IgG antibodies by ELISA: 143
- Hydatid disease serology by Indirect haemagglutination test: 105
- Toxoplasmosis serology for IgG antibodies by ELISA: 20

#### Investigation for Malaria

- Fluorescent staining (Acridine orange): 3,554
- Giemsa staining: 3,554
- Quantitative Buffy Coat (QBC) Assay: 1,148
- HRP-II antigen detection tests: 705

#### Investigation for Kala-Azar

- Fluorescent staining (Acridine Orange): 135
- Giemsa staining: 135
- Quantitative Buffy Coat (QBC) Assay: 130
- Kala-azar serology (rk-39): 639
- Aldehyde test: 639

#### Examination of fecal samples for intestinal parasitosis

- Direct and concentration techniques: 2,009
- In-vitro culture: 40
- Modified acid-fast and special staining for intestinal coccidia: 2,009
- Tissue specimens (homogenates): 75

#### Examination of aspirates

- Sputum, pus and others: 80

#### Investigation for Filariasis

- Direct and Concentration: 63
- Acridine Orange: 63
- Thin and Thick Smear: 63
- Hetrazan provocative test: 63

#### Other investigations

- Investigation for *Pneumocystis jirovecii* infection (PCP): 210
- Cerebrospinal fluid examination for Free Living Amoebae (FLA): 72

**Total**: 15,654

### HIV section

#### Immunology

- CD4 test: 5,913
- HIV serology: 4,437

**Total**: 10,350
Mycology and ICP Section

<table>
<thead>
<tr>
<th>Sample Type</th>
<th>Quantity</th>
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<tbody>
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<td>BAL</td>
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<tr>
<td>CSF</td>
<td>614</td>
</tr>
<tr>
<td>Swab</td>
<td>189</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1,105</td>
</tr>
<tr>
<td>Nail/hair/skin</td>
<td>91</td>
</tr>
<tr>
<td>Blood</td>
<td>1,657</td>
</tr>
<tr>
<td>Urine</td>
<td>1,768</td>
</tr>
<tr>
<td>Sputum</td>
<td>136</td>
</tr>
<tr>
<td>Pus</td>
<td>321</td>
</tr>
<tr>
<td>Tissue/Biopsy</td>
<td>331</td>
</tr>
<tr>
<td>Bone Marrow</td>
<td>213</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1,105</td>
</tr>
<tr>
<td>Nail/hair/skin</td>
<td>91</td>
</tr>
<tr>
<td>Blood</td>
<td>1,657</td>
</tr>
<tr>
<td>Fungal serology</td>
<td></td>
</tr>
<tr>
<td>Cryptococcus serology</td>
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<tr>
<td>Aspergillus serology</td>
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<tr>
<td>Histoplasma serology</td>
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<td>Culture for identification</td>
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<tr>
<td>Total</td>
<td>8,921</td>
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</table>

Tuberculosis section

<table>
<thead>
<tr>
<th>Activity</th>
<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>Samples processed for ZN Smear and Culture on LJ medium</td>
<td>9,543</td>
</tr>
<tr>
<td>Samples inoculated for Rapid Culture on BACTEC</td>
<td>2,915</td>
</tr>
<tr>
<td>Anti-tubercular Drug Sensitivity done on BACTEC</td>
<td>679</td>
</tr>
<tr>
<td>PCR for <em>Mycobacterium tuberculosis</em></td>
<td>4,568</td>
</tr>
<tr>
<td>Genexpert Diagnosis for <em>Mycobacterium tuberculosis</em> and Rifampicin drug resistance</td>
<td>360</td>
</tr>
<tr>
<td>Total</td>
<td>17,705</td>
</tr>
</tbody>
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AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shobha Broor was President of Delhi chapter of IAMM; Chairperson, Human ethics committee, Jamia Milia University; Member, Task force of govt. of India/ICMR on Polio containment; Member, Core committee of ICMR, Study on etiology of pneumonias in India; Member, Scientific advisory group (SAG), ICMR; Member, Governing body, Rajdhani College, Delhi University.

Professor Rama Chaudhry was Special invitee member, 33rd Scientific Advisory committee (SAC) at NICED, Kolkata; Member, Task force ICMR; Editor, IAM News letter; Member, Scientific advisory group (SAG), Probiotic Association of India; Received prestigious award from the US-Japan Cooperative Medical Sciences Program Panel on Cholera and Other Bacterial Enteric Infections in November 2011 from NIH, USA

Professor Bimal Das was awarded Dr SS Kelkar Memorial Prize for Best paper at IAMM Banaras for the paper entitled ‘Molecular epidemiology of *Neisseria meningitidis* serogroup A isolated from invasive meningococcal disease from 2005 to 2011 in Delhi using sequence based MLST and OMP analysis’.

Professor BR Mirdha was elected as Secretary, Indian Association of Medical Microbiologists, Delhi Chapter for three years (2011–13); Invited as expert to Project review committee member for Fellowship applications for ECD-I Division in the year, 2011; Reviewer for Journal Infectious diseases (JID), Journal of Medical Microbiology (JMM), Infection Genetics and Evolution; Co-opted Editorial Board member Tropical parasitology for three years. (2010-2012); Ph.D examiner, Barkatullah University, Bhopal.

Professor Lalit Dar was Member, HIV Technical Resource Group (Laboratories) of the National AIDS Control Organisation (NACO); Member, Project Evaluation Committee, North East Twinning Projects, Department of Biotechnology, Govt. of India; Member, Core Committee, National Accreditation Board for Testing and Calibration Laboratories (NABL); Member, Ethics Committee, National Brain Research Institute.
Dr Seema Sood was invited Expert by NACO for evaluation of Regional STI centers in India; Participated in external quality assurance (EQA) programme of WHO GASP (Gonococcal Antimicrobial Susceptibility Programme); Best Poster Award in ‘BASIC SCIENCE’ category in 12th IUSTI World Congress and 35th National Conference of IASSTD and AIDS, November 2011, New Delhi; R.A.Bhujwala Award for Best Worker in the field of STIs (2011–12), Awarded in MICRO-D-CON-2012 organized by Indian Association of Medical Microbiologists (IAMM), Delhi Chapter

Dr Urvashi B. Singh was Member, Expert Committee to examine the Banning of Commercial Serodiagnostic tests for Diagnosis of Tuberculosis in India, constituted by Drug Controller General of India; Member, Task Force on Female Genital Tract Tuberculosis, ICMR; Member, Sub-committee for LED FM Microscopy Specifications, Central TB Division, Nirman Bhavan, New Delhi; Attended National Laboratory Committee, Central TB Division, Nirman Bhavan; Attended Meeting of Indo-US collaborative research under INDO-US VAP, LRS TB Hospital, New Delhi; Attended Regional PMDT Review Meeting of North Zone states, Srinagar, 21–22 February 2012; Prof. A N Chakraborty Memorial Prize 2011 for the best published paper in Mycobacteriology during 2011, awarded gold medal by Indian Association of Medical Microbiologists at annual conference at Varanasi.

VISITING SCIENTISTS
1. Dr Sebastien Gagneux, SNF-Professor, Swiss Tropical and Public Health Institute, Basel, Switzerland.
2. Dr Juan Palomino, Belgium.
3. Dr Anandi Martin, Belgium.
4. Dr Wayne Sullender, Professor, Department of Pediatrics and Infectious Diseases, University of Alabama at Birmingham, USA.
5. Dr Suresh Boppana, Professor, Department of Paediatrics and Infectious Diseases, University of Alabama at Birmingham, USA.
6. Dr Thomas F. Frieden, Director, CDC.
7. Ms Sapan Parikh, Special Assistant to the Director from CDC.
8. Dr Nancy Cox, Director, Influenza Division from CDC.
9. Dr Marc-Alain Widdowson, International team lead from CDC.
10. Dr Michael Shaw, Additional Director Laboratory services from CDC.
11. Katie Lafont, Epidemiologist from CDC.
12. Dr Kenneth Earhart, Director, Centers for Disease Control and Prevention-India.
13. Dr Pauline Harvey, Director, CDC-India Global AIDS Programme.
14. Ms Nandita Chopra, National Institutes of Health Representative to India.
15. Dr Reber, Adrian from CDC.
### HIGHLIGHTS

The department had increased the number of patients being dialysed by running three shifts of haemodialysis and providing facilities round the clock. The department organized 2nd Indian Organ Donation Day at AIIMS as per the commitment of the Hon'ble Minister of Health and Family Welfare in Parliament during THOA amendment debate that Organ Donation Day would be celebrated every year. We also organized one day single theme round table conference on chronic kidney disease, the major non-communicable disease and an important cause of mortality and morbidity in India. The department completed five funded research projects during this period.

### EDUCATION

#### Long-term training

The department runs a DM Nephrology, a 3-year degree course for post MD (Medicine) candidates, selected by AIIMS on the basis of merit by 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 twelve DM students. In addition, the department has three junior residents for 6 months each.

#### Short term training

The department is providing short-term training for following:

1. Senior residents enrolled for MCh Urology are rotated in the department on regular basis for their exposure in nephrology as part of their curriculum.
2. Students from MSc Nursing in Nephrology are given training in nephrology nursing on regular basis.
3. Residents from the division of Pediatric Nephrology also come for discussion in Nephro-pathology conference on regular basis.

#### CME/Workshops/Symposia/National And International Conference Organized by Department

1. Ranbaxy Science Foundation’s 28th Round Table Conference on “Chronic Kidney Disease (CKD): A Hidden Tsunami” was organized at India Habitat Center on 30 March 2012. The conference was well attended by approximately 150 delegates including faculty from and outside Delhi. Single theme conference addressed many issues related to CKD by the faculty, expert in this field, and issues discussed with the audience attending the conference. A front line message was proposed for policy makers to act.

2. 2nd Indian Organ Donation Day was celebrated by a daylong programme in the Jawaharlal Nehru Auditorium, All India Institute of Medical Sciences, on 28 November 2011 exactly a year after the first Indian Organ Donation Day and 6th World Kidney Donation Day. This was as per the commitment of the Hon’ble MOHFW in Parliament during THOA amendment debate that Organ Donation day would be celebrated every year.
Lectures delivered
Sanjay K. Agarwal: 1 Sanjay Gupta: 1 Dipankar Bhowmik: 6
Sandeep Mahajan: 5
Papers Presented: 5

RESEARCH

Funded projects

Completed
2. Role of Tacrolimus as an Induction Agent in Proliferative Lupus Nephritis, Sanjay Gupta, AIIMS, 2010–11, Rs 1 lakhs.

Ongoing
1. A randomised double blind placebo controlled four arm parallel group multicentric multinational trial comparing weekly intravenous administration of Abetimus to weekly intravenous administration of placebo in patients with a history of SLE related renal disease. SK Agarwal. Lajolla Pharmaceutical Company, California, USA, 2006–12, Rs 10 lakhs.
2. A randomised multicentric, 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. SK Agarwal. LG Life Sciences India Pvt. Ltd., 2010–13, Rs 12 lakhs.

Departmental projects

Completed
1. Oxidative stress in chronic peritoneal dialysis patients and effect of N acetylcysteine on it.
2. Study of spectrum and clinicopathological correlation in biopsy proven renal diseases.
4. Oxidative Stress in post renal transplant patients and effect of N acetyl Cysteine on it.
5. Tacrolimus as an induction agent in proliferative lupus nephritis.

Ongoing
1. Sleep disorders in ESRD and transplant patients.
2. Clinicopathological correlation of HBV and HCV infection in patients on renal replacement therapy.
3. Impact of CsA and Tacrolimus on outcome of living related renal transplantation.
4. Proteinuria in Renal Transplant Recipient and histopathological correlation.
5. Assessment of vascular functions in patients with chronic kidney disease.
6. Sleep disorders in ESRD and transplant patients.
7. Oxidative stress in chronic peritoneal dialysis patients and effect of N acetyl Cysteine on it.
8. Tuberculosis prophylaxis in patients on maintenance haemodialysis.
9. Clinicopathological correlation of HBV and HCV infection in patients on renal replacement therapy.
10. Tacrolimus as induction therapy for proliferative lupus nephritis.
11. Study to assess interdialytic and intradialytic pain in patients undergoing hemodialysis.
13. Quality of sleep in hemodialysis and renal transplant patients.
15. Comparison of Mycophenolate Mofetil with Tacrolimus as an Induction Agent in Proliferative Lupus Nephritis.
16. Role of Urinary Neutrophil Gelatinase-Associated Lipocalin in Diagnosing Contrast Induced Nephropathy.

Collaborative projects

Completed
2. Studies on the role of chemokines on T cell mediated allo-reactivity in renal transplantation (Transplant Immunology and Immunogenetics).

Ongoing
1. Prevalence of AKI in critically ill patients (Medicine).
2. Diagnosis of Cytomegalovirus pneumonitis in immunocompromised patients at AIIMS (Microbiology).
3. Detection and Genotyping of Human Cytomegalovirus From neonates and Renal Transplant Recipients (Microbiology).
4. 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).
5. Cloning, sequencing and expression of ORF-2 genomic region of Transfusion Transmitted Virus (TTV) and use it to develop serological assay (Lab Medicine).
6. Effect of traditionally used herbometallic preparation on renal and hepatic function ‘Experimental and Clinical Study’ (Pharmacology).
7. Estimation of anti-Oxidant in blood in renal and liver diseases (Laboratory Medicine).
8. Cytokine profile in acute rejection in Renal Transplant recipients (Transplantation and Immunogenetics).
9. Assessment of vascular functions before and after renal transplantation (Physiology).
11. To Study the prevalence of UL 97 Gene Mutation In Gancyclovir Non-Responders vis-à-vis Responders In Indian Renal Transplant Patients (Microbiology).

PUBLICATIONS

Journals: 17

PATIENT CARE

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<td>CAPD</td>
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4 Indoor Related
Kidney Biopsy 469 Liver Biopsy 18
Nephrology consultation 3180 Ultrasound Abdomen 476
Indoor admission 1225

5 Day Care Treatment
Pulse Methylprednisolone 30 IV Cyclophosphamide 25
IV iron Therapy 369

6 Renal Transplant (RT)
Evaluation of LRRT 337 Evaluation of cadaver recipient 76
Living RT done 94 Cadaver RT done 2

7 Renal Lab related
Blood sampling 27090 Biochemistry (Urea, Cr, Na, K) 48381
24 hr urine testing 6073 Urine osmolality 202
Hemogram for RT Patients 9023 CO2 4955
TIBC 4771 UIBC 4760
Serum iron 4725 T Saturation 2483
Serum Ferritin 4427

8 OPD Related
Renal clinic new patient 5709 Renal clinic old patient 24439
RT new cases 81 RT old cases 5304
RT counseling clinic (3 days/wk) 1372

COMMUNITY SERVICE
1. Community service camp at Ramakrishna Mission Sevashrama, Vrindavan.

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor Sanjay K Agarwal was invited to be Member Scientific Committee, Northern Chapter, Indian Society of Nephrology, for three years 2009–12; Invited to be member of Editorial Board of Journal of Krishna Institute of Medical Sciences, Maharashtra; Invited to be member of Editorial Committee of Open Journal of Nephrology; Visited Australia (Adelaide, Sydney and Brisbane) for setting up of Transplant Registry for Indian Organ Transplant Programme of Ministry of Health, Government of India during 10 –21 Oct 2011, Invited by University of Washington, Seattle for a talk on ‘Renal Replacement Therapy in India’, 16 November 2011, and requested by Ministry of Health, Government of India for delivering a public talk on Chronic Kidney Disease, 32nd International Trade Fair, Pragati Maidan, 23 November 2011.

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

Dr Dipankar M Bhowmik was elected as Joint Secretary and Treasurer of Delhi Nephrology Society.
VISITING SCIENTISTS

1. Dr Sushrut S. Waikar, Senior Consultant, Brigham and Women’s Hospital, Department of Medicine, Boston, USA visited the department, 3 January 2012, and delivered a talk on ‘Creatinine kinetics and Acute Kidney Injury’.

2. Dr Frank Clingan Brosius III, Professor of Internal Medicine and Physiology, Chief, Division of Nephrology, University of Michigan Medical School Ann Arbor, Michigan visited the department on 24 September 2011, and delivered the talk on, System Biology of Chronic Kidney Disease’.

3. Dr Sanjeev Sethi, Sr. Consultant and Associate Professor Senior, Mayo Clinic, Department of Lab Medicine and Pathology, Rochester, USA, visited the department, 23 November 2011 and delivered a talk on ‘Amyloidosis: laser microdissection and Mass Spectroscopy’.

4. Dr. Rajiv Saran Associate Professor of Medicine, Division of Nephrology Associate Director, University of Michigan Kidney Epidemiology and Cost Centre visited the department on 14 March 2012, and delivered a talk to Institute faculty and residents on ‘Clinical Research on Chronic Kidney Disease.’
9.21 Nuclear Medicine

Professor and Head
A. Malhotra

Professor
C.S. Bal

Additional Professors
Rakesh Kumar
Chetan D Patel (CNC)

Assistant Professor
Madhavi Tripathi
Anil K Pandey

EDUCATION
The faculty of the department participated and delivered 30 lectures in continuing medical education programmes, workshops, Symposia, and annual conferences, during 2011–12.

RESEARCH
Completed
1. Developing New Software for cross-sectional Image fusion for multimodality imaging, C S Bal, Department of Information Technology, Govt of India, in collaboration with IIT Kanpur.
2. Role of PET-CT in early response evaluation to chemotherapy in neuroblastoma and rhabdomyosarcoma.
3. Evaluation of Prognostic Value of FDG-PET after One Cycle of Chemotherapy in Paediatric High Grade Lymphomas, DBT, New Delhi.

Ongoing
3. Re-establishment of Normal Reference Range of Radioiodine Uptake Values (RAIU) in the era of Universal Salt Iodination (A-119), C S Bal, AIIMS.
4. Early evaluation of treatment response of Neo-adjuvant chemotherapy in locally advanced Breast Cancer patients using Tumor Burden estimation by PET-CT and correlation with CD 34 and VEGF expression. Indian Council of Medical Research (ICMR), Delhi, India, 2009–12.

PUBLICATIONS
Journals: 38 Chapters in Books: 6

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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<td>I-131 Dx Whole Body</td>
<td>1344</td>
<td>Dimercaptosuccinic acid</td>
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Ca-thyroid I-131 PT- Body 576 Thyrotoxicosis 285
DTPA/LLECT 99mTc renal dynamic 6867 Gastro Esophagus Reflux 611
Direct radionuclide cystourethorography 265 Glomerular Filteration Rate 2406
Bone Scan 3024 99mTc HIDA( Hepatobiliary ) 379
Thyroid Scan 991 Liver Scan 13
Meckel’s Study 24 Gastro Intestinal Bleed 17
Lymphoscintigraphy 54 MIBG (diagnostic and therapeutic) 287
Parathyroid scan 100 SPECT-CT/CT 1689
Sentinel lymph node 35 Cardiac investigation 3039
Brain SPECT 299 Brain Glucopheptonate (GHA) 55
PET-CT Whole Body (including Ga) 4674
In-patients (New patient) 576 Total therapy 1013
Total out-patients 1244

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor CS Bal delivered the Homi Bhabha Oration by Society of Nuclear Medicine, India for outstanding contribution in Nuclear Medicine in India at SNM India Conference in December 2011.
9.22 Nuclear Magnetic Resonance

Professor and Head
N.R. Jagannathan

Associate Professors
Rama Jayasundar
S. Senthil Kumaran

Scientist II
Uma Sharma

Scientist I
Pawan Kumar

EDUCATION

Postgraduate
The faculty and scientists participated and delivered lectures for courses ‘Structural Biology and NMR Technology’, and ‘Molecular Medicine’, of MBiotech programme, Department of Biotechnology.

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
Three 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
The faculty participated in and delivered several lectures in continuing medical education programmes, symposia and conferences during the year.

Professor N.R. Jagannathan was a co-organizer of three scientific sessions on ‘Biophysics in Medicine: Imaging–Cutting Edge Technology’, 17th International Biophysics Congress (IBC), 30 October–3 November 2011, Beijing, China.

Lectures delivered
N.R. Jagannathan: 7
Rama Jayasundar: 16
S. Senthil Kumaran: 6

Presentations in Symposia/National and International Conferences: 30

RESEARCH

Funded projects
2. 700 MHz NMR Spectrometer for Biomedical Research. N. R. Jagannathan, Department of Science and Technology, January 2008–January 2013, Rs. 842.6 lakhs.


**Departmental projects**

**Ongoing**

1. MRI and MRS study of animal model of demyelination.
2. Development of pulse sequence for *in vivo* simultaneous suppression of water and fat in breast cancer patients.
3. Body composition analysis using MR.
4. 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).
4. $^{31}$P MRS study of skeletal muscle in normal subjects with vitamin D supplementation (Endocrinology).
5. MRI/MRS studies to evaluate brain metabolism in patients with diabetes mellitus (Medicine).
6. 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).
7. MRI of iron oxide nanoparticle formulation (Institute of Life Sciences, Bhubaneswar).
8. MRI/MRS studies to evaluate brain metabolism in patients with obsessive compulsive disorders (Psychiatry).
9. In-vitro MR spectroscopy of intestinal mucosa in patients with celiac disease (Gastroenterology and Human Nutrition).
10. MR imaging to evaluate the neuroprotective activity of drugs in the animal model of acute stroke (Pharmacology).
11. MR imaging studies on in evaluation of nanoparticles as contrast agents and targeted drug delivery (IIT, Delhi).
12. Role of MR spectroscopy in diagnosis of cancer of extremities (Orthopedics).
15. Spectroscopic analysis and evaluation of anti-oxidant properties of medicinal plants (Ocular Pharmacology, RP Centre).
20. 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).
21. Study of feasibility and efficacy of intravenous infusion of bone marrow derived mononuclear cells in chronic ischemic stroke – A clinic functional Study (Department of Neurology, DST funded).
22. MRI/MRS studies to evaluate brain metabolism in patients with obsessive compulsive disorders (Psychiatry).
23. In-vitro MR spectroscopy of intestinal mucosa in patients with celiac disease (Gastroenterology and Human Nutrition).
25. MR imaging to evaluate the neuroprotective activity of drugs in the animal model of acute stroke (Pharmacology).
26. MR imaging studies on in evaluation of nanoparticles as contrast agents and targeted drug delivery (IIT Delhi).
27. MR imaging studies on in evaluation of nanoparticles as contrast agents and targeted drug delivery (Institute of Life sciences, Bhubneshwar).
29. Role of MR spectroscopy in diagnosis of cancer of extremities (Orthopedics).

PUBLICATIONS

Journals: 10  Chapters in Books: 3  Books and monographs: 1

PATIENT CARE

The department has two 1.5 Tesla and one 3.0 Tesla whole body MR scanners for patient care and research. The department provides twelve hours per day of patient care MRI services. The details of the number of patients scanned during the period April 2011 to March 2012 are as follows.

Clinical Diagnostic 5528 patients  Research 465 patients and subjects

Other Experimental Facilities

The department has one 16.4 Tesla High Resolution NMR Spectrometer. More than 500 samples of serum/plasma/CSF/tissue have been studied.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor N. R. Jagannathan is currently the President of Asian Biophysics Association (ABA); Member, Editorial board of following 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) Spectroscopy–Biomedical Applications; (vii) Biophysical Reviews; Elected member, Executive council, International Union of Pure and Applied Biophysics (IUPAB), 2008–14; Member, Steering committee, Asian Biophysics Association (ABA); Council member, International Conference on Magnetic Resonance in Biological Systems (ICMRBS), USA; Member, Programme Advisory Committee (PAC), Section for Biochemistry, Biophysics and Molecular Biology, Department of Science and Technology (DST), Government of India; Member, Steering Committee, Sophisticated Instruments facilities (SAIFs), Department of Science and Technology (DST), Government of India; Member, FIST Committee, Department of Science and Technology (DST), Government of India; Member, PURSE Committee, Department of Science and Technology (DST), Government of India; Coordinator of the expert panel on ‘Biomedical Devices and Bioengineering’, Life Sciences Research Board (LSRB), DRDO; Member, INSA committee, International Union of Pure and Applied Biophysics (IUPAB); Member, Management Advisory Committee (MAC), Sophisticated Instruments Facility, CDRI, Lucknow; Member, Management Advisory Committee (MAC), Sophisticated Instruments Facility (SAIF), Indian Institute of Science, Bangalore; Distinguished Reviewer, J. Magnetic Resonance Imaging, 2011 and Magnetic Resonance in Medicine, 2010; Special Issue Editor, ‘Tumor Microenvironment in Cancer Treatment and Metastasis’ in NMR Biomedicine 2011:24 (6);559–764; Co-organizer, Scientific Session on ‘Biophysics in Medicine: Imaging – Cutting Edge Technology’, 17th International Biophysics Congress, Beijing, China, 30 October–3 November 2011; Member, Science Advisory Council (SAC), National Brain Research center (NBRC), Manesar, Haryana.

Dr Rama Jayasundar was awarded Cambridge Hamied Visiting Lecture Fellowship, University of Cambridge, UK, August 2011; invited to be part of Sector Innovation Council for Health Sector, National Innovation Council, Govt. of India, August 2011; invited by Cambridge Hamied Visiting Lecture Fellowship, University of Cambridge, UK to participate in Cambridge India Partnership Research Collaboration, November 2011.
EDUCATION

Undergraduate, Postgraduate, paramedical

Delhi Post Graduate Medical Education Forum (Department of Obstetrics & 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 training of postgraduates.

Short Term and Long Term Training

The Department offers short and long term training in various subspecialty subjects like ‘Gynae. Endoscopy Surgery’, ‘High Risk Pregnancy’, ‘Gynae. Oncology’, ‘Gynae and Obstetrics Ultrasonography’ and ‘Infertility’. During the year we had one long term trainee (Madhu Sudan De, Pune) in different subspecialty subjects and five short term trainees (WHO Fellows: Won Ho Choe, Yong Il Jon, Yong Tae Ryu, Chol Pak, and Kum Hwan Ri, all from DPR Korea).

The department organizes ‘National CME in Obstetrics and Gynaecology in collaboration with National Board of Examination, National Academy of Medical Sciences and World Health Organization, every six months. It is a unique, innovative modular teaching programme in which the MD syllabus is covered in six modules over 3 years. Series 3 Module 5 was held on 23–24 April 2011 and Series 3 Module 6 was on 24–25 March, 2012, at AIIMS, New Delhi. The CME modules are attended by more than 200 students as well as senior gynaecologists and are accredited by Delhi Medical Council.

CME, Workshops and Seminars, National and International Conferences Organized by the Department

1. National CME in Obstetrics & Gynaecology (Series 3, Module 5), AIIMS, 23–24 April, 2011.

2. 1st Expert group meeting for development of minimum standards for mother and baby friendly services and prenatal care during transit, 30 June–1 July 2011.

3. 2nd Core Expert Group Meeting for development of minimal standards for mother and baby friendly seminars in India, AIIMS, New Delhi, 3–4 October 2011.

5. Dissemination meeting of mother and baby friendly services, AIIMS, 20 February 2012.
6. PG Forum, AIIMS, 3 December 2011, and 11 February 2012.
8. 1st Expert Group Meeting for development of minimum standards for mother and baby friendly services and perinatal care during transit, 30 June–1 July 2011.
9. 2nd Core Expert Group Meeting for development of minimal standards for mother and baby friendly seminars in India, AIIMS, New Delhi, 3–4 October 2011.
10. Dissemination meeting of mother and baby friendly services, AIIMS, 20 February 2012.

Lectures delivered

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<td>D. Deka</td>
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<td>Neeta Singh</td>
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RESEARCH

Funded projects

Completed

1. Comparative study of oral single dose of Metronidazole, Tinidazole, Secnidazole and Ornizidazole in the case of Bacterial Vaginosis. Dr Alka Kriplani, Department of Science and Technology, 2008–11, Rs. 2 lakhs.
2. To study the efficacy of minimal stimulation protocol in tubal factor and mild male factor infertility patients undergoing IVF-ET-A: Pilot Study. Dr Neeta Singh, AIIMS, 2010–11, Rs. 1 lakh.
3. CORONIS – International study of caesarean section surgical techniques – a randomized factorial trial, Dr J.B. Sharma, University of Oxford, UK, 2007–11), Rs. 72 lakhs.

Ongoing

2. 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.
3. Estimation of oxidative stress during oral iron supplementation in daily vs weekly schedule among pregnant mothers. Suneeta Mittal, ICMR, Ongoing long project.
4. Phase III Multicentre clinical trial with subdermal single Rod contraceptive Implant – Implanon. Suneeta Mittal, ICMR, 2 years.
10. NTF scheme ‘Effects of Non-ionizing Electro Magnetic Field (EMS) on Human Health’ J.B. Sharma, ICMR, March 2010–March 2015, Rs. 8,80,745.
11. A study on treatment of Genital Tuberculosis: A Randomized controlled trial of either discontinuation at 6 months or continuation till 9 months after Initial response to 6 months RNTCP category treatment. J.B. Sharma, Central TB Division, Ministry of Health and Family Welfare, Govt. of India, March 2009 to March 2011, Rs. 40 lakhs.

**Departmental projects**

**Completed**

1. Levels of oxidative stress biomarkers in follicular fluid of women with PCOS undergoing IVF and its relation with ART outcome.
2. To evaluate the effect of laser assisted hatching on IVF success rates in women undergoing frozen embryo transfer cycles.
3. A comparative study of treatment of gestational diabetes mellitus by metformin versus insulin – a randomized controlled trial.
6. Hospital based surveillance of Female Genital Fistula.
7. Estimation of oxidative stress during oral iron supplementation (daily vs weekly) among anaemic pregnant mothers.
8. Evaluation of Progesterone Vaginal ring (PVR) as a new contraceptive option in India.
9. Management of medical abortion in India by midlevel providers of physicians: A two arm randomised controlled trial.
14. Correlation of erythropoietin levels and serum transferring receptor levels with other haematological indices in patients with iron deficiency anaemia in late pregnancy.
15. Sentinel lymph node biopsy in endometrial carcinoma.

**Ongoing**

1. A randomized comparative study of ovarian reserve following two different techniques of laparoscopic cystectomy in ovarian endometrioma.
2. Gabapentin in management of postmenopausal symptoms.
3. Role of sperm DNA damage and oxidative stress on outcomes of assisted reproductive techniques.
4. A randomized comparison of misoprostol administered simultaneously versus 36-48 hours after mifepristone for first trimester abortion.
5. Analysis of pregnancy outcomes and fetal complications in women undergoing prenatal diagnostic tests.
6. To study the role of combined hormonal vaginal ring in the management of dysfunctional uterine bleeding.
8. Evaluation of dehydroepiandrosterone (DHEA) therapy as an adjunct to gonadotrophins for ovulation induction in premature ovarian ageing.
11. Evaluation of efficacy of tranexamic acid in reducing blood loss during and after caesarean section.
13. To study and compare the cost effectiveness of IVF minimal stimulation protocol versus the conventional protocol in a developing country hospital setup.
15. A Clinical Trial comparing thermal balloon ablation and levonorgestrel intrauterine system in patients with dysfunctional uterus bleeding.
19. Screening for inherited thrombophilias in women with adverse pregnancy outcome.
20. Detection and quantification of fetomaternal hemorrhage (FMH) following deliveries in Rh-ve non immunized pregnancy by KBT, flow cytometry.
21. Comparison of harmonic scalpel with bipolar cautery in laparoscopic assisted vaginal hysterectomy.
22. Screening with cytology, visual inspection, acetic acid and Lugol’s iodine for early detection of cervical neoplasia and comparative evaluation of single – versus double freeze cryotherapy technique in the treatment of cervical intraepithelial neoplasia.
23. Doppler assessment in various fetal vessels and fetal weight estimation using antenatal soft tissue thickness in intrauterine growth restriction with normal pregnancies.
27. Prophylactic administration of micronized progesterone in prevention of preterm labour in women at increased risk.
28. Correlation of stage and imaging of endometriosis with fertility outcome.
30. Comparison of uterine and radial artery flow changes detected by pulse Doppler in women undergoing stimulated intrauterine insemination for unexplained infertility.
31. Transvaginal ultrasound markers for ovarian reserve and periovarian adhesions after laparoscopic ovarian drilling in patients with clomiphene citrate resistant polycystic ovarian syndrome.
32. Comparison of the effectiveness of single versus double intrauterine insemination in infertile couples.
33. Role of PET in staging of ovarian malignancies.
34. To compare BPP with Doppler in pregnant patients with IUGR in normal pregnancies.
35. Ovarian function and endometrial changes in case of carcinoma breast.
36. Comparative study between MRI and Ultrasound in prenatal diagnosis using autopsy or postpartum imaging as a standard of reference
37. Application of PET scan in preoperative evaluation of carcinoma endometrium.
38. Effect of oral contraceptive containing ethinyl estradiol combined with drospirenone vs desogestrel on clinical and biochemical parameters in patients of PCOS.
39. The Comparison between laparoscopic assisted vaginal hysterectomy with non descent vaginal hysterectomy for large large uteri - a randomized clinical trial.
40. Role of MRI in evaluation of pelvic organ prolapse and its relationship with POPQ classification.
41. Comparing thermal balloon ablation and levonorgestrel intrauterine system in patients with dysfunctional uterine bleeding.
42. Role of direct fetal intravascular immunoglobulin therapy in Rhesus isoimmunize pregnancies.
43. Evaluation of anti-mullerian hormone as a marker of ovarian response in IVF cycles.
44. Sonographic placental investigation in early pregnancy : correlation with fetal and maternal outcome in singleton pregnancy.
45. Clinical, imaging, endoscopic and laboratory evaluation of female genital tuberculosis.
46. Evaluation of the screen and vaccinate strategy as a model for comprehensive cervical cancer prevention.
47. To evaluate endometrial and sub endometrial blood flows in the prediction of pregnancy during in-vitro fertilization treatment.
48. Direct visualization of fetus and placenta by fetoscopy.
49. Direct Fetal Intramuscular Administration of Corticosteroids in spontaneous and indicated preterm delivery.
50. A comparison of treatment outcome of familial epithelial ovarian cancer and non familial epithelial ovarian cancer.
51. A comparison of outcome of trial of labour after previous two caesarean sections versus previous one caesarean section.
52. The Role of DHEA supplementation in poor responders undergoing IVF cycles.
53. Levels of oxidative stress biomarkers in follicular fluid of women with PCOS undergoing IVF and its relation with ART outcome.
54. To evaluate the effect of laser assisted hatching on IVF success rates in women undergoing frozen embryo transfer cycles.
55. A comparative study of treatment of gestational diabetes mellitus by metformin versus insulin – a randomized controlled trial.
56. Prospective randomised comparative study of hysteroscopic septal resection using unipolar resectoscope versus bipolar resectoscope.
57. Pretreatment with Misoprostol before vacuum aspiration versus MVA : double blind RCT- A pilot study.
58. Hospital based surveillance of Female Genital Fistula.
59. Estimation of oxidative stress during oral iron supplementation (daily vs weekly) among anaemic pregnant mothers.
60. Evaluation of Progesterone Vaginal ring (PVR) as a new contraceptive option in India.
61. Management of medical abortion in India by midlevel providers of physicians: A two arm randomised controlled trial.
62. Comparison of miferpristone plus misprostol alone for inducing abortion at 13-20 weeks gestation: A double blind randomised multicentre trial.
63. Effects of non-ionizing electro magnetic field (EMF) on Human Health.
64. Comparison of biophysical profile and Doppler velocimetry for ante-natal surveillance in high risk pregnancy
65. Comparison of expulsion and complication rates of IUCD in immediate and interval insertion.

**Collaborative projects**

**Completed**
1. Elucidation of endometriosis based on transcript profiling (Physiology).

**Ongoing**
2. Role in Recurrent spontaneous abortion (Anatomy).
5. To compare integrated screening with contingent screening for prenatal detection of Down syndrome in the Indian context, (Paediatrics).
6. Setting-up Phase I Clinical Trial Facility for Biologics, Drugs and Vaccines (Pharmacology).
8. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian cancer: A phase 3 randomized study (Medical Oncology, IRCH).
9. 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).
10. Role of s VEGFR-1 in the pathogenesis of Preeclampsia (Anatomy).
11. Prevention of Type II diabetes in women with gestational diabetes mellitus in urban India: A feasibility study (Endocrinology and Metabolism).
12. Cross-sectional study of cord blood immune markers in term appropriate for gestational age and small for gestation age neonates (Paediatrics).
13. Development of Human Papillomavirus vaccine prototype/s – Molecular Epidemiology of HPV types prevalent in India and Identification of HPV-16 L1 and E6 variants (Biochemistry).
15. Role of sperm factors in recurrent spontaneous abortion. (Anatomy).
16. PEARL study (post menopausal evaluation and risk reduction with lasofoxifene) – Global research and development, Pfizer Ltd., Pfizer Ltd. (Endocrinology).
17. The Generations trial. Effects of Arzoxifene on vertebral fracture incidence and on invasive breast cancer incidence in postmenopausal women with osteoporosis or with low bone density (Endocrinology).
19. Establishment and characterization of human fetal liver hematopoietic stem cell line (Medical Oncology, IRCH).
20. To study the subset of Antiphospholipid syndrome defined by anti b2 glycoprotein 1 anti body (Lab. Medicine).
21. Role of centchroman in benign breast disease (Surgery).
22. Epidural analgesia in labour (Anaesthesiology).
23. Chromosome Aneuploidy and Mosaicism in preimplantation Embryo. (Dept of Reproductive Biology).
24. Prenatal development and maturation of the human inferior colliculus (Dept. of Anatomy).
25. Evaluation of ovarian function in female patients with multi-bacillary leprosy (Dermatology and Venereology).
27. A study of molecular basis of endometrial receptivity for blastocyst implantation in primates (Physiology).
28. Prevention of parent to child transmission of HIV (Paediatrics and Microbiology).
30. Diabetis mellitus and vulvo vaginal candidiasis: prevalence and its rational management (Endocrinology).
31. Prevalence of bacterial vaginosis and other reproductive tract infections among symptomatic women (study in tertiary centre) (Microbiology).
32. Effect of progesterone on hsp 27 expression in human, mid-secretary stage endometrial cells grown on collagen matrix in vitro (Physiology).
33. To study the prevalence of vitamin D deficiency in pregnant women at first and third trimester during the routine care (Endocrinology).
34. Correlation between first trimester glucose screening and serum insulin levels with development of gestational diabetes mellitus in pregnancy (Endocrinology).
35. In vitro model study of hyperlipoproteinemia on the degree of LDL receptor expression in placental trophoblast cells: correlation with oral steroid contraceptive induced hyperlipoproteinemia (Indian Council of Medical Research).
37. pl61NK 4a and E-cadherin expression profile in pre-cancerous lesions of cervix and cervical carcinomas (Pathology).
38. Validation of Strategies for Rapid Prenatal Detection of Aneuploidies (Paediatrics).
40. Non invasive prenatal diagnosis of Beta Thalassemia and fetal RhD status: Paediatrics). Establishment and characterization of human fetal liver hematopoietic stem cell line (Medical Oncology, IRCH).
41. Endothelial progenital cells as biomarker of disease activity in multiple myeloma Oncology).
42. Use of Hb An estimation by HPLC for prenatal diagnosis of thalassemia in fetal blood samples during second trimester pregnancies (Haematology).
43. Delineation of molecular basis of trophoblast invasion (National Institute of Immunology).
44. Implantation of human retinal pigment epithelial (RPE) cells in the 6-OH DA lesioned rat model of Parkinson’s disease (Neurology).
45. Insights into the role of one-carbon metabolism in progression of cervical carcinogenesis (Biochemistry).
46. Effects of estrogen and estrogen-like compounds on female rat cerebellum: A histochemical and molecular study (Anatomy).
47. Elucidation of gene alterations in the pathogenesis of recurrent spontaneous abortions (Haematology).
48. Sperm Factors (DNA damage, mt mutations, Oxidative stress) Role in Recurrent spontaneous abortion (Anatomy).
49. Non-invasive prenatal diagnosis of common single gene disorders (Paediatrics, Genetic Unit).
50. To compare integrated screening with contingent screening for prenatal detection of Down syndrome in the Indian context (Paediatrics, Genetic Unit).

PUBLICATIONS

Journals: 52 Chapters in Books: 7 Books: 1

PATIENT CARE

Hospital care: Facilities available with department includes special clinic and special laboratory facilities besides the regular Gynaecology outdoor which is held every day.

IVF Facility

1. IVF 233
   ICSI 33
   Antagonist 37
   Agonist 195
   IUI 53
2. Cycles cancelled

Reasons for cancellation

- No egg retrieved: 4
- Failed Slim: 3
- Failure to clear: 2
- Fertilisation failure: 3
- Failure to respond: 2
- Fertilization failure: 3
- Severe OHSS: 2
- Converted to IUI: -
- EHS: 2

3. Frozen Embryo cycles: 62

4. PESA: 2

5. Total number of pregnancies: 47

- Ongoing: 11
- Delivered: 19
- Abortion: 10
- Ectopic: 7

6. Andrology: 363

- Semen Analysis: 69

7. Ultrasounds

- IVF cycles: 3500

- Follicle monitoring:
- Day 2 AFC & Day 21 ET: 2600

8. OPD registrations

- Old 1995
- New 485

**Post Partum Programme**

The Post Partum Programme (PPP) is a mandatory hospital based approach to 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 departments of Paediatrics, Community Medicine, Surgery and Anaesthesiology.

**Achievements of different Family Planning Methods, Post Partum Programme**

<table>
<thead>
<tr>
<th>Methods</th>
<th>Previous year (2010–11)</th>
<th>Current year (2011–12)</th>
<th>Improvement in performance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CuT</td>
<td>574</td>
<td>514</td>
<td>-</td>
</tr>
<tr>
<td>Oral pills</td>
<td>456 pkts</td>
<td>420 pkts</td>
<td>-</td>
</tr>
<tr>
<td>Conventional contraceptives</td>
<td>90,500 pieces</td>
<td>1,20,000 pieces</td>
<td>32.0</td>
</tr>
<tr>
<td>Sterilisation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Tubectomy</td>
<td>1101</td>
<td>875</td>
<td>-</td>
</tr>
<tr>
<td>b. Vasectomy</td>
<td>26</td>
<td>27</td>
<td>4.0</td>
</tr>
<tr>
<td>Services</td>
<td>Performance in the previous year (2010–11)</td>
<td>Performance in the current year (2011–12)</td>
<td>Improvement (%)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------------------</td>
<td>--------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Pregnant women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TT 1\textsuperscript{st} Dose</td>
<td>1709</td>
<td>2011</td>
<td>18</td>
</tr>
<tr>
<td>TT 2\textsuperscript{nd} Dose</td>
<td>1570</td>
<td>1987</td>
<td>27</td>
</tr>
<tr>
<td>Children (0–1 year) immunization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPT 3\textsuperscript{rd} Dose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>600</td>
<td>584</td>
<td>-</td>
</tr>
<tr>
<td>Females</td>
<td>537</td>
<td>471</td>
<td>-</td>
</tr>
<tr>
<td>Polio 3\textsuperscript{rd} Dose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>500</td>
<td>584</td>
<td>17</td>
</tr>
<tr>
<td>Females</td>
<td>537</td>
<td>471</td>
<td>-</td>
</tr>
<tr>
<td>BCG</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>1506</td>
<td>1470</td>
<td>-</td>
</tr>
<tr>
<td>Females</td>
<td>1207</td>
<td>1248</td>
<td>3.0</td>
</tr>
<tr>
<td>Measles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>741</td>
<td>731</td>
<td>-</td>
</tr>
<tr>
<td>Females</td>
<td>502</td>
<td>534</td>
<td>6</td>
</tr>
<tr>
<td>DT (&lt;5 yrs)</td>
<td>592</td>
<td>Not Administered</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clinics</th>
<th>Number of times/ week</th>
<th>Patients attended during 2011–12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>New</td>
</tr>
<tr>
<td>General OPD</td>
<td>6</td>
<td>29996</td>
</tr>
<tr>
<td>High risk pregnancy clinic</td>
<td>3</td>
<td>2133</td>
</tr>
<tr>
<td>Gynae Endocrine clinic</td>
<td>3</td>
<td>84</td>
</tr>
<tr>
<td>Gynaecological cancer clinic</td>
<td>2</td>
<td>727</td>
</tr>
<tr>
<td>Post natal clinic</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Medical termination of pregnancy clinic</td>
<td>6</td>
<td>649</td>
</tr>
<tr>
<td>Family Welfare clinic</td>
<td>6</td>
<td>9010</td>
</tr>
</tbody>
</table>

List of operations performed during 2011–12

Gynaecological

<table>
<thead>
<tr>
<th>Major</th>
<th>Number</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery for benign diseases</td>
<td>1229</td>
<td>Oncology Surgery</td>
</tr>
<tr>
<td>Infertility</td>
<td>1045</td>
<td></td>
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</table>
**Endoscopy surgeries**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
<th>Description</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laparoscopy+Hysteroscopy</td>
<td>900</td>
<td>Plastic surgery</td>
<td>57</td>
</tr>
</tbody>
</table>

**Minor**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
<th>Description</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>D&amp;C/EA</td>
<td>1198</td>
<td>Colposcopy/cryo/LEEP</td>
<td>158</td>
</tr>
<tr>
<td>Diagnostic hysteroscopy</td>
<td>1440</td>
<td>MTP</td>
<td>649</td>
</tr>
<tr>
<td>Pap’s smear</td>
<td>3456</td>
<td>Cervical biopsies</td>
<td>336</td>
</tr>
</tbody>
</table>

**Obstetrics**

**Major**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSCS</td>
<td>992</td>
<td>Vaginal deliveries Forceps</td>
</tr>
</tbody>
</table>

**Minor**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal deliveries normal</td>
<td>1144</td>
<td>Forceps</td>
</tr>
</tbody>
</table>

**Fetal Medicine**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cordocentesis</td>
<td>77</td>
<td>Chorionic Villus Sampling</td>
</tr>
<tr>
<td>Amniocentesis</td>
<td>261</td>
<td>In Utero infusion</td>
</tr>
</tbody>
</table>

**High risk Obstetrics**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obstetric ultrasound</td>
<td>3249</td>
<td>NST</td>
</tr>
<tr>
<td>BPP</td>
<td>1500</td>
<td>Gynae Ultrasound</td>
</tr>
<tr>
<td>Ovarian cyst aspirations</td>
<td>251</td>
<td></td>
</tr>
</tbody>
</table>

**Laboratory Investigation**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urine Pregnancy test</td>
<td>2948</td>
<td>Haemoglobin</td>
</tr>
<tr>
<td>Blood Group</td>
<td>2358</td>
<td>Urine albumin/sugar</td>
</tr>
</tbody>
</table>

**Community services/camps**

Organized School Health Camp at Katha Khazana School, Bhumibeen Camp, Govindpuri, 10–11 October 2011, in collaboration with the Group of Friends Club.

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Suneeta Mittal** was member Project Review Group on Fertility Regulation and Expending Contraceptive Choices of Indian Council of Medical Research; Scientific Advisory Committee of Reproductive Health Research of Central Drug Research Institute, Lucknow; Multicountry Study Steering Committee of World Health Organization, Geneva, Switzerland; Scientific Advisory Committee of Indian Institute of Technology, Kharagpur; Institute Body of Jawahar Lal Nehru Institute of Postgraduate Medical Education and Research, Pondicherry; Academic Council of Guru Gobind Singh Indraprastha University, Delhi; Chairperson Project Review Group on Reproductive Health of Indian Council of Medical Research; Expert Committee to review marketing of Letrozole for Induction of ovulation in anovulatory infertility constituted by the Directorate General of Health Services; Reviewer for the Journal of Obstetrics and Gynaecology Research JOCR-2009-0451; Member, Technical Advisory Group (TAG) of PATH; Member, Committee of ASSOCHAM and Planning Commission to make this country a better place to live and pay tribute to womanhood and motherhood; Member, Expert Committee to examine issues related to the advertisement of Emergency Contraceptive (EC) Pills in the media of DGHS; Member, IC-SCRT for Medanta - The Medicity; Academic Expert
Professor Alka Kriplani was awarded eMedinewS Medical Statesman of the year award 2011 by eMedinewS and IJCP, Delhi, 22 January 2012; Nominee, Court of Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur, Kalan, 2008–11; Member, Faculty of Medicine, IMS, in Obs & Gynaec, Banaras Hindu University, 2009–11; Editor, Asian Journal Obs & Gynaec Practice; Elected Member, Governing Council of ICOG (Indian College of Obstetricians & Gynaecologists), 2009–11; Chairperson, Endoscopy Committee, AOGD, 2009–11; Co-ordinator, North Zone, Medical Education Committee of FOGSI, 2010–11; Co-authored research work that was rewarded: (i) FOGSI-Dr. C.S. Dawn Prize for the best presentation of paper on official theme of congress, ‘Levonorgestrel intrauterine system in medical management of adenomyosis’, at 54th AICOG, Hyderabad, January 2011 (Dr. Vidushi Kulshrestha); (ii) A Success story in Congenital Adrenal hyperplasia, Awarded Second prize for best case report in National Conference on Gynaec Endocrinology-2011 Delhi, Organized by GESI, Delhi, April 2011 (Dr Amol Lunkad); (iii) Role of levonorgestrel – intrauterine system in medical management of adenomyosis. Awarded Third prize for best poster presentation in National Conference on Gynaec Endocrinology-2011 Delhi, Organized by GESI, Delhi, April 2011 (Dr. Vidushi Kulshrestha); (iv) Postcoital rectovestibular fistula in a patient of Mayer Rokitansky Kuester Hauser syndrome repaired transvaginally followed by vaginoplasty. Awarded Second prize for best poster presentation in National Conference on Gynaec Endocrinology-2011 Delhi, Organized by GESI, Delhi, April 2011 (Dr Monika Gupta); (v) Awarded FOGSI-Dr Siuli Rudra Sinha Prize for the 3rd best presentation of a paper on Gynec. Endoscopy on ‘Laparoscopic assisted uterovaginal anastomosis with placement of silicon stentin congenital cervical atresia’, at 55th AICOG, Varanasi, January 2012 (Dr Garima Kachhawa); (vi) Awarded Dr Karan Gupta Award 2nd prize for poster in miscellaneous category on ‘Clinico-hormonal evaluation of a cohort of primary amenorrhoea: Aretrospective analysis at 55th AICOG, Varanasi, January 2012 (Dr Sneh Shree).

Professor Sunesh Kumar was Member – Project Advisory Committee on ‘Screening for Common Cancers in three districts of Himachal Pradesh being conducted by ICMR.

Professor Neerja Bhatla was awarded the Advani–Braganza Oration 2011 on Current Status of HPV Infection and Vaccines by the Association of Medical Women in India at their 38th Annual Conference in Mumbai, 27 August 2011; Co-Organising Secretary, IGCS Regional Meeting on Gynecologic Cancers, New Delhi, 2–3 April 2011.

Dr Neena Malhotra was awarded Overseas Research Fund (2010–11) by the Royal College of Obstetricians and Gynecologists, London, UK visiting Assisted Conception units at Guy’s Hospital, London and Assisted Reproduction Unit, Aberdeen, Scotland.

Dr J.B.Sharma was awarded FAMS at Annual Conference of National Academy of Medical Sciences, 29–31 October 2012; Udbhav Shikhar Samman by Indian Council of Cultural Research and Udbhav (Regd) for significant contribution to womens’ health in India, 20 January 2011; MD (Obst & Gyna) Examiner for University of Delhi, 25–27 April 2011, Himalayan Institute of Medical Sciences, Jolly Grant, Dehradun, Uttarakhand, 13 April 2011; Member selection committee for ICMR Research Project on ART Registry, ICMR HQ, New Delhi, 20–21 April 2011; Editor: Indian Obstetrics and Gynecology; Associate editor, Int J Gynecol Obstet India, Int J Gynaec Plastic Surgeons, Int J Gynaec Endocrinology, Asian J Gynaec Obste; Reviewer, Int J Gynecol Obstet, Archives of Obstet Gynecol, Journal of Obstetrics Gynecology Research, Fertility Sterility, African J Microbiology

VISITING SCIENTISTS
1. Dr Sheryl Z. Vanderpaul, Director’s Office, WHO Headquarters.
2. Dr Narimah Awin, WHO
9.24 Orthopaedics

Professor and Head
Prakash P. Kotwal

Professors
Shishir Rastogi
Rajesh Malhotra

Arvind Jayaswal
Hira Lal Nag

Additional Professor
Ravi Mittal
Chandra Shekhar Yadav

Shah Alam Khan

Associate Professor
Vijay Kumar

EDUCATION
Continuing Medical Education, National and International Conferences

Organized
1. Preconference Workshop, DOACON-12, over Total Knee Arthroplasty of Delhi Orthopaedics Association, New Delhi, 5 November 2011.
2. IOACON-12 over Advance Total Knee Arthroplasty of Indian Orthopaedics Association, Sharda Hospital, Greater Noida, 7 December 2011.
3. AIIMS Cadaver Arthroplasty Course over Total Hip Arthroplasty, Orthopaedics Research Society, 31 March–1 April, AIIMS,

Lectures delivered
Prakash P. Kotwal: 42
S. Rastogi: 26
Arvind Jayaswal: 23

R. Malhotra: 61
H.L. Nag: 21
Ravi Mittal: 19

C.S. Yadav: 21

Oral presentations: 23
Poster presentations: 6

RESEARCH
Funded projects
1. Clinical Drug Trial, A multi-centric, randomized, comparative clinical trial to evaluate the efficacy and tolerability of Tolflex 150 mg versus Thiocolchicoside 8 mg in the treatment of acute low back pain, P.P. Kotwal, Merck, Mumbai, Rs. 80,000.
6. A phase III randomised, parallel group, double-blind, active controlled study to investigate the efficacy and safety of oral 220 mg dabigatran etexilate (110 mg on the day of surgery followed by 220 mg once daily) compared to subcutaneous 40 mg enoxaparin once daily for 28–35 days in prevention of venous thromboembolism in patients following primary elective total hip arthroplasty (RE-NOVATE II). Rajesh Malhotra, SIRO Clinpharm Pvt. Ltd., 2008–12, Rs. 25.50 lakhs.


8. Assessment of the influence of Birmingham Mid Head Resection Arthroplasty on proximal femoral bone mineral density by serial DEXA scans and comparison of Birmingham Mid Head Resection Arthroplasty. Rajesh Malhotra, ICMR, 2011–14, Rs. 27.5 lakhs.


10. Abdomen/Thorax model build/validation. Rajesh Malhotra, 9 months, Rs. 5 lakhs.

**Departmental projects**

**Ongoing**

1. Randomised Trial Comparing results of Radialisation and Centralisation Procedures in high grade radial club hand with an insight into the histopathology.


4. Arthroscopic elbow synovectomy in rheumatoid arthritis long term follow – up of more than two years.

5. Comparative assessment of bone loss azt anteroinferior part of glenoid in recurrent shoulder dislocation between arthroscopic findings and 3D CT Scan.

6. To study the safety and efficacy of dexmeditomidine in patients undergoing arthroscopic knee surgery

7. Arthroscopy of the hip in children with Legg-Calve-Perthes disease and its correlation with imaging


**Completed**

1. Functional outcome in patients with intra-articular fractures of calcaneus undergoing treatment with open reduction and internal fixation vs. minimally invasive technique – A Randomised Controlled trial.

2. Arthroscopic Elbow Synovectomy in Rheumatoid Arthritis: its effectiveness and MRI Correlation.

3. Psychosocial Aspects of Chronic Pain Syndrome.


**Collaborative projects**

1. A Multi-center, Prospective, non-randomized, non-controlled observational study in the treatment of fractures (Indian Orthopaedics Multicenter Study in Fracture care – INORMUS).
PUBLICATIONS
Journals: 51 | Books: 8

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor P.P. Kotwal was Expert, for extending medical advice to the Hon’ble Prime Minister, 22 September 2011; Expert, on the medical panel for extending medical advice to the Vice-President of India; A.O. Trustee, India; Expert Member, Advisory Panel in the discipline of Orthopaedics for the National Academy of Medical Sciences, New Delhi for the year 2012; Chairman, UG/PG Curriculum Committee of the Indian Orthopaedic Association, 2009-2011; delivered Silver Jubilee Oration, Vidarbha Orthopaedic Society, Nagpur, October 2011; prestigious K.S. Bose Oration, West Bengal Orthopaedic Association on Thumb Reconstruction, Malda, 2011; Chairman of Selection Committee meeting for selection of Medical Officer for 31st Indian Scientific Expedition to Antarctica, 17–18 August 2011; Selection Committee, Medical Officers for Indian Expedition team to Antarctica, November 2011; Meeting for upgrading and strengthening Rajbansi Nagar, Hospital, Patna, January 2012; Vidyalaye Management Committee, Kendriya Vidyalaya, INA Colony, New Delhi; Member, Selection Committee for the post of Professor in Orthopaedics for ESI PGIMSRs, 6.1.2012; External Expert to conduct interview for the placement of doctors in Rajbanshi Nagar Hospital, Patna, 2011; Member, Sub-Committee of Drug Technical Advisory Board (DTAB) to review the rationality and safety aspect of list of 294 Fixed dose combinations (FDCs), April 2011; External Expert for Technical Evaluation of Navigation System of Pt. J.N. M. Medical College, Raipur, Chattisgarh on 9.1.2012; Member, Committee constituted by DGHS regarding utility of procurement of 3D Motion Analyzer and Physical Re-generation System for Sports Injury Centre, S.J. Hospital, New Delhi; Expert Member, Drug Technical Advisory Board (DTAB), Drug Controller General of India, April 2011; Special Medical Board of IIT for Candidates with disabilities qualifying JEE-2011, June 2011; Management Committee of Automobile Association of Upper India (AAUI), New Delhi, 2008–to date; National Co ordination Committee for Antarctic Programme (NCAP) and National Co-ordination Committee for Polar Science Programme (NCCP), Ministry of Earth Sciences, New Delhi, August 2011; Delegation constituted by the Ministry of External Affairs, India, to visit the Bharat Nepal Maitri Trauma Centre at Kathmandu, February 2012; Advisory Panel in the discipline of Orthopaedics for the National Academy of Medical Sciences, New Delhi, 2012; Expert Committee to examine the issues related safety and efficacy of Human Placental Extract, New Delhi, April, 2011; Chairman, Departmental Promotion Committee for the post of Data Entry Operator Gr. B at AIIMS, January 2012; Assessment Committee to assess all the requirement for the purchase of M&E at AIIMS, 2010 to date; Committee to review functioning of department of Emergency Medicine at AIIMS, July 2011; Screening Committee for Programmers at AIIMS, 2011; Committee for setting up of outreach OPD at the site of construction of AIIMS-2 at Jhajjar, Badsha (Haryana), April 2011; Convenor of committee regarding preparation of ‘Vision Document’ for AIIMS, 4.10.2011; Chairman, Stores Purchase Committee, Hospital Stores Purchase Committee, Committee for Setting up new OPD Block at AIIMS; Professor In-Charge, Computer Facility, AIIMS; Sanctioning Authority for OTA Claims, Cafeteria Claims, Computer advance, Car Advance, Festival advance, NOC for Passport etc. w.e.f. 10.10.2011 to date; Appellate Authority under RTI for Department of Radio-Diagnosis at AIIMS, 2011 to date; Administrative control over the cadre of Data Entry Operators at AIIMS w.e.f. 19.10.2011

Professor S. Rastogi was awarded the third SICOT oral presentation award at SICOT, Prague in September 2011; Participated/chaired Workshop, as an expert for development of guidelines with regard to MoHFW on UN Convention on rights of persons with Disabilities (WHO and GOI collaborative program), Department of PMR, Lady Hardinge Medical College and Hospitals, New Delhi.

Professor A. Jayaswal was President of WENMISS – World Society for Endoscopic, Navigated and Minimally Invasive Spine Surgery; Immediate Past President of Association of Spine Surgeons of India (ASSI), immediate past President Spine Society Delhi Chapter & Vice President of the Spinal Cord Society of India; Honorary Vice-chairman of Spine Section of Asia Pacific Orthopaedics Association (APOA); Faculty to International Spine Conferences held in Bonn, Germany; Busan, Korea; Xian, China; Kuala Lumpur, Malaysia; Colombo, Sri Lanka; Panelist at 4
Conferences; Chairperson/Moderator of sessions at Conferences (6) National and (4) International; Demonstrated Specialized Spine Surgery Live at Xian, China

Professor Rajesh Malhotra was Regional Advisory Board Member – Ortho Hyperguide – A web based global Orthopedics learning portal; Adjunct Faculty CMET, AIIMS; Editor, Orthopaedics Today; Reviewer for Journal of Bone and Joint Surgery (British), Indian Journal of Orthopedics, Journal of Pediatric Health (UK), Journal of Pediatric Health (UK), Journal of Medical Case Reports, The National Medical Journal of India, Clinical Anatomy, Journal of Bone and Joint Research (BJR), International Journal of Medical Reports (IJMR), International Journal of Medical Practice and Reviews (MPR), World Journal of Endocrine Surgery (WJOES), The Knee, Indian Journal of Pediatrics, Indian Pediatrics, British Journal of Medicine and Medical Research; Member Editorial Board: Neurology India; Reviewer for Applications for funding submitted to National Institute of Health Research and Research for Patient Benefit Program (NIHR & RfPB) of NHS, UK; Reviewer for Applications for funding submitted to Indian Council of Medical Research, Department of Biotechnology, Department of Science & Technology, Govt. of India; Expert for Project Review Committee on Bio-engineering of ICMR for funding of projects, 27 May 2011, 14 June 2011, 8 September 2011, 2 February 2012; Chairman, Project Review Committee on Bio-Medical Projects of ICMR, for funding of projects, 5 March 2012; Acting Professor In Charge Computer Facility from time to time in the absence of Professor P P Kotwal; Member, Committee on Tele Medicine at AIIMS 2006–2012; Member, Hospital Infection Control Committee, 2005–10; Member, Staff Council, 2008–2012; Member, Advisory Committee for Central Workshop (Orthopedic Implants & Devices), AIIMS, 2007–11; Department Store Purchase Committee; Drug Selection Committee; OT Users Committee 2008–12, AIIMS, New Delhi; Chairman of several Medical Boards constituted by MS, AIIMS;

Professor H.L. Nag was Member, EHS Advisory Committee Meeting for reimbursement of Ayurvedic medicine, AIIMS, 30 June 2011; Nominated, Vice President, Organizing Committee, 10th Annual Conference of IAS, New Delhi, 9–11 September 2011; Nominated, Member, Staff Council of AIIMS, for 2011–12; Awarded 2nd Prize for Poster presentation at 1st quarterly meet of DOA, New Delhi, 15 January 2012; Sports Clinic—a special clinic is run every Thursday afternoon at OPD, Department of Orthopaedics; Honorary Consultant, Sports Authority of India, visits J.L.N. Stadium, New Delhi, every Monday evening to attend the injured athletes; Member, Selection Committee for Interview, recruitment to the posts of Sister Grade-II, AIIMS, 26 September–1 October 2011; Expert, Health Show on Sports Injury, DD Programme, Prashar Bharati, New Delhi, 22 December 2011.

Dr Ravi Mittal was admitted to the fellowship of Royal College of Physicians and Surgeons of Glasgow (FRCS Glasgow), April 2011.

Dr C.S. Yadav was invited by Public Service Commission, UP Government as expert for the interview of specialist of orthopedics, 7 May 2011; Invited by principal and controller of JLN Medical College, Ajmer, Rajasthan, 30 of May 2011 to conduct practical & viva vice examination; Judge, PG Gold medal session, 17–19 Feb 2012, UPORTHOCON-2012 at Kanpur

Dr Shah Alam Khan was nominated Joint Secretary, Indian Orthopaedic Association; Elected, Assistant Editor, Indian Journal of Orthopaedics; Elected, Founding member, Ponseti International Association, Indian Chapter; Member Reviewer, Journal of Bone & Joint Surgery, British; Elected, Member International Editorial Board, Journal of Clinical Rehabilitative Tissue Engineering Research (China).
HIGHLIGHTS
The department is among the best in the country and has developed expertise in most current sub-specialties in Otorhinolaryngology. The department has recently procured equipment for cutting edge technology in diagnosis and treatment of various complex ENT disorders. These include equipment for sialoendoscopy for salivary glands. The department also has a navigation system for navigation during skull base and advanced endoscopic sinus surgery. The department faculty has also started performing transoral robotic surgery for oral and oropharyngeal cancers. This technique is first of its kind in the country. The department has also established a state of art temporal bone dissection lab which will provide facilities for training postgraduates in otologic and neuro-otologic surgeries. The department plans to organise workshops for temporal bone dissection for Indian and foreign delegates in future.

EDUCATION
The department has a UG and PG teaching programme. PGs receive multifaceted training in various domains with adequate surgical skills. The department also organizes workshops and conferences for national and international delegates on various topics of interest. The department also hosts delegates from India and abroad to observe departmental activities, specialty clinics, seminars and operative procedures.

CMEs and Conferences
Organized by the department
1. CME on management of sleep disorders, Dr Tvinneriem Magne, Bergen, Norway, AIIMS, New Delhi, 13 October 2011.
2. Surgical workshop on Rhinoplasty and FESS and Cadaveric Dissection, AIIMS, New Delhi, 14–15 October 2011.

Lectures delivered
S.C. Sharma: 4 Alok Thakar: 36 Rakesh Kumar: 7 Kapil Sikka: 5
Chirom Amit Singh: 2

Oral papers/posters presented by faculty, residents and staff: 12

RESEARCH
Funded projects
Ongoing
1. Phase II/III Randomized Placebo Controlled Clinical Trial of Curcumin In Resectable Stage III and IV Oral Squamous Cell Cancer. A Thakar, Department of Biotechnology 2008–13, Rs.71 lakhs.
2. 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, RC Deka, ICMR, 3 years, Rs 25 lakhs approx.

**Departmental projects**

**Completed**
1. Immuno-histochemical characterization of JNA (Juvenile nasopharyngeal angiofibroma) and radiological and histological evaluation of involvement of vidian canal in JNA.
2. Evaluation of NRT based MAPing in post lingual deafened cochlear implantees and its correlation with conventional behavioural test based MAPing in the same patient.
3. Clinicopathological study of antral mucosal changes in patients with ethmoidal polypi.
4. A study to evaluate the role of repetitive trans cranial magnetic stimulation therapy in patients with chronic tinnitus.
5. Comparative study of outcome of tympanoplasty using hydroxyapatite and titanium prosthesis.
6. Evaluation of voice before and after intracordial injection of fat in cases of unilateral vocal cord paralysis.
7. Evaluation of long and short term outcomes of upper eyelid gold weight implantation in facial palsy.

**Ongoing:**
1. Assessment of site directed surgical treatment by nasal, oropharyngeal, palatal, or retroglossal advancement surgery in the management of obstructive sleep apnea syndrome.
2. Role of image guided navigation in paranasal sinuses: A comparative study.
3. Audio-Vestibular effects of transcranial magnetic stimulation (TMS).
4. Evaluation of injury pattern and results of medical and surgical treatment in cases with traumatic and iatrogenic facial nerve injury.
5. Estimation of normative and pathological ranges of otolith and semicircular canal function in healthy young adults and in cases with complete unilateral peripheral vestibular loss.
6. Computed tomographic measurements of normal and pathological inner ear.

**Collaborative projects**

**Ongoing**
1. Congenital Cytomegalovirus Infection And Hearing Loss In Rural Indian Population (Microbiology).
2. Translating Head and Neck Cancer Markers into Diagnostic Assays (Biochemistry).
3. Deregulated Initiation of Translation in Oral Carcinogenesis (Biochemistry).

**Completed**
1. A Randomized, Double Masked, Active Controlled Phase III Study of Efficacy, Safety and Tolerability of Repeated Doses of Intravitreal VEGF Trap-Eye in Subjects with Neovascular Age-Related Macular Degeneration (AMD), (Ophthalmology).

**PUBLICATIONS**

Journals: 15  Abstracts: 6  Chapters in books: 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 patient operated**

Major cases – 2226  Minor Cases – 1705
Number of patient seen in OPD

New patients – 36173  Old registration – 39056

Special clinic

Vertigo clinic – 121  Audiology and Skull base clinic – 149
Rhinology Clinic- 134  Tumor clinic (Head and Neck clinic B)

Gender  New cases  Old follow up  Total
Male  904  3397  4301
Female  152  569  721
Total  1056  3966  5022

Community service clinics

Twice weekly clinics in community hospital in Ballabhgarh
Weekly clinics in primary health centre in Gurgaon
Weekly clinics in community hospital in IIT Delhi

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor S.C Sharma was invited faculty at the 24th Annual Conference of the All India Rhinology Society at Gangtok Sikkim; attended the Vattikutti Global robotic 2012, New Delhi; was invited faculty at the RAJAOICON 2011, October 2011, and delivered the prestigious Prof. Kailash Rai oration; invited guest faculty at the XXIV Annual Conference of North Eastern branch of AOI and delivered Prof. C.S Das oration.

Dr Alok Thakar was an invited Faculty to the 2011 Conference of the Confederation of European Oto-rhino-Laryngology Head–Neck Surgery (CEORLHNS) at Barcelona, taught an instructional course in this meeting and presented a lecture at this prestigious global meeting; was faculty to the SAARC International meeting, to the Joint Meeting of Foundation of Head-Neck Oncology and Asian Society of Head–Neck Oncology and to several national meetings; delivered the Dr Ashok Arora Oration at Annual Conference of Haryana Branch of Association of Otolaryngologists of India, Hissar, December 2011; took over as President of the Neuro-otological and Equilibriometric Society of India; was chief organizer of VERTIGO 360° – A comprehensive CME on Vertigo in July 2011; nominated to the Governing Council of the Foundation of Head-Neck Oncology, and to the membership of ‘ORL 75’ (Associateion Des Medecis ORL Liberaux de Paris); serves on the Executive committees of the Skull Base Society of India, the Association of Phono-surgeons of India and the AIMISONIANS; on the editorial board of the Journal of ENT Masterclass (UK), The Otorhinolaryngology (UK), Otorhinolaryngology Clinics – An International Journal, Otology India (Journal of the Indian Society of Otology) and the Indian Journal of Otology. He served as Section Editor, Image of the week, International Journal of Head and Neck Surgery; Member, ICMR Task Force on Review of Cancer Management Guidelines; Scientific Expert for ENT related project and Member Participant, ICMR Project Review Committee; Project Reviewer, DST and DBT; and on the Technical Advisory Group Committee for Neuro-Developmental Disabilities, INCLEN (India Clinical Epidemiology Network).

Dr Rakesh Kumar was Member, Undergraduate curriculum committee; Staff Council, AIIMS, 2011–12; Deputy Hostel Superintendent, AIIMS, 2011 onward; Reviewer, Journal of Cutaneus and aesthetic surgery; MHD-4 looking after Indian Standards for ENT Instruments by Bureau of Indian Standard (BIS); Oral Ulcer – Live TV Lecture in ‘Gyan darshan’ via satellite of IGNOU, National Board of Examination (Ministry of Health and Family welfare, Government of India, December 2011.

Dr Kapil Sikka was invited guest faculty at 64th Annual Conference of Association of Otolaryngologists of India, AOICON 2012, Allahabad, 4-7 January 2012; was also invited to participate as a panelist at 9th Annual Conference
of Cochlear Implant Group of India CIGICON-2011 at Lucknow, 25–27 November 2011; Nodal Officer, AIIMS for the national programme for prevention and control of deafness; Assistant editor, editorial board member and reviewer, Indian Journal of Otology; reviewer for Indian Journal of Otolaryngology, Head and Neck Surgery; Organising co-secretary for surgical workshop on Rhinoplasty and FESS and cadaveric demonstration, AIIMS, New Delhi, 14–15 October 2011. The workshop had around 100 delegates from India and abroad participating for cadaveric demonstration, lectures and live surgeries for rhinoplasty and endoscopic sinus surgery; Organising secretary, Vertigo 360°, 22 July 2011, AIIMS.

VISITING SCIENTISTS
1. Dr Mansoor Ahmed Latoo  ENT Consultant in SMHS (Shri Maharaja Hari Singh) Hospital, Kashmir, visited Department of ENT and Head and Neck at AIIMS.
2. Dr Krishna Reddy. MS FRCS (Gen Surgery) FRCS (Otolaryngology), Consultant ENT and Facial Plastic Surgeon, Spire Cheshire Hospital, UK, AIIMS, New Delhi, 19 March 2012, Lecture on Facial Plastics for Surgeons of Future India
## 9.26 Paediatrics

### Professor and Head
- Vinod K. Paul  
  (Neonatology)

### Professors
- Maharaj K. Bhan  
  (on deputation; Gastroenterology)
- Ashok K. Deorari  
  (Neonatology)
- Sushil K. Kabra  
  (Pulmonology and Intensive Care, Tuberculosis, and Rheumatology)
- Arvind Bagga  
  (Nephrology)
- Madhulika Kabra  
  (Genetics)
- Maharat K. Bhan  
  (Neonatology)
- Arvind Bagga  
  (Nephrology)
- Madhulika Kabra  
  (Genetics)

### Additional Professor
- Pankaj Hari  
  (Nephrology)
- Sheffali Gulati  
  (Neurology)

### Associate Professor
- Ramesh Agarwal  
  (Neonatology)
- Vandana Jain  
  (Endocrinology)
- Rachna Seth  
  (Oncology)
- Rakesh Lodha  
  (Pulmonology and Intensive Care, Tuberculosis, and Rheumatology)

### Scientists
- Shinjini Bhatnagar
- Madhumita Roy Choudhary
- Pratima Ray
- Manju Saxena

### Other Staff
- Savita Sapra  
  (Clinical Psychologist)
- Sumita Gupta  
  (Physiotherapist)
- Anuja Agarwala  
  (Dietician)
- D Yadav  
  (Medical Social Service Officer)

### EDUCATION

#### Undergraduate
1. Department is involved in teaching of MBBS students and nursing students.
2. Teaching of MBBS students in dietetics, preparation of diet chart.
3. Training in neonatal resuscitation.

#### Postgraduate
1. Regular classroom teaching of postgraduates daily morning 8–9 AM.
2. Departmental symposium on Rationale use of Antibiotics was organised in November 2011; Junior and senior residents participated under supervision of all faculty members of department.
3. Mini-symposium on Disorders of Sexual Development, AIIMS, New Delhi, with participation from Endocrine and Pediatric Surgery Departments, 3 September 2011.
5. Faculty members are involved in teaching of PhD, MSc Biotechnology, MSc Paediatric Nursing.
6. Post graduate workshop in ‘Diagnostics of Childhood Cancer’, with participation of Departments of Paediatrics, Hematology, Laboratory Oncology, Pathology, and Nuclear Medicine and Dr PS Kadam Amare, Head, Cancer Cytogenetics Laboratory, Tata Memorial Hospital, 14–15 January 2012.

Para medical staff training
1. Regular teaching of BSc and MSc Nursing. Faculty members are involved in taking lectures and guide MSc (Paediatric Nursing) in their thesis.
2. Workshops on Infection control for nurses.

DM programmes in Paediatric Neurology and Neonatology
1. 8 DM students in each course.

PhD programme
Department runs a comprehensive PhD programme. A total of 23 students are enrolled for PhD programme in different divisions. The department is a major collaborator for the fellowship programme of the Stanford India Biodesign Programme. It provided clinical mentorship to the fellows and interns in the programme.

Short term and Long term trainees

Dietetics and Nutrition (7) Genetics (37) Medical Social Services (1)

Neonatology (8 National; 6 International)

WHO Fellows
1. Yong Suk Ri, DPR Korea, 52 days Neurology, 5 September 2011 to 27 October 2011.
2. Yong Ran Kim, DPR Korea, 52 days Neurology, 5 September 2011 to 27 October 2011.
5. Deepak Sachan, RML Hospital, September 2011–January 2012.

Nephrology
1. Four fellows were trained in Paediatric Nephrology. Two fellowships were supported by the International Paediatric Nephrology Association (IPNA) and one each by the Indian Society of Paediatric Nephrology (ISPN) and Indian Society of Nephrology (ISN).

Neurology (2) Oncology (1) Pulmonology and Intensive care (7)

CMEs/Workshops/Symposia/National and International conferences

Endocrinology
1. Mini-symposium on Disorders of Sexual Development, AIIMS, New Delhi, with participation from Endocrine and Paediatric Surgery Departments, 3 September 2011.

Gastroenterology, Hepatology and Nutrition
1. Lectures and panel discussion on Probiotics and their importance in today’s scenario, organized by Ms Anuja Agarwala, 4 June 2011.
3. Workshop-cum-discussion on ‘Role and impacts of biotechnology in agriculture and food’, Organised by Ms Anuja Agarwala, 25 February 2012.

Genetics
2. An Introduction to Quality Assurance in Genetic Diagnostic Laboratories Molecular Genetics, Cytogenetics, Biochemical Genetics and Newborn Screening, AIIMS, New Delhi, 9–10 February 2012.

3. Dysmorphology Workshop, organized by Delhi IAP and Genetics Chapter IAP, AIIMS, New Delhi, 4 September 2011.


**Neonatology**

1. Division of Neonatology, organized Symposium on Respiratory Care for Premature Baby, AIIMS, with support of Bill and Melinda Gates Foundation, USA, 12–14 March 2012.

2. Department Paediatrics ran five online courses each for six weeks for nearly 900 nurses/doctors in the Essential Newborn Care (ENC) with skill learning at participating institutions. Participants form India, Maldives, Sri Lanka, Bangladesh, Nepal, Pakistan, Mauritius, Iran. One can access the package at [www.ontop-in.org](http://www.ontop-in.org).


4. Dr Deorari coordinated CPAP workshops for Neocon Jaipur, 16 December 2011; KEM, Pune, 26 January 2012; West Bengal Neocon, 26 February 2012.

5. Facilitated under banner of AIIMS WHO CC Neonatal Ventilation Workshop, IAP Pune Branch, and K.E.M. Hospital Research Centre, 8–10 April 2011; St. John’s Medical College Hospital, Bangalore, 8–10 September 2011; Goa Medical College, 25–28 January 2012.

6. Organized 4th Faculty Development Workshop on Enhancing Research Capacity (ICMR funded), that was attended by over 40 faculty members from different medical colleges, 18–21 July 2011.

**Nephrology**

1. Organized the 5th Annual Training Course in Paediatric Nephrology in collaboration with International Society of Nephrology COMGAN, AIIMS, New Delhi, 6–8 January 2012.

**Neurology**

1. Autism awareness campaign for parents, 7 April 2011.


**Oncology**

1. Post graduate workshop in ‘Diagnostics of Childhood Cancer’ with participation of departments of Hematology, Laboratory Oncology, Pathology and Nuclear Medicine, 14–15 January 2012.

2. CME Post Graduate Workshop on ‘Diagnostics in Childhood Cancer’, AIIMS, partly supported by DBT Glue grant for translational research, 14–15 January 2012.


**Pulmonology and Intensive Care**

1. Respiratory chapter meeting, AIIMS, 28 January 2012.

2. Education programme for parents of cystic fibrosis, 30 October 2011.

3. 4th Dr K.C. Chaudhuri Oration, IJP Competitive Clinical Grand Round and Best Thesis awards, AIIMS, 11 September 2011.
Lectures delivered

VK Paul: 3       AK Deorari: 8       Arvind Bagga: 11       SK Kabra: 26
Madhulika Kabra: 18       Pankaj Hari: 5       Sheffali Gulati: 11       Rakesh Lodha: 25
Rachna Seth: 5       Ramesh Agarwal: 5       Vandana Jain: 7       Pratima Ray: 9
Anuja Agarwala: 9

Scientists in Genetics Division: 12

Oral /Poster presentations

Genetics: 20       Neurology: 7       Endocrinology: 9
Oncology: 8       Pulmonology and Intensive care: 1

RESEARCH

Funded projects

Ongoing

Department

1. Prestigious DBT Glue Grant project, ‘Developing a long term partnership for Translational Health Research in Child Health’, Vinod K Paul, A Bagga, SK Kabra, Rakesh Lodha, Vandana Jain, Rachna Seth, Ramesh Agarwal, Pratima Ray, Department of Biotechnology, Government of India, 5 years, Rs. 4 crores.

Endocrinology

1. Adiponectin, CRP and IL-6 in overweight children and adolescents and their relationship with insulin resistance, Vandana Jain, AIIMS, 2009–11, Rs. 2 lakhs.
2. KIGS multinational Growth Survey, Vandana Jain, Pfizer Research Division, 2011–12, Rs 1.2 lakhs.

Gastroenterology, Hepatology and Nutrition

2. Development of a rapid diagnostic test for diagnosis of celiac disease Phase I-II, Shinjini Bhatnagar and Arvind Bagga, DBT, 2010–12, Rs. 54,45,000.

Genetics

1. Programme Support Projects - Funding for core staff and five projects, Madhulika Kabra, 2007–12, extension up to 2013, approximately Rs. 4 crores, for core staff and one project. Four projects completed and one ongoing – Identification of Novel Genes for non-syndromic hearing loss in the Indian Population (ongoing), Madhulika Kabra, DBT, 5 years, Rs 4.28 lakhs.
2. Newborn screening for congenital Hypothyroidism and congenital Adrenal Hyperplasia – A multicentric study, Madhulika Kabra, ICMR, 2009–12, Rs 20 lakhs.

7. Study of subtelomeric imbalances in children with idiopathic mental retardation using real time PCR Madhumita Roychaudhury, ICMR, 2011–13, salary of student plus Rs 20,000 contingency per year.

8. To study the mutation profile of Indian patients with common organic acidurias. Madhulika Kabra, ICMR, 2011–13, salary of student plus Rs 20,000 contingency per year.

9. Molecular genetic studies in Indian patients with MPSII. Madhulika Kabra, ICMR, 2012–12, salary of student plus Rs 20,000 contingency per year.

10. Effect of MECP2 genotype, X chromosome inactivation pattern and common BDNF polymorphism on the phenotype of classical Rett syndrome patients. Madhulika Kabra, ICMR, 2012–14, salary of student plus Rs 20,000 contingency per year.

11. Molecular genetic studies in Indian patients with Ectodermal dysplasia. Madhulika Kabra, ICMR, 2012–14, salary of student plus Rs 20,000 contingency per year.

**Neonatology**

1. Centre for Advanced Research in Newborn Health involves four centres in Delhi namely AIIMS, MAMC, Chacha Nehru Bal Chikitsalya and Safdarjung Hospital. Vinod K Paul and Ashok Deorari, ICMR, 5 years, Rs. 9.5 crores.


**Nephrology**


2. Effect of atorvastatin on hyperlipidemia and progression of carotid intima media thickness in steroid resistant nephrotic syndrome: a randomized controlled trial. Pankaj Hari, ICMR, 2011–14, Rs. 19,40,142.


4. A prospective, randomized controlled trial comparing the efficacy 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. 26,84,616.

5. 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 14,45,661.


9. Serum soluble urokinase receptor as putative permeability factor in children with focal segmental glomerulosclerosis and steroid resistant nephrotic syndrome. Arvind Bagga, DBT, 2012–15, Rs. 41,82,000.
Neurology
1. Randomized Placebo Controlled Trial of Valproate and levocarnitine in Children with Spinal Muscular Atrophy aged 2–15 years. Sheffali Gulati, AIIMS Institute Research Grant, 2012–14, Rs. 5 lakhs.

Oncology
1. 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. 34,82,535.

Pulmonology and Intensive Care
2. Biomarker discovery in asthma using an integrated-omics approach. Rakesh Lodha, SK Kabra, IGIB, 2009–13, Rs. 96 lakhs.
3. Zinc supplementation in childhood tuberculosis patients in Delhi, India. SK Kabra, Norwegian Programme for Development, Research and Education (NUFU), 2007–12, Rs. 1,53,68,288.
5. 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
Genetics

Neonatology

Neurology
1. Randomized Placebo Controlled Trial of Valproate in Children with Spinal Muscular atrophy, Sheffali Gulati, Institute Research Grant, AIIMS, 2008–11, Rs 1 lakh per year.

Oncology
1. Understanding the biology of childhood cancer survivorship in India, Rachna Seth, AIIMS, 2010–11, Rs. 1 lakh.
Pulmonology and Intensive Care
1. Nevirapine levels in HIV-infected children receiving antiretroviral therapy with fixed dose combinations, Rakesh Lodha, ICMR, 2009–11, Rs. 18 lakhs.

Departmental Projects
Ongoing
Endocrinology
1. Catch-up growth in term low birth weight infants.
2. A study on identification of perceived concerns and awareness levels on health related issues among urban Indian adolescents.

Genetics
3. 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.
4. Molecular Genetics studies in Indian patients with ectodermal dysplasia and Ichthyosis.
5. A study of subtelomeric imbalances in children with idiopathic mental retardation using real time PCR.
7. Molecular Genetic studies in Indian families with Autosomal recessive non syndromic hearing loss.
9. Mutation analysis and association of biomarkers in patients with mucopolysaccharidosis type I, II, and III.
10. To study the Prevalence of Genetic Polymorphisms of Cytochrome P450 CYP2C9 and their association with Drug levels in Children on Phenytoin Monotherapy.

Neonatology
12. Role of B ANP in diagnosis of PDA.

Nephrology

Neurology
15. Inspiratory muscle training for chronic neuromuscular diseases in children and adolescents – a systematic review.
16. Role of skin biopsy in childhood muscular dystrophies.
19. Study of the prevalence of genetic polymorphisms of UGT1A6 and their association with serum valproate levels in children on valproate monotherapy.
21. 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.
22. Estimation of prevalence of sleep problems in Autistic children in comparison to typically developing children.
23. Clinical spectrum of Psychogenic non epileptic events in children 6–16 years.

**Oncology**
25. To study the effect of hyperhydration vs hyperhydration and hydroxyurea in management of newly diagnosed hyperleukocytosis of acute childhood leukemia.
27. Study the outcome of childhood langerhans cell histiocytosis.
29. Late effects of childhood cancer survivorship.

**Pulmonology and Intensive Care**
31. Pharmacokinetics of antitubercular medications in children.
32. Prevalence of *Pneumocystis jirovecii* on Induced Sputum of <15 Yr Immunocompromised Children with Pneumonia by Gomori Methenamine silver stain and Polymerase Chain Reaction.
33. Dyslipidemia and lipodystrophy in HIV infected children.
34. Role of FeNO in identification of uncontrolled asthma in children between age group 5–15 years.
37. Effects of exercise intervention program on bone mineral accretion in children and adolescents with Cystic fibrosis.

**Completed**
**Endocrinology**
1. Impaired glucose tolerance in children with cystic fibrosis.
2. Congenital adrenal hyperplasia: as viewed by parents of affected children in India.
3. Quality of life, emotional well-being, behavioral issues and cognitive function in Indian children and adolescents with Type 1 diabetes.

**Genetics**
5. Molecular genetic studies in Steroid resistant Nephrotic syndrome.

**Neonatology**
6. Iron stores in term and late preterm small-for-gestational age (SGA) and appropriate-for-gestational age (AGA) neonates.
7. Comparison of automated auditory brainstem responses (AABR) and auditory brainstem responses (ABR) for detecting hearing impairment in High Risk Neonates.
8. Efficacy of Phenobarbitone in Neonates with Rh Hemolytic Disease of Newborn: A Randomized Double Blind, Placebo Controlled Trial.


**Nephrology**
10. Randomized double blind placebo controlled trial to examine the effectiveness of zinc supplementation in reducing relapse rates in patients with frequently relapsing nephrotic syndrome.
11. Effect of atorvastatin in hyperlipidemia and progression of carotid intima media thickness in steroid resistant nephrotic syndrome.

**Neurology**
13. Validation of new diagnostic techniques for epilepsy and neuromotor impairment amongst children aged 2–9 years.
14. Telephone follow-up of children with mild neurocysticercosis and seizures: How accurate is it to detect critical clinical events requiring optimal evaluation?
15. Blood heavy metal level in children with autism or ADHD – a cross sectional study.
16. Role of skin biopsy in diagnosing childhood muscular dystrophies.
17. Neurodevelopmental outcome in children aged one to five years with infantile spasms one or more years after onset – A cross-sectional study.
18. Prevalence of electrophysiologically defined peripheral neuropathy in patients aged 3 to 15 years with cystic fibrosis; a cross sectional study
20. Clinical and electrophysiological characteristics of peripheral neuropathy in HIV infected children over 5 years of age receiving antiretroviral therapy.
21. To study HR variability in children between 2 to 15 years of age with GBS.

**Pulmonology and Intensive care**
23. Comparison of rapid bronchodilatory effect of formoterol and salbutamol in children between 5–15 years with mild acute exacerbation of asthma: A double blind, randomized, controlled trial.

**Collaborative projects**

**Ongoing**

**Dietetics**
1. Randomized controlled trial to determine a gluten threshold for Paediatric patients with celiac disease (Department of Physiology).
2. Neurocognitive and psychosocial aspects of childhood obesity (Department of Psychiatry).

**Endocrinology**
1. Efficacy and safety of single dose 6 lac IU Arachitol in treatment of rickets in children (Endocrinology and Metabolism).
2. ICMR Young Diabetics registry (Endocrinology and Metabolism).
3. ICMR Childhood Obesity Task Force, INCLEN, India, (Endocrinology and Metabolism).
4. Psychopathology and body shape concerns in overweight and obese children (Department of 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).

Gastroenterology, Hepatology, and Nutrition
1. 3D – expansion and Differentiation of Mesenchymal Stem Cell into Osteoblast for Bone Tissue Engineering on Biocomposite Scaffold, ICMR, 2010–13..

Genetics
1. To compare integrated screening with contingent sequential screening for prenatal detection of Down’s syndrome in the Indian context. In Collaboration with Prof. Seema Kapoor, Genetics division, Department of Paediatrics, MAMC New Delhi, DBT, 2009–11, Rs. 12 lakhs.
2. Isolation and genetic characterization of circulating cell free fetal DNA for non-invasive prenatal diagnosis of hemoglobinopathies and monitoring of pre-eclampsia Indo-Spain Collaborative study, DST, 2010–13, Rs. 12 lakhs. (ongoing).

Neurology
1. Randomized Controlled Trial of early vs late surgery in childhood intractable epilepsy patients in India, (Neurology). Evaluation of reflexology as an adjunctive therapy in children with spastic cerebral palsy (Biophysics).
2. To develop and characterize Duchenne Muscular Dystrophy disease specific induced pluripotent stem cells from adult cells (ORBO).
3. Evaluation of reflexology as an adjunctive therapy in children with intractable epilepsy including West syndrome (Biophysics).
5. Impact of Controlled and drug resistant epilepsy on Circadian Sleep rhythm: a Case Control study, (Neurology).

Oncology
1. Evaluation of predictors of adverse outcome in Febrile neutropenic episodes in Pediatric Oncology patients, (Microbiology).
Pulmonology and Intensive Care
1. 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, (CO-AG Grant No:IU5 1 IP 00033301) (Microbiology).
2. To study prevalence of uveitis in juvenile rheumatoid arthritis, (Ophthalmology RPC).
3. A randomized controlled trial to compare the effectiveness of deep inhalation over tidal breathing during metered dose inhaler use in paediatric asthmatics. College of Nursing.
5. A study on alternate antimicrobial agents against typhodal salmonellae, (Microbiology).
6. Immunopathogenesis of paediatric HIV 1 infection and generation of human monoclonal antibodies against the viral envelop, (Biochemistry, PhD thesis).

Collaborative projects with the Stanford India Biodesign Programme
1. A novel device empowering frontline health workers to effectively resuscitate newborns.
2. Safety and Feasibility Study of a Novel Screening Device for Early Hearing Screening.

Collaborative Research Projects
Completed
Endocrinology
1. Genetic studies in patients with isolated growth hormone deficiency from North India (Anatomy).

Pulmonology and Intensive Care
1. Detection of mycobacterimea in patients with extra pulmonary tuberculosis, (Lab Medicine).
2. Development of taqman based real timer quantitative polymerase chain reaction assay for detection of pneumocystis carinii/jerovacci pneumonia, (Microbiology).
3. Oral voriconazole versus intravenous low dose amphotericin B for primary antifungal prophylaxis in pediatric acute leukemia induction: a proaspective randomized clinical study, (Medical Oncology).

PUBLICATIONS
Journals: 110 Abstracts: 4 Chapters in Books: 20
Books/Editor of Special Supplement/Symposium: 8
Media: Articles published in newspapers: 2

PATIENT CARE
Facilities available in the department (including Special Clinics)
Outpatient Services
Department of Paediatrics provides general OPD services daily from 9 a.m. in Paediatrics OPD. There are 15 superspeciality services provided by department, which are as follows:
<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>33068</td>
<td>42176</td>
<td>75244</td>
</tr>
<tr>
<td>Paediatric Neurology Clinic</td>
<td>797</td>
<td>2077</td>
<td>2874</td>
</tr>
<tr>
<td>Myopathy Clinic</td>
<td>509</td>
<td>920</td>
<td>1429</td>
</tr>
<tr>
<td>Paediatric Gastroenterology Hepatology and Nutrition</td>
<td>777</td>
<td>3535</td>
<td>4312</td>
</tr>
<tr>
<td>Well Baby Clinic</td>
<td>412</td>
<td>672</td>
<td>1084</td>
</tr>
<tr>
<td>High Risk Neonatology Clinic</td>
<td>276</td>
<td>2925</td>
<td>3201</td>
</tr>
<tr>
<td>Paediatric Nephrology Clinic</td>
<td>509</td>
<td>3992</td>
<td>4501</td>
</tr>
<tr>
<td>Paediatric Chest Clinic</td>
<td>603</td>
<td>5479</td>
<td>6082</td>
</tr>
<tr>
<td>Paediatric Tuberculosis Clinic</td>
<td>391</td>
<td>1905</td>
<td>2296</td>
</tr>
<tr>
<td>Paediatric Rheumatology Clinic</td>
<td>191</td>
<td>1634</td>
<td>1825</td>
</tr>
<tr>
<td>Genetics and Birth Defects Clinic</td>
<td>2622</td>
<td>1469</td>
<td>4091</td>
</tr>
<tr>
<td>Paediatric Oncology Clinic</td>
<td>186</td>
<td>1389</td>
<td>1573</td>
</tr>
<tr>
<td>Paediatric Cancer Survivor Clinic</td>
<td>62</td>
<td>486</td>
<td>548</td>
</tr>
<tr>
<td>Paediatric Endocrine and Metabolism Clinic</td>
<td>1144</td>
<td>1561</td>
<td>2705</td>
</tr>
<tr>
<td>Development Clinic</td>
<td>132</td>
<td>143</td>
<td>275</td>
</tr>
<tr>
<td><strong>Grand Total:</strong></td>
<td>41979</td>
<td>70353</td>
<td>1,12,332</td>
</tr>
</tbody>
</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 clinic, High Risk, Endo, Development clinic, Paediatric Chest Clinic, Rheumatology clinic and OPD services. Total physiotherapy sessions provided during 2011–12: 10,120.

Dietetics services were provided to patients attending Paediatric Gastroenterology, Hepatology and Nutrition clinic, Paediatric Chest clinic and general OPD services

Total number of patients referred for Nutrition, in morning OPD + Specialty Clinics 4012

**Medical Social Services**

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total patients</td>
<td>10,310</td>
</tr>
<tr>
<td>Information and guidance given to patients</td>
<td>2750</td>
</tr>
<tr>
<td>Issuing railway concessions</td>
<td>2000</td>
</tr>
<tr>
<td>Help in accommodation</td>
<td>240</td>
</tr>
<tr>
<td>Exemption of investigation charges</td>
<td>2700</td>
</tr>
<tr>
<td>Mobilization of financial assistance for poor patient</td>
<td>600</td>
</tr>
<tr>
<td>Rehabilitation of unknown babies of unwed mother</td>
<td>8</td>
</tr>
<tr>
<td>Supervision of social work trainees</td>
<td>6</td>
</tr>
</tbody>
</table>
Miscellaneous needs of poor patient (arranging cremation, transportation of bodies to native places)

**Indoor services**
Indoor services include admission facilities in general wards, day care facility, oral rehydration unit and pediatric Intensive care facility.

- Children requiring short procedures or interventions are admitted for a day in day care facility situated in C5 ward.
- Children suffering from acute diarrhoeal diseases are admitted and provided with oral rehydration therapy in oral rehydration unit (ORU) situated in C5 ward.
- Children requiring intensive care are admitted in Pediatric Intensive care unit which is well equipped to provide care to critically ill children.

**Total indoor admission** 6813

- Long admissions in Paediatric wards 1583

**Admissions in day care facility (Short admission)** 5230

**Patients admitted in PICU** 221

**Mechanical Ventilation** 184

**Special Investigations**

**Endocrinology**
- Water deprivation test 10
- ACTH stimulation test 20
- GnRH stimulation test 40
- GH stimulation test 50
- Continuous blood glucose monitoring 10
- HbA1c (point of care testing) 300
- 17 hydroxyprogesterone assay 50

**Gastroenterology Hepatology and Nutrition**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Gastrointestinal Endoscopy and Colonoscopy</td>
<td>874</td>
</tr>
<tr>
<td>Colonoscopy (polypectomy and diagnostic)</td>
<td>54</td>
</tr>
<tr>
<td>Diagnostic UGIE</td>
<td>417</td>
</tr>
<tr>
<td>Small bowel biopsy</td>
<td>180</td>
</tr>
<tr>
<td>Stricture dilatation</td>
<td>16</td>
</tr>
<tr>
<td>Endoscopic variceal ligation (EVL)</td>
<td>77</td>
</tr>
<tr>
<td>Endoscopic sclerotherapy (EST)</td>
<td>88</td>
</tr>
<tr>
<td>Liver Biopsy</td>
<td>55</td>
</tr>
</tbody>
</table>

**Laboratory test**

<table>
<thead>
<tr>
<th>Laboratory test</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celiac serology</td>
<td>800</td>
</tr>
<tr>
<td>D-xylose</td>
<td>25</td>
</tr>
<tr>
<td>Fecal fat</td>
<td>25</td>
</tr>
<tr>
<td>Urinary microalbumin</td>
<td>50</td>
</tr>
<tr>
<td>Continuous subcutaneous insulin infusion</td>
<td>6</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Laboratory test</th>
<th>Number</th>
<th>Laboratory test</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cytogenetics</strong></td>
<td></td>
<td><strong>Biochemical</strong></td>
<td></td>
</tr>
<tr>
<td>Peripheral Blood Cultures</td>
<td>732</td>
<td>Triple Marker</td>
<td>1713</td>
</tr>
<tr>
<td>Fluid cultures</td>
<td>256</td>
<td>βhCG alone</td>
<td>11</td>
</tr>
<tr>
<td>QFPCR for Prenatal test</td>
<td>118</td>
<td>MSAFP alone</td>
<td>17</td>
</tr>
<tr>
<td><strong>Biochemical</strong></td>
<td></td>
<td><strong>TLC for disorders of amino acid metabolism</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Biochemical</strong></td>
<td></td>
<td><strong>TLC for disorders of amino acid metabolism</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Biochemical</strong></td>
<td></td>
<td>Urine</td>
<td>138</td>
</tr>
<tr>
<td><strong>TLC for disorders of amino acid metabolism</strong></td>
<td></td>
<td>Disorder of Muco polysaccharidosis (Urine Spot test)</td>
<td>34</td>
</tr>
<tr>
<td><strong>TLC for disorders of amino acid metabolism</strong></td>
<td></td>
<td>Reducing Substances in urine</td>
<td>180</td>
</tr>
<tr>
<td><strong>TLC for disorders of amino acid metabolism</strong></td>
<td></td>
<td>FeCl$_3$</td>
<td>150</td>
</tr>
<tr>
<td><strong>TLC for disorders of amino acid metabolism</strong></td>
<td></td>
<td>Oligosaccharides</td>
<td>13</td>
</tr>
<tr>
<td><strong>Enzyme assays for Inborn of Metabolism</strong></td>
<td></td>
<td><strong>Enzyme assays for Inborn of Metabolism</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Enzyme assays for Inborn of Metabolism</strong></td>
<td></td>
<td>Total no. of patients</td>
<td>348</td>
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<tr>
<td><strong>Enzyme assays for Inborn of Metabolism</strong></td>
<td></td>
<td>Single enzyme assays</td>
<td>182</td>
</tr>
<tr>
<td><strong>Enzyme assays for Inborn of Metabolism</strong></td>
<td></td>
<td>Multiple enzyme assays</td>
<td>166</td>
</tr>
<tr>
<td><strong>Enzyme Assay Disorder</strong></td>
<td></td>
<td><strong>Enzyme Assay Disorder</strong></td>
<td></td>
</tr>
<tr>
<td>Arylsulfate A metachromatic leukodystrophy</td>
<td>49</td>
<td>plasma - Hexosaminidase A</td>
<td>2</td>
</tr>
<tr>
<td>β-Glucosodase Gaucher Disease</td>
<td>43</td>
<td>plasma - ASA</td>
<td>2</td>
</tr>
<tr>
<td>α- Iduronidase Hurler Syndrome (MPSI)</td>
<td>19</td>
<td>CVS (NIH)</td>
<td>3</td>
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<tr>
<td>Iduronate Sulfate Hunter Syndrome (MPSII)</td>
<td>17</td>
<td>CVS (GM1)</td>
<td>1</td>
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<tr>
<td>Galactose-6- Morquio A Sulphate Sulphatase (MPS IVA)</td>
<td>15</td>
<td><strong>Enzyme Assay Disorder</strong></td>
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</tr>
<tr>
<td>β-Galactosidase GM1 Gangliosidosis and Morquio B (MPSIV B)</td>
<td>38</td>
<td><strong>Enzyme Assay Disorder</strong></td>
<td></td>
</tr>
<tr>
<td>Arylsufatase B Maroteaux- Lamy Syndrome (MPS VI)</td>
<td>8</td>
<td><strong>Enzyme Assay Disorder</strong></td>
<td></td>
</tr>
<tr>
<td>α-Glucuronidase MPS VII</td>
<td>9</td>
<td><strong>Enzyme Assay Disorder</strong></td>
<td></td>
</tr>
<tr>
<td>Hexosamionidase A Tay-Sachs</td>
<td>31</td>
<td><strong>Enzyme Assay Disorder</strong></td>
<td></td>
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<tr>
<td>GALT</td>
<td>39</td>
<td><strong>Enzyme Assay Disorder</strong></td>
<td></td>
</tr>
<tr>
<td>Biotinidase assay</td>
<td>47</td>
<td>plasma - Hexosaminidase A</td>
<td>2</td>
</tr>
<tr>
<td>Plasma – ASA</td>
<td>2</td>
<td>Chitotriosidase (Plasma)</td>
<td>18</td>
</tr>
<tr>
<td>CVS (NIH)</td>
<td>3</td>
<td>CVS (ASA)</td>
<td>2</td>
</tr>
<tr>
<td>CVS (GM1)</td>
<td>1</td>
<td>CVS (MPS-IV A)</td>
<td>1</td>
</tr>
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## Molecular Lab

<table>
<thead>
<tr>
<th>Test</th>
<th>Count</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thalassemia mutation studies (Sequencing &amp; ARMS)</td>
<td>335</td>
<td>Thalassemia prenatal diagnosis</td>
</tr>
<tr>
<td>Duchenne muscular dystrophy family studies</td>
<td>346</td>
<td>Duchenne muscular dystrophy prenatal diagnosis</td>
</tr>
<tr>
<td>Cystic fibrosis family studies</td>
<td>70</td>
<td>Cystic fibrosis prenatal diagnosis</td>
</tr>
<tr>
<td>Spinal muscular atrophy family studies</td>
<td>136</td>
<td>Spinal muscular atrophy prenatal diagnosis</td>
</tr>
<tr>
<td>Hemophilia A family studies</td>
<td>13</td>
<td>Hemophilia A prenatal diagnosis</td>
</tr>
<tr>
<td>Fragile X screening</td>
<td>174</td>
<td>Fragile X Prenatal diagnosis</td>
</tr>
<tr>
<td>Intersex cases for genotyping</td>
<td>54</td>
<td>Skeletal dysplasia mutations</td>
</tr>
<tr>
<td>Achondroplasia PND</td>
<td>1</td>
<td>Connexin 26 mutations (sequencing)</td>
</tr>
<tr>
<td>MLC Mutation testing</td>
<td>9</td>
<td>MLC prenatal diagnosis</td>
</tr>
<tr>
<td>Rett Syndrome mutation testing</td>
<td>80</td>
<td>Rett syndrome prenatal diagnosis (sequencing)</td>
</tr>
<tr>
<td>MLPA for MR (Subtelomeric)</td>
<td>74</td>
<td>MLPA for microdeletions</td>
</tr>
<tr>
<td>MLPA for DMD</td>
<td>49</td>
<td>Angelman Syndrome</td>
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<tr>
<td>CAH Mutation studies</td>
<td>49</td>
<td>CAH Prenatal Diagnosis</td>
</tr>
<tr>
<td>Prader Willi syndrome (MLPA/Methylation PCR)</td>
<td>32</td>
<td></td>
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</table>

## Nephrology

<table>
<thead>
<tr>
<th>Test</th>
<th>Count</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Hemodialysis</td>
<td>1237</td>
<td>Continuous ambulatory peritoneal dialysis</td>
</tr>
<tr>
<td>Acute peritoneal dialysis (including automated peritoneal dialysis)</td>
<td>135</td>
<td></td>
</tr>
<tr>
<td>Plasmapheresis sessions</td>
<td>257</td>
<td></td>
</tr>
<tr>
<td>Temporary hemodialysis catheter placement (internal jugular, subclavian, femoral)</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Renal biopsy</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Renal transplantation</td>
<td>7</td>
<td></td>
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</tbody>
</table>

## Neurology

### EPS Lab

<table>
<thead>
<tr>
<th>Test</th>
<th>Count</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCV</td>
<td>324</td>
<td>EMG</td>
</tr>
<tr>
<td>RNST</td>
<td>14</td>
<td>Routine EEG</td>
</tr>
<tr>
<td>Ambulatory EEG</td>
<td>96</td>
<td>Video EEG</td>
</tr>
<tr>
<td>Muscle biopsies</td>
<td>119</td>
<td>Skin biopsies</td>
</tr>
<tr>
<td>Nerve biopsies</td>
<td>4</td>
<td>Arterial lactate</td>
</tr>
<tr>
<td>CSF lactate</td>
<td>75</td>
<td>CSF ant measles antibodies</td>
</tr>
</tbody>
</table>

## Oncology

<table>
<thead>
<tr>
<th>Test</th>
<th>Count</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bone Marrow aspiration and biopsy</td>
<td>220</td>
<td>Immune phenotype</td>
</tr>
<tr>
<td>Minimal residual disease (MRD)</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>5 part analyser hemogram evaluation (critical care lab)</td>
<td>800</td>
<td>CSF Examination</td>
</tr>
<tr>
<td>FNAC</td>
<td>50</td>
<td>Skin Biopsy</td>
</tr>
<tr>
<td>Tissue biopsy from lymph nodes, tumor mass (with Radiology/and Paediatric Surgery)</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

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Pulmonology and Intensive Care
Sweat Chloride estimation 435  Fibre-optic bronchoscopy 167
Spirometry 1112  Infant PFTs 87
Impulse oscillometry 870

Paediatric Intensive Care
Arterial blood gas analysis 26000  Electrolyte estimation 8400
Osmolality 1200  Haemogram 2000
Electrolytes 26000

Functions of MSW unit of Paediatrics
• Counselling and psychotherapy of parents of chronically ill children.
• Mobilisation of medicinal help from National Illness Assistance Funds.
• (Ministry Of Health And Family Welfare), Prime Minister National Relief Fund, Chief Minister’s Relief Fund, MP Local Area Development Fund, Ladli Yojana under Delhi Government, Institutes Poor Funds, NGO’s under CSR (Corporate Social Responsibility).
• Rehabilitation of unknown babies of unwed mothers and rehabilitation of unattended children through involvement of police, child welfare committees and welfare homes for children.
• Networking with government and nongovernmental social agencies for meeting the various miscellaneous needs of poor patient e.g. arranging crimination of dead bodies of poor patients, deportation of dead bodies of poor patients to their native place and referral work.
• Arrangement and facilitation of accommodation needs of poor patients who come from various parts of country.
• Issuing railway concession to cancer patient, TB patients, Kidney Patients, disabled patients and Hemophilia patients.
• Formation of support group of parents of chronically ill children for the purpose of strengthening their will power to cope up with their grieves and to have help from each other in order to sort out their common problems and needs.
• Exemption of various investigation charges of poor patient on the basis of BPL card, income certificate, recommendation of Member of Parliament and genuine assessment and evaluation poverty.

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Department
Received the India Healthcare Award for the Paediatrics specialty hospital in the country, CNBC TV 18; rated as the best Paediatrics Department in India by the magazine The Week, for the 5th consecutive year; continues to be a DBT Centre for Translational Research in Child Health; has been made a partner centre of the National Biodesign Alliance constituted by the DBT; co-filed a patent for an environment friendly, low cost, disposable newborn diaper; a new prototype of Department’s patented rapid test for celiac disease has been developed and is undergoing field testing; developed two innovative technologies (i. Hearing evaluation system, ii. Foot operated newborn resuscitation system) in collaboration with Stanford-India Biodesign; started a formal foundation course for PhD Programme; formulated the Results Framework Document after detailed deliberations.

Genetics
The division continues to host WHO Collaborating Centre for Clinical Genetics for South East Asia Region.
Neonatology
The division has created a website www.newbornwhocc.org. This highlights the activities of the division and provides free access to learning resource materials, software for Data collection, etc., developed by the division. It clocked 100,000 cumulative hits this year; has been approved 2nd year as ‘Advanced Centre for Newborn Health Research’, ICMR, New Delhi; continued to be the WHO Collaborating Centre for Training and Research in Newborn Care for the 15th year; in collaboration with PGI, Chandigarh has operationalised regular tele-education for DM neonatology fellows on regular basis every two weeks. It is attended by faculty and students from both institutions; has developed package for Online Learning on e-interactive platform for health professionals. This is being used to educate health professionals at distant places in India and Asia with skill learning at partner institutions; Sister Josin won Gold medal at the Annual Meeting of the National Neonatology Forum on ‘Breastfeeding Problems during First Three Postnatal Days in a Tertiary Care: A Prospective Cohort study’.

Nephrology
Division of Paediatric Nephrology was awarded the bid to hold the 12th Asian Congress of Paediatric Nephrology, New Delhi, 2014.

Professor Vinod K Paul was Co-chair, Board of the global Partnership for Maternal, Newborn and Child Health (PMNCH) hosted by WHO, Geneva; Chairperson, Technical Advisory Group on Child Health, Ministry of Health and Family Welfare; Chairperson, Committee on Developing a Bachelor of Rural Healthcare course, Medical Council of India; Member, High Level Expert Group on Universal Healthcare Coverage set up by the Planning Commission at the direction of the Hon’ble Prime Minister; chaired the sub-group on Human Resources for Health; Member, Indo-US Joint Working Group on Maternal and Child Health research partnered by NIH/NICHD and ICMR; Member Inter-governmental Indo–US Working Group on Women and Child Health; Member, Committee on Affordable Healthcare Biotechnologies, Department of Biotechnology; Member Committee on Research in Women, Health and Nutrition, Department of Biotechnology; Member, XII Plan group on Child Rights and Human Resources for Health, Planning Commission; Member, National Technical Advisory Group on Immunization (NTAGI), Ministry of Health and Family Welfare; Member, National Codex Committee of the department of Women and Child Development; Member, technical advisory committee for the PATH-Gates Foundation initiative to develop a novel, point-of-care for neonatal sepsis; Member, Technical Advisory Group of the research NGO SNEHA (Mumbai); Temporary advisor to WHO Geneva for revising clinical care guidelines for (a) Post Natal Home Visits, (b) Basic Resuscitation and (c) Management of Neonates and Children in Small Hospitals; Member, Data Safety Monitoring Boards for a. WHO Multi-centre study on impact of neonatal vitamin A supplementation on child mortality and b. SNL Multi – site study on Short Antibiotic Treatment in Newborn Infections trial; Member, Child Health Epidemiology Research Group (India); Member of the following committees of ICMR: Task Force on Prematurity, Scientific advisory committee for neonatal infection surveillance network, and member core group for the task force study on home-based management of newborn and young infant study; Member, New Drugs and Vaccines Advisory Committee, Drugs Controller of India; Member Central Supervisory Board on Preconceptional and Prenatal Diagnostics Act, Ministry of Health and Family Welfare; Member, Academic Committee, Pondicherry University; Member, Academic Committee, International Institute of Population Sciences, Mumbai; Member, Scientific Advisory Committee on Better Birth initiative of the Johns Hopkins University, Baltimore, USA; Delivered Ambica Oration of the Nepalese Congress of Paediatrics, Kathmandu; Addressed National Science Congress at Bhubaneshwar on Universal Health Coverage.

Professor AK Deorari and Dr Ramesh Agarwal, conducted Training of Trainers on Neonatal Ventilation for Paediatricians of Iran, 19–24 November at Tehran, supported by MOH and UNFPA; facilitated a Workshop on Neonatal Ventilation for Pediatricians of Mauritius 16–19 June 2011, La Belle, Mauritius.

Professor SK Kabra delivered the following orations Dr MSR Memorial Endowment Oration 2011: Community Acquired Pneumonia: Challenges in Developing Countries at Kanchikamkoti Hospital Chennai on 1 May 2011; Dr N Somu Oration: Cystic Fibrosis Then and Now, In XXIII National Conference of Respiratory Chapter (RESPICON
2011) in Pune on 12 November 2011; Dr KC Chowdhury Memorial Oration: ‘Community acquired pneumonia: Challenges and Solutions’ at Institute of Child Health, Kolkata on 18.3.2012; Chaired Project Review Group (PRG) meeting on HIV infection in children of Indian Council of Medical Research, New Delhi, 13 December 2011; Nominated to ‘Apex Technical Committee for Vaccine Grand Challenge Programme’, of Government of India, implemented by Department of Biotechnology; Attended a Workshop on TB and HIV Diagnostics in Adult and Paediatric Populations as invited participant at Washington DC, organised by NIH, CDC, and the Federal TB task force from 28–30 June 2011, at Washington, DC.

Professor Madhulika organized an Expert Group Meeting on Birth Defects in the WHO South-East Asian Region 13–15 December 2011, AIIMS, New Delhi, India, and organized a Workshop on ‘An introduction to Quality Assurance in Genetic Diagnostic Laboratories Molecular Genetics, Cytogenetics, Biochemical Genetics and Newborn Screening’ 9–10 February 2012, AIIMS, New Delhi

Dr Pankaj Hari was nominated member of National Academy of Medical Sciences; Reviewer for Paediatric Nephrology, Journal of International Pediatric nephrology Association

Dr Sheffali Gulati was Fellow, IMSA; Member ICMR Task Force: IEM; National Advisory Board Member, Indian Rett Syndrome Foundation; Award to students (4); Served as Editorial Board Member (2); Review Editor (1); Lead Guest editor (1) Reviewer for Journals: 20 (including BMJ open, Journal of Inherited Metabolic Disease); Member of 16 professional bodies; Attended meetings for formulation of National Epilepsy Control program under chairmanship of DGHS, New Delhi, 2011; Commentator for Evidence-Based Mental Health, an International digest published by the British Psychological Society, the Royal College of Psychiatrists and the BMJ publishing group; Expert for development of National Epilepsy Control programme; Expert for Neurology projects for Indian Council of Medical Research, National Trust, DST, DBT; Member, Committee to draft the 4th edition of National Formulary of India; faculty for six monthly EEG workshops of Indian Epilepsy Society; faculty for Epilepsy Teaching Programme (ETP) of Indian Epilepsy Society; Visiting Faculty for Post Graduate Diploma in Developmental Neurology, Thiruvanthapuram; papers by Arya R, Gulati S, et al. titled Folic acid supplementation prevents phenytoin-induced gingival overgrowth in children, published in Neurology 2011 was selected for podcast interview (Gulati S and Arya R) with Prof Nathan B. Fountain, University of Virginia, also evaluated as Exceptional by Faculty of 1000 and included in top 2% of published articles in Biology and Medicine; Network coordinator, Site PI of National study: Neurodevelopmental Disabilities among children in India: An INCLEN study funded by NIH, Autism speaks, National Trust, Developed and validated culture sensitive Diagnostic Instruments for Autism, ADHD, Epilepsy, Cerebral Palsy; Developed a neurodevelopmental screening tool to screen for 10 neurodevelopmental disorders in the community which is currently undergoing validation; External Expert for PhD Viva Voce examination, Chhatrapati Shahaja Maharaj Medical University, Lucknow; Selected for Bursary Award for International Symposium on Neonatal Seizures and Related Disorders (ISNS), Tokyo, 8–10 April 2011; Chairperson for Medical Board for High Court order assessment of a child with Autism.

Dr Rakesh Lodha was Member of Technical Resource Group on Pediatric HIV, NACO, and Government of India; Associate Editor, Indian Paediatrics; Section Editor, Indian Journal of Paediatrics; Chairperson of Ethics Committee of the Translational Health Sciences and Technology Institute, Department of Biotechnology, Government of India.

Dr Rachna Seth was Member to the International Histiocyte Society. The work done under supervision ‘Evaluation of predictors of adverse outcome in febrile neutropenic episodes in pediatric oncology patients.’ Won the Best IJP thesis award for 2010–11; Geeta Mittal Gold Medal for best research work in oncology was awarded to MD student for work done under supervision on predictors of febrile neutropenia in children; Invited talk in 'Phone in Live Programme: on causes, treatment and prevention of cancer’ (Akashvani), 7 November 2011, National Cancer Awareness day; Nominated member of the NOC committee of Central Adoption Resource Agency (CARA), autonomous body under the Ministry of Women and Child Development, Government of India, and have been serving on this committee since August 2011.
Dr Vandana Jain appointed Section Editor (Endocrinology, metabolism, growth and development), Indian Journal of Paediatrics; Guest editor for special issue on fetal growth retardation for ‘Reviews in Endocrine and Metabolic Disorders’ (impact factor >6); Member, Teaching Schedule Committee and Curriculum Committee of AIIMS.


Ms Anuja Agarwla invited Expert in Technical Consultation on ‘Hospital Nutrition Practices in South-East Asia’, jointly organized by WHO and NFI, India Habitat Centre, New Delhi, 30 November–1 December 2010; Invited Expert, Regional Consultation on ‘Food Based Dietary Guidelines for countries in Asia Region’ jointly organized by FAO-WHO and Institute of Home Economics (University of Delhi), New Delhi, 6–9 December 2010; Certificate of Appreciation for continued support to the cause of Celiac Disease and contribution to Celiac Society Awarded by Celiac Society for Delhi, 15 January 2012; Selected as Voluntary concept reviewer for International Dietetics and Nutrition Terminology (IDNT) by American Dietetic Association, 2011 – till date; Member, Scientific Panel on ‘Functional Foods, Nutraceuticals, Diabetic products and other similar products’, Food Safety and Standards Authority of India, Statutory Regulatory Authority set up under the Food Safety and Standard Act, 2006, 2009–2011, 2012–14; Member, Technical Expert Committee by FSSAI to review study ‘Assessment of Consumption of Processed and non-Processed Food in India’, attended review meeting for evaluation of technical bid on account of Expression of interest floated by FSSAI for hiring consultancy for development of guidelines for making available quality and safe food in schools, NIN, Hyderabad, 21 March 2012; Member, Editorial Board, Journal of Indian Dietetic Association (JIDA), 1 January 2012–till date; ; External Expert, interview Board of Delhi State Health Mission (Government of NCT of Delhi) for conducting interview for selection of Nutritionists at Maulana Azad Medical College, New Delhi; Member, Panel constituted under Specialized Products Sectional Committee, FAD 24/ Panel IV of FSSAI to study suitability of adoption of the following documents as Indian standards and provide its recommendations:

- Codex Standard for labeling of and claims for foods for specialized Medical purposes.
- Codex Guidelines for Vitamin and Mineral Food Supplements.
- Codex Standard for labeling of and claims for Prepacked foods for Special Dietary use.

VISITING SCIENTISTS

Endocrinology

Dr PSN Menon, Chair, Department of Paediatrics, Jaber Al-Ahmed Armed Forces Hospital, Salmiya, Kuwait, delivered a talk on Disorders of Sexual Development, September 2011.

Genetics

1. Dr Shankang (Trevor) Lu, Project Coordinator, BGI Asia-Pacific Research and Cooperation Division, BGI-Shenzhen.
2. Chitra Prasad MD FRCPC FCCMG FACMG, Associate Professor Genetics, Metabolism and Paediatrics, 800 Commissioners Road East, London.
3. Dr Richard A. Gatti, MD, Rebecca Smith Distinguished Professor, UCLA School of Medicine, Department of Pathology and Laboratory Medicine.
4. Dr Trilochan Sahoo MD, FACMG, Quest Diagnostics Nicholus Institute.
Neonatology
Professor Vinod Bhutani, Stanford University, USA.
Professor Haresh Kriplani, University of Philadelphia, USA.
Professor Jeffery Gould, University of Stanford, USA.
Ms Barbie Ligget, Neonatal Nurse Practioner, Halifax.
Ms Kathy Johnson, Respiratory Therapist, Halifax.

Nephrology
- Dr Fernando Santos, Professor and Chairman of Paediatrics at the Hospital Universitario, Oviedo, Spain; Dr Rukshana Shroff, Consultant Paediatric Nephrologist, Great Ormond Street Hospital, London, United Kingdom; and Prof Hui Kim Yap, Head and Senior Consultant, Division of Paediatric Nephrology (Kidney), Dialysis and Renal Transplantation, and Professor in Paediatrics, Yong Loo Lin School of Medicine, National University of Singapore visited the division and participated as faculty members in the 5th Annual Training Course in Paediatric Nephrology, AIIMS, 6–8 January 2012.
- Dr Rulan Parekh, Associate Professor, Departments of Paediatrics and Medicine, University of Toronto and Departments of Medicine and Epidemiology, Johns Hopkins University visited the Division of Pediatric Nephrology on 17 March 2012 and delivered a Guest lecture on ‘Nephrotic Syndrome: The INSIGHT study’
- Dr Jonathan Craig, Paediatric Nephrologist, Children’s Hospital at Westmead, Australia and Chair, Clinical Epidemiology, School of Public Health, University of Sydney visited the Division of Paediatric Nephrology on 18 March 2012.

Neurology
Asuri N Prasad, Associate Prof. in Paediatrics and Neurology.

Oncology
Dr PS Kadam Amare, Head, Cancer Cytogenetics Laboratory, Tata Memorial Hospital, gave lectures (i) Impact of cytogenetics, molecular genetics in a comprehensive diagnostic and prognostic work up of paediatric hematological malignancies, and (ii) Cytogenetic and molecular genetic applications in diagnosis, prognosis and pathogenesis of pediatric solid tumors.

Pulmonology
Dr Sanjay Jain, Associate Professor, Infectious Diseases, John Hopkins University, USA.
HIGHLIGHTS
Professor D.K. Gupta took over as Vice Chancellor of the Chatrapati Sahuji Maharaj Medical University, Lucknow in April 2011. Professor David Sigalet from the World Federation of Associations of Paediatric Surgeons and Calgary University, visited the Department and had an interactive session on Paediatric Surgical training with the Faculty and Residents. 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 three conferences and the faculty delivered 19 guest lectures and performed 4 live operative demonstrations in different parts of the country. A total of 22 scientific papers were read by the faculty and residents at various National and International conferences. The faculty is involved in 55 research projects and has generated Rs 1.03 crores through extramural grants. The publications have included 23 papers and 5 abstracts in peer reviewed and indexed journals and 2 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
CMEs/Workshops/Symposia/National and International Conferences
Organised by the Department
1. National workshop-cum-symposium on ‘Disorders of sex Development in Children’ and Consensus Meeting. This was held under the aegis of Indian and Asian Societies for Paediatric Urology, 15 September 2011, Ramalingaswami Hall, AIIMS.
2. Suture practicum, 25 February 2012.

Lectures and live surgical demonstrations
V. Bhatnagar: 14  M. Bajpai: 5  S. Agarwala: 1  M. Srinivas: 3

List of oral papers/posters presented by faculty, residents and staff: 22

RESEARCH
Funded projects
Ongoing
1. A study on clinical and molecular markers of chronic Interstitial nephropathy in congenital unilateral ureteropelvic junction obstruction (non–genetic markers). M. Bajpai. ICMR, 2011-14; Rs 38 lakhs.
**Departmental projects**

**Ongoing**

1. Study on biosynthetic paracrine and endocrine defects as determinants of testicular dysfunction with respect to severity of cryptorchidism.
2. Long term outcome of two stage repair for hypospadias.
3. Role of aminoguanidine to prevent deleterious effects of ischemic/reperfusion injury on healing of colonic anastomosis in rats.
4. Long term functional outcome and quality of life in operated cases of Hirschprung’s disease.
5. Evaluation of intralesional sodium tetra decylsulphate (STS) injection sclerotherapy in vascular malformations.
6. Long term follow up of patients operated for primary vesicoureteric reflux.
7. To study the clinical profile and aetiopathogenesis of disorders of sex development (DSD).
8. To study the alterations in TGF-$\alpha_1$ and TGF-$\alpha_1$ 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).
9. To study the clinical profile of patients during the first year after undergoing surgery for oesophageal atresia-tracheoesophageal fistula.
11. Evaluation of neuro-behavioural outcome in congenital diaphragmatic hernia patients.
12. Results of the outcome of treatment of neuroblastoma in children by using moderately intense chemotherapy consisting of cyclophosphamide, doxorubicin, etoposide and cisplatin in combination with surgery and radiotherapy.
13. Results with the use of platinum based regimes in the treatment of paediatric malignant germ cell tumours.
15. Prospective study of treatment of children with rhabdomyosarcoma on treatment with IRS-5 regimen.
17. Monotherapy for standard risk hepatoblastoma.
18. Prospective study on five drug regimen for the management of clear cell sarcoma of the kidney.

**Collaborative**

**Ongoing**

1. Genotypic and phenotypic studies in craniosynostosis and its characterization in Asian Indian children (Nuclear Medicine).
2. Study of human Cytomegalovirus DNA in liver tissue of patients with extrahepatic biliary cholestasis (Microbiology, Pathology).
3. Evaluation of growth and nutritional status with particular reference to vitamin D and trace elements in patients of biliary atresia (Paediatrics, Endocrinology, Pathology).
4. 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. Analysis of bile in various hepatobiliary disease states: A Pilot Study (Laboratory Medicine, Gastroenterology).
6. 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).
7. 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).
8. To correlate hepatic duplex sonography in patients of biliary atresia with portal pressure, serum nitric oxide levels and liver histopathology (Radiodiagnosis, Biochemistry, Pathology).
9. A study on profibrotic cytokines TGF-$\alpha_1$, TNF-alpha and IL6 in urine for monitoring therapy in posterior urethral valves (Radiodiagnosis, Nuclear Medicine).
10. Study of prognostic significance of antenatal ultrasonography and renin angiotensin system activation in predicting disease severity in posterior urethral valves (Obstetrics and Gynaecology, Paediatrics, Nuclear Medicine).
13. To study the association of the MTHFR polymorphism C677T in the bladder extrophy-epispadias complex (Obstetrics and Gynaecology).
15. Various orchidopexy techniques and its effect on testicular histology and antisperm antibody production in neonatal rats (Pathology).
16. Randomized controlled trial comparing long term DJ stent and short term external ureteric trans-anastamotic stent and a nephrostomy in children undergoing pyeloplasty for pelviureteric junction obstruction (PUJO) (Radiodiagnosis, Nuclear Medicine).
18. Expression of angiogenic phenotypes (VEGF and Micro Vessels Density) in Ewing sarcoma family of tumor in children (Paediatric Oncology, Radiodiagnosis, Pathology).
20. Changes in enteric nervous system and interstitial cells of Cajal in distal loop of colon after diversion colostomy in rat (Anatomy).
21. GDNF and GFR-α1 in children with Hirschsprung’s disease (Anatomy, Pathology).
22. Primary definitive procedure versus conventional three-staged procedure for management of low anorectal malformations in females: A randomized controlled trial (Biostatistics).
23. Renal reserve in different grades of vesicoureteric reflux (Nuclear Medicine).
24. To study the changes in liver histology after surgery for choledochal cyst (Radiodiagnosis, Pathology).
25. To study the effect of stem cells in rat model of upper ureteric obstruction (Pathology, Stem Cell Facility).
29. Evaluation of clinic-pathological characteristics, prognostic factors and treatment outcomes of patients with Ewing’s sarcoma/PNET (Medical Oncology).

**Completed**

1. A survey of musculoskeletal and pulmonary function abnormalities after thoracotomy in paediatric patients (Radiodiagnosis, Orthopaedics, Paediatrics).
2. 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).
3. To study the role of renin angiotensin system blockade on renal recovery in experimentally induced unilateral ureteric obstruction – a morphometric analysis (Pathology).
PUBLICATIONS

Journals: 23  Abstracts: 5  Chapters in books: 2

PATIENT CARE

Facilities available
1. Intensive care unit for neonatal surgical patients
2. High dependency area for patients operated under Paediatric Surgery department
3. Computer based urodynamic study
4. Computer based anorectal manometry
5. Computer based oesophageal manometry
6. 24 hours pH monitoring for gastroesophageal reflux

Special Clinics
1. Hydrocephalus Clinic
2. Craniosynostosis Clinic
3. Paediatric Urology Clinic
4. Intersex Clinic
5. Paediatric Solid Tumour Clinic

Laboratories
1. Departmental Research Laboratory
2. Laboratory for urodynamics, oesophageal and anorectal manometry

Community services
1. Weekly outpatient clinic and operative session at CRHSP, Ballabhgarh

Attendance in OPD and Speciality Clinics

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Admissions

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Surgical Procedures

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Minor procedures in OPD 1151 CRHSP Ballabhgarh 297

Special investigations

Urodynamic evaluation 490 Uroflowmetry 369
Ano-rectal manometry 109 Oesophageal manometry 2
24-hr pH monitoring 2

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor V. Bhatnagar was appointed Member Board of Studies for the newly created Department of Paediatric Surgery, Sanjay Gandhi Post-Graduate Institute of Medical Sciences, Lucknow, February 2011; Chairperson. Session on fulminant hepatic failure in children. 2nd Annual Conference of UP and Uttarakhand Chapter of Indian Society of Critical Care Medicine, Agra, 3–4 September 2011; Chairperson. Session on neonatal shock and neonatal abdominal surgical emergencies. Annual Conference of Delhi Chapter of National Neonatology Forum, New Delhi, 11 September 2011; Conferred the Fellowship [FIAPS] of the Indian Association of Paediatric Surgeons during the Annual Conference of Indian Association of Paediatric Surgeons, Mahabalipuram, Chennai, 6–9 October 2011; Professor in ‘Meet the Professor’ session on Hepatobiliary surgery. 37th Annual Conference of Indian Association of Paediatric Surgeons, Mamallapuram, Chennai, 6–9 October 2011.

Professor M. Bajpai was appointed Technical Expert by the Director General Health Services, Ministry of Health and Family Welfare for meeting on 28 June 2011 of experts on the subject of Disorders of Sex Development in Nirman Bhawan; appointed Technical Expert by the Director, AIIMS on request from National Commission for Protection of Child Rights (NCPCR), to visit Indore on 1–2 July 2011 and investigate re: news report published in the daily edition of Hindustan Times, 26 June 2011, “Docs turn scores of baby girls into boys”; Led the team as Chief investigator to investigate events related to ‘Disorders of Sex Development’ - appointed by the Director, AIIMS on request by Ministry of Health and Family Welfare to visit Indore on 24–28 July 2011; appointed External Examiner for Fellowship in Paediatric Urology of the Tamilnadu & Dr M.G.R. Medical University, Chennai, January 2012; Faculty for Course on Urodynamics in Children: 5th SAARC Conference in Paediatric Surgery held in Colombo, Sri Lanka, 24–27 August 2011; Panel member: Urodynamics in children at the meeting held in Agra on 30 March 2012 under the aegis of Paediatric Urology Chapter of Indian Association of Paediatric Surgeons.

Dr S. Agarwala was selected as Course Instructor for Surgical Oncology course conducted by Paediatric Surgical Oncology section of the Indian Association of Paediatric Surgery in Mumbai, December 2011; Chairperson for Scientific session in 7th Indo-US Emergency Medicine Summit (INDUS-EM), 28 September–2 October 2011; Chairperson for symposiaon Complications in Paediatric Surgical oncology during the 43rd Annual Conference of International Society of Paediatric Oncology, SIOP 2011, Auckland, New Zealand, 26–30 October 2011; Chairperson for scientific session during the 37th Annual Conference of the IAPS, IAPSCON 2011, Mahabalipuram, India, 6–9 October 2011; Best Poster Award for the poster Congenital cystic lesions of the lung: A review of presentation, diagnosis and management. V. Shankar, S. Agarwala, V. Bhatnagar, AK Gupta, 37th Annual Conference of the IAPS, IAPSCON 2011, Mahabalipuram, India, 6–9 October 2011.

M. Srinivas was Guest Faculty at the Paediatric Urology Workshop, Hyderabad, 10–12 October 2011.

VISITING SCIENTISTS

Professor David Sigalet, Professor of Surgery, Division of Paediatric General Surgery, Alberta Children’s Hospital, University of Calgary, Canada and Executive Member, World Federation of Associations of Paediatric Surgeons.
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

Additional Professor
A.K. Dinda

Associate Professors
M.C. Sharma
Venkateswaran K. Iyer

Assistant Professors
Sandeep R. Mathur
Vaishali Suri

EDUCATION
Postgraduate
MD students: 20    PhD students: 7    Senior Residents: 14

Short term training
1. 24 doctors, including WHO fellows, and trainees from BPKIHS Dharan, underwent short term training.

CONTINUING MEDICAL EDUCATION
Conferences, seminars, workshops
Organized by the department
1. Workshop on Image Analysis and Morphometry in Pathology, Department of Pathology, AIIMS, New Delhi, 21–22 May 2011
2. Quarterly meeting of Delhi chapter IAPM, Department of Pathology, AIIMS, New Delhi, 22 October 2011

Lectures delivered
Chitra Sarkar: 17  AK Karak: 1  AK Dinda: 6  MC Sharma: 2
V.K. Iyer: 10     S.R. Mathur: 2  Vaishali Suri: 2

List of oral papers/posters: 14

RESEARCH
Funded projects
Completed
1. Investigation related to mechanism of entry of HEV into the host cells. SK Panda. DBT, 2008–11. Rs.84.89 lakhs.

4. Efficacy and safety of AP 12009 in adult patients with recurrence or refractory anaplastic astrocytoma (WHO grade III) as compared to standard treatment with temozolomide or BCNU: A randomized actively controlled, open label clinical phase III study. Chitra Sarkar. Antisense Pharma, Germany, 2007–11. Rs. 25 lakhs (approx).

5. Angiogenesis in astrocytic tumors of the brain: A clinico-pathological 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).


7. Prognostication of paediatric abdominal solid tumors on the basis of 1p and 16q chromosomal deletions. Venkateswaran K Iyer. AIIMS, 2009–12. Rs. 3 lakhs.

8. Analysis of her-2/neu status on fine-needle aspiration cytology smears and its correlation with hormone receptor status, proliferation markers and apoptosis in breast cancer: a fluorescent in-situ hybridization (FISH) and immunocytochemistry study, CSIR, 2009–11, Rs 14 lakhs,

9. Analysis of chemotherapy induced morphologic alterations and expression of prognostic markers in post-neoadjuvant chemotherapy advanced stage ovarian serous cystadenocarcinomas, IRG scheme, AIIMS, Rs. 1 lakh.

**Ongoing**


13. Study of Expression of Biomarkers in Endometrial Hyperplasia and Carcinoma. IRG scheme, AIIMS, Rs. 4 lakhs.
Departmental projects

Completed
1. Study of inflammatory cytokines in liver biopsies of non-alcoholic stratohepatitis.
2. Study of PTEN and CDKN2 gene alterations in GBMs.
4. Study of gliomagenesis: Role of Shh-Gliopathway.
5. Gliosarcoma: A clinicopathological and molecular study with special reference to MGMT promoter methylation.
7. Molecular Sub typing, EBV-CISH and Clinicopathological Analysis Of Primary CNS Lymphoma(PCNSL)
10. Diagnostic accuracy of skin biopsy in diagnosing muscular dystrophy. (Dr MC Sharma)
11. Study of LOH on chromosome 10q in GBMs. (Dr VaishaliSuri)
12. CD5+ B cell lymphomas: A morphologic and immuno-histochemical study
13. Immune-response against Hepatitis E Virus.

Ongoing
1. Hepatitis E Virus Replicators: Role of RNA interference in inhibition of Replication and transcription.
2. Attachment and entry of Hepatitis E Virus (HEV) into the liver cells.
3. Primary liver cancer in North Indian patients: Role of Oncogenes, proliferation markers and trans-activating factors associated with HBV, HCV associated hepatocellular carcinoma.
4. Study of sub-genomic RNA and levels of protein expression.
5. Processing of pORF1 of Hepatitis E Virus.
6. Study of the biology of HEV co-super-injection in cronic Hepatitis B infected liver cells
7. Clinicopathological study of CNS AT/RT.
10. Mutational analysis of Indian patients of Limb Girdle Muscular Dystrophy (LGMD).
12. Study of Human Telomerase Reverse Transcriptase (hTERT) and Stem Cell Markers Expression in Ependymomas – Correlation with Apoptotic and Proliferative markers
15. Study of iron metabolism associated proteins in renal cell lines in hyperglycemic and hypermetraemic condition.
16. Study of endocytosis and fate of calcium phosphate based and gold nanoparticle
17. Nanoparticle mediated antigen presentation and modulation of antigen processing by macrophage.
18. Gene deletions and mutations in Wilms tumor: Correlation with histopathology and outcome.
21. ‘Expression of Dkk 1 in Endometrial Endometrioid Carcinoma & Its Correlation With Wnt/β-catenin Signaling Pathway’.
**Collaborative projects**

**Completed**

1. Effects of administration of human umbilical cord blood cells (HUCBG) in combination with melatonin versus HUCBG along in rat with stroke. (Department of Neurology, AIIMS).
2. Comparative study of the treatment outcome with concurrent chemoradiotherapy in glioblastoma with Temozolomiod post chemoradiotherapy 6 cycles vs. 12 cycles and molecular basis of resistance based on EGFR, MIB-1 and p53. (Department of Radiation Oncology).
3. Effects of bone marrow derived mononuclear cells on nerve regeneration rat sciatic nerve transaction model. (Department of Neurosurgery).
4. Dose dependent facilitation of peripheral nerve regeneration by bone marrow derived mononuclear cells – Randomized controlled trial. (Department of Neurosurgery).
5. Development of tumor targeting with nanogel system. (Center for Biomedical Engineering, IIT, Delhi).
6. Fabrication of chitosan-gelatin-alginate composite tissue engineering scaffold by foaming method without using surfactant, its characterization and biocompatibility studies (Department of Paper Technology, IIT Roorkee).

**Ongoing**

1. Oxygen concentration, p53 axis and stemness characteristics of glial tumor cell lines (Department of Biochemistry, AIIMS).
2. Expression of Notch signaling molecules, Epithelial Mesenchymal Transition (EMT) markers and HIF-1alpha in GlioblastomaMultiforme. (Department of Biochemistry).
3. Clinicopathological study of the thalamus in head injury (Department of Neurosurgery).
4. Methylation profiling of pediatric GBMs (Indian Institute of Science, Bangalore)
5. Study of chromosome 14 microRNA cluster (miR-379/miR-656) in Glioblastoma (Institute of Genomics and Integrative Biology, New Delhi)
6. Role of macrophage and oxidative stress in airway remodeling (IGIB, Delhi).
7. Effect of blocking of HIF1á gene expression on macrophage endocytosis and generation of ROS. (JNU, Delhi).
8. Development of hydrogel based wound dressing and study of its efficacy in experimental model. (Center for Biomedical Engineering, IIT, Delhi).
10. Evaluation of fibrosis in dilated cardiomyopathy (Department of Cardiology).
11. Histopathological analysis of light microscopical and ultrastructural features of surgically excised left atrial appendage in patients with atrial fibrillation due to rheumatic heart disease (Department of Cardiology and CTVS).
12. Doppler tissue echocardiography and its correlation with histopathological changes in patients of tetralogy of fallot after intracardiac repair. (Department of CTVS).
13. Endothelial injury and other histopathological changes after papavarine injections in radial and left internal mammary arteries used as conduit for coronary artery bypass. (Department of CTVS).
14. Histopathological and biochemical analysis of Atherosclerotic plaque in coronary atherosclerosis in comparison with Dual energy technique of CT scanner. (Department of Medical Physics).
15. Urological Evaluation of Dermatology Patients on Cyclophosphamide Therapy (Department of Dermatology).
16. A Randomized Controlled Trial Comparing modified Gemcitabine + Oxaliplatin (mGEMOX) to Gemcitabine+ Cisplatin in Management of Unresectable Gall Bladder Cancer (Department of Medical Oncology).
19. Clinico-pathological study of antral mucosal changes in patients with ethmoidalpolypi. (Department of ENT).
20. Role of computerized tomography in the staging & management of carcinoma cervix. (Department of Radiodiagnosis, IRCH).

21. Evaluation of efficacy of human placental extract and lycopene in clearing inflammatory cervical smears. (Department of Obstetrics and Gynaecology)

22. Evaluation of transrectal ultrasound elastography and contrast enhanced sonography for detection of prostatic cancer. (Department of Radiodiagnosis)

23. Sentinel lymph node biopsy in malignant eyelid tumours. (RP Centre and Department of Radiodiagnosis)

24. Role of dynamic contrast enhanced & diffuse weighted 3T-MRI in preoperative evaluation of endometrial cancer. (Department of Radiodiagnosis)

PUBLICATIONS

Journals: 85
Chapters in books: 6

PATIENT CARE

Surgical Pathology Laboratory
Specimens processed 36,712

Special stains 28,700 Frozen sections 927

Cytopathology Laboratory
Total specimens 22169 FNAC (out patient) 9219
Exfoliatives routine 8432 Cervical (PAP) smears 4518

Autopsies performed 23

Electron microscopy
Specimens processed 767

Immunohistochemistry Laboratory
Diagnostic 29,943 Research 5,094

Neuropathology services
Neuropathology surgical specimens 2583 Frozen sections 312
Immunohistochemistry 6651
Total muscle biopsies received 355
Enzyme histochemistry 539 Immunohistochemistry 1238
Diagnostic FISH 150

Tissue Culture Laboratory
H and E staining 2575 Special stains 180
Immunohistochemistry 75 Frozen sections 900
Unstained 4268

Renal pathology services (Kidney biopsy)
Immunofluorescence 600 Electron microscopy 570
Urine sediment analysis 3000

Cardiac Pathology Services
Routine specimens 275 Research 196
Slides coated
AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor SK Panda has been selected for the award of JC Bose Fellowship.

Professor Chitra Sarkar was awarded ICMR Novartis Oration Award for Research in the field of Cancer, 2011; was awarded ICMR International Fellowship for Senior Biomedical Scientists – 2010–11, 6–23 May 2011 to work in the Department of Genetics and Neuro-Oncology, MD Anderson Cancer Centre, Houston, USA; delivered Raghunath Pramanik Oration at West Bengal chapter of the IAPM, Bankura, 4 September 2011; was re-elected as President of the Indian Society of Neuro-Oncology (2011–12).

Dr A.K. Dinda was Awarded ‘Fellow of EMSI’, by Electron Microscopy Society of India, 6 July 2011, Hyderabad; Elected, Vice-President of Electron Microscopy Society of India, 2011–12; Elected as a member of Education and Scientific Committee of Renal Pathology Society (USA) 2011–12; Nominated as an expert in the Task Force of Nano-Biotechnology by Department of Biotechnology, since July 2011; Nominated a member of Academic Council of Center for Molecular Medicine, Jawaharlal University, New Delhi 2011–12.

Dr Geetika Singh was awarded Ramalingaswami First Prize for oral paper entitled ‘Gliosarcoma: A clinicopathological and molecular study with special reference to MGMT promoter methylation’. XXV Annual Conference–Delhi Chapter-IAPM, New Delhi, April 2011.

Dr Suvendu Purkait was awarded ‘Best Poster Award’ for poster entitled ‘Dual pathology in a case of epilepsy-report of a rare case’. XXVI Annual Conference, Delhi Chapter, IAPM, MAMC New Delhi, 25 February 2012.

Dr Aanchal Kakkar was awarded ‘Best Poster Award’ for Case Series in Surgical Pathology entitled ‘Atypical teratoid/rhabdoid tumor of the CNS – a clinico-pathological study’. XXVI Annual Conference, Delhi Chapter, IAPM, MAMC New Delhi, 25 February 2012.
HIGHLIGHTS
The department organized the following conferences:

- The second medicinal chemistry seminar of the Japan Society for Promotion of Science (JSPS) Asia-Africa Science Platform program, 19–21 October 2011. This was attended by 80 researchers from Japan, Thailand, Indonesia, Philippines and India. All India Institute of Medical Sciences also signed a Memorandum of Understanding (MOU) with Meiji Pharmaceutical University, Japan for collaborative research and an exchange of faculty and research fellows.

- International conference on Cardiovascular Research convergence, 17–18 February 2012. It was held under the aegis of the International Society for Heart Research, International Academy of Cardiovascular Sciences and UK-India Education Research Initiative. It was attended by 87 delegates and 75 young scientists from India and abroad. The organizers felicitated three eminent Indian cardiovascular scientists with ‘HRIDYA RATNA’ awards. Professor YK Gupta was conferred Lifetime Achievement Award in Cardiovascular Science, Medicine and Surgery. Professor Balram Bhargava (Cardiology) and Professor SK Maulik (Pharmacology) were conferred Distinguished Scientist Award and Distinguished Service Award, respectively by IACS.

- 57th Annual Conference of Association of Physiologists and Pharmacologists of India (APPICON), AIIMS, 13–17 December 2011.

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 forty short term trainees.

CMEs/Workshops/Symposia/National and International conferences
Organised by the department
1. Seminar entitled, ‘Cardiovascular Research from Bench to Clinic’ was organized by eight eminent scientists from India and abroad.

2. Workshop entitled, ‘Understanding Physiology and Pharmacology of Cardiovascular Diseases: Cell to Animal’ was organized which was attended by 150 young scientists from across the country.
3. Workshop on Research Methodologies for Women Scientists sponsored by Department of Science & Technology, Govt. of India, 3–7 October 2011, All India Institute of Medical Sciences, New Delhi.

4. National Clinical Research Training Course, a 6-day workshop sponsored by Department of Biotechnology, 22–27 August 2011, All India Institute of Medical Sciences, New Delhi.

Lectures delivered

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<th>Lecturer</th>
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<tr>
<td>Y.K. Gupta</td>
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<td>V.L. Kumar</td>
<td>2</td>
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<td>Kamal Kishore</td>
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<tr>
<td>S.K. Maulik</td>
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<tr>
<td>K.H. Reeta</td>
<td>2</td>
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<td>Jagriti Bhatia</td>
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Abstracts presented

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<td>Y.K. Gupta</td>
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<td>V.L. Kumar</td>
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<td>Surender Singh</td>
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<td>K.H. Reeta</td>
<td>3</td>
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<tr>
<td>Jagriti Bhatia</td>
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RESEARCH

Funded projects

Ongoing


3. Effect of traditionally used Ayurvedic rasa aushadhis on renal and hepatic functions: Clinical and Experimental Study. Y.K. Gupta, AYUSH, 2009–12, Rs 27.6 lakhs.


7. Phytotherapeutic development of latex of the medicinal plant *Calotropis procera*. V.L. Kumar, DST under Indo-Brazil S and T Programme of Co-operation, 2009–12, Rs 9 lakhs.

8. Double blind, randomized placebo controlled clinical trial to study the add-on efficacy of standardized preparation of the water extract of *Terminalia arjuna* in patients with left ventricular dysfunction, already receiving standard drug regimen. SK Maulik, DBT, 2010–12, Rs 46.06 lakhs.


10. Pre-clinical safety study of UNIM-301 and UNIM-304 in the treatment of rheumatoid arthritis. Surender Singh, Central Council for Research in Unani Medicine (CCRUM), Department of AYUSH, Govt. of India, New Delhi, Rs.9.91 lakhs.

11. ‘Pre-clinical safety study of UNIM-004 and UNIM-005 in the treatment of vitiligo’. Surender Singh, Central Council for Research in Unani Medicine (CCRUM), Department of AYUSH, Govt. of India, New Delhi, Rs.9.91 lakhs.

12. Evaluation of disease modifying activity of plant lipid rich in Omega-3 fatty acid in experimental models of chronic inflammation’. Surender Singh, Indian Council of Medical Research (ICMR), Govt. of India, New Delhi, Rs. 29.71 lakhs.

13. 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.
14. Evaluation the effect of curcumin on the expression of metalloproteinase-9, Rho kinase (ROCK II), glycogen synthase kinase-3-α and mTOR in pentylenetetrazole-induced kindling in rats. KH Reeta, AIIMS, 2011–12, Rs. 4 lakhs.


**Completed**


2. *In vitro* Assessment of DNA Damage as Predictor of Response to Chemotherapy in Acute Myeloid Leukemia. KH Reeta, AIIMS, 2010–11, Rs 1 lakh.

**Departmental projects**

**Ongoing**

1. Evaluation of Anti-epileptic property of selected Indian medicinal plants and their mechanism of action.

2. Evaluation of *Clitoriaternatea* and *Evolvulusalsinoides* extracts for cognitive impairment in rats.

3. Effect of tradionally used Ayurvedic rasa aushadhis on renal and hepatic functions: Clinical and Experimental Study.

4. Study of Immunosuppressive agents (Mycophenolatemofetil and rapamycin) on transient focal cerebral ischemia in rats.


7. Evaluation of compliance of IND Applications with drug regulatory guidelines of India.

8. Effect of anti-epileptic therapy on trace elements status in Indian population in a tertiary care hospital.


10. Studies on the anti-inflammatory properties of *Calotropisprocera* Latex fractions.

11. Phytotherapeutic potential of *Calotropisprocera* latex fractions in arthritis.

**Completed**

1. Serum Levels of trace elements in Patients of Knee Osteoarthritis: A cross-sectional study.

2. Pharmacovigilance of Anti-malarial drugs with special emphasis to artemisin combination.

3. An explorative prospective open-labeled pilot study for evaluation of the safety and efficacy of the nutraceutical S-adenosyl L- methionine (SAMe) in patients suffering from osteoarthritis of knee.

4. Pharmacological interaction between herbal medicines and antiepileptic drugs.

5. ‘Evaluation of renoprotective effect of *Emblicaofficinalis* in cisplatin induced nephrotoxicity in rats’.

6. ‘Evaluation of the effect of Febuxostat, a xanthine oxidase inhibitor, on Doxorubicin-induced cardiomyopathy’

**Collaborative projects**

**Ongoing**

1. Efficacy and safety of concomitant use of Nevirapine and Rafampicin in patients co-infected with HIV and Tuberculosis in India. (Department of Medicine, AIIMS).

**PUBLICATIONS**

Journals: 24  Abstracts: 6  Chapters in books: 1
PATIENT CARE

Clinical Pharmacology Facility
The Clinical Pharmacology wing of the department is equipped to conduct a range of studies on healthy volunteers. The department has standardized methods for estimation of Pb, Cd, Cu, Fe, Zn, Hg, As, Pt, Au, Mg, Mn, Cr, Co, Se, Sr, Ni, Al, in biological samples by Inductively Coupled Plasma Spectrophotometer (ICP) at ppb levels.

Therapeutic Drug Monitoring facility
Therapeutic Drug Monitoring (TDM) Facility in the department of Pharmacology has two functional HPLC systems for estimating 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. The strategy of the TDM facility is to optimize drug dosing to minimize drug toxicity and maximize treatment benefit. This facility is involved in the teaching activity of the department and students are being trained. Research is also an important activity of this facility. Engaged in collaborative projects with various other departments.

Projects (Completed)
1. Evaluation of Antiepileptic property of selected Indian Plants and their mechanism of action.
2. Study of the prevalence of genetic polymorphism of UGT1A6 and their association with serum valproate levels in children on valproate monotherapy.
3. To study the effect of genetic polymorphisms of cytochrome p450 cyp2e9 and their association with drug levels in children with phenytoin monotherapy.
4. Pharmacokinetic and Toxicity profile of High Dose Methotrexate and its Relationship with Serum Creatinine in Indian Children.
5. Pharmacokinetic interaction of herbal medicines with Anti-epileptic drugs: the molecular mechanisms.
6. Correlation between intrapartum maternal-fetal levels and postnatal changes in serum retinol among preterm VLBW neonates.

Projects (Ongoing)
1. To assess whether serum and saliva free anti-epileptic drugs levels are equivalent.
2. Detection (Qualitative Estimation) of Steroids in Unlabelled Medications.
4. Herb-drug interaction studies of selected herbs and allopathic drugs used in treatment of Type 2 Diabetes, Rheumatoid Arthritis, and Epilepsy.

National Poison Information Centre
1. The National Poison Information centre (NPIC) provides information on management of various poisonings, round-the-clock, to treating physicians, paramedical personnel, general public, NGOs and various government agencies.
2. The NPIC has the back-up of latest literature on poisoning due to a variety of products that include household items, agricultural and industrial chemicals, drugs, environmental toxins including plants, animal bites and stings and other miscellaneous products. The data received by the centre is compiled and analyzed.
National Poisons Information Centre, Department of Pharmacology

Total Number of calls received: 1715

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<th></th>
<th>Number</th>
<th>%</th>
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<td>Poisoning Calls</td>
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<td>Sex</td>
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Pharmaco-vigilance Programme of India

The department of Pharmacology runs the Adverse Drug Reaction monitoring Centre. The adverse drug reaction (ADR) data is collected, compiled, assessed and thereafter forwarded to the National Adverse Drug Reaction Monitoring Centre. The total numbers of ADR forms collected during the year were 1,542.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor YK Gupta was presented ‘Life Time Achievement Award’ by International Academy of Cardiovascular Sciences, ‘Cardiovascular Science, Medicine and Surgery Conference’, Winnipeg, Canada, February 2012.

Professor SK Maulik was selected Fellow of International Academy of Cardiovascular Sciences, Canada; was presented Distinguished Service Award of International Academy of Cardiovascular Sciences, Canada.

Professor Kamal Kishore was Member of Scientific Advisory Board for 8th National Conference on Medical Informatics.

Dr KH Reeta has been elected as Member, National Academy of Medical Sciences, India (2011).

Dr Jagriti Bhatia was National advisory Committee Member, 3rd National Conference of Indian Society for Atherosclerosis Research, Jammu, 25–27 November 2011.
EDUCATION

**UG Teaching**
Set of 8 lectures/seminars were conducted. Clinical demonstration as and when required was provided.

**PG Training**
MD (PMR), out of 10 students two passed out and one resigned, rest are continuing. MD (Community Medicine, Paediatrics, Medicine), MS (Orthopaedics), DM (Neurology and Paediatric Neurology), MHA students, and postgraduate Nursing students have been posted in the department from time to time and received training.

**CMEs/Workshops/Symposia/National and International conferences**
Lectures delivered: 4

Oral papers/posters presented by the departmental faculty, residents and staff: 14

RESEARCH

**Departmental projects**

**Ongoing**

1. Prolotherapy Versus Corticosteroid Injections for the treatment of Plantar fasciitis:
2. A Randomized Controlled Trial. Relationship between stump length, gait parameter and dynamic balance in unilateral transtibial amputee.
3. Comparison of anterior and posterior ankle foot orthosis in foot drop patients.
5. Effect of lateral wedging insole in shoes in patients with medial compartment osteoarthritis knee on foot pressure and radiological parameters.
6. Comparative study of co-activation of Quadriceps and Hamstring muscles around knee joint before and after muscle strengthening exercises in primary osteo-arthitis knee patients.

Completed
3. Comparative study of foot pressure force analysis in patients with plantar fasciitis treated with diclofenac alone and diclofenac with ultrasonic therapy.

Collaborative projects

Ongoing
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, in collaboration with Dr R Goswami, (Endocrinology and Metabolism, AIIMS).

PUBLICATIONS

Abstracts: 9

PATIENT CARE

Facilities available in the department

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<th>Cases</th>
<th>Patient Care Area</th>
<th>No. of patients</th>
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<td>Prosthetic and Orthotic</td>
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<td>Ballabgarh PMR OPD</td>
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<td><strong>Total New Cases</strong></td>
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<tr>
<td>Old Cases</td>
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<td>Disability Evaluation Clinic</td>
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<td>Railway Concession Certificates</td>
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<td>Prosthetic and Orthotic</td>
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<tr>
<td></td>
<td>Minor OT Procedures</td>
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<tr>
<td></td>
<td><strong>Total Old Cases</strong></td>
<td><strong>82166</strong></td>
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</table>

Community Services/Camps: Faculty and Residents of the department participated in a series of camps for rehabilitation of persons with disability, Mathura.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor U. Singh has been appointed a member of the following: Sub-Committee on Locomotor, Leprosy Cured, etc., of Rehabilitation Council of India, Ministry of Social Justice and Empowerment; Academic Committee, National Institute for the Orthopaedically Handicapped, Kolkata; BIS, Rehabilitation Appliances and Equipment for Disabled
Sectional Committee (MHD 10); Advisory Committee to monitor upgradation of facilities in the departments of PMR in medical colleges, DGHS, Ministry of Health and Family Welfare, Government of India; Research Committee, Guru Nanak Dev University, Amritsar; Prevention Committee for Spinal Cord Injuries, International Spinal Cord Society; 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; Honorary member of the editorial board for the International Journal of BioSciences and Technology (IJBST). He is an Emeritus Editor, Indian Journal of Physical Medicine and Rehabilitation; Consulting Editor and Reviewer, Journal of Rehabilitation Council of India Locomotor and Associated Disabilities; Editorial Board Member, Indian Journal of Physiotherapy and Occupations Therapy. He is also an Inspector, Medical Council of India. He was appointed Chairman, Expert Committee for upgradation of facilities in the Departments of Physical Medicine and Rehabilitation in Medical Colleges, DGHS, Ministry of Health and Family Welfare, Govt. of India; Chairman, Scientific Session IV, IAPMR WB State Chapter Annual Conference, 13 April 13, 201; Chairman, Scientific Session II, National Workshop for Development of Guidelines with regard to the MOHFW on UN Convention on Rights for the persons with disability, 18 October 2011; Chairman, Scientific Session 3, 40th Annual conference of Indian Association of Physical Medicine and Rehabilitation, Trivandrum, 21 January 2012; and also Chairman, Specialty Board, Physical Medicine and Rehabilitation, Medical Council of India. He is the Convenor, Academic Committee, Indian Association of Physical Medicine and Rehabilitation.

Dr Gita Handa was Awarded Stanford India Biodesign fellowship completion certificate on 5 December, 2011, at India Medtech Summit 2011, New Delhi. She is a member of expert Panel for National Consultative Workshop on Autism Spectrum Disorders, organized by DGHS on 9–10 November 2011 at Post Graduate Institute of Medical Education and Research, Dr Ram Manohar Lohia Hospital, New Delhi 110001. She was also awarded certificate in Intellectual Property and Innovation Management in Medical Research (A Workshop for Scientists and R&D Professionals), 11–12 November 2011 at The Indian Society of International Law (ISIL) Organized by National Research Development Corporation and Indian Council of Medical Research.
9.31 Physiology

**Professor and Head**

Jayasree Sengupta  
(1 April 2011–29 February 2012)  
Rashmi Mathur  
(1 March 2012 onwards)

**Professor**

Kishore Kumar Deepak  
Sushil C. Mahapatra

Hrudananda Mallick  
Debabrata Ghosh  
Kanwal Preet Kochhar

**Additional Professor**

Ratna Sharma  
Ashok Kumar Jaryal

Nalin Mehta  
Suman Jain  
Raj Kumar Yadav

**Associate Professor**

Anjana Talwar

Sanjay Kumar Sood

**HIGHLIGHTS**

The department has been involved in undergraduate, postgraduate teaching in addition to doctoral courses. The faculty also undertook to train manpower in undergraduate, postgraduate teaching and research techniques in house or by holding CMEs, workshops and symposiums at AIIMS and other Institutions. Beside, the Faculty has executed forty extramural and intramural research studies primarily in neurophysiology including autonomic nervous system; nutrition; vascular; reproduction; respiration and physiology of mind-body holism. The research out-come were presented in both National/International Scientific forums and publications in indexed journals. On the basis of their original research the Department has provided significant support in patient care by utilizing cutting edge technologies in pain management, autonomic and vascular function assessments, in-vitro fertilization and embryo transfer (IVF-ET), intra-operative monitoring during corrective surgery, and mind–body medicine. Several awards and honors have been received by faculty members and the students of the Department in appreciation of their innovative contributions in teaching and research.

The most important event in the Department was to host the 57th Annual Conference of Physiology and Pharmacologists of India (APPICON 2011) during 13–17 December 2011 which included ten CMEs/workshops and National/International symposiums on twelve frontier topics at AIIMS. APPICON 2011 involved more than a thousand delegates from different parts of the country and abroad.

Integral Health Clinic (IHC) is regularly holding De-stressor programme specifically tailor made for AIIMS staff including their families and the students. A total of 129 staff members and 18 students have benefitted during this year.

**EDUCATION**

**Undergraduate, Postgraduate and Paramedical**

The department provided about 400 hours of teaching to first year MBBS students and about 60 hours of teaching to students of BSc Nursing and allied courses. The department is also conducting MD and MSc courses in Physiology and PhD studies.

**CMEs/Workshops/Symposia/National and International Conferences**

*Organized by the department*

1. ‘Hands on Workshop on Bioplex Immunoassay’, 9–10 May 2011, Department of Physiology, AIIMS, New Delhi.

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5. Hands on Workshop on (i) Advanced techniques in study of vascular functions, (ii) Basic techniques in the study of autonomic functions, (iii) Integral health management and practice of Yoga, (iv) Mammalian cell culture and molecular biology tools in the study of reproduction, (v) Neuroscience of cognition, and (vi) Quantitative EEG: a tool to assess cognitive functions, sponsored by Department of Science and Technology as part of 57th Annual Conference of Association of Physiologists and Pharmacologists of India 2011 (APPICON 2011) on 14 December 2011 at All India Institute of Medical Sciences, New Delhi.
6. BK Anand Symposium on Feeding Behavior as a part of 57th Annual Conference of Association of Physiologists and Pharmacologists of India 2011 (APPICON 2011), 15 December 2011, All India Institute of Medical Sciences, New Delhi.
7. Umami the 5th Basic Taste: From Taste to Therapeutics as a part of 57th Annual Conference of Association of Physiologists and Pharmacologists of India 2011 (APPICON 2011), 15 December 2011, All India Institute of Medical Sciences, New Delhi.
8. International Symposium on Reproductive Physiology as a part of 57th Annual Conference of Association of Physiologists and Pharmacologists of India 2011 (APPICON 2011), 15 December 2011, All India Institute of Medical Sciences, New Delhi.
10. Symposium on ‘Lifestyle and Yoga’ as a part of 57th Annual Conference of Association of Physiologists and Pharmacologists of India 2011 (APPICON 2011), 16 December 2011, All India Institute of Medical Sciences, New Delhi.
11. Hands-on Workshop on Bio-Plex Microbead Array System as a part of 57th Annual Conference of Association of Physiologists and Pharmacologists of India 2011 (APPICON 2011), 19 December 2011, All India Institute of Medical Sciences, New Delhi.
12. Hands-on Workshop on V3 Western Blot Workflow as a part of 57th Annual Conference of Association of Physiologists and Pharmacologists of India 2011 (APPICON 2011), 20 December 2011, All India Institute of Medical Sciences, New Delhi.

Lectures delivered

Rashmi Mathur: 1  K.K. Deepak: 7  H.N. Mallick: 3
R.K. Yadav: 1  S. Sood: 1  Oral papers and posters: 18

RESEARCH

Funded projects

Ongoing

4. Modulation of the activity of barosensitive and chemosensitive neurons in nucleus tractus solitarius by medial preoptic area stimulation in rats. A.K. Jaryal, Department of Science and Technology, 2009–12 Rs. 34.83,000.
12. Quantitative EEG correlates of Cognitive deficits in Parkinson Disease. R. Sharma, DBT, 3 years, 2011–14, Rs. 22,00,000.
15. Adipokine mediated inflammation, angiogenesis and proteomic approach in pathophysiology of pelvic endometriosis. R.K. Yadav, All India Institute of Medical Sciences, 2011–12, Rs. 5,00,000.
16. Assessment of endothelial function in overlap syndrome of chronic obstructive pulmonary diseases and obstructive sleep apnea. A. Talwar, All India Institute of Medical Sciences, 2011–12, Rs 1 lakh.

Completed
1. To study the effect of repeated magnetic stimulation on sensori-motor recovery in spinal cord injured patients. Dr R. Mathur, Department of Science and Technology, 2009–11, Rs.19,88,140.
2. Effect of bone marrow stromal cells transplantation and magnetic stimulation in the sensory-motor functional recovery of spinalised rats. Dr R. Mathur, Indian Council of Medical Research, 2008–11, Rs.16,05,952.
4. Effect of prenatal chronic auditory stimulation on expression of synaptic proteins in the visual wulst of domestic chicks (Gallus domesticus). Dr S. Jain, AIIMS Research Grant, 2010–11, Rs. 1 lakh
5. To study the effect of Ocimum sanctum (Tulsi) leaf extract on event related potentials in healthy adults. Dr A. Talwar. AIIMS Research Grant, 2009–11, Rs. 1 lakh

Departmental projects
Ongoing
1. Sensorimotor assessment in spinalised rats following electromagnetic stimulation and bone marrow stromal cells transplantation.
2. Influence of complete spinal cord injury on ventromedial hypothalamic function: Role of magnetic field.
3. Effect of magnetic field on behavioral, electrophysiological and neurochemical correlates of pain in rats exposed to 3G frequency band.
4. Effect of magnetic field on oxidative stress in rat Parkinson’s model.
5. Effect of magnetic field on microglia induced secondary injury of spinal cord in rats.
6. Assessment of cerebral autoregulation and cerebrovascular reactivity in patients of orthostatic hypotension.
7. Respiratory modulation of cardiac and vascular oscillations using patterned breathing maneuvers based on Pranayama.
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.
13. Effect of working memory load on visuospatial task performance as assessed by quantitative EEG.
15. Efficacy of yoga based lifestyle intervention as compared to dietary intervention on metabolic syndrome: A randomized controlled trial.
17. Leptin and ghrelin in peritoneal fluid of patients with endometriosis: correlation with VEGF and IL6.
18. Effect of selective and automatic attention on prepulse modulation of startle reflex.
20. Neural correlates of priming in face word stroop task using functional imaging.

Completed
1. Study of effects of short term yoga based lifestyle intervention program on cardiovascular risk factors in obesity.
2. Comparison of exercise testing parameters between patients who undergone TCPC (Total cavopulmonary connection) and/or superior cavopulmonary anastomosis with open antegrade flow (Department of CTVS, AIIMS, New Delhi).
3. Assessment of exercise capacity in chronic obstructive pulmonary disease (Department of Medicine, AIIMS, New Delhi).
4. Assessment of endothelial function in Overlap Syndrome (Department of Medicine, AIIMS, New Delhi).
5. Effect of priming on stroop task performance using event related functional magnetic resonance imaging (Department of Nuclear Magnetic Resonance, AIIMS, New Delhi).
6. Psychoneuroimmune effects of meditation: an evaluation by PET and biochemical markers (Department of Nuclear Medicine, AIIMS, New Delhi).
7. Effect of deep brain stimulation of the subthalamic nucleus on Bereitschafts potential in Parkinson’s disease (Department of Neurology, AIIMS, New Delhi).
8. Implantation of human retinal pigment epithelial (HRPE) cells in the 6-OHDA lesioned rat model of Parkinson’s disease (Department of Neurology, AIIMS, New Delhi).
9. Purification of human adult retinal pigment epithelial (GRPE) cells in the 6-OHDA lesioned rat model of Parkinson’s disease (Department of Neurology, AIIMS, New Delhi).
10. Evaluation of dehydroepiandrosterone (DHEA) therapy as an adjunct to gonadotropins for ovulation induction in premature ageing (Department of Obstetrics and Gynecology, AIIMS, New Delhi).
11. Multiparametric analysis of follicular fluid and perifollicular blood flow in search of reliable marker of oocyte quality in normoresponder women undergoing in-vitro fertilization and embryo transfer (Department of Obstetrics and Gynecology, AIIMS, New Delhi).
13. Evaluation of Masseter and Temporalis muscle EMG activity in a group of children having midface deficiency during maxillary protraction therapy (Department of Orthodontics, Centre for Dental Education and Research (CDER), AIIMS, New Delhi).

14. Prospective study to evaluate the impact of bariatric surgery on glucose metabolism: Comparison of laparoscopic Roux-en-Y gastric bypass and laparoscopic sleeve gastrectomy (Department of Surgical Disciplines, AIIMS, New Delhi).

Collaborative projects

Completed

1. Influence of prenatal chronic noise exposure on brain stem auditory nuclei, hippocampus and spatial memory in chicks. (Department of Anatomy, AIIMS, New Delhi).
2. Evaluation and correlation of cerebrovascular reactivity and systemic vascular reactivity with insulin resistance in type – 2 diabetics (Department of Endocrinology, AIIMS, New Delhi).
3. Assessment of arterial stiffness indices in obese children (Department of Endocrinology, AIIMS, New Delhi).
4. Assessment of vascular functions before and after renal transplantation (Department of Nephrology, AIIMS, New Delhi).
5. Study of serial changes in heart rate variability in children between 2 to 15 years of age presenting with Guillain Barre syndrome (Department of Paediatrics, AIIMS, New Delhi).
6. Assessment of arterial stiffness indices in women with polycystic ovarian disease (Department of Obstetrics and Gynaecology, AIIMS, New Delhi).
7. The role of proteomic approach and biomarkers in the diagnosis of endometriosis (Department of Obstetrics and Gynaecology, AIIMS, New Delhi).

PUBLICATIONS

Journals: 15 Abstracts: 24 Chapter in Books: 1

PATIENT CARE

Neurophysiology Research Laboratory offered objective assessment of pain and pain modulation status by a battery of electro physiological and biochemical tests for select, referred patients of chronic pain. 82 patients (fibromyalgia) were assessed during the year. Relief in pain was successfully provided by transcranial magneto therapy.

Autonomic function lab and vascular function lab provide diagnostic facility for referred patients. The labs provide routine test of autonomic reactivity along with autonomic tone quantification and non-invasive recording of gastric motility (electrogastrography, EGG). A total number of 755 humans have been tested for autonomic function test this year, which included 699 patients.

Provided immunoassays for forty-eight (48) markers in follicular fluid samples of 40 patients subjected to in-vitro fertilization and embryo transfer (IVF and ET) in Department of Obstetrics and Gynecology, AIIMS. These data were analysed for prospective assessment and prediction with objective basis for good quality oocytes and successful pregnancy.

Provided multimodal intraoperative monitoring of spinal cord function in patients under corrective surgery of spine (Department of Orthopedics, AIIMS, New Delhi).

Integral Health Clinic (IHC) – De-Stressor Centre

To de-stress AIIMS employees including faculty, students, residents and their dependents, special sessions were organized. Each session was of two weeks, one hour daily during lunch time. About 129 employees attended and benefitted from this facility.

Special courses are organized for new admissions to help them cope with new challenges. A total of 18 AIIMS students enrolled themselves at the IHC during 2011–12.
In addition IHC is a centre of mind body medicine. IHC is an outpatient facility which is used not only for therapeutic gains but also as part of a developing health consciousness. A total of 225 (two hundred and twenty-five) subjects were enrolled and benefited at IHC during the year 2011–12. This includes patients of chronic diseases (like diabetes, chronic depression, obesity, etc.) referred from different 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
(vii) Transcranial magneto therapy for chronic pain patients

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rashmi Mathur got the Best Research Award for the work done during PhD to a student during the XIX WFN World Congress on Parkinson’s Disease and Other Movement Disorders, 11–14 December 2011, Shanghai, China; Member, B.B. Dixit Library Committee, AIIMS; Professor-in-Charge, Transcranial magneto therapy laboratory, AIIMS; Subject expert, Postgraduate Board of Studies in Physiology, Pt. B.D. Sharma University of Health Sciences, Rohtak; Member, Board of Studies in Physiology, Banaras Hindu University, Varanasi; Chairperson, International Symposium on Recent Trends in Neurosciences and XXIX Annual Conference of Indian Academy of Neurosciences (IAN), New Delhi; Chaired Symposium on Neurosignalling Mechanism in Hypoxia and Ischemia; Subject Expert, Selection Committee for promotion of Associate Professor to Professor, Chhatrapati Shahji Maharaj Medical University, Lucknow; Subject Expert, Revision of Standard Assessment for Postgraduate course in Physiology, Medical Council of India; Member, Board of Studies, Department of Physiology, Aligarh Muslim University; Board of Studies, Department of Physiology, J.N. Medical College, Aligarh Muslim University.

Professor K.K. Deepak Member, Advisory Committee, All India Pre-Medical/Pre-Dental Entrance Examination, Central Board of Secondary Education (CBSE); Nodal Officer, National Knowledge Network (NKN), Government of India, New Delhi; Adviser Member, International Programme Advisory Committee, Programme for 2nd International Conference, Biomedical Engineering and Assistive Technologies (BEATS) 2012; Member, Sub-committee of academic council on minimum standards requirements (MSR), MCI; Resource Faculty and Co-convener, Curriculum Implementation Support Programme (CISP) workshop for faculty of Regional Centres in MCI, New Delhi; Co-convener (Core Group on Integrating teaching) of four Core Groups for discussion and finalization of CISP modules, MCI, New Delhi; Expert Member, Committee for Developing Course Curriculum for Undergraduate MBBS Programme at Bhutan Institute of Medical Sciences (BIMS), Bhutan; Member, Undergraduate Committee (UG) of MCI, New Delhi; Advisory Board of the Physiological Society of Nepal (PSN). Member, Internal Scrutiny Committee (ISC) for proposals of Yoga and Naturopathy for Extra Mural and Intra Mural Research (IMR) schemes, Central Council for Research in Yoga and Naturopathy (CCRYN), Government of India, New Delhi; Member, Education Committee, International Union of Physiological Sciences (IUPS); Professor-in-Charge, KL Wig Center for Medical Education and Technology, AIIMS; Member, Academic Council, Sports Authority of India (SAI), Netaji Subhash National Institute of Sports (NSNIS), Patiala; Reviewer, Indian Journal of Medical Research, Indian Journal of Physiology and Pharmacology, Journal of Postgraduate Medicine, International Journal of Yoga, New Delhi; Member, Editorial Board, International Journal of Yoga; Member, Advisory Board of the journal. Health Renaissance, B. P. Koirala Institute of Health Sciences, Dharan, Nepal. Editorial Board Executive, Al-Amin Journal of Medical Sciences, India. Expert member, Peer review committee, Six Monthly review of XI Five-year Plan Project ‘Human Performance Enhancement
under different Operational Environments’, DIPAS, DRDO, New Delhi; Expert Member, Search-cum Peer Review Committee in Central Council for Research in Yoga and Naturopathy (CCRYN); Member, Store Purchase Committee, AIIMS.


**Dr R.K. Yadav** was Secretary, Faculty Club, All India Institute of Medical Sciences, New Delhi. Executive Member, Faculty association, All India Institute of Medical Sciences, New Delhi. Member, Selection Committee, All India Institute of Medical Sciences for the appointment of research staff, New Delhi. Chairman, Departmental Condemnation Board, Department of Cafeteria, All India Institute of Medical Sciences, New Delhi.

**VISITING SCIENTISTS**

1. Dr Markad V. Kamath, PhD, Associate Professor, Department of Medicine, McMaster University, Hamilton, Canada, delivered a talk on ‘Heart rate variability and its clinical applications’ on 12 May 2011 at Lecture Theatre I, All India Institute of Medical Sciences, New Delhi.
2. Professor Denis Noble from the University of Oxford, Oxford, United Kingdom visited Department of Physiology, All India Institute of Medical Sciences, New Delhi during 13–17 December 2011.
3. Professor Berthold Huppertz from the Institute of Cell Biology, Histology and Embryology, Medical University of Graz, Graz, Austria visited Department of Physiology, All India Institute of Medical Sciences, New Delhi, 13–17 December 2011.
# 9.32 Psychiatry

**Professor and Head**
Rajat Ray

**Professor**
Manju Mehta  S.K. Khandelwal
R.K. Chadda  Pratap Sharan

**Additional Professor**
Rajesh Sagar

**Associate Professor**
Nand Kumar  Mamta Sood

## HIGHLIGHTS
The department has been in the forefront of providing mental health training and services in a general hospital and community settings. It provides multidisciplinary services in the field of general adult psychiatry, child and adolescent psychiatry, consultation liaison psychiatry and community services. About 50,000 patients were assessed and treated in the department during the year. The inpatient unit was renovated in 2011–12 for optimal utilization of the space. The department has upgraded the services of rTMS during the year by adding neuro-navigation facility and a new neurophysiology laboratory has also been set up. The faculty of the centre acted as resource persons in various training programmes and national and international meetings. They held key positions in national and international governmental and professional bodies, and editorial boards in prestigious peer reviewed journals, and many faculty members received professional honours and awards.

## EDUCATION

### Undergraduate training

**MBBS**
- Theory/Demonstration: 44 hours (24 hours in 3rd Semester, 14 hours in 6th Semester, and 6 hours in 8th Semester).
- Demonstration in community set up (CRHSP Ballabgarh): 10 hours (7th Semester).
- Clinical Posting: 60 days (20 days in 4th/5th Semester, and 40 days in 6th/8th Semester)

**BSc Nursing**
- Overall: 38 hours in 2 Semesters

### PhD and postgraduate training
- Journal discussion: once every week
- Seminar: once every week
- Case Conference: once every week
- Faculty/Staff presentation: once every week
- CCR and CGR: once every semester
- Psychotherapy supervision: for postgraduate psychiatry and doctoral level clinical psychology students
- Supervision of Consultation – Liaison training for junior residents in Psychiatry
- Assessment of medical undergraduates in hospital and community setting
Continuing Medical Education
CMEs/Workshops/Symposia/National and International conferences
Organized by Department


- Symposium on “Mental Health Act.” 64th Annual National Conference of the Indian Psychiatric Society, Kochi, 19–22 January 2012 (Coordinators: R Sagar & RK Chadda)

Lectures delivered

<table>
<thead>
<tr>
<th>Lectures</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>Manju Mehta</td>
<td>2</td>
</tr>
<tr>
<td>RK Chadda</td>
<td>8</td>
</tr>
<tr>
<td>Pratap Sharan</td>
<td>14</td>
</tr>
<tr>
<td>Rajesh Sagar</td>
<td>14</td>
</tr>
<tr>
<td>Research Officers/PhD students/Residents</td>
<td>10</td>
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</table>

RESEARCH
Funded projects

Ongoing


3. Field testing the Depression Identification Instrument for SEARO. P. Sharan, R. Sagar, World Health Organization – South East Asia Regional Office, 2012–13, Rs. 9 lakhs.


5. Neuro-cognitive study and use of functional magnetic resonance imaging (fMRI) in patients having major depressive disorder and mania. R. Sagar, Department of Science and Technology, (DST), 2010–13, Rs. 38 lakhs.

6. Evaluation of a novel neuroplasticity-based training program to remediate cognitive control deficits in Attention-deficit/hyperactivity disorder (ADHD). R Sagar, Brain Plasticity Institute, San Francisco, 2012, Rs. 5 lakhs.


Completed

1. Development of a Depression Identification Instrument for SEARO. P. Sharan, R. Sagar, World Health Organization – South East Asia Regional Office, 2010-11, Rs. 9 lakhs.


5. Validation study on autism and ADHD for the research project on ‘Neurodevelopment Disability in Children.’ R. Sagar, International Clinical Epidemiological Network (INCLEN), and MoS&JE.
Departmental projects
1. A study of fMRI in children and adolescents with specific learning disorders (dyslexia).
3. Assessment of cognitive functioning and quality of life in patients with hypoparathyroidism.

Collaborative projects
Ongoing
1. Multicentre study on prevalence and phenomenology of functional somatic symptoms in Depression. RK Chadda (AIIMS site). Funded by Indian Psychiatric Society.
4. To study pre-attentive and attentive processing of phonemes and tones in dyslexic children using pre-pulse inhibition paradigm, mismatch negativity and long latency event related evoked potentials. R. Sagar. Funded by DST (with Department of Physiology).
5. The role of neurotrophin, cytokines, and genetic polymorphisms in clinical manifestation of depression in adolescents. R. Sagar. Funded by DST (with Department of Laboratory Medicine).
6. Multi-centric project on pharmacogenetics of schizophrenia. R Sagar. Funded by ICMR (with Department of Neurochemistry).
7. Prevalence of impaired cognitions in patients with chronic idiopathic isolated hypoparathyroidism (with Department of Endocrinology).
8. A study to assess the stress and coping strategies among female school children regarding pubertal changes in selected urban schools in Delhi with a view to develop an information booklet (with College of Nursing).
9. Clinical and psychological evaluation of patients undergoing rhinoplasty (with Department of Otorhinology).
10. Clinical Spectrum of children with non-epileptic events (with Department of Paediatrics).
11. Prospective randomized controlled study comparing long term outcome, chronic pain, quality of life and cost effectiveness following laparoscopic repair of incision and ventral hernias with different techniques of mesh fixation–a pilot study (with Department of Surgery).

Completed
1. Effect of Yoga and Naturopathy on Serum Interleukin Levels in Adolescents with Depression. R. Sagar, AYUSH.
2. Effects of the breathing technique (SKY) with standard treatment on depressive disorder patients in comparison to standard treatments alone. R. Sagar, Indian Council of Medical Research (ICMR).
3. A randomized controlled trial comparing chronic groin pain and quality of life in light weight vs heavyweight mesh in laparoscopic inguinal hernia repair. R. Sagar, AIIMS Research Scheme (with Department of Surgery).
4. Pharmacogenetics of Alzheimer’s Drug Therapeutics. R. Sagar, ICMR (with Department of Neurochemistry).

PUBLICATIONS
Journals: 49 Chapters in Books: 3 Books and Monographs/Report: 4
PATIENT CARE

OPD and Specialty Clinics Attendance (Psychiatry AIIMS)  

<table>
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<tr>
<th></th>
<th>New Cases</th>
<th>Old Cases</th>
<th>Total</th>
</tr>
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<tr>
<td><strong>General OPD</strong></td>
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<td></td>
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<tr>
<td>Walk-in clinic</td>
<td>12353</td>
<td>30069</td>
<td>42422</td>
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<tr>
<td>Detailed assessment</td>
<td>1790</td>
<td>-</td>
<td>1790</td>
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<tr>
<td><strong>Specialty Clinic</strong></td>
<td></td>
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<tr>
<td>Child guidance</td>
<td>507</td>
<td>570</td>
<td>1087</td>
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<tr>
<td>De-addiction clinic</td>
<td>119</td>
<td>1605</td>
<td>1724</td>
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<tr>
<td>EHS patients attendance</td>
<td>1863</td>
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<td>1863</td>
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<tr>
<td><strong>Total</strong></td>
<td>16632</td>
<td>32244</td>
<td>48876</td>
</tr>
</tbody>
</table>

Laboratory Investigations: Serum Lithium 628

AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor Manju Mehta** delivered the Presidential Address of the Indian Association for Child and Adolescent Mental Health, Bangalore (17–19 November 2011); took over as President, Indian Association of Clinical Psychologists in January 2012; Member of the Planning and Monitoring Committee of National Institute of Mental Health and Neurosciences, Bangalore; Academic Council, University of Bihar (Patna); Academic Council, University of Hyderabad (Hyderabad); Board of Visitors, Institute of Human Behaviour and Allied Sciences (New Delhi); Participated in first meeting of Expert Committee of Behavioural and Cognitive Sciences to develop syllabus for masters’ program of Central University of Patna (15–16 April 2011); invited by Chairman of Rehabilitation Council of India to carry out assessment of training for ongoing M. Phil, Clinical Psychology courses and conducted assessment of training at new proposed programme at Chennai (21–22 March 2012); assisted the Union Public Service Commission and NIMHANS (Bangalore) in interviews; was resource person for the Academic Programme developed for Sri Lankan Judges organized by the National Judicial Academy, India (Bhopal, 9 August 2011).

**Professor R. K. Chadda** took over as the President of the Indian Association for Social Psychiatry (2011–13). He was elected Distinguished International, Fellow, American Psychiatric Association. He served as the Chairperson of the Indian Psychiatric Society Task Force on Mental Health Legislation (2011–12), Awards Committee, Indian Psychiatric Society, North Zone (2007–2011); and the Election Commission, Indian Psychiatric Society, North Zone, (2011) and as Co Chairperson of the Indian Psychiatric Society Task Force on Undergraduatæ Medical Education (2012–13). He is a member of the Editorial Board of the International Psychiatry, a publication of the Royal College of Psychiatrists, UK (2011–14); the Expert Committee to formulate the curriculum for Postgraduate Diploma in Mental Health, Indira Gandhi National Open University, New Delhi (11–12 August 2011). The Expert Group on “Psychosocial support and mental health services to develop intersectoral approach for training of the psychosocial workers for disaster preparedness during disasters” of the National Disaster Management Authority, New Delhi (meeting held on 9 February 2012); and the Expert Group on the Indian Adaptation of the WHO’s mhGAP Intervention Guide (Workshop held at PGIMER, Chandigarh, 30 August 2012). He attended meetings to discuss proposed changes in the UG curriculum in Psychiatry at MOH&FW (5 May 2011) and MCI (13 May 2011).

**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) and was the Vice President (2009–11) and the Chairperson of the Awards Committee of the Indian Association for Child and Adolescent Mental Health. He is the Convener of the Taskforce for Psychiatry in UG and PG Medical Education of the Indian Association for Social Psychiatry (2011–12) and a member of the Project Review Committee of the Indian Council of Medical Research, Editorial Board of the
Dr Rajesh Sagar is the Secretary of Central Mental Health Authority (CMHA), GOI and an Expert Member of the committee for international adoption for Central Adoption Regulatory Authority (CARA), Ministry of Women and Child, GOI. He was called as an expert to discuss the National Mental Health Programme and the Mental Health Act under the Chairmanship of DGHMS, Ministry of Health & Family Welfare (16 March 2012) and was a discussant on ‘Suicide Mortality’ for technical briefing of senior officials in MOHFW, GOI (5 January 2012) for the Million Death Study (International Institute of Population Sciences, Centre for Global Health Research, MOHFW). He was a resource person for the brainstorming session on “Cognitive Deficits of Learning Disabilities” organized by the Department of Science and Technology (1–2 March 2012). He is a member of Ethics Committee of Central Council of Homeopathy Research, Ministry of AYUSH, GOI. He is the Editor of the Journal of the Indian Psychiatry Society – North Zone. He is the convener of the Parliamentary Committee of the Indian Psychiatry Society, and the Specialty Advisory Board in Psychiatry of the National Board of Examination, and he coordinated the teleconferencing session for DNB (Psychiatry) candidates at IGNOU (29 March 2012). He was appointed by WHO-SEARO to conduct the Audit of Mental Health Services of Maldives (2011). He was a resource person for the seminar on “Overarching Issues of Children with Special Needs” organized by the Society for Empowerment, Wellbeing, Achievement and Knowledge (SEWAK) and Delhi Commission for Protection of Child Rights (DCPCR), Government of NCT of Delhi (17 March 2012), and the training of researchers for the ‘Neuro-development disability project’ organized by INCLEN and MoSJ&E (November 2011). He was the chairperson for lectures on “Clinical Aspects of ADHD” in the Mid-term CME of Indian Psychiatry Society – North Zone (Amritsar, April 2011) and ‘Designing and conducting a randomized controlled trial (AIIMS, November 2011) and a resource person for the Workshop on ‘Designing Medical Research and Thesis’ (AIIMS, November 2011). He is also a consultant for mental health to the New Delhi Birth Cohort Study group, the multi-centric study on epidemiology of mental disorders in Nepal, epidemiological study on psychiatric morbidity in central reserve police force (CRPF, MOHFW, WHO). He also served on the Central Coordinating Team and Technical Advisory Group of the multi-centric research project on Neuro-developmental Disability in Children (Autism Speaks, the Indian National Trust of MSJ&E, INCLEN).

Dr Mamta Sood won the Balint Award at the National Conference of Indian Association for Social Psychiatry held at Patna (November 2011).
9.33 Pulmonary Medicine and Sleep Disorders

Professor and Head
Randeep Guleria

Professor
G. C. Khilnani

Associate Professor
Anant Mohan

EDUCATION
The department runs a comprehensive undergraduate and post graduate 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.

CME/NATIONAL AND INTERNATIONAL CONFERENCES

Lectures delivered
Randeep Guleria: 8  G. C. Khilnani: 21  Anant Mohan: 8

RESEARCH

Funded projects

Ongoing

2. Genetic, Metabolic and Hormonal Profile in Obstructive Sleep Apnea Syndrome. Randeep Guleria, DST, project till November 2011, Rs. 24 lakhs.
4. To compare the efficacy of Yoga and Pulmonary rehabilitation on dyspnea, muscle strength, inflammatory markers and quality of life in Patients with chronic obstructive pulmonary disease. Randeep Guleria. ICMR, project till June 2013. Rs 30 lakhs, approximately.
6. To study the genetic polymorphisms and correlations with cytokine and hormone levels of Macrophage migration inhibitory factor (MIF) Peroxisome Proliferator – Activated, Receptor-y (PPARy) Interlukin -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, project till 2015.
14. Study of genetic polymorphisms in Interleukin-6, IL-13, and IL-10 as risk factors for the development of chronic obstructive pulmonary disease and their correlation with serum levels and disease severity. Anant Mohan, ICMR, 2011–14, Rs 29.29 lakhs.

Department projects

Completed
2. Predictors of mortality and morbidity in patients admitted with acute exacerbation of COPD.
3. Acquired Neuromuscular Weakness in Critically Ill Patients: Incidence, Predictors and Impact on Outcome.

Ongoing
1. Nutritional status in Lung cancer.
2. Lactate dehydrogenase and alkaline phosphates levels in Bronchoalvcolar Lavage fluid of patients with sarcoidosis.
3. Assessment of quality of life in COPD.
4. Smoking habits among medical students.
6. Assessment of quality of life in Asthma patients.
7. Smoking habits in urban slums of Delhi.
8. To study vitamin D status and bone mineral density (BMD) and its relation to severity of COPD: a case control study.
9. Role of serial endotracheal aspirate in predicting the causative organism of ventilator associated pneumonia.
10. Acquired electrophysiological abnormalities in patient with severe sepsis and their impact on outcome: a prospective study.

PUBLICATIONS

Journals: 18 Abstracts: 8 Chapters in books: 7

PATIENT CARE

Pulmonary Medicine OPD

New Cases 2593 Old Cases 2884
Injections 167 Procedures 02

Lung Cancer Clinic 43

Laboratories

Respiratory laboratory

Spirometry procedures 6968
Diffusion capacity estimation 794
Body Box (Plethysmography) measurements 428
Oxymetries 2308
Maximum Voluntary Ventilation 536
**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Randeep Guleria** received following honours: Indian Chest Society ICS-Dr C.V. Ramakrishnan oration award 2011 for his outstanding contribution in the field of Pulmonary Medicine, Prof. Dr. P.S. Shankar Oration’ award at the 16th National Scientific Conference of Environmental and Respiratory Diseases NESCON 2011. He has been appointed as an advisor to the World Health Organization (WHO) for the SAGE Working Group on Influenza Vaccines and Immunization at the WHO Headquarters, Geneva, Switzerland, Consultant to the Technical Meeting of the International Atomic Energy Association to develop guidance material on radiation protection for physicians at Vienna, Austria in September 2011. He has been appointed the External Examiner for DM. (Pulmonary and Critical Care) PGIMER, Chandigarh, External examiner for MD (Medicine) examination, Shere-I-Kashmir Institute of Medical Sciences, Srinagar, J&K. Dr Randeep Guleria has been the member of the Project Review Committee on ‘Tuberculosis, Leprosy and other Chest Diseases of the ICMR. He has been 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, External Examiner for the MD (Internal Medicine) National Academy of Medical Sciences, Bir Hospital Kathmandu, Nepal. He has been nominated a member of the Editorial Board of the Indian Journal of Chest Diseases and Allied Sciences. He has been awarded Fellow of National Medical Science Academy for the year 2009. Dr Randeep Guleria was appointed as Consultant to the International Atomic Energy Agency Technical Cooperation Programme on patient radiation exposure tracking at Vienna, Austria.

**Professor G.C. Khilnani** was elected as President of National College of Chest Physicians (India). He served as Chairman for the Credential Committee of Indian Society of critical care Medicine. He served as Governor (Northern India) for the Council of Governors and Regents, American College of Chest Physicians. He is member of Executive Council of North Eastern Hill University, Shillong, Meghalaya. He is a 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)

**Dr Anant Mohan** was awarded Silver Sponsorship from European Respiratory Society for presenting paper ‘Association of systemic Inflammation with clinical recovery in patients with acute exacerbation of COPD’ at ERS Congress, Amsterdam, September 2011. He was also awarded Fellowship of the ‘American College of Chest Physicians’ (ACCP), since January 2012.
HIGHLIGHTS
The department is actively engaged in patient care, education and research. The department organized a CME and delivered/presented over 100 lectures/presentations in various CMEs, and national and international conferences. The department has been involved in a multi-centre project funded by National Knowledge Network, 4 collaborative clinical trials funded by ICMR, 1 intramural funded project, and more than 60 departmental and collaborative projects. The faculty published more than 85 papers in indexed national and international journals and contributed 12 chapters in various books and edited a textbook.

EDUCATION

Undergraduate
The department faculty took 55 lectures for MBBS students. A batch of 9 students was admitted to the BSc (Hons) Medical technology in radiography (MTR) course in 2011–12 including 1 sponsored candidate from Nepal.

Postgraduate
The department trains 25 junior residents (MD Radiology) every year out of whom 3 are sponsored candidates. Academic activities for postgraduate students include 35 seminars, 35 journal clubs, 70 case discussions, 70 interesting film sessions and 80 lecture classes per year.

The department provided short term training to 11 radiologists from all over the country.

CMEs/Workshops/Symposia/National and International conferences

CME organized

Lectures delivered

D.N. Srivastava: 6 Raju Sharma: 12
Sanjay Thulka: 8 Sanjay Sharma: 6 Ashu Seith Bhalla: 11
Smriti Hari: 3 Shivanand Gamanagatti: 9 Atin Kumar: 12
Shashi Paul: 1
Oral/poster presentations


RESEARCH
Funded Projects
Ongoing
1. NKN Model Project: Network Enabled Medical Diagnosis and Education in Skeletal Imaging Using X-rays. AK Gupta, National Knowledge Network, 2011–15, Rs 50 lakhs for first year.

Completed

Departmental Projects
Ongoing
1. Role of perfusion CT in predicting outcome in mild head injury.
4. Role of dual energy CT in assessment of renal calculi.
5. MDCT evaluation of solid retroperitoneal organ injuries in blunt abdominal trauma with limited MRI correlation.
6. Role of dual energy CT in diagnosis of gout.
8. Pre-operative embolization of bone tumors.
10. MRI evaluation of adult traumatic brachial plexus injuries.
11. Role of perfusion CT in pancreatic pathology.
12. Role of percutaneous radiological intervention in discogenic low back pain.
13. MRI evaluation of chronic hip pain.
14. Ultrasound guided thoracocentesis using pigtail catheter with or without pleurodesis in the palliation of recurrent/refractory malignant pleural effusions.
15. Role of Diffusion Weighted MRI in imaging of retinoblastoma.
17. Role of digital breast tomosynthesis as an adjunct to full field digital mammography (FFDM) in the evaluation of breast lesions.
19. Role of dynamic contrast enhanced & diffusion weighted MRI in preoperative staging of endometrial cancer.
20. Role of MDCT in evaluation of traumatic liver injuries.

**Completed**
1. Cysts, tumors and tumor like lesions of the jaw: evaluation by panoramic radiographs and MDCT with limited MRI correlation.
2. Comparison of CT and MRI including diffusion weighted MRI in renal mass lesions.
4. Role of CT in the staging and management of carcinoma of cervix.
5. Clinical utility of breast ultrasound as an adjunct to mammography in diagnostic breast imaging.
6. Percutaneous radiofrequency ablation of painful benign bone tumors and metastasis.

**Collaborative**

**Ongoing**
1. 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)
2. MRCP in patients with portoenterostomy for biliary atresia (Paediatric Surgery).
5. Prospective and retrospective evaluation of duration of anti-tubercular treatment in spinal tuberculosis – a clinic-radiological study (Orthopedics).
7. Voriconazole in the treatment of fungal orbital infections. (Ophthalmology)
10. Role of Magnetic Resonance Imaging and spectroscopic methods in the evaluation of early prostate cancer (NMR).
12. Effect of progressive resistance exercise training on hepatic fat in Asian Indians with non-alcoholic fatty liver disease (Medicine).
13. Study of association of adipocyte size with anthropometric and biochemical parameters (Medicine).
14. A clinical study to evaluate structural and functional respiratory parameters after distraction osteogenesis in retrognathic TMJ ankylosis patients with obstructive sleep apnoea syndrome (Otolaryngology).
15. Assessment of clinical, radiological profile and role of sialendoscopy in patients with salivary gland obstructive pathology (Otolaryngology).
17. Diagnostic utility of FDG-PET/CT in pyrexia of unknown origin (Medicine).
19. Assessment of site directed surgical treatment by nasal, oropharyngeal, palatal, or retroglossal advancement surgery in the management of obstructive sleep apnea syndrome (Otolaryngology).
20. Study on genotype -phenotype correlation in Asian Indian subjects with childhood onset of growth hormone deficiency (Endocrinology).
21. Diagnosis and differential diagnosis of patients with Cushing’s syndrome (Endocrinology).
22. Role of image guided navigation in endoscopic surgery of paranasal sinuses: a comparative study (Otolaryngology).
23. Pre-post intervention study of quantitative and qualitative evaluation of bone formed in sinus augmentation with the use of bioactive synthetic bone graft putty (Dentistry).
24. Ultrasound guided localization of internal jugular vein with reference to carotid artery in infants, children and adolescents (Anaesthesia).
25. Computed tomography measurements of normal and pathological inner ear (Otolaryngology).
26. Association of non-alcoholic fatty liver disease with obstructive sleep apnea in Asian Indians (Medicine).
27. Randomized controlled trial of radiofrequency ablation versus percutaneous acetic acid therapy for the treatment of small hepatocellular carcinoma (Gastroenterology).
28. Randomized control trial of transarterial chemoembolisation (TACE) versus TACE plus oral chemotherapy in the treatment of unresectable hepatocellular carcinoma (Gastroenterology).
29. Randomized control trial of transarterial chemotherapy (TAC) versus oral chemotherapy in the treatment of unresectable hepatocellular carcinoma (Gastroenterology).
30. Randomized control trial of N-acetylcysteine in prevention of renal failure in hepatocellular carcinoma patients undergoing transarterial chemotherapy and transarterial chemoembolisation (Gastroenterology).
31. Randomized control trial of oral chemotherapy versus supportive therapy in the treatment of unresectable hepatocellular carcinoma (Gastroenterology).
32. Role of contrast enhanced ultrasound in the diagnosis and for assessment of the therapeutic response in patients of hepatocellular carcinoma (Gastroenterology).
33. Assessment of response of hepatocellular carcinoma to transarterial chemoembolisation by using magnetic resonance imaging. (Gastroenterology).
34. Safety and efficacy of autologous stem cells in prevention of amputation in patients with chronic critical limb ischemia (Surgery).
35. Blunt chest trauma: prospective and retrospective review (Surgery).
36. Minimally invasive necrosectomy in pancreatitis (Gastrointestinal Surgery).
37. A prospective randomized controlled trial comparing laparoscopic and endoscopic drainage of pseudocyst of pancreas (Surgery).
38. Evaluation of injury pattern and results of medical and surgical treatment in cases with traumatic and iatrogenic facial nerve injury (Otolaryngology).

39. Clinico-pathological study of antral mucosal changes in patients with ethmoidal polypi (Otolaryngology).

40. Comparison of single stage versus two stage treatment of patients with common bile duct stones and gall stones – a randomized controlled study (Surgery).

41. Retrospective and prospective evaluation of magnitude, severity and outcome of traumatic hepatobiliary and pancreatic injuries in a level 1 trauma centre (Surgery).

42. Effect of N-acetylcysteine on oxidative stress, endothelial dysfunction & carotid intimal media thickness in chronic peritoneal dialysis patients – An open labeled randomized trial (Nephrology)

43. Role of contrast enhanced ultrasound in the diagnosis of hepatocellular carcinoma in patients of cirrhosis (Gastroenterology).

44. Contrast enhanced ultrasound for the assessment of therapeutic response following locoregional therapy in patients of hepatocellular carcinoma (Gastroenterology).

45. Surveillance of patients of cirrhosis for detection of hepatocellular carcinoma - a cohort study (Gastroenterology).

Completed

1. Evaluation of changes in the dimensions of Masseter muscle during various stages of twin block appliance therapy using MRI (Dentistry).

2. Finite element study to analyze the stress distribution in human mandible following twin block therapy (Dentistry)

3. Assessment of ulcero-constrictive lesions of small bowel (Gastroenterology).

4. Role of imaging modalities in patients of locally advanced breast cancer undergoing neoadjuvant chemotherapy (Surgery).

5. Role of ultrasound elastography in evaluation of breast cancer (Surgery)

6. Role of non alcoholic fatty liver disease in adult population in a rural community living in Haryana. (Community Medicine)

7. Role of clinical, radiological and genetic evaluation in patients with blepharophimosis ptosis epicanthus inversus syndrome (Ophthalmology).

8. Evaluation of adjuvant chemotherapy in stage 2 and neoadjuvant chemotherapy in stage 3 retinoblastoma as per the international retinoblastoma staging system (Ophthalmology).

9. Randomized control study of laparoscopic sleeve gastrectomy with and without staple line reinforcement in morbidly obese patients (Surgery).

10. Clinical correlation of imaging findings in congenital neuropathic strabismus (Ophthalmology).

11. Imaging guided lung biopsies in immune-compromised patients with probable fungal pneumonia and its clinical implications (Hematology).

12. Study of non-alcoholic fatty liver disease and coronary artery disease in Asian Indians. (Medicine).


15. A comparative study to measure the condylar guidance by the radiographic and clinical methods (Dentistry).
16. Oncology adequacy and functional outcome of transoral laser microsurgery (TLM) for early and moderately advanced laryngeal and hypopharyngeal cancers (Otolaryngology).
17. Immuno-histochemical characterisation of juvenile nasopharyngeal angiofibroma (JNA) and radiological and histological evaluation of involvement of Vidian canal in JNA (Otolaryngology).
18. Study of mycobacteremia in miliary and disseminated tuberculosis (Medicine).
19. Effect of atorvastatin in hyperlipidemia and progression of carotid intima media thickness in steroid resistant nephrotic syndrome (Pediatrics).
20. Comparison of ultrasound elastography, mammography and sonography in the diagnosis of breast masses (Surgery).
21. Comparison of calculated dose approach versus fixed dose to success of radioiodine ablation in patients with autonomously functioning thyroid nodules (Nuclear Medicine).
22. Measurement of depth of terminal ductolobular unit preoperatively by breast ultrasound and by histological assessment postoperatively (Surgery).
23. Plain radiograph and MR imaging of patients with tennis elbow (Orthopedics).
24. MDCT evaluation of spinal trauma: preoperative an post operative evaluation (Orthopedics).
25. Liver stiffness estimation by transient elastography in cirrhosis and non-cirrhotic portal hypertension (Gastroenterology).
26. MRI based protocol for the management of infected pancreatic necrosis (Gastroenterology).
27. Ultrasound evaluation cervical lymph nodes in patients with carcinoma of esophagus (GI surgery).
28. Trans-arterial chemoembolization (TACE): a palliative therapy for unresectable Hepatocellular carcinoma. (Gastroenterology).
29. Comparative study of foot pressure force analysis in patients with plantar fasciitis treated with diclofenac alone and diclofenac with ultrasonic therapy (Physical Medicine & Rehabilitation).
31. To study the effect of cricoids split with or without rib grafting in cases of subglottic stenosis for laryngotracheal stenosis (Otolaryngology).
32. Optic nerve sheath diameter measurement for raised ICP in severe head injury patients (Neurosurgery).
33. Effect of continuous positive airway pressure on cardiovascular biomarkers in patients with obstructive sleep apnoea (Medicine).
34. Evaluation of testicular blood flow and volume in patients undergoing laparoscopic inguinal hernia repair (Surgery).

**PUBLICATIONS**

**Journals:** 83  
**Books:** 1  
**Chapters in books:** 12

**PATIENT CARE**

The department is equipped with state-of-art facilities for imaging, including 7 digital radiography units, 8 digital portal radiography units, 4 conventional portable radiography units, 2 digital fluoroscopy units, 2 conventional fluoroscopy units, a flat panel DSA lab, 13 ultrasound scanners with colour doppler, 4 portable ultrasound units, 3 CT scanners of which one is a dual energy scanner, a full field digital mammography unit, and a DEXA unit for bone densitometry. By the end of this year the department will have its own 1.5 T MRI scanner. The department performs a vast number of
diagnostic and interventional radiology procedures including emergency diagnostic and interventional procedures that cater to all clinical departments in the main hospital. More than 20 clinic-radiological conferences are held during the week where imaging investigations are discussed with clinical colleagues. The department is 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 added to the department: 2 mobile radiography units, a digital flat panel radiography system, a digital mobile radiography system and 2 high end ultrasound systems. The details of the investigation and procedures performed during the period under consideration are given below.

### Details of Investigations

<table>
<thead>
<tr>
<th>Name of Investigation /Special procedures</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Routine X-rays</strong></td>
<td></td>
</tr>
<tr>
<td>• OPD</td>
<td>79,350</td>
</tr>
<tr>
<td>• Indoor</td>
<td>20,010</td>
</tr>
<tr>
<td>• Casualty</td>
<td>44,901</td>
</tr>
<tr>
<td>• Portable</td>
<td>31,555</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,75,816</td>
</tr>
<tr>
<td><strong>Special Investigations</strong></td>
<td></td>
</tr>
<tr>
<td>• Barium Studies</td>
<td>2,274</td>
</tr>
<tr>
<td>• Intravenous pyelography</td>
<td>1,594</td>
</tr>
<tr>
<td>• Micturating cystourethrography</td>
<td>1,796</td>
</tr>
<tr>
<td>• Hysterosalpingography</td>
<td>318</td>
</tr>
<tr>
<td>• Operation Theater Studies</td>
<td>84</td>
</tr>
<tr>
<td>• Others contrast studies</td>
<td>1,122</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,188</td>
</tr>
<tr>
<td><strong>Mammography</strong></td>
<td>1,570</td>
</tr>
<tr>
<td><strong>Ultrasound</strong></td>
<td></td>
</tr>
<tr>
<td>• Routine</td>
<td>21,986</td>
</tr>
<tr>
<td>• Emergency</td>
<td>16,325</td>
</tr>
<tr>
<td>• Doppler (Routine + Casualty)</td>
<td>2,984</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>41,295</td>
</tr>
<tr>
<td><strong>CT</strong></td>
<td></td>
</tr>
<tr>
<td>• Body</td>
<td>11,384</td>
</tr>
<tr>
<td>• Head</td>
<td>5,217</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16,601</td>
</tr>
<tr>
<td><strong>Vascular studies</strong></td>
<td></td>
</tr>
<tr>
<td>• Digital subtraction angiography (DSA)</td>
<td>783</td>
</tr>
<tr>
<td>• Venography</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>791</td>
</tr>
</tbody>
</table>
Interventional procedures

- Ultrasound-guided 2,509
- CT-guided 473
- Vascular 1,000
- Mammography biopsy/FNAC 34

Total 4,016

Total Special Investigations 74,762

Grand Total (Routine + Special) 2,50,578

AWARDS, HONOURS AND SIGNIFICANT EVENTS


Professor Raju Sharma served as Chairman, Scientific Committee, Delhi Imaging Update 2012, Delhi State Chapter of the Indian Radiological and Imaging Association, 25–26 February 2012; Member, Expert Project Monitoring Committee, Department of Biotechnology, GOI.

Dr Sanjay Sharma delivered the Dr J.C. Bose Memorial Oration during the 65th Annual Conference of the Indian Radiological and Imaging Association (IRIA), Hyderabad, 29 January 2012; Vice President, Delhi Chapter of IRIA (2011–12); Joint Secretary, Indian Society of Vascular and Interventional Radiology (2010–11); Treasurer, Indian Society of Vascular and Interventional Radiology (2011–14); Joint Organising Secretary, Delhi Imaging Update 2012, Delhi State Chapter of the Indian Radiological and Imaging Association, 25–26 February 2012; Member, Expert Advisory Committee, ICMR for purchase of equipment (digital X Ray machine and PACS) for newly established National Institute for Research in Environmental Health (NIREH), Bhopal, 2011.

Dr Shashi B. Paul was elected Member of the European Association for the Study of Liver (EASL) 2012.

Mr Ramesh Sharma and Mr Pawan K Popli (Radiographers) were awarded ‘Dose Wise Radiographer of the Year Award 2011.’
HIGHLIGHTS
The department continued to provide competency-based training in reproductive biology to doctoral, post doctoral and master level trainees and supported continuing medical education programmes. It made valuable contributions to research in the area of hypoxia and Leydig cell steroidogenesis, molecular cytogenetics and gene-environment interaction in relation to reproductive biology, contraceptive medicines and quality control in laboratory testing. The department also supported the activities of various institutions/organizations and government bodies such as the National Academy of Medical Sciences, National Institute of Health and Family Welfare, Department of Biotechnology, National Institute of Immunology, Sanjay Gandhi Postgraduate Institute of Medical Sciences ( Lucknow), and Jawaharlal Nehru University (New Delhi). The department also contributed to various national and international journals such as Journal of Fertility and Sterility, International Journal of Andrology, International Journal of Gynaecology and Obstetrics, Journal of Obstetrics and Gynaecology, International Journal of Genetics and Molecular Biology, Indian Journal of Medical Research, Indian Journal of Paediatrics and Indian Paediatrics. Professor Anand Kumar presided over the inauguration of the XVII Annual Congress of the Society of Andrology, India at IIT, Delhi–10–12 December 2011.

EDUCATION

<table>
<thead>
<tr>
<th>Programme</th>
<th>Number/ Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
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</tr>
<tr>
<td>Post Doctoral</td>
<td>1</td>
</tr>
<tr>
<td>Co-supervision</td>
<td>1 (Medical Oncology)</td>
</tr>
<tr>
<td>MD</td>
<td>MD Laboratory Medicine Students in Central RIA Facility</td>
</tr>
<tr>
<td></td>
<td>Biochemistry students in Central RIA Facility</td>
</tr>
<tr>
<td>Co-supervisor</td>
<td>4</td>
</tr>
<tr>
<td>DM</td>
<td>1</td>
</tr>
<tr>
<td>Co-supervisor</td>
<td>1</td>
</tr>
<tr>
<td>Training</td>
<td></td>
</tr>
<tr>
<td>Short term</td>
<td>1 (1 month)</td>
</tr>
</tbody>
</table>

CME/Workshops/Symposia/National and International conferences
Lectures delivered
Anand Kumar: 2    Ashutosh Halder: 3    Oral papers/posters presented: 7

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, Department of Science and Technology (DST), November 2009–November 2012, Rs. 17.7 lakhs.

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, Indian Council for Medical Research (ICMR), September 2011–September 2014, Rs. 39 lakhs.


4. Quality control for hCG kits procured by HLL Lifecare Limited, Gurgaon. PK Chaturvedi, HLL Lifecare (initiated in 2008), Rs. 4.20 lakhs/year.


**Completed**

1. Sertoli cell maturation status, role of heavy metals and role of vitamin A in spermiation defects in humans. SRF Project. Ashutosh Halder. ICMR, January 2008–January 2010, Rs. 3.5 lakhs.

2. Development of native 2D electrophoretic system for the functional evaluation of seminal plasma proteins. SRF project. PK Chaturvedi, ICMR, August 2010–August 2012, Rs. 1.6 lakhs.

**Departmental projects**

**Ongoing**

1. Analysis of different 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. Role of hypoxia on leydig cell function

2. Genetic and endocrine study on primary testicular failure

3. The evaluation of emergency contraceptive drug, levonorgestrel: post-coital oral versus peri-coital vaginal administration for prevention of pregnancy

4. The evaluation of the Reproductive Health and contraceptive use in India

5. The assessment of the-state-of-the-art of emergency contraception with the cutting edge drug

**Collaborative projects:**

**Ongoing**

1. Study of clinico-dysmorphic profile and associated malformations in children with congenital heart disease (with Department of Paediatrics, Maulana Azad Medical College).

2. Serum alpha-fetoprotein and albumin level in fanconi anemia (with Department of Hematology, AIIMS).

**Completed**

1. Comparison of chronic groin pain, testicular functions and quality of life after open and laparoscopic inguinal hernia repair – A prospective randomized controlled trial (with Department of Surgery).
2. A study on the molecular biology of multiple myeloma (with Department of Medical Oncology).
3. Adrenal functions in patients with severe sepsis and septic shock (with Department of Medicine).

PUBLICATIONS

Journals: 6  
Chapters in books: 1

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 inpatients and outpatients were carried out at 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>3616</td>
<td>T3</td>
<td>8200</td>
</tr>
<tr>
<td>LH 3179</td>
<td>T4</td>
<td>9518</td>
<td></td>
</tr>
<tr>
<td>Prolactin</td>
<td>2931</td>
<td>TSH</td>
<td>16158</td>
</tr>
<tr>
<td>DHEAS</td>
<td>147</td>
<td>Testosterone</td>
<td>1340</td>
</tr>
<tr>
<td>Estradiol</td>
<td>939</td>
<td>Beta hCG</td>
<td>1063</td>
</tr>
<tr>
<td>Progesterone</td>
<td>169</td>
<td>CA-125</td>
<td>1766</td>
</tr>
<tr>
<td>PSA</td>
<td>1563</td>
<td>Total</td>
<td>54272</td>
</tr>
</tbody>
</table>

Number of tests performed has increased from 47215 in the previous year to 54272 this year.

Andrological examinations: Semen examination 332, Seminal fructose 332

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Anand Kumar was elected Fellow of the National Academy of Medical Sciences and Life Member of the Society for Reproductive Biology and Comparative Endocrinology; Member Advisory Committee of the UGC-SAP programme in Zoology of ML Sukhadia University (Udaipur); Expert, Faculty selections at Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow; Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA), Dr BR Ambedkar Centre of Biomedical Research (Delhi University), Institutional Review Board (IRB) of NIHFW; Editorial Board of Open Andrology Journal (Bentham); peer reviewer for Journal of Fertility and Sterility, International Journal of Andrology and Indian Journal of Medical and Paediatric Oncology; Reviewer (reproductive biologist), draft protocols, Directorate of Plant Protection Quarantine and Storage (Ministry of Agriculture, Faridabad); External examiner, Vidyasagar University, West Bengal; Presided over inauguration and chaired a session at XVII Annual Congress of the Society of Andrology, India and Prof KR Laumas Memorial Seminar on Social and Technology Dimensions of Reproductive Health Research and Workshop on Technology in Family Welfare, Delhi (10–12 December 2011); Guest of honour, Delivered keynote address, and chaired Prof P Govindarajulu Oration, 30th Annual Symposium on Novel Aspects and Emerging Trends in Reproduction and Endocrinology and the National Conference held at Mohan Lal Sukhadia University, Udaipur (30 January–1 February 2012).

Dr Ashutosh Halder is member of the Department of Biotechnology (DBT) Expert Group on Reproductive Health and Biology; National Institute of Immunology Institutional Committee for Stem Cell Research and Therapy; National Advisory Board, Journal of the Association of Physicians of India (Genetics section), and editorial boards Open Journal of Clinical Diagnostics of Scientific Research Publishing, the Journal of Clinical Diagnostic and Research, and the Asian Journal of Medical Sciences; Peer-reviewer of seven medical journals of Dove Medical Press (International Journal of Women’s Health; Pharmacogenomics and Personalized Medicine; Breast Cancer: Targets and Therapy;


**Dr P.K. Chaturvedi** is a member of the Board of Studies of Biotechnology for session 2011–12 of Mahamaya Technical University, Noida; Reviewer, Projects for Department of Biotechnology (DBT) and Indian Council for Medical Research; his team won the best poster award at the XVII Annual Congress of the Society of Andrology, India and the Prof KR Laumas Memorial Seminar on Social & Technology Dimensions of Reproductive Health Research, Delhi (10–12 December 2011).

**VISITING SCIENTISTS**
Professor Suresh C. Sikka, Research Director of Urology, Andrology Research and Clinical Labs and Director, Tulane University Health Science Centre, USA (2 December 2011) delivered a lecture ‘Andrology – past, present, and future with more focus on sexual dysfunction’.
## 9.36 Surgical Disciplines

<table>
<thead>
<tr>
<th>Professor and Head</th>
<th>M.C. Misra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>Sunil Chumber</td>
</tr>
<tr>
<td>Additional Professor</td>
<td>V. Seenu</td>
</tr>
<tr>
<td>Additional Professor</td>
<td>Sandeep Aggarwal</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Anita Dhar</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Amit Gupta</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Maneesh Singhal</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Subodh Kumar</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Biplab Misra</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Sushma Sagar</td>
</tr>
</tbody>
</table>

### TRAINING

The department is active in the training of undergraduate MBBS students and postgraduate students at AIIMS. In addition, the department provides elective, short-term, elective, and long-term training to trainees from India and abroad.

**Elective training** of 1–3 months duration was provided to trainees from Austria (5), USA (1) and Singapore (1); and for a period of 1–2 weeks to trainees from Singapore (12), Germany (4), India (2), Austria (1), Romania (1) and USA (1).

**Short-term training** of 6 months was provided to trainees from India (5), for 3 months to a trainee from USA (1) and for 1 month to trainees from India (4).

**Long-term training** of 1 year duration was provided to Dr Nasser Al Sharari and Dr Turki Atia Al-Qurashi from Saudi Arabia and of 6 months duration to Dr Chittaranjan Das from Bangladesh.

### CMEs/Workshops/Symposia/National and International Conferences Organized by the Department

1. AIIMS-UICC Joint Workshop on Advances in Breast Oncoplasty and Sentinel Node Mapping, AIIMS, New Delhi, 1–2 September 2011.
4. 11 training courses in ‘Operative Laparoscopy – Basic and Advanced’.
5. 2 training courses in ‘Laparoscopic Suturing Skills’.
6. 2 training courses in ‘Laparoscopic Colorectal Surgery’.
7. 6 training courses in ‘Laparoscopic Hernia Surgery’.

### Lectures delivered

- M.C. Misra: 40
- Anurag Srivastava: 7
- Rajinder Parshad: 1
- Sandeep Aggarwal: 9
- V K Bansal: 16
- Amit Gupta: 12
- Biplab Mishra: 6
- Subodh Kumar: 5
- Sushma Sagar: 5

AIIMS 2011-2012 / 248
Oral papers/posters presented by the departmental faculty, residents and staff: 33

RESEARCH
Funded projects

**Ongoing**
3. A study of global DNA and gene specific methylation pattern and MiRNA profile during neo-adjuvant chemotherapy in locally advanced breast cancer. V Seenu, Medical Research Council, Sultanate of Oman, 2012–14, Rs. 20 lakhs.
5. 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. VK Bansal, SAGES Research Award, 2009–12, Rs. 15 lakhs.
6. A prospective randomized controlled trial comparing chronic groin pain and quality of life after laparoscopic inguinal hernia repair using heavy weight vs light weight meshes. VK Bansal, AIIMS Research Grant, 2010–12, Rs 1.4 lakhs.
7. Safety and efficacy of autologous stem cells in prevention of amputation in patients with chronic critical limb ischemia. Anita Dhar, DBT, 2009–13, Rs. 68 lakhs.
8. To compare the effectiveness of VAC (Vacuum Assisted Closure) therapy to conventional treatment of Amputation stump. Sushma Sagar, AIIMS Research grant, 2011–12, Rs 1 lakh.
9. Comparison of sustained silver ion releasing foam based dressing with conventional paraffin gauze dressing in donor area. Maneesh Singhal, AIIMS Research grant, 2011–12, Rs 1 lakh.
10. Development of wound registry at Trauma Center, AIIMS. Maneesh Singhal, AIIMS Research grant, 2011–12, Rs 1 lakh.

**Departmental projects**

**Ongoing**
1. A comparison of outcome following total and near total thyroidectomy for well differentiated cancer.
2. A detailed ultrastructural study of major ducts in women with periductal mastitis/mammary duct ectasia.
3. 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.
4. A prospective study to evaluate the impact of laboratory training on performance of surgical residents in live operative settings.
5. A randomized controlled trial of early versus late tracheostomy in critically ill trauma patients.
6. A randomized controlled trial to compare local recurrence following breast conservation surgery with 1cm vs 2 cm resection margin in early breast cancer.
7. A randomized trial to compare the results of laparscopic and endoscopic management of pseudocyst of pancreas.
8. A randomized, prospective, controlled trial to study the role of parenteral glutamine (Gln) and omega3 fatty acid supplemented total parenteral nutrition (TPN) or enteral nutrition in the clinical outcome in critically ill trauma patients in the ICU.

9. A randomized trial comparing limited length ductal cone excision with 3 cm ductal cone excision in women presenting with mammary duct discharge.

10. A study to evaluate flap thickness during mastectomy using US and at histopathology.

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

12. Ascertainment of the depth of the terminal ducto-lobular unit from skin by preoperative magnetic resonance scan and post operative histological measurement.

13. Audit of non trauma acute abdomen presenting in Emergency Department of AIIMS.


15. Comparison of contrast enhanced magnetic resonance angiography and intra arterial digital subtraction angiography in the evaluation of infra-popliteal arterial obstructive disease.

16. Comparison of role of MRI, gray scale and colour doppler USG in response evaluation in locally advanced breast cancer after neoadjuvant chemotherapy.

17. Correlation of lymphovascular invasion in primary tumor with non-sentinel lymph node involvement in early breast cancer.

18. Development and validation of a simple method to measure trans fatty acids and to study the association of trans fatty acids and coronary artery disease.


20. Epidemiological study of patients of road traffic injuries attending Emergency Department of Jai Prakash Narayan Apex Trauma Centre, AIIMS.

21. Evaluation of magnitude, severity and outcome of thoracic trauma in a Level 1 Trauma Centre.

22. Evaluation of reflux symptoms before and after laparoscopic sleeve gastrectomy.


24. Lipomodelling of breast following breast conservative surgery.

25. Multidetector CT scan evaluation of retroperitoneal solid organ injury with limited MRI correlation.


27. Optimization of sentinel lymph node biopsy technique for breast cancer.


29. Prospective randomized controlled blinded study to evaluate the effect of short term focused training program in laparoscopy on operative room performance of surgery resident.

30. Prospective study to evaluate the impact of laparoscopic sleeve gastrectomy on type 2 diabetes mellitus in patients with BMI 30-35 kg/m2.
31. 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.

32. Radical duct excision for nipple discharge (benign breast disease)—its long term follow up.

33. Randomized controlled trial to compare the short term morbidity following sentinel lymph node biopsy alone v/s auxillary lymph node dissection in clinically node negative breast cancer.

34. Retrospective and prospective analysis of magnitude, severity and outcome of pelvic fracture at a Level 1 trauma centre.

35. Retrospective and prospective analysis of magnitude, severity and outcome of chest trauma at a Level 1 trauma centre.

36. Retrospective and prospective evaluation of epidemiology and magnitude, severity, outcomes of complicated soft tissue injuries in a Level 1 trauma centre.

37. Role of cilastozole in treatment of chronic ischemia of the lower limb.

38. Role of free fat transfer in augmentation of breast following breast conservation surgery.

39. Role of muscle sparing latissiumus dorsi flap in breast conservation surgery for early breast cancer.

40. Role of PET-CT in assessing the response to neoadjuvant chemotherapy in locally advanced breast cancer.

41. Safety and efficacy of tranexemic acid in patients undergoing surgery post trauma.

42. Study of human breast cancer by magnetic resonance imaging techniques.

43. Study of interleukin-10 level expression in breast cancer and its clinicopathological co-relation.

44. Study of molecular basis of breast cancer.

45. Study of the economic profile of trauma care in a level 1 trauma center.

46. Study to evaluate the effect of training program involving animal models/tissues on operative room performance of general surgery residents.

47. The causes and pathologic features of traumatic deaths.

48. The feasibility of management of occult pnaumothoraces without intercostal drainage tube.

49. 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.

50. To assess the feasibility and outcome of minimally invasive surgery for colorectal cancer.

51. To evaluate the impact of a supervised program of nutritional counseling and lifestyle modification on weight loss in patients with BMI 25-29.9 kg/m² as compared to BMI ≥30-34.9 kg/m² over a period of one year and to assess the effect of bariatric surgery in BMI ≥35kg/m² as compared to non-surgical intervention over a period of one year.

52. To study epidemiology and trauma scoring in patients presenting in a Level 1 trauma centre.

53. To study magnitude, severity, outcomes of peripheral vascular injuries in a Level 1 trauma centre.

54. To study the pattern of peripheral arterial disease in tertiary care surgical practice: Indian scenario.

55. Ultramicroscopic evaluation of major lactiferous ducts following major duct excision for duct ectasia and plasma cell mastitis.
**Completed**
1. A study of quality of life in patients before and after successful renal transplantation in India.
2. Randomized study of outcome of laparoscopic sleeve gastrectomy with and without staple line reinforcement in morbidly obese patients.
3. Impact of renal transplantation on cognitive function of end stage renal disease patients.
4. Compare the results of mini-incision open donor nephrectomy with laparoscopic donor nephrectomy including peri-operative clinical outcomes and post-op quality of life.
5. Evaluation of efficacy of analgesic regimens in patients undergoing laparoscopic cholecystectomy.
6. Comparison of USG elastography, sonography and mammography in breast masses.
7. Role of radio frequency ablation in treatment of symptomatic lower limb varicosities.
9. Validation of different techniques in physical examination of the breast.
10. Epidemiology and trauma scores in patients presenting to Level 1 trauma centre.
11. To study epidemiology and trauma scoring in patients presenting in Level 1 trauma centre.
12. Retrospective and prospective evaluation of magnitude, severity and outcome of traumatic hepatobiliary and pancreatic injury in a Level 1 trauma centre.

**Collaborative**

**Ongoing**
1. 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 (Anaesthesia).
2. Randomized controlled trial comparing laparoscopic and endoscopic drainage of pseudocyst of pancreas (Gastroenterology and Radiology).
3. Retrospective and prospective study of magnitude, severity and outcome of traumatic hepatobiliary and pancreatic injury in a level I trauma centre (Gastroenterology and Radiology).
4. Costing of OT services at JPNA Trauma Center (Hospital Administration).
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 (Nephrology and Psychiatry).
6. A study of quality of life in patients before and after successful renal transplantation in India (Psychiatry).
7. Role of MDCT in evaluation of traumatic liver injuries (Radiodiagnosis).
8. A multi-center study on treatment of abdominal tuberculosis (intestinal or peritoneal): A randomized controlled trial of 6-months and 9 months of directly observed therapy under Revised National Tuberculosis Control program. (Gastroenterology).
9. Prospective study to evaluate the impact of bariatric surgery on glucose metabolism using biomarkers in obese patients. (Physiology).
10. To study the role of recombinant human erythropoietin in trauma victims with haemorrhagic shock: An in-vitro approach through stem cell differentiation (Laboratory Medicine).
11. Development and implementation of an automated electronic surveillance system for hospital acquired infections at a tertiary care hospital of India (Emergency Medicine).
12. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis (Biochemistry).


15. Sericin based value added finishes for medical garments and sportswear (Department of Textiles, IIT Delhi).

**Completed**

1. Chronic groin pain and quality of life after laparoscopic inguinal hernia repair using heavy weight vs light weight meshes (Anaesthesia and Psychiatry).

2. Comparison of long term outcome and quality of life after laparoscopic incisional and ventral hernia repair with suture or tacker mesh fixation (Anaesthesia and Psychiatry).


4. Chronic groin pain, testicular function and quality of life after laparoscopic and open inguinal hernia repair (Anaesthesia, Radiology, Reproductive Biology and Psychiatry).

5. To evaluate the endovenous laser ablation in the treatment of varicose veins (Cardiac Radiology).

6. Epidemiological study in the pathway of maxillofacial fractures seen at a tertiary care hospital of North India (Dentistry)

7. A randomized controlled study of comparison of single stage vs two stage treatment for patients with gall stones and common bile duct stones (Gastroenterology and Community Medicine).

8. Symptomatic outcome evaluation of patients undergoing treatment for achalasia cardia (Gastroenterology and Radiodiagnosis).

9. Pilot study comparing symptomatic outcome of patients undergoing laparoscopic cardiomyotomy with angle of His accentuation v/s laparoscopic cardiomyotomy with anterior dors fundoplication for achalasia cardia (Gastroenterology, Radiodiagnosis and Biostatistics).

10. Role of $^{68}$Ga Dotatoc/Noc Ssr-Pet/CT in patients with pulmonary carcinoids (Medicine and Nuclear Medicine).

11. To study Epidemiology and Trauma scoring in patients presenting in level 1 trauma centre (Orthopedics and Emergency Medicine).


**PUBLICATIONS**

**Journals: 41**

**Abstracts: 2**

**PATIENT CARE AND COMMUNITY/PUBLIC SERVICE**

**Professor M.C. Misra**

- ‘Aapada pravdhaan.’ Hello Zindgi, Akashvani FM Gold Channel, 1 April 2011.
• ‘Haemophilia.’ Healthy India, Lok Sabha TV, 16 April 2011.
• ‘Cancer vaccine TelVac.’ Aaj Tak, 16 April 2011.
• ‘Women’s health and healthcare in India.’ Lok Manch, Lok Sabha TV, 4 May 2011.
• ‘Spurious drugs.’ India TV, 16 July 2011.
• ‘Clinical Establishment Bill 2010.’ Lok Manch, Lok Sabha TV, 20 July 2011.
• ‘Traumatic amputation and reimplantation.’ India TV, 25 July 2011.
• ‘Increased healthcare allocation during Twelfth Five-year Plan.’ Lok Manch, Lok Sabha TV, 19 September 2011.
• ‘Clinical Establishment Act 2010 and its implementation.’ Legal Point, Lok Sabha TV, 5 November 2011.
• ‘Road injuries.’ Legal Point, Lok Sabha TV, 26 November 2011.
• ‘Increased healthcare allocation during Twelfth Five-year Plan.’ Lok Manch, Lok Sabha TV, 13 January 2012.
• ‘Rehabilitation of battered baby Falak.’ Prime Time Live Debate, NDTV 24×7, 8 March 2012.
• ‘Head injuries.’ Healthy India, Lok Sabha TV, 31 March 2012.

Sandeep Aggarwal

• ‘Bariatric surgery.’ Healthy India, Lok Sabha TV, 16 July 2011.

Anita Dhar


AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor MC Misra is President, Society of Endoscopic and Laparoscopic Surgeons of India, Indian Society of Trauma and Acute Care, Delhi State Chapter of the Association of Surgeons of India; awarded Honorary Fellowship, Royal College of Physicians and Surgeons (Glasgow); Visiting Professor, Department of Surgical Oncology, University of Iowa Hospitals and Clinics, University of Iowa Health Care, 27 June–8 July 2011; Chairman, Project Review Committee, Indian Council of Medical Research and member, Expert Committee to advise DCG (I) in matters related to review and regulatory approval of New Medical Devices and Clinical Trials (MoHFW), Working Group for Development of the National Action Plan for Hospital Safety (National Disaster Management Authority), Fellowship Advisory Panel, Plastic Surgery for advising Credentials Committee, National Academy of Medical Sciences; Thematic Sub-Group on Disaster Management (DGHS, MoHFW), Thematic Sub-Group for the Establishment of Trauma Care facilities on National Highways on Golden Quadrilateral North-East and South-West Corridor (Trauma Care) (DGHS, MoHFW), and Expert group to develop Decade of Action for Road Safety 2011–20 (WHO, and DGHS, MoHFW); External examiner, MS (Surgery), Himachal Pradesh University, University of Kashmir, and Royal College of Physicians and Surgeons (Glasgow); and PhD examiner, CSS Medical University, Lucknow; MCI assessor, for starting PG course in General Surgery, Government Medical College, Chandigarh; Nominated by ICMR, for Meeting of South Asian Forum for Health Research (5–7 February 2012); Congress President, 4th Annual National Conference, Society of Endoscopic and Laparoscopic Surgeons of India (7–9 October 2011); delivered Dr Pritam Das Oration, National
CME and Live Operative Workshop, Alumni Welfare Association and Department of Surgery, MLN Medical College and SRN Hospital (Allahabad); Presidential Oration, 4th Annual National Conference, Society of Endoscopic and Laparoscopic Surgeons of India, Ahmedabad (7–9 October 2011), Dr G Subba Rao Oration, Gandhi Medical College Surgery Series, Secunderabad (9–11 March 2012), Plenary lecture, 4th International Conference and CME cum Live Workshop, Indian Society of Trauma and Acute Care (9–13 November 2011), Keynote Lecture, Trauma Care 2011: CME on Approach To Trauma, Command Hospital Air Force, Bangalore (17 September 2011); chaired scientific sessions, Surgery Update 2011, 28th National Continuing Medical Education Programme in Surgery, Maulana Azad Medical College, New Delhi (26 September–1 October 2011), 10th Postgraduate Course in Endocrine Surgery, SGPGIMS, Lucknow (3–6 November 2011), International Congress on Emergency Medical Service Systems, AIIMS, New Delhi (9–11 February 2012); Patron/Organizing Chairman/Programme Convener/Course Director/Programme Director, Inaugural Rural Trauma Team Development Course (in collaboration with American College of Surgeons, Committee on Trauma, Ballabgarh, Haryana (19–20 April 2011); Inaugural ATLS Provider Course, Developing 4th ATLS site to conduct ATLS Provider Course in Ahmedabad (24–26 May 2011); AIIMS-UICC Joint Workshop, Advances in Breast Oncoplasty and Sentinel Node Mapping (1–2 September 2011); First International Summit and Workshop on Cost-Effective and Meaningful Use of Technology in Emergency Medicine (27–29 October 2011); 4th International Conference and CME cum Live Workshops, Indian Society of Trauma and Acute Care (9–13 November 2011); 7th World Congress, World Interactive Network of Focused Ultrasound (22–27 November 2011); Live Surgery and CME on Brachial Plexus and Peripheral Nerve Injuries (19–21 December 2011); Inaugural Pre-Hospital Trauma Life Support Provider and Instructor Courses (28 February–6 March 2012); the Sixth AIIMS Surgical Week – Endosurg 2012: Live Operative International CME cum Conference (16–18 March 2012); and Wound Evaluation and Treatment Skills Course: First Training Course for Trainers (28–31 March 2012); Course Director, 11 training courses in ‘Operative Laparoscopy – Basic and Advanced’, 2 training courses in ‘Laparoscopic Suturing Skills,’ 2 training courses in ‘Laparoscopic Colorectal Surgery,’ 6 training courses in ‘Laparoscopic Hernia Surgery,’ 12 ‘ATLS Provider Courses,’ and 3 ‘ATLS Instructor Courses’; convened a meeting between a team from University of Michigan and JPNATC (AIIMS) to develop an International Injury Research Centre in India. The Team met the Union Minister of Health and Family Welfare, Secretary of Health, DGHS, DG ICMR, Vice Chairman, NDMA and Director, AIIMS; led an AIIMS team to Kathmandu to facilitate development of Nepal–Bharat Maitri Emergency and Trauma Centre, Kathmandu (24–26 February 2012).

**Professor Anurag Srivastava** was the Organizing Chairperson for the Sixth AIIMS Surgical Week – Endosurg 2012 – Live Operative International CME cum Conference (16–18 March 2012), AIIMS-UICC Joint Workshop on Advances in Breast Oncoplasty and Sentinel Node Mapping (1–2 September 2011); Meeting on Genetic Counselling, Genetic Testing and Clinical Management (12 March 2011); and Suture Practicum Workshop (25 March 2012). He also chaired a scientific session during the 9th Tata Memorial Hospital – Women’s Cancer Initiative (TMH-WCI) Conference, Mumbai, 14–16 October 2011.

**Professor Sunil Chumber** was the Co-organizing Chairperson for the Sixth AIIMS Surgical Week – Endosurg 2012 – Live Operative International CME cum Conference (16–18 March 2012).

**Professor Rajinder Parshad** was invited as a visiting faculty in the Bariatric Division of Department of Surgery, University of Minnesota, USA (1 April–30 June 2011). He delivered the Indian Hernia Society oration for the year 2011 at the 4th National Conference of Indian Hernia Society, Chandigarh (19–20 November 2011). He was also the Co-Organizing Chairperson for the Sixth AIIMS Surgical Week – Endosurg 2012 – Live Operative International CME cum Conference (16–18 March 2012); and he organized the Meeting of the Delhi State Chapter of ASI (18 February 2012).

**Dr V Seenu** won the best poster award at American Association for Cancer Research (April 2011); and he was a member of the executive committee for the Sixth AIIMS Surgical Week – Endosurg 2012 – Live Operative International CME cum Conference (16–18 March 2012);
Dr Sandeep Aggarwal is a member of the editorial board of the Journal of Krishna Institute of Medical Sciences University, executive board of Obesity and Metabolic Surgery Society of India; and he was a member of the executive committee for the Sixth AIIMS Surgical Week –Endosurg 2012 – Live Operative International CME cum Conference (16–18 March 2012). He also chaired a symposium on Bariatric surgery and an operative session at the 1st International Conference and Live Workshop on Advanced Laparoscopy and Robotics, Pune (28 April–1 May 2011); and an operative session at the Workshop on Advanced Laparoscopic Surgery, Fortis Hospitals, New Delhi (December 2011).

Dr VK Bansal won the best oral paper award at SAGES Annual Meeting at San Diego, USA and participated in the ‘SAGES Laparoscopic Ventral Hernia with Endoscopic Component Separation and Simulation: Hands On Course’. (7–10 March 2012). He is the honorary Secretary of the Indian Hernia Society and the Society of Endoscopic and Laparoscopic Surgeons of India (2011–12). He served as an expert during the ‘National Consultation on Screening of Potential Multi-organ Donors’ organized by ORBO at AIIMS (26 November 2011). He is a peer review for Tropical Gastroenterology, British Journal of Surgery, Journal of the Society of Laparoendoscopic Surgeons, Surgical Endoscopy, SLEPT Journal, and Indian Journal of Surgery. He chaired the Presidential Oration and Indian Hernia Society Oration during the 4th National Conference of Indian Hernia Society, Chandigarh (19–20 November 2011), two sessions in 4th International Conference, CME cum Live Workshop and 4th Annual Conference of the Indian Society for Trauma and Acute Care, New Delhi (12–15 November 2011), a session in the Annual Conference of Delhi State Chapter of ASI, Delhi (5 November 2011), and two sessions at Uttarakhand Chapter Meeting of SELSI, Dehradun (9–10 September 2011). He was the Organizing Secretary for the sixth AIIMS Surgical Week – Endosurg 2012 – Live Operative International CME cum Conference (16–18 March 2012) and the Course Coordinator for 11 training courses on ‘Operative Laparoscopy - Basic and Advanced,’ 2 training courses on ‘Laparoscopic Suturing Skills,’ 2 training courses on ‘Laparoscopic Colorectal Surgery,’ and 6 training courses on ‘Laparoscopic Hernia Surgery.’

Dr Anita Dhar was the Joint Organizing Secretary for sixth AIIMS Surgical Week – Endosurg 2012 – Live Operative International CME cum Conference (16–18 March 2012).

Dr Amit Gupta was awarded the WHO Travel fellowship to attend the ‘3rd International Training Programme on Pre-hospital Care’ at the Trauma and Critical Care Center, KhonKaen Regional Hospital, KhonKaen, Thailand (11–14 October 2011). He served as a member of the Core Group on National Guidelines for pre-hospital trauma care and management of trauma victims formed by WHO and MoHFW; and of the Round Table Workshop on Future Needs of Accident Investigation, organized jointly by the College of Traffic Management and Bureau of Police Research and Development (17 June 2011). He was an Expert Panelist for the Asia Pacific Meeting on Simulation in Healthcare, held at Hong Kong (19–22 May 2011) and was an external examiner for MBBS final professional surgery practical examination for University of Delhi. He was the Chairperson of the Scientific Committee for the TRAUMA 2011: International Congress, CME cum Live Workshop and 4th Annual Conference of the Indian Society for Trauma and Acute Care (9-13 November 2011) and the Workshop Director for Teaching Scenarios using Low- and Hi-fidelity Simulation Tools in the same conference. He was the Course Director for the Advanced Trauma Life Support Course of American College of Surgeons – Committee on Trauma. He served as a faculty for Basic Plastic and Reconstructive Surgery Course in Trauma; and Management of Acute Wounds in Emergency Course. He was also a group member in Pre Workshop Meeting of Indian and US (CDC Atlanta) delegates as a part of National Workshop on Injury Prevention and Control organized by Department of Orthopedics, GMCH Chandigarh (29–30 August 2011).

Dr Biplab Mishra chaired a free paper session at 6th AIIMS Surgical Week and Endosurg – 2012, International CME cum Live Workshop (16–18 March 2012). He was the Course Director for the Management of Acute Wounds in Emergency Department course and Advanced Trauma Life Support provider course (organized in collaboration with ACS-COT); and faculty for Wound Evaluation and Treatment Skill course. He was an executive member for Trauma 2011: International Conference, CME cum Live Workshop and 4th Annual Conference of the Indian Society for Trauma and Acute Care (12–15 November 2011).
Dr Maneesh Singhal is a Treasurer of the Indian Society for Trauma and Acute Care and an Accredited Instructor for Pre-hospital Trauma Life Support course (NAEMT and ACS, USA). He was the Organizing Secretary for Trauma 2011: International Conference, CME cum Live Workshop and 4th Annual Conference of the Indian Society for Trauma and Acute Care (12–15 November 2011) and the Joint Organizing Secretary for the 6th AIIMS Surgical Week and Endosurg - 2012, International CME cum Live Workshop (16–18 March 2012).

Dr Subodh Kumar is Vice-President, Indian Society for Trauma and Acute Care; accredited as International Course Director and Instructor for Pre-hospital Trauma Life Support course (NAEMT and ACS, USA) and Rural Trauma Team Development course (ACS – COT, USA). He was the Organising Secretary for the sixth AIIMS Surgical Week and Endosurg-2012, International CME cum Live Workshop (16–18 March 2012); Chairperson of the Scientific Committee for Trauma 2011: 4th International Conference, CME cum Live Workshop and 4th Annual Conference of the Indian Society for Trauma and Acute Care (12–15 November 2011); and the Course Co-coordinator for 12 Advanced Trauma Life Support (ATLS) provider courses organized in association with American College of Surgeons – Committee on Trauma, USA.

Dr Sushma Sagar received the Best Poster Award and the Second Best Poster Award at Trauma 2011: 4th International Conference, CME cum Live Workshop and Inaugural Conference of the Indian Society Trauma and Acute Care (12–15 November 2011). She is an Associate Editor for the Journal of Society for Wound Care and Research, and member of the review board of Oman Medical Journal and Journal of Medicine and Medical Sciences. She is a member of the core teaching faculty group of National Institute of Disaster Management and was a member of the Committee for formulating guidelines for School Safety Program at NIDM. She was certified as a Course Director for Advanced Trauma Life Support (ATLS) course, India; and she was the Organizing Secretary for sixth AIIMS Surgical Week – Endosurg 2012 – Live Operative International CME cum Conference (16-18 March 2012); Trauma 2011: 4th International Conference, CME cum Live Workshop (12–15 November 2011); Wound Evaluation and Treatment Skill course (28 March–3 April 2012).
9.37 Transplant Immunology and Immunogenetics

Professor and Head
N.K. Mehra

Additional Professor
D.K. Mitra

Scientists
Uma Kanga
Gurvinder Kaur
Sanjeev Goswami

Sunil Kumar

HIGHLIGHTS
The Department continued its activities in teaching, research and hospital services related to laboratory investigations. In addition to HLA testing at molecular level, solid phase assays using Luminex system were established to provide critical information on donor specific antibodies (DSA) to assist virtual cross match and monitoring of patients undergoing renal transplantation. High throughput DNA based technologies for HLA matching was a thrust area for the department, and SNP based technologies were used to define genetic polymorphism in several cytokines and chemokine genes during the year.

The department focused on the following areas of research: (i) genomic diversity of HLA region genes in diverse ethnic groups, (ii) determination of molecular basis of disease susceptibility to autoimmune, infectious and rheumatological diseases, (iii) understanding MHC peptide interactions with the long term goal of developing MHC targeted vaccines (iv) immunological aspects of transplantation, including investigations into the immune predictors of graft rejection, post transplant monitoring as well as chimerism studies, (v) role of immuno modulatory genes and assessment of host genetics in HIV/AIDS in relation to infection and progression (vi) understanding immunological basis of infectious diseases, e.g. tuberculosis, leishmaniasis, HIV, etc, (vii) immunophenotyping of patients with leukemia and development of novel immunological tools, and (viii) role of non classical HLA-G genes in tumor biology.

The department successfully organized the 5th International Congress of the Federation of Immunological Societies of Asia-Oceania (FIMSA) and the FIMSA/IUIS/IIS advanced course on Basic and Translational Immunology in March 2012.

EDUCATION
Training to MD/DM students
Several MD/DM students from the Departments of Pathology (4), Medical Oncology (2), Laboratory Medicine (1), Haematology (5) of AIIMS, and 2 doctors from the B.P. Koirala Institute of Health Sciences, Dharan, Nepal, were trained in the on techniques related to HLA testing and other immunological investigations.

Long term training
An officer from the Armed Forces is undergoing long term training in HLA methodologies in relation to renal transplantations. He is also registered for PhD.

Short term training
More than 30 students, researchers and doctors from India and 2 graduate students from US universities received short term training (1–6 months) on laboratory techniques in HLA testing and other immunological investigations. In addition, 2 students were trained under the Kishore Vaigyanic Protsahan Yojna of the Indian Council of Medical Research (ICMR).
CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered

N. K. Mehra: 17
D.K. Mitra: 5
Uma Kanga: 7
Gurvinder Kaur: 1

RESEARCH

Funded projects

Ongoing


2. Hematopoietic stem cell transplantation and genetics of HIV infection. NK Mehra. Tata Innovation Fellowship, Department of Biotechnology (DBT), 2008–11, Rs. 22.2 lakhs.

3. Asian Indian Donor Marrow Registry (AIDMR): A national registry of hematopoietic stem cell donors. NK Mehra. DBT, 2010–13, Rs. 1.5 crores.


5. 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. NK Mehra. DBT, 2007–12, Rs 8.10 lakhs.

6. Establishment of Centre for Molecular Medicine (CEMM) at AIIMS, NK Mehra. ICMR, 2012–17, Rs. 2.19 crores.


9. Role of FoxP3+ regulatory T cells in polarized immunity in leprosy patients. DK Mitra. ICMR, 2010–13, Rs. 75.2 lakhs.

10. CD 26 mediated chemokine activation: role in suppression of immunity among visceral leishmaniasis patients. DK Mitra. DBT, 2010–13). Rs. 92.8 lakhs.


Completed
1. Studies on T cell mediated suppression of immunity in visceral Leishmaniasis patients. DK Mitra. DBT, 2006–09, Rs. 79.3 lakhs.

Departmental projects

Ongoing
1. Studies on the role of chemokine on T cell mediated all reactivity in renal transplantation.
2. Clinical relevance of HLA, MICA and NKG2D receptor molecules in renal transplantation.
4. Genomic diversity of HLA genes in Indian population.
5. Clinical significance of HLA-G in hematopoietic stem cell transplantation.
6. Analysis of the antiviral response of Type 1 interferon system against HIV-1 infection.
7. Study of T cell response among older patients with TB.
13. Oxidative stress among various immune cell subsets during *M. tuberculosis* infection.

Completed
1. Immunoregulatory role of costimulatory molecules in tuberculosis.
2. Influence of genetic variations in HLA, chemokines, cytokines and their receptors on HIV-1 infection.

Collaborative projects

Ongoing
1. Genetic diversity of HLA in two tribes of North Madhya Pradesh: An association with pulmonary tuberculosis (Centre for Genomics, Jiwaji University, Gwalior).
2. CD26 mediated chemokine activation: role in suppression of immunity among visceral Leishmaniasis patients (Balaji Utthan Sansthan, Patna).
3. Impact of regulatory T cells on host immunity among older pulmonary tuberculosis patients (Department of Medicine).

PUBLICATIONS

Journals: 18  Chapters in books: 3

PATIENT CARE

Laboratory services: Facilities available in the department include flow cytometry, PCR based HLA testing, Luminex based antibody detection, tissue and cell culture, ELISA, phenotyping for leukemia and primary immunodeficiency diseases, DNA sequencing, chimerism testing using UNTR probes, SNP and micro satellite testing and several others.
Transplantation

<table>
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<tr>
<th>HLA matching</th>
<th>Recipients</th>
<th>Donors</th>
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<tbody>
<tr>
<td>Renal</td>
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<td>291</td>
<td>557</td>
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Bone marrow

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<tr>
<td>Aplastic anaemia</td>
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<td>265</td>
<td>352</td>
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<tr>
<td>Acute leukaemia</td>
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<td>126</td>
<td>164</td>
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<tr>
<td>Thalassaemia</td>
<td>31</td>
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<tr>
<td>Others</td>
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Total: 313 736 1049

Cadaver Donor Organ transplantation

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<th>Type</th>
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<td>Cadaver donor</td>
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Kidney recipients: 28

Cross Match Test

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<td>Luminex PRA</td>
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<td>ELISA PRA</td>
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DIAGNOSTICS

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<td>Spondyloarthropathies</td>
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<tr>
<td>Chimerism studies in BMT</td>
<td>60</td>
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<tr>
<td>Immunophenotyping of leukemia patients</td>
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</tr>
</tbody>
</table>

Unrelated donor search for bone marrow transplantation: 409 requests for unrelated HLA matched donor were received at the ‘Asian Indian Donor Marrow Registry’ for bone marrow transplantation (USA: 150, Europe: 93, Asia: 124, India: 42).

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor N.K. Mehra was presented ‘Award of Excellence’ by President, International Union of Immunological Societies (IUIS) for his outstanding contributions to the growth and development of Immunology globally; was President of 5th FIMSA International Congress of Immunology, New Delhi, 14–17 March 2012; Chairperson of the FIMSA/IUIS Advanced Course in Immunology, New Delhi, 18–20 March 2012; continued as ‘President’, Asia Pacific Histocompatibility and Immunogenetics Association (APHIA), and Chairperson of the IUIS International Committee on ‘Gender Equality and Career Development; Medical Sciences Research Committee of CSIR; DBT Expert Group for the maintenance and operation of Tuberculosis Aerosol Challenge Facility at ICGEB; DBT Expert-cum-Monitoring group on immunomodulation; Scientific Advisory Committee of the National Institute of Immmohaematology, Mumbai and Desert Medical Research Centre, Jodhpur; Pre-Scientific Advisory Committee of Central JALMA Institute for Leprosy and other Mycobacterial Diseases; ICMR Expert Group on creating Centres of Excellence in Primary Immunodeficiency Diseases in India; Member of: DBT Expert group on Stem Cell Research and Regenerative Medicine; ICMR Task Force on Stem Cell Research and Therapy; Scientific Advisory Committee of National Institute of Pathology; ICMR Expert Group on Studies in Diabetes; Project Review Committee of ICMR on Cellular and Molecular Biology; Scientific Advisory Committee of National Institute for Research in Environmental Health, Bhopal; ICMR Task Force.
on Research and Development in Immunology; Technical Committee of ICMR; Scientific Advisory Committee of Institute for Cancer and Preventive Oncology (Noida); Rajendra Prasad Memorial Research Institute in Medical Sciences (Patna); National AIDS Research Institute (Pune); Selection Committee for B,C,D level scientists; DHR Expert group to strengthen research in Medical Colleges in India; DHR Core Advisory Committee on Development of Multidisciplinary Research Units in medical colleges; Selection Committee of National Institute of Biomedical Genomics (Kolkata); Member, ICMR Expert Group on Congenital Deafness in Doda district of Jammu; INSA Sectional Committee on Biomedical Research; Research Committee of the Institute of Microbial Technology (Chandigarh); Programme Advisory Committee of the DST for inter-country projects; and Central Research Council of the Chhatarpatri Shivaji Maharaj Medical University, Lucknow. He served as a member of the editorial board of Proceedings of the Indian National Science Academy. He chaired sessions at the International Conference on Cardio-Vascular Research Convergence, New Delhi (12 February 2012), ISSRF International Congress on Reproductive Health, New Delhi (19 February 2012) and the Indo-Spanish Workshop on Health and Medical Research, New Delhi (22–24 November 2011); and the Guest of Honour and Plenary speaker at the National Symposium on Environment and Genetics, Bhatinda, Punjab (27 September 2011); Resource faculty for 1st Meeting of the Asia Pacific Federation of Inflammation and Regeneration, Tokyo, Japan (2–4 June 2011), 11th Annual Conference of the Federation of Clinical Immunology Societies, Washington, USA (23–26 June 2011), 8th International Summer School on Immunogenetics of the American Society for Histocompatibility and Immunogenetics, Puerto Rico, USA (19–22 September 2011), and the 35th Meeting of Asia-Pacific Histocompatibility and Immunogenetics Association, Brisbane, Australia (15–18 November 2011).

**Uma Kanga** is councilor for the Asia Pacific Histocompatibility and Immunogenetics Association and member of the DBT Task Force on ‘Chronic Disease Biology.’; Joint Organizing Secretary, 5th International Conference of Federation of Immunological Societies of Asia-Oceania (FIMSA).

**Gurvinder Kaur** continues as Secretary of the Asia–Pacific Histocompatibility and Immunogenetics Association; Co-Editor of its Newsletter; Convener of the Advanced Course on Basic and Translational Immunology, New Delhi (18—20 March 2012) and was the Joint Organizing Secretary for the 5th International Congress of the Federation of Immunological Societies of Asia–Oceania (FIMSA).

**VISITING SCIENTISTS**

Mr Yan Chen Li and Mr. Sundong Fang, Genomics Institute, Beijing, China (14 June 2011).


9.38 Urology

Professor and Head
PN Dogra

Professor
Amlesh Seth

Additional Professor
Rajeev Kumar

Assistant Professor
(w.e.f. 7 March 2012)
Prabhjot Singh
Ashish Kumar Saini (JPNATC)

EDUCATION
The Department takes lectures for undergraduates and nursing students. It trains 11 students for the degree of MCh in Urology over a three year period. The faculty of the department took active part in restructuring and reframing the curriculum for MCh and DNB training courses in Urology. They continues to be examiners for National Board of Examinations (NBE) and MCh Urology in various universities and inspectors for the Medical Council of India and NBE for recognition of standard of examination and facilities for MCh/DNB Urology courses.

The department had observers and postgraduate students in Urology from various Indian/ foreign medical universities to observe and learn robotics, endourology, laparoscopy, open surgery and microsurgery in urology.

CONTINUING MEDICAL EDUCATION
Organized by the Department
CME and live operative workshop on Stricture Urethra and Men’s Health. Dr Ram Manohar Lohia Hospital (RML), New Delhi, August 2011.

Lectures/demonstrations delivered during CME/Conferences/Workshops/Symposia
The faculty of the department participated in and delivered lectures in continuing medical education programmes, symposia, national and international conferences during the year.

PN Dogra: 24  Amlesh Seth: 22  Rajeev Kumar: 18

RESEARCH
Funded projects
Ongoing
1. Evaluation of oxidative stress as a cause for idiopathic male infertility and the role of ‘Addyzoa’ in its treatment. A randomised, double blind placebo controlled trial. Rajeev Kumar, Charak Pharmaceuticals, Mumbai, 2009–12, Rs. 5.6 lakhs.

Collaborative
1. ‘Hospital Based surveillance of female genital fistula.’ PN Dogra, ICMR. ICMR Taskforce project.

Departmental Projects
1. Etiopathogenesis, demographic profile, erectile function, socioeconomic impact and quality of life patients with pelvic fracture urethral distraction defects.
2. Outcome evaluation of various types of surgeries in management of anterior urethral stricture.
3. Long term outcomes of holmium laser core through in pelvic fracture urethral distraction defects.
4. EMT in treatment of urinary in continence.
5. Outcome analysis of patients with testicular tumours and Undescended testes.
6. Paediatric PCNL: outcome analysis.
7. ESWL in management of Paediatric nephrolithiasis
9. Comparison of open, laparoscopic and robotic radical nephrectomy for T1-T2 RCC.
10. A prospective study of causes of negative surgical explorations in men with obstructive azoospermia.
11. Laparoscopic management of pheochromocytomas.

Collaborative Projects
1. Proton MRS techniques in the diagnosis of small renal masses (Department of NMR)
2. 3-dimensional chemical shift imaging and diffusion weighted imaging using proton MRS in the diagnosis of carcinoma prostate (Department of NMR)
3. Mitochondrial genes and Y chromosome micro deletions in male infertility (Department of Anatomy)
4. Study of sperm molecular factors in idiopathic recurrent spontaneous abortions (Department of Anatomy)
5. Hemodynamic changes during steep Trendelenburg position in robotic procedures (Department of Anesthesia)
6. Para vertebral block during PCNLs (Department of Anesthesia)

PUBLICATIONS
Journals: 29 Abstracts: 6 Chapters in books: 1

PATIENT CARE
OPD and specialty clinics: 1,522,821

Main hospital
New cases: 666,136 Old cases: 856,685
BRA IRCH Uro-malignancy clinic
New cases: 206 Old cases: 1,343

Admissions: 28,872
Regular admissions: 5,213 Short/Day-Care Admissions: 23,659
Main OT Surgical procedures: 1,552

Open procedures: 270
Open radical cystectomy: 30 Open radical nephrectomy: 32
Open partial nephrectomy: 3 Open pyeloplasty: 3
Open simple nephrectomy: 20 End to end anastomotic urethroplasty: 20
Transpubic urethroplasty: 1 Anterior lay open: 15
Partial penectomy: 9  Total penectomy: 1
Orchiopexy: 8  Ureteroneocystostomy: 5
Open nephroureterectomy: 8  Retroperitoneal lymph node dissection: 7
Open vesicovaginal fistula repair: 5  Transvaginal vesicovaginal fistula repair: 2
Open cystolithotomy: 3  Open ureterolithotomy: 5
Open simple prostatectomy: 4  Open radical prostatectomy: 2
Hypospadias repair: 6  Urethrocutaneous fistula repair: 6
Extrophy ileal conduit: 1  Penn pouch: 2
BMG urethroplasty: 7  High inguinal orchidectomy: 12
Bilateral orchidectomy: 26  Augmentation cystoplasty: 5
Heminephrectomy: 2  Open adrenalectomy: 2
Second stage urethroplasty: 2  Open Boari flap: 1
Perineal urethrostomy: 1  Ilio-inguinal lymph node dissection:

Endourology: 986

Lower tract: 758
TURP: 66  KTP TUVP: 23  TURBT: 226
URS: 131  DJS: 131  CPE+CLT: 27
PCCLT: 14  BNI: 5  VVF WELDING: 7
Endodilatation: 28  HO: LCT: 23  OIU: 32
Endoevaluation: 61  DJ removal: 26  Deflux injection: 4
PUV fulguration: 3  Ureterocele endoincision: 1

Upper tract: 193
Percutaneous surgery: 181  RIRS: 12

Robotic surgery: 107
Radical prostatectomy: 21  Radical cystectomy: 8
Pyeloplasty: 41  B/L pyeloplasty: 2
Pyelolithotomy: 3  Radical nephrectomy: 2
Partial Nephrectomy: 3  Simple nephrectomy: 3
Ureterolithotomy: 16  VVF repair: 3
VEIL: 1  RPLND: 1
Adrenalectomy: 1  Augmentation cystoplasty: 1
Robotic simple prostatectomy: 1

Laprosopic surgery: 100
Lap simple nephrectomy: 43  Lap pyeloplasty: 14
Lap pyelolithotomy: 2  Lap adrenalectomy: 9
<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>Lap paraganglioma</td>
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<tr>
<td>Lap renal hydatid</td>
<td>1</td>
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<tr>
<td>Lap partial nephrectomy</td>
<td>5</td>
</tr>
<tr>
<td>Lap ureteric re-implantation</td>
<td>1</td>
</tr>
<tr>
<td>Lap VVF</td>
<td>1</td>
</tr>
<tr>
<td>Lap B/L adrenalectomy</td>
<td>2</td>
</tr>
<tr>
<td>Lap radical nephrectomy</td>
<td>11</td>
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<tr>
<td>Lap nephroureterectomy</td>
<td>5</td>
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<td>Lap donor nephrectomy</td>
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<td>Others</td>
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<td><strong>Microsurgery:</strong></td>
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<td>VEA</td>
<td>16</td>
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<td>Vasectomy reversal</td>
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<tr>
<td>VVA</td>
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<tr>
<td><strong>Miscellaneous:</strong></td>
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<td><strong>Minor OT:</strong></td>
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<tr>
<td>Cystoscopy, DJ stent removal, OIU,</td>
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<tr>
<td>endodilatation</td>
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<tr>
<td>Orchidectomy+other open cases</td>
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<tr>
<td>Minor cases</td>
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<tr>
<td>EMT settings</td>
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<tr>
<td><strong>Extracorporeal shock wave</strong></td>
<td>1105</td>
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<tr>
<td>lithotripsy (ESWL):</td>
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<tr>
<td>New cases</td>
<td>300</td>
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<tr>
<td>Re-do cases</td>
<td>805</td>
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<tr>
<td><strong>Urodynamic procedures:</strong></td>
<td>3918</td>
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<td>Uroflowmetry</td>
<td>3670</td>
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<tr>
<td>Cystometrogram (CMG):</td>
<td>248</td>
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<tr>
<td><strong>Ultrasound procedures:</strong></td>
<td>197</td>
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<tr>
<td>TRUS/Prostate biopsies</td>
<td>106</td>
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<tr>
<td>SPC</td>
<td>30</td>
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<td>PCN</td>
<td>54</td>
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<td>CORE BX – USG guided</td>
<td>4</td>
</tr>
<tr>
<td><strong>Stone analysis:</strong></td>
<td>322</td>
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</tbody>
</table>
| **AWARDS, HONOURS AND SIGNIFICANT EVENTS**
**Professor PN Dogra** is a member of the USI Council (North Zone) and the expert group on National Resource Centre for Male Reproductive Health Services; won second prize in the Chandigarh Best Video session at USICON (Bengaluru, January 2012) for ‘Robotic Assisted Inguinal Lymph Node Dissection: Initial experience’; Chaired the following sessions: ‘Chinese Method of transurethral enucleation of Prostate’ and ‘New energy sources for BPH Surgery’ at 2nd International Workshop on Advances in BPH Management (New Delhi, 2–3 April 2011); ‘Complex of penile implant surgery’ at Live Operative Workshop on Implants in Urology (Dr RML Hospital, New Delhi, 28 June 2011); ‘Men’s health symposium’ at Live Operative Workshop on Stricture Urethra and Men’s Health Symposium (RML Hospital, New Delhi, 12–13 August 2011); ‘MONARC’ at International Live Operative Workshop on Endo-Urogynaecology & Pelvic Floor Reconstructions (AIIMS, New Delhi, 14 September 2011); ‘Evidence based medicine: Antenatal Hydronephrosis: When to intervene?’ and ‘Neoadjuvant chemotherapy for Ca Bladder’ at the Annual Conference of North Zone Chapter of USI (Shimla, 8–10 October 2011); ‘Case discussion’ at Live Operative Workshop in the Master Class in Robotic Prostatectomy (Gurgaon, 16 November 2011); ‘Case discussion’ at Live Operative Workshop on Erectile Dysfunction and Urinary Incontinence’ (VMMC and Safdarjung Hospital, 3 January, 2012); ‘Podium session: Miscellaneous - I’ at 45th Annual Conference of the USI (Bangalore, 5–8 January 2012); ‘Case discussion’ at Live Robotic Radical Prostatectomy Workshop in Vattikuti Global Robotics Conference 2012’ (New Delhi, 13–15 January 2012); ‘Case discussion’ at Live Robotic Workshop on Minimally Invasive Management of Small Renal Tumour (Gurgaon, 16 January 2012).
Professor Amlesh Seth was invited Visiting Professor, Department of Urology, Hospital Charite, Berlin, Germany, 9–13 October 2011; Chaired the following sessions: ‘Take Home Messages’ at the 45th Annual Conference of USI (Bangalore, 5–8 January 2012); and Live Operative Session on Artificial Urinary Sphincter Implantation (Safdarjung Hospital and VMMC, New Delhi, 3 January 2012).

Dr Rajeev Kumar is Chief Editor Elect, Indian Journal of Urology; Member, Board of Education, Urological Society of India; Elected Member, National Academy of Medical Sciences (NAMS); International Guest Scholar with the American College of Surgeons, ACS 2012, USA, and was nominated as the UAA Lecturer for the Annual Meeting of the American Urological Association, 2012; Convenor, UAA Youth Section Symposium on ‘Publishing your article’ at the Asian Endourology Conference, (Kathmandu, November 2011); and the UAA Youth Section Symposium on ‘Instructional course on medical writing’ at 6th Asian Urology Symposium (Colombo, November 2011).
10.1 Cardiothoracic Sciences Center

Chief
Balram Airan

CARDIO-THORACIC 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

CARDIOLOGY
Professor and Head
V.K. Bahl

Professors
Anita Saxena  S.S. Kothari  Balram Bhargava
K.C. Goswami  R. Juneja  R. Narang

Additional Professors
S. Mishra  S. Seth  Rakesh Yadav
N. Naik  G. Karthikeyan  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 Professor
Neeti Makhija  Poonam Malhotra  Minati Choudhury

Associate Professor
Shambhu Nath Das  Parag Gharde  Vishwas Malik

BLOOD TRANSFUSION SERVICES
Chief Medical Officer and In-charge
Anjali Hazarika
### Senior Technical Officers

| Kalpana Misra | Bijay Majhi |

### Medical social service officer

| Veena Belani |

### CARDIAC RADIOLOGY

**Professor and Head**

| Sanjiv Sharma |

**Additional Professor**

| Gurpreet Singh Gulati |

**Associate Professor**

| Priya Jagia |

### NUCLEAR MEDICINE

**Additional Professor**

| Chetan D. Patel |

### STEM CELL FACILITY

**Associate Professor**

| Sujata Mohanty |

### CARDIAC PATHOLOGY

**Professor**

| Ruma Ray |

**Assistant Professor**

| Sudheer Arava |

### CARDIAC BIOCHEMISTRY

**Additional Professor**

| R Lakshmy |

### ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)

**Additional Professor**

| Aarti Vij |

### EDUCATION

**CARDIO-THORACIC VASCULAR SURGERY**

**Training**

Ten Cardiac Surgeons, Physiotherapists and Nurses, have undergone short term training in the Department.

**Lectures delivered**

| Balram Airan: 3 |

| Sachin Talwar: 12 |
CARDIOLOGY
National and International Conferences
1. Prof. VK Bahl, India Live 2012, the premier interventional meeting of India, New Delhi, 24–26 February 2012.
2. Prof. Balram Bhargava, Cardiovascular research convergence (CRC), AIIMS, 17–18 February 2012.
4. The second AIIMS Paediatric Cardiac CME, AIIMS, 9–10 April 2011.
5. The third AIIMS Paediatric Cardiac CME, at AIIMS, 2011.

CARDIAC ANAESTHESIA
1. 9 DM candidates including three sponsored Lt.Cols from the Army and 8 other MD, Senior resident doctors, underwent superspeciality training in Cardiac–Thoracic Anesthesia.
2. DM Cardiac Anaesthesia candidates from Shree Chitra Institute of Medical Sciences, Trivananthapuram.
3. 6 MD candidates from Lady Harding Medical College were imparted short term training in the speciality of Cardiac–Anesthesia. Post graduates in Anesthesia also came on rotational training as part of PG clinical training programme of AIIMS, Anaesthesia Department.
4. The teaching programme includes: Class room teaching (seminars, case presentation, and journal club), operation theatre training and teaching to students (DM, MD, MSc perfusion) and visiting anaesthesiologists.

CME AND NATIONAL AND INTERNATIONAL CONFERENCES
Lectures delivered
Usha Kiran: 6 Neeti Makhija: 5 Poonam Malhotra Kapoor: 10
Minati Choudhury: 6 Sambhunath Das: 3 Parag Gharde: 3
Vishwas Malik: 3

BLOOD TRANSFUSION SERVICES
Anjali Hazarika: 7 Kalpana Misra: 2

CARDIAC RADIOLOGY
Sanjiv Sharma: 10 Gurpreet S. Gulati: 14
Enrolled for PhD in Cardiac Radiology, AIIMS, 2011 session in March 2011. Thesis project titled: Dual energy, dual source CT in the comprehensive cardiac assessment of patients at intermediate risk of coronary artery disease (CAD).

Priya Jagia: 13

CARDIAC NUCLEAR MEDICINE
1. Number of postgraduate students: 12 (training on Nuclear Medicine, MD and MSc. Nuclear Medicine Technology students on rotational basis in Nuclear Cardiology).
2. Number of thesis/research papers completed: 5 (Four thesis and One MCh Research paper)
4. Number of new thesis started: 2
National Conference
1. Organized the 8th Biennial Conference of Nuclear Cardiological Society of India, New Delhi, 19–20 November 2011.
2. Chairperson of Conference: Prof A Malhotra, HOD, Nuclear Medicine, AIIMS.
3. Organizing Secretary, Dr. Chetan D Patel, Additional Professor, Nuclear Medicine, AIIMS.

STEM CELL FACILITY
a) Undergraduate, post graduate, paramedical: The department participates in PhD, DM, and MD programmes – 14
b) Short and long term training: Four graduate and post-graduate students received short term training.

Conferences, Seminar, Workshops
2. Expert committee on career advancement and re-orientation programme/Awards for women scientist, BioCARe, Delhi, 19 July 2011.

Lectures delivered: 6

CARDIAC PATHOLOGY
Dr Ruma Ray delivered a talk on ‘Cardiac embryology, anatomy and pathology’ at the 1st Annual Meeting of the Indian Society of Cardiac Imaging, 23 September 2011, New Delhi.

CARDIAC BIOCHEMISTRY

Short term training
One student was awarded PhD and three are pursuing PhD in the department. The department provided hand on training in laboratory methods to two MSc. students and two MLT students.

ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)

Guest Lectures/Invited Lecture: 6

Organized
1. Organized meeting with South Delhi Hospitals (government and private) to increase deceased donor availability, under the aegis of Directorate General of Health Services, AIIMS, 18 August 2011.
2. Organized 1st Orientation Programme for Officers of Delhi Police on Organ Donation issues, New Delhi, 29 October 2011. Inaugurated by Special Commissioner of Police. 42 Senior Officers of Delhi Police attended the programme.
3. Organized National Consultation on Screening of Potential Multi Organ Donor, on 26 November 2011, AIIMS. Mr P.K. Pradhan, Secretary, Health and Family Welfare, Government of India, was the chief guest and pioneer, experts in the field of organ donation and transplantation from all over the country finalized the screening proforma and guidelines which was submitted to Ministry of Health and Family Welfare.

5. Member Organizing Committee for International Congress on Emergency Medical Service System, Department of Hospital Administration, AIIMS, 9–11 February 2012.

6. Organized 2nd Orientation Programme for Officers of Delhi Police on Organ Donation issues, AIIMS, 22 February 2012, inaugurated by Commissioner of Police, 39 Senior Officers of Delhi Police attended the programme.

RESEARCH

CARDIO-THORACIC VASCULAR SURGERY

Ongoing

1. Stem Cell therapy for the ischemic myocardium in CABG patients..

2. Treatment of congestive cardiac failure (STICH Trial) – An international multi-centric trial study.

3. Freedom Trial – An International study project.

4. Off Pump versus On Pump CABG.

5. Centre for Excellence Project, Supported by Department of Biotechnology, Government of India, AIIMS: Basic and Translational.

6. Use of autologous bone marrow stem cells for myocardium regeneration.

7. Efficacy of stem cell in improvement of left ventricular function in patients with acute myocardial infarction.

8. ICMR Project – Ongoing (began on 20 March 2009); Role of prognostic markers in complex congenital cardiac surgery.

9. Study of Serum Osteopontin level as a marker of severity of coronary artery disease in patients undergoing CABG.

10. Study of Serum Osteopontin levels in patients with severe LV dysfunction undergoing CABG.


12. Study of Epidermal Stem Cells (EpISC) with respect to its isolation, characterization and in vitro differentiation.

13. Bone Tissue Engineering by growing and differentiating Mesenchymal cells.


15. Neurological monitoring and outcomes after off pump versus on-pump Glenn.

16. Induction of Therapeutic Angiogenesis in Limb Ischemia by intra-arterial delivery of autologous bone marrow-derived stem cells.

17. Labelling of stem cells with Technetium-99m hexamethylene propylene amine oxine (Tc99m HMPAO) and to detect the homing of stem cells in the myocardium after intra-coronary injection.

18. Study of Stem cell therapy in patients with myocardial infarction and persistent total occlusion of infarct related artery [Cell therapy in Occluded Arteries Treatment (COAT)].

19. Dynamics and modelling of the Fontan circulation.

20. Comparison of blood crystalloid with blood colloid for priming in children with cyanotic congenital heart disease undergoing intracardiac repair on CPB.

21. Study of Human Mesenchymal Stem Cells with respect to its isolation, characterization and in vitro differentiation in cardiopulmonary and neuronal cell linage.
22. Study of Serum Osteopontin levels in patients with severe LV dysfunction undergoing CABG.
23. Stem Cell therapy for the ischemic myocardium – in CABG patients.
25. SIRS Trial – Steroids in Cardiac Surgery: A randomized trial to study effectiveness of steroids in open cardiac surgery.
27. CORONARY Trial – International multi centric clinical trial comparing On pump CABG vs. Off pump CABG.
29. Comparison of Blood Cardioplegia Vs Custodial in Pediatric Congenital Heart Disease, Prospective Randomized Clinical Trial.
30. Remote input coronary cardiac trial.
31. Use of Sonoclot in patients of TOF undergoing Corrective Surgery.
32. Anatomy of circle of Willis in Indian population by MR angiography.
34. Histopathological study of extent of degenerative changes in ascending aorta of patients with bicuspid aortic valve.
35. Comparison of clinical and angiographic outcome in patients undergoing on pump CABG with radial artery graft pretreated with phenoxybenzamine vs. papaverine.
36. Histopathology and morphometry of the pulmonary vasculature in patients undergoing bi-directional Glenn and total cavopulmonary connection.
37. Mitral valve replacement using Bioprosthetic valves in patients with rheumatic heart diseases aged below 40 years.
38. Specific issues after pericardiectomy for chronic constrictive pericarditis: Actuarial survival, fate of preoperative mitral and tricuspid regurgitation, ventricular function, freedom from reoperation and other events.
41. Brain natriuretic peptide, stroke volume variation and E/A ratio as non-invasive markers of diastolic dysfunction in patients undergoing pericardiectomy.
42. Comparison of phenoxybenzamine vs papaverive use for radial artery conduit during coronary artery bypasses grafting.

**CARDIOLOGY**

**Funded projects**

**Ongoing**

1. CVD Biomarker profiling in acute coronary events by antibodies and antigen array, V K Bahl, ICMR.
2. Rheumatic Study – To study the prevalence of Rheumatic Heart Disease among children of 5–15 years, in Ballabhgarh Block of Haryana using echocardiography with Doppler, Anita Saxena, ICMR, March 2010–March 2013, Rs 30 lakhs approximately.

4. Intravascular Ultrasound for severe pulmonary artery hypertension in congenital heart diseases, R Juneja, Department of science and technology.

5. Stem cell therapy in dilated cardiomyopathy, Sandeep Seth, DBT.


7. Rest-stress MIBI-SPECT compared to coronary CT angiography in the assessment of patients at intermediate risk of coronary events, International Atomic Energy Agency.

8. Endothelial micro particles and EPC in predicting thromboembolism in patients with IE; AIIMS Institute Grant.

9. Gene polymorphism and INR in patients of prosthetic heart valve on oral anticoagulation; AIIMS Institute Grant.

**Completed**

1. To define the incidence of congenital heart disease in new born, Anita Saxena, ICMR, 200912 (extended till 31 October 2012), for follow up of cases Rs 29 lakhs approximately.

2. Morphology and function of platelets in idiopathic pulmonary artery hypertension. S Ramakrishnan, Department of Science and Technology, Rs. 5 lakhs.

**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. MRI during acute rheumatic fever.

4. Chronic low grade inflammation and risk of AF in rheumatic MS.

5. Anti streptococcal antibodies as predictor of success of prosthetic heart valve thrombosis.

6. CT angiography findings during an episode of hemoptysis in Eisenmenger syndrome.

7. 3D echo predictors of success of AVBD.

8. Indication and efficacy of vascular plug in congenital heart disease interventions.


10. Effect of tobacco chewing on coronary microvasculature and hemodynamics.

11. 2D versus 3D echo in predicting acute outcome of PTMC.

12. Prospective evaluation of children with NSAA.

13. Thiamine levels in heart failure patients on high dose diuretics.


**Completed**

1. Propranolol in children with VSD and Heart Failure (VSD PHF Study).

2. 3D Echocardiography during acute rheumatic fever.

3. Comparison of 3D echo and MRI parameters in Ebstein’s anomaly.

4. Pacemaker lead placement in RVOT versus RV apex – a validation by CT.

5. Balloon dilatation of coarctation of aorta – a retrospective analysis.

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Collaborative projects
1. RED HF study – A double blind randomized placebo-controlled, multicenter study to assess the efficacy and safety of Darbepoetin alfa treatment on mortality and morbidity in Heart failure (HF) subjects with symptomatic left ventricular systolic dysfunction and Anemia. Amgen Technology Pvt. Ltd.


3. 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.


5. Steroids in Cardiac Surgery Trial (SIRS). Canadian Institutes of Health Research.

6. UKIERI Project – A collaboration of Imperial College London and Department of Cardiology AIIMS – Inflammatory and novel biomarkers in untreated heart failure. Funded by UKIERI initiative.

CARDIAC ANAESTHESIA
Funded projects
Ongoing

2. Role of prognostic markers in complex congenital cardiac surgery, 2009–12, Poonam Malhotra Kapoor, ICMR, Rs 24 lakhs.

3. Association between inflammation and osteopontin in coronary artery disease patients with severe ventricular dysfunction, Minati Choudhury, Institute research grant, Rs 1 lakh per year.

4. Role of pentoxifylline in reducing neurocognitve decline and inflammatory response after coronary artery bypass grafting using cardiopulmonary bypass. Sambunath Das. Institute research grant, Rs 1 lakh per year.

Departmental Projects
Ongoing
1. Comparison of the effect of Isoflurane, Sevoflurane, and Desflurane on myocardial Protection in paediatric patients undergoing cardiac surgery.

2. Role of Coenzyme Q10 in patients undergoing surgery for tetralogy of fallot.

3. Comparison of different doses of epsilon aminocaproic acid in patients undergoing corrective surgery in Tetralogy of Fallot.


5. Comparison of induction with etomidate and ketamine on adrencortical Suppression in patients undergoing Tetralogy of Fallot.


7. Hemodynamic effect of intranasal dexmeditomidine in comparison to dexmedetomidine plus ketamine or midazolam in congenital heart disease paediatric patients.


10. Sonoclot V/s TEG in cyanotic patients undergoing cardiac surgery.

11. Role of ScVO₂ in TOF patients.

12. Predictive value of Prognostic Markers and Goal Direct Therapy in CABG patients.


Completed

1. Induction and hemodynamic characteristics of sevoflurane and etomidate in patients with severe ventricular dysfunction.

2. Parasternal block with two doses of ropivocaine for just operative pain relief in patients undergoing coronary artery bypass grafting.

Collaborative projects

1. Remote Impact Coronary Trial (Department of Cardiac Surgery and Cardiology).

BLOOD TRANSFUSION SERVICES

Collaborative projects

Ongoing

1. Safety and efficacy of autologous stem cell in preventing amputation in patients with chronic critical limb ischaemia. (Department of Surgery).

2. Production and characterization of site selected human monoclonal antibodies against the envelope glycoprotein of HIV-I (clade-C) (Department of Biochemistry).

3. SDF-1 and DC-SIGNR polymorphism and expression in HIV-I infection (Department of Biochemistry).

4. Immunological characterization of HIV-I infection in children (Department of Biochemistry).

5. Functional characterization of Dendritic cells in HIV-I infection. (Department of Biochemistry).

6. Dendritic cell count and cytokine levels in HIV-I infection (Department of Biochemistry).


8. Generation and characterization of single chain variable region (ScFv) antibody against envelope gp120 of HIV-1 Clade C (Department of Biochemistry).

9. Generation and characterization of Pseudoviruses forHIV-1 in Indian infected patients (Department of Biochemistry).

10. Evolution of HIV-1 clade C envelope in chronically infected Indian paediatric patients (Department of Biochemistry).

CARDIAC RADIOLOGY

Funded projects

Ongoing

1. Induction of Therapeutic Angiogenesis in Critical Limb Ischemia by Intra-Arterial Delivery of Autologous Bone-Marrow Derived Stem Cells. Department of Biotechnology.

2. MRI for in vivo tracking of iron oxide labeled Mesenchymal stem cells in rat model of heart failure. Department of Biotechnology.

**Departmental projects**

**Ongoing**
1. Coronary CT angiography to predict vascular events in non-cardiac surgery patients’ cohort evaluation study (Coronary CTA VISION).
3. Comparison of CT angiography with catheter angiography for preoperative evaluation of patients with Tetralogy of Fallot.

**Completed**
3. Study of clinical characteristics and MRI features of restrictive cardiomyopathy (RCMP) and to devise MRI criteria for diagnosis of EMF.
5. Role of magnetic resonance imaging in evaluation and surgical planning of Ebstein anomaly (retrospective-prospective study).

**CARDIAC NUCLEAR MEDICINE**

**Funded projects**

**Ongoing**
1. Use of autologous bone marrow stem cells for myocardium regeneration. Funding agency, Department of Biotechnology.
2. Labeling of stem cells with Technetium – 99m hexamethylene propylene amine oxide (Tc99m HMPAO) and to detect the homing of stem cells in the myocardium after intra-coronary injection. Institute funded.
3. Efficacy of stem cells in improvement of left ventricular function in patients with acute myocardial infarction; Department of Biotechnology.
4. Role of SECT-MPI and CT angiography in the assessment of Patients at intermediate risk of coronary events – A Pilot randomized controlled trial; International Atomic Energy Agency.

**Completed**

**Departmental projects**

**Completed**
1. Myocardial perfusion abnormalities in children with cyanotic congenital heart diseases, more than one year after successful univentricular repair (Fontan operation) and biventricular repair (Total correction of Tetralogy of Fallot).
2. Equilibrium Radionuclide angiography in evaluation of left ventricular synchrony and function in patients with permanent pacemaker: comparison between right ventricular outflow tract septum Vs apical pacing.
3. Variable patterns of myocardial uptake of F-18 FDG in fasting patients.
**Ongoing**

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.

**STEM CELL FACILITY**

**Funded projects**

**Ongoing**

1. 3D Expansion and differentiation of mesenchymal stem cell into osteoblast for bone tissue engineering on Biocomposite scaffold, ICMR , 3 years.
2. Transplantation of Mesenchymal Stem Cell in animal models of Myocardial Infarction and Parkinson’s disorder, DBT.
3. Designing a biobank for biological samples collected from a mega study of acute coronary events in India, DBT.
4. To study the association of cardiac specific genes towards generation of functionally active Cardiomyocytes derived from human bone marrow MSC, DBT.

**Departmental projects**

**Ongoing**

1. To optimize the differentiation potential of BMSC into cardiomyocytes using a novel inducer, AIIMS (Institute Project).

**Collaborative projects**

1. Use of autologous bone marrow stem cells for myocardium regeneration (Department of Cardiothoracic and Vascular Surgery).
2. Efficacy of Stem Cell in improvement of left ventricular function in patients with acute myocardial infarction (Department of Cardiology).
3. DBT Centre of Excellence for Stem Cell Research: Basic and Transplantation (Department of Cardiothoracic and Vascular Surgery).
4. Culture of limbal stem cell for ocular surface reconstruction in stem cell deficiency disorder (Dr RP Centre for Ophthalmmic Sciences).
5. Induction of therapeutic angiogenesis in critical limb ischemia by intra-arterial delivery of autologous bone marrow derived stem cells (Department of Cardiac Radiology).
6. 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 RP Centre for Ophthalmmic Sciences).
7. Intravenous Autologous bone marrow stromal or mononuclear cells for patients with acute ischemic stroke: A Multi Institutional project (Department of Neurology).
8. Safety and efficacy of autologous stem cell in prevention of amputation in patients with chronic critical limb ischemia (Department of Surgery).

9. To study the role of bone marrow derived pluripotent cells in peripheral nerve repair in adult rats (Department of Pathology).

10. Effect of bone marrow stromal cells transplantation and magnetic stimulatationsory in the secondary motor functional recovery of spinalised rats (Department of Physiology).

11. MRI from in vivo tracking of iron oxide labeled mesenchymal stem cells in a rat model of heart failure (Department of Cardiac Radiology).

12. Development of a potential biopolymer to serve as an alternative substrate of human amniotic membrane for ex vivo expansion of corneal epithelial cell (Dr RP Centre for Ophthalmic Sciences).

13. Exploring the role of MHC and co-stimulatory molecules in the immune evasion mechanism of glioma stem cells (Department of Cardiac Biochemistry).

14. Comparison of bone marrow mononuclear cells in combination with melatonin versus BMMNCs alone in middle cerebral artery occlusion model of stroke in rats (Department of Neurology).

**CARDIAC PATHOLOGY**

**Collaborative projects**


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. Doppler tissue echocardiography and its correlation with histopathological changes in patients of Tetralogy of Fallot after intracardiac repair.

4. Endothelial injury and other histopathological changes after papavarine injections in radial and left internal mammary arteries used as conduit for coronary artery bypass.

5. Histopathological and biochemical analysis of Atherosclerotic plaque in coronary atherosclerosis in comparison with Dual energy technique of CT scanner.

**CARDIAC BIOCHEMISTRY**

**Funded projects**

**Completed**

1. Evaluation of hdl2, hdl3 and apolipoprotein a1 levels in a large indian industrial population: association with genetic variants in ctep, lcat, hepatic lipase and lpl gene. Funded by DST for 3 years, 2008–11, Rs 65 lakhs.

2. Effect of trans fatty acids on expression of transcription factors, ppar α and srebplc. Institute funded for 2 years, Rs 1.80 lakhs.

3. Estimation of trans fatty acid content in selected common Indian fast food items. SRF fellowship, Funded by ICMR.

**Departmental projects**

**Ongoing**

1. Association between adipose tissue trans fatty acid and non fatal myocardial infarction- case control.

2. Comparison of epsilon aminocaproic acid and tranexamic acid in aneurysmal surgery: safety and clinical efficacy.

3. Role of pentoxyfylline in reducing neurocognitive decline and inflammatory response after coronary artery bypass grafting using cardiopulmonary bypass
4. Ukeiri project on heart failure.
5. Induction of therapeutic angiogenesis in critical limb ischemia by intra arterial delivery of autologous bone marrow derived stem cells.

**Collaborative projects**

**Completed**

1. Oxidative stress, carotid intima 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.

**Ongoing**


**ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)**

**Departmental projects**

1. Study of Equipment & instruments disinfection and sterilization practices at AIIMS to suggest measures to evolve standard guidelines.
2. Study of the Functioning of ICUs with respect to structure, process and outcome and suggest measures for their standardization.
3. Study of the Patient hand over practices at NS Centre and to develop protocols for these practices.
4. Study of the Incidence of patient falls at CT Centre and to identify risk assessment tool for prediction and development of an effective fall prevention protocol.
5. Study of Death to Preservation Time and its impact on utilization of donor corneas.
6. Study of the System of Budgetary allocation and its utilization at AIIMS.
7. Study to develop an administrative checklist for the Neurosurgery ICU with reference to structure, process and outcome.
8. Study to assess the knowledge, attitude and practice of nurses working in critical care unit of AIIMS regarding organ and tissue donation.
9. A comparative study to assess knowledge and opinion about organ donation amongst Sr. Secondary students of one private and one prominent government school.

**PUBLICATIONS**

**CARDIO-THORACIC VASCULAR SURGERY**

*Journals: 39*

**CARDIOLOGY**

*Journals: 35*

**CARDIAC ANAESTHESIA**
Journals: 24

BLOOD TRANSFUSION SERVICES
Journals: 2

CARDIAC RADIOLOGY
Journals: 14

CARDIAC NUCLEAR MEDICINE
Journals: 3

STEM CELL FACILITY
Journals: 13

CARDIAC PATHOLOGY
Journals: 10

CARDIAC BIOCHEMISTRY
Journals: 18

ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)
Journals: 1

PATIENT CARE

CARDIO-THORACIC VASCULAR SURGERY
Total operations performed in 2011–12
- Open heart surgery 3,205
- Closed heart surgery 1,047
- Total operations 4,252
- 40,117 patients have attended the out-patient department.

CARDIOLOGY

Total numbers
New OPD cases 28,015
Old Cardiology Cases 77,365

Patient Services
TMT 1,864
Holter 2,696
Echocardiography 31,295
Fetal Echocardiography 284
TEE 44
ECG (Indoor) 24,834
ECG (OPD) 32,312
Ambulatory BP 28
Event Recorder 13
Head up tilt test 110

Cath Lab Services

Diagnostic
- Coronary angio and Cath 2428 + 1515
Interventions

Coronary Interventions 1025  Mitral valve dilatations 311
Device Closures 80  Pacemakers 167
ICD/BiV/Combo 76  Other interventions 220

CARDIAC ANAESTHESIA

Faculty and Residents of the department are involved in providing anesthesia care in eight operation theatres, five catheterization labs, CT angiography and MRI suite. The department is also involved in resuscitation and ventilator care in CTVS-ICUs, CCUs, all the general wards and C.N. Tower. Stress Management Programme for patients’ caregivers and employees of hospital is also conducted by providing training in meditation and relaxation.

BLOOD TRANFUSION SERVICES

Blood Units Collected

- Replacement donors 17,895
- Voluntary donors in the department 150
- Voluntary donors through blood mobiles 488
- Blood received from IRCS 40
- Blood received from Blood Bank, AIIMS 160
- Blood received from other hospitals 429
- Plateletpheresis done 20
- Autologous 4
Total number of blood units collected 19,186

Blood units issued

- To CTVS/NS 25,406
- Blood Units issued Blood Bank, AIIMS 1,163
- Blood Units issued to JPNATC 986
- Blood Units issued to IRCS 3
- Blood Units issued to other hospitals 413
- HIV/HBV/HCV/VDRL reaction units discarded 506
Total number of blood units issued 28,477

Laboratory procedures

- Total number of blood grouping (ABO) 76,700
- Number of Rh grouping 51,134
- Total number of cross matching done 84,821

Infection Markers

- HIV 23,231
- HBV 23,570
• HCV 23,800
• VDRL 21,460
• MP 21,006
• CMV 72
• HBV confirmatory testing 720
Total 1,13,859

Total number of blood components
• Fresh frozen plasma (FFP) 16,346
• Platelet rich plasma (PRP) 975
• Platelet concentrate 15,599
• Recovered plasma 2,676
• Cryoprecipitate 314
• Packed red blood cells 16,615
Total 52,525

Special procedures
• Single donor platelet pheresis 20

CARDIAC RADIOLOGY
Cine Fluoroscopy 8,220 DSA 676
MRI 349 CT 2,439
US/Doppler 2,888 Catheter procedures 5,561

CARDIAC NUCLEAR MEDICINE
Nuclear Cardiology unit in CNC is equipped with a dual head SPECT-CT Gamma Camera. The nuclear cardiology unit caters to patients referred for cardiac studies from CN 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 center 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.
• Myocardial perfusion study: 1,525
• MUGA study: 1,190
• Cardiac PET 60
• Misc.(V/Q scan, 1st pass): 50
Total number of studies performed 2,825

STEM CELL FACILITY
• Stem cell transplantations under various clinical trials 202
• Corneal Surface Reconstruction
– Limbal stem cell transplantation 33
– Oral mucosal transplantation 12
• Cord blood stem cell Cryopreservation 8
• Bone Marrow stem Cryopreservation 15
• Stem cell enumeration (CD 34) 157
• Stem cell Cryopreservation 3

CARDIAC PATHOLOGY

Specimens
Routine 275
Research 196

Slides coated
APES 22,593

Others works
Immunohistochemistry 20 cases
Special stains 336 slides

Manual processing: post cardiac transplant biopsies 10

CARDIAC BIOCHEMISTRY

Various tests being carried out in Cardiac Biochemistry Lab for patients include:

• 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, Protein C and Protein S, 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), small dense LDL, fatty acids
• Drugs: Digoxin, cyclosporine
• Thyroid hormones-T₃, T₄, TSH
• ASLO
• CRP
• Homocysteine
• Vitamin B12 and Folate
• RA factor
• Catecholamines (plasma and urine), VMA
• Glycosylated hemoglobin
• Insulin
Cardiothoracic Centre
Patient care in the Cardiothoracic Centre 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 and bringing quality care standards in patient care services.

Patient Safety Initiative
The following have been implemented as a patient safety programme at C.T. Centre: (i) Conformity to patient’s identification bands for all admissions; (ii) Incidents reporting; (iii) Implementation of surgical safety check list; (iv) Patient falls report; and (v) Bed sores.

Biomedical Waste Management
An initiative to streamline bio medical waste management process and monitoring was started in Cardiothoracic Centre. This was achieved by the means of a check list which brought out the various problems and meetings were held to seek solutions to these. The major changes carried out includes

(i) OPD Renovation plans and programme
(ii) OPD Computerization
(iii) Renovation of areas of C.N. Centre – CT 6, CT 3,
(iv) Co-ordination for VVIP care at C.N. Centre

Organ Retrieval Banking Organisation (ORBO)
The following administrative and management activities were undertaken:

- Management and administration of Cardiothoracic Sciences Centre: 411 bedded super specialty centre. Having 16 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 (CT-3 Cardiology Ward, Paediatric Cardiology Ward, ORBO).
- Phased out mercury based equipments
- 174 organs and tissues were procured for transplantation.
- 21 whole bodies were also donated through ORBO to facilitate medical education in past one year.
- Donor registry: 2,153 persons pledged for organ donation on motivation of ORBO. Total number of Registry till date is 16000.
- Collaboration with various NGOs to promote the noble cause of organ and tissue donation.
- Awareness stall on organ donation was organized from 25 to 27 September 2011. Instant 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 September 2011.
AWARDS, HONOURS AND SIGNIFICANT EVENTS

CARDIO-THORACIC VASCULAR SURGERY

**Professor Balram Airan** was Editorial Board member of Annals of Pediatric Cardiology, Paediatric Cardiological Society of India; Vice President (North) and life member of Heart Failure Society of India; Life member of ASCVTS and WSCPS; Member of Postgraduate committee (Super-speciality) appointed by Board of Governors at MCI; Recipient of National Best Medical Services award on Doctor’s International Day, July 2011, organized by Netrika Manav Samjaj Utthan Sewa Samiti.


**Dr Sachin Talwar** was Associate Editor of Annals of Paediatric Cardiology, Paediatric Cardiological Society of India; Associate Editor, Indian Journal of Thoracic and Cardiovascular Surgery, Indian Association of Thoracic and Cardiovascular Surgeons.

CARDIOLOGY

**Professor VK Bahl** was awarded Fellow of European Society of Cardiology (ESC); Associate Editor of Asian Heart Journal, a publication of BMJ group

**Professor Anita Saxena** was Member, World heart federation workgroup for echocardiography in rheumatic heart disease; Visiting professor of Pediatric Cardiology, Variety Children’s heart centre Winnipeg.

**Professor S S Kothari** was President, Paediatric Cardiac Society of India and Editor of Annals of Paediatric Cardiology; Member, Editorial board of JACC Imaging and *Images in Paediatric Cardiology*; Professor (Government of India initiative) for B P Koirala Institute of Medical Sciences, Dharan, Nepal, for 6 months.

**Professor Balram Bhargava** was awarded SN Bose Birth Centenary Award by the Prime Minister of India at the 98th Indian National Science Congress, Chennai 2011; Indo-US Endowment Board an Endowment for joint research, development, innovation, entrepreneurial and commercialization activities in Science and Technology; appointed by the Hon’ble Minister of Science and Technology. (India Representatitive Member), Wellcome Trust DBT initiative on R and D for Affordable Health Care for India.

**Professor KC Goswami** was Secretary, Cardiological Society of India, Delhi Branch 2010.

**Dr S Mishra** was Chairman National Interventional Council, Cardiological Society of India; Elected Member Executive Committee, Cardiological Society of India.

**Dr S Ramakrishnan** was awarded ‘Young investigator award’ for best paper at PCSI 2011; DP Basu award for best paper CSI 2011; Assistant editor of Annals of Paediatric Cardiology and Treasurer of Pediatric Cardiac Society of India.

**Dr BB Kukreti** was awarded ‘Sujoy B Roy’ award’ for best paper at Delhi CSI 2011

**Dr Sunil Shivdas** was awarded ‘Nanda Award’ for best echo paper during CSI 2011

**Dr Shrenik Doshi** was awarded ‘CSI travel award for best paper by resident during CSI 2011

CARDIAC ANAESTHESIA

**Professor Usha Kiran** received Award of Fellow IACTA; President of Parkinson Disease Awareness Related Network; Editorial board member, Journal of Biosciences.
Professor Sandeep Chauhan was Editorial board member, International Journal of Research in Anaesthesia and Annals of Paediatric Cardiology.

Dr Neeti Makhija was Member, Executive council, Indian Association of Cardiac and Thoracic Anaesthesia (IACTA); Editorial Board, Open Journal Anesthesiology; Review board member, JOACP

Dr Poonam Malhotra Kapoor was Secretary IACTA Education and Research Cell; Secretary of IACTA Delhi Branch; Organizing Secretary, Scientific meetings on International Agents, AIIMS, May 2011.

Dr Minati Choudhury was Editorial Board Member, Annals of Cardiac Anaesthesia; Review board member, Indian journal of Anaesthesia and JOACP.

The Department’s faculty and resident doctors received 3 prizes as best paper presentation awards in various conferences.

BLOOD TRANSFUSION SERVICES

Dr Anjali Hazarika was External Technical expert in technical evaluation team for procurement of Equipment and Consumables for Delhi State AIDS Control Society, Government of NCT of Delhi; Felicitated for contribution in the field of exemplary service in Transfusion Medicine, 14 June 2011, Indraprastha Apollo Hospital, Delhi, was elected as Chairperson, Indian Society of Blood Transfusion and Immunohaematology, Delhi; Resource person during Blood Safety training programme held for blood bank medical officers and clinicians organized by NACO at Deen Dayal Upadhayay Hospital, Delhi, August 2011.

CARDIAC RADIOLOGY

Professor Sanjiv Sharma was Associate Editor, Journal of Vascular and Interventional Radiology (official Journal of the North American Society of Interventional Radiology); Chairman, Indian Society of Vascular and Interventional Radiology – Research and Education Foundation; Editor, Cardiovascular and Interventional Radiology (official journal of the European Society of Cardiovascular and Interventional Radiology).

Dr Gurpreet S. Gulati was Nominated Member, Academy of Medical Sciences.

STEM CELL FACILITY

Dr Sujata Mohanty was Member, BIO-CARe of DBT; Member, Institutional Committee for Stem Cell Research and Therapy (IC-SCRT), Medanta – The Medicity. Data Safety Monitoring Board (DSMB), Institute of Liver and Biliary Sciences (ILBS) and National Institute of Immunology (NII); DBT nominee, Apollo Hospital- Institute Committee- Stem Cell Research and Therapy (IC-SCRT); Member – Data Safety Monitoring Board (DSMB), Medanta – The Medicity; Invited reviewer in peer-reviewed journals (i) Stem Cell Discovery and (ii) Life Sciences.

ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)

Dr Arti Vij was Faculty Guide in Short Term Training of Students of Sikkim Manipal University, Gangtok on various topic regarding hospital administration organized by Department of Hospital Administration, AIIMS; Member, Committee for Fire Risk and Fire Fighting prepares assessment of AIIMS; Member, Standing Committee of Ministry of Health and Family Welfare, Government of India to review Life Saving Drugs, Kits and Equipment specified for Custom Duty Exemption/Reduction; Member, Hospital Management Board, AIIMS; Updated and revised brain-death committee for AIIMS. 54 Faculty Members from various departments were empanelled by Directorate General of Health Services; Prepared and submitted Concept Paper of National Transplantation and Training Centre to Ministry of Health and Family Welfare, Government of India.
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/Postgraduate/Short-term Training/Paramedical teaching
The Centre conducts teaching programme for MBBS undergraduate students during their clinical posting. The Centre currently conducts Postgraduate degree programmes in four specialties—Orthodontics, Prosthodontics, Conservative Dentistry and Endodontic and Oral and Maxillo-facial Surgery. The Centre also conducts teaching programme for nursing students in the form of lectures and orientation programmes. During this year a total of 40 dental graduates were trained as short term trainees at the centre.

CME/Conferences organized
Department of Orthodontics
1. ‘Inter Disciplinary Orthodontics’ CME, CDER, New Delhi, 26 September 2011. Professor. Bart Vande Vannet, Prof. and Head, Department of Orthodontics, Faculty of Medicine and Pharmacy, Vrije Universiteit Brussel, Laarbeeklaan 103, B-1090 Jette (Brussels) Belgium, was the speaker.
2. ‘Clinical Lecture in Interdisciplinary Orthodontics’ CME organized in collaboration with Orthodontic Study Group of Delhi, CDER, New Delhi, 28 November 2011. Dr Ashok Kothari a Clinical Assistant Professor, Department of Orthodontics, University of Illinois at Chicago, Chicago, was the speaker.
3. ‘Functional appliances: Current clinical and research perspectives’ CME, CDER, New Delhi, 28 March 2011. Professor Bakr Rabie, Professor in Orthodontics, Faculty of Dentistry, The University of Hong Kong, was the speaker.

Lectures delivered: 24
Papers presented by residents: 23

RESEARCH
Funded projects
Completed
3. Cleft lip and palate anomaly in India: Clinical profile, risk factors and current status of treatment – a hospital based study. OP Kharbanda, ICMR, 2 years, Rs 3.06 lakhs.

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4. Finite element study to analyse the stress distribution in Human mandible following Twin Block Therapy. Ritu Duggal, ICMR, 2.5 years, Rs 23 lakhs.

5. The prevalence and severity of non carious cervical lesions (NCCLs) and its relationship with potential risk factors in urban India: A community based study. Ajay Logani, ICMR, 2 years, Rs 7 lakhs.

**Ongoing**

1. An evaluation of dental prosthesis need, its relation to nutritional status and quality of life of elderly population: A hospital base study. Veena Jain, ICMR, 2 years, Rs 30 lakhs.

2. Bone resorption assessment in cases of mandibular and maxillary implant supported overdentures with different attachment systems, Veena Jain, DST, 3 years, Rs 70 lakhs.

3. Age estimation in living adults based on aspartic acid racemization from tooth biopsy specimen. Ajay Logani, DBT, 3 years, Rs 19 lakhs.

4. Cone beam computed tomographic assessment of root canal morphology in an Indian population: A retrospective 3D radiographic study. Ajay Logani, ICMR, 2 years, Rs 7 lakhs.

5. Evaluation of success of indirect pulp capping using three different materials: A clinical study using CBCT. Vijay P Mathur. Department of Biotechnology, 2 years, Rs 12.33 lakhs.

**Departmental projects**

**Ongoing**

1. To evaluate and compare apexogenesis induced by revascularization with and without PRF in non-vital immature anterior teeth – a pilot clinical study.

2. Effect of pre-polymerized composite mega-fillers on direct posterior class-I aesthetic restoration.

3. A randomized clinical trial to evaluate the effect of apical clearing on treatment outcome of asymptomatic necrotic teeth with apical periodontitis.


5. Comparative evaluation of efficacy of three disinfection protocols with Ca(OH)$_2$, triple antibiotic paste and photo activated disinfection – a clinical microbiological study.

6. Comparative evaluation of tooth substance lose and its correlation with the abrasivity and chemical compostion of different dentifrices.

7. Effect of bleaching on color stability and marginal fidelity of direct and indirect composite laminate veneers – an in vivo study.


9. A comparative evaluation of changes in crestal bone height around implants placed with flapless vs open flap technique.


12. The effect of soft liners on the Mandibular ridge resorption in completely edentulous patients – A clinical study

13. Randomized control trial of 1.5mm 3D plate versus 2mm single miniplate in the treatment of mandibular angle fracture.

15. Cadaveric study of anatomical distance of terminal facial nerve branches associated with TMJ in Indian population.

16. A clinical study to evaluate structural and functional respiratory parameters after distraction osteogenesis in retrognathic TMJ patients with OSAS.

17. Comparison of incidence of infection in placebo Vs amoxicillin + clavulanic acid among mandibular third molars extraction: A non–inferiorty randomized controlled trial.

18. Pre-post intervention study of quantitative and qualitative evaluation of bone formed in sinus augmentation with the use of bioactive synthetic bone graft putty.

19. Prospective evaluation of auto transplantation of third molar for replacement of grossly decayed/malformed first or second permanent molars.

20. Distalization of molar using temporary anchorage device.


22. Interleukin-1b levels in crevicular fluid obtained from mini-implant site and distal to canine during en-masse retraction.

23. Post-treatment evaluation of distalization of molar and nature of distalization as related to eruption status of 2nd and 3rd molars.


26. Effect of maxillary protraction on size of upper airway.

27. Effect of facemask therapy on maxillary sinus volume – A CBCT study.

28. Radiographic evaluation of morphological and morphometric features of mental foramen – in collaboration with Department of Anatomy, AIIMS.

**Completed**

1. To evaluate and compare apexogenesis induced by revascularization with and without platelet rich plasma in non vital immature anterior teeth – a pilot clinical study.

2. Dentin non-collagenous proteins in Gingival Crevicular fluid as diagnostic and prognostic bio marker in trauma induced root resorption – A pilot clinical study.

3. Evaluation of the Marginal fidelity and surface roughness of porcelain laminates fabricated by two different techniques – A pilot study.

4. A comparative study to measure the condylar guidance by the radiographic and clinical methods.

5. Effect of the stability and crestal bone level in early loaded implants with different occlusal schemes – A pilot study.

6. A double blind randomized placebo-controlled study of short and extended regime antibiotics in infection rates after open reduction and internal fixation of mandibular fracture.


8. Epidemiological study in the pathway of maxillofacial fracture seen at tertiary care hospital in North India.

10. Long term changes in the masseter muscle dimensions following twin block appliance therapy.

11. A clinical and biochemical study of perio-implantitis around temporary anchorage device (TAD).


**Collaborative projects**

1. Micro implants generated stress on maxilla: Effect of design and placement protocols, (Department of Biomedical Engineering and Department of Mechanical Engineering, IIT, New Delhi), OP Kharbanda, ICMR, 2.5 years, Rs 6.74 lakhs.

2. Computerized cephalogram analysis for orthodontics (Central Scientific Instruments Organization [CSIO], Chandigarh), OP Kharbanda, CSIO, 3 years, Rs 4.58 lakhs.

3. A dynamic calibrated fixed dentofacial corrector to treat class II malocclusions. OP Kharbanda, ICMR, 2 years, Rs 3.32 lakhs.

4. Mechanical properties of orthodontic miniscrew implants with different length, diameter and shape. OP Kharbanda, ICMR, One year, Rs 76,822.

5. Study on the genotype–phenotype correlation in Asian Indian subjects with childhood onset of growth hormone deficiency (Anatomy).

6. Ocular surface reconstruction with alternative autografts of non-ocular surface origin. (DST, Department of Ophthalmology and Stem Cell).

**PUBLICATIONS**

**Journals:** 32  
**Abstracts:** 5  
**Textbooks/Monographs:** 2

**PATIENT CARE**

The Centre for Dental Education and research is providing OPD services on all six days of the week between 9.00 am and 1.00 pm. It runs specialty clinics in the following disciplines:

1. Conservative Dentistry cum Endodontic clinic
2. Orthodontics and Dentofacial Orthopedics clinic
3. Prosthodontics and Implant Clinic
4. Oral and Maxillofacial Surgery clinic
5. Pediatric Dentistry and Preventive Dentistry clinic
6. Oral Prophylaxis clinic
7. Trigeminal Neuralgia clinic
8. Cleft Lip and Palate clinic etc.

Apart from this, patient care services are also being provided at the outreach at AIIMS Rotary mid-town hospital, Trilokpuri.

Attendance in various speciality dental clinics in CDER during 2011–12.
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Specialty Clinics</th>
<th>New cases</th>
<th>Re-visits</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Conservative Dentistry &amp; Endodontics</td>
<td>4794</td>
<td>14366</td>
<td>19160</td>
</tr>
<tr>
<td>2.</td>
<td>Orthodontics and Dentofacial Orthopedics</td>
<td>1413</td>
<td>11593</td>
<td>13006</td>
</tr>
<tr>
<td>3.</td>
<td>Prosthodontics and Implant Clinic</td>
<td>3856</td>
<td>8535</td>
<td>12391</td>
</tr>
<tr>
<td>4.</td>
<td>Oral and Maxillofacial Surgery</td>
<td>9513</td>
<td>13054</td>
<td>22567</td>
</tr>
<tr>
<td>5.</td>
<td>Pedodontics and Preventive Dentistry</td>
<td>2269</td>
<td>9227</td>
<td>11496</td>
</tr>
<tr>
<td>6.</td>
<td>Oral Prophylaxis</td>
<td>1712</td>
<td>10713</td>
<td>12425</td>
</tr>
<tr>
<td>7.</td>
<td>Trigeminal Neuralgia</td>
<td>27</td>
<td>197</td>
<td>224</td>
</tr>
<tr>
<td>8.</td>
<td>Combine Cleft Palate</td>
<td>34</td>
<td>269</td>
<td>303</td>
</tr>
<tr>
<td></td>
<td><strong>Total Specialty clinic attendance</strong></td>
<td><strong>23618</strong></td>
<td><strong>67954</strong></td>
<td><strong>91572</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9.</th>
<th>Surgical procedures under LA</th>
<th>Major</th>
<th>Minor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>960</td>
<td>9629</td>
<td>10589</td>
</tr>
<tr>
<td>10.</td>
<td>Surgical procedures under GA</td>
<td>103</td>
<td>1</td>
<td>104</td>
</tr>
</tbody>
</table>

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Professor Naseem Shah** was President-Elect, Indian Society for Dental Research 2012–13, President-Elect, Indian Endodontic Society 2012–14. Member, Board of Studies of Pondicherry University for 3 years, Invited as an expert member on National Consultation Meeting on smokeless Tobacco, Ministry of Health and Family Welfare, Government of India, 4–5 April 2011, New Delhi. Invited to attend the meeting on ‘National Initiative for Allied Health Services (NIAHS)’ organized by the Ministry of Health and Family Welfare, Government of India and Public Health Foundation of India, 26–27 April 2011, New Delhi. Expert-member for faculty selection at Jamia Hamdard University, IIT, Delhi, and ESIC. External examiner for MDs in Conservative Dentistry and Endodontics at Government Dental College, Mumbai, and at Dr. R Ahmed Dental College, Kolkata. Chief Guest for the College Awards Day Function, Manipal University, Manipal, Karnataka, 10 March 2012. Reviewer for several international and national indexed scientific journals—Gerodontology, Case Reports in Dentistry, Contemporary Clinical Dentistry, Journal of Conservative Dentistry. Reviewer for DBT, ICSR, DST, ICMR and NRDC for award of Shanti Swaroop Bhatnagar Award.

**Professor Kharbanda** was conferred fellowship of Indian Society of Dental Research (ISDR) Award 2012 for his significant contribution to research in the field of orthodontics. He continues to serve Member, International Editorial Board, American Journal of Orthodontics and Dentofacial Orthopedics, British Journal of Orthodontics and Australian Orthodontic Journal; Co-editor, Journal of Clinical Pediatric Dentistry, and member, Board of Indian Orthodontic Society. He is also on Editorial Board of several Dental specialty Journals in India.

**Professor Ritu Duggal** was nominated as an expert to finalize the equipment in dentistry under MSR for medical colleges.

**Dr Ajoy Roychoudhary** AO Cadaver course for surgical approaches to facial skeleton, organized and Chaired by Department of Oral and maxillofacial Surgery with AOCMF Asia Pacific. 20–21 August 2011.

**Dr Veena Jain** was appointed subject expert to conduct the interview for the Faculty Post at Government Dental College, Jaipur, Rajasthan. 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. Appointed as External Examiner to conduct the MDS (Prosthodontic) Examination at various Institutions in India.


**Dr Ajay Logani** was appointed Joint Organizing Secretary, 27th FODI and 19th IES National Conference, New Delhi (11–13 November 2011). Nominated as special invitee to Indian Society of Dental Research executive committee.

**Dr Vijay Prakash Mathur** elected as Representative to Continuing Dental Education of Indian Dental Association—South Delhi Branch, 2011–12. Elected Executive Member of Indian Dental Association – Delhi State Branch for one year 2011–12. Poster judge for original research category during 9th National PG Convention of ISPPD, organized by Indian Society of Pedodontics and Preventive Dentistry at Coorg, Karnataka, 23–25 February 2012. Chaired a session on paediatric Endodontics during 33rd Annual Conference of Indian Society of Pedodontics and Preventive Dentistry on 4–6 November 2011, Mangalore, Karnataka.

**VISITING SCIENTISTS**
1. A delegation from Duke University visited the Centre on 3rd May 2011.
2. Professor Bart Vande Vannet, Professor in Orthodontics, Belgium.
3. Professor Bakr Rabie, Professor in Orthodontics, The Prince Philip Dental Hospital, Hong Kong.
4. Dr Ashok Kothari, Assistant, Professor of Orthodontics, Tufts Dental School, Boston, USA.
5. Dr Varun Kalra, Associate Professor, University of Illinois, Chicago.
10.3 Dr. B. R. Ambedkar Institute Rotary Cancer Hospital

Professor and Chief
G.K. Rath
(Radiation Oncology)

Professors
N.K. Shukla
(Surgical Oncology)
Rajive Kumar
(Laboratory Oncology)
B.K. Mohanti
(Medical Oncology)
Sidhartha Satpathy
(Hospital Administration)

P.K. Julka
(Radiation Oncology)
Subhash Chander
(Radiation Oncology)
Lalit Kumar
(Medical Oncology)

Vinod Raina
(Medical Oncology)

Additional Professors
Sanjay Thulka
(Radiodiagnosis)
Sameer Bakhshi
(Medical Oncology)
Suman Bhaskar
(Radiation Oncology)

S.V.S. Deo
(Surgical Oncology)
Atul Sharma
(Medical Oncology)
Seema Mishra
(Anaesthesiology)

Sushma Bhatnagar
(Anaesthesiology)
Pratik Kumar
(Medical Physics)
D. N. Sharma
(Radiation Oncology)

Associate Professors
Ritu Gupta
(Lab. Oncology)

Sushmita Pathy
(Radiation Oncology)

Administrative Officer
R.K. Sharma

Accounts Officer
D.P. Gangal

Sr. Medical Physicist
V. Subramani

Scientist-I
N. Manoharan

Medical Physicist
R. Prabhakar
M.A. Laviraj
Kumari Seema Sharma
Ashish Binjola

Chief Technical Officer
Shri Gopal

Sr. Programmer
Mallika Roy Barman

Sup. Med. Social Service Officer
Seema Sajid

P.P.S.
Satish Kumar Sachdeva

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**HIGHLIGHTS**

**Delhi Cancer Registry**
The Delhi Cancer Registry is a population-based cancer registry which collects cancer patient’s data from more than 165 government 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 13,974 incidence cancer cases were registered for the year 2008 with 7144 males and 6830 females. The crude incidence rates of cancer among males and females are 73.8 and 86.5 per 100,000 population respectively. The common sites of cancer among males are lung, prostate, tongue, mouth and larynx while in females it is breast, cervix, gallbladder, ovary and corpus uteri. The registry sent the data for publication in the tenth volume Cancer Incidence in Five Continents’ published by IARC, Lyon, France. The reports on cancer incidence and mortality prepared by registry are being widely used by researchers, government, corporate, etc.

**Laboratory Oncology**
Laboratory Oncology Unit continues to provide advanced diagnostic work-up for leukemia and multiple myeloma patients being treated at IRCH as well as all other departments of AIIMS.

**Medical Physics Unit**
The department is involved in ensuring radiation optimization, quality assurance and radiation related research in radiological medical imaging at AIIMS. Services were provided to various departments of AIIMS including Dr BRA IRCH, Departments of Radio diagnosis, Cardiac-radiology, Neuro-radiology, Orthopedics, Dental, Urology, Trauma Centre, Dr RPC of Eye, Anesthesia, etc. In total, we undertook 4103 measurements, tests, experiments, exposures or blood bag irradiations during this period. The faculty and officer were sought by other hospitals as well for providing expert advice and services in the field of radiological safety during medical imaging. They were invited to various meetings convened by other institutions and hospitals for the expert opinion on various issues of quality, optimization and radiation protection. They were also invited as examiners of PhD. thesis and other courses in various universities and medical colleges. The Department also imparted training and it was visited by two distinguished faculties from FDA, USA who delivered talks on contemporary topics.

**Surgical Oncology**
The two faculty members of the department Dr N.K. Shukla, Professor and and Head and Dr S.V.S. Deo, Additional Professor participated in the under graduate and post graduate teaching and structured training of 12 Senior Residents of Surgical Oncology. They were co-guides in thesis work of various departments including Radiation Oncology, Medical Oncology, Biochemistry and Biotechnology, etc. They participated in 7 CME programmes by giving lectures, participating in panel discussion and presenting educational video. 7 lectures were given in the international and national conferences by the faculty of the department. The faculty and residents of the department have presented 8 research papers in International Conference at Singapore, Japan, Austria and USA besides national conferences. The department is involved in 7 research projects and 17 collaborative research projects. 5 of collaborative research projects were completed during the year. 19 research papers were published in various national and international medical journals. The faculty and residents are participating in special cancer clinics for breast cancer, gastro intestinal cancer, head and neck cancer, gynecological cancer and bone and soft tissue tumors. The department provides major and minor operation facilities to patients of cancer. 782 complex major operations and 5303 minor operation and various diagnostic and therapeutic endoscopy procedures were performed during the year. Faculty participated in community services by the way of advice to ostomates, giving public lectures and presentation in media like Doordarshan. Both the faculty members were involved as members of editorial boards, reviewer of research papers and members of national and international bodies.

**EDUCATION**

**Anesthesiology**
IRCH Seminar: Every Monday, Thursday, 8.15 am  
Unit seminar: Every Monday, 2.30 pm  
Unit Radio conference: Every Saturday, 9.00 am  
Journal club: Every Saturday, 10.00 am
Medical Oncology
Undergraduates: Involved in undergraduate teaching (Seminars-3, Lectures-2)
Postgraduate: Collaboration and Co-guides for MD Thesis in the department of Obstetrics, and Gynaecology, Nuclear Medicine, Biochemistry, Paediatric, Paediatric surgery, Pharmacology, and Ophthalmology.
DM Programme: Medical Oncology is running a DM programme under which there are 13 regular and two sponsored students.

Senior Residents. The department also has 8 approved posts of Senior Residents.

Research Officers; The department also has 6 research officers.

PhD Training Four PhD students are pursuing their work in various aspects of Medical Oncology. Two have been awarded Ph.D. in this year and currently one student is enrolled.

The department is continuing to function at its peak capacity. New patients are regularly registered in all the clinics; the waiting time for admission of acutely ill patients is 1–2 days and 5–6 days for other patients. We treat 80 patients daily in day care and many more in room 15. DM and PhD programmes are running well. Department progress is constrained by lack of space, non-recruitment of new faculty and scientists. Department has also published many scientific papers.

Medical Physics Unit
The Department of Medical Physics has actively participated in imparting education in the field of radiation protection, radiation physics and quality in radiological imaging to the students doing MD Radiology, MBBS, BSc (Hons.) Nursing and BSc (Hons.) Radiography. The Department trained Mr. Shitanshu Kusmakar, IIT, Mumbai, for one month. In addition, Medical Physics Unit has 2 PhD students undergoing training.

Radiodiagnosis
Dr Bidhan Chandra Sarkar, Radiologists from Medical College, Kolkata, underwent training at Department of Radiodiagnosis, BRA IRCH from 22 November 2010 to 21 February 2011.

Radiation Oncology
The department is involved in Undergraduate, Post graduate, B.Sc. Nursing and PhD teaching programs. Dr GK Rath worked as a faculty from AIIMS for the Govt. of India’s Pan-African telemedicine project and conducted two Telemedicine Lectures for African Countries: First on Recent advances in Radiation Oncology, 10th May 2011 and the second on Infection as a cause of cancer on 3rd January 2012. Dr B.K. Mohanti worked as a faculty from AIIMS for the Govt. of India’s Pan-African telemedicine project on teaching course and conducted one telemedicine lecture session. Short-term training was given to 15 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.
Postgraduate teaching: The faculty was involved in teaching and training of 12 surgical oncology senior residents, DM medical oncology residents and MD radiotherapy junior residents by giving didactic lectures, moderating seminars, journal clubs etc. and clinical teaching during ward rounds and in special cancer clinics of IRCH. Dr Shukla acted as Co-guide and Co-supervisors in DM medical oncology thesis, MD radiation oncology thesis and PhD students from different departments of BRA IRCH and AIIMS. Para clinical teaching/training: The faculty was involved in the teaching of the BSc nursing students.

CMEs/WORKSHOPS/SYMPOSIA/NATIONAL/INTERNATIONAL CONFERENCES ORGANIZED
Anesthesiology
- Organized 11th Foundation Course on Palliative Care in February 2011 for Medical Practitioners and Nursing Staff treating cancer patients in and around Delhi.

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- IAPC certificate course in Palliative Care at Dr BRA, IRCH in June and November.
- Organizing co-chairperson of Scientific Programme of 19th International Conference of Indian Association of Palliative Care, 9–12 February 2012, Kolkata.

Oral papers/poster presented: 3

**Delhi Cancer Registry**

Oral papers/poster presented: 5

**Laboratory Oncology**

**Lectures delivered**

<table>
<thead>
<tr>
<th>Name</th>
<th>Lectures delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rajive Kumar</td>
<td>1</td>
</tr>
<tr>
<td>Ritu Gupta</td>
<td>5</td>
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</table>

**Medical Physics Unit**

**Lectures delivered: 5**

Oral papers/poster presented: 14

**Radiation Oncology**

**Lectures delivered**

<table>
<thead>
<tr>
<th>Name</th>
<th>Lectures delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>GK Rath</td>
<td>19</td>
</tr>
<tr>
<td>PK Julka</td>
<td>36</td>
</tr>
<tr>
<td>B.K. Mohanti</td>
<td>11</td>
</tr>
<tr>
<td>Subhash Chander</td>
<td>2</td>
</tr>
<tr>
<td>D.N. Sharma</td>
<td>5</td>
</tr>
<tr>
<td>Sushmita Pathy</td>
<td>2</td>
</tr>
<tr>
<td>Suman Bhasker</td>
<td>7</td>
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<tr>
<td>Surgical Oncology</td>
<td></td>
</tr>
<tr>
<td>N. K. Shukla</td>
<td>3</td>
</tr>
<tr>
<td>S.V.S. Deo</td>
<td>12</td>
</tr>
</tbody>
</table>

Oral papers/poster presented: 7

**RESEARCH**

**Funded projects**

**Anesthesiology**

**Ongoing**


4. Develop a protocol for cancer pain management application to be used in Dr BRAIRCH, AIIMS in Phase-1. Sushma Bhatnagar. ICMR. 2 years.

**Completed**

1. Comparison of Epidural Triamcinolone and Betamethasone for lumbosacral radicular pain: a prospective randomized study. Dr Seema Mishra. AIIMS. 1 year

**Laboratory Oncology**

**Ongoing**

1. Prognostic relevance of DNA methylation in chronic lymphocytic leukemia. Ritu Gupta. DBT, 3 years, Rs 50,25,000.
2. Th17 cells in pathobiology of multiple myeloma. Ritu Gupta, DST, 2 years, Rs 20,23,200.

3. Molecular and immunological basis of biological heterogeneity in chronic Lymphocytic Leukemia. Ritu Gupta, DBT, 3 years, Rs 19,46,400.

4. HIF-1á as regulator of angiogenesis in multiple myeloma, ICMR.

5. Natural Killer and T-lymphocyte Subset Analysis in Multiple Myeloma. Ritu Gupta. ICMR.

**Completed**

1. Detection of minimal residual disease (MRD) in B-cell lineage acute lymphoblastic leukemia, Rajive Kumar, ICMR.

2. Assessment of multi-Drug resistance pattern in acute myeloid leukemia and response to therapy. Ritu Gupta. AIIMS, Rs 1,90,000.

3. Regulatory T-cell repertoire in plasma cell myeloma. Ritu Gupta. DBT, 3 years, Rs 14,82,000.

4. Endothelial progenitor cells as biomarker of disease activity in multiple myeloma. Ritu Gupta. DBT, 3 years, Rs 16,79,000.

5. To study the molecular biology of multiple myeloma. Ritu Gupta. DBT, 3 years, Rs 33 lakhs.

**Medical Oncology**

**Ongoing**

1. A Phase II/III Open label Multicentric Randomized trial to determine the safety and efficacy of Non-pegylated Liposomal Doxorubicin (Nudoxa®) at two different dose levels as compared to doxorubicin in patients with metastatic breast cancer. Vinod Raina. Zydus Cadila. 6 March 2012–5 March 2013. Approx Rs 2.5 lakhs.


<table>
<thead>
<tr>
<th>Project Number</th>
<th>Title</th>
<th>Sponsor</th>
<th>Duration</th>
<th>Funding</th>
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<tbody>
<tr>
<td>OMB110911</td>
<td>A Phase III, Open Label, Randomized Multicenter Trial of Ofatumumab-Chlorambucil combination Vs. Chlorambucil Monotherapy in previously untreated patients with Chronic Lymphocytic Leukemia.</td>
<td>Vinod Raina. GSK.</td>
<td>December 2013</td>
<td>Rs 5 lakhs.</td>
</tr>
<tr>
<td>OMB110913</td>
<td>A Phase III, Open Label, Randomized Trial Ofatumumab added to Fludarabine-Cyclophosphamide Vs. Fludarabine-Cyclophosphamide Combination in subjects with Relapsed Chronic Lymphocytic Leukemia.</td>
<td>Vinod Raina. GSK.</td>
<td>December 2012</td>
<td>Rs 5 lakhs.</td>
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<tr>
<td>OMB110912</td>
<td>CML Registry: An Observational Study.</td>
<td>Lalit Kumar. Novartis India Ltd.</td>
<td>2008–13</td>
<td></td>
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<tr>
<td>OMB110916</td>
<td>A multicentric open label phase III study to evaluate the safety and efficacy of Rituximab (Zenotech) in non Hodgkin’s lymphoma.</td>
<td>Lalit Kumar. Ranbaxy, Gurgaon.</td>
<td>2011–12</td>
<td>Rs 4,68,000.</td>
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<tr>
<td>OMB110917</td>
<td>Global study to assess the addition of Bebacizumab to carboplatin and paclitaxel as first line treatment of epithelial ovarian cancer fallopian tube carcinoma or primary peritoneal carcinoma.</td>
<td>Lalit Kumar. ROSIA study (Roche).</td>
<td>2011–2014</td>
<td>Rs 53,998.00.</td>
</tr>
<tr>
<td>OMB110918</td>
<td>Evaluation of Serum VEGF and Diffusion Weighted MRI in locally advanced Carcinoma Cervix treated with Noadjuvant Chemotherapy followed by Chemo radiation.</td>
<td>Lalit Kumar. AIIMS.</td>
<td></td>
<td>Rs 40,000.</td>
</tr>
<tr>
<td>OMB110919</td>
<td>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.</td>
<td>Lalit Kumar.</td>
<td>2012–13</td>
<td>ICMR. Rs 1 lakh.</td>
</tr>
<tr>
<td>OMB110920</td>
<td>Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian cancer: A phase 3 randomized study.</td>
<td>Lalit Kumar.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OMB110921</td>
<td>To study the effect of non-ionizing electromagnetic field on human health.</td>
<td>Lalit Kumar. ICMR.</td>
<td>2012–13</td>
<td>Rs 11,67,290.</td>
</tr>
<tr>
<td>OMB110922</td>
<td>A randomized phase III study of imatinib dose optimization compared with nilotinib in patients with chronic myelogenous leukemia and suboptimal response to standard dose.</td>
<td>Lalit Kumar. Novartis India Ltd.</td>
<td>2011–16</td>
<td></td>
</tr>
<tr>
<td>OMB110925</td>
<td>A phase III, randomized, double-blind, placebo controlled study to investigate the efficacy of a probiotic VSL#3®, on Chemotherapy-induced diarrhea in cancer patients receiving Fluopyrimidines/Irinotecan.</td>
<td>Atul Sharma. CD Pharma India.</td>
<td>2010–13</td>
<td>Rs 12 lakhs.</td>
</tr>
</tbody>
</table>
26. Molecular and and immunological basis of biological heterogeneity in CLL. Atul Sharma. DBT.

27. EPC as biomarker of disease activity in multiple myeloma. Atul Sharma. DBT.

28. Treatment and Characterization of Acute Lymphoblastic Leukemia in Children, Adolescents and Young Adults. Sameer Bakhshi (CoI). Network of Cancer Treatment and Research and and Sir Ratan Tata Trust. International Ongoing (2005 onwards), Rs 4.5 lakhs/year for Clinical Management.


**Medical Physics Unit**

**Ongoing**


**Radiation Oncology**

**Ongoing**

1. Promoter hypermethylation of CDHI and RARB genes in Carcinoma of Uterine cervix: Role in the prediction of treatment response and clinical outcome. Sushmita Pathy. Terry Fox research institute, Canada.

2. A study to assess economic costs of cancer care in Indian patients receiving radiotherapy with or without chemotherapy/surgery at a Regional Cancer Centre (collaborative study between IRCH, AIIMS and Indian Statistical Institute, Delhi). ISI. Rs 2.2 lakhs/year.


4. 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. Rs 1,62,313.


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**Completed**


2. To study the impact of overall treatment time and scheduling of brachytherapy on outcome of concurrent chemo radiotherapy in advanced carcinoma of uterine cervix. Sushmita Pathy.

3. Patterns of Care and Survival studies in Cancers of Head and Neck, Breast and Cervix. BK Mohanti. ICMR. Rs. 3.6 lakhs per year.

4. Clinical Impact of PET scan in patients with pelvic recurrence from cervical cancer following radiation therapy. DN Sharma. AIIMS. Rs 1 lakh.

**Departmental projects**

**Anaesthesiology**

**Ongoing**

1. A randomized, two arm, open-label, comparative, phase IV clinical study to evaluate the efficacy and safety of ultrasound guided nerve blocks given during initial treatment phase versus oral morphine in the management of patients with intractable gastrointestinal cancer pain.’

2. Prospective, randomized placebo controlled, Double blind study of tranexamic acid in patients undergoing head and Neck Cancer surgery.

3. A Randomized Prospective Study of Pulsed Radiofrequency versus Alcohol Neurolysis of Mandibular Nerve for Oro-facial Pain in Head and Neck Cancer Patients.

4. An open-label, phase ii study to evaluate the efficacy of mc-5a therapy in the management of oncology pain in cancer patients.

5. Acceptance of death and dying in Palliative Care.

**Completed**

1. Social Aspects of Palliative Care in New Delhi

**Medical Oncology**


2. Analysis of clinical characteristics, prognostic factors and treatment outcome in patients of Acute Myeloid Leukemia.

3. Analysis of clinical characteristics and outcome following autologous peripheral blood stem cell transplant in adult hematological and solid malignancies.


5. Analysis of allogeneic stem cell transplants


8. A prospective study to detect the prevalence of Human Papillomavirus (HPV) infection in oropharyngeal cancer patients.

10. Evaluation of serum VEGF and Diffusion Weighted MRI in locally advanced carcinoma of cervix treated with neoadjuvant chemotherapy followed by chemoradiation.

Medical Physics Unit
2. Continued maintenance of Microsoft Acess based image reporting module.
4. Development of new luminescence material for dosimetry purpose
5. Calibration and use of optically stimulated luminescence dosimeter
6. Characterization of atherosclerotic plaque using CT scan

Radiation Oncology
1. Phase II randomized controlled trial comparing neoadjuvant chemotherapy followed by Radical radiotherapy Vs Neoadjuvant chemotherapy and hypofractionated radiotherapy with concurrent chemotherapy in locally advanced non small cell lung cancer except adenocarcinoma.
2. Phase II trial to study role of neoadjuvant chemotherapy with paclitaxel and carboplatin followed by chemoradiotherapy, impact of EGFR receptor and targeted therapy in locally advanced cervical cancer.
3. Randomized controlled trial of accelerated fractionation radiotherapy (6 fractions per week) versus concurrent chemoradiotherapy in locally advanced head and neck squamous cell carcinoma.
5. High dose rate versus Pulse dose rate brachytherapy in carcinoma cervix.
6. Phase II randomized study comparing concurrent chemoradiotherapy versus neoadjuvant chemotherapy followed by chemoradiation in locally advanced carcinoma esophagus.
7. Randomized trial comparing postoperative radiotherapy vs. postoperative chemoradiation in oral cavity carcinoma.
8. 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.
9. 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).
10. Comparative study of treatment outcome with hypofractionation versus standard fractionation
12. Comparative study of radiation therapy dose, volume evaluation for 3-D conformal radiotherapy (3-D CRT) vs. image guided radiotherapy (IGRT) and analysis of early response in head and neck squamous cell carcinoma.
13. Clinical correlation of ER, PR and Her 2 neu expression and BRCA-I gene mutations in Indian Breast Cancer patients.

Radiodiagnosis
2. Ultrasound guided thoracocentesis using pigtail catheter with or without pleurodesis in the palliation of recurrent/refractory malignant pleural effusions
3. Role of Computed Tomography in the staging and management of carcinoma of cervix.
Surgical Oncology
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 malignancy.

Collaborative projects

Anaesthesiology
Ongoing
1. Molecular determinants of response to opioids in cancer patients: Indian Scenario. ICMR. (Laboratory Oncology)

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.

Medical Oncology
Ongoing
1. A randomized controlled trial comparing modified gemcitabine+oxaliplatin (mGEMOX) to gemcitabine+cisplatin in management of unresectable gall bladder cancer (Department of Medical, Surgical, radiation Oncology and GI Surgery).

Completed
1. T cell repertoire in plasma cell myeloma. DBT, (In collaboration with laboratory oncology unit), 2007-continuing, Rs 13.0 lakhs.
2. Endothelial progenitor cells as a biomarker of disease in multiple myeloma. DBT, (In collaboration with laboratory oncology unit), 2007–continuing, Rs 17.0 lakhs,
3. Assessment of multi drug resistance pattern in AML and response to therapy. Rs 1.9 lakhs, AIIMS-extra mural grant. 2006–11 (Laboratory Oncology).
4. Expression of ZAP 70 and CD 38 in patients of CLL. Duration 2008–11 (Laboratory Oncology).
5. EPC as biomarker of disease activity in multiple myeloma. (Laboratory Oncology).
6. To study the molecular Biology of multiple myeloma (Laboratory Oncology).

Medical Physics Unit
Ongoing
1. Patient radiation dose determination in RF ablation procedure for tachycardia (Medical Physics Unit, Departments of Cardiology and Cardiac Radiology).
2. Impact of partial volume effect corrections in the assessment of solitary pulmonary nodules. (Medical Physics Unit and Department of Nuclear Medicine).
**Completed**
1. Tumor burden estimation by FDG PET-CT using phantom and its application in pediatric lymphoma for treatment response evaluation (Medical Physics Unit, IRCH and Nuclear Medicine).

**Radiation Oncology**

**Ongoing**
1. 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).
2. National Retinoblastoma Registry-Delhi site, Dr RP Centre, AIIMS, A collaborative study under ICMR New Delhi, India.
4. Temporal assay of p-38-alpha expression and as a prognostic marker in head and neck cancer patients (Department of Biophysics).
5. Palliative radiotherapy vs. palliative chemo-radiotherapy for advanced incurable head and neck cancer (Medical Oncology).
6. Heterogeneous ribo-nucleoprotein K as a marker in squamous cell carcinoma of head and neck (Department of Biotechnology).
7. Evaluation of curcumin in the management of advanced cancer cervix (Departments of Radiotherapy, Gynecology, Biochemistry and Pathology).

**Completed**
1. Evaluation of p-38 alpha MAP-kinase in head and neck squamous cell carcinoma (Department of Biophysics).
2. Studies on Beclin-1, mTOR Signaling and Autophagy in Oral Cancer (Department of Biotechnology).

**Radiodiagnosis**

**Ongoing**
1. Comparative evaluation of endovenous laser ablation, radiofrequency ablation and surgery in the treatment of symptomatic lower limb varicosities (Radio-diagnosis)
2. Comparing the role of MRI and grey scale and Doppler ultrasound in evaluating neoadjuvant chemotherapy response in locally advanced breast cancer (Surgery).
4. A comparative study of surgery and postoperative radiotherapy versus surgery and postoperative chemoradiotherapy as the treatment modality for the squamous cell carcinoma of the oral cavity (Radiotherapy).

**Completed**
1. Comparative study of radiation therapy dose, volume evaluation for 3D conformal radiotherapy (3D CRT)) Vs. Image guided radiotherapy (IGRT) and analysis of early response in head and neck squamous cell carcinoma (Radiotherapy).
2. Comparison of early clinical outcome in carcinoma cervix after radiotherapy: conventional versus intensity modulated radiotherapy (IMRT) (Radiotherapy).
**Surgical Oncology**

**Ongoing**

1. Multicentric National Program on Evaluation and validation of molecular markers in oral cancer: A cross sectional study. (Department of Biochemistry and Surgical Oncology).

2. To evaluate microsatellite instabilities in different chromosomes in Indian female breast cancer patients. (Department of Surgical Oncology and Department of Biosciences, Jamila Milia Islamia, New Delhi).

3. Role of CT scan and MRI in the evaluation of locally advanced Oral cancer. (Department of Surgical Oncology and Radio Diagnosis).

4. Molecular Evaluation of p 21 WAF -1 gene in Indian Female Breast Cancer Patients (Department of Surgical Oncology and Department of Bio Sciences, Jamia Milia Islamia).

5. Molecular basis of tobacco associated oral carcinogenesis. (Department of Biochemistry and Surgical Oncology).

6. A randomized, double-blind, placebo-controlled, multi-center phase III study to evaluate the efficacy and safety of pazopanib (GW786034) compared to placebo in patients with locally advanced and/or metastatic renal cell carcinoma VEG105192 (Department of Medical Oncology and Surgical Oncology).

7. An open label, non randomized phase II trial of oxaliplatin, docetaxel and capecitabine in advanced esophageal and gastric adenocarcinoma Protocol 0701 (Department of Medical Oncology, Surgical Oncology, and Radiation Oncology).

8. A randomized, double-blind, multicenter, placebo controlled study of adjuvant lapatinib in women with early stage ErbB2 over expressing breast cancer (Department of Medical Oncology and Surgical Oncology).

9. A radomized, 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 (Department of Medical Oncology and Surgical Oncology).

10. Molecular Analysis of Genetic variation in Cytokinin in Female Breast.

11. Cancer patients in India (Department of Surgical Oncology and Department of Biosciences, Jamia Milia Islamia).

12. Clinical significance of TC21/R-Ras2 over expression in Oral Cancer (Department of Biochemistry and Surgical Oncology).

13. 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 (Department of Medical Oncology and Surgical Oncology).

14. 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) (Department of Medical Oncology and Surgical Oncology).

15. Functional and phenotypic characteristic of Natural killer T cell and dendritic cells in oral cancer. (Department of Biotechnology, Department of Surgical Oncology).

16. Registration phase III study of Lucanix™ (belagenpumatucel-L) in advanced non-small cell lung cancer: an international multicenter, randomized, double-blind, placebo-controlled study (Department of Medical Oncology and Surgical Oncology).

17. Functional characterization of differentially expressed proteins in head and neck cancer (Departments of Biochemistry and Surgical Oncology).

18. Translating Head and Neck Cancer Markers into diagnostic Assays- an INDO- CANADIAN research project (Department of Biochemistry AIIMS, Department of Surgical Oncology and department of chemistry York University Canada).
Completed

1. Role of MLH 1 Promoter Methylation in oral squamous cell carcinoma patients (Department of Biotechnology and Surgical Oncology)

2. Role of computer Tomography in the staging and management of Carcinoma of Cervix (Department of Radio diagnosis, Surgical Oncology, Radiation Oncology, Pathology and Obstetrics and Gynecology).

3. Molecular Analysis of p21 Gene in Indian female Breast cancer patients. (Department of Surgical Oncology and Department of Bio-sciences, Jamia Milia Islamia).

4. Analysis of clinico-pathological profile and survival of patients with lung cancer (Department of Medical oncology, Surgical Oncology, Radiation oncology, Pathology and Pulmonary medicine)

5. Study of potential cancer marker and drug target in head and neck cancer (Department of Biochemistry Department of Surgical Oncology, and Department of Radiotherapy).

PUBLICATIONS

Journals: 147  Abstracts: 3  Chapters in Books: 8

PATIENT CARE

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<td>Outsourced Security Staff</td>
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Total bed strength: 182

Medical Oncology 78  Radiation Oncology 37
Surgical Oncology 61  Palliative Care Unit 6

Total OPD attendance 84071

New Patient's Registered 8610  Revisits 75461

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<th>Revisits</th>
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<td>Adult Medical Oncology</td>
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<td>3</td>
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<th>Service</th>
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<th>Female child</th>
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<td>Urology Malignancy</td>
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<td>40085</td>
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**Total Admissions** 28872
- Regular 5213
- Short/Day-Care 23659

**Total Discharge** 28564
- Regular 5093
- Short/Day-Care 23471

**Total Deaths** 280

**Operation Theatre Services** 6085
- Major 782
- Minor 5303

**Electrocardiogram (ECG)** 2571

**OPD procedures (Treatment room 15)** 5170

**OPD chemotherapy (CT) services (Treatment Room No. 15)** 10069

- Male 6773
- Female 3071
- Male child 156
- Female child 69
### Geographical Distribution according to residence (8610)

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<th>State</th>
<th>Total</th>
<th>State</th>
<th>Total</th>
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<tr>
<td>Andhra Pradesh</td>
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<td>Assam</td>
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<td>Arunachal Pradesh</td>
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<td>Bihar</td>
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<td>Chandigarh</td>
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<td>Chhattisgarh</td>
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<td>Uttaranchal</td>
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<td>West Bengal</td>
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<td>Other countries</td>
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### Anaesthesiology services

Facilities available in the Department

1. ICU facilities for post operative patients.
2. PAC and Pain and Palliative Care Clinic is run four times in a week in addition to the anaesthesiology related 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 Radio therapy, Medical Oncology, and Surgical Oncology.
5. Facility for Pediatric Radiotherapy.
6. Anaesthesia for minor pediatric oncology procedures like Bone marrow biopsy, Central line insertion, Bone marrow Harvesting and others.
7. Facility for Pediatric radiological procedures under anaesthesia, Radio frequency ablation for liver, lung, and breast carcinoma.
8. Verbroplasty.

### Laboratory Oncology Services

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<th>Test</th>
<th>Count</th>
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<tr>
<td>Hemogram (Hb, TLC, Platelets)</td>
<td>54764</td>
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<tr>
<td>Peripheral Blood Smear (PBS)</td>
<td>6420</td>
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<tr>
<td>Bone Marrow Aspiration (BM)</td>
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<tr>
<td>Procedure</td>
<td>Quantity</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Cyto-Chemistry</td>
<td>739</td>
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<tr>
<td>Serum Protein Electrophoresis (SPE)</td>
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<td>Immunofixation (IFx)</td>
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<tr>
<td>Urine Electrophoresis (UE)</td>
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<td>APAAP</td>
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<tr>
<td>Flow</td>
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<td>FNAC (Lymph Node)</td>
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<td>Cyto-Spin</td>
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### Apheresis

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<td>Single Donor Platelets (SDP)</td>
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<td>Peripheral Blood Stem Cell – Harvest (PBSC)</td>
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<td>Hemogram</td>
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### MEDICAL ONCOLOGY

#### Clinical Services

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<td>New cases (CTE+ LL)</td>
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<tr>
<td>Old cases (CTE+LL)</td>
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<td>Total</td>
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<td>Total chemotherapy in Day-Care</td>
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<td>OPD chemotherapy</td>
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<td>Admission (Ward and Day Care)</td>
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### Diagnostic and Therapeutic procedures (n=5148)

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<td>Bone marrow biopsy</td>
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<td>Bone Marrow Aspiration</td>
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<td>Pleural Tapping</td>
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<td>Skin biopsy</td>
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<td>Catheterization/Removal</td>
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<td>Other supportive services</td>
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<td>Suturing/Removal</td>
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<td>Intrathecal therapy with cerebrospinal fluid</td>
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### Laboratory Services

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<td>Single Donor Platelet (SDP)</td>
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<td>–for detection of Philadelphia chromosome</td>
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<tr>
<td>–for chimerism</td>
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<td>Cryopreservation of PBSC</td>
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<td>CD34 count of stem cells</td>
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CD3 count of stem cells 11 Immuno phenotyping for leukemia 6

Polymerase chain reaction
--RT-PCR for detection of p210 and p190 translocation in CML (qualitative) 183
--RQ-PCR for detection of p210 and p190 translocation in CML (quantitative) 33
--Screening of Flt-3 Mutations in AML 93

Bone Marrow Harvest 2 Peripheral blood stem cells harvest 123
Storage of Peripheral blood stem cells (PBSC) at 4°C 101
Granulocyte Harvest 10 ELISA for aspergillosis detection 1163
Plasma exchange 2

Medical Physics Services
No. of blood bags irradiated 832
Quality Assurance test done on X-Ray machines 1568
Quality Assurance test done on film processor at DR BRAIRCH, AIIMS 237
Quality Assurance test on film processor at Radiology (Main) 770
Radiation output measurements in X-Ray units 362
Quality Assurance test done on film processor at AIIMS 183
Radiation protection survey measurements 12
Advise in inadvertent exposure to pregnancy 06
Radiation output consistency in mammography 133
Total 4103

Radiotherapy services
Cases on Radiotherapy 41736
Total Field on Radiotherapy 113308
Cases on Brachytherapy 643
Treatment Planning and Simulations 4449
Two and Three Dimensional Dose Distributions 557
Compensators 410
Shielding Blocks Immobilization Devices and Orifits 1995
Radiation Review Clinic 4587
Total 167685

Radiodiagnosis services
CT Scan 5308 Ultrasound 4695
Mammography 1119 X-Rays (Routine) 12494
Doppler 248 Intervention 763
Special Investigation 91 US (Portable) 12
Total 24730
Surgical Oncology Services

1. **Minor Operation Theater**: Diagnostic and minor therapeutic procedures including Lymph node biopsy, punch/trucut biopsy, excision of Skin/Oral tumors, soft tissue tumors, feeding jejunostomy, colostomy, insertion of Hickman’s catheter/chemo ports for long term Chemotherapy are available in the Minor O.T.

2. **Endoscopy Services (Diagnostic and Therapeutic)**: Diagnostic Endoscopy: Fibre optic upper G.I. endoscopy, side viewing duodenoscopy, Colonoscopy, Sigmoidoscopy, Bronchoscopy, Cystoscopy, Nasopharyngoscopy and laparoscopy.

   Therapeutic Endoscopy: Stricture dilatation, Intraluminal Radiotherapy, Stenting and Percutaneous Endoscopic Gastrostomy.

3. **Major Operation Theater**: 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 and Intra Operative Radiotherapy are also available.

Total number of minor operations and endoscopic procedures performed: **5303**

Total no. of major cancer operations performed: **782**

Community services

1. Dr N K Shukla participated in a panel discussion on Surgery in breast cancer for general public, November 2011, AIIMS, New Delhi.

2. Dr N K Shukla is the senior medical advisor of the Indian Ostomy Society and involved in care of Ostomy patients’.

3. Dr S.V.S. Deo participated in a Doordarshan Health Education T.V program on Cancer Surgery’ as an expert.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Dr Sushma Bhatnagar** was selected for the most prestigious award Excellence of Pain Management and Research in developing countries’ by International Association Of Study of Pain and nominated as member of Editorial Board of World Journal of Anaesthesiology. She was selected as the member of Organizing committee of 1st International Conference on Opioids, June 2012. Dr Sushma was invited as a Faculty to conduct the workshop’ Cancer pain management vis a vis oral morphine, Bhopal, MP, 12 September 2011 and International Conference on Interventional Pain Management 2011 and FIPP Review course with cadaveric workshop, Chennai on 8–11 September 2011 and was the Co-Chair for 6th Conference on science and spiritual quest (AISSQ 2011), Delhi, 13 March 2011. She has been appointed as expert by WHO project to see the status of Palliative care at Acharya Haihar Regional Cancer Centre, Cuttack, Orissa, 6 June 2011. She continued as an Editor of Indian Journal of Palliative Care, member of Editorial Board of American Journal of Hospice and Palliative Medicine and continued as a member of Editorial Board of Indian Journal of Palliative Care.

**Dr Pratik Kumar** was appointed Ph.D. Viva-voce examiner by Ch. Charan Singh University, Meerut for thesis entitled Study of Physical and Dosimetric Aspect of Intensity Modulated Radiation Therapy’ at MMH College, Ghaziabad; was invited as co-supervisor for four Ph.D. thesis and projects at Delhi University, H.N.B. Garhwal University and AIIMS; Technical Expert for the meeting on technical specifications of proton cyclotron and associated equipments for establishing Proton Therapy and Research Facility at Delhi State Cancer Institute, Dilshad Garden, Delhi; Expert, Radiation Safety by National Human Right Commission (NHRC), New Delhi in on-spot enquiry regarding radiation issues at LNJP Hospital; External Expert in Technical Committee for procurement of Borated Polyethylene and Fabrication of Neutron Shielding Sliding Door at Inter University Accelerator Center (under UGC), Delhi; External Expert to the Faculty of Paramedical Sciences, Rajasthan University of Health Sciences, Jaipur; Member, Scientific Programme Committee, Annual Conference of Association of Medical Physicists of India (AMPI), 16–19 November 2011, CMC Vellore; external expert by UN Office for Project Services, United Nation Development Programme (UNDP), New Delhi; Got elected member, Board of Trustee, Association of Medical Physicists of India (AMPI). Dr Pratik Kumar continued to be the Editor, Medical Physics Chronicle.
### HIGHLIGHTS

Prof. Rajvardhan Azad was elected President of Asia Pacific Academy of Ophthalmology (APAO), the first Indian to assume the responsibility. He was also elected as President of APAO-AIOS Congress at Hyderabad, 2013, appointed Advisor (Ophthalmology) Ministry of Health and Family Welfare (Government of India); Director, WHO Collaborating Centre for Prevention of Blindness and Advisor to Armed Forces Medical Services. Newer facilities like ROP screening, femtosecond laser, special contact lens fitting for keratoconus, collagen cross linking and toric intraocular lens implantation were introduced. Innovative corneal transplantation surgical techniques have been developed.

National Retinoblastoma Registry has been functioning at the Centre under the guidance of Prof. R.V. Azad. Under this project newer modulation of globe salvage and vision salvage have been introduced such as the use of transpupillary thermotherapy and systemic chemoreduction.

Differentially expressed genes in human retinoblastoma have been identified by microarray analysis which can be used as new targets for directed diagnostic, prognostic and therapeutic approaches. This is a first study of its kind.

Screening of marine isolates and natural products in the experimental models of retinal angiogenesis is in progress for the new drug discovery. Levels of macular xanthophylls in human eye and carotenoids in fruits and vegetables have been investigated.
Master plan of modernization of Centre has been recently initiated with latest technology and facility. Computerization of OPD registration counter has already been done and rest of other areas are in progress. The Centre has taken significant steps in improving the quality of services delivered to all patients (including daycare services), despite several constraints. Patient care services and research work have markedly improved recently. Honorable Prime Minister Sh. Manmohan Singh and Smt. Manmohan Singh, Honorable Minister of State Health and Family Welfare Sh. Sudip Bandopadhyay and Smt. Anjolie Ilia Menon (artist) pledged for eye donation during National Eye Donation Fortnight from 25 August to 8 September 2011.

EDUCATION

MBBS: 45    MD: 24 (passed)    BSc (H) Ophth: 36    Pool Officers: 3
10 students passed

PhD: 22    SRs Ophth: 40

Short and long term training

36 short term trainees and 10 ophthalmologists from various parts of the country were trained in different fields of specialization.

CME/National and International conferences

Organized Conferences/Seminars/Workshops on:

1. Information programme on Reach in Programme, 31 March 2012.
2. 70th Annual Conference of All India Ophthalmological Society, Cochin, 1–5 February 2012.
3. Recent Advances in Anterior Segment Surgery, All India Ophthalmological Society (AIOS), Sirsa, 18 December 2011.
4. Workshop on “Curriculum Development for the training of volunteers in Primary Eye Care Services” Dr R.P. Centre, 12 December 2011.
7. Training programme for the Multi-centric study ICMR-UVR study for the Ophthalmologists, Optometrists, Social Workers and Field Investigators staff from RIO Guwahati and R.P. Centre, 9–11 September 2011.
8. Workshop to promote Required request Policy and Hospital Corneal Retrieval Programme (HCRP) in Hospitals in Delhi – NCR, Dr R.P. Centre, AIIMS, New Delhi, 6 September 2011.
10. National Workshop on Cornea, Cataract and Refractive Surgery, Dr R.P. Centre, AIIMS, 6–7 April 2011.

Lectures delivered: 130

Papers/posters presented: 78

RESEARCH

Funded projects

Ongoing

1. National Retinoblastoma Registry.
2. A Phase 2/3 randomized, controlled, double-masked, multi-centre, comparative trial, in parallel groups, to compare
the safety and efficacy of intravitreous injections of 0.3 mg pegaptanib sodium (Macugen®), given as often as every 6 weeks for 2 years, to sham injections, in subjects with diabetic macular edema (DME) involving the center of the macula. Protocol No.A5751013, 2006 (Extended).


4. ICMR Task Force Project on the epidemiology of anophthalmia and/or microphthalmia in children aged 0–5 years in selected district 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. Sightsavers Phase II Program for ROP capacity building at 8 centres in India.

7. Role of polo-like kinase proteins in retinoblastoma – an immunohistochemical study.

8. To determine the influence of pre-operative counseling of cataract patients on IOL choice among patients at a tertiary level government aided eye hospital.


10. Assessment of incidence and progression of myopia in school going children.

11. OEU-RPC primary eye care services in urban slums.

12. Reach in services for the cataract and refractive error in NCR.

13. Comprehensive eye care services in urban population of West Delhi.


15. Ocular adnexal lymphomas and chlamydia: an immunophenotypic and molecular study.


17. Role of HMG proteins in intraocular malignant childhood tumors.

18. Role of stratifin in ocular squamous cell neoplasia and its correlation with other tumor suppressors.

19. Developing quality control parameters and dispensing MK media for corneal transplant preservation for Indian eye banks.

20. Evaluation of the possible modalities to enhance the ocular kinetics of an anti cancer agent in rabbits for its utilization in the treatment of retinoblastoma.

21. Pharmacokinetic and biodisposition studies on Quinacrine in animal models.

22. 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.

23. Evaluation of efficacy of cultivated oral mucosal epithelial cells transplantation in patients with acute ocular burns as compared to amniotic membrane transplantation.


25. Evaluation of clinical and histopath factors associated with success of MMC augmented trabeculectomy among primary glaucomas in India.
26. Correlation between clinical features, imaging characteristics and histopathological findings in advanced intraocular retinoblastoma.

27. Evaluation of trans-rectal ultrasound, elastography and contrast enhanced sonography in detection of prostate cancer.

28. Evaluation of factors associated with success of mitomycin augmented trabeculectomy among primary adult and juvenile glaucomas in India.

29. Factors associated with severity at presentation of juvenile onset open angle glaucoma.

30. Phenotype genotype correlation in juvenile onset open angle glaucoma.

**Completed**

1. Evaluation of topical cyclosporine A 1% drops in control of ocular inflammation in acute Steven Johnson’s Syndrome.

2. Malignant tumor of the eye and orbit in children – the varied clinical profile, role of tumor markers in management.

3. Serial ultrasonic evaluation and its clinicopathological correlation in retinoblastoma patients undergoing hemoreduction and focal treatment or enucleation.


5. Impact of Grief counselor versus trained nurses in increasing and sustaining eye donation in institutional setting; an operational research.

6. KAP study on awareness and practices of eye care services in urban slums of Delhi.

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. Development of small interfering RNAs (siRNAs) for inhibition of Enterovirus70 and CoxsackievirusA24 viruses causing acute hemorrhagic conjunctivitis.

9. Phenotypic molecular and ultrastructural study of coagulase negative staphylococci and their biofilms in device related infections.

10. Implications of microbial biofilms in chronic rhinosinusitis and orbital cellulites.

11. Immunohistochemical and molecular analysis of eyelid tumors.

**Departmental projects**

**Ongoing**

1. A randomized prospective study for comparison of effects of pascal photocoagulation with conventional laser photocoagulation in diabetic macular edema and proliferative diabetic retinopathy.

2. Comparison of lucentis vs laser in branch retinal vein occlusions.

3. Comparison of retcam assisted fluorescein angiography vs gonioscopy for early detection of angle neovascularization in proliferative diabetic retinopathy.

4. Correlation of visual acuity with integrity of foveal photoreceptor layer using SD-OCT and multifocal ERG in patients of diabetic macular edema.


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.
11. Use of autologous bone marrow derived stem cells for rehabilitation of patients of retinitis pigmentosa and allied heredo-retinal dystrophies and patients with dry age related macular degeneration- an efficacy trial.
13. Comparison of anti-VEGF agents in angiogenesis in a rabbit model.
14. Selenium and glutathione levels in ROP.
15. Anatomical and visual outcomes of posterior segment trauma requiring vitreoretinal surgery.
17. Profile of paediatric epiphora patients.
18. Evaluation of oral vs. intralesional propranol in eyelid and periorbital hemangiomas in children.
19. Skin grafting in cicatricial ectropion – suture vs. fibrin glue.
20. Role of fine needle biopsy in orbital and periorbital lesions.
23. Molecular studies and expression of cell cycle regulatory proteins in ocular surface squamous neoplasia.
28. Functional characterization of CYP1B1 mutations in primary congenital glaucoma.
29. Mutational analysis of PAX6 genes in patients with aniridia.
30. Expression of cell cycle regulatory proteins in ocular surface squamous neoplasia.
31. Correlation between baseline intraocular pressure and histopathology of trabecular meshwork.
32. Clinical, histopathological and genetic characterization of corneal endothelial dystrophies.
33. FNAC of orbital lesions with clinical and histopath correlation.
34. Evaluation of tear film lipidomics in selected ocular surface disorders.
35. Study on awareness and health-seeking practices about common eye conditions in urban slums of Delhi.
36. Community based epidemiological study on corneal opacities.
37. Assessment of incidence and progression of myopia in school going children.
38. Study of oral rebamipide in management of dry eye.
40. Evaluation of multimodal treatment approach for extraocular retinoblastoma: a randomized study.
41. Development of a poly-herbal formulation for dry eye (computer vision syndrome).
42. Development of topical estrogen or androgen receptor modulator for postmenopausal dry eye using computer aided drug design.
43. Evaluation of cassette dosing for the intraocular penetration of drugs.
44. Modulation of cationic transporters for the intraocular penetration of drugs.
45. Isolation and evaluation of bioactive compounds from marine origin.
46. Prediction of ocular toxicity using OMR paradigms in gold fish.
47. Indian Solar UltraViolet Radiation Assessment – Project ISUVRA under WHO WMO programme of INTERSUN.
48. Sight Life Delhi eye banking pilot project.
49. Study of death to prevent time and its impact on utilization of donor corneas.
50. Study of corneal changes in mechanically ventilated trauma patients.
51. Comparison of IV paracetamol and fentanyl for perioperative analgesia in children undergoing elective strabismus surgery.
52. Perioperative management of patients with Sturge-Weber syndrome for ophthalmic surgery under general anesthesia – a retrospective study.
53. Comparison of subtenon’s block with intravenous fentanyl in children undergoing elective strabismus surgery.
54. Comparison of effect of air, air: O₂, O₂:N₂O mixture used for LMA cuff inflation on cuff pressure, ventilatory parameters and pharyngolaryngeal morbidity in adults: a prospective, randomized, double blind comparative study.
55. Role of diffusion weighted MRI in imaging of retinoblastoma.
56. Evaluation of multimodal treatment approach for extra-ocular retinoblastoma: a randomized study.

**Completed**
1. Comparison of 20G and 25G PPV for rhegmatogenous RD.
2. Results of vitreoretinal surgery at tertiary eye care centre, AIIMS.
3. Evaluation of modified levator plication vs. fascia lata sling for congenital severe ptosis.
4. Lateral eyelid rotation flap for reconstruction of full thickness eyelid defects.
5. Sentinel lymphnode biopsy in malignant eyelid tumours.
7. Immunohistochemical and molecular studies of Wnt/Beta Catenin signaling in sebaceous cell carcinoma of the eyelid.
8. Socioeconomic factors in glaucoma treatment compliance.
9. Quality of life among the newly diagnosed glaucoma patients at R.P. Centre.
10. Ocular surface evaluation in allogenic hematopoetic stem cell transplant patients.
11. Role of ASHA volunteers in primary eye care in India.
12. Development of microdialysis technique to study intraocular kinetics of drugs.
14. 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.
15. Variation in LMA cuff pressure and ventilatory parameters in pediatric patients: effect of air and O₂ – air mixture used for LMA cuff inflation.
17. Evaluation of air-Q intubating laryngeal airway as a conduit for tracheal intubation in infants and children.
22. Evaluation of long term visual outcomes following trabeculectomy with trabeculotomy for congenital glaucoma.
23. Evaluation of adjuvant chemotherapy in stage 2 and neoadjuvant chemotherapy in stage 3 retinoblastoma as per the international retinoblastoma staging system.
24. Clinical correlation of imaging findings in congenital neuropathic strabismus.

Collaborative projects
Ongoing
1. NPCB – National Surveillance Unit at the R.P. Centre, AIIMS, under the National Programme for Control of Blindness, Ministry of Health and Family Welfare, Government of India (with National Programme of Control of Blindness and 22 preventive and Social Medicine departments of Medical Colleges in India).
2. The impact of Global warming and Ultra Violet Radiation (UVR) exposure on ocular health in India 2010–14 (ICMR, RIO, Guwahati, National Physical Laboratory (NPL), Delhi and Public Health Foundation of India, Hyderabad).
3. Randomized control trial using carboplatin 750mg/m² and 560 mg/m² for ocular salvage in group C and D retinoblastoma (with IRCH).
4. 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 (with PGIMER).
5. Bone marrow derived stem cell therapy and the trabecular meshwork: an experimental study (with IRCH).
6. Strategies for extending utilization of donor corneal tissues for corneal transplantation by harnessing their full clinical potential (with Department of Pathology, AIIMS).
7. Determination of plasma levels of morphine and its metabolites and correlation with its pharmacodynamics (with IRCH, AIIMS).
8. Evaluation of vitreous humor as a marker fluid in the autopsy drug level analysis (with Forensic Science Laboratory, New Delhi).
10. Evaluation of bioactive components from algae (with Bharathidasan University, Trichy).

11. A study of factors affecting tissue and organ donation in medico legal cases at tertiary care hospital (with Department of Forensic Medicine, AIIMS).

12. Role of magnetic resonance imaging and spectroscopic methods in the evaluation of early prostate cancer (with Department of NMR, AIIMS).

13. Evaluation of coronary atherosclerotic plaque (with Department of Medical Physics, AIIMS).

Completed

1. A genetic component to the INDEYE study of cataract and age-related macular degeneration in India: INDGEN (with Aravind Eye Care System and London School of Hygiene and Tropical Medicine).

2. Pilot study to evaluate neoadjuvant chemotherapy in stage 3 retinoblastoma as per the International Retinoblastoma Staging System (with IRCH, AIIMS).

3. Evaluating the correlation of serum levels of morphine and its metabolites on pain in cancer patients (with IRCH, AIIMS).

4. Estimation of levels of salbutamol and other drugs in human plasma samples (with INMAS, DRDO).

5. Evaluation of the quality of anticancer drugs in marketed formulations (with IRCH, AIIMS).

6. Development of the method for the quantification of neurotransmitters from brain microdialysate in rats (with Department of Physiology, AIIMS).


8. Imaging guided lung biopsies in immune-compromised patients with probable fungal pneumonia and its clinical implications (with Department of Hematology, AIIMS).

9. Study of non-alcoholic fatty liver disease and coronary artery disease in Asian Indians (with Department of Medicine).

10. Study of duration of anticoagulation in patients with deep venous thrombosis based on compression ultrasound (with Department of Hematology).

11. Genetic polymorphisms of vascular endothelial growth factor and risk of threshold retinopathy of prematurity (with Department of Neonatology, AIIMS).

PUBLICATIONS

Journals: 116  Chapters in Books and Monographs: 12  Books: 5

PATIENT CARE

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<tr>
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<th>New Cases</th>
<th>Old Cases</th>
<th>Total</th>
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<td>General O.P.D.</td>
<td>122835</td>
<td>83510</td>
<td>206345</td>
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<tr>
<td>Emergency</td>
<td>9725</td>
<td>19395</td>
<td>29120</td>
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<td><strong>Total Cases</strong></td>
<td><strong>132560</strong></td>
<td><strong>102905</strong></td>
<td><strong>235465</strong></td>
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SPECIALITY CLINICS

1. Cornea Clinic          | 5588      | 15917     | 21505  |
2. Lens Clinic            | 960       | 1746      | 2706   |
3. Uvea Clinic            | 974       | 3440      | 4414   |

AIIMS 2011-2012 / 319
<table>
<thead>
<tr>
<th>Clinic</th>
<th>Cases 2011-2012</th>
<th>Cases 2019-2020</th>
<th>Cases 2020-2021</th>
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<tr>
<td>4. Contact Lens Clinic</td>
<td>1188</td>
<td>2019</td>
<td>3207</td>
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<tr>
<td>5. Glaucoma Clinic</td>
<td>2361</td>
<td>6383</td>
<td>8744</td>
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<td>6. Ophthalmoplasty Clinic</td>
<td>2672</td>
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<td>4285</td>
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<td>7. Pediatric Ophthalmology Clinic</td>
<td>633</td>
<td>407</td>
<td>1040</td>
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<tr>
<td>8. Trauma Clinic</td>
<td>651</td>
<td>664</td>
<td>1315</td>
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<tr>
<td>9. Retina Clinic</td>
<td>2504</td>
<td>5230</td>
<td>7734</td>
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<tr>
<td>10. Neuro-Ophthalmology Clinic</td>
<td>1965</td>
<td>1453</td>
<td>3418</td>
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<td>11. Medical Ophthalmology Clinic</td>
<td>924</td>
<td>3008</td>
<td>3932</td>
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<tr>
<td>12. Vitreo Retinal Clinic</td>
<td>1095</td>
<td>776</td>
<td>1871</td>
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<tr>
<td>13. Ocular Surface Disorder Clinic</td>
<td>48</td>
<td>60</td>
<td>108</td>
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<tr>
<td>14. Retinoblastoma Clinic</td>
<td>224</td>
<td>845</td>
<td>1069</td>
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<td>15. a) Orthoptic Clinic</td>
<td>5401</td>
<td>25714</td>
<td>31115</td>
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<tr>
<td>b) Squint Clinic</td>
<td>7156</td>
<td>30358</td>
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<td>16. Refraction</td>
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<tr>
<td><strong>Total Cases</strong></td>
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<td><strong>Grand Total of Cases</strong></td>
<td><strong>166904</strong></td>
<td><strong>230634</strong></td>
<td><strong>397538</strong></td>
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**INDOOR**

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<tbody>
<tr>
<td>1. General Admissions</td>
<td>16790</td>
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<td>2. Casualty Admissions</td>
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<td>2111</td>
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<td>3. Private Admissions</td>
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<td>4. Short Admissions</td>
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<tr>
<td>5. Day Care Admissions</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>33881</strong></td>
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**OPERATIONS**

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<tr>
<td>1. Major</td>
<td>17041</td>
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<tr>
<td>2. Day Care</td>
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<td>8419</td>
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<tr>
<td><strong>Total Major</strong></td>
<td><strong>25460</strong></td>
<td><strong>25460</strong></td>
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<tr>
<td>3. Minor</td>
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<tr>
<td><strong>Grand Total</strong></td>
<td><strong>32879</strong></td>
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**YEARLY OTHER FIGURES**

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<tbody>
<tr>
<td>1. Average Bed Occupancy Ratio</td>
<td>87%</td>
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<tr>
<td>2. Average length of stay</td>
<td>4.6 days</td>
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<tr>
<td>3. Average OPD Attendance per working day</td>
<td>1338</td>
<td>1338</td>
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<tr>
<td>4. Average No. of Indoor Admission per day</td>
<td>92</td>
<td>92</td>
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<tr>
<td>5. Average No. of Surgeries per day</td>
<td>90</td>
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### Investigative Laboratories

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<th>Procedure</th>
<th>Count</th>
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<td>YAG Laser</td>
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<td>Post Seg.</td>
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<td>FFA</td>
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<tr>
<td>CP</td>
<td>644</td>
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<tr>
<td>OCT</td>
<td>4669</td>
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<tr>
<td>LASIK</td>
<td>4916</td>
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<tr>
<td>FA</td>
<td>2690</td>
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<tr>
<td>OCT</td>
<td>5003</td>
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<td>Videoangiography</td>
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<td>ECG</td>
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<td>LASER</td>
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<tr>
<td>ROP New</td>
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<tr>
<td>ROP Old</td>
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<tr>
<td>LVA+ ROP Ref</td>
<td>1134</td>
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<tr>
<td>UBMB-Scan</td>
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<td>MF-ERG</td>
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<tr>
<td>Micro-perim</td>
<td>5</td>
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<tr>
<td>Cornea Service Lab (total no of inv.)</td>
<td>19408</td>
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<tr>
<td>Cornea Research Lab (total no of patients investigated)</td>
<td>8086</td>
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<tr>
<td>Glaucoma Facility Lab (total no of inv.)</td>
<td>50964</td>
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### Ocular Microbiology

<table>
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<tr>
<th>Procedure</th>
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<tbody>
<tr>
<td>Bacterial culture and sensitivity</td>
<td>8638</td>
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<tr>
<td>Fungal culture</td>
<td>2351</td>
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<tr>
<td>Specimens processed for cytology</td>
<td>1362</td>
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<tr>
<td>Specimens processed for viral ag detection</td>
<td>58</td>
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<td>Specimens processed for Chlamydia Ag detection</td>
<td>158</td>
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<tr>
<td>Specimens processed for PCR hsv</td>
<td>32 Specimens</td>
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<td>processed for conjunctivitis (PCR. Ag detection, tissue culture)</td>
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<tr>
<td>Culture for acanthamoeba</td>
<td>64</td>
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<tr>
<td>Specimens processed for acanthamoeba PCR</td>
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<td>Specimens processed for mycobacteria</td>
<td>7</td>
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<td>Specimens processed for microsporidia</td>
<td>12</td>
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<tr>
<td>Grand total</td>
<td>12758</td>
</tr>
</tbody>
</table>

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**Ocular Pathology**

Total number of Investigations 65016

i) Blood: Total Leucocyte Count (TLC),
   Differential Leucocyte Count (DLC),
   Peripheral Blood Smear (PBS),
   Erythrocytes Sedimentation Rate (ESR),
   Bleeding Time (BT)/Clotting Time (CT) 34821

ii) Urine 10063

iii) Histopathology, Cytopathology and Research 20132

**Ocular Biochemistry (Clinical Chemistry)**

Total number of samples (apart from research) 12617

Indoor 1117

Outdoor 1441

**Ocular Pharmacology and Pharmacy**

Free drugs (vials) supplied through Ocular Pharmacy including media 131500

**Eye Care Services in Slums**

Primary Eye care Clinics 15

Slums covered for Primary eye care services 36

Attendees at PEC Centres in Slums Cluster 27118

Refraction carried out in PEC Centres in slums Cluster 12363

Patients referred to R.P. Centre 4013

Patients operated 808

Subsidized Spectacles issued in Slums 4981

**Training events and health education events:**

Volunteers Training Programmes organized 26

Volunteers Trained 375

Eye Health Education Events 23

Participants in the Health Education events 736

**Reach-in-Programme for cataract surgery in rural and remote areas:**

Adult screening camps organized 36

People examined 10769

Patients referred at R.P. Centre 1543

Patients operated at R.P. Centre 1096

Follow-up camps organized 28

Patients examined in Follow-up camps 759
School Eye Screening Programme
School covered under SES Programme 15
Teachers trained under School Vision Screening programme 23
Children screened 7616
Children prescribed spectacles 688
Children issued Spectacles 178

Rehabilitation services:
Blind patient counseled for rehabilitation services 51
(Including all other community works)

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rajvardhan Azad: Advisor (Ophthalmology) Ministry of Health and Family Welfare (Government of India) New Delhi; President, Ophthalmic Research Association, 2011; Director, WHO Collaborating Centre for Prevention of Blindness, October, 2011; Invited to deliver Prof. B.P. Kashyap Memorial Oration by the Jharkhand Ophthalmological Society, 9th Annual Conference of JHOS, Hazaribagh, 19–20 November 2011; Invited to deliver Dr Nagamani Dharmapuri Endomet Oration in Paediatric Ophthalmology by the Medical Research Foundation at Shankara Nethralaya, Chennai, 22 December 2011; Co-Chairman of the Postgraduate Medical Education Committee appointed by the Board of Governors, Medical Council of India, New Delhi, w.e.f. 30 August 2011 – till date; Chairman, Ophthalmic Education and Certification Committee, Asia Pacific Academy of Ophthalmology, 2010; Lead Guest Editor, Journal of Ophthalmology, Hindawi Publishing Corporation, USA, 2011; 2011 Lifetime Achievement Award for conquered goals in your profession and life by the United Cultural Convention, 5126 Bur Oak circle, Raleigh, USA, 2011; 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, 2011; 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, 2011; Chairman, Committee to fix the cleaning charges of J.L. Auditorium, Foyer, Quadrangle Lawn, Biophysics Lawn, etc.; Chairman, Sub Committee for considering the proposal to be put up before the meeting of Hospital Affairs Committee, Vice Chairman, Preparation of a Calendar of Publicity Event, Chairperson, Hospital Management Board, Chairman, AIIMS House Allotment Committee, Deans Committee, at AIIMS; Member, AIIMS Fund Allocation and Annual Budget Committee; Appointed by the Medical Council of India as Inspector for inspecting the Vydehi Institute of Medical Sciences and Research Centre, Bangalore, 2011; Regional Secretary, SAARC Academy of Ophthalmology, 2006; Chairman, Expert Committee established for Rajendra Nagar Super Specialty Hospital for Eye, by the State Health Society, Bihar, 2008; Regional Secretary of Asia Pacific Academy of Ophthalmology (APAO), 2005–09, 2009–13; Chairman, Credential Committee and Council Member, Asia Pacific Vitreoretinal Society, 2009.

Professor Vimla Menon: Awarded RHP Sinha Oration award by Bihar Ophthalmologic Society at Mid-term DOS Meeting in May, 2011; Awarded Dr Nilima Pawde Lifetime Achievement award by Vidarbha Ophthalmic Society in October, 2011 at Amravati at 36th Annual Conference; Keynote address in Glaucoma and Neuro-ophthalmology session at 36th Annual Conference of Vidarbha Ophthalmic Society in October 2011 at Amravati; Keynote address in Neuro-Ophthalmic Session of DOS Annual Meeting.

Professor Atul Kumar: Appointed Reviewer for “American Journal of Ophthalmology. June 2011; Appointed Member Advisory Board, DOS Times 2011; Re-Appointed as Ophthalmologist to the Hon’ble Prime Minister of India, September 2011; Appointed Chairperson – Jr. & Sr. Counselling Committee, Dr R.P. Centre, AIIMS 2011.

Professor Pradeep Sharma: Awarded Dr Daljit Singh Oration Award, Punjab Ophthalmic Society 2011 Faridkot, Punjab, 3 December 2011; Department of Science and Technology, Inspire Lecture at IIT Delhi, 29 December 2011; Chairman of Collegium of AOIS for Ped Ophthalmology and Strabismus.


Professor Radhika Tandon: Awarded Achievement Award Certificate recognizing the outstanding and valuable contribution to academy programs and services, Board of Trustees of the American Academy of Ophthalmology; Selected as member of Domain Experts Group constituted in New Millennium Indian Technology Leadership Initiative (NMITLI) Programme, Council of Scientific and Industrial Research (CSIR); Selected as member of the Joint Working Group (JWG) of Indo-US vision research programme with the Department of Biotechnology (DBT) and National Eye Institute, USA, Government of India Ministry of Science and Technology Department of Biotechnology (DBT); Nominated as an Expert to finalize the list of equipments in Ophthalmology under MSR for medical colleges, Board of Governors in Super-session of Medical Council of India; Selected member of Expert Group to discuss the report of eye camp organized by ITBP, Indian Council of Medical Research.

Professor Mahesh Chandra: Invited for assessment of standard of examination and other teaching facilities at J.S.S. Medical College, Mysore, April 2011; invited by the Era’s Medical College and Hospital Lucknow to attend Assessment for recognition of MS (Ophthalmol) Course, September 2011.

Professor M.S. Bajaj: Performed a Live Surgery on Ptosis Surgery in Mid-Term DOS conference, November 2011, New Delhi.

Dr Seema Sen: Co-author of Best Poster at Indian Association of Pathologist and Microbiologist 60th Annual Conference, 2-4 December 2011 at Patila, Punjab.

Dr Sanjay Sharma: Vice President, Delhi Chapter of Indian Radiological and Imaging Association (IRIA) 2011–12; Joint Secretary, Indian Society of Vascular and Interventional Radiology 2010- Nov 11; Treasurer, Indian Society of Vascular and Interventional Radiology November 2011–14; Member, expert advisory committee of ICMR for the purchase of equipment (digital X Ray machine and PACS) for newly established National Institute for Research in Environmental Health (NIREH), in 2011, Bhopal; Member, Cardiovascular and Interventional Radiology Society of Europe (CIRSE); Life Member, Indian College of Radiology and Imaging.; Life member, All Indian Ophthalmic Society (AIOS); Reviewer: Cardiovascular and Interventional Radiology; Catheterisation and cardiovascular Imaging; J of Vascular Interventional Radiology Indian J Urology; Clinical Imaging Sciences.

Dr Namrata Sharma: Awarded Best Video Award for “Volcanic Explosion” in Surgical Technique category at 2011 RANZCO meeting, Australia.

Dr Pradeep Venkatesh: Member, Editorial Board – Journal of Ophthalmic Case Reports (Hindwai Publications); Member, Editorial Board – Case Reports in Ophthalmic Medicine (OMICS group); Sub-Editor – Indian J of Ophthalmology.


Dr Rohit Saxena: Awarded “Achievement Award” for the year 2011 from the American Academy of Ophthalmology; Awarded Intraocular Implant and Refractive Society of India (IIRSI) Gold Medal 2012 for outstanding contribution in

Dr Vinay Gupta: Organised patient interaction for parents of Children with Congenital Glaucoma on 25 August 2011.

Dr Bhavna Chawla: Awarded UICC fellowship in Ocular Oncology at Wills Eye Institute, USA, 2011; awarded as “Best Paper” at American Academy of Ophthalmology, USA, October 2011; appointed as Co-Principal Investigator of National Retinoblastoma Registry, ICMR Project; invited as Faculty at World Ophthalmology Congress, 2012.

Dr Parijat Chandra: Reviewer: Journal of Postgraduate Medicine, Indian Journal of Ophthalmology, Eye; Member, Editorial Board, Delhi Journal of Ophthalmology; Moderator, Retina Free Paper I Session, Annual Conference of DOS, 16–17 April 2011; Examiner BSc. (Optometry) Examination, First year Prefinal. Ocular Anatomy, Ocular Physiology; Member Secretary – Computer Facility, Telemedicine, Audio-Visual Committee, Dr R.P. Centre, AIIMS, New Delhi; Member – National Surgical Skill Development Center Committee, Dr R.P. Centre, AIIMS, New Delhi; Member Medical Board – BSc Nursing Admissions – July 2011; Member Medical Board (Delhi Police case) – September 2011; Member Medical Board – MD Entrance – December 2011.

VISITING SCIENTISTS
1. Dr Jason Singh, executive Director, International Development On sight.
2. Anna Li Vecchi, Senior Manager International Development On sight.
3. Mr. George Abraham North Zone Area representative from Sight Savers.
4. Ms. Lynda Cherry and Mr. Kashinath B., Senior Country Director of Operation eye sight universal, India.
5. Dr Angayarkanni Narayanaswami, Reader, from the Ocular Biochemistry Division of Shankara Nethralaya, Chennai.
6. Tim Schotman, Chief Global Officer, Sight Life.
7. Dr Audrey Rostov, Corneal Surgeon, Seattle, USA.
HIGHLIGHTS

Jai Prakash Narayan Apex Trauma Centre, AIIMS, has established itself as a leader in providing quality patient care services, research, teaching and training. All the faculty and members of staff are working actively in providing quality care to the victims of trauma. A Total number of 50,625 patients visited casualty in year 2011–12. Among these 4,904 patients were admitted. A total of 27,542 patients attended follow up OPD. A total number of 5,026 patients were operated upon.

Besides involvement in 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. They are given training on newer methodologies for management of trauma patients including ATLS Protocols, BECC, AUTLS, etc. To update the knowledge interactive seminars, CMEs, Symposium, Conferences, have been organized. Faculty members are also involved in various research projects and have also presented the 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, in initiation of histopathology and research lab, organization of several indoor/outdoor voluntary blood donation are the other highlights of functioning of JPNATC.

EDUCATION

Elective training

<table>
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<tr>
<th>S. No.</th>
<th>Name</th>
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<th>Duration</th>
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<tr>
<td>1</td>
<td>Ms Sanah Sandhu</td>
<td>16 March 2011</td>
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<td>Mr Amitabh Chandra</td>
<td>29 March 2011</td>
<td>22 April 2011</td>
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<td>3</td>
<td>Ms Boon Yuru</td>
<td>24 May 2011</td>
<td>3 June 2011</td>
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<td>Ms Hui Li Yan Sandra</td>
<td>24 May 2011</td>
<td>3 June 2011</td>
<td>11 days</td>
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<td>Ms Jolie Hwee</td>
<td>24 May 2011</td>
<td>3 June 2011</td>
<td>11 days</td>
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<tr>
<td>6</td>
<td>Mr Sidharth Mohan</td>
<td>8 August 2011</td>
<td>2 September 2011</td>
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<td>7</td>
<td>Mr Ajit John Poovathinkal</td>
<td>16 August 2011</td>
<td>28 August 2011</td>
<td>13 days</td>
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<td>8</td>
<td>Mr Alexander Peter Glogaza</td>
<td>16 August 2011</td>
<td>28 August 2011</td>
<td>13 days</td>
</tr>
<tr>
<td>9</td>
<td>Ms Mana Malek</td>
<td>16 August 2011</td>
<td>28 August 2011</td>
<td>13 days</td>
</tr>
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<td>10</td>
<td>Mr Sebastian Hofbauer</td>
<td>16 August 2011</td>
<td>28 August 2011</td>
<td>13 days</td>
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<td>11</td>
<td>Ms Simeen Ali</td>
<td>5 September 2011</td>
<td>16 September 2011</td>
<td>12 days</td>
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<tr>
<td>12</td>
<td>Mr Ankur Dhar</td>
<td>28 November 2011</td>
<td>30 December 2011</td>
<td>33 days</td>
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<td>13</td>
<td>Ms Arushi Madan</td>
<td>5 December 2011</td>
<td>16 December 2011</td>
<td>12 days</td>
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<td>14</td>
<td>Ms Arushi Madan</td>
<td>26 December 2011</td>
<td>5 January 2012</td>
<td>11 days</td>
</tr>
</tbody>
</table>

Short term training: 185

**Babita Gupta**

Academic activities of undergraduate students, postgraduate students, and paramedical staff are being conducted by faculty in JPNATC.

**Sanjeev Bhoi**


2. President: International Council for Critical Emergency Sonography (www.icces.in)

**Certifications**

- Instructor: AIIMS Basic Emergency care Course, AIIMS–Ultrasound Trauma Life Support Course, AIIMS Disaster Ultrasound Course, PHTLS @ (Pre Hospital Trauma Life Support Course), ATLS® (Advanced Trauma Life Support) by American College of Surgeons, ACLS (Advanced Cardiac Life Support) Instructor course, Pune, India, AHLS (Advanced Hazmat Life Support Course), New Delhi, India
- Provider: USCLS Basic Level 1– Ultrasound Critical Life Support by Winfocus, India
- Provider: Sonography in emergency and traumatic illness, WINFOCUS
- Instructor: WINFOCUS
Core Academic Activities

- Writing National curriculum for disaster medicine for undergraduate and postgraduate students
- ATCN Instructor
- Emergency sonography training once in 2 months
- Emergency Nursing CME once a month
- AIIMS Basic Emergency Care Course Twice a month
- Capacity building measures

Sanjeev Lalwani
Actively involved in undergraduate and postgraduate teaching. Also involved in training of nurses, nonacademic resident doctors for medico-legal work.

Adarsh Kumar
Actively engaged in undergraduate and post-graduate teaching programme.

Arulselvi S
- Took classes for undergraduates (MBBS) students and nursing students. Took part in post graduate (MD Lab Medicine) seminars and in their thesis.
- Guidance for 4 MSc (Biotechnology), 2 BE (Biotechnology) students from various universities during short term training.
- Took classes for two batches of CRPF doctors and para medical staffs on ‘Basics of Blood Banking’ in JPNATC.
- Done a DNB appraiser duty for 6 DNB Pathology students in Max Hospital, Saket, Delhi and Northern Railway Hospital, Delhi.

Biplab Mishra
Participated in undergraduate and post graduate teaching programmes. Participated in short term training of candidates.

CMEs/WORKSHOPS/NATIONAL AND INTERNATIONAL CONFERENCES

Organized

M.C. Misra
2. Programme Convener and Course Director, Inaugural Rural Trauma Team Development Course (RTTDC), Organized at JPN Apex Trauma Centre in collaboration with American College of Surgeons, Committee on Trauma (ACS–COT), 19–20 April 2011. Course held at Comprehensive Rural Health Scheme (CRHS), Ballabgarh and Haryana. The Course has been organized first time outside USA.
3. Programme Director, Developing 4th ATLS Site to conduct ATLS Provider Course in Ahmedabad. Inaugural ATLS Provider Course (Overall 54th Provider Course in India), 24–26 May 2011.
6. Organizing Chairperson, Inaugural Pre-Hospital Trauma Life Support (PHTLS) Provider and Instructor Courses, JPNATC, AIIMS, 28 February–6 March 2012.


9. Organizing Chairman, Fourth International Conference and CME cum Live Workshops, Organized by Indian Society of Trauma and Acute Care (ISTAC®), 9–13 November 2011. The theme of conference was ‘Crisis to Care in Trauma Management’. Delivered Plenary Lecture on ‘Current Status of Trauma Education in India – The need for residency programme and job opportunities in trauma’; ‘Communication Skills for Nurses’; Chaired Plenary Session III.


11. Organizing Chairman, AIIMS–UICC Joint Workshop on Advances in Breast Oncoplasty and Sentinel Node Mapping, Dr Ramalingaswami Board Room, Organized by the Department of Surgical Disciplines, AIIMS, New Delhi, 1–2 September, 2011.

12. Course Director for
   a. 11 training courses in ‘Operative Laparoscopy – Basic and Advanced’
   b. 2 training courses in ‘Laparoscopic Suturing Skills’
   c. 2 training courses in ‘Laparoscopic Colorectal Surgery’
   d. 6 training courses in ‘Laparoscopic Hernia Surgery’
   e. 12 ATLS Provider Course at JPN Apex Trauma Centre
   f. 3 ATLS Instructor Course at JPN Apex Trauma Centre
   g. 50th ATLS and ATCN Provider Course

Babita Gupta
Workshop Director, ‘Mechanical Ventilation’ in Trauma Conference, New Delhi, November 2011.

Sanjeev Bhoi
2. Organizing Secretary, 7th WINFOCUS World Congress on Critical emergency Sonography
3. Co-Organizing Secretary,: Cost Effective use of Technology in Emergency Health Care-2011, September 2011

**AIIMS Community Emergency care Initiative** (Total Trained in Basic Emergency Care Course = 1209)
- Programme Director and course faculty: AIIMS BECC, Aziwal, Mizoram, 28–29 March 2012.

**Rural Emergency Care**
- AIIMS Community Emergency Care Initiative: Basti, Uttar Pradesh, 6–7 November 2011.

**National emergency and trauma care initiative**
- Course Director: AIIMS Basic Emergency Care Course, Guwahati, Assam, 11 May 2010.
• Guest faculty: Patterns of Blast injury, CDC Round table on Blast injury, BJ Medical Medical College, Pune.
• Trained doctors, nurses and paramedics of Sikkim and made protocols for level III trauma centres of Sikkim.

National Collaboration
• National Health Rural Mission, Manipur, Punjab, Lakshadweep and Mizoram: to disseminate AIIMS Basic Emergency care programme

Sanjeev Lalwani
1. Faculty Coordinator, AO Pelvis Course, Department of Orthopedics.
2. Co-Chairman AO-CMF Course, Centre for Dental Education and Research.
3. Faculty, Cadaveric Rhinoplasty- Department of ENT.
4. Executive Member, Trauma-2011.

Subodh Kumar

Maneesh Singhal
1. Organizing Secretary, Trauma 2011, International Conference, CME cum Live Workshop and 4th Annual Conference of the Indian Society Trauma and Acute Care (ISTAC), 12–15 November 2011.

Sushma Sagar
1. Organizing Secretary, Trauma 2011, Fourth International Conference, CME cum Live Workshop, AIIMS, New Delhi, 9–13 November 2011.
2. Organized WETS (Wound Evaluation and Treatment Skill) course at JPN Apex Trauma Centre, AIIMS, 28 March–3 April 2012.

Biplab Mishra
1. Organizes Management of Acute Wounds in ED (MAWE) course.
2. Participates in ATLS courses as faculty and Course Director.
3. Participates in Wound Evaluation and Treatment Skills (WETS) course.

Amit Gupta
3. Course Director, Advanced Trauma Life Support Course ATLS® of American College of Surgeons – Committee on Trauma. ATLS–India Programme. (2010 – till date).
4. Faculty, Advanced Trauma Life Support Course ATLS® of American College of Surgeons – Committee on Trauma. ATLS–India Programme. (April 2009–till date).
6. Faculty, Basic Plastic and Reconstructive Surgery Course in Trauma (BPRS Course), Developed by Department of Trauma Surgery, JPN Apex Trauma Centre, AIIMS, New Delhi, (2011–till date).
7. Faculty, Management of Acute Wounds in Emergency Course (MAWE) – Developed by Department of Trauma Surgery, JPN Apex Trauma Centre, AIIMS, New Delhi, (2010–till date).
8. Instructor, National Trauma Management Course (NTMC) of AOT – IATSIC – ISS – International Association of Trauma Surgery and Surgical Critical Care, (2006–till date).

Deepak Agrawal
1. Course Director, AIIMS Ultrasound Trauma Course (AUTLS) and held courses in various parts of India during 2011–12.
2. Course Director for AIIMS BECC course and held 7 courses in various parts of India during 2011–12 in partnership with NHRM (National Rural Health Mission).
3. Organising Secretary, ‘Management of complex spinal trauma – live operative workshop and symposium’, 27 August 2011, JPNATC, AIIMS.

Deepak Gupta
1. Organizing Secretary, First CME – Symposium on ICP monitoring in traumatic brain injury at JPN Apex Trauma Centre, New Delhi, 15 March 2012.
2. Organising Secretary of Indian Society of Paediatric Neurosurgery, Annual Conference and ISPN CME Course 2012, AIIMS, New Delhi.
3. Organised monthly meeting of Delhi Neurological Association (DNA), AIIMS (10 March 2012).

Sumit Sinha
1. Organizing Secretary, AO Spine tumour week, AIIMS, 29 September–3 October 2011.
2. Organizing Secretary, BRACHIALCON-AIIMS-2011, JPNA Trauma Centre, 19–21 December 2011.

Lectures delivered
M.C. Misra: 28 Babita Gupta: 6 Sanjeev Bhoi: 8
Sanjeev Lalwani: 8 Adarsh Kumar: 4 S Arulselvi: 2
Shivanand Gamangatti: 9 Atin Kumar: 12 Amit Gupta: 15
Biplab Mishra: 9 Subodh Kumar: 24 Sushma Sagar: 12
Deepak Gupta: 7 Sumit Sinha: 2 Vijay Sharma: 2
Vivek Trikha: 11
Oral/Posters Presentations

Sanjeev Bhoi: 12  Sanjeev Lalwani: 4  Adarsh Kumar: 1
Arulselvi S: 14  Purva Mathur: 14  Deepak Agrawal: 8
Deepak Gupta: 3  Sumit Sinha: 2  Vijay Sharma: 2
Shivanand Gamanagatti and Atin Kumar: 14

RESEARCH

Funded projects

Ongoing

2. 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, Sanjeev Bhoi, ICMR, 2012.
3. Molecular and epidemiological study of Streptococcus pyogenes in India, Purva Mathur, ICMR, 2008–12, Rs 17,06,949.
4. Development and implementation of an automated electronic surveillance system for hospital acquired infections at a tertiary care hospital, Purva Mathur, ICMR, Rs 15,26,906.
5. Study of novel chemokine RANTES (Regulated upon Activation, Normal T cell Expressed, and Secreted) levels in plasma, cerebrospinal fluid and contused brain tissues as a marker of immune activation in traumatic brain injury (TBI) patients, S Arulselvi, ICMR, 2010–12.
7. Evaluation of early prediction markers of DIC in trauma patients, S Arulselvi, AIIMS, June 2012.
8. Comparison of sustained silver ion releasing foam based dressing with conventional paraffin gauze dressing in donor area, Maneesh Singhal.
9. Sericin based value added finishes for medical garments sportswear (collaboration with Department of Textiles, IIT Delhi), DBT, 2011–13, Rs 34 lakhs.
11. Development of wound registry at trauma centre, AIIMS, AIIMS, Maneesh Singhal/Subodh Kumar/SushmaSagar Rs 1 lakh.
15. Eurotherm 3235 Trial: Randomized, controlled trial on induced hypothermia in closed traumatic brain injury (TBI) in adults, Deepak Gupta.
16. Open-label-dose confirmation study of interstitial 131I-chTNT-1-B Mab (Cotara) for the treatment of glioblastoma multiforme (GBM) at first relapse: A multicentric prospective phase II study, Deepak Gupta
17. Improving Indo-US traumatic brain injury outcomes—Collaborative head injury and adherence to guidelines (CHIRAG) study, NIH approved study, Deepak Gupta.

18. Intratumoral immunotherapy (AP12009 G005)—study in recurrent grade III astrocytoma (SAPPHIRE study), Deepak Gupta.


20. Establishment of a cadaveric dissection facility at the Jai Prakash Narain Apex Trauma Centre, Sumit Sinha, ICMR.

21. A randomized placebo controlled trial (Factorial design) of progesterone with or without hypothermia in subjects with acute severe traumatic brain injury, Sumit Sinha, DBT.

22. A randomized, placebo-controlled study to investigate the efficacy of progesterone in patients with severe traumatic brain injury, Sumit Sinha, AIIMS.

_Completed_

1. Qualitative and quantitative assessment of aluminium and zinc using trace metal analyser in biological samples of fatal poisonings reported at mortuary, Adarsh Kumar, AIIMS, New Delhi.

2. Evaluation of coagulation status among North Indian Blood Donors using thromboelastography and conventional methods’ S Arulselvi, AIIMS.

3. To compare the effectiveness of VAC (Vacuum Assisted Closure) therapy to conventional treatment of Amputation stump. AIIMS, Sushma Sagar/Maneesh Singhal/Subodh Kumar, 2011–12, Rs 1 lakh.

4. Role of Simvastatin in prevention of vasospasm and improving functional outcome after aneurysmal Sub-arachnoid haemorrhage: A Prospective Randomized Double blind Placebo controlled trial. Sumit Sinha, AIIMS, (Intramural research grant).

Departmental projects

_Completed_

1. Qualitative and quantitative extraction of DNA from decomposed tissues.

2. Comparison of efficacy and safety of thoracic epidural analgesia with bupivacaine and opioid in two different concentrations in thoracic trauma.

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.

5. Retrospective analysis of post trauma renal failure.

6. A study of the causes and pathologic features of traumatic deaths in Department of Surgery, Jai Prakash Narayan Apex Trauma Centre, AIIMS.

7. Epidemiology and trauma scores in patients presenting to level-1 trauma centre.


9. Clinical utility of breast ultrasound as an adjunct to mammography in diagnostic breast imaging.

10. Percutaneous radiofrequency ablation of painful benign bone tumors and metastasis.
Ongoing

1. A comparative study for the ‘Determination of postmortem interval by the analysis of the Cerebrospinal Fluid and Vitreous humour in South Delhi region’.

2. A randomised controlled trail of early versus late tracheostomy in critically ill trauma patients.

3. A randomised, prospective, controlled trial to study the role of parenteral glutamine (Gln) and omega-3 fatty acid supplemented total parenteral nutrition (TPN) or enteral nutrition in the clinical outcome in critically ill trauma patients in the ICU.

4. Assessing quality of blood products for transfusion using TEG (Thrombo-elastography) and XE 2100 (fully automated hematology analyser).

5. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis.

6. Blood therapy in trauma pts and their impact on prognosis before and after the use of TEG.

7. Cholesterol levels on admission day as determinant of development of MOF/ VAP.

8. Epidemiological study of patients of road traffic injuries [RTI] attending emergency department of Jai Prakash Narayan Apex Trauma Centre [JPNATC], AIIMS, New Delhi.


12. Influence of transfusion in the outcome of trauma patients.


14. MDCT evaluation of solid retroperitoneal organ injuries in blunt abdominal trauma with limited MRI correlation.

15. MR evaluation of vertebral lesions.

16. MRI evaluation of adult traumatic brachial plexus injuries.

17. Pre-operative Embolization of Bone Tumors.

18. 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.

19. Retrospective and prospective analysis of magnitude, severity and outcome of pelvic fracture at a level -1 trauma centre.

20. Retrospective and prospective analysis of magnitude, severity and outcome of chest trauma at a level-1 trauma centre.

21. Retrospective and prospective evaluation of epidemiology and magnitude, severity, outcome of complicated soft tissue injuries in a level 1 trauma centre.

22. Retrospective and prospective evaluation of magnitude, severity and outcome of traumatic hepato-biliary and pancreatic injury in a level I trauma centre.

23. Role of MDCT in evaluation of traumatic liver injuries.

24. Role of perfusion CT in pancreatic pathology.

25. Role of perfusion CT in predicting outcome in mild head injury.
27. Study of the economic profile of trauma care in a level I trauma centre.
28. The causes and pathologic features of traumatic deaths (analysis phase).
29. The feasibility of management of occult pneumothoarces without intercostal drainage tube (analysis phase).
30. The role of T cell apoptosis, neurotrophins, cytokines, and genetic polymorphisms in clinical manifestation of depression in adolescents.
31. 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 (analysis phase).
32. The study of mitochondrial DNA mutations and reactive oxygen species in Parkinson’s disease.
33. To study epidemiology and trauma scoring in patients presenting in a level 1 Trauma centre.
34. To study the magnitude, severity and outcome of peripheral vascular injuries at Apex Trauma Centre, 2012.
35. To study the role of recombinant human erythropoietin in trauma victims with hemorrhagic shock: An in vitro approach through stem cell differentiation.
37. US and MR evaluation of peripheral neuropathies of upper extremity.

**Collaborative projects**

*Completed*

2. A randomized controlled study of comparison of single stage vs two stage treatment for patients with gall stones and common bile duct stones’, (Department of Gastroenterology and Community Medicine).
3. Construction workers of JNU: An Occupational health related approach, carried out in the School of Environmental Sciences, Jawaharlal Nehru University, New Delhi. (Collaborative with JNU, Delhi).
4. Chronic groin pain, testicular function and quality of life after laparoscopic and open inguinal hernia repair, (Department of Anaesthesia, Radiology, Reproductive Biology and Psychiatry).
5. Chronic groin pain and quality of life after laparoscopic inguinal hernia repair using heavy weight vs light weight meshes’, (Department of Anaesthesia and Psychiatry).
7. Comparison of long term outcome and quality of life after laparoscopic incisional and ventral hernia repair with suture or tacker mesh fixation’, (Department of Anaesthesia and Psychiatry).
8. Effect of continuous positive airway pressure on cardiovascular biomarkers in patients with obstructive sleep apnoea (with Department of Medicine).
10. Epidemiological study in the pathway of Maxillofacial Fractures seen at a tertiary care hospital of North India, (Department of Oral and Maxillofacial Surgery).
11. To evaluate the endovenous laser ablation in the treatment of varicose veins’, (Department of Cardiac Radiology).
12. To study Epidemiology and Trauma scoring in patients presenting in Level 1 Trauma Centre, (Department of Orthopaedics and Emergency Medicine).
13. Plain radiograph and MR imaging of patients with tennis elbow (Department of Orthopedics).
14. MDCT evaluation of spinal trauma: preoperative an post operative evaluation (Department of Orthopedics).
15. Liver stiffness estimation by transient elastography in cirrhosis and non-cirrhotic portal hypertension (Department of Gastroenterology).
16. MRI based protocol for the management of infected pancreatic necrosis (Department of Gastroenterology).
17. Ultrasound evaluation of cervical lymph nodes in patients with carcinoma of esophagus (Department of GI surgery).
18. Comparative study of foot pressure force analysis in patients with plantar fascitis treated with diclofenac alone and diclofenac with ultrasonic therapy (Department of Physical Medicine and Rehabilitation).
19. Management strategies in acute dorsal and lumbar spine injuries.
20. To study the effect of cricoids split with or without rib grafting in cases of subglottic stenosis for laryngotracheal stenosis (with Department of Otorhinolaryngology).
21. Study of non-alcoholic fatty liver disease in CAD in Asian Indians (Department of Medicine).
22. Optic nerve sheath diameter measurement for raised ICP in severe head injury patients (Department of Neurosurgery).

**Ongoing**
1. A prospective randomized controlled trial comparing laparoscopic and endoscopic drainage of pseudocyst of pancreas (Department of Surgery)
3. A prospective study to compare the outcomes after primary laparoscopic exploraton of common bile duct and laparoscopic exploration following failed endoscopic stone extraction in patients with concomitant gall stones and common bile duct stones, (Department of Gastroenterology).
4. A Randomised Controlled Trail of Early versus Late Tracheostomy in Critically ill Trauma Patients, AIIMS.
5. A study of quality of life in patients before and after successful renal transplantation in India (Department of Psychiatry).
6. A study of the causes and pathologic features of traumatic deaths in Department of Surgery, Jai Prakash Narayam Apex Trauma Centre, AIIMS.
7. Analgesic efficacy of Transversus abdominis plane block for laparoscopic inguinal hernia repair in adult patients: a randomized controlled trial’.
8. Assessment of response of hepatocellular carcinoma to transarterial chemoembolisation by using magnetic resonance imaging. (Department of Gastroenterology).
10. Clinico-pathological study of antral mucosal changes in patients with ethmoidal polypi (Department of Otorhinolaryngology).
11. Comparison of single stage versus two stage treatment of patients with common bile duct stones and gall stones – a randomized controlled study.
12. Costing of OT services at JPNA Trauma Centre. In collaboration with Department of Hospital Administration.
13. Early detection of disseminated intravascular coagulation (DIC) by thromboelastography in patients with malaria. (Department of Microbiology).


15. Evaluation of injury pattern and results of medical and surgical treatment in cases with traumatic and iatrogenic facial nerve injury (Department of Otorhinolaryngology).

16. Flow cytometric haematology analyser in rapid automated diagnosis of malaria (Department of Microbiology).

17. Minimally invasive necrosectomy in pancreatitis (Department of GI surgery).

18. Multidetector CT scan evaluation of retroperitoneal solid organ injury with limited MRI correlation.

19. Prospective randomized controlled blinded study to evaluate the effect of short term focused training programme in laparoscopy on operative room performance of surgery resident.

20. 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, AIIMS, (Department of Anaesthesia).

21. Randomized Control Trial of N-Acetylcysteine in Prevention of Renal Failure in Hepatocellular Carcinoma patients undergoing Transarterial Chemotherapy and Transarterial Chemoembolisation (Department of Gastroenterology).

22. Randomized control trial of Oral chemotherapy versus supportive therapy in the treatment of Unresectable Hepatocellular carcinoma (Department of Gastroenterology).

23. Randomized control trial of Transarterial chemoembolisation (TACE) versus TACE plus oral chemotherapy in the treatment of Unresectable Hepatocellular carcinoma (Department of Gastroenterology).

24. Randomized control trial of Transarterial chemotherapy (TAC) versus Oral chemotherapy in the treatment of Unresectable Hepatocellular carcinoma (Department of Gastroenterology).

25. Randomized controlled trial comparing laparoscopic and endoscopic drainage of pseudocyst of pancreas (Department of Gastroenterology and Radiology).

26. Randomized controlled trial of Radiofrequency ablation versus Percutaneous acetic therapy for the treatment of small hepatocellular carcinoma (Department of Gastroenterology).

27. Retrospective and prospective evaluation of Epidemiology and Magnitude, severity, Outcomes of Complicated Soft Tissue Injuries in a Level 1 Trauma Centre.

28. Effect of N-Acetylcysteine on Oxidative stress, endothelial dysfunction and carotid intimal media thickness in chronic peritoneal dialysis patients – An open labeled randomized trial (Department of Nephrology).

29. Retrospective and prospective study of magnitude, severity, and outcome of chest trauma in a Level I trauma centre, (Department of Anaesthesia and Radiodiagnosis).

30. Retrospective and prospective study of magnitude, severity, and outcome of traumatic hepatobiliary and pancreatic injury in a Level I trauma centre (Department of Gastroenterology and Radiology).

31. Role of contrast enhanced ultrasound in the diagnosis and for assessment of therapeutic response in patients of hepatocellular carcinoma (Department of Gastroenterology).

32. Role of MDCT in Evaluation of Traumatic Liver Injuries (Department of Radiodiagnosis).

33. Role of VHA (Visco elastic hemostatic assay–a point of care device) in severely injured trauma patients. (Department of Laboratory Medicine).
34. Safety and efficacy of autologous stem cells in prevention of amputation in patients with chronic critical limb ischemia (Department of Surgery).

35. Study of Interleukin – 10 level expression in breast cancer and its clinicopathological co-relation.

36. Study to evaluate the effect of training programme involving animal models/tissues on operative room performance of general surgery residents.

37. 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, (Department of Radiodiagnosis).

38. To study Magnitude, severity, Outcomes of Peripheral Vascular Injuries in a Level 1 Trauma Centre.

PUBLICATIONS

Journals: 113
Abstracts: 53

Chapters in Books/Books and Monographs: 21

PATIENT CARE

Laboratory Medicine

Total tests done, 1 April 2011–31 March 2012: 8,57,274

1. Haematology
   - Haemoglobin 38,700 TLC 38,700
   - Differential count 22,672 HCT 38,700
   - RBC 38,700 MCH 38,700
   - MCHC: 38,700 MCV 38,700
   - RDW 38,700 Platelet count 38,700
   - Reticulocyte count 13,292 ESR 5,124
   - RBC morphology 1,805 Blood parasite 4,863

Total 3,96,056

Coagulation
   - PT 20,021 APTT 20,021
   - TT 1,910 Fibrinogen 1,928
   - Thromboelastography (TEG) 1,391 D-dimer 1,842

Total 47,113

2. Clinical Pathology
   - Urine routine and microscopy 3,485 Urine myoglobin 269
   - CSF microscopy 2,412 Fat globules 61

Total 6,227

Total tests done in haematology section 4,49,396

3. Biochemistry
   - Sugar 8,896 Urea 32,607
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<th>Values</th>
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<tbody>
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<td>Total protein</td>
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<td>Drain fluid amylase</td>
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<td>Urinary Sodium</td>
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4. Microbiology

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AIIMS 2011-2012 / 339
Radiodiagnosis
Details of Investigations, 1 April 2011–31 March 2012

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<td>4.</td>
<td>Ultrasound including Doppler and guided interventions</td>
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<tr>
<td>5.</td>
<td>Digital subtraction angiography including interventional procedures</td>
<td>82</td>
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<td>7.</td>
<td>Fluoroscopy guided procedures</td>
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Forensic Medicine
1. Medicolegal postmortems done: 896
2. Casualty services: The department provided round the clock cover to the casualty for complicated medicolegal 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 the process of developing toxicology laboratory facilities.

BLOOD BANK
Blood donation statistics, JPNATC, AIIMS

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<tr>
<th>Month</th>
<th>Donors screened</th>
<th>Donors Bled</th>
<th>Replacement donors</th>
<th>Voluntary donors</th>
<th>Indoor voluntary donor</th>
<th>Outdoor voluntary donor</th>
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<td></td>
<td>Total Men</td>
<td>Women</td>
<td>Total Men</td>
<td>Women</td>
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<td>Women</td>
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Number of voluntary blood donation camps 10
### Component separation laboratory

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<th>Fresh frozen plasma prepared</th>
<th>Platelets prepared</th>
<th>Cryoprecipitate prepared</th>
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**Quality control of blood and components: 1% of all units**

### Infectious Marker Laboratory and Donor Counselling

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<th>Month</th>
<th>HIV Done</th>
<th>HIV Reactive</th>
<th>HBsAg Done</th>
<th>HBsAg Reactive</th>
<th>HCV Done</th>
<th>HCV Reactive</th>
<th>VDRL Done</th>
<th>VDRL Reactive</th>
<th>MP Done</th>
<th>MP reactive</th>
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Total donors reported and counseled 86
Total donors referred to VCTC 9
### Grouping Laboratory

Number of donors and patient grouping done

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<th>Month</th>
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<td>822</td>
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<td>1711</td>
</tr>
<tr>
<td>Nov 11</td>
<td>858</td>
<td>869</td>
<td>1727</td>
</tr>
<tr>
<td>Dec 11</td>
<td>865</td>
<td>796</td>
<td>1661</td>
</tr>
<tr>
<td>Jan 12</td>
<td>754</td>
<td>836</td>
<td>1590</td>
</tr>
<tr>
<td>Feb 12</td>
<td>752</td>
<td>915</td>
<td>1667</td>
</tr>
<tr>
<td>March 12</td>
<td>888</td>
<td>913</td>
<td>1801</td>
</tr>
<tr>
<td>Total</td>
<td>9257</td>
<td>9847</td>
<td>19104</td>
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### Emergency Issue

<table>
<thead>
<tr>
<th>Month</th>
<th>Samples received</th>
<th>No. of cross-match done</th>
<th>Packed RBC issued</th>
<th>FFP Issued</th>
<th>PRC Issued</th>
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<tbody>
<tr>
<td>Apr 11</td>
<td>765</td>
<td>1894</td>
<td>672</td>
<td>441</td>
<td>543</td>
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<tr>
<td>May 11</td>
<td>818</td>
<td>2010</td>
<td>796</td>
<td>510</td>
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<td>Jun 11</td>
<td>841</td>
<td>1861</td>
<td>800</td>
<td>995</td>
<td>551</td>
</tr>
<tr>
<td>Jul 11</td>
<td>533</td>
<td>1335</td>
<td>672</td>
<td>590</td>
<td>455</td>
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<tr>
<td>Aug 11</td>
<td>804</td>
<td>1858</td>
<td>717</td>
<td>721</td>
<td>552</td>
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<td>Sep 11</td>
<td>868</td>
<td>2145</td>
<td>853</td>
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<td>Oct 11</td>
<td>889</td>
<td>2188</td>
<td>881</td>
<td>631</td>
<td>603</td>
</tr>
<tr>
<td>Nov 11</td>
<td>869</td>
<td>2095</td>
<td>865</td>
<td>755</td>
<td>753</td>
</tr>
<tr>
<td>Dec 11</td>
<td>796</td>
<td>1929</td>
<td>866</td>
<td>946</td>
<td>644</td>
</tr>
<tr>
<td>Jan 12</td>
<td>836</td>
<td>1943</td>
<td>797</td>
<td>582</td>
<td>513</td>
</tr>
<tr>
<td>Feb 12</td>
<td>915</td>
<td>2192</td>
<td>814</td>
<td>762</td>
<td>616</td>
</tr>
<tr>
<td>Mar 12</td>
<td>913</td>
<td>2146</td>
<td>806</td>
<td>652</td>
<td>514</td>
</tr>
<tr>
<td>Total</td>
<td>9847</td>
<td>23596</td>
<td>9539</td>
<td>8215</td>
<td>7118</td>
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Blood and components issued to other hospital blood banks

<table>
<thead>
<tr>
<th>Month</th>
<th>Blood</th>
<th>FFP</th>
<th>Platelet</th>
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<tr>
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<td>35</td>
<td>50</td>
<td>153</td>
</tr>
<tr>
<td>May 11</td>
<td>40</td>
<td>55</td>
<td>289</td>
</tr>
<tr>
<td>June 11</td>
<td>76</td>
<td>375</td>
<td>75</td>
</tr>
<tr>
<td>July 11</td>
<td>28</td>
<td>145</td>
<td>160</td>
</tr>
<tr>
<td>Aug 11</td>
<td>21</td>
<td>145</td>
<td>139</td>
</tr>
<tr>
<td>Sep 11</td>
<td>20</td>
<td>10</td>
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<tr>
<td>Oct 11</td>
<td>40</td>
<td>60</td>
<td>197</td>
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<td>Nov 11</td>
<td>18</td>
<td>115</td>
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<td>Dec 11</td>
<td>71</td>
<td>395</td>
<td>238</td>
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<td>Jan 12</td>
<td>31</td>
<td>nil</td>
<td>97</td>
</tr>
<tr>
<td>Feb 12</td>
<td>17</td>
<td>100</td>
<td>155</td>
</tr>
<tr>
<td>March 12</td>
<td>2</td>
<td>nil</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>399</td>
<td>1450</td>
<td>1892</td>
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</tbody>
</table>

Annual Statistical Report for 2011 (January–December)

Casualty attendance report for 2011

| Total cases | 49894 |
| Medicolegal cases | 21001 |
| Non-medicolegal cases | 28893 |
| Males | 38212 |
| Females | 11682 |

Criticality

- Yellow: 9888
- Green: 35964
- Red: 2990
- No area: 1052

Age (in years)

- 0–12: 5766
- 13–20: 7201
- 21–30: 16902
- 31–40: 9539
- 41–50: 5570
- 51–60: 2856
- 60 and above: 2060
- Total Tr/Dis: 45080

Based upon data received from CRC
### Casualty and admission data for 2011

<table>
<thead>
<tr>
<th>State</th>
<th>Casualty attendance</th>
<th>Admissions</th>
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<td></td>
<td>Regular</td>
<td>Short</td>
</tr>
<tr>
<td>Delhi</td>
<td>44426</td>
<td>2996</td>
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<tr>
<td>UP</td>
<td>2264</td>
<td>884</td>
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<tr>
<td>Haryana</td>
<td>1970</td>
<td>476</td>
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<tr>
<td>Punjab</td>
<td>41</td>
<td>7</td>
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<tr>
<td>Rajasthan</td>
<td>257</td>
<td>70</td>
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<tr>
<td>Gujarat</td>
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<tr>
<td>Andhra Pradesh</td>
<td>8</td>
<td>3</td>
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<tr>
<td>Madhya Pradesh</td>
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<tr>
<td>Maharashtra</td>
<td>13</td>
<td>8</td>
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<tr>
<td>Uttarakhand</td>
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<td>45</td>
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<tr>
<td>Bihar</td>
<td>397</td>
<td>132</td>
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<tr>
<td>Jharkhand</td>
<td>60</td>
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<td>Jammu and Kashmir</td>
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<td>West Bengal</td>
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<tr>
<td>Orissa</td>
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<td>14</td>
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<tr>
<td>Karnataka</td>
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<td>0</td>
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<tr>
<td>Tamil Nadu</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Others</td>
<td>159</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total cases</strong></td>
<td><strong>49894</strong></td>
<td><strong>4727</strong></td>
</tr>
</tbody>
</table>

Based upon data received from CRC

The complete statistical data for the period is as under.

I. Total bed strength 186
   - Ward beds 120
   - ICU beds 2nd floor 16
   - ICU beds 3rd floor 20
   - Triage 30

II. Total casualty attendance 50625
    - Average per day 138
    - Total admissions 4904
    - Average length of stay 11 days
    - Total follow-up OPD cases 27452
III Total cases in casualty
   Males 38758  Females 11867  
   MLC 21417  NMLC 29208

IV Total follow-up OPD cases
   New 11907  Old (Re-visit) 15545
   Males 21809  Females 5643

Specialty-wise break-up
   Orthopaedics 14108  Surgery 7778
   Neurosurgery 5566  Emergency medicine 0

V Total admissions
   Specialty-wise break-up
   Orthopaedics 1442  Surgery 1726
   Neurosurgery 1734  Emergency medicine 2

VI Total operations performed
   Specialty-wise break-up
   Orthopaedics 1819  Surgery 1888
   Neurosurgery 1319

VII Total deaths
   Deaths under 48 hours 581  Deaths over 48 hours 343
   Gross death rate 20%  Net death rate 8%
   Bed occupancy rate 81%

   Average length of stay 11 days
   Bed turnover rate 26 patients/bed/month

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 provides 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 smooth-lining 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 Papers 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 government hospital that started online registration of deaths at NDMC since 2008 and is running successfully; 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 neighboring states. There was huge increase in number of summons from previous year and total 1575 (almost double from previous year) summons was 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 67 such cases were disposed of during this period. During the preceding year MRS has entertained police requests for issuing X-rays; and coordinatting for collection of X-rays from Radio-diagnosis unit and handing over to police. Total 1650 such cases were disposed off during this period. MRS is furthermore involved in issuing information (for assistance/ compensation, etc.) to Delhi State/Central Government pertaining to the patients/victims attended JPNATC during the year. MRS is furthermore involved in issuing information (for assistance/ compensation, etc.) to Delhi State/Central Government 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 40 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 19,000 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 about 7,000 cases.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor M.C. Misra was President, Society of Endoscopic and Laparoscopic Surgeons of India (SELSI), 2011; Member of the Expert Committee, constituted by the Ministry of Health and Family Welfare, –Medical Device Advisory Committee (MDAC) - Miscellaneous Devices to advise DCG (I) in matters related to review and regulatory approval of New Medical Devices and Clinical Trials (except for Investigational New Medical Devices) of Miscellaneous Medical Devices; External Examiner at IMRCS Examination, Sir Ganga Ram Hospital, New Delhi, 5–9 September 2011 (appointed by the Royal College of Physicians and Surgeons, Glasgow, UK); Nominated Member, Working Group for Development of the National Action Plan for Hospital Safety, constituted by the National Disaster Management Authority; Appointed by Medical Council of India for assessment of Government Medical College, Chandigarh, to start PG Course in General Surgery; Nominated Member, Division of NCD, ICMR Headquarters, New Delhi to participate in Meeting of South Asian Forum for Health Research (SAFHeR), 5–7 February 2012; Leader of the Team from AIIMS to visit Kathmandu, Nepal, for a Symposium on Trauma: Global Epidemic and to facilitate functioning of upcoming Nepal–Bharat Maitri Emergency and Trauma Centre in Kathmandu built by HSCC, 24–26 February 2012; Nominated for Fellowship Advisory Panel, discipline of Plastic Surgery for advising Credentials Committee, National Academy of Medical Sciences, New Delhi for selection of candidates for Membership of the Academy for the year 2012; Awarded Honorary FRCS (Fellow of Royal College of Physicians and Surgeons, Glasgow), 14 March 2012; Chairman, Project Review Committee, Indian Council of Medical Research to discuss various proposals submitted for consideration, 19 March 2012; President, Delhi State Chapter, Association of Surgeons of India, 2012; President, Indian Society of Trauma and Acute Care (ISTAC), 2012; National Resource Expert to Develop a Plan on ‘Decade of Action for Road Safety 2011–2020, A Workshop Organized by Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India, and WHO SEARO, New Delhi, Vigyan Bhawan Annex, New Delhi, 26–27 April 2011; Nominated Member, Thematic Sub-Group on Disaster Management, constituted by the Directorate General of Health Services, Emergency Medical Relief, Ministry of Health and Family Welfare, Government of India; Nominated Member, Sub-Group for Establishment of Trauma Care facilities on National Highways on Golden Quadrilateral North-East and South-West Corridor (Trauma Care); National Guest Faculty, 1st International Conference and Live Workshop on Advanced Laparoscopy and Robotics, 28 April–1 May April 2011, The Westin International Convention Centre, Koregaon Park, Pune; Performed Live Demonstration of Laparoscopic Incisional Hernia Repair, 30 April 2011; TED repairing of hernia, live operative workshop, XXIX Annual Conference of Northern

Dr Babita Gupta conducted a panel discussion on management of airway in trauma patients in 2nd International Conference of All India Difficult Airway Society, November 2011; Trauma and burns in FCCS course, New Delhi, November 2011; Issues in ‘Airway Management in Trauma’ MAMC, February 2012; Conducted skill station on Rigid fiberoscopy in Airway, MAMC, February 2012; Conducted skill station on Cricothyridotomy in 2nd International Conference of All India Difficult Airway Society, November 2011; Conducted panel discussion, ‘Issues in trauma management’, ISA Conference, Mumbai, December 2011; Chairperson, ‘Trauma Critical Care’ session, Trauma 2011, New Delhi; Nurse’s CME on Neurocritical Care, AIIMS, March 2012.

Dr Arulselvi S received best paper award for co-authoring the study titled ‘Flowcytometric haematology analyser for rapid automated diagnosis of malaria’, 4th Vellore cell counter series, 16–18 September 2011, Hotel Surya Sofitel, New Delhi; Best paper award for co-authoring the study titled ‘Coagulopathy as a prognostic predictor following isolated acute traumatic brain injury – A prospective study’ at ‘Trauma 2011’ International ongress and Fourth Annual Conference of ISTAC, AIIMS, 9–13 November 2011; Best poster award for co-authoring the study titled ‘Post traumatic? Post infective? Loose bodies in elbow joint – a case report’, at ‘Trauma 2011’ International Congress and Fourth Annual Conference of ISTAC, AIIMS, 9–13 November 2011; A Maximum surgical blood ordering schedule (MSBOS) has been prepared for all trauma surgeries done in Surgery, Orthopedics and Neurosurgery Departments of Trauma Centre, AIIMS.

Dr Adarsh Kumar was awarded first prize for poster titled ‘Café Coronary Syndrome in young adult’, Karthik Krishna, Adarsh Kumar, DN Bhardwaj, 8th Annual Conference of South India Medicolegal Association ‘SIMLA-2011’, Kozhikode, Kerala, 2–4 September 2011; Commonwealth Academic Staff Fellowship at University of Dundee, Scotland, UK for period of 6 months, 5 September 2011 to 4 March 2012; Awarded Fellowship of Royal Society of Medicine, London, UK, under section of ‘Clinical Forensic and Legal Medicine’, December 2011; Visiting Faculty at Anglia Ruskin University, Cambridge, UK, 24 February 2012.

Dr Amit Gupta was awarded Fellowship of the International College of Laparoscopic Surgeons (FCLS), March 2012; WHO Travel fellowship to attend 3rd International Training Programme on Pre-hospital Care, 11–14 October 2011, Trauma and Critical Care Centre, KhonKaen Regional Hospital, KhonKaen, Thailand; Member Core Group: National guidelines for pre-hospital trauma care and management of trauma victims. WHO and Ministry of Health and Family Welfare, Government of India, 2011; Member, Committee to draft Twelfth Five-year Plan for Trauma Care Services (Ministry of Health and Family Welfare), under Directorate General of Health Services, Government of India, 2011; Scientific Chair and Faculty – TRAUMA 2011, International Congress, CME cum Live Workshop and Second Annual Conference of the Indian Society Trauma and Acute Care (ISTAC) 9–13 November 2011; Scientific Presenter, 17th World Congress of Disaster and Emergency Medicine, Beijing, China, 31 May–3 June 2011; Expert in Asia Pacific Meeting on Simulation in Healthcare, Hong Kong, China, 19–22 May 2011.

Dr Biplab Mishra was elected Joint Secretary, Indian Society of Trauma and Acute Care (ISTAC), 2011–12; Awarded fellowship of International College of Laparoscopic Surgeons, 16 March 2012; Selected Course Director, ATLS course.

Dr Maneesh Singhal was Awarded Fellowship of College of Laparoscopic Surgeons Society (FCLS), March 2012; Treasurer, Indian Society for Trauma and Acute Care, November 2011; Accredited Instructor, Pre-hospital Trauma Life Support course awarded by NAEMT and ACS, USA, March 2012.

Dr Subodh Kumar was Awarded Fellowship of College of Laparoscopic Surgeons Society (FCLS) March 2012; Vice-President of Indian Society for Trauma and Acute Care, November 2011; Accredited as international Course Director and Instructor for Pre-hospital Trauma Life Support course awarded by NAEMT and ACS, USA, March 2012.
2012; Accredited as international Course Director and Instructor for Rural Trauma Team Development course awarded by COT- ACS, USA, April 2011.

**Dr Sushma Sagar** was Awarded Fellowship of International College of Laparoscopic Surgeons (FICLS), Endosurg – 2012, AIIMS; Best Poster Award at Trauma 2011, International Conference, CME cum Live Workshop and Inaugural Conference of the Indian Society Trauma and Acute Care (ISTAC), November 2011. A Day of clinical wound surveillance nurse in a busy trauma centre; Awarded Best Poster Award, Trauma 2011, International Conference, CME cum Live Workshop and Inaugural Conference of the Indian Society Trauma and Acute Care (ISTAC), November 2011. Haemorrhage Control beyond ATLS Protocol, Second best poster; Awarded Best Paper Award, Trauma 2011, International Conference, CME cum Live Workshop and Inaugural conference of the Indian Society Trauma and Acute Care (ISTAC), November 2011. Traumatic diaphragmatic injury: A marker of serious injury challenging trauma surgeons. Second best paper; Awarded status of Course Director for Advanced Trauma Life Support (ATLS) course, India certified by the American College of Surgeons Committee on Trauma; Associate Editor, Journal of Society for Wound Care and Research (JWSCR) (2011); Member, Core teaching faculty group of National Institute of Disaster Management; Member, Committee for formulating guidelines for School Safety Programme at NIDM (2011).

**Dr Vivek Trikha** was Editor, Journal of Clinical Orthopaedics and Trauma, Official Publication of Delhi Orthopaedics Association; Assistant Editor, Indian Journal of Orthopaedics, Indexed journal of Orthopaedics from India, 2012–14.

**Dr Deepak Gupta** was given the young Investigator Award for the paper entitled Development of neurotrauma unit in a national Level I Apex Trauma Centre in India, National Neurotrauma Conference, Shanghai, China, 27–30 April 2011; International Travelling Fellowship award to attend International Society of Stereotactic and Functional Neurosurgery by WFNS (International), Capetown, South Africa, November 2011; Associate Editor, Indian Journal of Spine Surgery; Member, Editorial Board, Indian Journal of Neurotrauma, Paediatric Neurosurgery Journal and Indian Journal of Spine Surgery.

**Dr Deepak Agrawal** Won the Best Poster award for ‘Online health portal in Improving Neurosurgical care’, Annual Conference of NSI, Bangalore, 16–18 December 2011; Best Jury Award for online healthcare provider for developing ‘Integrated online portal for AIIMS Trauma Centre’, eHealth World Awards 2011, New Delhi, 2 August 2011; Best paper award for co-authoring study ‘The prognosis of unknown and unattended during hospital stay in neurosurgery department and the problems faced during nursing care’, Annual ISPN Conference, Goa, 15-21 October 2011; Best paper award for co-authoring study ‘Does PEEP affect Central Venous Pressure reading in Mechanically ventilated head injured patients’, Annual ISPN Conference, Goa, 15–21 October 2011; Best Poster award for co-authoring study ‘Decompressive Craniectomy for Pediatric minor head injuries’ annual conference of NTSI, Ranchi, Jharkhand, August 2011; m-billionth 2011 award for m-health category for project mPAIN (mobile patient admission information network), New Delhi, India, July 2011; Best IT implementation of the year 2011 by PCQuest for online portal for JPN Apex Trauma Centre, AIIMS, PCQuest IT magazine, May 2011; Second best paper award for co-authoring study titled ‘Role of empirical antibiotics on clinical infection in culture negative patients in Neurosurgery ICU’, International Symposium and Workshop on Cost-effective use of Technology in Emergency Healthcare, AIIMS, 27–30 October 2011; Third best paper award for co-authoring study ‘Concordance between the results of Tracheal aspirate using Mucus extractor method and by modified non-bronchoscopic BAL techniques’ at International Symposium and Workshop on Cost-effective use of Technology in Emergency Healthcare, AIIMS, 27–30 October 2011; Third best paper award for co-authoring study titled ‘Effectiveness of mechanical vibrator for chest physiotherapy in ventilated head and spinal injuries patients’, International Symposium and Workshop on Cost-effective use of Technology in Emergency Healthcare, AIIMS, 27–30 October 2011; Third best poster award for co-authoring study titled ‘Reuse of same gloves after sterile and un-sterile procedures by repeated use of hand rubs’, International Symposium and Workshop on Cost-effective use of Technology in Emergency Healthcare, AIIMS, 27–30 October 2011.
Dr Sumit Sinha was AO Spine fellow, Hospital Univeritario Cajuru, Pontificial Catholic University of Parana, Curitiba, Brazil, (Programme Director, Prof Luis Vialle), 15 May 2011–14 June 2011; IGASS spine fellow at the Hospital Rechts Der Isar, University of Munich, Germany, (Programme Director – Prof Berhnard Meyer), 10–12 January 2012.

PUBLIC SERVICE
Professor M.C. Misra
1. Participated as a Technical Expert in the programme by the ‘Akashvani FM Gold Channel’, New Delhi, for a Panel Discussion, for ‘Hello Zindgi’ on ‘Apada Prabandhan’, broadcast on 1 April 2011, 11:10 pm.
2. Participated as an Expert in ‘Doordarshan News’ New Delhi, for a discussion on WHO Day on ‘Superbug–Antimicrobial resistance’, broadcast on 1 April 2011, 11:10 PM.
3. Participated as a Technical Expert for the Live Phone in programme ‘Lok Sabha TV’ New Delhi, ‘’ for a discussion on ‘Haemophilia’ during a Live Phone in programme ‘Healthy India’, 16 April 2011, 6:00–7:00 PM.
4. Participated as a technical expert, for the News and Entertainment Channel ‘Aaj Tak’, for discussion on ‘Cancer Vaccine TelVac’ developed by U.K. Scientists, against Pancreas Cancer, 16 April 2011, 10:0–10:25 PM.
5. Participated as a Guest for the Live programme ‘Lok Sabha TV’ New Delhi, ‘Lok Manch’ at ‘Lok Sabha TV’, New Delhi, for a discussion on ‘Women Health and Healthcare in India’, 4 May 2011, 7–8 PM.
6. Participated in ‘India TV’, during Live news Programme, for a discussion on the problem of ‘Spurious Drugs’ in India in the wake of a confiscation of spurious drugs in Faridabad by Delhi Police, 16 July 2011, 7–7:30 PM.
7. Participated as an expert in ‘DoorDarshan News’ New Delhi, for the programme, discussed, Discussion on ‘Spinal Injuries’ during a Live Phone in programme ‘Total Health’, 17 July 2011, from 8:30 9:30 AM.
8. Participated as a guest for the live programme entitled ‘Lok Manch’ ‘Lok Sabha TV’ New Delhi, ‘’ for a discussion on ‘Clinical Establishment Bill 2010’, 20 July 2011, 7:00–8:00 PM.
9. Participated as technical expert, Live news Programme, ‘India TV’, for a discussion on the case of a 7 year child in Kolkata with traumatic amputation of left arm above elbow while entrapped in a lift in a residential building; 25 July 2011, 6:30–7:00 PM.
10. Participated as a Guest for the Live programme ‘Lok Manch’, ‘Lok Sabha TV’ New Delhi, for a discussion on ‘Lok Manch, Increased Healthcare Allocation during Twelfth Five-year Plan’, 19 September 2011 7:00–8:00 PM.
13. Participated as a Guest Expert for the Live-Phone-in programme, ‘Legal Point’, for a Discussion on ‘Clinical Establishment Act 2010 and itsimplementation’., ‘Lok Sabha TV’ New Delhi, 5 November 2011 2:00–2:30 PM.
15. Participated as a Guest Expert for the Live-Phone-in programme entitled ‘Legal Point’, ‘Lok Sabha TV’ New Delhi, for a discussion on ‘Road Injuries’ on the occasion of Road Crash Victims Rememberance Day, 26 November 2011 6:00–7:00 PM.
16. Participated as a Guest for the Live programme entitled ‘Lok Manch’ x ‘Lok Sabha TV’ New Delhi, for a Discussion on ‘Lok Manch, Increased Healthcare Allocation during 12th Five Year Plan’, for creating health awareness amongst women.

17. Participated as a Guest Expert for the Live programme entitled ‘Lok Manch’ for a discussion on ‘Increased Healthcare Allocation during Twelth Five-year Plan’. ‘Lok Sabha TV’ New Delhi, 2 March 2012, 1:00–2:00 PM.

18. Participated as Guest Expert to discuss the rehabilitation of Battered baby Falak as and when the child is discharged from Hospital, NDTV 24 x 7 (English), during a Prime Time Live Debate, PM, 8 March 2012.

19. Participated as a Technical Expert in the live phone-in programme, ‘Lok Sabha TV’ New Delhi, ‘Healthy India’ 31 March 2012, 5:00–6:00 PM for a Discussion on ‘Head Injuries’.

**Sumit Sinha**
Participated in health Programme ‘Total Health’ live telecast on Doordarshan News, on Spinal Injuries, 17 July 2011, 7.45 AM.

**Deepak Gupta**
### 10.6 National Drug Dependence Treatment Centre

<table>
<thead>
<tr>
<th>Professor and Chief</th>
<th>Rajat Ray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>Meera Vaswani</td>
</tr>
<tr>
<td>Raka Jain</td>
<td>Rakesh Lal</td>
</tr>
<tr>
<td>Additional Professor</td>
<td>Anju Dhawan</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Sonali Jhanjee</td>
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<tr>
<td>Scientists</td>
<td>Anita Chopra</td>
</tr>
<tr>
<td>Medical Social Service Officer</td>
<td>Braham Prakash</td>
</tr>
<tr>
<td>Biochemist</td>
<td>Rizwana Quraishi</td>
</tr>
</tbody>
</table>

**HIGHLIGHTS**

The NDDTC was designated a WHO Collaborating Centre (WHO-CC, IND 95) for a period of 4 years (2012–16). The Centre also initiated and conducted activities related to WHO Biennium (Development of a network of de-addiction services in the government, NGO and private sector; assessment of intervention for inhalant abuse for out of school children; and addressing alcohol use in diverse workplace settings) and coordinated (with six other institutions in the country) the training programme on substance use disorders funded by National Fund for Control of Drug Abuse (NFCDA) and Department of Revenue, Ministry of Finance. It continues to lead the Drug Abuse Monitoring System for the country. The faculty of the centre acted as resource persons in various training programmes and national and international meetings. They held key positions in national and international professional bodies and editorial boards in prestigious peer reviewed journals, and many faculty members received professional honours and awards. The Centre also managed about 75,000 patients and conducted about 50,000 laboratory investigations.

**EDUCATION**

**Undergraduate**

MBBS students are posted for a day in the Centre during their Psychiatry posting.

**Postgraduate**

Residents doing MD (Psychiatry) are posted in the centre for 6 months.

**PhD. and Post graduate 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

**Continuing Medical Education**

*Conferences, workshops, seminars, symposium, training courses organised by the Centre*


7. One-day Refresher Training on Opioid Substitution Treatment, Tihar Prisons, New Delhi, 11 November 2011.

8. ‘Meetings for networking between GO, NGO and private de-addiction services’, NDDTC, AIIMS, New Delhi, 12 August 2011; National Institute of Mental Health and Neurosciences, Bangalore, 19 August 2011; King Edward Memorial (KEM) Hospital, Mumbai, 26 August 2011; Regional Institute of Medical Sciences, Imphal, 13 September 2011.

Faculty, Senior Residents, Medical Social Service Officers and Scientists delivered lectures in the aforesaid training courses.

**Lectures delivered**

Rajat Ray: 3  
Raka Jain: 4  
Rakesh Lal: 3  
Anju Dhawan: 8  
Sonali Jhanjee: 4  
Atul Ambekar: 17  
Anita Chopra: 1  
Rizwana Quraishi: 1

**RESEARCH**

**Funded projects**

**Ongoing**


8. Study to Explore Transition to Injecting Drug Use by Opioid Users in North India. Atul Ambekar, Anita Chopra, Hem Sethi, SPYM & MSJ&E, GOI, 2012–14, All costs borne by SPYM.

**Completed**


**Collaborative (Funded)**

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. Sonali Jhanjee (with Department of Medicine), European Commission.


3. 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 Setting. Atul Ambekar, Deepak Yadav, (with University of Adelaide WHO Collaborating Centre).
Departmental projects

**Ongoing**

1. Effect of Nitric Oxide Synthase Inhibitor L-NNA on Sensitization to the Operant Decrement Produced by Naloxone in Morphine Treated Rats.


**Completed**

1. Naltrexone estimation from plasma samples of detoxified subjects.

2. Validity of self-reported tobacco use among patients with bipolar disorder visiting the psychiatric OPD.

3. Comparison of self-report and biological measures for alcohol, tobacco and illicit drugs in alcohol dependent patients.

**PUBLICATIONS**

**Journals:** 18  
**Books/Chapters in Books/Reports/Proceedings/Manuals:** 9

**PATIENT CARE**

**General Information**

1. Total No. of beds 50
2. General Ward beds 50  
3. Private Ward beds Nil
4. OPD Attendance (NDDTC, Trilokpuri) 73070
   
   Community and Mobile Clinic Sundar Nagri, Delhi

5. Admission 875  
6. Discharges 868
7. Average % of Bed Occupancy 66%
8. Admission Charges Exempted 250

**OPD and Specialty Clinics Attendance (NDDTC)**

<table>
<thead>
<tr>
<th></th>
<th>New Cases</th>
<th>Old Cases</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General OPD</strong></td>
<td>3984</td>
<td>34965</td>
<td>38949</td>
</tr>
<tr>
<td><strong>Specialty Clinic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco Use Cessation Clinic</td>
<td>72</td>
<td>596</td>
<td>668</td>
</tr>
<tr>
<td>Adolescent Clinic</td>
<td>7</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>Dual Diagnosis Clinic</td>
<td>45</td>
<td>273</td>
<td>318</td>
</tr>
<tr>
<td>A. Outpatient Department</td>
<td>4108</td>
<td>35865</td>
<td>39931</td>
</tr>
<tr>
<td>B. Trilokpuri Community Clinic</td>
<td>110</td>
<td>22622</td>
<td>22732</td>
</tr>
<tr>
<td>C. Mobile Clinic Sunder Nagri</td>
<td>10</td>
<td>10395</td>
<td>10405</td>
</tr>
<tr>
<td><strong>Grand Total: A + B + C</strong></td>
<td><strong>4228</strong></td>
<td><strong>68882</strong></td>
<td><strong>73110</strong></td>
</tr>
</tbody>
</table>

AIIMS 2011-2012 / 355
Biochemistry Laboratory (April 2011 to March 2012)
- Biochemistry tests: 20,569
- Hematological tests: 6,179

Yearly record of Drug Screen Laboratory (April 2011 to March 2012)

<table>
<thead>
<tr>
<th>Drugs</th>
<th>Nos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Morphine</td>
<td>2713</td>
</tr>
<tr>
<td>2. Codeine</td>
<td>2159</td>
</tr>
<tr>
<td>3. Buprenorphine</td>
<td>2674</td>
</tr>
<tr>
<td>4. Proxyvon</td>
<td>2668</td>
</tr>
<tr>
<td>5. Avil</td>
<td>2159</td>
</tr>
<tr>
<td>6. Naltrexone</td>
<td>45</td>
</tr>
<tr>
<td>7. Pentazocine</td>
<td>42</td>
</tr>
<tr>
<td>8. Naloxone</td>
<td>362</td>
</tr>
<tr>
<td>9. Diazepam</td>
<td>2579</td>
</tr>
<tr>
<td>10. Nitrazepam</td>
<td>2579</td>
</tr>
<tr>
<td>11. Chlordiazepoxide</td>
<td>2579</td>
</tr>
<tr>
<td>12. Cannabis</td>
<td>382</td>
</tr>
<tr>
<td>13. Cotinine</td>
<td>360</td>
</tr>
<tr>
<td>14. Inhalants</td>
<td>68</td>
</tr>
</tbody>
</table>

Total number of drugs tested in urine: 21369

AWARDS AND HONOURS AND SIGNIFICANT EVENTS

The Centre: The NDDTC was designated as a WHO Collaborating Centre on Substance Use (2012–16) and was inaugurated on 21 February 2012. The Centre has initiated and conducted various activities as part of WHO (India office) Biennium Activities (2011–12). Various projects are also being supported by WHO, Geneva, including
- Project: e-health portal on alcohol and drugs
- Validation of the Alcohol, Smoking And Substance Involvement Screening Test (ASSIST), phase IV
- ASSIST and Brief intervention
- Task Force for the Health Sector Response to Harmful use of Alcohol

The faculty of the Centre are also conducting research supported by the National Institute of Health (NIH), USA (e.g. efficacy of varenicline for smokeless tobacco in India, a joint project of NDDTC, AIIMS and UPENN, USA) and Department of Revenue, Ministry of Finance, GOI as a part of National Fund for Control of Drug Abuse (e.g. training of medical officers; and Development and distribution of resource materials).

Professor Rajat Ray continues to be a member of the prestigious International Narcotics Control Board (INCB) and he attended the 102nd INCB Meeting at Vienna (2–13 May 2011, AND 24 October – 11 November 2011, 30 January –3 February 2012). He is the Chairperson of the WHO working group on Classification of Substance Use Disorder (ICD 10 revision) and attended the expert group meeting in Geneva (29–30 June 2011 and 27–29 February 2012).
2012). He is also the chair person of the Expert Group to formulate National Policy on Drug Demand Reduction, MSJ&E; and the Subgroup on Drug Demand Reduction for the formulation of Twelfth Five-year Plan (2012–17); and an Expert Member of the Research Advisory Committee in the area of Social Defence (Control of Drug Abuse) for MSJ&E. He served as a resource person for the Regional Coordination Meeting of Drug Law Enforcement Agencies, Northern Region organized by the Narcotic Control Bureau, (New Delhi, 17 August 2011). He is a member of the Editorial Board of the Journal – International Drug Sciences and Drug Policy. He coordinated the following activities: Convergence of Delhi District Health Services programmes and drug use intervention for the out-of-school child; Development of a Network of De-Addiction Services between the Government, NGOs and Private Sectors; and addressing alcohol use in diverse workplace settings.

**Professor Raka Jain** chaired the session on ‘Forensic Sciences, Antropology and Miscellaneous’ in the 3rd International Conference on Legal Medicine, Medical Negligence in Medical Practice and on Current Trends in Forensic Sciences ad Medicine Toxicology (Jaipur, 3–5 February 2012). She served as a PhD examiner for Biomedical Sciences for Delhi University and as a project reviewer for the ICMR.

**Professor Rakesh Lal** is the Chairperson for the Working Group on Health Sector Response to Reduce Harmful Use of Alcohol of the WHO and attended the first meeting of the Coordinating Council for the Implementation of the Global Strategy to Reduce the Harmful Use of Alcohol at Nonthaburi, Thailand (11–17 February 2012). He is a member of the ICMR project review committee and served as a MCI Inspector for assessing departments of Psychiatry. He also coordinated the following activities: management of drug use in staff of Sikkim Police, and validation of ASSIST-Brief Intervention.

**Dr Anju Dhawan** is a member of the national expert committee on Drug Use in Children and Adolescents and initiated a National Survey on Drug Use in Children and Adolescents sponsored by *National Commission for Protection of Child Rights*. She conducted feasibility assessments for methadone maintenance treatment as a technical expert for UNODC-ROSA.

**Dr Sonali Jhanjee** received a scholarship to attend the World Conference on Tobacco or Health, Singapore (20–24 March 2012).


**Dr Anita Chopra** chaired a session at the Annual Symposium of the Kettil Bruun Society, Melbourne, Australia (11–15 April 2011).

**VISITING SCIENTISTS**

1. Robert A. Schnoll, PhD Associate Professor, Department of Psychiatry, University of Pennsylvania, USA, 5 April 2012.
2. Ms. Lubna Zaheer, Honourable Minister of Health, Maldives, 20 December 2011
3. A 5-member team of Parliaments Standing Committee on Community Development, Western Cape Province, South Africa, 17 January 2012.
10.7 Neurosciences Centre

Chief
H. H. Dash

NEUROANAESTHESIOLOGY

Professor and Head
H. H. Dash

Professor
Parmod Kumar Bithal (Sabbatical Leave)

Additional Professors
Rajendra Singh Chouhan
Girija Prasad Rath

Associate Professor
Hemanshu Prabhakar

NEUROLOGY

Professor and Head
Madhuri Behari

Professors
Kameshwar Prasad

Additional Professors
Manjari Tripathi
Garima Shukla

Associate Professors
Mamta Bhushan Singh

Assistant Professor
Deepti Vibha

NEUROPATHOLOGY

Professor
Chitra Sarkar

Additional Professor
M.C. Sharma

Associate Professor
Vaishali Suri

CLINICAL NEURO PSYCHOLOGY

Associate Professor
Ashima Nehra Wadhawan
### NEURORADIOLOGY

**Professor and Head**  
N.K. Mishra

**Professor**  
Shailesh Gaikwad

**Additional Professor**  
Ajay Garg

**Assistant Professor**  
Leve Joseph

### NEUROSURGERY

**Professor and Head**  
A.K. Mahapatra

**Professor**  
B.S. Sharma

**Additional Professor**  
S.S. Kale  
Mannmohan Singh  
P.S. Chandra  
Ashish Suri  
Rajinder Kumar

**Associate Professor**  
Deepak Agrawal  
Sumit Sinha  
Deepak Kumar Gupta  
G.D. Satyarthee

**Assistant Professor**  
Manish Singh Sharma  
Sachin A. Borker  
Vivek Tandon  
Pankaj Kumar Singh  
Hitesh Kumar Gujjar

### NEUROANAESTHESIOLOGY

#### HIGHLIGHTS

Three new facilities (2 operation theaters, 1 with intraoperative MRI facility) and PAC clinic started. Anaesthetic management for 2,764 neurosurgical procedures (Elective 2033; Emergency 731) and 465 neuroradiological procedures (240 diagnostic; 225 therapeutic) were performed. More than 3,300 patients (226 with neurological disease) were managed in ICU. A total of 1020 patients (181 new and 831 old) were seen in pain clinic OPD (219 were treated with nerve blocks).

Twelve research projects (2 funded, 10 departmental) completed while 16 research projects (2 funded, 14 departmental) were going on. 14 lectures were delivered and 3 papers presented at conferences. Faculty and residents published 37 articles (23 international, 14 national in scientific journals. Eleven abstracts published in international journals. One chapter in a book was written by a faculty. The department organized 1 CME. Three scientists from USA visited the department. Two faculty members took over as general secretary and treasurer of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC). One faculty was in editorial board of Journal of Neurosurgical anesthesiaology. One faculty received an international fellowship and underwent a clinical introductory course in Gamma knife.
EDUCATION
1. Seminars, Journal club and Case presentations (as part of departmental teaching programme) were organized thrice a week (Monday, Tuesday, Saturday) for 1 hour at a time, through-out the year except the vacation period.
2. Lt. Sugr. CDr (Dr ) R. Yadav, Dr A. Bindra, Dr K. Goyal, Dr S.J. Bharti and Dr T. Chowdhury were awarded degree of D.M. (Neuroanaesthesiology).
3. Dr S. K. Dube, Lt. Col. (Dr ) B. Hooda, Dr A. Luthra, Dr P. Gupta, Dr V. Jain and Dr V. Rajagopalan joined D.M. (Neuroanaesthesia) course.

Postgraduate teaching
Eight (8) MD Anaesthesiology students (1½ months each) from Anaesthesiology department, AIIMS and Ten (10) MD student from Lady Harding Medical College, New Delhi received Neuroanaesthesia training in the department.

Short-term training
Twelve (12) Senior Residents (8 from Department of Anaesthesiology, AIIMS, 4 from Unit of Anesthesiology, BRAIRCH and 9 from JPNATC received training in Neuroanaesthesia for variable periods as a part of interdepartmental rotation policy.

Long-term training

CME
Quarterly Meeting of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC- Delhi Chapter) was organized by the Department,Neurosciences Centre, AIIMS, New Delhi, during February 8, 2012.

Lectures delivered
H.H. Dash: 5  R. S. Chouhan: 2  M.P. Pandia: 1
G. P. Rath: 4  H. Prabhakar: 1

Papers presented: 6

RESEARCH
Funded projects
Ongoing
1. Evaluation of cerebroprotective effects of Isoflurane and Propofol anesthesia in patients undergoing neuroendososcopic procedures. Hemanshu Prabhakar. AIIMS, January 2011, Rs 1 lakh,
2. Effect of pregabalin premedication on postcraniotomy pain in patients undergoing supratentorial tumor surgery. Girija Prasad Rath. AIIMS, March 2011 to present; Rs 1 lakh.

Completed
1. Assessment of effects of Nitrous oxide during anaesthesia in patients undergoing craniotomy for supratentorial tumors and MTHFR gene polymorphism. Dr H H Dash. ICMR, 2009–2011; Rs. 4,82,880.

Departmental projects
Completed
1. Effect of pregabalin premedication on preoperative anxiety and postoperative pain.
3. To study factors affecting the outcome of patients undergoing corrective surgery for craniosynostosis: A retrospective analysis.

4. To study perioperative complications and its effect on patient outcome in brainstem lesion surgery.

5. To compare the effect of different anaesthetic techniques on electrocorticography in patients undergoing epilepsy surgery – A bispectral index-guided study.

6. A study of the perioperative course of patients undergoing epilepsy surgery – A retrospective analysis.

7. Postoperative cognitive dysfunction in patients undergoing pituitary surgery with or without nitrous oxide.


9. To study laryngeal morbidity associated with fibreoptic intubation under general anesthesia with and without muscle relaxant.

10. Respiratory complications in the early postoperative period following elective craniotomies – A retrospective analysis.

**Ongoing**


3. Effect of Nitrous oxide in patients undergoing supratentorial craniotomy as assessed using S-100â, CR-P and IL-6.

4. Postoperative complications in paediatric patients undergoing craniotomy.

5. A study comparing effects of 20% mannitol and 3% hypertonic saline on intracranial pressure and systemic haemodynamics.


7. Attenuation of hemodynamic response and recovery profile using dexmedetomidine and lignocaine.


11. Comparison of intubation success with McIntosh blade videolaryngoscope using stylet or bougie in patients undergoing neurosurgical procedures.


13. A retrospective analysis of anaesthetic implications of patients undergoing deep brain stimulation surgery.

14. Comparison of intraoperative brain condition and postoperative recovery between sevoflurane and desflurane in supratentorial surgery.

**PUBLICATIONS**

**Journals:** 35  
**Abstracts:** 11  
**Chapters in Books:** 1

AIIMS 2011-2012 / 361
PATIENT CARE

Pre-Anaesthesia (PAC) Clinic
Pre-Anaesthesia check-up (PAC) Clinic was started in January 2012 in the Neurosciences OPD and a total of 77 patients (75 new and 2 old) were seen in the OPD.

Perioperative Anaesthetic Care
1. Two new operation theaters were started in NSOT (making a total of 7), one of which has the facility of intraoperative MRI (Brain-Suite).

Neuro-Intensive Care Unit
More than 3,300 patients (including 226 patients with neurological diseases) were managed in three intensive care units.

Pain-Clinic
A total of 1020 patients (181 new and 839 old) were seen in the OPD and 219 of them were treated with nerve blocks in the operation theatre.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor H. H. Dash delivered Prof. G.R. Gode oration on ‘Research studies in Neuroanaesthesiology which have influenced practice of neuroanaesthesia in last 25 years’, 12th Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC), Bhopal, 10–12 February 2012.

Professor Arvind Chaturvedi chaired a scientific sessions in Asian Society of Critical care (SARC) and Annual Conference of Society of Anaesthesia Nepal (SAN), April 2011, Kathmandu, Nepal; and in the International Symposium on Cancer Biology, November 2011, New Delhi one of the nominated specialists for certifying Brain Deaths in AIIMS.

Dr R. S. Chouhan chaired a scientific session (lectures), 12th Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC), Bhopal, 10–12 February 2012; ‘Assistant Editor’ of Newsletter published by Indian Society of Neuroanaesthesiology and Critical Care (ISNACC); and is one of the nominated specialists for certifying Brain Deaths in AIIMS.

Dr M. P. Pandia is ‘Assistant Editor’ of Newsletter published by Indian Society of Neuroanaesthesiology and Critical Care (ISNACC).

Dr G. P. Rath chaired a scientific session (lectures), 12th Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC), Bhopal, 10–12 February 2012; ‘Treasurer’ of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC); ‘Member’ of National Academy of Medical Sciences (NAMS); and is ‘Fellow’ of International Medical Sciences Academy (IMSA); one of the nominated specialist for certifying Brain Deaths in AIIMS; underwent ‘Leksell Gamma Knife Perfexion Clinical Introductory Course’ training at Cleveland Clinic Foundation, OH, USA.

Dr H. Prabhakar chaired a scientific session (lectures) in TRANCRIT 2012 – Symposium on Acute Liver Failure, ILBS, New Delhi, 22 April 2012 and judged poster session in 9th Congress of SAARC Association of Anaesthetists, Bangalore, 25–28 August 2011. He is Secretary, Indian Society of Neuroanaesthesiology and Critical Care (ISNACC).

VISITING SCIENTISTS
1. Prof (Dr.) Antoun Koht, Chicago, USA
2. Prof (Dr.) Monica Vavilala, Seattle, USA
3. Dr Deepak Sharma, Seattle, USA
ACADEMIC, ADMINISTRATION, FINANCE, ENGINEERING, LIBRARY, CENTRAL FACILITIES ETC

Professor H. H. Dash continued to be Superintendent of Hostels at AIIMS.

Professor Arvind Chaturvedi assumed charge of Neurosurgery Operation Theaters at N.S. Centre, AIIMS.

NEUROLOGY HIGHLIGHTS

The department was awarded the best department of Neurology in India, CNBC TV18 Healthcare awards. The department has taken rapid strides in improving quality of patient care with state of the art clinical, investigational and therapeutic techniques and can now boast of high expertise in various sub-specialties of Neurology. With a systematic innovative introduction of a Screening OPD run by our senior residents and an effective telephonic and email based appointment system, we have made significant efforts in transforming our services more and more patient friendly. With a large number of international students as well as observers from across the country and world, we have maintained high educational standards. Our DM training programme is comparable to the best in the country, with a balanced mix of empowering residents in handling patients with both, complicated chronic neurological conditions in various subcategories as well as all neurological emergencies and critically ill patients. Thorough structured evaluation of each newly admitted patient goes a long way in both best patient care and in education of DM trainees. Having organized a number of guest lectures and workshops, and with the large number of international and national academic activities in which departmental faculty and students have participated, we have continued our efforts to keep ourselves at par with the best Neurology centers of the world. During the last year, we have also made an effort to restructure our out-patients and inpatients databases; initial steps towards this mammoth task have already been taken.

EDUCATION

Undergraduate teaching
All faculty members are actively involved in the UG training programme with full participation 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 our department faculty.

Postgraduate teaching
The department has 18 DM Neurology residents. DM Paediatric neurology residents are regularly posted for training. MD Medicine and Psychiatry residents are posted periodically for training purposes. The department runs regular teaching in form of detailed case presentations on rounds, weekly seminars, journal club, and clinical case discussion.

Short term training
Dr Ajantha Keshavaraj was a long term academic trainee for one year from Sri Lanka (20 December 2010–20 December 2011) in our department. Dr Bigelow Jeffrey from USA was a short term academic trainee for three months.

CME/Workshops/Symposia/ National and International Conferences Organized

Rohit Bhatia organised the following stroke workshops:

Garima Shukla successfully introduced a monthly/bimonthly multidisciplinary academic programme, ‘AIIMS Sleep Grand Rounds’.

MV Padma Srivastava and Vinay Goyal organized an ICMR workshop on Hypoxic Ischemic Brain Injury, 4–5 February 2012, Department of Neurology, AIIMS.
Lectures delivered
M. Behari: 4
K. Prasad: 14
MV Padma Srivastava: 19
Manjari Tripathi: 34
Achal Srivastava: 5
Garima Shukla: 9
Rohit Bhatia: 4

Papers presented at International and National Conferences: 13

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, 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, Merc Sereno, 24 months, 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, Merc Sereno, 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. Intravenous autologuos bone marrow derived stem cell therapy for patients with acute ischemic stroke: A multi-institutional project. K Prasad, 5 years. Rs 1,10,64,797 (including all centres, approx. Rs 7 crores).
8. Central Database Management Facility. K Prasad, Department of Biotechnology, 5 years, Rs 34.90 lakhs.
9. Capacity Building on Stroke Biology. K Prasad, Department of Biotechnology, Government of India, 5 years, Rs 34.90 lakhs.
11. 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. K. Prasad, Department of Biotechnology, 3 years; Rs 34.18 lakh.
12. Effects of Non-Ionizing Electro Magnetic Field (EMF) on Human Health. MV Padma Srivastava, ICMR, 5 years, Rs 40 lakhs.
13. Study of Role of Pathogens and Inflammatory Biomarkers in Cerebrovascular Diseases in Young. MV Padma Srivastava, ICMR, 3 years, Rs 36 lakhs.
15. Comparison of two physiotherapy treatment regimens in patients with chronic stroke of disability outcome measures and functional imaging. MV Padma Srivastava, ICMR, 3 years, Rs 26 lakhs.

16. Prediction of stroke recovery using clinicoradiological module with growth factors after acute stroke. MV Padma Srivastava, DST, 3 years, Rs 42 lakhs.

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)’ Save trial. Manjari Tripathi, Monash University, Australia, 3 years, Rs 30 lakhs.

18. An international pilot study of an internet based platform to run epilepsy trials (EPINET). Manjari Tripathi, University of Auckland, New Zealand, non-funded Academic Pilot study, 5 years.

19. Radio-Surgery or Open surgery for Epilepsy (ROSE). Manjari Tripathi, NIH, 3 years, Rs 30 lakhs/year.

20. Assessment of mutations in GABRG2 gene from micro-electrocorticographically defined areas of hippocampus and amygdala in patients with MTLE with intractable epilepsy. Manjari Tripathi, DBT, 3 years; Rs 30 lakhs,


**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 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.

10. Complementary and alternative medicines in PD.


12. Treatment cost of PD in India.


14. Evaluation of sexual function in PD and the urological dysfunction in PD, with correlation of urological parameters prospective study.


16. Circadian sleep rhythm (using actigraphy watch and proforma).

17. Role of sleep in the localizing value of video-EEG in patients with refractory focal epilepsy.
18. Sleep efficacy and its effect on cognitive function in intractable epilepsy patients before and after surgery.
19. Corneal health in PD patients undergoing treatment with amantadine.
20. Translation and validation of sleep batteries in use at AIIMS sleep clinic.
23. Impact of pediatric epilepsy surgery on quality of life: a case controlled study from Northern India.
24. Evaluation of the role of sleep in the localizing value of ictal and interictal video-EEG recording of focal seizures.
25. Study of memory, language and executive function in patients with refractory temporal versus those with extratemporal epilepsy.
26. Study of circadian sleep rhythms in patients with refractory epilepsy versus those with controlled epilepsy.
27. Long-term outcome of decompressive hemicraniectomy in malignant MCA infarcts.
28. To study demographic, clinical features and treatment outcomes of patients with multiple sclerosis. An Institutional Registry.
29. To assess the Seasonal and circadian pattern of strokes.

**Collaborative projects**

**Ongoing**

1. ENOS: Efficacy of Nitric Oxide in Stroke – A prospective, international, multicenter, randomized, parallel-group, blinded, controlled, collaborative, factorial trial to investigate the safety and efficacy of treatment with transdermal glyceryltrinitrate, a nitric oxide donor, and of stopping or continuing prior antihypertensive therapy, in patients with acute stroke. (Medical Research Council, UK).
2. Genetic basis of ischemic stroke in an Indian population. (UK-India Education Research Initiative, British Council, 3 years, Rs. 36,71,641.
3. To evaluate the impact of a teaching Programme on tracheostomy care. (College of Nursing).
4. To evaluate the impact of a teaching Programme on prevention of complications after stroke. (College of Nursing).

**Completed**

1. Thrombolysis with intravenous rt-PA for acute ischemic stroke: the third International Stroke Trial. (IST-3). (Medical Research Council, UK)
2. Intravenous autologous bone marrow derived stem cell therapy for patients with acute ischemic stroke: A multi-institutional project. (Department of Biotechnology).
5. Prevalence of the restless legs syndrome in women and its relationship with iron deficiency – a prospective case-controlled study from North India
1. Mitochondrial variation and common founders for the Friedreich’s ataxia in the Indian population. (Indian Council of Medical Research).
PATIENT CARE

The department pioneered in making patient services as friendly as possible. During the past year, we have initiated a screening clinic in our out-patients services, which enables prompt attention and prioritization for all patients attending the OPDs. Appointments for OPD consultations have also been made available through email, while in-person and telephonic appointment systems have been constantly improved.

Indoor, outdoor and laboratory data

New patients: 22,493  Old Patients: 33,990

Procedures done in Clinical Neurophysiology laboratory

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<th>Procedure</th>
<th>April</th>
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AWARDS, HONOURS AND SIGNIFICANT EVENTS

The Department of Neurology was awarded the Best in Neurology, in India, CNBC TV-18 Healthcare awards in the year 2012.

Professor M. Behari was elected Member, Editorial Board–Asia of CIMS Publication; delivered Oration at Neurocon 2011 at Bombay Hospital, Mumbai, 1–3 July 2011; Dr KB Kunwar Memorial Oration at King George’s Medical University, Lucknow, UP, 16 February 2012; organized the World Parkinson’s Disease Day, 2011, 3 April 2011 for Parkinson’s Patients at AIIMS.

Professor K. Prasad Founding Board Member, International Society for Evidence-Based Healthcare; Director, Clinical Epidemiology Unit, AIIMS; Member, Infectious Diseases and ARI Review Group of the International Cochrane Collaboration; Member, Task Force on Chronic Disease Biology of Department of Biotechnology, Govt. of India; Editor, Edinburgh-based Cochrane Stroke Group and Amsterdam-based Cochrane ARI Group; Member, International Clinical Epidemiology Network; Reviewer for medical research grant – Indian Council of Medical Research, Department of Biotechnology, Department of Science and Technology, Medical Research Council, UK, Wellcome Trust, UK, University of Health, Singapore, Indo-Australian Research Group and many others.

Professor M.V. Padma Srivastava President elect, Indian Stroke Association, 2012–13; External examiner for DM examinations by PGIMER, Chandigarh; Member–Secretary for designing DNB curriculum for Neurology by NBE; Board Member, SIBRI by DBT, Government of India; Expert, DNB Neurology examinations, DNB Appraisal, and inspection by the NBE, Government of India; Member, FIST programme by DST; Visiting Professor, Department of Neurology, SGPGI, Lucknow; Task Force Member, Neurosciences by DBT, Government of India and Task Force Member for Kesari Dal Research in India by ICMR.
Dr M. Tripathi was awarded the Chief of the Army Staff Award for the best published article ‘Expression of CD34 as a novel marker for glio-neuronal lesions associated with chronic intractable epilepsy’, Armed Forces Medical College, Pune; co-authored the award poster entitled ‘Triggering factors of seizures in people with epilepsy’, 13th Annual Conference of Indian Epilepsy Association and Indian Epilepsy Society ECON 2012 and poster ‘Increased BDNF serum levels in Alzheimer’s disease (AD) and Mild cognitive impairment (MCI) patients in north Indian population’, 2nd International Congress on Neurobiology, Psychopharmacology and treatment guidance, November 24–27 2011, Greece; Received Research and Documentation in Social Sciences (IRDS) – Anandi Bai Joshi award for Medicine in Third IRDS awards 2012; invited to submit a proposal for a National epilepsy Programme by the Ministry of Health, which has now moved to the planning commission; has started a rural outreach Programme (iREAP: Indian Rural Epilepsy Awareness Programme) to be modelled as a pilot study to start a National Programme for epilepsy which has completed 2 years of existence; is a core founding member for development of practice guidelines for physicians named GEMIND; Guidelines for Epilepsy Management in India (Indian Epilepsy Society) and is involved in ETP – Epilepsy Teaching Programme with the mission of teaching and reducing education gap in epilepsy among PHC and GPs; has started a volunteer network for families with dementia for support of caregivers by the ARDSI-Delhi; Associate Editor, Journal of Alzheimer’s disease for 2011 and Member, Editorial advisory board, Critical Reviews in Neurobiology (Begell House Inc.), 2012.

Dr A. Srivastava was invited as expert by Public Service Commision, UP for Interview of Allopathic Medical Officer, Provincial Medical Health Service, Allahabad, October 2011; participated in All India Radio Programme ‘Yaddasht Ki Kami (Amnesia)’ Mar 2011; participated in All India Radio Talk in Hindi for topic Epileptic fits: prevention treatment, October 2011.

Dr Garima Shukla Member, International Scientific Committee, World Association of Sleep Medicine Congress, Valencia, Spain 2013; Awarded Honorary Fellowship of the Indian Sleep Disorders Association, April 2011, Nagpur, Maharashtra; Invited to conduct first Diploma in Sleep Medicine Examination, held by Indian Sleep Disorders Association, April 2011, Nagpur, Maharashtra; Global first – received the Hening award for RLS research, second consecutive time, for paper presented at WASM Congress, Quebec, Canada, September 2011; Global first – mentor and chief guide for paper presented by Anupama Gupta, which was also selected for the Hening Award for RLS research, WASM Congress, Quebec, Canada, September 2011 (two out of total of seven awards, from the same center); organized sleep awareness activities during March 2011 the World Sleep Awareness month; is an active member of the World Sleep Day Committee, wing of the World Association of Sleep Medicine; delivered sleep awareness talk at Reserve Bank of India employees headquarters.

Dr R. Bhatia was nominated as the Board Member of Multiple Sclerosis International Federation (MSIF). He was elected as the Executive Committee member of the Indian Stroke Association; Only delegate from India to be selected for the summer school of stroke at the prestigious Universities of Heidelberg and Mannheim Germany, June 2011; initiated concept of teaching workshops on Stroke and Multiple sclerosis, which are held on regular basis; invited abstract reviewer for prestigious annual International Stroke Conference by the American Heart Association for a period of three years; organized the World Multiple Sclerosis Day, May 2011; organized the World Stroke Day, October 2011.

Dr Mamta B. Singh received the 2012 American Academy of Neurology Palatucci Leadership Advocacy Forum, Faculty, Rican Academy of Neurology, International Scholarship Award; received the 2012 Prof Peter and Jytte Wolf Award for Baltic Sea Epilepsy Summer School, Rostock, Germany; invited to be a Founder Member of Global Health Section of the American Academy of Neurology; 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; continues to provide Epilepsy Outreach Clinics and Epilepsy Awareness Programmes for the villages and Epilepsy Management Orientation for local physicians through the Lifeline Express (8 outreach sites during the year; Morena, MP, 2,3 April 2011; Vasind, Maharashtra, 14,15 May 2011; Jagdalpur, Chhattisgarh, 8,9,10 July 2011; Guntur, AP, 10,11 Sept 2011; Singrauli, MP, 15,16 Oct 2011; Rajgir, Bihar, 11,12 Feb 2012; Betul, MP, 5,6 May 2012; Katni, MP, 21,22 July 2012.

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VISITING SCIENTISTS

1. Dr Asuri N. Prasad, Professor of Paediatrics and Neurology, University of Western Ontario, London, Ontario, Canada, Guest lecture cum workshop on ‘Neurometabolic disorders’, 13 July 2012, AIIMS.

2. Prof. Sudhansu Chokroverty, Co-Director of Neurology (Clinical Neuropsychology and Sleep Medicine), New Jersey Neuroscience Institute, JFK Medical Center, Edison, New Jersey and Professor of Neuroscience, Seton Hall University School of Graduate Medical Education, South Orange, New Jersey, USA, Guest lecture workshop on ‘REM sleep behavior disorder and Sleep related movement disorders, 13.2.2012, AIIMS.

3. Dr Rama Maganti, Epileptologist and Sleep Disorders Specialist, Medical Director, EEG Laboratory, Barrow Neurological Institute, St. Joseph’s Hospital and Medical Center, Phoenix, Arizona, USA, Guest lecture entitled ‘Epilepsy surgery – not the last resort’, 14 December 2011, AIIMS.

4. Dr Vijay Sharma, Consultant Neurologist from the National University of Singapore, Singapore, Guest lecture on ‘Transcranial Doppler in Neurology’.

NEUROPATHOLOGY

EDUCATION

Lectures delivered

Chitra Sarkar: 17  M.C. Sharma: 6  Vaishali Suri: 2

RESEARCH

Funded projects

Completed


3. Efficacy and safety of AP 12009 in adult patients with recurrence or refractory anaplastic astrocytoma (WHO grade III) as compared to standard treatment with temozolomide or BCNU: A randomized actively controlled, open label clinical phase III study. Chitra Sarkar. Antisense Pharma Germany, 2007–11, Rs 25 lakhs.

4. 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.


Ongoing


3. Hypoxia and p53-HIC1 axis in stemness of glial tumors and cell lines. Chitra Sarkar. Department of Biotechnology. 2009–12, Rs. 50.5 lakhs.


**Departmental projects**

*Completed*

1. Study of PTEN and CDKN2 gene alterations in GBMs.

2. Study of IDH-1 mutations in gliomas.


10. Study of LOH on chromosome 10q in GBMs.

*Ongoing*

1. Clinicopathological study of CNS AT/RT.

2. Clinicopathological study of pineal tumours.

3. Study of Limb Girdle Muscular Dystrophy (LGMD) Patients in Indian population using Calpain-3, Dysferlin and Sarcoglycan Protein Analysis.

4. Mutational analysis of Indian patients of Limb Girdle Muscular Dystrophy (LGMD).

5. Study of Tuberous Sclerosis Complex and Upregulation of WNT pathway in Subependymal Giant Cell Astrocytomas and Cortical Dysplasia.

6. Study of Human Telomerase Reverse Transcriptase (hTERT) and Stem Cell Markers Expression in Ependymomas -Correlation with Apoptotic and Proliferative markers.


Collaborative projects

*Completed*

1. Effects of administration of human umbilical cord blood cells (HUCBG) in combination with melatonin versus HUCBG along in rat with stroke (Department of Neurology).

2. Comparative study of the treatment outcome with concurrent chemoradiotherapy in glioblastoma with Temozolomid post chemoradiotherapy 6 cycles vs. 12 cycles and molecular basis of resistance based on EGFR, MIB-1 and p53 (Department of Radiation Oncology).

3. Effects of bone marrow derived mononuclear cells on nerve regeneration rat sciatic nerve transaction model.

4. Dose dependent facilitation of peripheral nerve regeneration by bone marrow derived mononuclear cells – Randomized controlled trial.

*Ongoing*

1. Oxygen concentration, p53 axis and stemness characteristics of glial tumor cell lines (Department of Biochemistry).

2. Expression of Notch signaling molecules, Epithelial Mesenchymal Transition (EMT) markers and HIF-1alpha in Glioblastoma Multiforme (Department of Biochemistry).

3. Clinicopathological study of the thalamus in head injury (Department of Neurosurgery).

4. Methylation profiling of pediatric GBMs (Indian Institute of Science, Bangalore).

5. Study of chromosome 14 microRNA cluster (miR-379/miR-656) in Glioblastoma (Institute of Genomics and Integrative Biology, New Delhi).

**PUBLICATIONS**

**Journals: 25**  **Chapters in Books: 5**

**PATIENT CARE**

1. Neuropathology surgical specimens 2,583

2. Frozen sections 312

3. Muscle biopsies

   - Total number received 355
   - Muscle enzyme histochemistry 539
   - Muscle immunohistochemistry 1238

4. Immunohistochemistry 6651

5. Diagnostic Fluorescent in situ hybridization 150

6. Electron Microscopy

   - Specimen received 1060
   - Specimen processed 767

7. PCR/Real time PCR 120

**AWARDS AND HONOURS**

Professor Chitra Sarkar was elected President, Indian Society of Neuro-Oncology (2011–12); awarded ICMR Novartis Oration Award for Research in the field of Cancer, 2011; awarded ICMR International Fellowship for

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Senior Biomedical Scientists 2010–11, w.e.f. 6–23 May 2011 to work in the Department of Genetics and Neuro-Oncology, MD Anderson Cancer Centre, Houston, USA; delivered Raghunath Pramanik Oration at West Bengal chapter of the IAPM at Bankura on 4 September 2011.

Dr Geetika Singh was awarded Ramalingaswami First Prize for oral paper entitled ‘Gliosarcoma: A clinicopathological and molecular study with special reference to MGMT promoter methylation’. XXV Annual Conference, Delhi Chapter, IAPM, New Delhi, April 2011.

Dr Suvendu Purkait was awarded ‘Best Poster Award’ for paper entitled ‘Dual pathology in a case of epilepsy – report of a rare case’. XXVI Annual Conference, Delhi Chapter, IAPM, MAMC New Delhi, 25 February 2012.

Dr Aanchal Kakkar was awarded ‘Best Poster Award’ for Case Series in Surgical Pathology entitled ‘Atypical teratoid/rhabdoid tumor of the CNS – a clinicopathological study’. XXVI Annual Conference, Delhi Chapter, IAPM, MAMC, New Delhi 25 February 2012.

NEURORADIOLOGY

EDUCATION

The department conducted live neurointerventional workshops during 11th Annual Conference of the Indian Society of Cerebrovascular Surgery, AIIMS, New Delhi, 6–7 October 2011. The faculty of the department also participated in the scientific deliberations/discussions and chaired sessions during the 11th Annual Conference of the Indian Society of Cerebrovascular Surgery, AIIMS, New Delhi, 8–9 October 2011. The highlight of this event was the presence of two Neurointerventionists of international repute, Professor Saruhan Cekirge, Head of Neurointervention section at Hacettepe University, Ankara, Turkey, and Professor Rene Chapot, Head, Interventional Neuroradiology, Alfred Krupp Hospital, Essen, Germany, who participated in the workshop and the subsequent scientific deliberations of the conference, giving an opportunity to delegates to glean some of the very recent advances in neurointervention.

Undergraduate Teaching

Faculty of the department undertakes undergraduate classes and also undertakes teaching for MD (radiodiagnosis) DM (Neurology) and MCh (Neurosurgery) students.

DM Neuroradiology course started in July 2001. Three candidates are registered for this course presently.

CME/National and International Conferences

Lectures delivered

N. K. Mishra: 6
Shailesh B Gaikwad: 3
Ajay Garg: 1

NEUROPSYCHOLOGY

HIGHLIGHTS

A separate Clinical Neuro Psychology Registry (CNP) on Monday, Tuesday, Wednesday, Friday (Mornings) and Thursday (Afternoon by appointment) and a Cognitive Disorders and Memory Clinic (‘CD’ and ‘M’ Clinic) (by the Departments of Neurology and Clinical Neuro Psychology) on every Wednesday mornings have started.

EDUCATION

CMEs/Workshops/Symposia/National and International conferences

Lectures delivered: 5

RESEARCH

Departmental projects
**Ongoing**

3. A cost of illness study to assess the economic burden of dementia care.
5. To study the clinicoradiological and prognostic factors influencing outcome in Chiari 1 malformation.

**PUBLICATIONS**

**Chapters in books: 1**

**PATIENT CARE**

Neuropsychological assessment, interpretation and therapy of various Neurosurgical and Neurological patients. This 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 thesistheses and research. First step towards planning of research work to be done was formulated.

**New**

1. Started disability task force/board for the evaluation of long standing patients of Neuroscience centre, who have been in continuous treatment under Neurosciences Centre and there state is more or less irreversible as diagnosed by their consultant in charge. These patients are assessed for disability as per Government of India guidelines and included representation from Disability Empowerment, Goverment of India.
2. Started Cognitive Disorder and Memory Clinic (CD and M Clinic) a new registry under Departments of Neurology and Clinical Neuropsychology, Room Nos. 5 and 14, Neurosciences Centre, AIIMS, 2012.

**AWARDS, HONOURS AND SIGNIFICANT EVENTS**

Executive Member: Neuropsychological Society of India 2012–14; General Secretary: NACIACP, 39th National Annual Conference of Indian Association of Clinical Psychologists, to be held at AIIMS, 18–20 Feb 2013.

**NEUROSURGERY HIGHLIGHTS**

The year 2011–12 was full of academic activities and education oriented year. This year new operative equipment were added in the department (Intraoperative MRI, Gamma Knife Perfexion and 1.5 Tesla MRI adjacent to G.K. Centre), Extended GK (Fractionated GK therapy) and Skill Development Workshop. New Operative procedures like MRI guided brain surgery were introduced. During the year, overall development of the department occurred with various academic and patient care activities. The department organized ‘Brain Awareness Lecture Programme’ funded by NBRC. The Centre of Excellence commissioned as a national facility for difficult to treat epilepsy funded by Department of Biotechnology, Ministry of Science and Technology this year. AIIMS Ultrasound Trauma Course (AUTLS) and AIIMS BECC courses held in various parts of India during 2011–12.
EDUCATION
MCh Neurosurgery Programme: Post MS 3 years, Post MBBS 6 years
Organized skill development workshops: 3 times a year
PhD Programme: 2 students

CONFERENCES ORGANIZED
1. Microneurosurgery Workshop, Department of Neurosurgery, AIIMS, February 2012.
2. Neurosurgery Skill Development, Department of Neurosurgery, AIIMS.
4. Indian Society of Cerebrovascular 2011, AIIMS.
5. 3rd Indian Gamma Knife Conference, AIIMS, February 2012.
11. 3rd National Conference of Gamma Knife Radiosurgery, Department of Neurosurgery, AIIMS, 12 February 2012.
12. 14th AIIMS Annual Microneurosurgery Workshop, Department of Neurosurgery, AIIMS, 13–15 February 2012.
13. AIIMS Ultrasound Trauma Course (AUTLS), and held courses in various parts of India during 2011–12.
14. AIIMS BECC course, and held 7 courses in various parts of India during 2011–12 in partnership with NHRM (National Rural Health Mission).
17. 2nd Live operative workshop and symposium on Complex Spinal Trauma, JPNATC, AIIMS, 12–13 May 2012.
18. 1st CME – Symposium on ICP monitoring in traumatic brain injury, JPN Apex Trauma Centre, New Delhi, India, 15 March 2012.
19. Indian Society of Paediatric Neurosurgery, Annual Conference and ISPN CME Course 2012, AIIMS, Delhi, India.
20. Monthly meeting of Delhi neurological association (DNA) in March 2012 at AIIMS, Delhi.
22. BRACHIALCON-AIIMS-2011, held at JPNATrauma Centre, 19–21 December 2011.
Lectures delivered/papers presented
Deepak Gupta: 8            Sumit Sinha: 3          Sachin A Borker: 6

RESEARCH
Funded projects
1. STITCH II, P Sarat Chandra, Medical Research Council, UK, 2011.
2. STITCH, P Sarat Chandra, Medical Research Council, UK, 2011.
3. Exon Defects in Osseous developmental CVJ anomalies, P Sarat Chandra, Department of Biotechnology, Ministry of Science and Technology, India, 2011.
4. FMRI and simultaneous EEG for localizing the epileptogenic focus in patients with intractable epilepsy, P Sarat Chandra, Department of Biotechnology, Ministry of Science and Technology, India, 2011.
5. Centre of Excellence to be commissioned as a National facility for difficult to treat epilepsy, P Sarat Chandra, Department of Biotechnology, Ministry of Science and Technology, India, 2011.
12. Role of Simvastatin in prevention of vasospasm and improving functional outcome after aneurysmal Sub-arachnoid haemorrhage: A Prospective Randomized Double blind Placebo controlled trial, Sumit Sinha, AIIMS (Intramural research grant) (completed).
14. Establishment of a cadaveric dissection facility, Jai Prakash Narain Apex Trauma Centre, AIIMS, New Delhi, India Sumit Sinha, ICMR.
15. A Randomized Placebo controlled trial (Factorial design) of Progesterone with or without hypothermia in subjects with acute severe traumatic brain injury. Sumit Sinha, DBT.
16. A Randomized, Placebo- controlled study to investigate the Efficacy of Progesterone in Patients with Severe Traumatic Brain Injury, Sumit Sinha, AIIMS.
Departmental projects
1. Role of Thalamus in diffuse axonal injury: An autopsy study with histopathological correlation (Deepak Agrawal).

Collaborative projects
1. Indo US Head Injury Registry (Chirag Trial), DBT and NIH (Ashok Kumar Mahapatra).
2. A Targeted therapy for high grade glioma using AP12009, Multinational Multicentric study (Ashok Kumar Mahapatra).
3. Radiosurgery and open surgery in Temporal Lobe Epilepsy, Multinational Multicentric Rose Trial (NIH Approved) (Ashok Kumar Mahapatra).
4. International Infantile hydrocephalus study (IIHS), Multinational Multicentric study (Ashok Kumar Mahapatra).
5. $^{131}$I tagged monoclonal antibody in recurrent GBM NIH, BRC trial, Multinational Multicentric study (Ashok Kumar Mahapatra).
6. Collaborative Indo-German Programme for Bilateral Workshops, Seminars and Tele-education in Training Microsurgical and Endoscopic Techniques in Neurosurgery, funded by DBT, Ministry of Science and Technology (Ashish Suri).
7. Open-label-Dose Confirmation Study of Interstitial 131I-chTNT-1-B Mab (Cotara) for the Treatment of Glioblastoma Multiforme (GBM) at First Relapse. A multicentric prospective Phase II study (Deepak Kumar Gupta).

PUBLICATIONS
Journals: 83 Abstracts: 13 Chapters in books: 44 Books: 1

PATIENT CARE
OPD cases
New 10,997 Old 25,221 Total 36,218

Total number of surgeries
Major 592 Minor 992 Total 3,271

Gamma Knife treatment 588

AWARDS, HONOURS AND SIGNIFICANT EVENTS
Professor A.K. Mahapatra received the Orissa Vigyan Ratna, Bharat Nirman Samman and Swasthan Bharat Samman; formed the Neurological Surgeons’ Society of India (NSSI) and is founder President of NSSI, 2011–12; elected president of Indian Society of Paediatric Neurosurgery 2009–13 (4 years), President, Delhi Neurological Association (DNA) (2011–13) and President, Indian Society of Peripheral Nerve Injuries (2011–13); Member, Editorial Board of Neurology India, Asian Journal of Neurosurgery, Member of Pan Arab Journal Neurosurgery, Member of Journal of Neuroendoscopy, Journal of Hydrocephalus.

Dr P Sarat Chandra: Under his mentorship Dr Shejoy P. Joshua was awarded the CeibaGiegi award for best epilepsy paper, 2011, NSI 2011, for the paper titled ‘Co-gesistration of MRI, PET and ECoG in resection of lesional epilepsy’. He is the editor in chief of ‘The Indian Journal of Neurosurgery’.

Dr Ashish Suri was awarded best paper, 8th Biennial National Conference of Medical Informatics by Indian Association of Medical Informatics (IAMI). Supplementing education and training in Neurosurgery: Web based education and Tele-education.

Dr Deepak Agrawal was awarded the Best Poster award for ‘Online health portal in Improving Neurosurgical care’, Annual Conference of NSI He received the best jury Award for online healthcare provider for developing ‘Integrated
online portal for AIIMS Trauma Centre’, eHealth world awards, , Best paper award for co-authoring study titled ‘The prognosis of unknown and unattended during hospital stay in neurosurgery department and the problems faced during nursing care’, Annual ISPN Conference, Best paper award for co-authoring study titled ‘Does PEEP affect Central Venous Pressure reading in mechanically ventilated head injured patients’, Annual ISPN Conference, Best Poster award for co-authoring study titled ‘Decompressive Craniectomy for Paediatric minor head injuries’, Annual Conference of NTSI, M-billionth 2011 award for m-health category for project mPAIN (mobile patient admission information network), Best IT implementation of the year 2011 by PCQuest for online portal for JPN Apex Trauma Centre, AIIMS by PCQuest IT magazine, second best paper award for co-authoring study titled ‘Role of empirical antibiotics on clinical infection in culture negative patients in Neurosurgery ICU’ at International Symposium and Workshop on Cost-effective use of Technology in Emergency Healthcare, Third best paper award for co-authoring study titled ‘Concordance between the results of Tracheal aspirate using Mucus extractor method and by modified non-bronchoscopic BAL techniques’ at International Symposium and Workshop on Cost-effective use of Technology in Emergency Healthcare, Third best paper award for co-authoring study titled ‘Effectiveness of mechanical vibrator for chest physiotherapy in ventilated head and spinal injuries patients’ at International Symposium and Workshop on Cost-effective use of Technology in Emergency Healthcare, Third best paper award for co-authoring study titled ‘Concordance between the results of Tracheal aspirate using Mucus extractor method and by modified non-bronchoscopic BAL techniques’ at International Symposium and Workshop on Cost-effective use of Technology in Emergency Healthcare, Third best poster award for co-authoring study titled ‘Reuse of same gloves after sterile and un-sterile procedures by repeated use of hand rubs’ at International Symposium and Workshop on Cost-effective use of Technology in Emergency Healthcare.

Dr Deepak Gupta received the Young Investigator Award for paper entitled Development of Neurotrauma Unit Apex Trauma Centre in India in National Neurotrauma Conference, Shanghai, China, and International Travelling Fellowship award to attend International Society of Stereotactic and Functional Neurosurgery by WFNS (International), Capetown, South Africa, November 2011. He was invited as guest faculty to visit John Hopkins University: Centre for Surgical Trials and Outcomes Research (CSTOR), Baltimore, USA and University of Maryland, R Adams Cowley Shock Trauma Centre, Maryland, USA: 6–8 October 2011. He delivered a guest lecture delivered in John Hopkins University on: Development of National Neurotrauma unit in India: Journey from beginning to present. He organized the otal Cervical Solutions: Workshop on Cervical spine degenerative diseases and Trauma, New Delhi (June 2011, September 2012.

Dr Sumit Sinha was a AO Spine fellow, Hospital Univeritario Cajuru, Pontificial Catholic University of Parana, Curitiba, Brazil, 15 May –14 June 2011. (Programme Director – Prof Luis Vialle), And IGASS spine fellow, Hospital Rechts Der Isar, University of Munich, Germany, 10–20 January 2012. (Programme Director – Prof Berhnard Meyer). He was a guest Faculty for minimally invasive spine surgery and peripheral nerve surgery’ Conference, Dubai, 1–3 May 2012 and IRCAD (Institut de Recherchecontrel cansers de l’AppareilDigestif) EITS (European Institute of telesurgery), Strassbourgh, France, to visit the Cadaver dissection and simulation facility, January 2012.

Dr Sachin A Borker was awarded ‘Best Resident (Academic)” for the year 2011, by the Department of Neurosurgery, AIIMS,
TIMINGS AND MEMBERSHIP
The library is open round the clock (24 hours) on all days of the week including Sundays and holidays since 1 August 2003. It has 2410 regular members and an average of 350 visitors every day.

SERVICES
The library continues to extend the following services to its users. These services have been modernized, updated and strengthened.

1. Books Alert Service. This is a monthly service of listing of new books, monographs and pamphlets added to the library in a particular month.

2. Periodical Alert Service. This is a fortnightly service of listing of new periodicals received in the library during the previous fortnight.

3. Interlibrary Loan Services. Interlibrary loan services with several local libraries are being maintained to help users procure documents that are not available in library.

4. Reprographic Services. The library has three machines to meet the demands of readers, viz. two WC5638 and one WC 7242 Colour of Xerox India Ltd. During the year 32,280 pages were photocopied on payment, as a service to readers.

5. CD-ROM Printout Services. During the year 7,722 computer printout pages containing articles and other useful literature were made available to the readers on payment.

BOOK BANK
The Book Bank continues to serve undergraduates and interns. The total membership of the Book Bank is 81. The book bank has more than 2,735 books, which are issued on a long-term basis to the 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 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 housekeeping 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 5,877 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.
ONLINE JOURNALS
The library is receiving 581 online journals for the current year, made available to it through their publishers along with print versions. Now all online journals have IP based subscription and can be accessed smoothly anywhere from the Institute’s campus area through internet/Wi-Fi facility provided by the Institute.

OPAC (Online Public Access Catalogue)
Almost all the documents can be retrieved through computers; 5,877 theses received so far in the library can also be retrieved through Online Public Access Catalogue (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
Internet facility is available in the library from 10 a.m. to 10 p.m., Monday to Friday, and till 8.30 p.m. on Saturdays. Twenty-two nodes are available to the users.

NEW ADDITIONS
The library added 43 new books, 1,163 bound volumes of journals, 127 pamphlets/reports, 302 new theses and now has a total of 72,128 books, 69,084 bound journals and 17,257 pamphlets/reports.

The library, annually subscribes to 784 journals in various field of health sciences, 581 of them also received online along with their print version; 25 journals subscribed to on behalf of the National Drug Dependence Treatment Centre (NDDTC), Ghaziabad, are also received in the library.

SIGNIFICANT EVENTS
During the period Bar-Coding of 65,000 documents of library has been successfully completed.

AWARDS/PRIZES
1. Mr Jahangir Khan, Librarian Grade-II has been awarded the ‘G.M. Kumar Best Paper Award-2010’, National Convention of MLAI-2011, Dr Rajendra Prasad Government Medical College, Kangra, Himachal Pradesh, 9 December 2011.

PUBLICATIONS: 6

CONFERENCES ATTENDED


4. Ajay Kumar Saroha attended 13th annual national convention of MALIBNET, University of Delhi, Delhi, 13-15 October 2011.

5. Umesh Kumar attended national convention of MLAI-2011, Dr Rajendra Prasad Government Medical College, Kangra, (Himachal Pradesh), 7–9 December 2011.
**AIMS AND OBJECTIVES**
AIIMS cafeteria established in 1972, provides wholesome food, prepared in healthy hygienic conditions at reasonable prices to the employees of AIIMS. In October 1991 the cafeteria was taken over by AIIMS and all employees are treated at par. Since then the cafeteria is being run on no profit, no loss basis, without any financial assistance from AIIMS for equipment, furniture, utensils and other basic requirements.

**MANAGEMENT COMMITTEE**
A Management Committee was constituted by the Director of AIIMS for policy decisions that pertain to the Cafeteria Department time to time. The following were the members.

1. Dy. Director, (Admn.) Chairperson
2. Dr S. Rastogi Member
3. Dr V.K. Paul Member
4. Dr Bir Singh Member
5. Shri Sandeep Lal, Sr. F.A. Member
6. Shri Basanti Dalal, F.A. Member
7. Shri B.S. Anand, S.E. Member
8. Shri S.K.Gupta, A.O. Member
9. Dr Parmeet Kaur, Chief Dietician Member
10. Representative of RDA Member
11. Representative of Officer Association Member
12. Representative of Nurses Union Member
13. Representative of Karamchari Union Member
14. Representative of FAIMS Member
15. Dr O. P. Kharbanda Member Secretary
16. Shri S. K. Kaushik Gen. Manager, Cafe Member

**SERVICE FACILITIES**
The cafeteria runs 7 units for services to about 10,000 employees of AIIMS.

1. Main cafeteria (24 hour service) situated near Jawahar Lal Nehru Auditorium
2. Main Operation Theater Cafeteria situated at 9th Floor of the Main hospital
3. CNC Cafeteria, situated at 2nd Floor of the Centre.
4. Dr R.P.C. O.T. Cafeteria situated at 5th Floor of the centre.
5. C.D.E.R.
6. Dr B.R.A.I.R.C.H.
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 requirements, as well as special requirements for important meetings, organized at the Institute.

STAFF STRENGTH
A total of 92 employees are on the rolls of Cafeteria Department on regular as well as adhoc/temporary status/contractual basis. Catering services are also provided to official meetings, conferences and symposia held at AIIMS.

ANNUAL TURN OVER
The turnover of the Cafeteria Department is approximately Rs 2 crore 58 lakhs.

DEVELOPMENT ACTIVITIES
Several changes were brought in Cafeteria Department during the financial year.

1. **Extended facility at CNC cafeteria**
   a. Services enhanced up to 10 PM. in two shifts.
   b. Microwave facility provided.
   c. New items were added in the daily menu

2. **Faculty room**
   Lots of improvements were made to the ambience in the faculty room resulting in many more users. Overall the faculty members appreciated the facilities provided there.

3. **New equipment installed**
   Hot food service trolley and tea, snacks service trolley provided for healthy hygienic services to the Institute employees.

4. **New food items/service introduced**
   a. Tea/Coffee vending machine of Georgio brand installed at different floors of teaching block and administrative block.
   b. Low calorie/low cholesterol eatables such as Rawa Idly, Sprout Idly, Dhokla, Over night hung curd were introduced.
   c. A special thali lunch @ Rs 18 each consisting of the following items was provided to the Institute employees: (i) Paneer preparation, (ii) Seasonal vegetable, (iii) Dal/Chole/Rajama/Kadhi Pakora, (iv) Rice Pulao, (v) Raita/Dhai Vada and (vi) Roti (2).

5. **Future Plans**
   a. There is a proposal for complete renovation of Cafeteria, to be equipped with latest technology to maintain more healthy and hygienic conditions in the Cafeteria.
   b. There is a proposal to extend Cafe services to AIIMS centre, Badsa Village, Jhajjar, Haryana.
During the year 2011–12, animals were maintained in the facility (Rodents, Sheep and non-Human Primates, i.e. Monkey).

**Small Animal (Rodents)**
The following rodents (average per month) were maintained through the year.

1. Rats (Wistar) 599
2. Rats (Sprague Dawley) 150
3. Mice (Swiss) 241
4. Rabbits (New Zealand) 85
5. Guinea Pigs (Dunkin Hartley) 74

A total of 4421 small animals (rat, mice, rabbit and guinea pig) were supplied to various departments and a number of animals were also sold to sister institutions in Delhi and outside Delhi including 220 rats, 775 mice, 11 rabbits and 121 guinea pigs.

**Large Animal Facility (Sheep)**
The Sheep colony housed 2 sheep for research work of the Department of Microbiology.

**Non-human primates (Monkeys)**

Census Report

- Total number of monkeys (on 1 April 2011) 43
- Rehabilitation 22
- Deaths 5
- Total number of monkeys (on 31 March 2012) 16

**Breeding programme**
All monkeys were carried out in open run. Non-human primates (Monkeys) 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 three to five years of experiments, and old monkeys were also put in the open run. Most of these monkeys were permanently rehabilitated (after experiment of old monkeys) to Animal Welfare Organizations as per instructions from the CPCSEA. The number of monkeys rehabilitated to Sanjay Gandhi Animal Care Centre, Raja Garden, New Delhi, with the permission of CPCSEA, under the Ministry of Environment and Forests, Government of India are as mentioned:
6 Monkeys 5 May 2011
10 Monkeys 9 July 2011
6 Monkeys 23 January 2012

Non-human primates (Monkey) have six indoor runs and these are utilized for physical exercises (16 monkeys).

**Clinical Procedures done**

- Blood sample collected 47
- Physical examination, TB Test and weight 53
- Haematology 47
- Blood chemistry 7
- X-Ray 40
- Other procedures Injury, ASD treatment 40
- Management of trauma, obstetrics procedures, etc. 40

**Experimental Surgery**

106 surgical procedures and radiological investigations were done by various departments on small and large animals in the facility. These include Surgery, Biomedical Engineering Unit, Neurosurgery, Paediatric Surgery, Laboratory Medicine and Pathology.

**Institutional Animal Ethics Committee**

The Institutional Animal Ethics Committee (IAEC) cleared 75 projects on small animals (Rodents) of various investigators of Institute during the year 2011–12.

**Services Provided**

A departmental wing has been operational for maintaining animals belonging to the Departments of Microbiology, Biomedical Engineering, Biochemistry, Biotechnology, Paediatric Surgery, Reproductive Biology, Anatomy, Psychiatry, Pathology, Laboratory Medicine and Neurosurgery. This facility housed, on an average, the following experimental animals, i.e. Sprague Dawley Rats 182, Rats 100, Mice 200, Rabbits 30, and Guinea Pigs 4 belonging to the above departments.

The Central Animal Facility provided laboratory facilities to various investigators, viz. vacuums drying of sera, storage of serum samples, Haematology, Clinical Biochemistry, microscopic investigation and X-ray facility.

**Educational Programme**

1. Dr P.K. Yadav, Senior Veterinary Officer and Mr Dhananjay Kumar, Animal House Attendant, helped with animals in the Minimally Invasive Surgery Training Centre, Department of Surgical Disciplines, AIIMS.

2. Dr P.K. Yadav, Senior Veterinary Officer was invited to deliver guest lectures at National Institute of Animal Welfare under Ministry of Environment and Forest, for one week and two weeks training programme on animal welfare on Care, Breeding and Management of Laboratory Animals.
The strength of the Group B and C staff in Central Workshop is as under:

- Technical officer: 6
- Technician (Grade I): 6
- Technician (Grade II): 10
- Workshop Assistant: 2
- Khalasi: 6
- Store Clerk (UDC): 1
- Assistant (NS): 1
- Sr. Office attendant: 1

**HIGHLIGHTS**

The Central Workshop is not only engaged in the repair and the maintenance of various equipment used for medical education, scientific research and hospital services but also helps in research activities by modifying instruments according to need. Central workshop also undertakes fabrication and design work of useful gadgets as per specifications provided by the departments.

There are various sections in Central Workshop to cater to the above mentioned services. Each section is headed by a Technical Officer with supporting staff members. The sections are:

1. Electronics
2. Electrical
3. Refrigeration
4. Mechanical (Section I and II)
5. Fine instruments
6. Painting, upholstery and carpentry

**REPAIR AND MAINTENANCE**

The Central Workshop carries out repair and maintenance of all types of equipment including blood pressure instruments, electro surgical units, ECG machines, infusion pumps, multi-parameter monitor, defibrillator, 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 viewbox, OT care machine, suction machine, oxygen regulator, flow meter, servo stabilizer, boilers, hot plates, table top centrifuge, microwave ovens, incubators, stainless steel 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, i.v. stand, instrument trolleys, loading trolleys, wheel chair, side screen, bed side locker, push carts, etc.

During the year, the Central Workshop attended to 4653 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 modifications of instruments according to need, and fabrication of gadgets as per specifications. It has been possible in many cases to design and fabricate some items with locally available components, bought by the departments. A total of 25 jobs (211 pieces) were fabricated during the year and are as under:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the item</th>
<th>Quantity</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tr. Tube</td>
<td>119</td>
<td>C N Center</td>
</tr>
<tr>
<td>2.</td>
<td>Stellet</td>
<td>41</td>
<td>COPD, CTVS</td>
</tr>
<tr>
<td>3.</td>
<td>Brail base plate</td>
<td>1</td>
<td>NMR</td>
</tr>
<tr>
<td>4.</td>
<td>Humidifier chamber</td>
<td>1</td>
<td>Pathology</td>
</tr>
<tr>
<td>5.</td>
<td>Handle for surgical equipment</td>
<td>22</td>
<td>Ortho OT</td>
</tr>
<tr>
<td>6.</td>
<td>Objective for MRI</td>
<td>20</td>
<td>NMR</td>
</tr>
<tr>
<td>7.</td>
<td>Cabs</td>
<td>1</td>
<td>Ortho OT</td>
</tr>
<tr>
<td>8.</td>
<td>I.V. stand wooden</td>
<td>1</td>
<td>NS OT</td>
</tr>
<tr>
<td>9.</td>
<td>Pelvic stand</td>
<td>1</td>
<td>Ortho OT</td>
</tr>
<tr>
<td>10.</td>
<td>Caps for nylon hammer</td>
<td>3</td>
<td>Ortho OT</td>
</tr>
<tr>
<td>11.</td>
<td>OT Table top</td>
<td>3</td>
<td>MOT</td>
</tr>
<tr>
<td>12.</td>
<td>Testicle balls</td>
<td>2</td>
<td>Paed. Surgery</td>
</tr>
<tr>
<td>13.</td>
<td>Head and arm hood cover</td>
<td>2</td>
<td>MOT</td>
</tr>
<tr>
<td>14.</td>
<td>Rat stand with 4 box</td>
<td>1</td>
<td>Anatomy</td>
</tr>
<tr>
<td>15.</td>
<td>Metal hammer</td>
<td>2</td>
<td>JPNATC OT</td>
</tr>
<tr>
<td>16.</td>
<td>Plastic mould</td>
<td>7</td>
<td>GOPD</td>
</tr>
<tr>
<td>17.</td>
<td>Gaskets</td>
<td>100</td>
<td>Boiler CSSD</td>
</tr>
<tr>
<td>18.</td>
<td>Tube stand</td>
<td>2</td>
<td>Forensic Medicine</td>
</tr>
<tr>
<td>19.</td>
<td>Specimen tray</td>
<td>6</td>
<td>NS2, IRCH</td>
</tr>
<tr>
<td>20.</td>
<td>Bed cradle</td>
<td>10</td>
<td>AB5 Ward</td>
</tr>
<tr>
<td>21.</td>
<td>Al Plaster board</td>
<td>15</td>
<td>Anesthesia store</td>
</tr>
<tr>
<td>22.</td>
<td>L Piece (Aluminum)</td>
<td>20</td>
<td>Anesthesia store</td>
</tr>
<tr>
<td>23.</td>
<td>Ample cutter</td>
<td>3</td>
<td>AB7 KTP</td>
</tr>
<tr>
<td>24.</td>
<td>Sample box</td>
<td>6</td>
<td>C6 Ward</td>
</tr>
<tr>
<td>25.</td>
<td>E.T Stellet (Aluminum)</td>
<td>2</td>
<td>IRCH MO Ward</td>
</tr>
</tbody>
</table>

**SHORT-TERM TRAINING**

The workshop is actively involved in providing guidance and imparting short term training (4–6 weeks) to Diploma/undergraduate students of various engineering colleges. Nine students from Northern India Engineering College (Lucknow), 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. Kailash

S.N. Ragu Kumar

Satish Prasad

(superannuated 31 August)

**Senior Programmers**

Sushil Kumar Meher

S.P. Singh

Sanjay Gupta

Vinay Pande

**Programmers**

Hari Shankar

Tripta Sharma

Sanjeev Kumar

Shyamal Barua

Ankita Saini

Manoj Kumar Singh

(up to 5 March 2012)

**EDUCATION**

**Postgraduate**

Computer programming classes covering both theory and practical aspects were conducted for postgraduate students of Department of Biotechnology and College of Nursing. Also provided training for Armed Forces officers deputed to study Medical Informatics for a 2 year period.

**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.

**Conferences organized**

8th National Conference on Medical Informatics (NCMI 2012), was organized successfully at Jawahar Lal Nehru Auditorium, AIIMS, under the chairmanship of Prof P. P. Kotwal. 272 local and 10 foreign delegates attended, 119 papers were submitted and 77 papers were presented. All the presented papers were published in National Journal of Medical Informatics.

**SERVICES**

**Hospital computerization**

The following software design, development, implementation and support activities were done by the computer facility: Continuous maintenance and enhancement/upgradation of modules developed for Dr BRA IRCH OPD (New and Old patients) and Inpatients, New patients OPD registration, Casualty Registration, Admission Registration (for both short and long admission) for the Main hospital and centres, Dental OPD at CDER and RP Centre (Casualty).

Also modules for discharge summaries for clinical departments such as Gastroenterology, Orthopaedics, Cardiothoracic and Vascular Surgery, Prosthodontic and Maxillofacial department of CDER and Physical Medicine and Rehabilitation were maintained. Software Disability Certificate Software was running successfully.
The software related activities at the various centres include:

1. **BRA IRCH**: Continuously monitored, maintained and upgraded computerized registration of OPD (new and old patients), inpatients, day care registration, appointment for daycare patients and their discharge, e-billing, discharge of inpatients at Medical Oncology, Radiation Oncology and Pain clinic, Laboratory registration of outpatients and inpatients and report generation of patients for peripheral smear, multiple myeloma and bone marrow which are stored in the database of patients for retrieval anytime from any location. Drug authorization software for day care and cheque printing for accounts department have been developed and implemented.

2. **CT and NS Centre**: Continuously monitored, maintained and upgraded electronic registration of new patients both for OPD and clinics at Cardiac and Neurosciences Centre, discharge summary for Neurosurgery in-patients, Operation Theatre, notes. All these modules were running successfully.

3. **RP Centre**: Histoology and Cytology Reporting for RPC, 7th Floor, Pathology, RPC and Cheque Printing and Reporting Software for Accounts Section were developed and implemented.

4. **Raj Garhia Vishram Sadan (Three Vishram Sadans); Vishram Sadan Room Reservation System**: The site preparation has been done for the following activities—Online booking room/dormitory, registration of patient, allotment of dormitory-bed/room, preparing waiting list for allotment of dormitory, bed/room, receipt generation of the payment, check out, refund of advanced payments, daily report of occupants and their payment received and refund (consolidated report), Bed management (adding a new bed/ rename). The above functionalities were developed, provided training to end user and successfully implemented.

**Research section**
The modules automated and running successfully include

1. Administration including (i) Research project management, (ii) recruitment management, (iii) project employee management, (iv) project employee EHS management, and (v) research fellowship management.


3. Stores including requisition, supply order and financial transaction.

**Administrative computerization**
1. Continued the payroll processing, administrative, accounts and finance systems using in-house software development.

2. Online payslip to employees through website aiims.edu, aiims.ac.in

3. File Tracking System successfully implemented in Administration (AIIMS) by NIC and Computer Facility.

4. Computerized letter of intent (LOI) management system for Engineering Section Division (ESD) developed and successfully implemented.

**Examination section computerization**
1. Computer Facility has coordinated and conducted twice computerized online counseling for MD/MS/MDS and the selection of Junior Residents (non-Academic) for 2010–11.

2. Hosted all examination results and notices online in the AIIMS website servers.

**Hostel**
1. Maintaining and support for Hostel Software (making waitlist and allotment of room to students for different hostels).
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.
3. Facility Management for Wireless Networking: Continued implementation of support systems and call centers for student support.
4. Continued management of webmail system.
5. Continued management of Unified Threat Management (UTM) and installation done for security of computer networks and application for management at gateway level antivirus, antispam, IPS, load balancing and content filtering.
6. Conducted website content provider meetings with all departments for continuous updating and upgradation of AIIMS website and its updating policies.
7. Continued management of wireless networking zones at around 18 hostel locations, creating Wi-Fi zones for internet and online journals access to students and resident doctors. So far 1400 students have availed this facility.
8. Online access to journals subscribed by B.B. Dixit Library is enabled through VPN tunnel based access outside the Institute.
9. Implemented ICU Neuro patient monitoring online to view the status of ICU patients anywhere outside the ICU.
10. Implemented CT-6 ICU patient monitoring online to view the status of ICU patients anywhere outside the ICU.
11. Bilingual website creation process started so far 4 departments have been translated into Hindi and hosted on the website.
12. Continued management of Wi-Fi zone at B.B. Dikshit Library for internet and online journal access for students.
13. The website of www.aiims.edu, www.aiims.ac.in is being maintained in-house by the Computer Facility.
14. Internet facility for faculty and students was maintained 24×7 days on the AIIMS network at around 2500 nodes.
15. Full commissioning of 45 Mbps (1:1) leased line from Education and research network (ERNET India, Ministry of information and communication technology, GOI).
16. National Knowledge Network (NKN) lease line of 100 Mbps with capacity to extend 2 Gbps has been installed at Computer Facility from NIC. Nodes have been given to various lecture theatre and departments for information access through NKN.
17. Creation and maintenance of users accounts for 700 aiims.ac.in domain email users.
18. The total number of visitors to AIIMS website was approx. 25 lakh till date.
19. Maintenance of Web server, Proxy server, Mail Server 24×7 days.
20. Provision of new internet connections to faculty and officers on regular basis.
21. Facility management and call maintenance for internet and network users complaints and resolution.
22. The software modules for Examination Section were developed for the AIIMS website.
23. Technical co-ordination 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. Network revamping as per CNC OPD renovation plan done.
Total number of pages updated, created and uploaded on AIIMS website = 3165

Number of email users at aiims.ac.in = 700

Number of tenders uploaded on http://tenders.gov.in = 1515

**Other facilities**
The following facilities were maintained during the year:
1. Email and FTP facility
2. Laser printing and scanning
3. Consultancy for Software and Hardware and Networking

**SIGNIFICANT EVENTS**

**Mr S.N. Ragu Kumar** took IT classes for MBiotech, PhD students and BSc students; Took Internet class in Orientation programme for 1st year MBBS students, MD/MS and PhD students conducted by Academic Section. Attended seminar on cloud computing; Chaired session in NCMI 2012, AIIMS; Presented paper on ‘Case Study – Design and Implementation of WiFi based access Network for Healthcare Professionals in AIIMS’, New Delhi, NCMI 2012.

**Mr Satish Prasad** was the Database administrator of the Administrative Local Area Network (Novel Netware server) which caters to the Administration and Finance having more than 70 nodes. Maintained software for AIIMS Finance. Led the team for feasibility of Comp DDO (Financial software from NIC) software at AIIMS; Nodal Officer for FTS (File Tracking System) for Administration. Course Coordinator and teaching faculty of MSc, BSc and Post-certificate of Information Technology classes of Nursing College; Took classes of applications software used in IT for Disaster Management course of Indian Red Cross Society (Master’s course affiliated to IP University); Designated Central Assistant Public Information Officer (CAPIO) for Computer Facility, 12 September 2011.

**Mr S.K. Meher** was Course Coordinator and took computer application and bioinformatic classes for MBiotech students and the defense doctors who are on two years training posted in Computer Facility. Designed an orientation programme course for the MBBS 1st year students. Coordinated and conducted twice the computerized online counseling for PG MD/MS/MDS and selection of Junior Residence (non-Academic) for the year 2011–12; presented a talk on ‘Introduction to Database and Architecture and use of Database in Bio-Medical Informatics’ in the ICMR sponsor workshop, organized by Department of Biophysics, AIIMS, New Delhi; Chaired a session ‘IT in Healthcare’ in the UGC sponsored two-day National Seminar on ‘The Impact of IT on Modern Indian Society of 21st Century: A Case Study of Odisha’, Cuttack, 21–22 January 2012, and presented a paper on ‘Multimedia EPR Environment for eHealth Applications’. Reviewed a paper ‘A Framework for the Comparison of Mobile Patient Monitoring Systems’ and published in the J Biomedical Informatics. A feasibility study report has been prepared and submitted for AIIMS Hospital Computerization and presented to DD(A). Prepared and submitted a proposal for the computerization of NDDTC, Ghaziabad. As per requirement of Chief IRCH a project report has been prepared for PACS solution for IRCH and submitted. Prepared a technical document for upgradation and replacement of telemedicine equipment for Telemedicine section. Supervising the computerization of CNC, IRCH, RPC, CDER, NDDTC, Laboratories, Radiology, Academic, Hostel and Research Section. Organizing Secretary of 8th National Conference on Medical Informatics (NCMI 2012) held in AIIMS, Jawaharlal Nehru Auditorium, 3–5 February 2012 and chaired a session in NCMI 2012. Elected Secretary of Indian Association of Medical Informatics, 2012–14.

**Mr Sanjay Gupta** attended and chaired a session 8th National Conference on Medical Informatics (NCMI 2012). Elected treasurer of the NCMI 2012. Supervising the implementation of OPD, Casualty, EHS and Pharmacy computerization.
Mr Vinay Pande maintained software for AIIMS Finance, Administration and electronic filing of AIIMS tax; One of the administrators for File Tracking System (FTS); Member of the team for looking into the feasibility of CompDDO software at AIIMS; took MSc, BSc. Info. Technology and Medical Informatics classes of Nursing College, AIIMS; took classes of IT in Disaster Management and Cyber Terrorism for Indian Red Cross Society (Master’s course affiliated to I.P. University); Invited to deliver lecture on ‘Biomedical Information Retrieval’ in a workshop organized by Department of Biophysics, AIIMS; Co-chaired a scientific session in The National Biennial Conference on Medical Informatics at AIIMS.

Ms Tripta Sharma developed and successfully implemented Rajgharia Dharamshala Room Reservation Software; Supported and maintained Dental OPD and Dental Billing software.
EDUCATION
1. Five MSc 4th year students along with one faculty from Department of Physiology, University of Calcutta, visited the facility on 25 March 2011.
2. Twelve MBiotech students of the Department of Biotechnology, AIIMS, received two weeks training, 23 August–3 September 2011 (as part of their 1st Semester Cell Biology Practical).
3. Four PG Anatomy students attended the E.M. Course from 6 January–17 February 2012 (only on Fridays).

CME
1. The 27th National Training Programme in Electron Microscopy for Scientific Investigators, 14–26 November 2011. Thirteen 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 for the participants of the above training programmes.
2. A Summer Training Course for Technical Personnel in Electron Microscopy was held for six weeks, 16 May to 25 June 2011. Two candidates, Mr Ratan Boruah, Technical Assistant, Department of Physics, Tezpur University, Tezpur, Assam and Dr V. Elangovan, Assistant Professor, Department of Applied Animal Sciences, School of Bioscience and Biotechnology, Babasaheb Bhimrao Ambedkar Central University, Lucknow, UP, were trained in sample processing, ultramicrotomy, CPD, sputter coating, TEM and SEM viewing, digital image recording and routine maintenance.

RESEARCH
Funded Projects
Ongoing

Departmental Projects
Ongoing
1. Effect of amyloid-beta on the morphology and protein profile of the rat hippocampus.
2. Correlation between autophagy and apoptosis in ischemia-reperfusion injury model by middle cerebral artery occlusion in rat brain.
3. Light-induced retinal degeneration in neonatal chicks.
Collaborative Projects

Ongoing

1. A study to establish the role of T-helper 17 (Th-17) cells in the Asian Indian arthritis patients (Department of Orthopaedics).

2. Role of fluoride toxicity on renal pathogenesis in childhood nephrotic syndrome: An ultrastructure, biochemical, protein profiling study (Department of Paediatrics).

3. Phenotypic, molecular and ultrastructural studies of coagulase negative Staphylococcus sp. and their biofilm in device-related infections (Dr RP Centre).


PUBLICATIONS

Journals: 12

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>Users (n)</th>
<th>Specimens analysed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Internal</td>
<td>External</td>
</tr>
<tr>
<td>1.</td>
<td>Transmission Electron Microscope</td>
<td>101</td>
<td>172</td>
</tr>
<tr>
<td>2.</td>
<td>Scanning Electron Microscope</td>
<td>28</td>
<td>88</td>
</tr>
<tr>
<td>3.</td>
<td>Immuno-electron Microscope</td>
<td>6</td>
<td>29</td>
</tr>
<tr>
<td>4.</td>
<td>Elemental Analysis (EDAX)</td>
<td>2</td>
<td>19</td>
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</tbody>
</table>

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shashi Wadhwa was a special invitee to the ICMR EM Forum at the Symposium on ‘Advances in Electron Microscopy research in Virology and 3D imaging: The road ahead’, National Institute of Virology, Pune, 20–21 October 2011; She chaired the biology session during the International Conference and Workshop on Nanostructured Ceramics and other nanomaterials – ‘ICWNCN-2010’, Department of Physics and Astrophysics, University of Delhi, Delhi, 15 March 2012.

Dr Taposh K. Das delivered two lectures on ‘Electron Microscopy: Application in Biotechnology’ in the Department of Biotechnology of TERI University, 8 and 22 April 2011. He attended the technical committee meeting as external expert for EM Lab instrument purchase at IMTECH Chandigarh, 20 October 2011. He attended the technical committee meeting as external expert for the purchase of a 200kV TEM at NII, New Delhi, 12 January 2012. He also delivered an invited lecture on ‘Recent advances in Electron Microscopy and its application in biomedical sciences’ in the Extension Lecture series 2012, organized by Department of Biotechnology, Jamia Millia Islamia, New Delhi, 10 March 2012.

Dr TC Nag reviewed manuscripts from Italian Journal of Zoology, Pharmaceutical Biology and Journal of Medicine and Medical Sciences; delivered talks at (1) DBT-EMSI sponsored workshop on Techniques in Electron Microscopy, held at Ramjas College, 20–22 June 2011, (2) Golden Jubilee Conference (EM 50) and XXXIII Annual Meeting of the EMSI, Hyderabad, 6–8 July 2011, and (3) One day symposium on Techniques in Electron Microscopy, Advanced Instrumentation Facility, JNU, 28 February 2012.
The AIIMS has several halls of residents with a capacity of over 1223 (approximate) single/double rooms and 194 married accommodations and 388 accommodations for nursing students/staff nurses. These are spread over different hostels and residence in the AIIMS Main Campus, Masjid Moth, A.V. Nagar, F.T.A. Hostel, 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/ Four/Five seater</th>
<th>Guest rooms (with 2 beds)</th>
<th>Total</th>
</tr>
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<tr>
<td>1.</td>
<td>I (Charak)</td>
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<td>62</td>
<td>$3 \times 2 = 6$</td>
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<td>2.</td>
<td>II (Jivak)</td>
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<td>$5 \times 2 = 10$</td>
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<td>62</td>
</tr>
<tr>
<td>6.</td>
<td>VI (Vagbhatta)</td>
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<td>$7 \times 2 = 14$</td>
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<td>83</td>
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<tr>
<td>7.</td>
<td>VII (Ashwini)</td>
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<td>$4 \times 2 = 8$</td>
<td>1</td>
<td>117</td>
</tr>
<tr>
<td>8.</td>
<td>VIII (Bharadwaj)</td>
<td>Main Campus</td>
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<td>$1 \times 2 = 2$</td>
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<tr>
<td>9.</td>
<td>RPC-I (Dhanwantri)</td>
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<tr>
<td>10.</td>
<td>MMRDH (Single)</td>
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<td>–</td>
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<td>11.</td>
<td>JPNATC</td>
<td>Raj Nagar</td>
<td>57</td>
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<td>Double/Three/Four/Five seater</td>
<td>Guest rooms (with 2 beds)</td>
<td>Total</td>
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<td><strong>Married Quarters</strong></td>
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<td>3.</td>
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<td><strong>Ladies Hostels</strong></td>
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<td>X ( Pravati)</td>
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<td>3.</td>
<td>RPC-II ( Lakshmi)</td>
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<td>4.</td>
<td>Ladies Hostel XI</td>
<td>Main Campus</td>
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<tr>
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<tr>
<td><strong>New Nurses Hostel, Masjid Moth</strong></td>
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<tr>
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<td>Nursing Students</td>
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</table>

**SIGNIFICANT EVENTS**
1. Mess hall renovated at Masjid Moth Residents Doctor’s Hostel.
2. All the shops are renovated with tiles in MMRDH.
3. Aluminium/glass windows are fixed in the corridor at ground floor in MMRDH.
4. Badminton court at MMRDH.
5. Automatic detection system work is completed in MMRDH.
6. A new store is constructed in Gents Hostel complex for hostel Store purpose.
7. Renovated Lav. No. 1, 3 and 11 in Hostel No. IX, Ladies Hostel.
8. Net wire mesh fixed on the corridors for Hostel No. X

**FUTURE PLANS**
1. Renovation of Hostel office (Hostel No. VII/First floor) with modern Godrej cubicles with the provision of air conditioners.
2. Open space of all corridors should be converted into rooms for Nursing students in New Nurses Hostel/Masjid Moth.
3. Beautification of Hostel complex with greeneries and plants.
4. Renovation of Café No. V. in Gents Hostel.
5. Renovation of all the common rooms in all hostels with the provision of LCD television and air conditioners.
6. Provision of air conditioner in all the guest rooms of all hostels.
7. Renovation of Room No. 39/Hostel No. VII as a sample and model room for students.
8. The land structure to be leveled and beautified with proper parking system for two wheelers and cars in Gents Hostel Complex.
9. A visitor room to be made in Hostel No. VII ground floor.
10. The area between hostel No. VII and VIII to be refurbished and beautified with proper horticulture work, stone curbs and new tiling of the floor.
11. Facility of western toilets in all the wash rooms of Gents hostels in Hostel No. VII and VIII.
11.8 Institution Ethics Committee

Members of the committee till 23 June 2011
1. Professor JP Wali, New Delhi, Chairman
2. Professor Rani Kumar, Dean, AIIMS, Member
3. Professor Hari Prakash, Former Chief CDER, AIIMS, Member
4. Professor AB Dey, Professor, Department of Medicine, Member
5. Professor Kamal Buckshee, former HOD, Department of Obstetrics and Gynaecology, Member
6. Professor YK Gupta, HOD, Department of Pharmacology, Member
7. Justice S.R. Singh, New Delhi, Member
8. Dr Ganga Prasad Vimal, New Delhi, Member
9. Dr Vijay Kumar, DDG, ICMR, New Delhi, Member
10. Professor Sushma Yadav, Chair Professor, Dr B.R Ambedkar Chair in Social Justice, Indian Institute of Public Administration, IP Estate, Ring Road, New Delhi, Member
11. Dr Peush Sahni, Editor, NMJI, AIIMS, Member
12. Professor Praveen Aggarwal, HOD, Department of Emergency Medicine, AIIMS, Member
13. Professor Kamal Kishore, Department of Pharmacology, AIIMS, Member
14. Dr Venkat Karthikeyan C, Assistant Professor, Department of ENT, Member
15. Professor Renu Saxena, HOD, Department of Hematology, Member Secretary

Special Invitee: Dr Ravinder Kumar Batra and Dr Rakesh Yadav (w.e.f. 2 August 2010)

Members of the committee from 24 June 2011 to 31 March 2012
1. Professor JP Wali, Former Professor, Medicine, AIIMS, Chairman
2. Professor SS Sidhu, Ex. Prof and Head, Department of Dental Surgery, AIIMS, Member
3. Dr DR Saini, Principal, Delhi Public School, R.K. Puram, Sector-12, New Delhi, Member
4. Dr Vijay Kumar, Scientist ‘F’ DDG (Sr. Grade), ICMR, New Delhi, Member
5. Shri Mukul Gupta, Sr. Advocate, Ex-SLC, AIIMS, Member
6. Dr AM Khan, Head, Department of Social Sciences, National Institute of Health and Family Welfare, Munirka, New Delhi, Member
7. Professor Rani Kumar, Dean, (Academic) AIIMS, Member
8. Professor YK Gupta, Prof. and Head, Department of Pharmacology, AIIMS, Member
9. Professor AB Dey, Department of Medicine, Professor Incharge (Research), Member
10. Professor Peush Sahni, Department of GI Surgery and Editor, NMJI, Member
11. Professor Praveen Aggarwal, Prof. and 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, Prof and Head, Department of Hematology, AIIMS, Member Secretary
Members of the ethics sub-committee till 23 June 2011
1. Dr Ravinder Kumar Batra, Professor of Anesthesiology and Chairman
2. Dr Renu Saxena, Professor and Head, Hematology
3. Dr Ashok Kumar, Prof. Obst. and Gynae, MAMC, New Delhi,
4. Dr Rakesh Mahajan, Senior Vascular Surgeon, Apollo Hospital
5. Dr Praveen Agarwal, Professor of Emergency Medicine
6. Dr Arvind Bagga, Professor of Paediatrics
7. Dr Shashi Kant, Professor of Centre for Community Medicine
8. Dr Kamal Kishore, Professor of Pharmacology, AIIMS
9. Dr Rajinder Prasad, Additional Professor of Surgery, AIIMS
10. Dr Raju Sharma, Additional Professor of Radiodiagnosis, AIIMS
11. Dr Kalpana Luthra, Additional Professor of Biochemistry
12. Dr Pradeep Venkatesh, Associate Professor, Dr R.P. Centre, AIIMS
13. Dr Sanjay Thulka, Associate Professor, Radiodiagnosis, AIIMS
14. Dr Vineet Ahuja, Associate Professor of Gastroenterology, AIIMS
15. Dr Sunil Chumber, Additional Professor of Surgery, AIIMS
16. Dr Rakesh Yadav, Sub-Dean (Acad.) and Additional Professor and Member-Secretary

Members of the ethics sub-committee from 24 June 2011 to 31 March 2012
1. Dr Ravinder Kumar Batra, Professor of Anesthesiology and Chairman
2. Dr Renu Saxena, Professor and Head, Hematology
3. Dr Arvind Bagga, Professor of Paediatrics
4. Dr Shashi Kant, Professor of Centre for Community Medicine
5. Dr Kalpana Luthra, Additional Professor of Biochemistry
6. Dr Ashok Kumar, Prof. Obst. and Gynae., MAMC, New Delhi
7. Dr Praveen Agarwal, Professor of Emergency Medicine
8. Dr Anurag Srivastava, Professor of Surgery
9. Dr Radhika Tandon, Professor of Ophthalmology
10. Dr Manju Vatsa, Principal, College of Nursing
11. Dr S.B.Gaikwad, Professor of Neuro-Radiology
12. Dr Ravinder Goswami, Sub-Dean (Research)
13. Dr Naval Kishore Vikram, Associate Professor of Medicine
14. Dr G. Karthikeyan, Additional Professor of Cardiology
15. Dr Rakesh Yadav, Sub-Dean (Acad.) and Additional Professor and Member-Secretary
EDUCATION
Lectures delivered

Renu Saxena: 6     Ravinder Kumar Batra: 7

Short Term Training
Six months training in ‘Ethics in Research’ was provided to one student of MSc Clinical Research.

Meetings
The number of meetings of the Ethics committee were as follows:

Institution Ethics Committee: 12    Institution Ethics Sub-Committee for Thesis and Dissertation: 12

Number of projects reviewed by the Institution Ethics Committee
New projects: 431    Old projects: 138

Number of thesis reviewed by Institution Ethics Sub-Committee

In addition the ethics committee continued to receive notifications of serious adverse reactions, serious adverse events, six monthly progress report and completion report, etc.

The Institutional Ethics Committee Standard Operating Procedures (SOPs) were modified as per the need and made available on the AIIMS website.

SIGNIFICANT EVENTS
Dr Ravinder Kumar Batra was Member, Thesis Ethics Committee and Examination Ethics Committee, National Board of Examinations, Ministry of Health, Government of India.
HIGHLIGHTS
In response to the need for addressing faculty development in the context of overall functioning of AIIMS, CMET emphasised the skill enhancement of various health professionals across the Institute. Workshops were organized for the senior/junior residents, Pool Officers, PhD students on issues such as scientific writing, informational retrieval in health sciences and effective presentations using media. A massive training programme was organized for 1285 Group D employees in collaboration with twelve departments of AIIMS for their capacity building and effective functioning as members of health team. CMET faculty were also involved in important national initiatives such as National Knowledge Commission, Steering Committee for the establishment of National Health Portal, Expert Committees of MCI related with Undergraduate/Postgraduate Medical Education besides designing curriculum for Bachelor of Rural Health Care (BRHC) course.

EDUCATION
Eight sessions (2 hours each) were conducted by CMET faculty for the MSc Nursing programme of College of Nursing, AIIMS, on the topics related to media and communication.

CME/Workshops/Symposium/National and International Conferences
In-house workshops organized for Junior/Senior Residents/PhD students.

| Tools for Scientific Writing in MS word | 5 April 2011 |
| Effective Presentation Skills | 19 April 2011 |
| Effective Presentation Skills | 26 April 2011 |
| Animation in Power Point | 3 May 2011 |
| Information Retrieval in Health Sciences using Internet | 10 May 2011 |
| Tools for Scientific Writing in MS word’ | 14 May 2011 |
| Presentation skills | 31 May 2011 |

National workshop organized
CMET organized a National Symposium-cum-workshop on ‘PBL-promises and pitfalls’ on 21 February 2012.
Training of Group D Employees at AIIMS

CMET organized a capacity building training programme for 1285 Group D Employees of AIIMS belonging to eight categories: Hospital Attendant, Office Attendant, Laundry Attendant, Beldars, Khalasi, Mali, Kitchen staff, Bearers, Cleaners. In all 110 trainers were pooled from twelve departments of AIIMS: General Administration, Hospital Administration, CMET, Dietetics, Security, Centre for Community Medicine, Physical Medicine and Rehabilitation, Sanitation, Nursing, Engineering (Civil, Electrical, A/C and Horticulture), ORBO/Eye Bank and Cafeteria. The said programme was rolled out from August 2011 to January 2012 in 31 batches.

CMET facilitated organization of 21 ‘hands on’ workshops for various departments of AIIMS by providing venue, technical support including audio-visual and computer facilities. CMET also provided such facility for the practical sessions (10 days) for College of Nursing, AIIMS.

Lectures delivered

K.K. Deepak: 2  B.V. Adkoli: 5  Yogesh Kumar: 6

PUBLICATIONS

Chapters in Books: 2

SUPPORTIVE AND MEDIA RELATED ACTIVITIES

Details of Media Production for the year 2011–12

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of requisitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Photography</td>
<td>784 (16701)</td>
</tr>
<tr>
<td>X-ray scan and A4 printing, slide scan</td>
<td>653 (6360)</td>
</tr>
<tr>
<td>Photographic colour prints, scanning of images and documents</td>
<td>506</td>
</tr>
<tr>
<td>Video recording and editing</td>
<td>493</td>
</tr>
<tr>
<td>Designing/printing of large format posters</td>
<td>1007</td>
</tr>
</tbody>
</table>

(Figures in parentheses indicate number of items/images/pages)

Exhibitions organized

CMET played key role in organizing 56th Institute Day Exhibition, 25–27 September 2011, the theme of which was ‘AIIMS Contribution to Healthcare’. 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 Member, Advisory Committee of All India Pre-Medical/Pre-Dental Entrance Examination, Central Board of Secondary Education (CBSE); Serving as the Nodal Officer in the National Knowledge Network (NKN), Government of India; Appointed a member of sub-committee of the academic council on minimum standards requirements (MSR), MCI; Served as Resource Faculty and Co-convenor to conduct Curriculum Implementation Support Programme (CISP) workshop for faculty of the Regional Centres in Medical Council of India; Co-convenor, Core Group on Integrating teaching and finalization of CISP modules, Medical Council of India; Appointed a member, undergraduate committee (UG) of MCI; Member, Education Committee, International Union of Physiological Sciences (IUPS); Faculty for a workshop on MBBS Curriculum Review at B.P. Koirala Institute of Health Sciences (BPKIHS), 5–8 April 2011; Expert for developing course curriculum for UG MBBS programme, Bhutan Institute of Medical Sciences (BIMS), Bhutan, 4–7 November 2011.
Dr B.V. Adkoli was Member, Expert Committee appointed by the Medical Council of India for framing curriculum of Bachelor of Rural Health Care course; Member, Steering Committee for launching National Health Portal, appointed by the Ministry of Health and Family Welfare, Government of India; Special invitee for the Expert Group meeting convened by the Indian Public Health Association for developing standardized competency framework for public health professionals in India; Recognized as National Educator by the American College of Surgeons for conducting Instructor’s course under Advanced Trauma Life Support (ATLS) programme; Faculty for a workshop on MBBS Curriculum; Review at B.P. Koirala Institute of Health Sciences (BPKIHS), Dharan, Nepal, 5–8 April 2011; Resource person for the pre-conference workshop on: Assessment strategies for post-graduate medical education during medical education conference MEDUCON-2011 conducted by JIPMER, Pondicherry; also chaired a session during the conference; Resource person for recommendation writing workshop conducted by The Public Health Foundation of India, 14–15 September, 2011, under National Initiative on Allied Health Services (NIAHS); Resource person/faculty for the Regional FAIMER Institute, CMC, Ludhiana for their fellowship programme.

VISITING SCIENTISTS
Dr Jalal Ahmed, WHO Fellow from Bangladesh (10–14 October 2011).
12. Publications

Journals


139. Bhowmik D, Mahajan S, Bora M. Concerns regarding the ISPD guidelines/recommendations for peritonitis due to mycobacteria. Perit Dial Int 2011; 31: 363–4; author reply 365.
141. Bhowmik D, Mahajan S, Bora M. Concerns regarding the ISPD guidelines/recommendations for peritonitis due to mycobacteria. Perit Dial Int 2011; 31: 363–4; author reply 365.
142. Bhowmik D, Mahajan S, Bora M. Concerns regarding the ISPD guidelines/recommendations for peritonitis due to mycobacteria. Perit Dial Int 2011; 31: 363–4; author reply 365.
143. Bhowmik D, Mahajan S, Bora M. Concerns regarding the ISPD guidelines/recommendations for peritonitis due to mycobacteria. Perit Dial Int 2011; 31: 363–4; author reply 365.
144. Bhowmik D, Mahajan S, Bora M. Concerns regarding the ISPD guidelines/recommendations for peritonitis due to mycobacteria. Perit Dial Int 2011; 31: 363–4; author reply 365.


575. Kathuria S, Khaitan BK, Ramam M, Sharma VK. Segmental vitiligo: A randomized controlled trial to evaluate efficacy and safety of 0.1% tacrolimus ointment vs 0.05% fluticasone propionate cream. Indian J Dermatol Venereol Leprol 2012; 78: 68–73.


Kusuma YS, Babu BV. An ethnographic note on Khondh, a primitive tribe and Valmiki, an acculturizing tribe from Andhra Pradesh, India. Antrocom–The Online J Anthropology 2011; 7: 263–70.


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1363. Subbiah V, Bhardwaj D, Dhawan M, Sagar R. Genetic polymorphism of the drug metabolizing enzyme CYP1A2 in schizophrenia patients undergoing treatment with clozapine in a North Indian population. Int Clin Psychopharmacol 2011; 26: e163.


1383. Talwar S, Chauhan S, Choudhary SK, Airan B. A simple technique to facilitate the right ventricular outflow tract reconstruction during the arterial switch operation. Heart Lung Circ 2011; 20: 777.


Abstracts


73. Gupta A, Singhal M, Kumar S, Sagar S, Prakash P, Madduri VKS. Complex thoracic impalement: Lessons for developing high quality trauma care systems in developing countries. Abstract book of From Roadside to Recovery – Successful Systems of Trauma Care, Annual Conference of the National Trauma Research Institute, 18–19 November 2011, Melbourne, Victoria, Australia.


75. Gupta A. International Perspectives on Trauma Systems: Current Status of Trauma Systems in India and Future Directions. Abstract book of From Roadside to Recovery – Successful Systems of Trauma Care, Annual Conference of the National Trauma Research Institute, 18-19 November 2011, Melbourne, Victoria, Australia.


99. Kilambi R, Bansal VK, Tamang T, Misra MC, Kumar S. Laparoscopic suturing skills acquisition- a comparison between trained and novice surgeons’ Delhi State Chapter of ASI, RML Hospital, New Delhi, February 2011.


146. Prabhakar H, Singh GP, Bindra A, Bithal PK, Kalaivani M. Coagulation effects of combination of mannitol and 0.9% normal saline or hydroxyethyl starch in neurosurgical patients. Eur J Anaesthesiol 2012; (Suppl): A74.


152. Princess MS, Gupta A, Jakhal A, Singhal M, Shokeen S, Misra MC. Epidemiology of trauma patients brought dead to the ED of Level 1 trauma centre of India. Proceedings of Trauma 2011, Fourth International Conference, CME cum Live Workshop, Organized by ISTAC and JPN Apex Trauma Centre. AIIMS, New Delhi, India, 9–13 November 2011. Pg. 68.


188. Singh AN, Bansal VK, Misra MC, Kumar S, Sagar R. Comparison of chronic groin pain, testicular functions and quality of life after open and laparoscopic inguinal hernia repair – a prospective randomized controlled trial. Proceedings of Delhi state chapter of ASI, RML Hospital, New Delhi, February 2011.


233. Wadhwa S, Sanyal Chatterjee T, Jain S, Nag TC. Prenatal exposure to patterned and unpatterned noise differentially influences spatial behaviour, morphological and molecular changes in the chick brain’. Intl J Dev Neurosci 2012; 03.305.


Chapters in Books


AIIMS 2011-2012 / 471


14. Gulati S. Ten training modules for neurodevelopmental disorders as a part of a research project. To develop a comprehensive training package for holistic evaluation and management of childhood neurodevelopmental disorders. The disorders are (i) Epilepsy, (ii) Cerebral Palsy, (iii) Neuromuscular Disorders, (iv) Autism, (v) Attention deficit hyperactivity disorder (ADHD), (vi) Learning disorders, (vii) Hearing impairment, (viii) Vision impairment, (ix) Speech and Language disorders, and (x) Intellectual disabilities (earlier called Mental retardation).


20. Reference manual on Oral Health for Allopathic and AYUSH practitioners. Developed under GOI-WHO Collaborative Programme (Biennium 2010-11). Centre for Dental Education and Research, All India Institute of Medical Sciences, New Delhi. 2011


32. Standard treatment protocols for health professionals working at small hospitals in SEARO region for WHO (are being pilot tested).


36. Vij A. A Tribute to Life. (Book on organ and tissue donation); 2011.

37. Webinars on sick Newborn Care & audio visual podcast on neonatal equipment freely available on www.newbornwhocc.org


41. Chandra PS. Guidelines for patients with neck pain. The ‘HEAL’ Programme: Patient information handbook published in collaboration with CMET AIIMS.

42. Chandra PS. Taking care of your back. The ‘HEAL’ Programme: Patient information handbook published in collaboration with CMET AIIMS.


13.1 Finance Division

Sr. Financial Advisor
Sandeep Lall

Financial Advisor
Basanti Dalal

F. & C.A.O.
Sunil Kumar Kedia
Satish Khurana

Accounts Officers
D.P. Gangal
Bhom Singh
S.S. Yadav

M.S. Negi
M.J. Razdan
M.K. Bhatt.

R.K. Sharma
S.K. Jain
A.K. Sharma

S.K. Tikoo

The Institute gets grants under the Heads “Plan” and “Non-Plan” from the Govt. of India, Ministry of Health & family Welfare. Plan grants are received for National Drug Dependence Treatment, VVIP care and college of nursing etc. 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 Govt. of India and other agencies are further allocated to Superspecialities Centres/ departments/ Research section as per their projections/requirements.

Finance Division of the Institute monitors/controls the expenditure against the above funds/budget by obtaining monthly expenditure from the respective centers/units/departments and also administers day to day financial matters, payment of salaries to faculty and staff, payment of personal claims, pension and G.P.F in respect of the employees of the Institute & payment to contractors/suppliers. While making payments, all the checks prescribed by to government of India are being exercised by the respective DDOs. Financial Advisor is also being rendered assistance by the Finance & Chief Accounts Officer and Accounts Officer wherever 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. Following officers were holding the charge of posts noted against each during the year 2011-12:-
FIGURES OF ACTUAL EXPENDITURE FOR THE YEAR 2010-11 AND 2011-2012 AND BUDGET ESTIMATES FOR 2012-2013 IN RESPECT OF ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI.

<table>
<thead>
<tr>
<th>HEAD/SUB HEAD</th>
<th>ACTUAL EXPENDITURE</th>
<th>SANCTIONED BUDGET ESTIMATES</th>
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<td>Non-Plan</td>
</tr>
<tr>
<td>A. (Main Instt.)</td>
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<tr>
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<td>Inc. LS &amp; PC, stipend etc</td>
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<td>Minor Works</td>
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<td>Mach. &amp; Equip.</td>
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<td>Mat. &amp; Supply</td>
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<td>Maintenance of Bldg.</td>
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<td>Recoverable Advances</td>
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<td>Dr.B.R.A. I.R.C.H.</td>
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<td>J.P.N. Apex</td>
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<td>TOTAL (A &amp; B)</td>
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<td>C. NDDTC</td>
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<td>GRAND TOTAL (A&amp;D)</td>
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ALL INDIA INSTITUTE OF MEDICAL SCIENCE
STATEMENT SHOWING REVENUE RECEIPT FROM APRIL 2011 TO MARCH 2012.

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<tr>
<th>AIIMS(M)</th>
<th>C.N.C</th>
<th>R.P.C.</th>
<th>I.R.C.H</th>
<th>Trauma</th>
<th>C.D.E.R</th>
<th>TOTAL</th>
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<td>6981.81</td>
<td>827.88</td>
<td>1743.88</td>
<td>239.79</td>
<td>323.52</td>
<td>15.85</td>
<td>10132.73</td>
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<tr>
<td>6981.81</td>
<td>827.88</td>
<td>1743.88</td>
<td>239.79</td>
<td>323.52</td>
<td>15.85</td>
<td>10132.73</td>
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### RECEIPT & PAYMENT ACCOUNT

#### FOR THE YEAR 2011-2012

#### AIIMS (Main) (A)  (Amount in ₹)

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<thead>
<tr>
<th>RECEIPT (A)</th>
<th>2011-12</th>
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<th>PAYMENT (A)</th>
<th>2011-12</th>
<th>2010-11</th>
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<td>(a) Balance as per cash book of the cashier</td>
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<td>Year 2</td>
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<td>Schemes</td>
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**10 Expenditure out of grant received for specific purpose (Scheme Cell)**

- i) Appendix-A 635004546
- ii) Less undisbursed for 2011-12 197351
- iii) Add undisbursed for 2010-2011 paid now 384882

**11 Post Partum programme (Incentive money)**

- 545175
- 687480

**12 Furniture & Fixture**

- 1517285
- 2339116

**13 Books & Publications**

- 25508255
- 16783481

**14 PLAN**

- a) Salary 127190439 117141981
- b) Spares & Accessories 65991491 22803071
- c) Machinery & Equipment 216031990 375755737
- d) Expenditure of Urology against IRCH receipts 1000000
- e) Building Construction
  - i) Major Works 109914765 67506447
  - ii) Minor Works 272586165 200344038
- f) Institute Research Grant 989933
- g) Computerisation 700309
- h) Travelling Allowances 11692798

**15 Purchase of Vehicles**

- (a) Transport Office 637563
- (b) Hospital Store 370844809

**16 Advance Payments**

- a) Material & Supply (NP) for foreign purchase 9737625 13495899
- b) Machinery & Equipment (Plan) for foreign purchase 418748632 420062408
- c) PAO for procurement of Stores 4000000 4000000
- d) Temporary/Contingent Advances 32084006 22974388
- e) Private firms for stores 3037061
- f) Custom Duty for Machinery & Equipment 105144337 79870853
- g) For Books & Journals 41877157 37080547
- h) National Informatics Centre Services Inc for computerisation 95293333 13495899
- i) HSCC for prep of master plan surgical block phase - II (oversight) 5868950 83814950
- j) HSCC for PC & Teaching block phase II (oversight) 55669950 136540015
- k) HSCC for cont. of Hostel Bolck at AIIMS Campus (oversight) 55699950 14500000
- l) M/s Indian Oil Corporation for lubricant Diesel Oil (minor work) 2487842
- m) M/s Indian Oil Corporation for lubricant Diesel Oil (major work) 457695
- n) M/s HSCC for preparation of Master Plan (major work) 105874500
- o) M/s HSCC for repair & renovation of RKAK OPD (major work) 136540015
- p) M/s HSCC for facilitation block (Major work) 14500000
- q) M/s HSCC construction of P.C. Teaching block (major work) 30000000
- r) M/s Alpine Industries for p/o AC units (Major work) 36918
- s) M/s Alpine Industries for p/o AC units (Minor work) 285376
- t) M/s Sidwal Refrigeration for p/o A/c units (minor work) 290518
- u) M/s Sidwal Refrigeration for p/o A/c (Major work) 481289
- v) M/s Kohli & Co. for A/c (minor work) 253034
- w) M/s Videocon Ind. Ltd. For p/o A/C (Minor work) 59622
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### POOR PATIENT ACCOUNTS

| a) AIIMS | 244600 | 367194 |
| b) Interest | 274404 | 42391 |

### PATIENT TREATMENT ACCOUNTS

| a) AIIMS | 95637076 | 72062707 |
| b) Interest | 2951433 | 2000738 |

### HOSTELS

1. Security Deposits | 1517000 | 1415000 |
2. Miscellaneous Receipts | 74535 | 57575 |
3. Interest earned | 521583 | 42483 |

### DEPARTMENT OF GERIATRIC MEDICINE

1. Grant in Aid | 36687600 |
2. Funds received from Director (Main) | 1000 |
3. Interest received | 267477 |

### POOR PATIENT ACCOUNTS

1. AIIMS | 90295 | 109930 |

### PATIENT TREATMENT ACCOUNTS

1. AIIMS | 71234407 | 59859552 |
2. Bank clearing charges | 18248 | 4430 |

### HOSTELS

1. Security refunds | 1165500 | 1127000 |
2. Miscellaneous Expenditure | 27960 |

### DEPARTMENT OF GERIATRIC MEDICINE

1. Bank Charges | 1188 |

### CLOSING BALANCES

**A**

1. AIIMS(Main) | 1171035301 |
2. Unspent Balance of Specific Grants remained with AIIMS (Main) | 341419426 | 860767003 |
3. Schemes Cell | 201224501 | 62074945 |

**B**

1. AIIMS (Main) | 683950 | 292524 |
2. Scheme Cell | 197351 | 384882 |

### AMOUNT LYING UNDISBURSED

1. AIIMS (Main) | 186104 | 104014 |

### POOR PATIENT ACCOUNT

1. Cash/Bank | 1685917 | 1475638 |
2. FDR's | 1202610 | 984180 |

### PATIENT TREATMENT A/C

1. AIIMS | 91464066 | 64128212 |

### HOSTELS

1. Cash in hand | - | 32881 |
2. Cash at Bank | 396906 | 322179 |
3. FDR's | 5026772 | 4121000 |

### DEPARTMENT OF GERIATRIC MEDICINE

1. Cash at Bank | 36954889 |

### DR. RAJENDER PRASAD CENTRE FOR OPHTHALMIC SCIENCES(B)

#### OPENING BALANCE

**A**

1. Cash at Bank | 64667551 | 57013488 |

**B**

1. Cash in hand | 20000 | 20000 |

**C**

1. Poor Patient A/C | 186104 | 104014 |

#### II GRANT IN AID

1. Capital (New) | 27360000 | 20000000 |
2. Revenue General | 85200000 | 45000000 |
3. Non-Plan | 500000000 | 428500000 |

#### III Security Deposits received

1. Cash/Bank | 55000 | 35000 |
2. NSPB | 4000000 |

#### V GRANT IN AID (NON-RPC SCHEMES)

1. ABN AMRO Natra Raksha | - |
2. Acute Bacterial Conjunctivitis | - |
3. Administrative charges received through Projects | 1469266 | 1658011 |
4. Akrosoft Bausch & Lomb | - |

#### VI GRANT IN AID (RPC SCHEMES)

1. ABN AMRO Natra Raksha | 19989 |
2. Acute Bacterial Conjunctivitis | 55633 |
3. Administrative Charges | 653453 | 585284 |
4. Akrosoft Bausch & Lomb | 798 |

#### Sub-Total(A) | 15956310909 | 13579041106 | 15956310909 | 13579041106
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<td>ROP Macugen</td>
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<td>ROP Workshop</td>
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<td>59</td>
<td>RTI</td>
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<td>SMII-VFA</td>
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<td>Treatment of Dry eye Allergan International</td>
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<td>Prevalence of dry eye</td>
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<td>65</td>
<td>WHO Malaysia</td>
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<td>66</td>
<td>WHO Gujrat Survey</td>
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<td>67</td>
<td>WHO-SEIND</td>
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<td>68</td>
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<td>69</td>
<td>Ozuradex Project</td>
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<td>70</td>
<td>XII NAF</td>
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<td>Hospital Receipts including various kits</td>
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<td>72</td>
<td>Interest on Recoverabl Adv.</td>
<td>1170522</td>
<td>411582</td>
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<td>73</td>
<td>IX Miscellaneous</td>
<td>1815142</td>
<td>6635349</td>
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<td>74</td>
<td>X AIIMS Recoveries Received</td>
<td>94624196</td>
<td>84312643</td>
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<td>75</td>
<td>XII Outside Recoveries Received</td>
<td>32796569</td>
<td>25223098</td>
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<tr>
<td>76</td>
<td>XII Interest on CLTD</td>
<td>24387210</td>
<td>517059</td>
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**XVI RECOVERABLE ADVANCE**

1. **Car**
   - Price: 86580

2. **Scooter**
   - Price: 46500

3. **Cycle**
   - Price: 150000
d) H.B.A. 210115
e) Computer 62500
f) Festival 732825

<table>
<thead>
<tr>
<th>Poor Patient A/C</th>
<th>Receipts</th>
<th></th>
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</thead>
<tbody>
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<td>a) Interest</td>
<td>9801</td>
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<tr>
<td></td>
<td>b) Donation</td>
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<td></td>
<td>c) Misc. Receipts</td>
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<table>
<thead>
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<th>Payment</th>
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<td></td>
<td>131255</td>
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<table>
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<tbody>
<tr>
<td>a) Cash at Bank</td>
<td>112157899</td>
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<tr>
<td>b) Cash in hand (Imprest)</td>
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<table>
<thead>
<tr>
<th>Poor Patient A/c</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash / Bank</td>
<td>332390</td>
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<tr>
<td>1246746053</td>
<td>1019677768</td>
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<table>
<thead>
<tr>
<th>CARDIO-TORACIC &amp; NEURO SCIENCES CENTRE (C)</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>1 OPENING BALANCES</th>
<th>1 ADMINISTRATIVE EXPENDITURE</th>
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<tbody>
<tr>
<td>A Cash at bank</td>
<td>a) Pay &amp; Allowances (Non-Plan)</td>
</tr>
<tr>
<td>i) C.N. Centre</td>
<td>b) Wages</td>
</tr>
<tr>
<td></td>
<td>c) Travelling Allowance</td>
</tr>
<tr>
<td>ii) CT Patient A/c</td>
<td>2 Stores (Non-Plan)</td>
</tr>
<tr>
<td>a) Bank</td>
<td>a) Repair &amp; Maintenance of Machinery &amp; Equipment</td>
</tr>
<tr>
<td></td>
<td>b) Material &amp; Supply</td>
</tr>
<tr>
<td>b) FDR</td>
<td>3 Stores (PLAN)</td>
</tr>
<tr>
<td></td>
<td>a) Machinery &amp; Equipment (Advance Payment)</td>
</tr>
<tr>
<td>iii) Angiography A/c</td>
<td>b) Machinery &amp; Equipment (Indian currency)</td>
</tr>
<tr>
<td>a) Bank</td>
<td>c) Furniture &amp; Fixtures</td>
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<tr>
<td></td>
<td>d) Spares &amp; Accessories</td>
</tr>
<tr>
<td>b) FDR</td>
<td>e) Consumables spare &amp; Accessories/ Maintenance</td>
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<td></td>
<td>f) Salary (Plan)</td>
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<td>iv) Gamma Knife patient A/c</td>
<td>4 Building maintenance</td>
</tr>
<tr>
<td>a) Bank</td>
<td>5 Building construction (Plan)</td>
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<td>6 Minor Work (Revenue General)</td>
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<td>b) FDR</td>
<td>7 Office Contingencies</td>
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<tr>
<td></td>
<td>8 Recoverable Advance</td>
</tr>
<tr>
<td>v) Neuro Surgery patient A/c</td>
<td>9 Refund of Security Deposits</td>
</tr>
<tr>
<td>a) Bank</td>
<td>10 Donation</td>
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<td></td>
<td>11 Neurology Patient A/c</td>
</tr>
<tr>
<td>b) FDR</td>
<td>12 Blood Test/Lab. Charges</td>
</tr>
<tr>
<td></td>
<td>13 Cardio Test</td>
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<tr>
<td>v) Neuro Surgery patient A/c</td>
<td>14 Thallium Test</td>
</tr>
<tr>
<td>a) Bank</td>
<td>15 Amount sent to PAO (GPF)</td>
</tr>
<tr>
<td></td>
<td>16 i)GPF</td>
</tr>
<tr>
<td>b) FDR</td>
<td>ii)Amt sent to PAO (GPF)</td>
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<tr>
<td></td>
<td>16.1) New Pension Schemes</td>
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<tr>
<td></td>
<td>10 Levy charges</td>
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<tr>
<td></td>
<td>(i) NPS (Subscription)</td>
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<tr>
<td></td>
<td>11 Rent Charges/Licence Fee</td>
</tr>
<tr>
<td></td>
<td>(ii) NPS (Employees Share)</td>
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<tr>
<td></td>
<td>12 GPF</td>
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<tr>
<td></td>
<td>(iii) NPS (Govt)</td>
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<tr>
<td></td>
<td>13 New Pension Schemes</td>
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<td>18 Employees Health Services</td>
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### Recoverable Advances

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<thead>
<tr>
<th>Item</th>
<th>Amount 1</th>
<th>Amount 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Bicycle</td>
<td>1200</td>
<td>0</td>
</tr>
<tr>
<td>b) Scooter</td>
<td>297536</td>
<td>331608</td>
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<tr>
<td>c) Car</td>
<td>89592</td>
<td>97320</td>
</tr>
<tr>
<td>d) House Building</td>
<td>1009540</td>
<td>1103545</td>
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<tr>
<td>e) Computer</td>
<td>210310</td>
<td>208900</td>
</tr>
<tr>
<td>f) Festival</td>
<td>1097075</td>
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### Outside Recovery

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount 1</th>
<th>Amount 2</th>
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</thead>
<tbody>
<tr>
<td>a) Outside Recovery</td>
<td>10747323</td>
<td>85385914</td>
</tr>
<tr>
<td>b) Amt Sent to PAO (E.I.S.)</td>
<td>1440</td>
<td>107474672</td>
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<tr>
<td>c) Car</td>
<td>5175330</td>
<td>4935070</td>
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<td>d) House Building</td>
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<tr>
<td>e) Computer</td>
<td>1097075</td>
<td>1005450</td>
</tr>
<tr>
<td>f) Festival</td>
<td>1097075</td>
<td>1005450</td>
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</table>

### C.T. PATIENT A/C

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount 1</th>
<th>Amount 2</th>
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</thead>
<tbody>
<tr>
<td>a) Patient’s Receipts during 2011-12</td>
<td>298999803</td>
<td>23699566</td>
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<tr>
<td>b) Patients’ Refund 11-12</td>
<td>54398077</td>
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<tr>
<td>c) Add poor patient treatment out of interest earned during 2011-12</td>
<td>259621929</td>
<td>2186189</td>
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### ANGIOGRAPHY PATIENT A/C

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount 1</th>
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<tbody>
<tr>
<td>a) Patient’s Receipts 2011-12</td>
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<td>b) Patients’ refunds 35615995</td>
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<td>190545391</td>
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### GAMMA KNIFE PATIENT A/C

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount 1</th>
<th>Amount 2</th>
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</thead>
<tbody>
<tr>
<td>a) Patient Receipts 2011-12</td>
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<td>Refund to Patients</td>
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<td>Interest</td>
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### NEURO SURGERY PATIENT A/C

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount 1</th>
<th>Amount 2</th>
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</thead>
<tbody>
<tr>
<td>a) Patient Receipts 2011-12</td>
<td>67039105</td>
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<tr>
<td>b) Patient Refund 9445231</td>
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<tr>
<td>c) Add Poor Patient Treatment out of interest earned during 2011-12</td>
<td>1726772</td>
<td>54283479</td>
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### POOR PATIENT ACCOUNTS

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount 1</th>
<th>Amount 2</th>
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<tbody>
<tr>
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### C.T. PATIENT A/C

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount 1</th>
<th>Amount 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Purchase of Stores</td>
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<td>255304927</td>
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<tr>
<td>b) Fresh Cheque</td>
<td>1853681</td>
<td>2254413</td>
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<tr>
<td>c) Transferred to AIIMS CNC A/cs</td>
<td>42500000</td>
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### ANGIOGRAPHY PATIENT A/C

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount 1</th>
<th>Amount 2</th>
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</thead>
<tbody>
<tr>
<td>a) Purchase for Stores</td>
<td>200286819</td>
<td>168999058</td>
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<td>b) Fresh Cheque</td>
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### GAMMA KNIFE PATIENT A/C

<table>
<thead>
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<td>b) MRI Charges</td>
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<td>c) Fresh Cheque</td>
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<td>d) Bank charges</td>
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### NEURO SURGERY PATIENT A/C

<table>
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<td>c) Fresh Cheque</td>
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### POOR PATIENT ACCOUNTS

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount 1</th>
<th>Amount 2</th>
</tr>
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<tbody>
<tr>
<td>N.S. Centre Donation</td>
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<td>Expenditure</td>
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**AIIMS 2011-2012 / 485**
## CLOSING BALANCES

### A CASH AT BANK

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<th>Centre</th>
<th>Opening</th>
<th>Closing</th>
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<tbody>
<tr>
<td>i)</td>
<td>C.N.</td>
<td>103302133</td>
<td>171455298</td>
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<td>ii)</td>
<td>C.T.</td>
<td>53823111</td>
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<tr>
<td>(a)</td>
<td>Bank</td>
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<td>(b)</td>
<td>FDRs</td>
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<td>iii)</td>
<td>Angiography</td>
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<td>(b)</td>
<td>FDRs</td>
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<td>iv)</td>
<td>Gamma Knife</td>
<td>16353119</td>
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<tr>
<td>(a)</td>
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<td>(b)</td>
<td>FDRs</td>
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<td>31800000</td>
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<td>v)</td>
<td>Neuro Surgery</td>
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<td>9915213</td>
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<tr>
<td>(a)</td>
<td>Bank</td>
<td>12640000</td>
<td>31800000</td>
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<tr>
<td>(b)</td>
<td>FDRs</td>
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<td>31800000</td>
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### B C.N. Centre

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Imprest</td>
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<td>ii)</td>
<td>Cash in Hand with cashier</td>
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</table>

### D POOR PATIENT ACCOUNT

#### i) N.S. Centre

<table>
<thead>
<tr>
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<tbody>
<tr>
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### Sub-total (C) 3185394368 3206501136 3185394368 3206501136

---

### Dr. B.R.A. INSTITUTE ROTARY CANCER HOSPITAL (D)

#### I OPENING BALANCES

<table>
<thead>
<tr>
<th>Type</th>
<th>Opening</th>
<th>Closing</th>
</tr>
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<tbody>
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<td>B POOR PATIENT A/C</td>
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<tr>
<td>a) Cash/Bank</td>
<td>2546411</td>
<td>2419552</td>
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<td>C PATIENT TREATMENT A/C</td>
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</tr>
<tr>
<td>a) Cash/Bank</td>
<td>3074694</td>
<td>3268649</td>
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<td>b) Short Term Investment</td>
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<tr>
<td>CIRT</td>
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</tr>
<tr>
<td>RT Revolving Fund</td>
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<tr>
<td>Medical Oncology Fund</td>
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<tr>
<td>Computer Advance Recoveries</td>
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<td>375000</td>
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<td>Car Advance Recovery</td>
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<td>Festival Advance Recovery</td>
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<td>Scooter/Motorcycle Adv. Recoveries</td>
<td>58616</td>
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<td>EMD &amp; Security deposit</td>
<td>3643558</td>
<td>1936937</td>
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<td>HSCC</td>
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<td>AIIMS Recoveries Remitted</td>
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<td>Out side Recoveries Remitted</td>
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#### B Grant in Aid

<table>
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<tr>
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<th>Closing</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2 NON-PLAN</td>
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<td>3 ICMR</td>
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<td>4 Interest Received</td>
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<td>5 Miscellaneous Hospital Receipt</td>
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<td>1345456</td>
</tr>
<tr>
<td>6 RT Revolving Fund</td>
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<td>2824110</td>
</tr>
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<td>7 Medical Oncology Fund</td>
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#### C HMCPF A/C

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#### CLOSING BALANCE

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### Sub-Total (D) 777538030 728898632 777538030 728898632

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**AIIMS 2011-2012 / 486**
### OPENING BALANCES

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### Institute Recovery

| 1 | GPF Subscription & Advance 8048251 7502439 |
| 2 | Conveyance 17924 15190 |
| 3 | HBA 68640 68640 |
| 4 | Licence fee 84273 47182 |
| 5 | Officer Association 2200 2360 |
| 6 | EIS 43360 42465 |
| 7 | EHS 263200 253775 |
| 8 | Computer Recovery 19200 11870 |
| 9 | Faculty Club 3000 700 |
| 10 | P.M Relief fund 28461 10 New Pension Scheme 549038 |
| 11 | New Pension Scheme 667826 |

### Outside Recovery

| 1 | Income Tax 3112053 2882758 |
| 2 | LIC 48141 48492 |
| 3 | Court Rec. 154496 51996 |
| 4 | Society 3246763 2895684 |
| 5 | TDS 53522 |

### CLOSING BALANCES

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### J.P.N. APEX TRAUMA CENTRE (F)

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<td>d) Security Deposit to IGL</td>
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**CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)**

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**FINANCIAL ADVISOR**

**SENIOR FINANCIAL ADVISOR**

**DIRECTOR**
# ALL INDIA INSTITUTE OF MEDICAL SCIENCES
# INCOME AND EXPENDITURE ACCOUNT
# FOR THE YEAR 2011-2012

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<th>INCOME</th>
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**PLAN**

|     |         |         |         |         |         |
| 13 Pay & Allowances | 127190439 | 117141981 |         |         |         |
| 14 Travelling Allowances | 11692798 |         |         |         |         |
| 15 Institute Research Grant | 989933 |         |         |         |         |
| 16 Computerisation | 700309 |         |         |         |         |
| 17 Oversight Committee Pay & Allowances | 102100000 | 55100000 |         |         |         |

**HOSTELS**

|     |         |         |         |         |         |
| 1 Miscellaneous Expenditure | - | 27960 | 1 Miscellaneous Receipts | 74535 | 57575 |
| 2 Interest | 521583 | 42483 |         |         |         |

**DEPARTMENT OF GERIATRIC MEDICINE**

|     |         |         |         |         |         |
| 1 i) Bank Charges | 1188 |         | i) Grant in aid | 36687600 |         |
| 2 ii) Material received during 2011-12 | 193143049 | 175038001 | ii) Interest | 267477 |         |

**EXCESS OF INCOME OVER EXPENDITURE**

|     |         |         |         |         |         |
| 1 AIIMS (Main) |         |         | 1 IIIMS(Main) | 89097469 | 114596310 |
| 2 Hostel | 596118 | 72098 |         |         |         |
| 3 Department of Geriatric Medicine | 36953889 |         |         |         |         |
| Sub-Total (A) | 5432339225 | 4893239705 |         | 5432339225 | 4893239705 |

**EXCESS OF EXPENDITURE OVER INCOME**

|     |         |         |         |         |         |
| 1 i) Pay & Allowances | 388802680 | 352614026 |         |         |         |
| 2 ii) Pay & Allowances (Revenue General) | 44766275 | 24777574 |         |         |         |
| 3 iii) Spare & Accessories (RG) | 28259658 |         |         |         |         |
| 4 Daily Wages |         |         |         |         |         |
| 3 Travelling Expenses | 3230618 | 2382037 |         |         |         |
| 4 Material & Supply |         |         |         |         |         |
| i) Reg. payment | 188531971 |         |         |         |         |
| ii) Material received during 2011-12 | 4611078 | 193143049 | 175038001 |         |         |
| 5 Office Expenses | 13506571 | 15905165 |         |         |         |
| 6 Maintenance of Buildings | 8406039 | 5584625 |         |         |         |

**DR. RAJENDER PRASAD CENTRE FOR OPTHALMIC SCIENCES (B)**

<p>| | | | | | |
|     |         |         |         |         |         |
| 1 i) Pay &amp; Allowances | 388802680 | 352614026 |         |         |         |
| 2 ii) Pay &amp; Allowances (Revenue General) | 44766275 | 24777574 |         |         |         |
| 3 iii) Material received during 2011-12 | 4611078 | 193143049 | 175038001 |         |         |
| 4 Office Expenses | 13506571 | 15905165 |         |         |         |
| 5 Maintenance of Buildings | 8406039 | 5584625 |         |         |         |</p>
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**CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)**

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Financial Advisor: Senior Financial Advisor: DIRECTOR
# ALL INDIA INSTITUTE OF MEDICAL SCIENCES

## BALANCE SHEET AS ON 31.3.2012

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**B) NON-INSTITUTE SCHEMES**

**C) NACO**

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**AIIMS 2011-2012 / 492**
### Deposit Work

<table>
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<tr>
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<tbody>
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<td>(a) Starford India</td>
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<td>(c) Surekha Vishram Sadan</td>
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<td>(d) Shri Sai Vishram Sadan</td>
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<td>(e) MTNL for cable lying in A.V Nagar</td>
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### Security Deposits/Advance Payments

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<td>(c) Upto 2010-11</td>
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### Caution Money

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### NPS (Appendix F)

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### V.V.I.P. Care at Parliament House Annex Upto 11-12

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<td>(c) Expenditure against advance payment</td>
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### Janani Suraksha Yojana(JSY) A/c

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### WHO-in-Country Fellowship A/c

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<td>(b) During 2011-12</td>
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### Advance Payments

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### E Private Firms for stores

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### New Delhi Municipal Corporation

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### Central Public Works Department, SHP for Lt.Hostel

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<td>(b) During 11-12</td>
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### Central Public Works Department, SHP for construction of sub-station

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### New Delhi Municipal Corporation for augmenting L.T-Line in Eastern & Western Campus

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<tr>
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<tbody>
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### New Delhi Municipal Corporation for HT Transformer and laying of cable

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### Covering of Nallah

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### Janani Suraksha Yojana A/c

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### Central Public Works Department, SHP for Dr.Hostel

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### Central Public Works Department, SHP for construction of sub-station

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### New Delhi Municipal Corporation for augmenting L.T-Line in Eastern & Western Campus

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
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<tr>
<td>(b) During 11-12</td>
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### New Delhi Municipal Corporation for HT Transformer and laying of cable

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<tr>
<th>Description</th>
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<tr>
<td>(a) Upto 10-11</td>
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<td>(b) During 11-12</td>
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### Covering of Nallah

<table>
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<tr>
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<tr>
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<td>(b) During 11-12</td>
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AIIMS 2011-2012 / 493
<table>
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<td>Central Public Works Department for Surgical Ward</td>
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<td>Caryair Equipment India Private limited for building construction</td>
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<td>Indian Oil Corporation for Lubricant Diesel Oil</td>
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**AIIMS 2011-2012 / 495**
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**Poor Patient A/c**

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**Poor Patient A/c**

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3 Closing Balance 332390 186104

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<td>A)</td>
</tr>
<tr>
<td>B)</td>
</tr>
<tr>
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<td>iii) Transfer of fund from Patient Account for Spares &amp; Accessories/Maint.</td>
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<td>3 Amount transfer from IRCH</td>
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<td>4 Cost of the vehicle donated by Sai Bhakta Samaj</td>
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<td>5 CT Patient A/C Machinery &amp; Equipment Transfer Sai Bhakta Samaj</td>
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<td>6 Neurology Patient A/C</td>
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<td>7 Outside recoveries/ Institute Recoveries</td>
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<td>10 Thallium</td>
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<tr>
<td>i) Upto 2010-11</td>
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</tr>
<tr>
<td>ii) Less Expenditure 11-12</td>
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<tr>
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<th>POOR PATIENT A/C</th>
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<tr>
<td>1 N.S. Centre a) Cash/Bank 101932</td>
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<tr>
<td>b) Donations 35179</td>
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<td>c) Payments 3988</td>
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<td>d) Closing Balance 133123 101932</td>
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<table>
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AIIMS 2011-2012 / 501
### ANGIOGRAPHY PATIENT A/C

<table>
<thead>
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<th>1</th>
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### GAMMA KNIFE PATIENT A/C

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### NEURO SURGERY PATIENT A/C

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### EXCESS OF INCOME OVER EXPENDITURE

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<tbody>
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</tr>
<tr>
<td>b)</td>
<td>Upto 2010-11</td>
</tr>
<tr>
<td>ii)</td>
<td>less excess of expenditure over income 11-12</td>
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<td>iii)</td>
<td>Less fresh cheques issued against cancelled cheques</td>
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<td>3</td>
<td>ANGIOGRAPHY PATIENT A/C</td>
</tr>
<tr>
<td>i)</td>
<td>Upto 2010-11</td>
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<td>ii)</td>
<td>Excess of expenditure over income 2011-12</td>
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<tr>
<td>iii)</td>
<td>Less fresh cheques issued against cancelled cheques</td>
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<td>4</td>
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<tr>
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<td>ii)</td>
<td>during 2011-12</td>
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<tr>
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<tr>
<td>ii)</td>
<td>Excess of expenditure over income 2011-12</td>
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<td>iii)</td>
<td>Less Fresh Cheques</td>
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### EXCESS OF EXPENDITURE OVER INCOME

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</thead>
<tbody>
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<td>upto 2010-11</td>
</tr>
<tr>
<td>ii)</td>
<td>During 2011-12</td>
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### Dr. B.R.A. INSTITUTE ROTARY CANCER HOSPITAL (D)

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<td>3</td>
<td>Medical Oncology Revolving Fund</td>
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<tr>
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<td>Upto 2010-11</td>
</tr>
<tr>
<td>(ii)</td>
<td>Add during 2011-12</td>
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<td>(iii)</td>
<td>Less payment during 2011-12</td>
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<tr>
<td>4</td>
<td>EMD &amp; Security Deposit</td>
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<tr>
<td>(i)</td>
<td>During 2011-12</td>
</tr>
<tr>
<td>(ii)</td>
<td>Less Payment During 11-12</td>
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</table>

### Other Accounts

- **Cash at Bank**: 3245441, 197300000, 159000000, 54339147, 16353119, 57268485, 16888680
- **Fixed Deposits**: 19800000, 79200000, 19800000, 126400000, 15900000, 31800000, 183668485, 213653119
- **Cash at Bank**: 14744516, 57268485, 1045213, 9915213

### Summary

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**AIIMS 2011-2012 / 502**
### Poor Patient A/c

**Dr. B.R.A.I.R.C.H.**

<table>
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<td>b) Receipts</td>
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<td>ii) Interest</td>
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<tr>
<td>Cash/Bank</td>
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### Patient Treatment A/c

**Dr. B.R.A.I.R.C.H.**

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<tr>
<td>a) Opening Balance</td>
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<tr>
<td>b) Short term investment</td>
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<td>c) FDR</td>
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<td>d) Receipts</td>
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<td>i) Grants</td>
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<td>iii) D/d Interest</td>
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<td>iv) Interest</td>
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<td>v) Payments</td>
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<td>vi) Miscellaneous Payments</td>
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<td></td>
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<tr>
<td>iii) FDR’s</td>
<td>6000000</td>
<td>6000000</td>
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</table>

**HMCPP A/c**

| Opening Balance          | 996555        |
| Receipt                  | 207331        |
| Refund                   |               |
| Cheque cancelled         | 15056         |
| Payment                  | 1422162       |
| Misc.                    | 685           |
|                           | 1616095       |
|                           | 996555        |

**EXCESS OF INCOME OVER EXPENDITURE**

| i) Upto 2010-11           | 1652460492    |
|                           | 1618514862    |

**EXCESS OF EXPENDITURE OVER INCOME**

| i) Upto 2010-11           | 10338184      |
|                           | 14348438      |

**Sub-Total (D)**

| 1652460492                | 1618514862    |

**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE & UNDCP PROJECT (E)**

<p>| Capital fund up to 2010-11 | 166682002     |
| a) Capital funds dw. 2011-12 |             |
| b) Machinery &amp; Equipment    | 1592075      |
| c) Furniture                | 382286       |
| d) Books &amp; Publication      | 3407107      |
| e) Bks &amp; Pub. dv.           |               |
| f) Adjustment of            | 166682002    |
| Custom Duty Adv.            | 400000       |
| 2 Institute Recovery        | 166682002    |
| i) Upto 2011-12             | 113215        |
| ii) During 2011-12          | 113215        |
| 3 Security Deposit          |               |</p>
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<th>21126261</th>
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<td>(i) Upto 10-11</td>
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<td>b) Revenue General</td>
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<td>(ii) During 11-12</td>
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<td>(iii) Less Adjusted during11-12</td>
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<td>4. PDA Advance</td>
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**EXCESS OF INCOME OVER EXPENDITURE**

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<td>(ii) during 11-12</td>
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<td>842972</td>
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<td>(iii) Less Adjusted during11-12</td>
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<td>(ii) recovered during 11-12</td>
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</table>
(iii) M & E received 11-12 62943221
a) during 11-12 87806469
b) PDA upto 11-12 3177235
  1390682574 2973575

7 Furniture & Fixture
i) upto 10-11 6674314
    ii) during 11-12 1102741 7777055 6674314

EXCESS OF INCOME OVER EXPENDITURE
(I) upto 2010-11 53796824
  (ii) add dg 11-12 25301693 79098517 53796824

Sub-Total (F) 2325402898 2122093164 2325402898 2122093164

CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)
1 Capital Grant
(i) Upto 10-11 transferred from AIIMS Main A/c 487260204
(ii) During 2011-12 6000000 493260204 487260204

2 Security Deposits
(i) Upto 2010-11 2441090
(ii) During 11-12 310000
(iii) Less refund during 2011-12 699845 2051245 2441090

3 Machinery & Equipment
(i) Upto 2010-11 179627779
(ii) During 2011-12 3919729
(iii) Add Machinery & Equipment received against advances during 2010-11 183547508 179627779

4 Advance Payment made to foreign purchases
(i) Upto 2010-11 0
(ii) During 2011-12 -
(iii) Less advances adjusted during 2011-12 0

5 Building
(i) Upto 10-11 transferred from 259804427
    AIIMS Main A/c
(ii) During 11-12 2242533
(iii) Capital Works against advance payment
(iv) Item rcvd against advance payment to Voltas Ltd. 184589
(v) Work completed against adv to NDMC for new connection fee 40000 262271549 259804427

6 Advance paid to HSCC
(i) Adv paid to NDMC upto 11-12 2364500 2364500
(ii) Security Deposite to NDMC upto 11-12 3000000 3040000
(iii) Advance paid to DGS&D upto 2011-12 469471 469471
(iv) (a) Advance paid to Voltas Voltas upto 10-11 184589

EXCESS OF INCOME OVER EXPENDITURE
(i) Upto 10-11 11284679
(ii) During 2011-12 1185889 12470568 11284679

Sub-Total (G) 507782017 500985973 507782017 500985973

GRAND TOTAL (A) TO (G) 29267128996 24925830297

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 2011-12 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 in 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) before the consolidated budget for the Institute is prepared. In the budget of 2011-12 C. N. Centre may propose to use the accumulated balances for their planned development activities under Plan head. 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 for the current financial year 2011-12 under Angio patient A/c, CT patient A/c and Neuro Surgery patient A/c.
6 An amount of Rs.5.51 crore has been shown as receipt for the current year. The amount was sanctioned by the Ministry of Health & Family Welfare for making the payment towards manpower requirement under recommendations of the Oversight Committee for the year 2010-2011 on 30.3.2011 and credit was received on 4.4.2011. During the current year also an amount of Rs.10.21 crore has been 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 has been made.  

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by the Ministry. Since the salary to the officials appointed against Oversight Committee was being paid regularly during the financial year, the requirement has been met from the balances available with the Institute. However, Ministry has assured that Rs.10.21 crore will be allocated during the financial year 2012-13.

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.102168000/- has been transferred out of the accumulated balances of Revolving Funds to main account of the Institute as ‘Receipt’ and the amount has been utilised during the year.

Financial Advisor

Senior Financial Advisor

DIRECTOR
APPENDIX-A
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
STATEMENT SHOWING THE EXPENDITUREOF THE GRANT RECEIVED
FOR THE VARIOUS RESEARCH PROJECTS FOR THE YEAR 2011-12
Opening Balance

No. Funding Agency
Credit
Debit
Institute Research Grant
0.00
1 ICMR
80,294,340.00
2 C.S.I.R.
16,955,514.00
3 DST
47,418,982.00
4 UNICEF
278,421.25
5 D.B.T.
140,443,265.00
6 W.H.O.
14,188,160.00
7 U.G.C.
7,350,696.00
8 Ministry of Health
882,873.00
and Family welfare
9 Ministry of
172,326.00
Environment & Forest
10 Dabur Research
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AIIMS 2011-2012 / 508

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**Total:** 72,950,979

(Smt. Basanti Dalal)

Financial Advisor
### APPENDIX B

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**

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(Smt. Basanti Dalal)

Financial Advisor
# APPENDIX-D

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**

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<td>PAED SURGERY</td>
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<td>7</td>
<td>INSTT. MISC.</td>
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<td>10</td>
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<tr>
<td>11</td>
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<tr>
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<td>BB DIXIT LIB</td>
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<td>14</td>
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<td>125139</td>
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<td>125139</td>
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<td>PMR POOR FUND</td>
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<td>34199</td>
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<td>34199</td>
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<tr>
<td>16</td>
<td>SURGERY</td>
<td>501</td>
<td></td>
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<tr>
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<td>19571</td>
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<td>19571</td>
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<td>CEU</td>
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<td>DR. NK MEHRA</td>
<td>597235</td>
<td></td>
<td>597235</td>
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<td>21</td>
<td>I.C.G.E.B. DR. T.P SINGH</td>
<td>444630</td>
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<td>DR. VEENA KALRA</td>
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<td></td>
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<td>DR. N.P. GUPTA - UROLOGY</td>
<td>4982</td>
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<td>120000</td>
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<td>120000</td>
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<td>26</td>
<td>PEAD. GENETICS</td>
<td>605760</td>
<td>425337</td>
<td>1031097</td>
<td>343550</td>
<td>687547</td>
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<tr>
<td>27</td>
<td>MRS. USHA SHARMA</td>
<td>176600</td>
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<td>176600</td>
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<tr>
<td>28</td>
<td>MISC. RECEIPT</td>
<td>145540</td>
<td></td>
<td>145540</td>
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<td>145540</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2873476</td>
<td>425337</td>
<td>3298813</td>
<td>343550</td>
</tr>
</tbody>
</table>

(Smt. Basanti Dalal)
Financial Advisor
APPENDIX - E

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

Details of Misc. Deposits as on 31.3.2012

2011-2012

<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>TOTAL</td>
<td>330986</td>
</tr>
</tbody>
</table>

(Smt. Basanti Dalal)
Financial Advisor
## Details of GPF Investment
### 2011-2012

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Balance of Investment as on 1.4.2011</td>
<td>2662176232</td>
</tr>
<tr>
<td>Investment during 2011-12</td>
<td>1006814167</td>
</tr>
<tr>
<td>Add Closing Cash Book Balance</td>
<td>61154988</td>
</tr>
<tr>
<td></td>
<td><strong>3730145387</strong></td>
</tr>
<tr>
<td>Investment matured during 2011-12</td>
<td>606821000</td>
</tr>
<tr>
<td></td>
<td><strong>3123324387</strong></td>
</tr>
</tbody>
</table>

## Details of NPS Investment
### 2011-2012

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Balance of Investment as on 1.4.2011</td>
<td>341900000</td>
</tr>
<tr>
<td>Investment during 2011-12</td>
<td>2445000000</td>
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<tr>
<td></td>
<td><strong>2786900000</strong></td>
</tr>
<tr>
<td>Investment matured during 2011-12</td>
<td>2286900000</td>
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<tr>
<td></td>
<td><strong>500000000</strong></td>
</tr>
<tr>
<td>Closing Cash Book Balance as on 31.3.2012</td>
<td>16386441</td>
</tr>
<tr>
<td></td>
<td><strong>516386441</strong></td>
</tr>
</tbody>
</table>

(Smt. Basanti Dalal)
Financial Advisor
APPENDIX - F 1
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
G.P.F. SECTION
Receipts and payments of General Provident Funds of AIIMS for the year ending 31st March, 2012

<table>
<thead>
<tr>
<th>Receipts</th>
<th>Amount</th>
<th>Payments</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash book Opening Balance</td>
<td>67558097</td>
<td>Withdrawal</td>
<td>489844548</td>
</tr>
<tr>
<td>Receipt (Sub/Rec )</td>
<td>606498937</td>
<td>Investment during the year 2011-12</td>
<td>1006814167</td>
</tr>
<tr>
<td>Add Interest Received</td>
<td>276935669</td>
<td>Cash book closing Balance</td>
<td>61154988</td>
</tr>
<tr>
<td>Add Invest Maturity</td>
<td>606821000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1557813703</strong></td>
<td><strong>Total</strong></td>
<td><strong>1557813703</strong></td>
</tr>
</tbody>
</table>

Balance Sheet of General Provident Funds of the AIIMS as on 31st March, 2012

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>Amount</th>
<th>Assets</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>2729734329</td>
<td>Opening Balance</td>
<td>2662176232</td>
</tr>
<tr>
<td>Add Receipt during the year 2011-12</td>
<td>606498937</td>
<td>Add Investment during the year 2011-12</td>
<td>1006814167</td>
</tr>
<tr>
<td>Add Interest received</td>
<td>276935669</td>
<td>Add cash Book Closing Balance</td>
<td>61154988</td>
</tr>
<tr>
<td></td>
<td>3613168935</td>
<td></td>
<td>3730145387</td>
</tr>
<tr>
<td>Less Withdrawal</td>
<td>489844548</td>
<td>Less maturity</td>
<td>606821000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3123324387</strong></td>
<td><strong>Total</strong></td>
<td><strong>3123324387</strong></td>
</tr>
</tbody>
</table>

Month Receipts Payments

<table>
<thead>
<tr>
<th>Month</th>
<th>Receipts</th>
<th>Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>48803989</td>
<td>40290242</td>
</tr>
<tr>
<td>May</td>
<td>48492131</td>
<td>30900437</td>
</tr>
<tr>
<td>June</td>
<td>50044362</td>
<td>41450262</td>
</tr>
<tr>
<td>July</td>
<td>49418930</td>
<td>43110611</td>
</tr>
<tr>
<td>August</td>
<td>49316159</td>
<td>41158284</td>
</tr>
<tr>
<td>September</td>
<td>50063800</td>
<td>45677564</td>
</tr>
<tr>
<td>October</td>
<td>49306310</td>
<td>38534377</td>
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<tr>
<td>November</td>
<td>51518758</td>
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<tr>
<td>December</td>
<td>51899298</td>
<td>39154611</td>
</tr>
<tr>
<td>January</td>
<td>52330618</td>
<td>45034345</td>
</tr>
<tr>
<td>February</td>
<td>53076612</td>
<td>46689966</td>
</tr>
<tr>
<td>March</td>
<td>52227970</td>
<td>44342291</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>606498937</strong></td>
<td><strong>489844548</strong></td>
</tr>
</tbody>
</table>

Total Subscription Deposit 606498937
Total Previous Balance 2729734329
Total Interest Paid 227370982
Total Net 3563604248
Total Withdrawal 489844548
Grand Total 3073759700

(Smt. Basanti Dalal)
Financial Advisor
**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**  
**G.P.F. SECTION**  
Receipts and payments of General Provident Funds of AIIMS for the year ending 31st March, 2012

<table>
<thead>
<tr>
<th>Receipts</th>
<th>Amount</th>
<th>Payments</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash book Opening Balance as on 01-04-2011</td>
<td>67558097</td>
<td>GPF withdraw including Final payment</td>
<td>489844548</td>
</tr>
<tr>
<td>GPF Sub/Rec of Advances</td>
<td>606498937</td>
<td>Investment during the year 2011-12</td>
<td>1006814167</td>
</tr>
<tr>
<td>Add Interest Received</td>
<td>276935669</td>
<td>Cash book closing Balance</td>
<td>61154988</td>
</tr>
<tr>
<td>Add Invest Maturity</td>
<td>606821000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1557813703</strong></td>
<td></td>
<td><strong>1557813703</strong></td>
</tr>
</tbody>
</table>

**Balance Sheet of General Provident Funds of the AIIMS as on 31st March ,2012**

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>Amount</th>
<th>Assets</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>2729734329</td>
<td>Opening Balance</td>
<td>2662176232</td>
</tr>
<tr>
<td>Add Receipt during the year 2011-12</td>
<td>606498937</td>
<td>Add Investment during the year 2011-12</td>
<td>1006814167</td>
</tr>
<tr>
<td>Less Withdrawal /Advances</td>
<td>489844548</td>
<td>Less maturity</td>
<td>606821000</td>
</tr>
<tr>
<td>Add Interest received</td>
<td>276935669</td>
<td>Add Cash Book Closing Balance</td>
<td>61154988</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3123324387</strong></td>
<td></td>
<td><strong>3123324387</strong></td>
</tr>
</tbody>
</table>

(Smt. Basanti Dalal)  
Financial Advisor
13.2 Audit Report

Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of All India Institute of Medical Sciences (AIIMS) for the year ended 31 March 2012

We have audited the attached Balance Sheet of All India Institute of Medical Sciences (AIIMS) as at 31 March 2012, 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’s 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 Receipt & Payment 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 and other relevant records, have been maintained by the AIIMS as required under section 18(2) of the AIIMS Act 1956 in so far as it appears from our examination of such books.

(iv) We further report that :

A General

A.1. Patient Treatment account

Funds received from various Departments/Organisation 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.

The interest amounting to ‘29.51 lakh earned on deposits received in ‘Patient Treatment Account’ during the year 2011-12 had not been included as income in Income and Expenditure account of the Institute and was shown as liability.

The Institute had shown accumulated Liability amounting to ‘9.14 crore under this head in the accounts but had no details of the liability and the interest earned over the years from Investments.

A.2. Bank accounts outside the Annual Accounts

AIIMS had depicted an amount of ‘32.22 crore as PDA/ Custom Duty Advances paid by the various centres as detailed below:
<table>
<thead>
<tr>
<th>Sl no</th>
<th>Name of centre</th>
<th>Amount in ‘ shown in the asset side as “PDA/CD Advance”</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>AIIMS (Main)</td>
<td>235127153</td>
</tr>
<tr>
<td>2.</td>
<td>Dr BRAICH</td>
<td>22490268</td>
</tr>
<tr>
<td>3.</td>
<td>NDDTC</td>
<td>400000</td>
</tr>
<tr>
<td>4.</td>
<td>JPN apex trauma Centre</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Custom Duty advance</td>
<td>54288900</td>
</tr>
<tr>
<td></td>
<td>PDA Advance</td>
<td>9894185</td>
</tr>
<tr>
<td></td>
<td></td>
<td>64183085</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>32,22,00,506</strong></td>
</tr>
</tbody>
</table>

It was further revealed that the Institute had opened two bank accounts for the said purpose and these bank accounts are kept out of the annual accounts of the AIIMS. The figures need reconciliation and inclusion in the accounts.

A.3 Fixed Assets

The Institute had not provided depreciation on fixed assets. Further, the centre-wise Schedule of fixed assets showing the opening balance, additions/deletions, depreciation during the year and closing balance had not been prepared.

B. Grant-in-aid

The Institute is mainly financed from the grants of Government of India. During the year 2011-12 the Institute received grants of ‘ 1176.86 crore (Plan ‘ 412.35 crore, Non-plan ‘ 650 crore), oversight committee (Plan) ‘ 105.51 crore and NDDTC (Plan) ‘ 9 crore). It also had its own income of ‘ 157.26 crore. The plan expenditure was ‘ 415.79 crore including advances for various purposes. The total non-plan expenditure was ‘ 744.80 crore and ‘ 4.58 crore was given to suppliers etc. as advances. The institute received grants for various schemes totaling ‘ 70.73 crore and incurred an expenditure of ‘ 61.34 crore from it.

C. Management Letter

Deficiencies which have not been included in the Audit Report have been brought to the notice of the Council 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, 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 2012; 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 C&AG of India

Place: New Delhi
Date: 19.11.2012

Director General of Audit
Central Expenditure

AIIMS 2011-2012 / 527
Annexure to Audit Report

1. Adequacy of internal audit system
   During 2011-12 out of 85 units, 35 units were audited by the internal audit wing.

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 was not conducted since inception.

4. System of physical verification of inventory
   The physical verification of stationery, books and publications and consumable items was conducted for the year 2011-12.

5. Regularity in payment of statutory dues
   As per the accounts, no statutory dues over six months were outstanding.
Replies/comments to the 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 31st March 2012.

A.1. Patient Treatment Account

The point raised by audit has been noted for compliance in future.

A.2. Bank accounts outside the Annual Accounts

The figures pointed out by Audit are already included and reflected in the annual accounts for the year 2011-12. However, the same will be reflected separately in the annual accounts of 2012-13 as suggested by Audit.

A.3. Fixed Assets

No depreciation on Machinery & Equipment, Vehicles etc has been provided following the G.O.I practice as the Institute is fully funded by the Govt. of India. However, as per instructions from C & AG’s Office, the Institute is in the process of shifting from Cash basis (Single Entry System) to Accrual basis (Double Entry System) for preparation of Annual Accounts. Accrual System of accounts has the system of providing for depreciation.

As soon as, this is implemented, depreciation would be provided for in the annual accounts of the Institute.

A.4. Grant-in-aid

Factual facts :No Comments