

56th
AIIMS
ANNUAL REPORT

2011-2012



All India Institute of Medical Sciences
New Delhi 110029

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All India Institute of Medical Sciences

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

The Institute has comprehensive facilities for teaching, research and patient-care. AIIMS conducts teaching 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

Teaching Departments and Centres	52	Medical graduates	2596
Faculty members (Sanctioned 823)	498	Postgraduates	7943
Non-faculty staff (Sanctioned 10847)	8702	Nursing / paramedical graduates	2481
No. of Undergraduate students	673	Publications in journals/abstracts	1733
No. of Postgraduate students	1383	Chapters in Books / monographs	240

Hospital Services

Hospital/Centre	Outpatient Attendance (including Casualty)	Admission	Surgery (Operations/ Procedures)	Bed (Gen.)	Bed (Pvt.)	Total Bed Strength
Main Hosp.	1522821	77055	73851	982	165	1147
Dr.R.P. Centre	397538	33881	32879	281	21	302
Dr.BRA,IRCH	84071	28872	6085	167	15	182
C.T. Centre	145497	11537	4252	174	32 *	206
N.S. Centre	109504	6876	3129	174	31	205
NDDTC	73070	875	0	50	0	50
C.C.M.	218064	7527	1572	50	0	50
JPNAT Centre	78077	4904	5026	186	0	186
CDER	127896	143	10589	0	0	0
Total	2756538	171670	137383	2064	264	2328

*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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AIIMS

ORGANISATIONAL STRUCTURE

Institute Body



Governing Body



↓
Finance
Committee

↓
Selection
Committee

↓
Academic
Committee

↓
Estate
Committee

↓
Hospital Affairs
Committee

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

1. Director's Review

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), super-specialists (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, oncology 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.



Professor R. C. Deka
Director, AIIMS

2. The Institute and its Committees

INSTITUTE BODY

1. **Shri Ghulam Nabi Azad** President
Union Minister for Health and Family Welfare
Nirman Bhawan, New Delhi 110011
2. **Smt. Sushma Swaraj, MP (Lok Sabha)** Member
8, Safdarjung Lane, New Delhi 110011
3. **Shri Motilal Vora, MP (Rajya Sabha)** Member
33, Lodhi Estate, New Delhi 110011
4. **Dr Jyoti Mirdha, MP (Lok Sabha)** Member
31, Meena Bagh, New Delhi
875, Sector-17B, Gurgaon, Haryana 122001
5. **Professor Dinesh Singh** Member (Ex-Officio)
Vice Chancellor, University of Delhi, Delhi 110007
6. **Shri K. Chandramauli** Member
Secretary (Health), Ministry of Health and Family Welfare
Government of India, Nirman Bhawan, New Delhi 110011

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

Shri P.K. Pradhan Member
Secretary (Health), Ministry of Health and Family Welfare
Government of India, Nirman Bhawan, New Delhi 110011
(w.e.f. 17 November 2011)
7. **Dr R.K. Srivastava** Member (Ex-Officio)
Director General of Health Services
Government of India, Nirman Bhawan, New Delhi 110011
(up to 30 November 2011)

Dr Jagdish Prasad Member (Ex-Officio)
Director General of Health Services
Government of India, Nirman Bhawan, New Delhi 110011
(w.e.f. 1 December 2011)
8. **Dr M.K. Bhan** Member
Secretary, Department of Biotechnology, 7th Floor
Ministry of Science and Technology, CGO Complex,
Lodhi Road, Block-II, New Delhi 110003

- | | | |
|-----|--|------------------------------------|
| 9. | Dr S.P. Agarwal
Secretary General, Indian Red Cross Society, Rafi Marg, New Delhi | Member |
| 10. | Professor K.C. Pandey
Department of Zoology, Lucknow University, Lucknow 226007 | Member |
| 11. | Ms Vibha Puri Das
Secretary, Department of Higher Education, Ministry of
Human Resource Development, Shastri Bhawan, New Delhi 110001 | Member |
| 12. | Professor K.K. Talwar
President, National Academy of Medical Sciences,
Ansari Nagar, New Delhi 110029 | Member |
| 13. | Dr R.A Badwe
Director, Tata Memorial Hospital, Dr. E. Borges Road,
Lower Parel, Mumbai | Member |
| 14. | Dr Ramakant Panda
Vice Chairman, Asian Heart Institute, Bandra East,
Mumbai, Maharashtra | Member |
| 15. | Dr Abdul Hamid Zargar
Director, Sher-I-Kashmir Institute of Medical Sciences,
Soura, Srinagar 190011, Kashmir | Member |
| 16. | Shri Naved Masood
Additional Secretary and Financial Adviser, Ministry of
Health and Family Welfare, Nirman Bhawan, New Delhi 110011 | Member
(up to 31 August 2011) |
| | Shri R.K. Jain
Additional Secretary and Financial Adviser, Ministry of
Health and Family Welfare, Nirman Bhawan, New Delhi 110011 | Member
(w.e.f. 14 October 2011) |
| 17. | Professor R.C. Deka
Director, All India Institute of Medical Sciences | Member-Secretary |
| 18. | Shri Debasish Panda
Joint Secretary, Ministry of Health and Family Welfare,
Nirman Bhawan, New Delhi 110011 | Special Invitee |
| 19. | Dr Rani Kumar
Dean, All India Institute of Medical Sciences | Special Invitee |
| 20. | Dr D.K. Sharma
Medical Superintendent, All India Institute of Medical Sciences | Special Invitee |

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) (Ex-Officio)
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 |

3. Academic Section

Dean

Rani Kumar

Sub-Dean

Rakesh Yadav

Registrar

V.P. Gupta (up to 31.01.2012)

Sanjay Kumar Arya (w.e.f. 01.02.2012)

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:

<i>Nursing courses</i>	<i>Number of students</i>
BSc Nursing (Post-Certificate)	51
BSc (Hons) Nursing	245

<i>Paramedical courses</i>	
BSc (Hons) Ophthalmic Techniques	42
BSc (Hons) Medical Technology in Radiography	24

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:

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

*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:

S.No.	Name of the course	No. of students enrolled
1.	PhD	448
2.	DM	139
3.	MCh	86
4.	MD/MHA	491
5.	MS	84
6.	MDS	35
7.	MSc/MBiotech/MSc Nursing	100
	Total	1383

The subject-wise distribution of postgraduate students is as below.

PhD	Open	Sponsored/Foreign National
Anatomy	28	—
Biochemistry	40	—
Biophysics	46	—
Biostatistics	05	1 (in service)
Biotechnology	23	—
Cardiology	01	—
Cardiac Biochemistry	03	—
Cardiac Radiology	03	1
Dermatology and Venereology	02	—
Forensic Medicine	02	—
Gastroenterology	06	—
Neurosurgery	04	—
Obstetrics and Gynaecology	01	2 (in service)
Haematology	13	1 (in service)
Cardiothoracic and Vascular Surgery	05	—
Laboratory Medicine	19	—
Medical Oncology	04	—
Medical Physics	04	1
Medicine	13	—
Microbiology	31	—
Neurology	16	—
Nuclear Magnetic Resonance	09	—
Nuclear Medicine	05	—
Otorhinolaryngology (ENT)	01	—
Ophthalmology	10	2
Ocular Pharmacology	02	—
Ocular Microbiology	03	—
Community Ophthalmology	03	—
Ocular Pathology	03	—
Ocular Biochemistry	04	—
Paediatrics	20	—
Pathology	10	—
Centre for Community Medicine	02	—
Endocrinology	08	—
Paediatric Surgery	02	—
Neurobiochemistry	08	—
Pharmacology	19	—
Physiology	26	2
Psychiatry	12	—
Radiation Oncology	03	—
Reproductive Biology	04	—
Surgery	03	1 (in service)
Transplant Immunology and Immunogenetics	10	1
TOTAL	448	12

DM		Open	Sponsored
Cardiac Anaesthesiology		6	2
Cardiology		16	3
Clinical Haematology		5	3
Endocrinology		8	3
Gastroenterology		10	3
Haemato-Pathology		4	1
Medical Oncology		12	-2
Neonatology		4	2
Nephrology		8	4
Neuro-Anaesthesiology		8	3
Neurology		15	3
Neuroradiology		3	–
Paediatric Neurology		6	2
Clinical Pharmacology		3	–
TOTAL	139	108	31

MCh		Open	Sponsored
Cardiothoracic & Vascular Surgery		16	2
Gastrointestinal Surgery		9	3
Neurosurgery		28	2
Paediatric Surgery		12	3
Urology		8	3
TOTAL	86	73	13

MD		Open	Sponsored
Anaesthesiology		32	02
Anatomy		16	–
Biochemistry		11	–
Biophysics		11	–
Community Medicine		19	–
Dermatology & Venereology		12	03
Forensic Medicine		10	–
Hospital Administration		06	05
Laboratory Medicine		06	–
Medicine		47	03
Microbiology		13	–
Nuclear Medicine		12	03

Obstetrics and Gynaecology		36	03
Ophthalmology		93	01
Pediatrics		25	03
Pathology		19	01
Pharmacology		12	–
Physical Medicine and Rehabilitation		08	–
Physiology		16	–
Psychiatry		26	01
Radiodiagnosis		22	03
Radiotherapy		09	–
Geriatric Medicine		02	–
TOTAL	491	463	28

MS

Orthopaedics		17	03
Otorhinolaryngology		17	02
Surgery		42	03
TOTAL	84	76	08

MDS

Conservative Dentistry and Endodontics		08	01
Orthodontics		08	02
Prosthodontics		07	–
Oral and Maxillofacial Surgery		08	01
TOTAL	35	31	04

MSc

	Open	Sponsored
Anatomy	05	–
Biochemistry	06	03
Biophysics	01	–
Perfusion Technology	05	–
MBiotechnology	24	01
Nuclear Medicine Technology	05	01
Pharmacology	07	–
Physiology	04	–

MSc Nursing

Cardiological/CTVS Nursing		09	01
Neurosciences Nursing		09	–
Paediatric Nursing		08	01
Psychiatric Nursing		10	–
TOTAL	100	93	07

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 :

Academic Committee	03
Staff Council	01
Faculty	07
Research Presentation	06

ORATIONS

The following Orations were arranged during 2011–12.

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

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.

4. Examination Section

Professor-Incharge (Exams)

Kaushal K. Verma

Sub-Dean (Exams)

Nand Kumar

Assistant Controller

B.K. Joshi

Accounts Officer

S.K. Tikoo

Office Superintendents

Raj Kumar

Kulvinder Singh

During 2011–12, the following professional and entrance examinations were conducted.

POSTGRADUATE AND UNDER GRADUATE PROFESSIONAL EXAMINATIONS

Professional examinations

S.No.	Month and year	Examination	Number of students			
			Appeared	Absent	Passed	Failed
1.	May 2011	Final Postgraduate/Postdoctoral (MD/MS/MDS/DM/MCh/MHA)	133	2	124	7
2.	-do-	MSc (Nursing) Phase I	19	0	19	0
3.	-do-	MSc (Nursing) Phase II	19	0	19	0
4.	-do-	Second MBBS (Supplementary)	7	0	7	0
5.	-do-	Final MBBS (Supplementary)	7	2	3	2
6.	-do-	BSc (Hons) Nursing Phase IV	49	0	48	1
7.	-do-	BSc (Post-certificate) Nursing Phase II	21	0	21	0
8.	-do-	BSc (Post-certificate) Nursing Phase I	23	0	21	2
9.	-do-	BSc (Hons) Nursing Phase I	63	0	53	10
10.	-do-	BSc (Hons) Nursing Phase III	59	0	58	1
11.	-do-	BSc (Hons) Nursing Phase II	57	0	56	1
12.	July 2011	BSc (Hons) Ophthalmic Techniques Phase III	10	0	7	1+2*
13.	-do-	BSc (Hons) Medical Tech. in Radiography Phase II	6	0	5	1
14.	-do-	BSc (Hons) Medical Tech. in Radiography Phase III	7	0	7	0
15.	-do-	First MBBS Professional	81	1	64	10+6*
16.	-do-	BSc (Hons) Medical Tech. in Radiography Phase I	9	0	6	1+2*

17.	-do-	BSc (Hons) Ophthalmic Techniques Phase II	12	0	8	2+2*
18.	-do-	BSc (Hons) Ophthalmic Techniques Phase I	16	0	11	4+1*
19.	Aug 2011	First MBBS Professional (Supplementary)	16	0	12	4
20.	Nov 2011	BSc (Hons) Medical Tech. in Radiography Phase II (Supplementary)	1	0	1	0
21.	-do-	BSc (Hons) Ophthalmic Techniques Phase-III (Supplementary)	3	0	2	1
22.	-do-	BSc (Hons) Medical Tech. in Radiography Phase I (Supplementary)	2	0	2	0
23.	-do-	BSc (Hons) Ophthalmic Techniques Phase I (Supplementary)	4	0	2	2
24.	-do-	BSc (Hons) Ophthalmic Techniques Phase II (Supplementary)	3	0	2	1
25.	Dec 2011	Final Postgraduate/Postdoctoral (MD/MS/MDS/DM/M.CH/MHA)	119	1	110	8
26.	-do-	BSc (Nursing) Phase II (Supplementary)	4	0	3	1
27.	-do-	Final MBBS Professional	54	8	41	5
28.	-do-	Second MBBS Professional	78	0	62	4+12*
29.	-do-	BSc (Post-certificate) Nursing Phase I (Supplementary)	2	0	2	0
30.	-do-	BSc (Hons) Nursing Phase I (Supplementary)	10	0	9	1
31.	-do-	BSc Nursing (Post-certificate) Phase II (Supplementary)	1	0	1	0
32.	-do-	BSc (Hons) Nursing Phase III (Supplementary)	4	0	4	0
33.	-do-	BSc (Hons) Nursing Phase IV (Supplementary)	7	0	7	0
34.	Jan 2012	Final MBBS (Compartmental examination)	4	0	4	0
		Grand Total	910	14	801	70+25*

* not eligible due to shortfall in attendance

Entrance Examinations

S.No.	Courses	Date of examination	No. of candidates applied	No. of candidates appeared
1.	MD/MS/MDS (AIIMS) July 2010	09-05-2010	19506	16778
2.	DM/MCh/MHA July 2010	16-05-2010	1629	1365
1.	MD/MS/MDS (AIIMS) July 2011	08.05.211	22381	19929
2.	DM/MCh/MHA July 2011	15.05.2011	1745	1436

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
9.	MBiotechnology Entrance Examination 2011	16.07.2011	790	407
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
14.	DM/MCh/MHA January 2012	11.12.2011	1895	1530
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

S.No.	Name of examination	Written examination	Interview	Applied	Appeared	Result
1.	Junior Engineer	–	19.04.2011	425	246	23.04.2011
2.	Ophthalmic Technique Grade I	07.08.2011	–	120	100	Stage I 08.08.2012
3.	Sister Grade II	21.08.2012	26.09.2011– 01.10.2011	33772	28100	07.08.2011
4.	Medical Physicist	24.08.2011	19.09.2011	63	31	20.09.2011
5.	Technician (Radiology) Grade II	04.02.2012	17, 19, 30 March 2012	343	277	30.03.2011
6.	MSSO Grade II	26.02.2012	28.03.2012	370	264	30.03.2011
			Grand Total	35093	29018	

Entrance Examinations conducted

- 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.
- 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.
 - iv) Medical Physicist on 24 August 2011. Interviews held on 19 September 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) Paramedical, MSc (Nursing) courses and personnel 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)

Recruitment & Hostel

Ravi Chauhan

General, Estate and Transport

V.V. Mishra

JPNATC/NDDTC

A.K. Nim

Legal Cell

Bhagirath Jha
(up to 01.08.2011)

Faculty Cell

Lalit Kumar

Establishment Section (DO)

Dheeraj

Research Section

S.K. Gautam

Assistant Administrative Officers

NDDTC

Uday Singh

CT & NS Centre

Shyam Lal

JPNATC

Mahesh Kumar Sharma

CDER

Narender Kumar

Dr. BRA IRCH

Renu Bhardwaj

RTI/Estt. Section-II

Gopal Datt (wef 05.01.2012)

ESD

Lalit Oraon

Finance Division

Ashok Kumar Gupta

SECURITY

Deputy Chief Security Officers

Rajiv Lochan

R.S. Rawat

STORES

Stores Officers

K.D. Sharma

Pradeep Kumar Gupta

S.S. Bhaduria

V.M.S. Gandhi (up to 08.08.2011)

ENGINEERING SERVICES DEPARTMENT

Superintending Engineer

B.S. Anand

Executive Engineers

M. Rastogi

S. Bhasker

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.

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

Sanjay Arya

Beds	Numbers
Main hospital and private wards	1045
Bassinets	25
Cardiothoracic and Neurosciences Centre	411

Hospital performance indices	2011–12		2010–11		Inference
	Main Hospital	CNC	Main Hospital	CNC	
Average length of stay (days)	5.4	6.7	5.3	7.3	Effective utilization of beds.
Average bed occupancy rate (%)	81.6	77.4	80.9	77.6	Fair occupancy
Net death rate (%)	2.2	3.6	2.6	4.1	Low mortality rate despite a large number of critically ill patients being admitted
Combined crude infection rate (%)	8.3	—	8.1	—	

Please see Tables I and II for details.

6.1 Medical Records Services (Hospital)

Chief Medical Record Officer and Sub-Registrar, Births and Deaths

N.K. Sharma

EDUCATION AND TRAINING

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.
4. Training programme on MCCD and assigning of ICD-10 code organized by Chief Registrar (Births & Deaths), Government of NCT of Delhi and Directorate of Economics and Statistics, NDMC, Palika Kendra, New Delhi, 12 January 2012.
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).

TABLE I. Yearly statistical health bulletin

S. No.	Detail	Main hospital	CN Centre	Total
1.	Total patient admitted	77198	18413	95611
	a. Adults and children	74806	–	–
	b. Newborn infants	2392	–	–
2.	Total patients discharged	75438	17520	92958
	a. Adults and children	73206	–	73206
	b. Newborn infants	2232	–	2232
3.	Total days of care	413237	117628	530865
	a. Adults and children	395323	–	395323
	b. Newborn infants	17914	–	17914
4.	Average length of stay (ALS)	5.5	6.7	5.7
	a. Adults and children	5.4	–	–
	b. Newborn infants	8.0	–	–
5.	Total number of patients in hospital (as per daily census)	319594	116455	436049
	a. Adults and children	316947	–	–
	b. Newborn infants	2647	–	–
6.	Daily average number of patients (as per daily census)	873	318	1191
	a. Adults and children	866	–	–
	b. Newborn infants	07	–	–
7.	Average bed occupancy (%)	81.6	77.4	81.8
	a. Adults and children	82.8	–	–
	b. Newborn infants	28.9	–	–
8.	Births in hospital	2392	–	2392

	a. Male	1302	–	1302
	b. Female	1090	–	1090
	c. Inter Sex	–	–	–
9.	Total deaths (including newborns)	1068	856	1924
	a. Deaths under 48 hours	843	225	1068
	b. Deaths over 48 hours	225	631	856
	c. Gross death rate (%)	3.3	4.9	3.6
	d. Net death rate (%)	2.2	3.6	2.5
10.	Attendance in casualty	113092	–	113092
	Deaths in casualty	766	–	766
	Brought dead in casualty	639	–	639

TABLE II. Department-wise admission, discharges and death rates (Main hospital + CN centre)

Department	Admission	Discharges	Days of care	Average length of stay	Deaths			Death rate (%)	
					Total	Under 48 hours	Over 48 hours	Gross	Net
Medicine I	1278	1227	13503	11.0	263	105	158	21.4	14.1
Medicine II	1221	1187	10914	9.1	252	100	152	21.2	14.0
Medicine III	1374	1333	14064	10.5	312	102	210	23.4	17.0
Surgery I	1454	1389	10834	7.8	35	6	29	2.5	2.1
Surgery II	1917	1868	12434	6.6	41	10	31	2.2	1.7
Surgery III	972	936	10025	10.7	23	7	16	2.5	1.7
Surgery IV	1929	1850	11372	6.1	15	2	13	0.8	0.7
Orthopaedics I	1957	1905	15596	8.2	6	1	5	0.3	0.3
Orthopaedics II	2278	2239	18113	8.0	7	–	7	0.3	0.3
Obstetrics and gynaecology I	4628	4543	21822	4.9	4	0	4	0.1	0.1
Obstetrics and gynaecology II	3172	3111	18437	5.9	4	0	4	0.1	0.1
Obstetrics and gynaecology III	3435	3329	17833	5.3	10	0	10	0.3	0.3
Nephrology	5595	5541	21713	3.9	172	51	121	3.1	2.2
Endocrine	538	508	9609	19.0	8	1	7	1.6	1.4
Gastroenterology	2647	2598	21778	8.3	513	185	328	19.7	13.6
Haematology	9919	9854	31654	3.2	275	85	190	2.8	1.9

Psychiatry	248	207	5507	26.6	2	0	2	0.1	0.1
Urology	5285	5146	20293	4.0	18	5	13	0.3	0.3
Otolaryngology I	1670	1601	6677	4.1	4	2	2	0.2	0.1
Otolaryngology II	1378	1347	5138	3.8	3	0	3	0.2	0.2
Otolaryngology III	1294	1263	5248	4.1	9	1	8	0.7	0.6
Dermatology	5319	5292	16584	3.1	8	1	07	0.1	0.1
Newborns	2247	2232	17914	8.0	9	9	–	0.4	0
Neonatal ICU	172	158	1070	6.7	50	18	32	31.6	22.9
Kangaroo Mother care ward	55	52	329	6.3	–	–	–	–	0
Paediatric I	2810	2744	9141	3.3	56	17	39	2.0	1.4
Paediatric II	1564	1532	9008	5.8	50	13	37	3.3	2.4
Paediatric III	5780	5511	13285	2.4	77	22	55	1.4	1.0
Paediatric Surgery	2586	2521	20288	8.0	61	14	47	2.4	1.9
Radiotherapy	53	48	71	1.4	11	7	4	22.9	9.8
Dental Surgery	143	140	1530	10.9	1	–	1	0.7	0.7
Nuclear Medicine	484	478	646	1.3	2	1	1	0.4	0.2
Gastrointestinal surgery and Liver Transplantation	937	913	16347	17.9	67	11	56	7.3	6.2
Physical Medicine and Rehabilitation	42	35	1589	45.4	–	–	–	–	0
Institute Rotary Cancer Hospital	495	482	2540	5.2	107	67	40	22.2	9.6
Anaesthesiology	322	318	331	1.0	–	–	–	–	0
Total (Main)	77198	75438	413237	5.5	2475	843	1632	3.3	2.2
Cardiology	7763	7710	28890	3.74	203	97	106	2.6	1.4
Cardiothoracic and vascular surgery	3774	3734	35592	9.5	307	38	269	2.2	7.3
Neurology I	1524	1372	9591	7.0	77	23	54	5.6	4.0
Neurology II	1366	1190	8075	6.8	55	15	40	4.6	3.4
Neurosurgery I	1884	1647	17295	10.5	113	27	86	6.9	5.3
Neurosurgery II	2096	1861	18162	9.7	101	25	76	5.4	4.1
Neuro-anaesthesiology	6	6	23	3.8	–	–	–	–	–
Total (CNC)	18413	17520	117628	6.7	856	225	631	4.9	3.6
Grand Total (Main +CNC)	95611	92958	530865	5.7	3331	1068	2263	3.6	2.5

TABLE III. State-wise distribution of in-patients

State	Main Hospital	CNC	Total
Delhi	37770	5450	43220
Uttar Pradesh	16995	4432	21427
Haryana	8187	1883	10070
Bihar	7386	3341	10727
Rajasthan	1075	625	1700
Punjab	246	234	480
Other states	5334	2392	7726
Other countries	205	56	261
Total	77198	18413	95611

TABLE IV. Gender-wise distribution of in-patients (Main Hospital + CN Centre)

Site	Male	Female	Male child	Female child	Total
Main Hospital	30150	28317	13113	5618	77198
CN Centre	9287	4346	3336	1444	18413
Total	39437	32663	16449	7062	95611

TABLE V. Surgical procedures

Department	Major	Minor procedures		
		Indoor	Outdoor	Total
Surgery I	715	230	2463	3408
Surgery I	636	373	3239	4248
Surgery II	988	349	3000	4337
Surgery III	571	108	2723	3402
Surgery IV	902	337	2536	3775
Gastrointestinal Surgery and Liver Transplantation	569	1	–	570
Urology	1331	275	10765	12371
Obstetrics	1014	237	–	1251
Gynaecology	1229	1408	–	2637
Otorhinolaryngology	2267	1952	31006	35225
Orthopaedics I	1299	500	–	1799
Orthopaedics II	1136	685	–	1821
Paediatric Surgery	1715	185	157	2057
Dental Surgery	103	01	–	104
Casualty	–	250	–	250
Total (Main)	13760	6661	53426	73

Cardiothoracic and Vascular Surgery	4252	–	–	4252
Neurosurgery I	1293	140	–	1442
Nurosurgery II	1429	258	–	1687
Total (CNC)	6974	407	–	7381
Grand Total (Main + CNC)	20734	7068	–	81228

TABLE VI. Attendance in OPDs and speciality clinics

Medical disciplines	New cases	Old cases	Total
Medicine			
1. General OPD	62252	63640	125892
2. Speciality clinics			
(i) Chest	2593	3795	6388
(ii) Rheumatology	42	6519	6561
(iii) Geriatric	5904	6612	12516
(iv) Sleep related breathing disorder	2626	2912	5538
(v) Nuclear medicine	1212	5787	6999
(vi) Endocrinology	10133	26553	36686
(vii) Renal	6316	23327	29643
(viii) Renal transplant	82	4571	4653
(ix) RTCC	367	1304	1671
Haematology	3098	23187	26285
Gastroenterology	16612	42509	59121
Paediatrics			
1. General OPD	33068	42444	75512
2. Speciality Clinics			
(i) Well baby	390	419	809
(ii) Follow up TB	391	1855	2246
(iii) Renal	504	4374	4878
(iv) Paediatric neurology	849	2242	3091
(v) Paediatric chest	613	3363	3976
(vi) High risk neonatal	298	2873	3171
(vii) Genetic and birth defects	2622	1469	4091
(viii) Oncology	196	1357	1553
(ix) Child development	139	143	282
(x) Endocrinology	443	1245	1688
(xi) Neurocysticercosis	352	1378	1730
(xii) PCSC	62	486	548

(xiii) Rheumatology	191	1501	1692
(xiv) Myopathy	457	755	1212
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	New cases	Old cases	Total
Surgical Discipline	38720	27235	65955
Urology	12978	31594	44572
Gastrointestinal Surgery	2047	5583	7630
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

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

6.2 Hospital Dietetics Services

Chief Dietician

Dr (Mrs) Alka Mohan Chutani

Sr. Dietician

Dr (Mrs) Parmeet Kaur

Dietician

Mrs Swapna Chaturvedi

Assistant Dietician

Mrs Gurdeep Kaur
Ms Vasundhara Singh

Ms Monita Gahlot

Ms Richa Jaiswal
Mrs Anjali Bhola

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

Total number of diets	6,51,630
Normal diets	3,39,295
Semisolid	30,656
Therapeutic diets	1,45,410
Enteral feeds	32,517
Private ward diets	1,03,752

Nutrition counseling

New OPD patients	4317
Male	2245
Female	2072
Old OPD patients	1190
Male	647
Female	543
Inpatient	6875

6.3 Welfare Unit

Welfare Officer
Mrs Preeti Ahluwalia

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

PATIENTS' WELFARE

Patient care: ₹ 38,64,000 (approx.) raised as donation.

Purpose	Donation (₹)	Donor
For treatment and surgery of poor and needy patients who are undergoing treatment in the main hospital and centres	3,25,000	Indo Global Social Service Society
	2,54,851	Sahu Jain Trust
	1,62,000	Baij Nath Bhandari Public Charitable Trust
	1,26,401	Lal Devi Charitable Trust
	1,20,000	Jawahar Bhawan Trust
	66,500	Chetnalya
	25,000	Sewa Prakalp Mahila Mandal Trust
	16,000	Vijay Gujral Foundation
	2,46,000	Other donors
AIIMS Poor Fund Account	35,000	Col Yash Bhatnagar
	12,000	Mrs Anjana Ahluwalia
	5,000	Major Ranjit Singh
Anti-cancer drugs provided free to patients	22,76,028	Gopal Foundation
	1,94,246	Dr Chetan Memorial Divine Trust

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 the reactivate the activites 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 ₹ 2,88,574
(Bank interest + donations + poor fund boxes)

Payment made to 194 (149 + 45) patients ₹ 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 ₹ 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 ₹ 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 ₹ 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. <i>Collected from</i>	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

6. Donor grouping	82528
7. Indirect Coombs Test	1271
8. Total titre	161
9. Total A/B	47559
10. Direct Coombs test	701
11. Blood issued	39006
12. Received back	725
13. Small units	863
14. Blood discarded	1616
15. Blood issued but not transfused	Nil
16. Blood issued to private ward	2468
17. Components issued to private ward	2699
18. Blood issued outside hospital	622
19. Components issued outside hospital	68
20. Cross-match but not transfused	11732
21. Blood issued to IRCH	5805
22. Blood issued to Indian Red Cross Society	12
23. Blood issued to CNC	114
Total	549849

III. Special Procedure Laboratory

1. Minor grouping	4417
2. Reagent cell thawing	1028
3. DAT	351
4. Cross-matching discrepancy	422
5. Group discrepancy	42
6. AB screening	329
7. Component QC	114
8. EQAS	2
9. Antibody identification	152
10. Antisera QC	157
Total	7014

IV. Component Laboratory

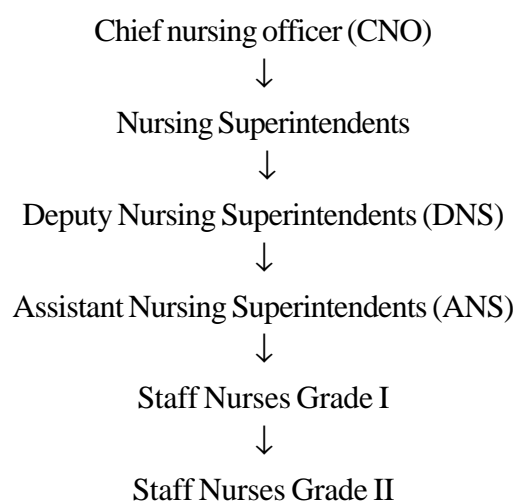
1. Platelet rich concentrate	31860
2. Fresh frozen plasma	23010
3. Liquid plasma	13958
4. Cryoprecipitate	945
5. Red blood cells	39137
Total components prepared	108910

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



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

Chief Nursing Officer	1 (Acting CNO)
Nursing Superintendent	1
DNS	14
ANS	83
Grade I Nursing staff	423
Grade II Nursing staff	1139
Total	1661

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 :

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

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. Bedsore 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.
12. HIV/AIDS Prevention Care Support and Treatment under the global fund project-Round 7. Oct–Dec 2011, MM College of Nursing, Ambala Cant, Ambala.
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.
15. National convention on Operation Theatre Nurses, 27–29 December 2011, Aurangabad.
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
(on deputation)

Ms Rachel Andrews

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
(on study leave)

Ms Poonam Joshi

Ms Sucheta

Ms Shashi Mawar

Ms Babita Sahoo

Ms Philomina 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.
5. 'Strengths, weaknesses and challenges in newborn care. Home to facility nursing', National newborn week advocacy event on evidence based continuum of newborn care in India: Yesterday, Today & Tomorrow.
6. 'Quality assurance in nursing education and services', Guest Lecture, CNE, Foundation day programme, College of Nursing, RIMS, Manipur.

7. 'Overview of evidence based practice', Pre-conference workshop on evidence-based practice, 3rd Annual Conference, Indian Association of Neonatal Nurses, Kolkata
8. 'Overview & physiology of resuscitation in neonates', Pre-conference workshop on neonatal resuscitation program for nurses, XXXI Annual Convention of National Neonatology Forum, NEOCON 2011, Chennai.
9. 'Neonatal nurse practitioner: Indian context', Nurses CME, XXXI Annual Convention of National Neonatology Forum, NEOCON 2011, Chennai.
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

1. Management of unconscious patient, CME Program of Pan Africa e-Network Project, September 2011.
2. Management of patient with head injury, CME Program of Pan Africa e-Network Project, December 2011.
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

1. Cardiac emergencies and nursing management for Nursing personnel, INDO-US Summit.

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

1. 'Research Design—experimental & non-experimental, Teleconferencing, IGNOU, Telecast by Gyandarshan channel of Doordarshan.
2. 'Management of anxiety disorders', 2 sessions, IGNOU, Telecast by Gyandarshan channel of Doordarshan.
3. 'Management of patient with acute kidney injury, Teleconferencing, AIIMS for PAN-African e-network project.
4. 'Effective Communication Techniques and Therapeutic Communication', Teleconferencing, AIIMS for PAN-African e-network project.
5. Guest Lecture on Study Designs, 15th Annual Conference of Nursing Research Society of India, 17 November 2011, Baba Farid University, Punjab.
6. Management & Prevention of Burnout, First International Summit & workshop on Cost effective use of technology in Emergency Health Care System, 28 October 2011, AIIMS.
7. Orientation to HIV/AIDS Counselling, Training of ICTC Counsellors, Aditi Mahavidyalaya, University of Delhi.

8. 'Conflict management, resolving transference and counter transference', Session for Supportive Supervision of GFATMR-7, Department of Social Work, Jamia Milia Islamia
9. 'Group Dynamics, collective bargaining, conflict management', TNAI Workshop on Nursing Administration for effective patient care management. Series XXIV, Green Park, New Delhi.
10. 'Grief and bereavement counseling for HIV/AIDS clients, Training of ICTC Counsellors, Aditi Mahavidalaya, University of Delhi.
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.
13. 'Clinical Teaching Method', National workshop on Effective teaching learning & assessment strategies in educational methodology at Rufaida College of Nursing, Jamia Hamdard, New Delhi.

Mrs Kamlesh Sharma

1. 'Evidence based interventions for thermoregulation in neonates', 3rd Annual conference, Indian Association of Neonatal Nurses, Kolkata.
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.
6. Kangaroo Mother Care, In KMC workshop, Annual conference, National Neonatology Forum, Chacha Nehru Bal Chikitsalaya, Delhi, 8 September 2011.
7. 'Detection & prevention of Breast disease', Breast Health Awareness Day symposium, Department of Surgical Disciplines, AIIMS, 22 October 2011.

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.
3. 'Socio-economic Determinants of Newborn Care Practices', 3rd IANN Conference, Kolkata, November 2011.
4. 'Axillary Temperature taking how long?', 3rd IANN Conference, Kolkata, November 2011.
5. 'Knowledge, attitude and practices of nursing personnel related to evidence based practices', NRSI Annual Conference, Faridkot, November 2011.

Ms Shashi Mawar

1. 'Patient assessment in Emergency Department', International conference on INDU-US Emergency conference.
2. 'Problem of elderly and their management', Telemedicine for PAN-AFRICA.
3. 'Basic Life Support', 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
2. Free Paper Presentation, Xth National Conference, Indian Society of Psychiatric Nurses, 10–12 March 2012, Dehradun.
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.
2. Poster presentation, Medication error in Acute care setting, INDO-US emergency Medicine summit, October 2011.

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 primi gravidae, 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, PGIMS, 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

WHO Fellowship on economic evaluation of disease burden, HITAP, Thailand, January 2012; chaired session on Disaster management, International Conference on INDO-US Emergency, 1 October 2011.

8. Research Section

Dean (Research)

A. B. Dey

Sub-Dean (Research)

R. Goswami

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,
Inclen Trust India, New Delhi | Member |
| 7. Professor K.M. Shyam Prasad, Chancellor
Martin L. Christian University, Shillong, Meghalaya | Member |
| 8. Professor Neeraj K. Seth, Senior Advisor (Health)
Planning Commission, New Delhi | Member |
| 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

- CME-cum-workshop on Paediatric Anaesthesia, Agartala Medical College, Hapania–Tripura, 16–17 October 2011.
- Workshop on Paediatric Anaesthesia, Annual Conference of Bangladesh Society for Study of Pain, Dhaka, 14–15 March 2012.
- 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 ($MgSO_4$) as adjuncts to total intravenous anaesthesia (TIVA).
4. Postoperative pain relief in total knee arthroplasty: Single shot '3 in 1' femoral nerve block vs intraarticular infiltration.
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 peri operative analgesia for patients undergoing tubal ligation and MTP under local anesthesia.
13. Safety and efficacy of intravenous paracetamol as adjunct to caudal block in children undergoing infra umbilical surgery.
14. Safety and efficacy of TAP block for perioperative analgesia after laparoscopic hernia repair.
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.
19. Evaluation of entropy for assessment of sedation in the intensive care unit.
20. Comparison of BIS and entropy for assessment of sedation in critically ill patients.

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 $MgSO_4$ 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

General surgery	3995	Gastrointestinal surgery	507
Urology	1311	Otorhinolaryngology	991
Gynaecology	1058	Paediatric surgery	1784
Dental surgery	89		

Peripheral operation theatres

Maternity and IVF	2635	Orthopaedics	2226
<i>Dr R.P. Centre for Ophthalmic Sciences</i>			
Routine under GA	5461	Emergency under GA	1422
Surgery under MAC	144		

Interventional pain management procedures 271**Procedure under GA in periphery**

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

Intensive care unit (AB8)

Patients admitted	364	Patients transferred to wards	268
Patients died	85		

Emergency procedures

Cases done	2898	Calls attended	2070
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Pre-anaesthesia clinic

Old cases	814	New cases	6814
Total	7628		

9.2 Anatomy

Professor and Head

Rani Kumar

Professors

Shashi Wadhwa

R. D. Mehra

T. S. Roy

Additional Professors

A. Shariff

Pushpa Dhar

S. B. Ray

T. K. Das

Rima Dada

Arundhati Sharma

(Electron Microscopy)

(Genetics)

Renu Dhingra

Associate Professors

T. C. Nag

Ritu Sehgal

(Electron Microscopy)

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

Shashi Wadhwa: 2

R.D. Mehra: 2

T.S. Roy: 6

Pushpa Dhar: 1

Rima Dada: 8

Arundhati Sharma: 2

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.
3. Studies on ovariectomy induced anatomico-chemical changes in rat cerebellum and their response to estradiol and tamoxifen therapies. RD Mehra, ICMR, 2008–12, Rs 9.36 lakhs.
4. Estrogen induced regulation of complement system in rat brain: An approach to understand neuroprotective and anti-inflammatory role of the hormone. RD Mehra, ICMR, 2011-14, Rs. 38.04 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.
6. Estrogen mediated immune regulation and neuroprotection in female rat hippocampus. RD Mehra, ICMR SRF, 2011–14, Rs. 6.96 lakhs.
7. A stereological study of age related morphological and neurochemical changes in the human cochlear nucleus. TS Roy, ICMR, 2010–13, 29.28 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.
9. Genetic and DNA fragmentation study in infertile couples opting for ART and couples experiencing recurrent IVF/ICSI failure. R Dada, ICMR, 2008–11, Rs 5 lakhs.
10. Role of sperm factor (oxidative stress, DNA damage) in RSA. R Dada, DBT, 2010–13, Rs 15 lakhs.

11. Study to identify the genetic basis underlying Stevens – Johnson syndrome (SJS). A Sharma, ICMR, 2011–14, Rs 22.0 lakhs.
12. A study on the genetic association and correlation of Monoaminergic, GABAergic and Glutaminergic pathway gene polymorphisms with brain imaging (PET/SPECT) in lcohol dependence, A Sharma, ICMR, 2011–14, Rs 29.0 lakhs.
13. A study on the molecular analysis of endothelial dystrophies in North Indian patient population. A Sharma, Institute Research Grant, 2011–12, Rs 1 lakh.
14. Mutational analysis of growth hormone deficiency in North Indian children. A Sharma, ICMR–SRF, 2011–13.

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.
2. A study on the novel analgesic effect intraspinal loperamide in a murine model of postsurgical pain. SB Ray, ICMR, 2008–11, Rs 30.2 lakhs.
3. To evaluate possible presence of mutations in VSX1 gene in Keratoconus. A Sharma, Institute Research Grant, 2009–11, Rs 2 lakhs.
4. Effect of preeclamptic sera on trophoblastic invasion and oxidative stress: an in vitro study. R Dhingra, Institute Research Grant, 2011–12, Rs 1 lakh.
5. Cellular localization of markers of oxidative stress in aging human retina. TC Nag. Institute Research Grant, 2011–12, Rs 1 lakh.

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.
4. Morphology of the fetal and adult human pancreatic duct 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.
9. Effect of estrogen and estrogen like compounds on cerebellum of adult female rat: A histochemical and molecular study.
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 angiogenetic 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- α in the pathogenesis of experimental acute pancreatitis and the effect of anti-TNF- α therapy in attenuating the severity of pancreatitis and in the subsequent regeneration of the pancreas (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).
4. Clinical, radiological and genetic study in Blepharophimosis (RP Centre).
5. Investigation of genetic variations in CH13L1 and effect of YKL-40 production in Indian Asthamatic 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).
12. Congenital adrenal hyperplasia – genotype phenotype correlation (Department of Endocrinology).
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 Wilm's tumor with histological correlation (Department of Pathology).
17. Feasibility study of a novel intraosseous 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
<i>Embalming of dead bodies</i>			
For transportation	847	For teaching/research	25
<i>Fluorosis Diagnostic Laboratory: Fluoride estimation</i>			
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, Universitäts 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*, *Mitochondrion*, *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 pper: 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

Subrata Sinha
(On deputation)
S. S. Chauhan

D N Rao

Nibhriti Das

M R Rajeswari

Additional Professors

P. P. Chattopadhyay
Alpana Sharma

Kalpana Luthra
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

RESEARCH

Funded projects

Completed

1. To study the immune response of T cell dominant synthetic peptides derived from HPV-16 using different adjuvants in a mouse model of cervical cancer. Neeta Singh, DBT, 2008– March 2012, Rs 25.27 lakhs.
2. A study to assess the effects of long-term obstruction of epididymis on the morphology, functional and chromatin status of epididymal spermatozoa in men: comparison with ejaculated sperm from men of proven fertility. D.N. Rao, ICMR, 2008–11, Rs 19.36 lakhs.
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.
4. Chronic immune activation associated with leprosy: Role of hyporesponsiveness and anergy. D.N. Rao, ICMR, 2007–10, Rs 14.35 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.
6. Drug selected mutations in the reverse transcriptase and protease genes of HIV-1 viruses from proviral DNA of HIV-1 infected pediatric patients. Kalpana Luthra, AIIMS, 2010–12, Rs 2 lakhs.
7. Characterization of HIV-1 envelope in natural infection: Immunofocussing vaccine development. Kalpana Luthra, ICMR, 201012, Rs 32 lakhs.
8. Production and characterization of site-selected human monoclonal antibodies against the envelope glycoprotein of HIV-1 (Clade-C). Kalpana Luthra, DBT, 2009–12, Rs 55 lakhs.
9. Study of extra cellular matrix proteins in multiple myeloma. Alpana Sharma, AIIMS, 2009–11, Rs 2 lakhs.
10. A comparative study on expression and/or transcription between LDL receptor (LDLR) and tumor suppressor proteins (p⁵³, p^{RB}) in presence of insulin, thyroxin and benzo-(á)-pyrene. N.C. Chandra, AIIMS, 2008–11, Rs 3 lakhs.
11. An in vitro silencing of endogenous oxidized-LDL-receptor (LOX-1) gene by siRNA: Study of NF-kB activated expression of proinflammatory cytokines and related atherogenic proteins – its evaluation against anti-inflammatory cytokines mediated responses. N. C. Chandra, DBT, 2007–11, Rs 33.75 lakhs.

Ongoing

1. Effect of non-ionizing electro magnetic fields (EMF) on human health. Neeta Singh, ICMR, 2010–15, Rs 91.73 lakhs.
2. Development of HPV18 chimaeric vaccine candidate. Neeta Singh, DBT, 2011–13, Rs 23.85 lakhs.
3. Evaluation of curcumin in the management of advanced cancer cervix. Neeta Singh, DBT, 2006–12, Rs 59 lakhs.
4. Effect of non-ionizing electromegnetic field (EMF) on human health. D.N. Rao, ICMR, 2010–15, Rs 80.92 lakhs.
5. Phase III clinical trial with an intranasal injectible male contraceptive RISUG. D.N. Rao, ICMR, 2008–12, Rs 6.46 lakhs.
6. Developing vaccine for plague using YscF antigen. D.N. Rao, ICMR, 2010–12, Rs 8 lakhs.
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.
8. Development of IgM based diagnosis for Chikungunya virus infection. D.N. Rao, CSIR, 2010–12, Rs 10 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.
10. Estimation of oxidative stress in pregnant women on daily verses weekly iron supplementation. D.N. Rao, ICMR, 2011–13, Rs 17.53 lakhs.

11. Complement receptor-1, TNF- α , 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.
12. Translating head and neck cancer markers into diagnostic assays. S.S Chauhan, DBT (Indo–Canada), 2010–13, Rs 78.51 lakhs.
13. Anti-gene strategy of gene regulation: Formation and stability of DNA triplexes and their anticancer activity on HMGAI expression in cell lines. M.R. Rajeswari, DST, 2010–13, Rs 53 lakhs.
14. Studies on the effect of DNA-Binding ligands on the expression of C-Met, a receptor tyrosine kinase in heptoma using rat model system. M.R. Rajeswari, DST, 2010–13, Rs 37.60 lakhs.
15. Characterization of circulating cell-free mRNA species of differentially expressed protein in plasma and to correlate with molecular pathogenesis of Freidreich's ataxia. M.R. Rajeswari, ICMR, 2010–13, Rs 28.80 lakhs.
16. Identification and characterization of the prevalent *B-lactamase* in carbapenem-resistant strains of *Acinetobacter baumannii*. M.R. Rajeswari, ICMR, 2010–13, Rs 27.14 lakhs.
17. Identification of neutralizing antibody epitopes on Indian and South African HIV-1 subtype C viruses for HIV vaccine design. Kalpana Luthra, DST, 2011–14, Rs 68.4 lakhs.
18. Characterization of genetic diversity and neutralizing antibody response in HIV-1 infected Indian children. Kalpana Luthra, ICMR, 2011–14, Rs 29 lakhs.
19. Functional characterization of dendritic cells in HIV-1 Infection. Kalpana Luthra, DST, 2012–15, Rs 37 lakhs.
20. Evolution of the HIV-1 clade C envelope in chronically infected Indian paediatric patients. Kalpana Luthra, DBT, 2012–15, Rs 91.89 lakhs.
21. Therapy of infectious and chronic diseases: Targeted gene delivery and long-term specific modulation of gene expression. P. Chattopadhyay, DBT, 2006–12, Rs 54.38 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.
24. Telomerase activity and telomere length in T-cells in patients of Parthenium induced contact dermatitis and its correlation with disease severity. Alpana Sharma, DBT, 2008–12, Rs 34 lakhs.
25. Role of angiogenic factors and cyclooxygenase in multiple myeloma. Alpana Sharma, ICMR, 2009–12, Rs 24 lakhs.
26. Study of α T cells and its scavenger receptor (SCART) in the pathogenesis of autoimmune skin disorder: Pemphigus vulgaris. Alpana Sharma, DBT, 2011–14, Rs 45.31 lakhs.
27. Study of Th-1 and Th-2 type cytokine gene polymorphism and their association with parthenium induced contact dermatitis. Alpana Sharma, ICMR, 2010–13, Rs 25.33 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.
29. An in-vitro study of the role of FAT, a *Drosophila* tumor suppressor gene homologue, in human glial tumorigenesis. Kunzang Chosdol, DRDO, 2008–12, Rs 46.41 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.
2. Role of mitochondria in epithelial ovarian cancer – an in vivo and in vitro study.
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 HPV18 candidate vaccine prototype.
6. Insights into molecular mechanism of action of *Morinda citrifolia* in cervical cancer cells.
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.
9. Endothelial nitric oxide synthase gene polymorphism and 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 (β -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.
17. Modulation of gene expression of E6 & E7 oncoproteins of HPV18.
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 *PPAR α* , *IRS-1* and *TNF- α* in insulin resistance and their association with metabolic profile.
24. Production and characterization of human antibodies against envelope glycoprotein of HIV-1 (Clade-C).
25. Generation and characterization of Single Chain Variable Region (ScFv) antibody against envelope gp120 of HIV-1 Clade C.

26. Immunological Characterization of HIV-1 Clade C Envelope Glycoprotein gp 160.
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.
29. Expression of cytokines and transcription factor of Th17 cells in patients of transitional cell carcinoma of the bladder.
30. Characterization of FAT (Tumor suppressor) pathway in human glial tumors.
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
36. Leptin and associated plasma risk factors in human obesity.
37. Modulation of oxidized-LDL-receptor and its effect on pro- and anti-inflammatory cytokines.
38. Cholesterol homeostasis and expression of cell cycle proteins (cyclin E and CDK2) in normal prostate, benign prostatic hyperplasia and carcinoma prostate cases: A pilot study.
39. Insights of cholesterol homeostasis in lymphocyte of normal and chronic lymphocytic leukemia subjects: A case control pilot study.
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- β 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 spiniocerebellar 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 spiniocerebellar 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 Cryptosporidim. (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- α 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

Journals: 49

Abstracts: 39

Chapters in Books: 3

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- α 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 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, Rockefeller 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.

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

1. A pilot study for efficacy of Arnica Montana in muscle. Sneh Anand, CCRH, 2011–12, Rs 25 lakhs.
2. Evaluation of indigenous noninvasive blood glucose monitoring technologies. Sneh Anand, ICMR, 2012–14, Rs 71.39 lakhs.
3. Development of low-cost versatile endoscopic equipment system for neurosurgery (ventricular, intra-cranial and skull-base surgery). Sneh Anand, DST, 2012–15, Rs 86.03 lakhs.
4. Monitoring cognition of healthcare workers in emergency and intensive care setting and its relation to medical errors. Sneh Anand, DST, 2011–14, Rs 29.42 lakhs.
5. Stanford- India Biodesign program. A.R. Ray, DBT, 2007–13, Rs 100.64 lakhs.
6. Development of implant and medical devices. A.R. Ray, DBT, 2007–11 (in progress), Rs 22.2 lakhs.
7. Development of biodegradable scaffold for tissue engineering of blood vessels. A.R. Ray, DBT, 2007–11 (in progress), Rs 26.86 lakhs.
8. Scaffold-based control of chondrocyte phenotype: Towards engineering of in vertebral disk tissue. A.R. Ray, DST, 2009–12, Rs 27.54 lakhs.
9. Development of nanosilver nanohydrogels for biomedical applications, A.R. Ray, DBT, 2009–12, Rs 83.11 lakhs.
10. 3D-expansion and differentiation of mesenchymal stem cell into osteoblast for bone tissue engineering on biocomposite scaffold. A.R. Ray, ICMR, 2010–13, Rs 20.12 lakhs.
11. Multidisciplinary approach to combat cancer by targeted drug delivery using intelligent nano-particles. Veena Koul, DBT, 2010–13, Rs 59 lakhs.

12. Transdermal delivery of drug loaded nanoparticles for the treatment of rheumatoid arthritis by electroportation: A combinational approach, Veena Koul, DBT, 2009–12, Rs 14.5 lakhs.
13. Development of functional polymeric materials for the rapid detection of food borne pathogens. Harpal Singh, DST, 2011–14, Rs 26.20 lakhs.
14. Development of multifunctional biodegradable nanoparticles (NPs) nano crystals for cancer diagnosis and treatment. Harpal Singh, DST, 2011–14, Rs 48.14 lakhs.
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
17. Long term effects of RISUG as an implant in fallopian tube of rabbits. J.C. Bhardwaj, ICMR, 2012–15, Rs 39.21 lakhs.
18. Evaluation of vaginal microbial flora and sperms after styrene maleic anhydride (SMA) application. J.C. Bhardwaj, IIT Kharagpur, 2010–12, Rs 2.42 lakhs.
19. Effects of non-ionizing electromagnetic field (EMF) on haematological and biochemical parameters of normal male and female human volunteers (Part of ICMR Cell phone Task Force Study). J.C. Bhardwaj, ICMR, 2012–15, Rs 49.98 lakhs.
20. Effects of RISUG injection in the epididymis and testes of rats. J.C. Bhardwaj, IIT Kharagpur, 2011–12, Rs 3.06 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

1. **Sneh Anand**, U. Singh, Rahul Ribeiro, Shakti Srivastava, Ashutosh Mishra, Deepak Joshi, Ramandeep Singh, Contralateral limb controlled prosthetic knee joint (398/DEL/2012).
2. **Nivedita K. Gohil**, A test kit and method for measurement of metals in biological fluids (PCT/IN2009/000696).
3. **Veena Koul**, Maneesh Jaiswal. A triple layer dressing for wound healing (315/DEL/2012).
4. **Harpal Singh**, Heat sealable coatings onto paper for adhesion with PVC polyester and polystyrene films for packing application (Technology transferred to Kumar Printers, Okhla, New Delhi).
5. **Harpal Singh**, Immobilization of aminoacylase on functionalized acrylics for production of 6-aminopenicillanic acid from penicillin. (Technology transferred to Ranbaxy Ltd., Gurgaon, Haryana).
6. **Harpal Singh**, Antimicrobial acrylic bone cement for fixation of hip and knee joints, (Technology transferred to XLOrthobiomed, Faridabad, Haryana).

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, Falun, 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 NANO BIO 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 Vagyanik 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

1. Current Trends in Structural Biology 2012, 2 April 2012, Dr Sujata Sharma.
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.
3. Structural and Functional Studies of Peptidoglycan recognition Proteins, Punit Kaur, DST, Rs 32.5 lakhs, 2006–11.
4. Purification, biochemical and functional characterization of heparin binding proteins in human seminal plasma, Savita Yadav, DBT, 2008–12.

5. Isolation and purification of anti-diabetic protein(s) from *Syzygium cumini* seeds. Savita Yadav (as mentor), DST, 2010–13.
6. NBS–LRR proteins: Purification, characterization and functional studies from seeds of *Lageneria siceraria*. Savita Yadav (as mentor), DST, 2012–15.
7. Screening of *Citrullus lanatus* proteome to isolate and purify anti-fungal proteins: A step towards formulation of Bio-fungicides to aid reduction of environment pollution, Savita Yadav, Ministry of Environment and Forestry, 2012–15.
8. HE4: A potential multifaceted role in human reproduction, Savita Yadav, DST, 2012–15.
9. Diversity of shell proteins from mollusks along Parangipettai coast (East Coast of India), A. Srinivasan, DBT, Rs 34.35 lakhs, 2012–15.
10. Protein interactions of Alzheimer's peptide: picking those relevant to pathogenesis, A Srinivasan, ICMR, Rs 28.19 lakhs, 2011–14.
11. Expression of sperm proteins, lipids and sperm functional parameters in human treated with RISUG injected v/s NSV subjects: A comparative study, A Srinivasan, ICMR, Rs 14.94 lakhs, 2009–12.
12. Structural and functional studies of lactoperoxidase, Sujata Sharma, DST, Rs 19.9 lakhs, 2008–11.
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.
14. In search of anti-allergenic drugs: Determination of molecular structure-function interrelationships of plant allergens and structure-based design of anti-allergenic ligands, Sujata Sharma, ICMR, Rs 29.3 lakhs, 2011–14.
15. Design and evaluation of novel peptide inhibitor as an anti-breast cancer agent against COX-2/LOX, Sharmistha Dey, Council of Scientific and Industrial Research, 2011–13.
16. Development of p38 α mitogen activated protein kinase as a biomarker in oral cancer, Sharmistha Dey, Council of Scientific and Industrial Research, 2010–13.
17. Extraction, purification and characterization of medicinal proteins from plant source having antimicrobial, anti-inflammatory and anti-cancer properties, Sharmistha Dey, Council of Scientific and Industrial Research, 2012–14.
18. Determination of efficacy and safety of reflexology therapy for the patients with intractable epilepsy: a multi-centre randomized clinical trial. Krishna Dalal, DBT, Rs 139.80 lakhs.

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; Brahmara'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

Professor and Head

R.M. Pandey

Professor

S.N. Dwivedi
(on long leave)

Additional Professor

V. Sreenivas

Scientists

R.K. Ahuja (Superannuated December 2011)	Guresh Kumar	M. Kalaivani
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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

Lectures delivered

R.M. Pandey: 8

S.N. Dwivedi: 7

V. Sreenivas: 4

Guresh Kumar: 1

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

1. Trends, differential and determinants of neonatal, infant and under five mortality in Empowered Action Group States.
2. A study on appropriate statistical models to determine quality of life and 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 Syndrome: 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 Zinc 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 CD20 antibodies ¹³¹Iodine Rituximab/90 in Delhi and adjoining area (Department of Microbiology).

12. Molecular characterization of *Neisseria meningitidis* 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).
16. Sequential study of the pathophysiology of demyelinating lesion in an experimental model of multiple sclerosis by Magnetic Resonance (NMR) Study of Human Breast Cancer by Magnetic Resonance Techniques (Department of NMR).
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).
23. A Pilot Study on the Effect of Alprazolam in Spasticity (Department of Physical Medicine and Rehabilitation).
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 Acute 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, ICGB, 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

1. Molecular studies on *Plasmodium vivax* tryptophan-rich proteins, Y.D. Sharma, DBT, 2010–13, Rs 20.40 lakhs.
2. Post Graduate Training Programme in Biotechnology with special application to Biomedicine, Y.D. Sharma, DBT, 2009–14, Rs 22.58 lakhs per year.
3. Biotechnology Informatics System, Y.D. Sharma, DBT, 2008–13, Rs 3–5 lakhs per year.
4. Exploiting temporal transcription profiles, computational analysis and post-transcriptional gene silencing to identify and intercept interactions between host and dormant and actively replicating *Mycobacterium tuberculosis*, DBT, (Centre of Excellence, Category III-CIEB project), 2011–13.

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.
6. Analysis of genomic variants of *Mycobacterium tuberculosis* complex isolates using large scale parallel sequencing: preliminary studies, H.K. Prasad, DBT, 2010–13, Rs 33.36 lakhs.
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.
8. Development and characterization of autologous NKT cell-based dendritic cell vaccine for oral squamous cell carcinoma, SN Das, DBT, 2008–11, Rs 23 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.
2. Molecular switch in Th1-Th2 response by SMAR1: Its implications in *Mycobacterium tuberculosis* infection, H.K. Prasad. DBT, 2007–10, Rs 19.50 lakhs.
3. Detection of Mycobacterial pathogens in patients with Crohn's disease, H.K. Prasad. DBT, 2007–10, Rs 3 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.
6. Studies on phosphoinositide 3-kinase signaling and antitumour activities of its natural inhibitors in oral cancer.
7. Phenotypic and functional characterization of T_H 17 cells in patients with oral squamous cell carcinoma.
8. Phenotypic and functional characterization of CD4⁺CD25⁺Foxp3⁺ regulatory T cells (T_{Reg}) in patients with oral squamous cell carcinoma

Completed

1. Genetic polymorphism in MLH1 gene in oral cancer patients.
2. Role of MLH1 promoter methylation in oral squamous cell carcinoma patients.

Collaborative Projects

Ongoing

1. SysTB: A Network Programme for Resolving the Intracellular Dynamics of Host-Pathogen Interactions in TB Infection, DBT Network project, J.S. Tyagi, 2011–16.
2. National Alliance Programme for Bidesign 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 p38 α 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*

Osteoporosis and Metabolic Disorders; Reviewer for National and International Journals: *Oral Oncology, Cancer Investigations, DNA and Cell Biology, Life Sciences, International Journal of Immunogenetics, European Journal of Oral Sciences, International Journal of Human Genetics, International Journal of Cancer, Oral Pathology Oral Medicine, Indian Journal of Medical Research.*

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, Bethesda, 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 ACTIVITIES

Bioinformatics Centre

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

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.
3. Prevalence of coronary heart disease and its risk factors in residents of urban and rural areas of NCR – A repeat survey. Anand Krishnan, ICMR, 2009–11, Rs 1.8 crores.
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).
6. Development of neonatal healthcare service delivery model for rural India. Anand Krishnan, Unicef, 2011–14, Rs 80 lakhs.
7. A study of tobacco consumption in villages under CRHSP, Ballabgarh, Haryana. Dr. Puneet Misra, AIIMS Intramural Research, 2011–12, Rs 1 lakh.
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

1. Antenatal care: Utilization, perceptions and expectations of migrant women in Delhi—a mixed methods study. Y.S. Kusuma, AIIMS Research Grant, 2008–10.
2. Expenditure on non-communicable diseases-related risk behaviours among adults in urban and rural India. Baridalyne N, AIIMS Research Grant, 2009–10.
3. Perception, awareness and utilization of government schemes on girl child in Ballabgarh Block. Anand Krishnan, AIIMS Research Grant, 2010–11.
4. Preparation of a programme managers kit for monitoring and evaluation of National Programme for diabetes CVDs and stroke. Anand Krishnan, WHO India, 2010–11, Rs 4.33 lakhs.
5. Development of Fact Sheets and Frequently asked Questions on NCDs. Anand Krishnan, WHO India, 2010–11, Rs 5 lakhs.

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
10. Knowledge and Practices of Healthcare Providers regarding management of animal bites in Urban and Rural Ballabgarh
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.
4. Prevalence of Non-Alcoholic Fatty Liver Disease in an adult population living in a rural community of Haryana.
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).
3. Causes and consequences of domestic violence: A study on sexual health among women in Andhra Pradesh. (Department of Anthropology, Andhra University, Visakhapatnam).
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:

Category 1	75
Category 2	30
Category 3	Nil
Total	105

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

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

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 Annual National 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 INCLIN 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 Pediatrics*; was an undergraduate examiner at Regional Institute of Medical Sciences Imphal, Manipur, and BP Koirala Institute of Health Sciences, Dharan, 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 NIHFWS, 26–29 July 2011, Health management course; was Examiner UCMS MBBS exam, 21–24 November 2011.

Dr Y.S. Kusuma resource person for ICMR Workshop on Qualitative Health Research (QHR), National Institute of Nutrition, Hyderabad, 15–17 February 2012 and delivered 5 lectures: ‘Basis, nature and tool box of qualitative research’, ‘In-depth interviews’, ‘Focus groups’, ‘Observation as a method of QHR’, and ‘Qualitative data management and analysis’; and imparted field-based qualitative research training to the participants; Editor, ICCIDD Newsletter–Jagriti; Editorial Board Member, *Studies on Ethno-Medicine* and *Afro-Asian Journal of Anthropology and Social Policy*; Reviewer for *Asia-Pacific Journal of Public Health*, *Annals of Human Biology*, *Asian Pacific Journal of Tropical Medicine*, *BMC Public Health*, *BMC Family Health*, *Journal of Human Hypertension*, *Journal of Urban Health*, *Journal of Public Health*, *Maternal and Child Health Journal*, *Studies on Ethno-Medicine*,

Journal of Human Ecology, etc. Also served as examiner to M Phil dissertations/PhD theses; and reviewer for research proposals of ICMR.

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.
4. Randomized clinical trial of azathioprine versus methotrexate weekly pulse for the treatment of chronic plaque psoriasis, K.K. Verma, ICMR, 3 years (2010–13), Rs 16.80 lakhs (approx).
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 intralesional injection of killed mycobacterium w vaccine and imiquimod cream in clinical resolution of external anogenital warts and reduction of viral load: A randomized trial. 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 lentiginos, 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
26. Study of clinical, biochemical and immunological factors determining stability of disease in patients with generalized vitiligo undergoing melanocyte transplantation
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; Hony. 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).

9.10 Emergency Medicine

Professor and Head

Praveen Aggarwal

Professor

L.R. Murmu

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

1. Emergency Medicine Practices and Advanced Clinical Therapeutics, 28 March–1 April 2011.
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.

9.11 Endocrinology and Metabolism

Professor and Head

A.C. Ammini

Professors

Nikhil Tandon

Nandita Gupta

Additional Professor

Ravinder Goswami

Associate Professor

Rajesh Khadgawat

Viveka P. Jyotsna

Assistant Professor

Mohd Ashraf Ganie

Scientist Gd. IV

M.L. Khurana

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

1. Androgen excess disorders in Infancy and adolescence. AE-PCOS Midterm meeting, AIIMS Auditorium, New Delhi, 29–30 August 2011.
2. ‘Diabetes of Young Registry’ in the workshop for participating centres of ICMR project, Delhi.

Lectures delivered: 28

RESEARCH

Funded projects

Completed

1. Congenital adrenal hyperplasia: genotype phenotype correlation, AC Ammini, DBT, 2008–11.
2. Cell dysfunction versus insulin resistance in polycystic ovary syndrome in Indian women, AC Ammini, ICMR, 2008–11.

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.
2. Study CL3-00780-150: International follow-up study, after the investigational drug exposure in diabetic patients previously included in the REGULATE trial (CL3-00780-148: benfluorex versus pioglitazone). A C Ammini. Serdia Pharmaceuticals.
3. Genetic determinants of birth weight and growth trajectory and influence of parental genotype on these anthropometric indicators, N Tandon, DBT, 2012–15.
4. A non-interventional, multi-centric study to compare hepatic fat and relevant metabolic parameters in overweight/obese, prediabetic/diabetic subjects, with healthy subjects in different geographical regions in India. N Tandon, Torrent Pharma, 2011-12.
5. Childhood Obesity: Inflammatory markers, gene variation and epigenetics, an association study in urban and rural areas of north India. N Tandon. DBT, 2011–14.
6. CARRS Translation trial: Developing and testing integrated, multifactorial Cardiovascular risk reduction strategies in South Asia. N Tandon, NIH, 2011–15.
7. Prevention of type 2 diabetes in women with gestational diabetes in urban India – a feasibility study. N Tandon. Bridges USA, 2010–13.
8. Registry of people with Diabetes in India with young age at onset. N Tandon. ICMR, 2006–12.
9. A randomized, double-blind, placebo-controlled, parallel-group study to determine whether, in patients with type 2 diabetes at high risk for cardiovascular and renal events, aliskiren, on top of conventional treatment, reduces cardiovascular and renal morbidity and mortality. N Tandon. Novartis India, 2007–12.
10. Role of oral vitamin D as an adjunct therapy in Category I Pulmonary Tuberculosis long with assessment of immunological parameters: Randomized double Blind Trial. R Goswami. DBT, 2006–12, Rs 98 lakhs.
11. Th1 and Th2 expression pattern and HLA predisposition in patients with sporadic idiopathic hypoparathyroidism, R Goswami, DBT, 2011–14, Rs 48 lakhs.
12. Skeletal muscle strength including its energy metabolism and bone mineral homeostasis in Asian Indians with chronic hypovitaminosis D before and after oral cholecalciferol supplementation: R Goswami. ICMR, 2010–13, Rs. 37 lakhs.
13. Pattern of Th1 and Th2 cytokines expression in Asian Indians with chronic hypovitaminosis D and its change after oral cholecalciferol supplementation. R Goswami. ICMR, 2011–14. Rs 32 lakhs.
14. A phase III, Multicentre, Randomized, Parallel Group study of Safety and Efficacy of the LB03002, a New Sustained Release Formulation of Human Recombinant Growth Hormone as Compared to Sustained Daily Therapy with Genotropin in Treatment Naïve Children with Growth Failure due to Insufficient Secretion of Endogenous Growth Hormone. R Khadgawat. LG life Sciences, 2007–12. Rs 40 lakhs.
15. A Randomized Double Blind Controlled Trial to Investigate the Effects of Vitamin D supplementation on Insulin Resistance and Beta cell function in obese Asian-Indian Subjects; aged 11-17 years. Rajesh Khadgawat. ICMR, 2011–14. Rs 47 lakhs.

Collaborative Projects

Ongoing

1. Genetics and Systems Biology of Childhood Obesity in India and Denmark (BIOCHILD). N Tandon, DBT, 2012–15.
2. Childhood obesity in India: a multicenter study on its measurements and determinants with reference to cardio-metabolic risk factors. N Tandon, ICMR, 2010-12.

3. ADVANCE-ON–Action in Diabetes and Vascular Disease Preterax and Diamicon MR Controlled Evaluation Post Trial Observational Study. N Tandon. George Institute for International Health, Australia, 2010–12.

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:

No.	Hormone	Tube assays	No	Hormone	Tube assays	No	Hormone	Tube assays
1.	T4	10,875	9	DHEA	750	16	GH	747
2.	TSH	14903	10	17 OHP	348	17	GAD	258
3.	TPO	1568	11	ACTH	2100	18	F T4	756
4.	LH	3131	12	PTH	4682	19	IGF 1	124
5.	FSH	2965	13	Vitamin D	5661	20	Ferritin	1069
6.	PRL	2144	14	INSULIN	5010	21	1A2	10
7.	CORTISOL	3831	15	C peptide	2657	22	T3	4682
8.	Testosterone	2978						

April 2011 to March 2012

Endocrine OPD

Month	New Cases	Old cases	Total
April 2011	758	1876	2634
May 2011	847	2008	2855
June 2011	874	1945	2819
July 2011	750	1957	2707
August 2011	653	2701	3354
September 2011	931	2136	3067
October 2011	704	1759	2463
November 2011	800	2005	2805
December 2011	726	2038	2764
January 2012	751	1920	2671
February 2012	845	2947	3792
March 2012	926	3261	4187
Total	9565	26553	36118

Biochemical investigations done in the Metabolic Laboratory for Patient Care (April 2011–March 2012)

No. INVESTIGATION	NUMBER OF SAMPLES
1. Blood sugar	10954
2. Glycated haemoglobin	10892
3. Urine pH	400
4. Osmolality	350

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 Eneodrinology 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”

9.12 Forensic Medicine and Toxicology

Professor and Head

TD Dogra

Additional Professors

OP Murty

DN Bhardwaj

SK Gupta

Scientist Gd. II

Anupama Raina

Chemist

AK Jaiswal

Faculty at JPNA Trauma Centre

Additional Professors

Sanjeev Lalwani

Adarsh Kumar

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

Anupama 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 hydroxyanisole 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.
5. Estimation of lead level in blood among south Delhi Population – A Cross Sectional Autopsy Based Study.
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.
8. A comparative study for determination of postmortem interval by analysis of CSF and Vitreous Humour in South Delhi region.
9. Estimation of Post Mortem Interval by naked eye examination of rigor mortis.
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

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 LNJNI-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.

9.13 Gastroenterology and Human Nutrition

Professor and Head

S.K. Acharya

Professors

Umesh Kapil

Anoop Saraya

Additional Professors

Pramod Garg

Vineet Ahuja

Govind K. Makharia

Scientist Gd. IV

Shyam Prakash

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.
4. Detection of Mycobacterial pathogens in patients with Crohn's disease. Govind Makharia, DBT, 2007–10, Rs. 35.4 lakhs.
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.
4. Probiotics for spontaneous Bacterial Peritonitis. S.K.Acharya, CD Pharma, 2010–12,. Supply of drugs.
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 Immunotolerant 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- α in the pathogenesis of experimental acute pancreatitis and the effect of anti-TNF- α therapy in attenuating the severity of pancreatitis and in the subsequent regeneration of the pancreas'. 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,
19. Zoonotic potential of Mycobacterium avium paratuberculosis (MAP) in Human Ulcero-constrictive Ileocaecal Disease. Vineet Ahuja, ICMR, 2011–14, Rs. 57 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 Maintainance 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 Makharia, Central TB Division (Ministry of Health and Family Welfare), for 4 years, Rs. 57 lakhs.
23. Characterization of tight junction proteins in patients with Crohn's disease and celiac disease. Govind Makharia, DST, for 3 years, 24.5 lakhs.
24. Protocol for Correlating Enteropathic Severity and Small Intestinal CYP3A4 Activity in Patients with Celiac Disease. Govind K Makharia, Flamentera, AG (Switzerland), for 3 years, Rs. 11 akhs.
25. Pathophysiology of paracellular permeability and tight junctions in the first degree relatives of patients with celiac disease. Govind K. Makharia, 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. Makharia, 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. Makharia, ICMR, for 2 years, Rs.75.42 lakhs.
28. Detection of Markers of villous atrophy. Govind K Makharia, 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 α 2b and Ribavirine.
3. Hematological Abnormalities in Cirrhosis of liver.
4. Splenectomy for hypersplenism 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
4. Endoscopic biliary drainage versus conservative treatment for patients with inoperable cancer of the gallbladder with obstructive jaundice: A randomized controlled trial.
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.
3. Role of EUS in assessing resectability of periampullary tumors: comparison with diagnostic laparoscopy. Department of Surgery.
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.
5. A comparison of colonoscopy and PET-CT colonography for evaluation of extent of disease in patients with Ulcerative Colitis: A pilot study.
6. Evaluation of psychiatric and somatic co-morbidities in patients with irritable bowel syndrome.
7. Screening of patients with functional bowel disease, short stature, metabolic bone disease, amenorrhea and infertility for celiac disease.
8. Brain activation pattern in response to visual and auditory stimuli in patients with irritable bowel syndrome using functional magnetic resonance imaging.
9. Prevalence and significance of celiac disease in patients with type-I diabetes.

Ongoing

1. A randomized trial of endoscopic versus laparoscopic removal of common bile duct stones in patients with gallstones and CBD stones. (Surgery).
2. Randomised trial of endoscopic stenting versus cholecystojejunostomy in patients with peri-ampullary cancer with obstructive jaundice. (GI Surgery).
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.
12. Prevalence of celiac disease in patients with autoimmune disease like (autoimmune thyroid disease, Systemic lupus erythrematous, Juvenile chronic arthritis, Primary Sjogren Syndrome).
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

Name of the clinic	New cases	Old cases
Liver	1135	16991
Pancreas	507	2005
IBD and ulcer	363	2894
Interventional	357	273

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

HBV (Real Time PCR)	4500	HBV Genotyping (PCR)	150
HBV Basal Core Promoter (PCR)	150	HBV Precore mutant (PCR)	150
HBV (PCR)	510	HBV DNA sequencing	10
HCV RNA Real time PCR	1450	HCV RNA (PCR)	465
HCV Genotyping	100	HEV RNA (PCR)	300
Free radical antioxidant potential (FRAP)	1916	Lipid peroxidation	1916
Vitamin C	1916	Superoxide dismutase	1916
Nitric Oxide	250	Neutrophil function tests	300
Total cholesterol	240	Triglyceride	240
HDL	240	Myeloperoxidase activity	1916
Endotoxin assay	50	Serum Ceruloplasmin	768
Serum Copper	733	24 Hr Urinary Copper	766
Phagocyte function test (Flow cytometer)	22	Fox P3 (Flow cytometer)	300
CD4 (Flow cytometer)	300	CD (Real time PCR)	240
IL23r (Real time PCR)	240	IL6 (Real time PCR)	240
TGF- α^1 (Real time PCR)	240	IL-10 (Real time PCR)	240

TGF- α^3 (Real time PCR)	240	Z01 (Real time PCR)	10
HEV (ELISA)	96	HCV (ELISA)	96
Leptin (ELISA)	96	TtG-IGA (ELISA)	1776
Melatonin (ELISA)	6	P16	30
Muc-4	20	Reg-4	20
TNF- α (ELISA)	192	IL-6 (ELISA)	192
IL-1 α (ELISA)	192	Adiponectin (ELISA)	96
Insulin (ELISA)	96	Glucose	888
SGPT	888	SGOT	888
Matrix Metalloproteinase-2 (ELISA)	192	Haemoglobin	888
Zonulin (ELISA)	96	IGg4	25
D-Xylose	595	Faecal Fat	156
Faecal Chymotrypsin	113	Hydrogen Breath Test	144
Blood ammonia	305	Prothrombin time	4070
DNA PCR product analysis (bioanalyzer)	60	DNA Purity (Pico drop)	2000
Z01 (PCR)	89	Kras mutation (PCR)	200
p53 mutation (PCR)	50	GAPDH (PCR)	20
Tight junction proteins (Western blot)	20	Occludin	10
Claudin 2	10	Claudin 3	10
Junctional adhesion molecule	10	Z01	10
Myo9B	50		

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

Food Composition Database by National Institute of Nutrition, Indian Council of Medical Research, Ministry of Health and Family Welfare, New Delhi; Member, National Committee to Review Universal Vitamin A Supplementation to Children upto 5 Years under National Programme by the Ministry of Health and Family Welfare (Child Health Division), Government of India, Nirman Bhawan, New Delhi; Member, National Committee to design a curriculum on Nutrition for School Children with Emphasis on Hands on Experience by Ministry of Women and Child;

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.
3. Professor D.C. Valla, France, 23 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

1. Design development and commercialization of an indigenous syringe pump, Peush Sahni, Funded by Ministry of Information and Technology, 2009-2012 Funds: Rs 28 lakhs.

Completed

1. Comparison of resection versus bypass procedure in the management of corrosive stricture of esophagus: A randomized controlled pilot study, Nihar Ranjan Dash, Funded by AIIMS, 2009-2011.

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.
4. Preoperative chemo-radiation and surgery versus surgery alone in gastroesophageal junction adenocarcinoma of esophagus-A randomized controlled trial.
5. Outcome following pyloric ring resecting pancreatico-duodenectomy versus classical Whipple's pancreatico-duodenectomy: A randomized controlled trial.
6. Prediction of pancreatic fistula in patients undergoing pancreatic resections using pre operative EUS elastography: a prospective study.
7. Prediction of pancreatic fistula and pancreatic fibrosis in patients undergoing pancreatic resections using differential pancreatic enhancement pattern on multiphasic computed tomography scan: a prospective study.
8. A prospective study comparing Biliroth-II and Roux-en-Y Gastrojejunostomy in patients with carcinoma stomach.
9. Long term follow up of lieno-renal shunt procedure in patients with extra hepatic portal vein obstruction.
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.

12. Neoadjuvant chemo-radiotherapy followed by surgery versus surgery alone in patients with squamous cell carcinoma of the oesophagus: A randomized controlled trial.
13. 'Duct-to-mucosa' and 'dunking' methods of pancreatico-jejunostomy after pancreatico-duodenectomy: A randomized clinical trial
14. Long term results of surgery in non-cirrhotic portal fibrosis.
15. Minimally invasive oesophagectomy: A feasibility assessment.
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 lieno-renal 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).
9. Minimally invasive pancreatic necrosectomy: A prospective study (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 Haemato-pathology examination. Six residents are undergoing training in DM Clinical Haematology and four in DM Haemato-pathology. 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 Chandhigarh, PGI Hospital, Chandhigarh, 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, 2001-12. Rs. 4.5 lakhs per year.
2. Role of Nitric oxide in the development of stroke 2008–11. R. Saxena. DST, 2008–11.
3. An open label, Phase I dose escalation study of NRC-AN-019 in patients with CML. Pravas Mishra. NATCO, 2008–11. Rs. 6 lakhs.
4. Community based planned intervention for the change in perception and health seeking behaviour of cancers in Delhi. A pilot study. Tulika Seth. ICMR, 2009–12. Rs 11,18,025.
5. Study No ABB-09-001. Inhibitor Development in Previously Untreated Patients (PUPs) Or Minimally Blood Component –Treated Patients (MBCTPs) When Exposed to Plasma –Derived Von Willerbrand Factor – Concentrates and to Recombinant Factor VIII (rFVIII) Concentrates: An Independent International, Multicentre, Prospective, Controlled, Randomised, Open Label, Clinical Trial Multi centric study (60 centres in 25 countries). Tulika Seth. Fondazione Angelo Bianchi Bonomi, 2010–13. Rs 6 lakhs.

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.
2. Evaluation of molecular parameters affecting biology of chronic lymphocytic leukemia in India. R. Saxena. ICMR, 2009–13. approx Rs. 6 lakhs per year.
3. Quality assessment in Hemogram. R. Saxena. ISHTM, 2003–13. Rs.1.5 lakhs per year.
4. Molecular characterization of FV in Indian Patients with APCR and FV deficiency, R. Saxena. ICMR, 2010–13. Rs. 27,62,563.

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 erythromatosus (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

Month	Admission Transfusion	Blood Therapy	Chemo	IT	Phlebo- tomy	PRP	FFP	SDP	Cryo	BMBY	Discharge	Total
April	630	264	156	30	3	134	9	1	3	115	630	715
May	768	298	195	41	5	155	7	2	6	150	768	859
June	739	301	192	57	5	163	9	1	5	120	739	854
July	817	328	272	53	0	161	9	7	2	125	817	957
August	720	260	220	45	1	125	14	5	0	106	720	776
September	808	302	252	64	5	142	12	14	5	115	808	911
October	675	273	206	42	8	108	10	10	1	100	675	758
November	668	268	210	35	5	91	8	7	1	100	668	725
December	821	294	294	48	7	142	13	10	2	115	821	925
January	710	270	294	47	8	115	13	6	1	126	710	786
February	661	264	195	43	2	81	4	9	0	127	661	725
March	752	307	208	35	4	103	11	4	6	125	752	803
TOTAL	8769	3429	2694	540	53	1520	119	76	32	1424	8769	9794

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

General Haematology				Special clinics							Grand total
Cases	Male	Female	Total	HO	HC	HA	CML	HS	HT	HL	
Old	13203	7613	20816	5100	2805	1357	4050	1611	644	362	15929
New	5450	3330	8780	318	171	139	294	214	35	48	1219

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

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

Haemogram and Biopsy

Hemogram	22206	Reticulocyte count	7172
Bone marrow aspirate	2485	Biopsy	2260
Reticulin special stain	221		

Tests for Hemostasis

Short screening coagulogram	5570	Factor assay	684
Inhibitors screening	300	Factor inhibitors assay	14
INR	3750	Lupus anticoagulant	2500
Platelet Function Test	1170	D. Dimer	1720
Proglob C	1203	Fibrinogen	580
Protein C	900	Protein S	900

APCR	900	AT-III	500
P2GP	1200	S. Homocysteine	350
VWD	340	DNA Parental detection	11
DNA: Carrier detection	44	FV Leiden	196
MTHFR	20	Clot solubility test	300
P2010	20	Thalassemia molecular test	52
Hemophilia B	05		

Tests for Leukaemia

RT PCR			
CML	573	AML	168
ALL	73	JAK MPD	111
Cytochemistry	457	LAP	215

Flow cytometry

Acute leukemia	CLPD	CD34	PNH	Platelet function disorders
285	76	38	244	5

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, Kottayam, from 13 February 2012 to 1 March 2012.
5. Two MD (Hosp. Admn.) PG students from Sher-I-Kashmir Institute of Medical Sciences, Srinagar, from 11–28 February, 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

Shakti Kumar Gupta: 8 D. K. Sharma: 1 Sidhartha Satpathy: 12

I. B Singh: 2 Sanjay Arya: 2 Aarti Vij: 5

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 medico-legal documentation at JPNATC, AIIMS, and to develop a standard template for electronic medicolegal documentation.
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

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/starting 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 NIHFV 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 1st 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.

9.17 Laboratory Medicine

Professor and Head

A.K. Mukhopadhyay

Professors

M. Irshad

Sarman Singh

Additional Professor

Subhadra Sharma

Scientists

A.K. Srivastava S-IV

Vandita Vasudev S-III

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.

Lectures delivered: 17

Papers presented: 11

RESEARCH

Funded projects

Completed

1. Assessment of risk factor associated with Alzheimer's disease and vascular dementia. AK Mukhopadhyay, ICMR, 2007–11, Rs. 24,83,882.
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.
3. Role of Hepatitis C virus (HCV) core protein in diagnosis and pathogenesis of HCV infection. M. Irshad, ICMR, 2008–10, Rs. 26 lakhs.
4. A novel multiplex PCR Assay for simultaneous detection and differentiation of mycobacterium tuberculosis, M. avium complex and other Mycobacterium species directly from clinical samples of suspected tuberculosis cases. Sarman Singh, DBT, 2007–11, Rs. 33.61 lakhs.
5. Identification of biomarkers and pathogens related target for tuberculosis infection. Sarman Singh, ICGEB, 2010–11, Rs. 5,97,400.
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

1. Study of oxidative stress risk factors in Alzheimer's disease and vascular dementia in Geriatric patients. AK Mukhopadhyay, ICMR, 2008–12, Rs. 16.48 lakhs.
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.
6. Cloning and expression of N-22 region of Torque Teno Virus (TTV) and develop EIA system for anti-TTV antibodies. M. Irshad, CSIR, 2011–14, Rs. 19.92 lakhs.
7. To develop assays for HCV genotyping and establish a relation between genotypes and HCV-core expression. M. Irshad, UGC, 2008–13, Rs. 14 lakhs.
8. Isolation and purification of active compounds with antileishmanial activity of unani medicinal plants. Sarman Singh, CCRUM, 2008–11, Rs. 25 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.
11. Animal studies on chimeric DNA vaccine for the prophylaxis of leishaniasis and tuberculosis. Sarman Singh, ICMR, 2010–13, Rs. 38 lakhs.
12. Determinants of HIV-1 male of female sexual transmission effects of herpes viruses on semen mediated HIV-1 transmission to cervico-vaginal tissues Ex Vivo. Sarman Singh, ICMR, 2011–13, Rs. 47 lakhs.
13. Award of setting up of a TB-training at our laboratory for Asia region by WHO. Sarman Singh, WHO, 2011–16, US \$2250.
14. A novel loop mediated isothermal amplification (LAMP) assay for rapid detection and differentiation of mycobacterium tuberculosis, M. Avium complex and other mycobacterium species directly from clinical samples.

Sarman Singh, DBT, 2011–14, Rs. 63 lakhs.

15. Human seroepidemiology of toxoplasmosis in India. Sarman Singh, Abbott, 2011–12, Rs 9 lakhs.
16. Cloning, expression, purification and evaluation of a recombinant antigen for diagnosis, prognosis and prediction of MDR/XDR tuberculosis. Sarman Singh, ICMR, 2011–14, Rs 31 lakhs.
17. Molecular epidemiology and genetic characterization of M.tuberculosis in HIV seropositive patients. Sarman Singh, ICMR, 2012–15, Rs. 19 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.
4. Cloning, sequencing and expression of TTV related polypeptides.
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 patient (with Gastroenterology).
11. Hepatitis B viral load monitoring in patients undergoing Anti-HBV therapy using Quantitative Real-time PCR (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.
19. Comparative evaluation of Smear. LJ Culture, MGIT-960 Bactec Culture and Bactericophage tests for the diagnosis of Tuberculosis.
20. Comparative evaluation of various TORCH test kits.
21. Blood borne infections after needle prick injury in Health Care workers of AIIMS.
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

Test	Number	Haemogram and Body fluids	Number
Amylase:	35251	TLC:	107703
Bilirubin (Total):	70208	Platelets:	107703
Calcium (Total):	117852	Prothrombin time:	34060
Calcium (Ionized):	117852	Malarial parasite:	2199
Chloride:	117852	CSF cells:	8337
Creatinine:	103425	Urine:	1077
CSF (protein):	5314	Micro. Blood Culture:	6230
Glucose:	14912	Micro. CSF:	2219
pH:	117852	Gram Stain:	1080
Potassium:	117852	Slide Stain, Giemsa:	1531
Sodium:	117852	Stool. Hanging Drop:	255
Urea:	103425	MCV:	—
ABG:	21022	MCH:	107703
Hct:	21022	MCHC:	107703

tHb:	21022	PCV:	107703
O ₂ Hb:	21022	RBC:	107703
CO Hb:	21022	Total:	8,10,909
Met. Hb:	21022		
Na ⁺ :	21022		
K ⁺ :	21022		
Cl ⁻ :	21022		
Ca ⁺⁺ :	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

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

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

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

Services from room no. 18

Adenosine Deaminase assay (ADA)	1699	Neurocysticercosis	121
Total:	1820		

Miscellaneous: New Investigations

Vit B ₁₂	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**

Test	OPD	Ward
Hb	87889	73860
TLC	87889	73860
PCV	87889	73860

DLC	87889	73860
ESR	74988	44595
D/M	87889	21473
PLT	87889	73860
Retic Count	13674	10328
ABS Count	25724	–
MP	48507	13372
RDW	87889	73860
MCV	87889	73860
MCH	87889	73860
MCHC	87889	73860
RBC	87889	73860
PT		12384
Others*	18560	12350
Total	1148232	853102
Grand Total: 20,01,334		

* 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

Name of the Tests	O.P.D	WARD	TOTAL
Medical board			9010
Routine	31632	27526	59158
Microscopic	28830	27526	56356
pH	28830	27526	56356
Specific gravity	28830	27526	56356
Acetone	28830	27526	56356
Bile pigment/salt	28830	27526	56356
Urobilinogen	28830	27526	56356
Blood	28830	27526	56356
Bence Jones Protein	411	121	532
Chyluria	78	91	169
Porphobilinogen	30	20	50

Myoglobinuria	2	6	8
Microalbumin	6	–	6
Urine Cultures	14512	–	14512
Strain identifications tests	10440	–	10440
Antibiotic Sensitivity	2299	–	2299
Subtotal	261220	220446	490676

2. Stool Investigations

Wet mount saline	17787	6627	24414
Wet Iodine stain	17787	6627	24414
Occult blood in stool	1935	704	2639
Fat globules	271	201	472
Special stains for stool Z-N stain, Modified Z-N stain, Trichrome and chromotope	1392	1164	2556
Subtotal	39172	15323	54495

3. Semen analysis

Routine	2466	–	2466
No. of Reactions	2466	–	2466
Motility	2466	–	2466
Count	1817	–	1817
Fructose	649	–	649
Morphology	1817	–	1817
Subtotal	11681	–	11681

4. Sputum analysis

Z-N Staining for AFB	14704	5498	20202
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Specialised Investigations

Serology and Molecular Biology

Name of the Test	Total	Name of the Test	Total
TORCH			
Toxoplasma gondii IgG	2094	Toxoplasma gondii IgM	2130
Rubella IgG	239	Rubella IgM	261
Cytomegalovirus IgG	500	Cytomegalovirus IgM	519
Herpes Simplex virus IgG	236	Herpes Simplex virus 2 IgG	236
Herpes Simplex virus (1+2) IgM	245	Toxoplasma gondii IgG avidity	39
Rubella IgG avidity	24	Cytomegalovirus IgG avidity	6
Parvo virus B19 IgG	63	Parvo virus B19 IgM	65
Sub Total	6657		

Viral Marker and HIV			
Anti HAV IgM	476	HBsAg	5130
Anti HBc IgM	164	HBeAg	428
Anti HBe	333	Anti HBs	362
Anti HCV antibody	3493	HEV IgM	576
HIV (1+2) ELISA	3613	HIV Spot Test	30
HIV Western blot	2	HBsAg (spot)	60
HCV (spot)	22		
Subtotal	14689		
Others Serology			
Measles IgG	53	Measles IgM	38
Mumps IgG	8	Mumps IgM	8
Varicella IgG	121	Varicella IgM	112
EBV IgG	123	EBV IgM	123
Malaria Ag	20	HHV-6 IgG	100
HHV-7 IgG	100	HHV-8 IgG	100
Dengue	20	Latex Agg	2
TBIgG/IgM/IgA	1500		
Subtotal	2428		
Molecular tests			
Toxoplasma gondii PCR	5	Leishmania PCR	288
TB PCR	9413	HHV-6 PCR	50
EBV PCR	106	HSV (192) PCR	106
CMV (RT PCR)	106	HBV DNA Quantitative	700
HCV RNA Quantitative	280	HIV Viral Load (NASBA)	250
HPV	30	HHV-8	50
Subtotal	1384		
Leishmania Serology			
Serology	101	Miscroscopy for L.D	48
Leishmania strain maintenance (in vitro)	1296	Leishmania culture from patient sample	48
Subtotal	1493		
TB Laboratory			
Total number of samples received	5704		
AFB microscopy performed			

ZN staining	5321	AR staining	308
Mycobacterial culture and maintenance performed			
LJ medium inoculated	5211	BACTEC MGIT 960 inoculated	5468
Drug susceptibility testing performed			
BACTEC MGIT 960	479	Agar Proportionate method	423
Tetrazolium Microplate assay	165	Biochemical analysis performed	260
Tuberculin Skin Test Performed (PPD)	426	TB Culture confirmation test performed by strips	875
Line Probe assay (HAIN'S Test)	196	Cultures cryopreserved	1128
DST by MODS (microscopy observed drugs susceptibility)	260		
Subtotal	26024		
Grand Total	609527		

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 DSIR, 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 M. Irshad nominated reviewer for articles of BMJ, Blackwell Publishers and Elsevier Publishers; Honorary Member, Editorial Board, Hepatitis Monthly, Cancer Letters, Gastro. Research, IJMMS, Viral Immunol., MJMS, Hepatol. Intl.

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

Professor and Head

S.K. Sharma

Professors

Rita Sood

A.B. Dey

Additional Professors

Naveet Wig

Ashutosh Biswas

Uma Kumar

Sanjeev Sinha

Associate Professor

Naval K. Vikram

Assistant Professors

Manish Soneja

Piyush Ranjan

EDUCATION

The department runs a comprehensive undergraduate and post graduate teaching programme, which includes integrated lectures, seminars, bedside clinical case discussions and journal 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.
3. Joint Project on Setting up Intermediate Reference Lab for diagnosis of MDR-TB. SK Sharma, Foundation for Innovative New Diagnostics, Bill & Melinda Gates Foundation, Geneva, in association with Central TB Division, Ministry of Health Family Welfare, Govt. of India, for indefinite period. Consumables for Line Probe Assay (LPA) – molecular method and *Mtb* drug susceptibility testing (DST using LJ method), MGIT (liquid culture method)
4. Association of OSA with metabolic syndrome, insulin resistance and TNF- α , 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.
12. Bristol Myers Squibb IM101174 Study – A Phase IIIB Multicentre, Randomized Double-Dummy Study to Compare the Efficacy and Safety of Abatacept Administered Subcutaneously and Intravenously in Subjects with Rheumatoid Arthritis Receiving background Methotrexate and Experiencing an Inadequate Response to Methotrexate. Uma Kumar, Bristol Myers Squibb India Pvt. Ltd, 2008–2013, Rs 25 lakhs.
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.

15. Study of Early Versus Delayed Initiation of Antiretroviral Therapy for HIV Infected Patients with Tuberculosis on Antituberculosis Chemotherapy in Indian Subjects. S Sinha, NACO, (A collaborative project of UCLA, USA, and AIIMS), 2006, Rs 40 lakhs.
16. Nevirapine versus Efavirenz-based highly active antiretroviral therapy regimens in antiretroviral-naive patients with HIV and Tuberculosis infection in India. S Sinha, NACO, 2008, Rs 65 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.
18. Implementing PATH-India to reduce HIV risk among substance users in India: Assessing HIV risk among community clinic clients. S Sinha, NIH CFAR, USA. (A collaborative project between University of Pennsylvania, USA, and AIIMS), 2009, 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

1. Study of incidence of acute kidney injury in critically ill patients.
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 α 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.
6. Study of predictors of mortality in severe malaria.
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).
9. Diagnostic utility of GeneXpert in diagnosis of pleural and lymph node tuberculosis.
10. Predictors of response to Methotrexate in rheumatoid arthritis.
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.
14. Antibiotic prescribing habits amongst physicians in patients with infections (pneumonia and blood stream infection) in medical wards and ICU and effect of active intervention.

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 receptor 1 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).
7. Role of dual energy computed tomography in diagnosis of gout. (Radiology).
8. To study the role of Th-17 cells in arthritis patients in Indian population. (Anatomy).
9. Preparation and quality control of ^{188}Re -labelled tin colloid for the treatment of refractory inflammatory arthritis. (Nuclear Medicine).

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

Test	Number	Test	Number
RF	5696	ANA	7027
Anti-dsDNA	2205	C3	1927
Serum IgG, IgA and IgM	2620	Cryoglobulins	169
ANCA	2640	aCL	3414
Anti-LKM-1	881	ASMA	847
Synovial fluid examination	150		

(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 speciality 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.

9.19 Microbiology

Professor and Head

JC Samantaray

Professors

Shobha Broor

Rama Chaudhry

Arti Kapil

Bimal Das

BR Mirdha

Lalit Dar

Additional Professors

Immaculata Xess

Madhu Vajpayee

Benu Dhawan

Seema Sood

Associate Professors

Urvashi B Singh

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 anthroponotic 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

S. Broor: 3

Rama Chaudhry: 3

Arti Kapil: 6

B.R. Mirdha: 1

Lalit Dar: 2

Madhu Vajpayee: 4

Urvashi B Singh: 1

Papers presented: 34

RESEARCH

Funded projects

Completed

1. Rapid low cost molecular detection of influenza virus infections. S. Broor, Vaccine Action Programme, NIH, 2009–11. Rs. 22,36,000.
2. Respiratory virus infections: Rapid low cost molecular detection. S. Broor. Indo-US Programme on Maternal and Child Health and Human Disease Research (MCHDR), NICHD, in collaboration with Indian Council for Medical Research, 2008–11. Rs. 37,49,371.
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.
4. Cloning and Expression of flagellin Gene of *Salmonella* Typhi: An immunodiagnostic approach. Rama Chaudhry. ICMR, September 2007–April 2011, approx Rs 24 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.
6. Mechanisms of resistance to Ciprofloxacin in *Salmonella typhi*. Arti Kapil. ICMR, New Delhi, 2008–11. Rs 12 lakhs.
7. *Salmonella typhi* antigen detection by Immunochromatography procedure test devised by DRDE, Gwalior, (DRDO, Government of India), Arti Kapil, 2009–11, Rs 3 lakhs.
8. Development of a DNA Biosensor for detection of *Neisseria gonorrhoeae* in clinical samples. Seema Sood. Department of Biotechnology, GOI, 2007–11. Rs. 67 lakhs.

Ongoing

1. Emerging infectious diseases in the Republic of India: Influenza disease burden. S. Broor. Center for Disease Control, USA, 2009–12. Rs. 2,07,31,500.
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.
3. Influenza immunization of children in India. S. Broor. Center for Disease Control, USA, 2011–13. Rs. 6,57,32,985.
4. Cloning and expression of respiratory syncytial virus G protein in bacterial and mammalian expression vectors. S. Broor. Department of Biotechnology (DBT), 2008–11. Rs. 29,70,000.
5. Multisite monitoring of human influenza virus in India: Phase II. S. Broor and L. Dar. Department of Health Human Services, USA (DHHS) and ICMR, 2009–12, Rs. 96,15,617.
6. Mechanisms of Chikungunya virus disease: Mouse model, virulence and novel therapeutics. S. Broor. Indo–Australia with DBT, 2010–13. Rs. 96,06,000.
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.
8. Detection of *Mycoplasma pneumoniae* and *Legionella pneumophila* in respiratory tract infection by molecular assay: A multicentric study. Rama Chaudhry. ICMR, March 2011–March 2014. Rs. 49,66,670.
9. Genotyping of *C. difficile* and *C. perfringens* by PFGE and MLST from fecal samples of antibiotic associated diarrhea, Rama Chaudhry, ICMR, 2009–2012. Rs. 27,84,403.
10. *Salmonella typhi* antigen detection by Immunochromatography procedure test devised by DRDE, Gwalior (DRDO, Government of India), 18 months, 2009–11, Rs 3 lakhs. Arti Kapil. ICMR, New Delhi, 2010–13, Rs 30 lakhs.
11. Congenital cytomegalovirus infection and hearing loss in rural Indian population. L. Dar. Indian Council of Medical Research and National Institutes of Health, USA (Indo-US collaborative project), 2010–13. Rs. 26 lakhs/year.

12. Molecular diagnosis of acute bacterial meningitis. Bimal Das. Institute research grant, 2010–11. Rs. 1 lakh.
13. Study of genetic polymorphism of dihydropteorate synthase (DHPS) gene in *Pneumocystis jirovecii* isolates and its correlation with treatment failure and its correlation with treatment failure and clinical outcome in patients with *Pneumocystis carinii* pneumonia. B.R. Mirdha, Department of Science and Technology, Government of India, 2009–13, Rs. 24 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.
15. Molecular characterisation and development of immunological based diagnostics for *Naegleria fowleri* infection. B.R. Mirdha, Defence Research Development Organisation (DRDO), 2010–13. Rs 24 lakhs.
16. LAMP as Point-of-Care Test for Gonorrhoea. Seema Sood. Department of Biotechnology, 2009–12, Rs. 44 lakhs.
17. Establishment of networking for *Neisseria gonorrhoeae* surveillance in India. Seema Sood. ICMR, 2010-13. Rs. 32 lakhs.
18. External quality assurance scheme (EQAS) under NACP-III (National Reference laboratory), M. Vajpayee. National AIDS Control Organization. November 2009 onwards. Rs 6 lakhs/year.
19. Integrated Counseling Testing Centre. M. Vajpayee. Funded by Delhi State AIDS Control Society for November 2009 onwards. Rs. 52,000 per year.
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_H17 cells: its interplay with other T helper (T_H) 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.
23. HIV vaccine immunogen design: Identification of T-cell epitopes associated with control of viral replication in Indian and South African HIV-1 infected Indian individuals. M. Vajpayee. DST, Government of India, 2011–14, Rs. 58.35 lakhs.
24. Role of oral vitamin D as an adjunct therapy in Category I Pulmonary Tuberculosis along with assessment of immunological parameters. Urvashi B Singh, DBT, Government of India, 2008–12. Rs. 50 lakhs.
25. Molecular analysis of MDR and XDR strains of *Mycobacterium tuberculosis* isolated from a tertiary care hospital. Urvashi B Singh. ICMR, New Delhi, 2010–13. Rs. 40 lakhs.
26. Development and Evaluation of in-house line probe assay for rapid detection of MDR and XDR Tuberculosis, Urvashi B Singh. DBT, New Delhi, 2011–14.
27. Role of early diagnosis of drug resistant tuberculosis in guiding therapeutic strategies in treatment of Extra-pulmonary tuberculosis. Urvashi B Singh. ICMR, New Delhi, 2012–15. Rs. 49 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 gonorrhoea.
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 cytoadherence region(s) of *Mycoplasma pneumoniae* 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 gonorrhoea.

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.
3. Study of putative prolipoprotein signal peptidase gene homologue in *Mycoplasma pneumoniae*.
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.
8. Rapid diagnosis of neonatal sepsis with special reference to molecular typing of *Klebsiella pneumoniae*.
9. A study on alternate antimicrobial agents against Typhoidal *Salmonellae*.
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.
3. A multicentric study of clinical and Microbiological profile of community-acquired pneumonia (CAP) in Indian patients. Seema Sood. (with Medicine).

Ongoing

1. Epidemiological study of Respiratory Pathogens in Acute Respiratory Tract Infections among Children and Elderly in India (with CCM).
2. Analysis of human gastrointestinal microbial diversity by molecular methods and application of Metagenomics for isolation of novel bacteriophages (TERI, 2011–2014, Rs. 51.72 lakhs).
3. Prevalence of antibiotic resistant propionibacterium acne in adolescent and periadolescent acne before and after treatment with oral retinoids, (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
6. immunocompromised children with pneumonia by Gomori Methenamine Silver stain and Polymerase Chain Reaction. (with Paediatrics)
7. Development of Nanosilver nanohydrogels for biomedical applications. (DBT, New Delhi).
8. Immunologic effect of zinc supplementation in HIV infected children receiving highly active antiretroviral therapy: A randomized double, blind placebo controlled trial.
9. 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

Clinical samples	Number	Clinical samples	Number
Sputum	18,150	CSF	9,830
Stool	1,230	Blood	35,515
Urine	32,850	Pus	19,201
Total	1,16,776		

Antimicrobial Susceptibility Tests

Sputum	9,338	CSF	295
Stool	25	Blood	4,670
Urine	9,300	Pus	8,972
Total	32,600		

Hospital Infection and Water bacteriology

Hospital infection control samples	18,897	Water samples	1,255
Total	20,152		

Serology section

VDRL	6,899	TPHA	108
Widal test	4,952	Anti Streptolysin O antibody titre	70
Total	12,029		

Sexually transmitted diseases (STD) section

Clinical samples

High vaginal swabs (HVS)	340	Semen	512
Expressed prostatic secretions (EPS)	71	Urethral discharge	40
Vaginal discharge	19	Cervical discharge	17
Total	999		

Antimicrobial susceptibility testing

HVS	66	Semen	44
EPS	8	Urethral discharge	15
Vaginal discharge	0	Cervical discharge	0
Total	133		

Anaerobic Bacteriology and Mycoplasma section

Anaerobic culture			856
Stool culture for <i>Clostridium difficile</i>			180

ELISA for <i>C. difficile</i> -toxin A and toxin B			172
Antibiotic susceptibility testing of anaerobic isolates			50
Culture for <i>Propionibacterium acnes</i>			247
Antibiotic Susceptibility Testing of <i>Propionibacterium acnes</i>			131
Culture for <i>Campylobacter jejuni</i>			53
Culture for <i>Leptospira</i> spp.			126
ELISA for <i>Leptospira</i> IgM antibodies			149
Recombinant ELISA for <i>Salmonella Typhi</i> IgM antibodies			42
Polymerase Chain Reaction			
for <i>Salmonella Typhi</i>			31
for <i>C.difficile</i> – <i>tcdA</i> , <i>tcdB</i> and <i>tcdC</i>			66
Mycoplasma			
ELISA for <i>Mycoplasma pneumoniae</i>			
IgM antibodies	144	IgG antibodies	142
IgA antibodies	100	<i>Mycoplasma pneumoniae</i> culture	96
<i>Mycoplasma hominis</i> culture	220	<i>Ureaplasma urealyticum</i> culture	220
Antibiotic Susceptibility			
for <i>Mycoplasma hominis</i>	5	for <i>Ureaplasma urealyticum</i>	15
ELISA for <i>Chlamydia pneumoniae</i>			
IgM antibodies	101	IgG antibodies	119
IgA antibodies	114		
ELISA for <i>Legionella pneumophila</i> IgG antibodies	87		
Polymerase Chain Reaction			
for <i>Mycoplasma pneumonia</i>	72	for <i>Mycoplasma hominis</i>	220
for <i>Ureaplasma urealyticum</i>	220	for <i>Legionella pneumophila</i>	65
Total	4,043		
Virology Section			
Viral culture and identification	99		
(HSV, dengue, chikungunya etc)			
Viral antibody detection			
HSV CFT (serum and CSF)	102	Measles CFT	45
Dengue IgM antibody ELISA	1,027	Chikungunya ELISA	450
Viral antigen detection and qualitative PCR			
Dengue NS1 antigen	70	CMV pp65 antigen and PCR	261
HSV PCR	272		

Viral Real-time PCR

Influenza (diagnosis and surveillance, including novel H1N1)	12,196
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Miscellaneous (Tzanck smear etc.)	20
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Total	14,443
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Parasitology section**Serological investigations**

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

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

Fluorescent staining (Acridine Orange)	135	Giemsa staining	135
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Quantitative Buffy Coat (QBC) Assay	130	Kala-azar serology (rk-39)	639
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Aldehyde test	639
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Examination of fecal samples for intestinal parasitosis

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

Sputum, pus and others	80
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Investigation for Filariasis

Direct and Concentration	63	Acridine Orange	63
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Thin and Thick Smear	63	Hetrazan provocative test	63
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Other investigations

Investigation for <i>Pneumocystis jirovecii</i> infection (PCP)	210
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Cerebrospinal fluid examination for Free Living Amoebae (FLA)	72
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Total	15,654
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HIV section**Immunology**

CD4 test	5,913	HIV serology	4,437
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Total	10,350
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Mycology and ICP Section

BAL	2,022	Urine	1,768
CSF	614	Sputum	136
Swab	189	Pus	321
Miscellaneous	1,105	Tissue/Biopsy	331
Nail/hair/skin	91	Bone Marrow	213
Blood	1,657		

Fungal serology

Cryptococcus serology	299	Aspergillus serology	111
Histoplasma serology	54	Culture for identification	10

Total **8,921**

Tuberculosis section

Samples processed for ZN Smear and Culture on LJ medium	9,543
Samples inoculated for Rapid Culture on BACTEC	2,915
Anti-tubercular Drug Sensitivity done on BACTEC	679
PCR for <i>Mycobacterium tuberculosis</i>	4,568
Genxpert Diagnosis for <i>Mycobacterium tuberculosis</i> and Rifampicin drug resistance	360
Total	17,705

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 Sapana 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.

9.20 Nephrology

Professor and Head

Sanjay K. Agarwal

Additional Professors

Sanjay Gupta

Dipankar M. Bhowmik

Sandeep Mahajan

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

1. Assessment of QuantiFERON test for the diagnosis of latent TB in renal replacement therapy. SK Agarwal. ICMR, New Delhi, 2007–11. Rs 13 lakhs.
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.
3. Study of physiological parameters in living kidney donors – pre and post donation.
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.
12. Study of physiological parameters in living kidney donors – pre and post donation.
13. Quality of sleep in hemodialysis and renal transplant patients.

14. Proteinuria in Renal Transplant Recipient and histopathological correlation.
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

1. Evaluation of systemic co-morbidity in patients with diabetic retinopathy (Ophthalmology).
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 Pneumocystis jirovecii 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).
10. Prevalence of AKI in critically ill patients (Medicine).
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

S.No.	Item	Number	Item	Number
1	Hemodialysis related			
	Total HD New Patients	771	Emergency HD Patients	392
	Total hemodialysis	8683	Plasmapheresis	80
	Femoral vein catheterisation	569	Jugular/subclavian catheterisation	268
	AV Shunts	2	AV Fistula	36
	Permacath Insertion	13		
2	ICU Related		CRRT/SLED	25
3	Peritoneal Dialysis			
	Acute PD	114	CAPD	33

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.
2. Health Mela in Banka, Bihar.

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

1. Evaluation of the Biological Safety and Clinical Efficacy of Lu177-EDTMP for bone pain palliation in metastatic prostate cancer, CS Bal, International Atomic Energy Agency, (IAEA CRP: E1.30.33).
2. The use of sentinel lymph node detection in breast, melanoma, head & neck and pelvic cancers, CS Bal, International Atomic Energy Agency, (IAEA Research Contract No: 16447).
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

Investigation	Number	Investigation	Number
Radioactive Iodine Uptake (RAIU)	3043	Perchlorate Discharge Test	35
I- ¹³¹ Dx Whole Body	1344	Dimercaptosuccinic acid	1860

Ca-thyroid I- ¹³¹ PT- Body	576	Thyrotoxicosis	285
DTPA/LLECT ^{99m} Tc renal dynamic	6867	Gastro Esophagus Reflux	611
Direct radionuclide cystourethorography	265	Glomerular Filtration Rate	2406
Bone Scan	3024	^{99m} Tc HIDA(Hepatobillary)	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 Gluocopheptonate (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

Sujeet Kumar Mewar

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

1. Magnetic Resonance Spectroscopic Imaging (MRSI) and diffusion-weighted MRI (DW-MRI) in the non-invasive detection, assessment of treatment response and tumor metabolism in breast cancer, N. R. Jagannathan, Department of Science and Technology, June 2008–August 2012, Rs. 20.29 lakhs.
2. 700 MHz NMR Spectrometer for Biomedical Research. N. R. Jagannathan, Department of Science and Technology, January 2008–January 2013, Rs. 842.6 lakhs.
3. Spectroscopic analysis of medicinal plants. Rama Jayasundar. Department of AYUSH, Ministry of Health and Family Welfare, September 2010–August 2013, Rs. 96.9 lakhs.

4. Body composition analysis and insulin response pattern in different constitution types, Rama Jayasundar, AIIMS, 2011–March, Rs. 1 lakh.
5. Neurocognitive changes associated with perception, spatial orientation, speech and language process in visually challenged subjects, using functional magnetic resonance imaging (fMRI). S. Senthil Kumaran, DST (Cognitive Science Initiative) August 2010–July 2013, Rs. 22,10,800.
6. Metabonomics of Celiac Disease Using in-vitro NMR Spectroscopy. Uma Sharma, Department of Biotechnology. (DBT), Govt. of India, December 2011–November 2014. Rs. 33. 63 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).
3. In-vivo MR spectroscopy study of human breast carcinoma (Surgery, Radiotherapy, and Pathology).
4. ³¹P 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).
13. Body composition analysis using MRI, DEXA and BIA and correlation with diabetic risk factors (Endocrinology and Lab Medicine)
14. Spectroscopic analysis of medicinal plants using NMR, UV and FT-IR (Ocular Pharmacology, RP Centre).
15. Spectroscopic analysis and evaluation of anti-oxidant properties of medicinal plants (Ocular Pharmacology, RP Centre).
16. Neuromapping of functional deficits associated with Parkinsonian disorders, (Neurology, DST funded).
17. Predicting functional outcome after acute stroke: evaluation of a module of clinic-radiological parameters and growth factors in Asian Indians, (Neurology, DST funded).
18. Cognitive activation studies of language and memory as a preoperative evaluation in patients with intractable epilepsy – A novel noninvasive method for investigation (Neurology, DST funded).
19. Role of human umbilical cord blood stem cells and neural stem cells in neuronal regeneration and functional restoration: A comparative study in male adult rats with acute spinal cord injuries, (Neurology, Cardiology, Stem Cell Facility, DBT funded).
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).
24. In vivo MR spectroscopy study of human breast carcinoma (Surgery).
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).
28. MR imaging in animal model of multiple sclerosis.
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
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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.

9.23 Obstetrics and Gynaecology

Professor and Head

Suneeta Mittal

Professors

Alka Kriplan
Neerja Bhatla

Sunesh Kumar

Deepika Deka
K.K. Roy

Additional Professors

Neena Malhotra
Nutan Agarwal

J.B. Sharma

Vatsla Dadhwal
Neeta Singh

Assistant Professors

Reeta Mahey

Garima

Aprana Sharma

Scientists

Rohini Sehgal (G.I)

A. Chandra Tiwari (G.II)

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.
4. Workshop on Expanding Access to Safe Abortion, AIIMS, New Delhi, 21–23 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.
7. National CME in Obstetrics and Gynaecology (Series 3, Module 6), AIIMS, 24–25 March 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

Suneeta Mittal: 14	Alka Kriplani: 30	Sunesh Kumar: 7
D. Deka: 13	Neerja Bhatla: 8	K.K. Roy: 10
Neena Malhotra: 11	Vatsla Dadhwal: 5	J.B. Sharma: 7
Nutan Agarwal: 11	Neeta Singh: 2	

RESEARCH

Funded projects

Completed

1. Comparative study of oral single dose of Metronidazole, Tinidazole, Secnidazole and Ornidazole 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

1. Prevention of Parents to Child Transmission of HIV. Suneeta Mittal. Delhi State AIDS Control Society. Ongoing long project. Rs.50,000.
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.
5. A Phase III clinical trial to demonstrate the Immunogenicity, Tolerability, and Manufacturing Consistency of V503 (A Multivalent Human Papillomavirus [HPV] L1 Virus-Like Particle [VLP] Vaccine) in Preadolescents and Adolescents (9 to 15 year old), with a comparison to Young Women (16 to 26 year old). Neerja Bhatla. MSD Pharmaceuticals Pvt. Ltd, 2010–13, Rs 8.80 lakhs.
6. Early detection of cervical neoplasia by visual screening and hybrid capture testing by self and physician collection methodology – A community based study in rural area. Neerja Bhatla, Qiagen India, 2010–13, Rs. 5,46,327.
7. Effectiveness and safety of 2 vs 3 doses of HPV vaccine in preventing cervical cancer: An Indian Multi-centre randomized trial, Neerja Bhatla, WHO-IARC, 2009–14, US \$ 65,000.
8. Evaluation of efficacy and anti-inflammatory action of Placentex™ in women with inflammatory Pap smears. Neerja Bhatla, Albert David Ltd, 2010–13, Rs. 2,50,000.

9. CORONIS – International study of caesarean section surgical techniques: the follow-up study. J.B. Sharma, University of Oxford, UK, March 2011 to March 2014. UK £178,929.
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.
12. A randomized open label comparative study of safety and efficacy of Metformin and subcutaneous insulin in Asian women with Gestational Diabetes, Neeta Singh, ICMR, January 2011–September 2014, Rs. 30 lakhs.
13. Role of sub-endometrial implantation of autologous stem cells in women with Asher man's syndrome – A Pilot Study. Neeta Singh, AIIMS, 2011–13, Rs. 5 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.
4. Prospective randomised comparative study of hysteroscopic septal resection using unipolar resectoscope versus bipolar resectoscope.
5. Pretreatment with Misoprostol before vacuum aspiration versus MVA: double blind RCT- A pilot study.
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.
10. Comparison of mifepristone plus misoprostol alone for inducing abortion at 13–20 weeks gestation: A double blind randomised multicentre trial.
11. Evaluation of efficacy of human placental extract and lycopene in clearing inflammatory cervical smears.
12. Evaluation of AMH as a marker of ovarian response in IVF cycles.
13. Nomogram of fetal nasal bone length at 11-14 weeks of gestation.
14. Correlation of erythropoietin levels and serum transferrin 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.
7. A comparative evaluation of total laparoscopic hysterectomy versus laparoscopic supracervical hysterectomy.

8. Evaluation of dehydroepiandrosterone (DHEA) therapy as an adjunct to gonadotrophins for ovulation induction in premature ovarian ageing.
9. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian cancer: a pilot study.
10. Randomized comparative study of conventional minilaparoscopy versus modern minilaparoscopy in patients of infertility.
11. Evaluation of efficacy of tranexamic acid in reducing blood loss during and after caesarean section.
12. Prediction of preterm delivery by determination of fetal fibronectin in vaginal secretions.
13. To study and compare the cost effectiveness of IVF minimal stimulation protocol versus the conventional protocol in a developing country hospital setup.
14. Role of Anastrozole for treatment of symptomatic leiomyoma in premenopausal women.
15. A Clinical Trial comparing thermal balloon ablation and levonorgestrel intrauterine system in patients with dysfunctional uterine bleeding.
16. Nomogram of Fetal Nasal Bone Length at 11–14 weeks of gestation.
17. Final protocol and Training manual – Manual for laboratory training on utility and operational feasibility of using the Haemoglobin Colour Scale (HCS) for haemoglobin estimation in the Indian setting.
18. Evaluation of efficacy of human placental extract and lycopene in clearing inflammatory cervical smears.
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 intra uterine growth restriction with normal pregnancies.
24. Prevention of uterine atony during cesarean section: Randomized comparison of sublingual misoprostol versus syntocinon.
25. Value of routine antenatal screening ultrasonography at 24–28 weeks of gestation.
26. Effect of intraperitoneal bupivacaine in reducing postoperative pain after laparoscopic gynaecological surgery.
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.
29. Role of messenger RNA PCR in the diagnosis of genital tuberculosis in infertile women.
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 mifepristone plus misoprostol 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

1. Elucidation of gene alterations in the pathogenesis of recurrent spontaneous abortions, (Haematology).

2. Role in Recurrent spontaneous abortion (Anatomy).
3. Validation of Strategies for Rapid Prenatal Detection of Aneuploides, (Paediatrics).
4. Evaluation of the diagnostic potential of fetal DNA in maternal plasma as a possible tool for Non-invasive prenatal diagnosis of common single gene disorders (Paediatrics).
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).
7. Identification of Human Chromosome 21-Derived miRNA in Maternal Circulation for Non Invasive Prenatal Diagnosis of Down Syndrome, (Paediatrics).
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).
14. Apoptosis in placental membranes in pre-eclampsia: An immunohistochemical – study (Anatomy).
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).
18. Sequence based identification of mycobacterium species isolated from extra – pulmonary tuberculosis cases (Lab. Medicine).
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).
26. Biostatistical Aspects in Case control Studies on Unintended Pregnancies (Biostatistics).
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).
29. Efficacy of Phenobarbital on jaundice in babies >32 weeks presenting with Rh haemolytic disease of newborn : A randomized, double – blinded, placebo controlled trial (Paediatrics).
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. An 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).
36. Comparative evaluation of neo adjuvant chemotherapy vs primary debulking – surgery in the management of advanced epithelial ovarian cancer (IRCH, AIIMS).
37. p16INK 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).
39. Evaluation of the diagnostic potential of fetal DNA in maternal plasma as a possible tool for Non-invasive prenatal diagnosis of common single gene disorders (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 progenitor cells as biomarker of disease activity in multiple myeloma (Oncology).
42. Use of Hb A_{1c} estimation by HPLC for prenatal diagnosis of b-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	12	
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	
Abortions	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

Methods	Previous year (2010–11)	Current year (2011–12)	Improvement in performance (%)
CuT	574	514	-
Oral pills	456 pkts	420 pkts	-
Conventional contraceptives	90,500 pieces	1,20,000 pieces	32.0
Sterilisation			
a. Tubectomy	1101	875	-
b. Vasectomy	26	27	4.0

Maternal and Child Health (MCH) performance

Services	Performance in the previous year (2010–11)	Performance in the current year (2011–12)	Improvement (%)
Pregnant women			
TT 1 st Dose	1709	2011	18
TT 2 nd Dose	1570	1987	27
Children (0–1 year) immunization			
DPT 3rd Dose			
Males	600	584	-
Females	537	471	-
Polio 3rd Dose			
Males	500	584	17
Females	537	471	-
BCG			
Males	1506	1470	-
Females	1207	1248	3.0
Measles			
Males	741	731	-
Females	502	534	6
DT (<5 yrs)	592	Not Administered	-

Clinics	Number of times/ week	Patients attended during 2011–12	
		New	Old
General OPD	6	29996	55596
High risk pregnancy clinic	3	2133	12335
Gynae Endocrine clinic	3	84	96
Gynaecological cancer clinic	2	727	2919
Post natal clinic	3	10	1
Medical termination of pregnancy clinic	6	649	487
Family Welfare clinic	6	9010	4648

List of operations performed during 2011–12

Gynaecological

Major

Surgery for benign diseases	1229	Oncology Surgery	311
Infertility	1045		

Endoscopy surgeries

Laparoscopy+Hysteroscopy	900	Plastic surgery	57
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Minor

D&C/EA	1198	Colposcopy/cryo/LEEP	158
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Diagnostic hysteroscopy	1440	MTP	649
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Pap's smear	3456	Cervical biopsies	336
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Obstetrics

Major

LSCS	992		
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Minor

Vaginal deliveries Forceps	176	Vaginal deliveries normal	1144
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Fetal Medicine

Cordocentesis	77	Chorionic Villus Sampling	199
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Amniocentesis	261	In Utero infusion	182
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High risk Obstetrics

Obstetric ultrasound	3249	NST	1186
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BPP	1500	Gynae Ultrasound	2027
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Ovarian cyst aspirations	251		
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Laboratory Investigation

Urine Pregnancy test	2948	Haemoglobin	2948
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Blood Group	2358	Urine albumin/sugar	2948
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Community services/camps

Organized School Health Camp at Katha Khazana School, Bhumiheen 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 Expanding 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 JOGR-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

in Maternal Health – Board of the Partnership for Maternal, Newborn and Child Health; Member, Working Group on Maternal and Child Health nominated by the Ministry of Health and Family Welfare for the US-India Health Initiative.

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 & Gynae, Banaras Hindu University, 2009–11; Editor, Asian Journal Obs & Gynae 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 Gynae 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 Gynae 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 Gynae 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 amenorrhea: 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 & Gynae) Examiner for University of Delhi, 25–27 April 2011, Himalayan Institute of Medical Sciences, Jolly Grant, Dehradun, Uttaranchal, 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 Gynae Plastic Surgeons, Int J Gynae Endocrinology, Asian J Gynae 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,
4. First AIIMS Clubfoot Congress 2012, 10 March 2012.

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.
2. Database of Scoliosis Patient. (ICMR I-644). Arvind Jayaswal, Indian Council of Medical Research (ICMR), 2010–13, Rs. 17,65,800.
3. A new hip hemiarthroplasty option based on femoral stem design suitable for the morphology of proximal femur of elderly Indian population. Rajesh Malhotra, CSIR, 2005–12, Rs. 30.33 lakhs.
4. Evaluation of efficacy of platelet concentrates in the treatment of non-union of fracture of long bones. Rajesh Malhotra, ICMR, 2008–11, Rs. 27.49 lakhs.
5. An observational study to assess back pain in patients with severe osteoporosis treated with teriparatide versus antiresorptives. Rajesh Malhotra, Eli-Lilly Company, 2008–12, Rs. 4.20 lakhs.

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.
7. Evaluation of cytokines in patients undergoing total hip replacement and their correlation with osteolysis. Rajesh Malhotra, ICMR, 2009–12, Rs. 20 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.
9. Etiology of rheumatoid arthritis—An exploratory study of the diagnostic potential of phosphoproteomics. Sagrika Biswas, IGIB, Delhi; Rajesh Malhotra, ICMR, 2011–14, Rs. 3.5 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.
2. A prospective study comparing the clinical, Radiological and Functional outcomes between variable Angle and Fixed Angle Volar Locking Plate for Displaced Intra-articular Distal Radius Fractures.
3. Evaluation of Functional and Radiological outcome of surgically treated posterior wall fractures of acetabulum. A prospective study comparing the clinical, radiological and functional outcomes between variable angle and fixed angle volar locking plate for displaced intra articular distal radius fractures.
4. Arthroscopic elbow synovectomy in rheumatoid arthritis long term follow – up of more than two years.
5. Comparative assessment of bone loss at antero-inferior part of glenoid in recurrent shoulder dislocation between arthroscopic findings and 3D CT Scan.
6. To study the safety and efficacy of dexmedetomidine in patients undergoing arthroscopic knee surgery
7. Arthroscopy of the hip in children with Legg-Calve-Perthes disease and its correlation with imaging
8. Ultrastructural study of ACL stump in ACL injured patient and semitendinosus graft with electron microscopy and light microscopy- a comparative study.

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.
4. An explorative prospective open labeled pilot study for evaluation of the safety and efficacy of the nutraceutical S-Adenosyl. L-Methionine (SAM-e) in patients suffering from Osteoarthritis of knee.
5. Clinical comparative evaluation of arthroscopic assisted anterior cruciate ligament reconstruction by anatomic double bundle and single bundle hamstring grafts.

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; Vidyalye 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).

9.25 Department of Otorhinolaryngology and Head-Neck Surgery

Professor and Head
Suresh Chand Sharma

Additional Professor
Alok Thakar

Associate Professor
Rakesh Kumar

Assistant Professor

Kapil Sikka

Chirom Amit Singh

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.
3. Monthly meeting of Association of Otolaryngologists of India, Delhi State branch.
4. Vertigo 360°, AIIMS, New Delhi, 22 July 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 intracordal 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.
7. Podoplanin expression in pts of oral cavity carcinoma and its clinical significances.
8. Clinicopsychological evaluation in patients undergoing rhinoplasty.

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’ (Association 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 AIIMSONIANS; on the editorial board of the Journal of ENT Masterclass (UK), The Otorhinolaryngologist (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, INCLIN (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 Cutaneous 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 yMarch y2012, 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)
Sushil K. Kabra
(Pulmonology and Intensive Care,
Tuberculosis, and Rheumatology)

Ashok K. Deorari
(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.
4. Specialty based teaching every week in Nephrology, Neonatology, Pulmonology and Intensive Care.
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.
3. Un Chol Pak, DPR Korea, 52 days Neurology, 5 September 2011 to 27 October 2011.
4. Ajantha, Sri Lanka, Department of Neurology, October–November 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.
2. 44th Annual National Conference of Indian Dietetic Association, Theme: 'Paediatric to Geriatric Nutrition: Emerging Trends and Challenges', AIIMS, New Delhi, organized by Ms Anuja Agarwala 3–5 November 2011.
3. Workshop-cum-discussion on 'Role and impacts of biotechnology in agriculture and food', Organised by Ms Anuja Agarwala, 25 February 2012.

Genetics

1. Expert Group Meeting on Birth Defects in the WHO South-East Asian Region, AIIMS, New Delhi, 13–15 December 2011.

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. Dymorphology Workshop, organized by Delhi IAP and Genetics Chapter IAP, AIIMS, New Delhi, 4 September 2011.
4. Indo–Spanish Workshop, funded by DST, 22–24 November 2011.
5. Parents meeting for Rett syndrome, 20 October 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 from India, Maldives, Sri Lanka, Bangladesh, Nepal, Pakistan, Mauritius, Iran. One can access the package at www.ontop-in.org.
3. Dr Deorari, facilitated as Master Trainer CPAP workshop for Sri Lankan Paeditricians, Kandy, Sri Lanka, 26 July 2011.
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.
2. A symposium on childhood disabilities, 3 May 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.
3. Childhood Cancer awareness meet: Parent Education Programme in Childhood Cancer, AIIMS, 26 September 2011.

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

1. Hib Meningitis Sentinel Surveillance in North India. Shinjini Bhatnagar and S K Kabra, INCLEN, 2011–12, Rs. 1,09,88,946.
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.
3. An Open-Label Extension Study of Gene-Activated® Human Glucocerebrosidase (GA-GCB) Enzyme Replacement Therapy in Patients with Type I Gaucher Disease, Shire Human genetic Therapies, USA. Madhulika Kabra, 2010–12, Rs. 15 lakhs.
4. Clinical application of array – based Comparative Genomic Hybridization (array CGH) in the genetic evaluation of stillbirths. Madhulika Kabra, DBT, 2012–14, Rs 85 lakhs.
5. Identification of Human Chromosome 21 – Derived miRNA in Maternal Circulation for Non Invasive Prenatal Diagnosis of Down Syndrome, Madhulika Kabra, DBT, 2012–13, Rs 18 lakhs.

6. A comprehensive approach for mitochondrial encephalomyelopathies in Indian patients. Madhumita Roy Chaudhury, AIIMS, 2012–14.
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.
2. Developing WHO global guidelines for newborn care: Systematic reviews on neonatal jaundice and vitamin K issues. Vinod K Paul and Ashok Deorari. WHO for 6 months, Rs 6 lakhs.

Nephrology

1. Antiproteinuric effect of oral calcitriol in chronic proteinuric nephropathies: a randomized controlled trial. Pankaj Hari, ICMR, 2010–13, Rs. 19,10,592.
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.
3. Levamisole treatment for children with steroid sensitive nephrotic syndrome: multicentric double blind placebo controlled randomized trial. Arvind Bagga, ACE Pharmaceuticals, Netherlands, Rs 21 lakhs.
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.
6. Effect of rituximab on lymphocyte subsets in children with difficult nephrotic syndrome. Arvind Bagga, ICMR, 2011–14, Rs 15,38,913.
7. Functional characterization and genetic basis of anti-complement factor H autoantibodies in hemolytic uremic syndrome. Arvind Bagga, DBT, 2011–14, Rs. 41,59,000.
8. Pathogenesis of idiopathic nephrotic syndrome of childhood: Th1 Th2 polarization of naïve T cells in patients with idiopathic nephrotic syndrome and its relation to disease course. Arvind Bagga, DBT, 2010–13, Rs. 21,15,363.
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.
2. Neuroimaging and cerebral metabolite changes in children undergoing treatment for acute lymphoblastic leukemia: a pilot study, Rachna Seth, AIIMS, 2011–12, Rs. 1 lakh.
3. Chemo to Cure. ‘C to C’: A study of childhood cancer survivorship, Jiv Daya Foundation, 2011–14) Rs. 20 lakhs.

Pulmonology and Intensive Care

1. Immunologic effect of zinc supplementation in HIV infected children receiving highly active antiretroviral therapy: A randomized, double blind placebo controlled trial. Rakesh Lodha, Madhu Vajpayee, SK Kabra, ICMR, 2009–12, Rs. 31 lakhs.
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.
4. Role of zinc supplementation in children with cystic fibrosis: randomized controlled trial. SK Kabra, Rakesh Lodha, Kabra M, Arti Kapil, Shivaram Shastri, ICMR 2011–13, Rs. 20 lakhs.
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.
6. Why acute respiratory infections during infancy lead to chronic airway diseases during childhood: differential role of smaller airways and immune imbalance. SK Kabra, Rakesh Lodha, DBT, 2012–2015, Rs. 1,24,38,192.

Completed

Genetics

1. Evaluation of MLPA and Array CGH for the detection of cryptic subtelomeric rearrangements in idiopathic mental retardation, DBT, 2007–11. Rs 30 lakhs.
2. Molecular genetic studies in Steroid resistant Nephrotic syndrome, 2007–11. Rs. 4.7 lakhs.
3. Validation of Strategies for Rapid Prenatal Detection of Aneuploides, 2007–11. Rs. 18 lakhs.
4. Evaluation of the diagnostic potential of fetal DNA in maternal plasma as a possible tool for Non-invasive prenatal diagnosis of common single gene disorders, 2007–11. Rs. 15 lakhs.

Neonatology

1. Development of technology for manufacture of low cost diapers for newborn infants. Vinod K Paul, DBT, 3 year funding: 25 lakhs.

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.
6. Non invasive prenatal diagnosis of fetal Rh and beta Thalassemia.
7. Molecular Genetic studies in Indian families with Autosomal recessive non syndromic hearing loss.
8. A study of Genomic rearrangements in Indian Children with Idiopathic MR using whole genome CGH array.
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

11. Oxygen concentration using different oxygen flow rates in self inflating bags.
12. Role of B ANP in diagnosis of PDA.

Nephrology

13. Prevalence of vitamin D insufficiency and efficacy of cholecalciferol supplementation in children with steroid resistant nephrotic syndrome.
14. Ambulatory blood pressure monitoring in children with frequently relapsing nephrotic syndrome.

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.
17. Prevalence of haemostatic abnormalities in epileptic children on valproate monotherapy: a cross sectional study.
18. Prevalence of electrophysiologically defined peripheral neuropathy in children with chronic kidney disease stage IV and V: a cross sectional study.
19. Study of the prevalence of genetic polymorphisms of UGT1A6 and their association with serum valproate levels in children on valproate monotherapy.
20. Efficacy of low glycemic index diet therapy in children with refractory epilepsy: A randomized controlled trial.
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

24. Evaluation of incidence and predictors of tumor lysis syndrome in newly diagnosed children of acute lymphoblastic leukemia.
25. To study the effect of hyperhydration vs hyperhydration and hydroxyurea in management of newly diagnosed hyperleukocytosis of acute childhood leukemia.
26. Predictors and organism with sensitivity profile in children with episodes of febrile neutropenia.
27. Study the outcome of childhood langerhans cell histiocytosis.
28. Outcome of childhood acute myeloid leukemia.
29. Late effects of childhood cancer survivorship.
30. Vincristine induced neuropathy in Childhood ALL (Acute Lymphoblastic Leukemia) Prevalence and Electrophysiological Characteristics.

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.
35. Tuberculosis: Evaluation of the Diagnostic value of Quantiferon Gold in Tube test in Indian Children.
36. Prevalence of hypophosphatemia in critically ill children.
37. Effects of exercise intervention program on bone mineral accretion in children and adolescents with Cystic fibrosis.
38. Ventilator associated pneumonia in Paediatric intensive care unit: incidence, risk factors and etiological agents.

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

4. Molecular Genetic study in Indian children with Rett syndrome.
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.
9. Micro-costing based economic analysis of NICU care: implications for insurance models.

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

12. Visual versus goniometric assessment of adductor and popliteal angles in infants with hypertonia.
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
19. Prevalence, clinical, electrographic, neuro-imaging features and treatment of epilepsy in children with Down syndrome: an observational 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

22. Glucose homeostasis in critically ill children.
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, INCLLEN, 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..
2. Novel Silk Fibroin-based Nano-architected Scaffolds to Engineer Osteochondral grafts, DBT, 2008–11.

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).
4. Pharmacokinetic and pharmacodynamic interaction of ayurvedic medication with antiepileptic drugs: an experimental and clinical study.
5. Impact of Controlled and drug resistant epilepsy on Circadian Sleep rhythm: a Case Control study, (Neurology).
6. Effects of newer antiepileptic drugs in comparison with conventional antiepileptics on the trace element status of epileptic subjects, (Pharmacology).

Oncology

1. Evaluation of predictors of adverse outcome in Febrile neutropenic episodes in Pediatric Oncology patients, (Microbiology).
2. Nucleophosmin mutation in acute myeloid leukemia: evaluation of screening by immunohistochemistry – a simple front-line surrogate for molecular analysis. (Laboratory oncology, IRCH).
3. Evaluation of myocardial function in paediatric cancers and paediatric cancer survivors (Cardiology): an ongoing evaluation of long/late effects of cancer therapy.
4. Evaluation of focal consolidation and systemic chemo reduction in management of intraocular retinoblastoma, (Ophthalmology).
5. Outcome in children with extraocular retinoblastoma: A RCT using two treatment protocols, (Ophthalmology).

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.
4. Paediatric Population: Expediting the diagnosis of intrathoracic tuberculosis and drug resistant tuberculosis, (Microbiology).
5. A study on alternate antimicrobial agents against typhoidal salmonellae, (Microbiology).
6. Immunopathogenesis of paediatric HIV 1 infection and generation of human monoclonal antibodies against the viral envelop, (Biochemistry, PhD thesis).
7. Ocular manifestations in children with HIV infection (Ophthalmology, MD 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.
3. Feasibility Study of a Novel Intraosseous Device for Emergency Vascular Access.

Collaborative Research Projects

Completed

Endocrinology

1. Genetic studies in patients with isolated growth hormone deficiency from North India (Anatomy).
2. Molecular Analysis of Growth hormone receptor gene in patients with Laron's syndrome (Anatomy).

Pulmonology and Intensive Care

1. Detection of mycobacterium in patients with extra pulmonary tuberculosis, (Lab Medicine).
2. Development of taqman based real time quantitative polymerase chain reaction assay for detection of pneumocystis carinii/ jirovecii pneumonia, (Microbiology).
3. Oral voriconazole versus intravenous low dose amphotericin B for primary antifungal prophylaxis in pediatric acute leukemia induction: a prospective 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:

Name of Service	New Cases	Old cases	Total Attendance
General OPD	33068	42176	75244
Paediatric Neurology Clinic	797	2077	2874
Myopathy Clinic	509	920	1429
Paediatric Gastroenterology Hepatology and Nutrition	777	3535	4312
Well Baby Clinic	412	672	1084
High Risk Neonatology Clinic	276	2925	3201
Paediatric Nephrology Clinic	509	3992	4501
Paediatric Chest Clinic	603	5479	6082
Paediatric Tuberculosis Clinic	391	1905	2296
Paediatric Rheumatology Clinic	191	1634	1825
Genetics and Birth Defects Clinic	2622	1469	4091
Paediatric Oncology Clinic	186	1389	1573
Paediatric Cancer Survivor Clinic	62	486	548
Paediatric Endocrine and Metabolism Clinic	1144	1561	2705
Development Clinic	132	143	275
Grand Total:	41979	70353	1,12,332

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

New Cases 2809 Old cases 1203

Medical Social Services

Total patients 10,310

Information and guidance given to patients 2750 Counselling and psychotherapy 2000

Issuing railway concessions 2000

Help in accommodation 240

Exemption of investigation charges 2700

Mobilization of financial assistance for poor patient 600

Rehabilitation of unknown babies of unwed mother 8

Supervision of social work trainees 6

Miscellaneous needs of poor patient (arranging cremation, transportation of bodies to native places) 6

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	Vasopressin challenge test	10
ACTH stimulation test	20	HCG stimulation test	40
GnRH stimulation test	40	Dexamethasone suppression test	10
GH stimulation test	50	Modified oral glucose tolerance test	40
Continuous blood glucose monitoring	10	Ambulatory BP recording	5
HbA1c (point of care testing)	300	Urinary microalbumin	50
17 hydroxyprogesterone assay	50	Continuous subcutaneous insulin infusion	6

Gastroenterology Hepatology and Nutrition

Procedure	Number
Upper Gastrointestinal Endoscopy and Colonoscopy	874
Colonoscopy (polypectomy and diagnostic)	54
Diagnostic UGIE	417
Small bowel biopsy	180
Stricture dilatation	16
Endoscopic variceal ligation (EVL)	77
Endoscopic sclerotherapy (EST)	88
Liver Biopsy	55

Laboratory test	Number	Laboratory test	Number
Celiac serology	800	Fecal fat	25
D-xylose	25		

Genetics

Developmental/behavioural evaluation and intervention (Mrs Savita Sapra): 1296

Laboratory test	Number	Laboratory test	Number
<i>Cytogenetics</i>			
Peripheral Blood Cultures	732	Cord cultures for karyotyping	45
Fluid cultures	256	CVS cultures	28
QFPCR for Prenatal test	118		
<i>Biochemical</i>			
Triple Marker	1713	MSAFP alone	17
βhCG alone	11	Dual test	177
<i>TLC for disorders of amino acid metabolism</i>			
Urine	138	Plasma	3
Disorder of Muco polysaccharidosis (Urine Spot test)	34	Homocysteinuria test	56
Reducing Substances in urine	180	DNPH	145
FeCl ₃	150	Urine porphyria	53
Oligosaccharides	13	Blood ammonia	434
<i>Enzyme assays for Inborn of Metabolism</i>			
Total no. of patients	348	Single enzyme assays	182
Multiple enzyme assays	166		
<i>Enzyme Assay Disorder</i>			
Arylsulfate A metachromatic leukodystrophy			49
β-Glucosodase Gaucher Disease			43
α- Iduronidase Hurler Syndrome (MPSI)			19
Iduronate Sulfate Hunter Syndrome (MPSII)			17
Galactose-6- Morquio A Sulphate Sulphatase (MPS IVA)			15
β-Galactosidase GM1 Gangliosidosis and Morquio B (MPSIV B)			38
Arysfatase B Maroteaux- Lamy Syndrome (MPS VI)			8
α-Glucuronidase MPS VII			9
Hexosamionidase A Tay-Sachs			31
GALT			39
Biotinidase assay	47	Plasma - Hexosaminidase A	2
Plasma – ASA	2	Chitotriosidase (Plasma)	18
CVS (NIH)	3	CVS (ASA)	2
CVS (GM1)	1	CVS (MPS-IV A)	1

Molecular Lab

Thalassemia mutation studies (Sequencing & ARMS)	335	Thalassemia prenatal diagnosis	123
Duchenne muscular dystrophy family studies	346	Duchenne muscular dystrophy prenatal diagnosis	21
Cystic fibrosis family studies	70	Cystic fibrosis prenatal diagnosis	3
Spinal muscular atrophy family studies	136	Spinal muscular atrophy prenatal diagnosis	18
Hemophilia A family studies	13	Hemophilia A prenatal diagnosis	3
Fragile X screening	174	Fragile X Prenatal diagnosis	0
Intersex cases for genotyping	54	Skeletal dysplasia mutations	19
Achondroplasia PND	1	Connexin 26 mutations (sequencing)	25
MLC Mutation testing	9	MLC prenatal diagnosis	2
Rett Syndrome mutation testing	80	Rett syndrome prenatal diagnosis (sequencing)	2
MLPA for MR (Subtelomeric)	74	MLPA for microdeletions	70
MLPA for DMD	49	Angelman Syndrome	3
CAH Mutation studies	49	CAH Prenatal Diagnosis	6
Prader Willi syndrome (MLPA/Methylation PCR)	32		

Nephrology

Hemodialysis	1237	Continuous ambulatory peritoneal dialysis	18
Acute peritoneal dialysis (including automated peritoneal dialysis)			135
Plasmapheresis sessions			257
Temporary hemodialysis catheter placement (internal jugular, subclavian, femoral)			144
Renal biopsy			130
Renal transplantation			7

Neurology

EPS Lab

NCV	324	EMG	81
RNST	14	Routine EEG	1816
Ambulatory EEG	96	Video EEG	36
Muscle biopsies	119	Skin biopsies	30
Nerve biopsies	4	Arterial lactate	280
CSF lactate	75	CSF ant measles antibodies	12

Oncology

Bone Marrow aspiration and biopsy	220	Immunophenotype	120
Minimal residual disease (MRD)	100		
5 part analyser hemogram evaluation (critical care lab)	800	CSF Examination	460
FNAC	50	Skin Biopsy	15
Tissue biopsy from lymph nodes, tumor mass (with Radiology/and Paediatric Surgery)			100

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, M P 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 cremation 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 Bhubaneswar 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 INCLIN 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 Shahuji 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.

Dr Pratima Ray chaired 'Vaccine' session, 5th Congress of the Federation of Immunological Societies of Asia Oceania, 14–17 March 2012, New Delhi; Invited expert, Bioscience Task force meeting at IIT Bombay, 6–7 January 2011; Invited expert, Brainstorming Meet on 'Science and Technology Perspectives for Changing India', TIFAC Auditorium, New Delhi, 25 January 2011; Invited member, Government delegation for holding a meeting with all stakeholders to establish joint Indo-Finland Center for Diagnostics, 27 January 2011.

Ms Anuja Agarwala 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, Dietetic 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.
- Joint WHO/FAO Working Group document on 'Guidelines for the evaluation of Probiotics in Food'.

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 Practitioner, 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.

9.27 Paediatric Surgery

Professor and Head

V. Bhatnagar

Professor

D. K. Gupta
(on leave)

M. Bajpai

Additional Professor

S. Agarwala

M. Srinivas

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.
3. Symposium on Energy Sources for Paediatric Surgeons, 24 March 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.
2. To study the role of molecular markers (non-genetic) in the diagnosis & treatment of posterior urethral valves (PUV). M. Bajpai. ICMR: 2011-14; Rs 37 lakhs.
3. A study on aetiopathogenesis of craniosynostosis with respect to phenotypic characterization, imaging and sutural histomorphology. M. Bajpai. ICMR: 2010-13; Rs 28 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- α 1 and TGF- α 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.
10. Evaluation of DNA ploidy in predicting prognosis in hepatoblastoma patients.
11. Evaluation of neuro-behavioural outcome in congenital diaphragmatic hernia patients.
12. Results of the outcome of treatment of neuro-blastoma 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.
14. Prospective study of treatment of children with Wilms' tumour on treatment with NWTS-5 regimen.
15. Prospective study of treatment of children with rhabdomyosarcoma on treatment with IRS-5 regimen.
16. Prospective study of treatment of children with hepatoblastoma on treatment with PLADO regime.
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 hepaticduplex 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- α 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).
11. Neurogenic bladder: a study on identification of risk groups and their therapeutic implications (Radiodiagnosis, Nuclear Medicine).
12. A comparative study on risk factors and patterns of inheritance in surgically correctable birth defects between non-ART induced pregnancies and ART-induced pregnancies (Obstetrics and Gynaecology).
13. To study the association of the MTHFR polymorphism C677T in the bladder exstrophy-epispadias complex (Obstetrics and Gynaecology).
14. Assessment of fine needle aspiration cytology for molecular genetic analysis in neuroblastoma (Pathology, Anatomy).
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-anastomotic stent and a nephrostomy in children undergoing pyeloplasty for pelviureteric junction obstruction (PUJO) (Radiodiagnosis, Nuclear Medicine).
17. Bladder Exstrophy – Epispadias complex: A study on the histomorphology of detrusor with respect to bladder growth as related to upper and lower urinary tract outcomes (Pathology).
18. Expression of angiogenic phenotypes (VEGF and Micro Vessels Density) in Ewing sarcoma family of tumor in children (Paediatric Oncology, Radiodiagnosis, Pathology).
19. Long term functional outcome and quality of life in patients of anorectal malformation (Radiodiagnosis).
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- α 1 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).
26. Genomic and proteomic analysis of SCF/C-Kit gene in a paediatric neoplasm, Neuroblastoma. (Pathology, Biochemistry).
27. Gene deletions and mutations in Wilms Tumour: correlation with histopathology and outcome. (Pathology).
28. Assessment of regulatory T cell kinetics in patients of neuroblastoma and PNET– a prospective study. (Medical Oncology).
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).
4. Recovery of renal function in patients undergoing pyeloplasty (Nuclear Medicine).

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 anorectalmanometry
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 anorectalmanometry

Community services

1. Weekly outpatient clinic and operative session at CRHSP, Ballabgarh

Attendance in OPD and Speciality Clinics

	New cases	Old cases	Total
General OPD	5509	13081	18590
Hydrocephalus clinic	06	126	132
Craniosynostosis clinic	02	11	13
Paediatric Urology clinic	437	3021	3458
Inter sex clinic	0	82	82
Paediatric solid tumor clinic	128	1707	1835
CRHSP Ballabgarh OPD	-	-	1430

Admissions

AB5 Ward	1241	AB5 ICU	181
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Surgical Procedures

Total surgical procedures	1768		
Major	1189	Minor	579

Minor procedures in OPD	1151	CRHSP Ballabgarh	297
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Special investigations

Urodynamic evaluation	490	Uroflowmetry	369
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Ano-rectal manometry	109	Oesophageal manometry	2
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24-hr pH monitoring	2		
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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 symposia on 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

Rajni Safaya

Manoj K. Singh

Ruma Ray

S. Datta Gupta

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

- 24 doctors, including WHO fellows, and trainees from BPKIHS Dharan, underwent short term training.

CONTINUING MEDICAL EDUCATION

Conferences, seminars, workshops

Organized by the department

- Workshop on Image Analysis and Morphometry in Pathology, Department of Pathology, AIIMS, New Delhi, 21–22 May 2011
- 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

- Investigation related to mechanism of entry of HEV into the host cells. SK Panda. DBT, 2008–11. Rs.84.89 lakhs.
- Glial tumors: a correlative clinic-pathological study of chromosomes 1p/19q status, epidermal growth factor receptor (EGFR) amplification and p53 expression. Chitra Sarkar. ICMR, 2007–11. Rs.16.5 lakhs (approx).

3. Study of the role of bone marrow derived mononuclear cells in peripheral nerve repair of adult rats. Vaishali Suri. AIIMS, 2006–11. Rs. 18 lakhs (approx).
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).
6. Open label, prospective, multicentric study to evaluate the safety and efficacy of BIOMAb-EGFR (Nimotuzumab) as induction and maintenance therapy in combination with radiotherapy plus temozolamide (concomitant and adjuvant) in Indian patients with glioblastomamultiforme – Phase II/III clinical trial. Chitra Sarkar. Biocon Biopharmaceutical Pvt. Ltd., 2008–11. Rs. 15 lakhs.
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

1. Non-structural polyprotein (pORFI) processing of Hepatitis E virus (HEV). SK Panda . DBT, 2010–12. Rs. 66.39 lakhs.
2. Hepatitis E virus (HEV) super-infection on chronic hepatitis B associated liver disease: Patho-biological study. SK Panda. DBT, 2011–14. Rs. 50.83 lakhs.
3. Synthesis and characterization of ultra fine gold nanoparticles, their utility and safety as a novel X-ray contrast agent: an in-vivo study in animal model. No. I-684. AK Dinda. ICMR, 2010–12, Rs 30 lakhs.
4. Cell sheet engineering for assembling human corneal construct. No. N-1286. AK Dinda. IIT Delhi, 2011–16. Rs 1 crore.
5. Glioblastomas in children and adults: A comparative study with special reference to molecular pathways and MGMT methylation status. Vaishali Suri. ICMR, 2010–13, Rs. 24 lakhs (approx).
6. A Clinicopathological and Molecular Genetic Study of Polycomb Repressive Complexes in Gliomas. Chitra Sarkar. ICMR, 2012–15. Rs 50 lakhs (approx).
7. Hypoxia and p53-HIC1 axis in stemness of glial tumors and cell lines. Chitra Sarkar. Department of Biotechnology, 2009–12. Rs. 50.5 lakhs.
8. Hypoxia and Notch signaling in Glioblastoma: Implications for an adverse phenotype. Chitra Sarkar. Department of Biotechnology, 2011–14. Rs. 48 lakhs.
9. Molecular Mechanisms of Hypoxia Resistance in Glioblastoma: Role of MicroRNAs. Chitra Sarkar. Department of Biotechnology, 2011–14. Rs. 65 lakhs.
10. Clinical application of array based comparative genomic hybridization (array CGH) in the genetic evaluation of still births. Chitra Sarkar and MC Sharma. Department of Biotechnology, 2012–15. Rs 85 lakhs.
11. Optimization of HPV detection by hybrid capture II for use on DNA extracted from cytology smears: a method suitable for developing countries. Venkateswaran K Iyer. ICMR, 2012–14. Rs. 19.8 lakhs.
12. Role of molecular genetic alterations in classification and prognosis of Wilms tumor in India: An evaluation of WT-1 and WT-2 region and beta catenin pathway. Venkateswaran K Iyer. AIIMS, 2012–13. Rs 4 lakhs.
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.
3. Study of IDH-1 mutations in gliomas.
4. Study of gliomagenesis: Role of Shh-Glipathway.
5. Gliosarcoma: A clinicopathological and molecular study with special reference to MGMT promoter methylation.
6. Characterization of dendritic cells and expression of cytokines, chemokines and NF kB in idiopathic inflammatory myopathies.
7. Molecular Sub typing, EBV-CISH and Clinicopathological Analysis Of Primary CNS Lymphoma(PCNSL)
8. Expression of WNT and NOTCH Pathway Proteins in Ependymomas. A clinicopathologic and Immunohistochemical Study.
9. Analysis of CDKN2a/p16 alterations in Ependymomas.
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.
8. Clinicopathological study of pineal tumours.
9. Study of Limb Girdle Muscular Dytstrophy (LGMD) Patients in Indian Population Using Calpain-3, Dysferlinand Sarcoglycan Protein Analysis.
10. Mutational analysis of Indian patients of Limb Girdle Muscular Dytstrophy (LGMD).
11. Study of Tuberos Sclerosis Complex and Upregulation of WNT pathway in Subependymal Giant Cell Astrocytomas and Cortical Dysplasia.
12. Study of Human Telomerase Reverse Transcriptase (hTERT) and Stem Cell Markers Expression in Ependymomas – Correlation with Apoptotic and Proliferative markers
13. Molecular genetic study of paediatric gliomas.
14. Analysis of genetic alterations in meningiomas.
15. Study of iron metabolism associated proteins in renal cell lines in hyperglycemic and hypernatraemic 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.
19. Development of metal nanoparticle for cancer targeting.
20. Study of IL10 dependent MicroRNA and IL10 expression in Breast Cancer.
21. 'Expression of Dkk 1 in Endometrial Endometrioid Carcinoma & Its Correlation WithWnt/â-catenin Signaling Pathway'.

Collaborative projects

Completed

1. Effects of administration of human umbilical cord blood cells (HUCBG) in combination with melatonin versus HUCBG alone in rat with stroke. (Department of Neurology, AIIMS).
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 transection 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 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)
6. Role of macrophage and oxidative stress in airway remodeling (IGIB, Delhi).
7. Effect of blocking of HIF1 α 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).
9. Development of scaffold for Corneal Tissue Engineering (Textile Engineering, IIT Delhi, R.P.Center of Ophthalmology and Stem Cell Facility, AIIMS).
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).
17. Posterior approach Vs standard pancreaticoduodenectomy in patients with periampullary carcinoma: a prospective comparison. (Department of Gastrointestinal Surgery).
18. Utility of bronchoalveolar lavage fluid analysis in assessment of disease activity of interstitial lung disease in patients with systemic sclerosis. (Department of Medicine).
19. Clinico-pathological study of antral mucosal changes in patients with ethmoidal polypi. (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			

APES	22593	Immunohistochemistry	20 cases
Special stains	336 slides		
Manual processing: Post-cardiac transplant biopsies	10		
Skin biopsy cutting	117		

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.

9.29 Pharmacology

Professor and Head

Y. K. Gupta

Professors

V.L. Kumar
N.R. Biswas

Kamal Kishore
S.K. Maulik

Additional Professor

D.S. Arya

Jatinder Katyal

Associate Professor

Surender Singh

Kh Reeta

Jagriti Bhatia

Scientists

Sharda S. Peshin
Madhuri Gupta

Thomas Kaleekal

Amita Srivastava
Sunder Singh Samuel

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

Y.K. Gupta: 6 **V.L. Kumar: 2** **Kamal Kishore: 1** **S.K. Maulik: 4**
K.H. Reeta: 2 **Jagriti Bhatia: 2**

Abstracts presented

Y. K. Gupta: 5 **V. L. Kumar: 1** **Surender Singh: 1** **K.H. Reeta: 3**
Jagriti Bhatia: 2

RESEARCH

Funded projects

Ongoing

1. Quantitative Detection of heavy metals and Phthalates in toys. Y.K. Gupta, ICMR, 2009–11, Rs 19,61,330.
2. A preliminary study on the antiobesity property of a Unani formulation in experimental model in rats. Y.K. Gupta, CCRUM, 2009–11, Rs 6,89,276.
3. Effect of traditionally used Ayurvedic rasa aushadhies on renal and hepatic functions: Clinical and Experimental Study. Y.K. Gupta, AYUSH, 2009–12, Rs. 27.6 lakhs.
4. Safety study of Unani medicine (UNIM-004 and UNIM-005, local) used in the treatment of Vitiligo. Y.K. Gupta, CCRUM, 2011–12, Rs. 9.91 lakhs.
5. Pharmacological evaluation of five Ayurvedic formulations used in the management of migraine. Y. K. Gupta, Ipca Laboratories Ltd., Mumbai, 2010–12, Rs. 29.61 lakhs.
6. Evaluation of the frequency of polymorphisms affecting lead and mercury toxicity among children with cerebral palsy. Y.K. Gupta, Defence Research & Development Establishment (DRDE), Ministry of Defence, Govt. of India, 2011–12, Rs. 9 lakhs.
7. Phytotherapeutic development of latex of the medicinal plant *Calotropisprocera*. 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 *Terminaliaarjuna* in patients with left ventricular dysfunction, already receiving standard drug regimen. SK Maulik, DBT, 2010–12, Rs 46.06 lakhs.
9. Effect of Bioactive Phytoconstituents in Experimental Metabolic Syndrome. K.H. Reeta, ICMR, 2010–13, Rs. 29.13 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.
15. Evaluation of the renoprotective effect of epicatechingallate, nobiletin and hesperidin in cisplatin induced nephrotoxicity in rats. Jagriti Bhatia, DBT, 2012–15, Rs. 37,72,390.

Completed

1. Assessment of awareness of environmental mercury pollution in health care system: solution and strategies for prevention. Y.K. Gupta, Ministry of Environmental and Forest, Government of India, 2008–11, Rs. 22 lakhs.
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 *Clitoria ternatea* and *Evolvulus alsinoides* extracts for cognitive impairment in rats.
3. Effect of traditionally used Ayurvedic rasa aushadhies on renal and hepatic functions: Clinical and Experimental Study.
4. Study of Immunosuppressive agents (Mycophenolatemofetil and rapamycin) on transient focal cerebral ischemia in rats.
5. Pharmacokinetics and pharmacodynamic interaction of an Ayurvedic medicine with anti-epileptic drug: An experimental and clinical study.
6. Effect of anti-epileptic drug therapy on bone mineral density and vitamin D status in children with epilepsy.
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.
9. Studies on the anti-pyretic and anti-inflammatory properties of protein fraction of *Calotropis procera* latex.
10. Studies on the anti-inflammatory properties of *Calotropis procera* Latex fractions.
11. Phytotherapeutic potential of *Calotropis procera* 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 *Emblica officinalis* 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 cyp2c9 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.
3. Pharmacodynamic and Pharmacokinetic interaction of Ayurvedic Medicine with Conventional Antiepileptics : An experimental & Clinical Study.
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

	Number	%
Poisoning Calls	1619	94.4
Information Calls	96	5.6
Sex		
Male	970	60.0
Female	649	40.0
Categories		
Household Products	736	45.5
Industrial Chemicals	123	7.6
Agricultural Pesticides	274	17.0
Drugs	346	21.3
Bites and Stings	39	2.4
Plants	48	3.0
Miscellaneous	35	2.1
Unknown	18	1.1

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.

9.30 Physical Medicine and Rehabilitation

Professor and Head

U Singh

Professor

Sanjay Wadhwa

Additional Professor

SL Yadav

Gita Handa

Supervising MSSO

Kiran Bala Singh

Chief Physiotherapist

Avinash Dhargave

Senior Physiotherapist

OP Yadav

Senior Occupational Therapist

Raman Kumar Singh

Lily Farhat Parveen

Senior Technical Officer

Ajay Babbar

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.
4. Caregiver burden and stress in caregivers in children with cerebral palsy.
5. Effect of lateral wedging insole in shoes in patients with medial compartment osteoarthritis knee on foot pressure and radiological parameters.

- Comparative study of co-activation of Quadriceps and Hamstring muscles around knee joint before and after muscle strengthening exercises in primary osteo-arthritis knee patients.
- Cross sectional study for assessment of autonomic dysfunctions in patients with spinal cord injury.

Completed

- A Study of the effects of injection of Botulinum Toxin A on gait pattern in children with spastic cerebral palsy.
- Effects of home based exercise therapy on spinal mobility, fatigue, quality of life, disease activity and functional capacity in patients with Ankylosing Spondylitis.
- Comparative study of foot pressure force analysis in patients with plantar fasciitis treated with diclofenac alone and diclofenac with ultrasonic therapy.

Collaborative projects

Ongoing

- 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

Cases	Patient Care Area	No. of patients
New Cases	OPD	15970
	Prosthetic and Orthotic	4902
	Ballabgarh PMR OPD	2678
Total New Cases		23550
Old Cases	OPD	13636
	OPD Visits PT Section	17652
	OPD Visits OT Section	25713
	OPD Visits MSW	6587
	Disability Evaluation Clinic	167
	Railway Concession Certificates	435
	Prosthetic and Orthotic	15460
	Minor OT Procedures	2516
Total Old Cases		82166

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.
2. Symposium entitled 'New Look into Preoptic Area Functions', Worldsleep Congress 2011, 16–20 October 2011, Kyoto International Convention Centre, Kyoto, Japan.

3. 'International Symposium on Systems Biology in Physiology/Medicine, 13 December 2011, Jawaharlal Nehru Auditorium, AIIMS, New Delhi.
4. 57th Annual Conference of Association of Physiologists and Pharmacologists of India 2011 (APPICON 2011), 13-17 December 2011, AIIMS, New Delhi.
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.
9. International Symposium on Neuroscience of Cognition 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.
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

D. Ghosh: 2

S. Jain: 4

A.K. Jaryal: 3

R.K. Yadav: 1

S. Sood: 1

Oral papers and posters: 18

RESEARCH

Funded projects

Ongoing

1. A study of quantitative EEG changes, cognitive function and stress in mild cognitive impairment and Alzheimer's disease. R. Sharma. Department of Science and Technology, 2010–13, Rs 82 lakhs.
2. Cellular and molecular basis of action of cationic α -helical antimicrobial peptide on human placental cytotrophoblast cells. D. Ghosh, Indian Council of Research and Technology, 2012–15, Rs. 41,58,457.
3. Understanding endometriosis using high throughput proteomics strategy. D. Ghosh. Department of Science and Technology, 2010–13, 35 lakhs.
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.

5. Endometrial receptivity for blastocyst implantation in the primate: Systems biology approach. D. Ghosh. Department of Science and Technology, 2009–12, Rs. 34,10,000.
6. Role of human chorionic gonadotropin endometrial receptivity for pregnancy establishment. D. Ghosh. Department of Science and Technology, 2008–12, Rs. 33,89,400.
7. Event related evoked potential studies in dyslexics. S.K. Sood. Department of Science and Technology, 2008–12, Rs 32,45,600.
8. Prospective study to evaluate the impact of bariatric surgery on glucose metabolism using biomarkers in obese patients. R.K. Yadav. Indian Council of Medical Research, 2012–15, Rs 29 lakhs.
9. Motor and cognitive behaviour in 6-hydroxydopamine (6-OHDA) adult rat model of Parkinson's disease following magnetic field exposure and implantation of ferromagnetic nanoparticles. S. Jain. Department of Science and Technology, 2009–12, Rs. 26,18,920.
10. Functional development of the visual cortex following prenatal repetitive auditory stimulation in chicks (*Gallus domesticus*): Role of noradrenaline. S. Jain. Department of Science and Technology, 2011–14. Rs. 23,12,000.
11. Efficacy of Yoga and dietary management in sedentary overweight subjects with regards to markers of endothelial dysfunction, obesity and diabetes. R.K. Yadav, Central Council for Research in Yoga and Naturopathy (CCYRN), Ministry of Health and Family Welfare, Government of India, 3 years, 2009–12. Rs. 23 lakhs.
12. Quantitative EEG correlates of Cognitive deficits in Parkinson Disease. R. Sharma, DBT, 3 years, 2011–14, Rs. 22,00,000.
13. Role of dietary glutamate on thermogenesis and sleep in rats. H. N. Mallick. Ajinomoto Co, Japan, 3 years, 2011–14. US\$ 30,000.
14. Psychoneuroimmune effects of meditation: an evaluation by PET and biochemical markers. R.K. Yadav, DBT, 2008–11, Rs 14,00,000.
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. .
3. The role of proteomic approach and biomarkers in the diagnosis of endometriosis. R.K. Yadav. Council of Science and Industrial Research (2008 – 11). Rs 16 lakhs.
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.
11. Quantitative EEG correlates of Cognitive Deficits and Stress Reactivity in Mild Cognitive Impairment and Alzheimer's disease.
12. Quantitative EEG correlates of Gognitive Deficits in Parkinson Disease.
13. Effect of working memory load on visuospatial task performance as assessed by quantitative EEG.
14. Psychoneuroimmune effects of meditation: an evaluation by PET and biochemical markers.
15. Efficacy of yoga based lifestyle intervention as compared to dietary intervention on metabolic syndrome: A randomized controlled trial.
16. Effect of short term lifestyle intervention on diabetic risk factors in obesity.
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.
19. Cognitive control of saccadic eye movements in normal subjects and Parkinson's disease: A behavioral, event related potentials and functional magnetic resonance imaging study.
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. Purglation 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).
12. Prediction of preterm delivery by detection of fetal fibronectin in cervicovaginal secretions (Department of Obstetrics & 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 Gyneacology, 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 Shahuji Maharaj Medial 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), Netajee 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.

Professor H.N. Mallick was Chairperson, Scientific Committee of Asian Sleep Research Society for 2009–12. Organized and chaired a symposium entitled 'New Look into Preoptic Area Functions' in Worldsleep Congress 2011, 20 October 2011, Kyoto International Convention Centre, Kyoto, Japan. Course Director, National Sleep Medicine Course 2009 organized on 10–11 December 2011 at Hyatt Regency, Mumbai. President, Indian Society for Sleep Research. Finance Secretary, Associations of Physiologists and Pharmacologists of India (APPI). Expert, Selection Committee, New AIIMS. Associate Editor, *Frontiers in Neurology*. Professor-in-Charge, Baldev Singh Sleep Laboratory, New Delhi.

Professor D. Ghosh was Executive Editor, *Indian Journal of Physiology and Pharmacology (IJPP)*, New Delhi. Member, Editorial Board, *Clinical Chemistry and Laboratory Medicine (CCLM)*. Invited Member, European Society of Pharmacogenomics and Theranostics (ESPT). Best reviewer 2011–12, *Human Reproduction*. Best two papers (Ghosh, *et al.* 2009; Ghosh, *et al.* 2011) in respective research domains surveyed by BioMedLib. Professor-in-Charge, Molecular Biology Laboratory. Professor-in-Charge, Confocal Microscopy Laboratory. Professor-in-Charge, Biochemical Research Laboratory.

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
R.K. Chadda

S.K. Khandelwal
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

- The WHO-SEAR Meeting on Cross Cultural Development of Depression –Identification Instrument, WHO-SEAR office, Delhi, (24–26 August 2011; 22–23 September, 2011) (Coordinators: Pratap Sharan, Rajesh Sagar).
- Mid-term Co-ordination Meeting for WHO/SEARO Depression identification Instrument, Dhaka, Bangladesh, 19–20 October 2011 (Coordinators: Pratap Sharan, Rajesh Sagar).
- Workshop on “How to plan a Psycho-educational Intervention in Psychiatry?” 64th Annual National Conference of the Indian Psychiatric Society, Kochi, 19–22 January 2012 (Coordinator: RK Chadda).
- 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

Manju Mehta: 2

RK Chadda: 8

Pratap Sharan: 14

Rajesh Sagar: 14

Research Officers/PhD students/Residents: 10

RESEARCH

Funded projects

Ongoing

1. Effect of duloxetine 30/60 mg Once Daily versus Placebo in Adolescents with Juvenile Primary Fibromyalgia Syndrome (Protocol F1J-MC-HMGW). P. Sharan, R. Sagar, Eli Lilly, 2011–14, Rs 20 lakhs.
2. Cross-cultural Development of a Depression Identification Instrument for SEARO. P. Sharan, R. Sagar, World Health Organization – South East Asia Regional Office, 2010–12, Rs. 10 lakhs.
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.
4. Development of Psychosis Identification Instrument for SEARO. R. Sagar, P. Sharan, World Health Organization – South East Asia Regional Office, 2012–13, Rs. 8 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.
7. Assessment of cognitive functions and serum brain-derived neurotrophic factor in bipolar disorder: A one-year naturalistic follow-up study. R Sagar, DST, 2012–14, Rs. 25 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.
2. Formative field studies for revision of International Classification of Diseases (Chapter V). P. Sharan, World Health Organization, 2010-12.
3. Review on Socio-cultural, disability and identification of psychosis in a community-based primary care setting. R Sagar, P Sharan. World Health Organization – South East Asia Regional Office, 2010–11.
4. Review of feasibility of community based project on wellbeing in children. R. Ray, A. Dhawan, M. Mehta, P. Sharan, World Health Organization – South East Asia Regional Office, 2010–11.
5. Validation study on autism and ADHD for the research project on ‘Neurodevelopment Disability in Children.’ R. Sagar, International Clinical Epidemiological Network (INCLIN), and MoS&JE.

Departmental projects

1. A study of fMRI in children and adolescents with specific learning disorders (dyslexia).
2. A comparative study to evaluate the psychosocial functioning, neuropsychological performance and functional neuroimaging biomarkers in the euthymic bipolar disorder-I subjects, at-risk first degree relatives and matched healthy controls.
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.
2. Neuro-cognitive functions in children with obesity. M. Mehta. Funded by INCLEN.
3. An Integrated Biological Approach in Deciphering Genotype Phenotype Correlation for Schizophrenia (Human Complex Disorders). R.K. Chadda, M. Sood. Funded by Institute of Genomics and Integrative Biology (with Institute of Genomics and Integrative Biology).
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).
12. A study of impact of renal transplantation on the quality of life of donor and recipient in spousal renal transplant group (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)	New Cases	Old Cases	Total
<i>General OPD</i>			
Walk-in clinic	12353	30069	42422
Detailed assessment	1790	-	1790
<i>Specialty Clinic</i>			
Child guidance	507	570	1087
De-addiction clinic	119	1605	1724
EHS patients attendance	1863	NA	1863
Total	16632	32244	48876

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 Undergraduate 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

Journal for Eating Disorders, Working Committee of the National Medical Journal of India, Editorial Board of the Indian Journal of Social Psychiatry; the Editorial Advisory Board for the Journal of Mental Health and Human Behaviour, the Task Force to suggest remedial measures after studying the causes of such occurrences of suicides amongst students of Indian Institute of Technology and other Centrally funded Technical Institutions; Expert Board to Evaluate Behaviour Patterns of Students for Navodaya Vidyalaya Samiti (NVS); and the International Advisory Board for the Conference on Patient Reported Outcomes and Person Centered Care in Mental Health to be held in Washington DC (28–30 September 2012). He served as a peer reviewer for the following journals during the year: BMC Psychiatry, Bulletin of the World Health Organization, Comprehensive Psychiatry, Emotion, Indian Journal of Medical Research, Indian Journal of Palliative Care, International Journal of Social Psychiatry, International Journal of Psychiatry in Clinical Practice, International Psychiatry, Journal of Affective Disorders, Lancet, National Medical Journal of India, and PLoS Medicine. He is a resource person for the National Institute of Mental Health sponsored project titled “Grand Challenges on Global Mental Health.”

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 DGHS, 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

1. Clinical implication of Circulating DNA and Protein markers in lung cancer. Randeep Guleria, ICMR, project till November 2011, Rs. 19 lakhs approx.
2. Genetic, Metabolic and Hormonal Profile in Obstructive Sleep Apnea Syndrome. Randeep Guleria, DST, project till November 2011, Rs. 24 lakhs.
3. Serum leptin, nutritional status and inflammatory markers in chronic obstructive pulmonary disease, Relationship with dyspnea and severity of disease. Randeep Guleria. ICMR, project till March 2011. Rs. 30 lakhs, approx.
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.
5. Dietary intake of micronutrients and their serum/plasma levels in association with severity Asthma. Randeep Guleria, ICMR, project till October 2012.
6. To study the genetic polymorphisms and correlations with cytokine and hormone levels of Macrophage migration inhibitory factor (MIF) Peroxisome Proliferator – Activated, Receptor- γ (PPAR γ) 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.
7. Clinical trial of herbal compound MA 305 in patients with mild to moderate hypertension. Randeep Guleria. Maharishi Ayurveda, Project till September 2014, Rs. 4 lakhs.
8. Genetic Association study of Polymorphisms related to Chronic Obstructive Pulmonary Disease and its Measures, in North Indian Population: COPD Genetic Consortium. Randeep Guleria, project till 2015.
9. Detection of aberrant promoter methylation of tumor suppression genes and onco genes in tumour and serum of lung cancer patients. Randeep Guleria, project till 2015, Rs. 27 lakhs approx.
10. Role of acute lung injury biomarker gene polymorphisms in obstructive sleep apnea. Randeep Guleria. ICMR, project till 2015.

11. A Multicentric Study of Clinical and Microbiological Profile of Community Acquired Pneumonia (CAP) in Indian Patients. G.C. Khilnani, Pfizer Limited, 2009–12, Rs 13.57 lakhs.
12. Study of the variability in systemic inflammation in patients with chronic obstructive pulmonary disease due to smoking and non-smoking related causes. Anant Mohan, ICMR, 2009–12, Rs. 28 lakhs.
13. Effect of Platinum based Chemotherapy on Oxidative stress, Nutritional profile and clinical response in advanced Non small cell lung cancer. Anant Mohan, University Grants Commission, 2011–14, Rs 9.4 lakhs.
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

1. Assessment of quality of life in-patient with lung cancer.
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 Bronchoalveolar Lavage fluid of patients with sarcoidosis.
3. Assessment of quality of life in COPD.
4. Smoking habits among medical students.
5. Nutritional status of stable COPD patients and assessment of quality of life.
6. Assessment of quality of life in Asthma patients.
7. 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

Bronchoscopy Laboratory

Fiberoptic bronchoscopy procedures

881

Sleep laboratory

Polysomnography studies

202

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.

9.34 Radiodiagnosis

Professor and Head

Arun Kumar Gupta

Professors

Deep Narayan Srivastav

Raju Sharma

Additional Professors

Sanjay Thulkar (IRCH)

Ashu Seith Bhalla

Sanjay Sharma (RPC)

Associate Professors

Smrit Hari

Shivanand Gamanagatti
(Trauma Centre)

Atin Kumar
(Trauma Centre)

Scientist-IV

Shashi B. Paul

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

1. Musculoskeletal and Breast Imaging. AIIMS-MAMC-PGI Imaging Course Series, 2–3 March 2012, New Delhi.

Lectures delivered

D.N. Srivastava: 6

Raju Sharma: 12

Sanjay Thulkar: 8

Sanjay Sharma: 6

Ashu Seith Bhalla: 11

Smriti Hari: 3

Shivanand Gamanagatti: 9

Atin Kumar: 12

Shashi Paul: 1

Oral/poster presentations

1. Ahmad Z, Bhalla AS, Vikas CS, Patil A, Gupta AK. Spectrum of paediatric chest wall lesions: A pictorial exhibit. 65th Annual Conference of IRIA, Hyderabad, 28–31 January 2012.
2. Baliyan V, Bhalla AS, Faizi NA, Goyal D, Srinivasan K. The Great mimicker – the myriad imaging features of sarcoidosis. 65th Annual Conference of the IRIA, Hyderabad, 28–31 January 2012.
3. Bhalla AS, Arora A, Gamanagatti S, Sharma SC, Bhatnagar VK. Role of percutaneous and transarterial angioembolization in high flow vascular malformations of auricle. 14th Annual Conference of ISVIR, Trivandrum, 13–16 October 2011.
4. Chavla B, Sharma S, Sen S, Azad RV, Bajaj MS, Pushker N, et al. Correlation between clinical features, magnetic resonance imaging and histopathologic findings in retinoblastoma: a prospective study. Annual Meeting of the American Academy of Ophthalmology, Orlando, USA, 22–25 October 2011. (First prize in the oral paper category)
5. Dwivedi DK, Jaggannathan NR, Duttgupta S, Dinda AK, Dwivedi SN, Kumar R, et al. Clinical utility of diffusion MRI: ADC values in various Gleason scores. Symposium on New Developments in NMR and 18th Conference of National Magnetic Resonance Society, Bangalore, 5–8 February 2012.
6. Dwivedi DK, Jaggannathan NR, Duttgupta S, Dinda AK, Dwivedi SN, Kumar R, et al. Tissue cellularity and metabolism in early prostate cancer by in vivo MR methods. Annual Meeting of the Indian Biophysical Society, Chennai, 19–21 January 2012.
7. Dwivedi DK, Jaggannathan NR, Duttgupta S, Dinda AK, Dwivedi SN, Kumar R, et al. The potential of magnetic resonance spectroscopic imaging (MRSI) and diffusion MRI (DWMRI) in early prostate cancer detection. 17th International Biophysics Congress & 12th Chinese Biophysics Congress under International Union for Pure and Applied Biophysics, Beijing, 30 October–3 November 2011.
8. Faizi NA, Gamanagatti S, Sharma R, Gupta AK, Pahwa S. Peeling the membranes: imaging of peritoneum, mesentery and omentum. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
9. Faizi NA, Seith A, Sharma R, Pahwa S, Sahoo R. Peeping through the window: imaging of aortopulmonary window lesions. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
10. Gamanagatti S, Mukund A, Faizi NA, Pahwa S, Sharma S, Garg P. Inflamed pancreas: what can we do? Role of interventional radiologist in management of acute pancreatitis-related complication. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
11. Goyal A, Sharma R, Bhalla AS, Gamanagatti S, Gupta AK, Seth A. Diffusion-weighted MRI in inflammatory renal lesions: all that glitters is not malignant! 67th Korean Congress of Radiology, Seoul, South Korea, 27–29 October 2011.
12. Goyal A, Sharma R, Bhalla AS, Gamanagatti S, Gupta AK, Seth A. Diffusion weighted MRI characterization of focal renal masses. 65th Annual Conference of IRIA, Hyderabad, 28–31 January 2012.
13. Gupta P, Bhalla AS, Sharma R. Bilateral adrenal lesions. 65th Annual Conference of IRIA, Hyderabad, 28–31 January 2012.
14. Gupta P, Bhalla AS, Thulkar S, Kumar A, Thakar A, Mohanty BK, et al. Neoadjuvant superselective intra-arterial chemotherapy for advanced laryngeal and hypo pharyngeal cancers: preliminary results. 65th Annual Conference of IRIA, Hyderabad, 28–31 January 2012.

15. Kumar P, Goenka AH, Gamanagatti S, Bhalla AS, Srivastava DN. OSL dosimetry during interventional radiology. 16th Annual Conference of the Association of Medical Physicists of India (Northern Chapter), Ludhiana, 23–24 April 2011.
16. Mahalingam S, Sharma R, Srivastava DN, Gamanagatti S. Diffusion-weighted imaging: role in differentiating inflammatory from neoplastic masses of the pancreas. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
17. Pahwa S, Kalyanasundaram S, Seith A, Faizi NA, Choudhary A, Bhutia O. MDCT evaluation of temporomandibular joint abnormalities: an imaging spectrum. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
18. Pahwa S, Gamanagatti S, Kumar A, Kumar S, Faizi N, Gupta P. Retroperitoneal injuries in blunt trauma: imaging features and implications. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
19. Pahwa S, Seith A, Kumar A, Gamanagatti S, Faizi NA. Imaging of brachial plexus: a spectrum of common and uncommon lesions. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
20. Pahwa S, Sharma S, Anish MK, Faizi NA, Sriram J, Pushker N. Cystic intra-orbital lesions. 65th Annual Conference of the IRIA, Hyderabad, 28–31 January 2012.
21. Pahwa S, Sharma S, Anish MK, Faizi NA, Sriram J, Pushker N. Intra-orbital cystic lesions: An imaging gallery. Scientific exhibit. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
22. Pahwa S, Thulkar S, Faizi NA, Goyal D, Sharma S, Kataria A. Imaging of the tumors of the oral cavity: What the radiologists need to know. Scientific exhibit. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
23. Panda A, Bhalla AS, Kandasamy D. Puff of smoke story: A head-to-toe look at the spectrum of smoking related diseases and their radiological appearances. 65th Annual Conference of the IRIA, Hyderabad, 28–31 January 2012.
24. Patil A, Bhalla AS, Goyal D, Jaganathan S, Ramavat A, Sreenivas V, et al. HRCT temporal bone in microtia: A retrospective study. 14th Annual Conference of the Indian Society of Neuroradiology, Chandigarh, 22–25 September 2011.
25. Pramanick G, Bhalla AS, Sharma R, Thulkar S, Kumar A, Thakar A, et al. Evaluation of cartilage invasion in carcinoma larynx – comparison of MDCT and MRI. 14th Annual Conference of the Indian Society of Neuroradiology, Chandigarh, 22–25 September 2011.
26. Prem S, Kumar R, Mahapatra S, Sharma S, Saxena R. Invasive pulmonary aspergillosis in neutropenic patients: early diagnosis by high resolution CT scan. American Society of Clinical Oncology Annual Meeting, Chicago, USA, 3–7 June 2011.
27. Sharma S, Faizi NA, Pahwa S, Chawla B, Radhakrishnan V, Bakhshee S. MR Imaging of retinoblastoma: in the eye of storm. Scientific exhibit. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
28. Sharma S, Jana M, Arora S, Thulkar S, Sharma SK, Pushker N. Ophthalmic manifestations of systemic disease: an imaging gallery. Scientific exhibit. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.

29. Sharma S, Kumar A, Gamanagatti S, Faizi N, Pahwa S. Replacing scalpel with X-rays: CT autopsy in trauma. 97th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, USA, 27 November–2 December 2011.
30. Srinivasan K, Bhalla AS, Gadodia A, Sharma R, Kumar A, Choudhary AR, et al. Comparison of MDCT and 3D Vibe MR sequence in the evaluation of mandibular canal in dental cysts and tumours – initial experience. 14th Annual Conference of the Indian Society of Neuroradiology, Chandigarh, 22–25 September 2011.
31. Srinivasan K, Bhalla AS, Sharma R, Kumar A. Cyst, tumours and tumour like lesions of the jaw – a pictorial review. 65th Annual Conference of the IRIA, Hyderabad, 28–31 January 2012.
32. Vishal TD, Sharma S, Thulkar S, Srivastava DN, Kumar R, Hari S, et al. Evaluation of trans-rectal ultrasound, elastography and contrast enhanced sonography in detection of prostate cancer. Nizam's Institute of Medical Sciences, Hyderabad, 19 November 2011 (Second prize in Kakarla Subbarao Gold Medal Competition for best paper presentation by postgraduate students in Radiology).

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

1. Evaluation of Trans-Rectal Ultrasound, Elastography and Contrast Enhanced Sonography in Detection of Prostate Cancer. Sanjay Sharma, Institute Research Grant, AIIMS, 2010–11, Rs 1.0 lakh.

Departmental Projects

Ongoing

1. Role of perfusion CT in predicting outcome in mild head injury.
2. Evaluation of vertebral pathology using MR Imaging. Comparative evaluation of endovenous LASER ablation and radiofrequency ablation.
3. Surgery in the treatment of symptomatic lower limb varicosities.
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.
7. Evaluation of neck masses using diffusion weighted MR imaging and ultrasound elastography.
8. Pre-operative embolization of bone tumors.
9. US and MR evaluation of peripheral neuropathies of upper extremity.
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.

16. Intra-arterial chemotherapy (neoadjuvant) in patients with advanced laryngeal and hypo-pharyngeal cancer.
17. Role of digital breast tomosynthesis as an adjunct to full field digital mammography (FFDM) in the evaluation of breast lesions
18. Utility of intra-operative ultrasound (IOUS) for breast conservation surgery (BCS): a feasibility study.
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.
3. Evaluation of trans-rectal ultrasound, elastography and contrast enhanced sonography for detection of prostate cancer.
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).
3. Assessment of Anomalous pancreatobiliary ductal union in patients with choledochal cyst (Paediatric Surgery).
4. Cognitive dysfunction in hypoparathyroidism (Endocrinology).
5. Prospective and retrospective evaluation of duration of anti-tubercular treatment in spinal tuberculosis – a clinic-radiological study (Orthopedics).
6. Portal hypertension in patients with choledocal cyst (Paediatric Surgery).
7. Voriconazole in the treatment of fungal orbital infections. (Ophthalmology)
8. Evaluation of multimodal treatment approach for extra-ocular retinoblastoma: A randomized study (Ophthalmology).
9. Evaluation of cortical brain activation and visual pathway in cases of acute optic neuritis by functional MRI and DTI (Ophthalmology).
10. Role of Magnetic Resonance Imaging and spectroscopic methods in the evaluation of early prostate cancer (NMR).
11. Evaluation of coronary atherosclerotic plaque (Medical Physics).
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).
16. Estimation of the prevalence of metabolic syndrome in patients with COPD (Medicine).
17. Diagnostic utility of FDG-PET/CT in pyrexia of unknown origin (Medicine).
18. Utility of bronchoalveolar lavage fluid analysis in assessment of disease activity of interstitial lung disease in patients with systemic sclerosis (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).
13. Study of duration of anticoagulation in patients with deep venous thrombosis based on compression ultrasound (Hematology).
14. Study of efficacy of bioresorbable plates in the osteosynthesis of mandibular fractures without post operative maxillomandibular fixation: a prospective study (Dentistry).

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 (Gastroeneterology).
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)
30. Management strategies in acute dorsal and lumbar spine injuries (Neurosurgery).
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

Name of Investigation /Special procedures	Number
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Routine X-rays

• OPD	79,350
• Indoor	20,010
• Casualty	44,901
• Portable	31,555
Total	1,75,816

Special Investigations

• Barium Studies	2,274
• Intravenous pyelography	1,594
• Micturating cystourethrography	1,796
• Hysterosalpingography	318
• Operation Theater Studies	84
• Others contrast studies	1,122
Total	7,188

Mammography	1,570
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Ultrasound

• Routine	21,986
• Emergency	16,325
• Doppler (Routine + Ckh.asualty)	2,984
Total	41,295

CT

• Body	11,384
• Head	5,217
Total	16,601

Vascular studies

• Digital subtraction angiography (DSA)	783
• Venography	8
Total	791

MRI	3,301
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 Deep N Srivastava served as President, Indian Society of Vascular and International Radiology (2011–12).

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.’

9.35 Reproductive Biology

Professor and Head

Anand Kumar

Additional Professor

Ashutosh Halder

Associate Professor

NN Sarkar

PK Chaturvedi

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

Programme	Number/ Description
PhD	5
Post Doctoral	1
Co-supervision	1 (Medical Oncology)
MD	MD Laboratory Medicine Students in Central RIA Facility MD Biochemistry students in Central RIA Facility
Co-supervisor	4
DM	
Co-supervisor	1
Training	
Short term	1 (1 month)

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.
3. Rapid detection of chromosome 13 and 21 aneuploidy by primed in situ labeling. SRF Project. Ashutosh Halder, ICMR, March 2010– March 2013, Rs. 6 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.
5. Potential effect of gene-environment interaction between CYP450A1, GSTT1, GSTM1 and environmental pollutants on semen quality. Women Scientist Scheme Project: Neeraj Pant, PK Chaturvedi. DST, June 2011– June 2014, Rs. 23.7 lakhs.

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 (CRIFA, 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.

Name of Assay	Number	Name of Assay	Number
FSH	3616	T3	8200
LH 3179	T4	9518	
Prolactin	2931	TSH	16158
DHEAS	147	Testosterone	1340
Estradiol	939	Beta hCG	1063
Progesterone	169	CA-125	1766
PSA	1563	Total	54272

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;

The Application of Clinical Genetics; Open Access Journal of Contraception, International Medical Case Report Journal, International Journal of General Medicine, etc, Indian Journal of Medical Research, Indian Journal of Paediatrics, Indian Paediatrics, Journal of Clinical Diagnosis and Research, Oman Medical Journal, Asian Journal of Water, Environment and Pollution, International Journal of Genetics and Molecular Biology, and the African Journal of Microbiology Research; PhD thesis reviewer and examiner of Jawaharlal Nehru University, Delhi; Contributed to London dysmorphology and neurogenetics databases for its ophthalmo-genetics or GENEEYE (latest addition) for its photographic library on amniotic bands of early amnion rupture.

Dr NN Sarkar is reviewer of Journal of Educational Research, International Journal of Gynaecology and Obstetrics, and Journal of Obstetrics and Gynaecology.

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

	Professor and Head	
	M.C. Misra	
	Professor	
Anurag Srivastava	Sunil Chumber	Rajinder Parshad
	Additional Professor	
V. Seenu	Sandeep Aggarwal	Virinder K Bansal
	Associate Professor	
Anita Dhar	Amit Gupta	Biplab Misra
Maneesh Singhal	Subodh Kumar	Sushma Sagar

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.
2. Workshop on ‘Doctors as Leaders’, Department of Surgical Disciplines in collaboration with Mind Associates Inc, UK, AIIMS, New Delhi, 15 March 2012.
3. 6th AIIMS Surgical Week – Endosurg 2012: Live Operative International CME cum Conference and Live Workshop, AIIMS, New Delhi, 16–18 March 2012.
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			

Oral papers/posters presented by the departmental faculty, residents and staff: 33

RESEARCH

Funded projects

Ongoing

1. Adjuvant tamoxifen longer against shorter (ATLAS) for breast cancer patients. Anurag Srivastava, Oxford University, UK, 1998 onwards.
2. Phase III clinical trial with intravasal injectable male contraceptive – RISUG. V Seenu, ICMR, 2012–14, Rs. 15 lakhs.
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.
4. A prospective randomized controlled trial of laparoscopic vs endoscopic drainage of pseudocyst of pancreas. VK Bansal, ICMR, 2011–13, Rs 15 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 laparoscopic 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. Ascertaining 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.
14. Breast reconstruction using muscle sparing latissimus dorsi flap for volume replacement following breast conservative surgery: A study of cosmesis and resected margin status.
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.
19. Early and midterm urinary and sexual dysfunctions following surgery for rectal cancer: a prospective observational study.
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.
23. Impact of laboratory training on performance of trainees performing live laparoscopic procedures in operation theatre.
24. Lipomodelling of breast following breast conservative surgery.
25. Multidetector CT scan evaluation of retroperitoneal solid organ injury with limited MRI correlation.
26. Nutritional management and bone health in morbid obese patients undergoing laparoscopic sleeve gastrectomy.
27. Optimization of sentinel lymph node biopsy technique for breast cancer.
28. Prevalence of occult contra lateral inguinal hernia during laparoscopic hernia repair.
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 axillary 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 cilastazole 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 latissimus 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 tranexamic 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 pneumothoraces 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.
8. Comparative evaluation of endovenous laser ablation, radiofrequency ablation and surgery 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).
13. Role of immuno-clinical and cytokine gene polymorphisms correlation with recovery in patients with post-traumatic shock (Biochemistry).
14. Cleft lip and palate anomaly in India: clinical profile, risk factors and current status of treatment – hospital based surveys (Centre for Dental Education and Research).
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).
3. Comparison of chronic groin pain and quality of life after laparoscopic inguinal hernia repair – TEP vs TAPP (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 ⁶⁸Ga 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).
12. A prospective study on radiological evaluation in patients with vascular malformations in patients with vascular malformations of the extremities (Radiodiagnosis).

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.
- ‘Superbug – antimicrobial resistance’. Doordarshan News, 7 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.
- ‘Spinal injuries.’ Total Health, Doordarshan News, 17 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.
- ‘Stan cancer (breast cancer).’ Hamara Swasthya, Akashvani FM Gold Channel, 25 October 2011.
- ‘Patient–Doctor relationship: ilaaj karaana kitna aasan – kitna mushkil.’ Total Health, Doordarshan News, 30 October 2011.
- ‘Clinical Establishment Act 2010 and its implementation.’ Legal Point, Lok Sabha TV, 5 November 2011.
- ‘Breast cancer.’ Doordarshan National, 19 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

- Symposium on the occasion of Breast Cancer Day – 2011 AIIMS, New Delhi.

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

Sunil Kumar

Sanjeev Goswami

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

1. Type 1 diabetes genetics consortium: an international effort. NK Mehra. National Institute of Health, USA, 2005–08; extended upto March 2012. Rs. 12.5 lakhs.
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.
4. Clinical relevance of MICA and NKG2D genetic and phenotypic diversity in renal transplantation. NK Mehra. ICMR, 2010–12, Rs. 44 lakhs.
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.
7. 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). DK Mitra. DBT, 2007–12, Rs. 30 lakhs.
8. Impact of HIV infection on latent TB among patients with HIV–TB coinfection. DK Mitra. DBT and ICMR, 2007–11, Rs. 134 lakhs.
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.
11. Impact of FoxP3+ Treg cells on the host immune response among HIV–TB co-infected patients: relevance in multidrug resistance tuberculosis (MDR-TB). DK Mitra. ICMR, 2010–13, Rs. 49.4 lakhs.
12. Representation, trafficking and functional interaction of effector and regulatory T cells: impact on the local immune response in rheumatoid arthritis. DK Mitra. DST, 2012 –15, Rs. 50 lakhs.
13. Impact of HLA-G on host immune response in human tuberculosis. Uma Kanga. ICMR, 2012–14, Rs. 24 lakhs.
14. Clinical significance of HLA-G in hematopoietic Stem cell Transplantation. U Kanga. AIIMS Intramural Grant, 2012–14, Rs 10 lakhs.

Completed

1. Studies on T cell mediated suppression of immunity in visceral Leishmaniasis patients. DK Mitra. DBT, 2006–09, Rs.79.3 lakhs.
2. Early detection of polarized cytokine producing alloreactive T cells and the role of chemokines in their selective homing among patients undergoing renal transplantation. DK Mitra. DST, 2007–10, Rs 28.3 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.
3. Polarized immunity in human leprosy: role of effector and regulatory T cell subsets in shaping host immune response.
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.
8. Studies on immunoregulatory mechanisms for host T cell response in human tuberculosis.
9. Studies of distinct T cell subsets in the pathogenesis of rheumatoid arthritis.
10. Phenotypic and functional characterization of various T cell subsets in sarcoidosis.
11. Clinical relevance of immune associated molecules in live related donor renal transplantation.
12. Immunogenetic analysis of nasopharyngeal carcinoma in the North-Eastern Indian population.
13. Oxidative stress among various immune cell subsets during *M. tuberculosis* infection.
14. Differential expression of Toll-like receptors and negative co-stimulatory molecules in polarized forms of Leprosy.

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

HLA matching	Recipients	Donors	Total
Renal	266	291	557
Bone marrow			
Leukaemia	112	143	255
Aplastic anaemia	87	265	352
Acute leukaemia	38	126	164
Thalassaemia	31	77	108
Others	45	125	170
Total	313	736	1049

Cadaver Donor Organ transplantation

Cadaver donor	4	Kidney recipients	28
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Cross Match Test

Serology	619	Flowcytometry	108
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Panel reactive antibody (PRA) screening

Luminex PRA	134	ELISA PRA	52
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DIAGNOSTICS

Spondyloarthropathies	520	Other diseases	30
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Chimerism studies in BMT	60	recipient donor pairs	
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Immunophenotyping of leukemia patients	150		
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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/IIUIS 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 Immunohaematology, 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 Chhatrapati 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

P N 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.

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
URS:	131	DJS:	131
PCCLT:	14	BNI:	5
Endodilatation:	28	HO: LCT:	23
Endoevaluation:	61	DJ removal:	26
PUV fulguration:	3	Ureterocele endoincision:	1
Upper tract:	193		
Percutaneous surgery:	181	RIRS:	12
TURBT:			226
CPE+CLT:			27
VVF WELDING:			7
OIU:			32
Deflux injection:			4

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

Lap paraganglioma:	2	Lap B/L adrenalectomy:	2
Lap renal hydatid:	1	Lap radical nephrectomy:	11
Lap partial nephrectomy:	5	Lap nephroureterectomy:	5
Lap ureteric re-implatation:	1	Lap donor nephrectomy:	3
Lap VVF:	1	Others:	1

Microsurgery: 49

VEA:	16	MVL:	8
Vasectomy reversal:	4	TURED:	2
VVA:	1	Scrotal exploration:	18

Miscellaneous: 34

Minor OT: 6876

Cystoscopy, DJ stent removal, OIU, endodilatation:	1955	Orchidectomy+other open cases:	104
Minor cases:	4633	EMT settings:	184

Extracorporeal shock wave lithotripsy (ESWL): 1105

New cases:	300	Re-do cases:	805
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Urodynamic procedures: 3918

Uroflowmetry:	3670	Cystometrogram (CMG):	248
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Ultrasound procedures: 197

TRUS/ Prostate biopsies:	106	SPC:	30
PCN:	3	USG KUB:	54
CORE BX – USG guided:	4		

Stone analysis: 322

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 Safdarjang 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 Implatation (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

V. Devagorou: 1

Milind Hote: 2

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.
3. Prof. KC Goswami, Annual Meeting of Delhi CSI 2011, 26–27 November 2011..
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, Trivanthapuram.
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)
3. Moderator in Journal Club/Seminars: 6
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

1. International Society for Stem Cell Research in Toronto, Canada, 15–18 June 2011.
2. Expert committee on career advancement and re-orientation programme/Awards for women scientist, BioCARE, Delhi, 19 July 2011.
3. Mentorship workshop – Biotechnology Career Advancement and Reorientation Programme for Women Scientists, New Delhi, 14 November 2011.
4. Cellular and Molecular Medicine Meeting, Centre for Stem Cell Research, Christian Medical College, Vellore, 5 January 2012.
5. Cardiac Research Convergence, International Conference, AIIMS, 17–18 February 2012.

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.

4. Organizing Secretary of Indian Organ Donation Day – 2011, AIIMS, under aegis of Directorate General of Health Services, Ministry of health and Family Welfare, Government of India, New Delhi, 28 November 2011.
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.
11. Study of DAPI labeled Mesenchymal Stem Cells in a rat model of myocardial infarction and heart failure.
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.
14. Stem Cells on Biocomposite scaffold.
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 lineage.

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.
24. Clinical and histopathological features of atrial fibrillation in patients undergoing open heart surgery for rheumatic heart disease.
25. SIRS Trial – Steroids in Cardiac Surgery: A randomized trial to study effectiveness of steroids in open cardiac surgery.
26. REMOTE IMPACT – Remote Ischemic preconditioning in cardiac surgery.
27. CORONARY Trial – International multi centric clinical trial comparing On pump CABG vs. Off pump CABG.
28. Clinical and Patho-physiological profile of AF in patients with RHD undergoing Valvular Heart Surgery.
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.
33. Neurological outcome of aortic arch replacement surgery without hypothermic circulatory arrest.
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.
39. The fate of the aortic root after intracardiac repair of Tetralogy of Fallot.
40. Serial non-invasive hemodynamic monitoring in patients undergoing pericardiectomy for chronic constrictive pericarditis: a comparative intraoperative and postoperative evaluation of two surgical approaches.
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 papaverine 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 Ballabgarh Block of Haryana using echocardiography with Doppler, Anita Saxena, ICMR, March 2010– March 2013, Rs 30 lakhs approximately.

3. Rheumatic heart disease in children – AIIMS Prospective Registry, Anita Saxena, ICMR, 01 June 2012– 31 May 2015; Rs 28 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.
6. Global registry of rheumatic heart disease: Canadian network of clinical trials internationally. G Karhtikeyan.
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.
9. A study of effort limitation in Eisenmenger syndrome.
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.
14. Incidence of new onset AF in post rheumatic heart valve surgery patients.

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.

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.
2. FREEDOM trial: Future REvascularization Evaluation in patients with Diabetes mellitus: Optimal management of Multivessel disease (FREEDOM) Trial. Clinical trial comparing multivessel DES versus CABG in diabetics, NIH, Bethesda, MD, USA.
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.
4. Coronary CTA – VISION study. Funded by Canadian Institutes of Health Research.
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

1. Comparison of epsilon aminocaproic acid and tranexamic acid in aneurysmal surgery: safety and clinical efficacy. Neeti Makhija. Institute research grant.
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 neurocognitive 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.
4. Comparison of induction with etomidate and propofol on adrenocortical suppression in patients undergoing coronary artery bypass graft surgery.
5. Comparison of induction with etomidate and ketamine on adrenocortical Suppression in patients undergoing Tetralogy of Fallot.
6. Effect of phenoxybenzamine in patients undergoing arterial switch operation during cardiopulmonary bypass.
7. Hemodynamic effect of intranasal dexmedetomidine in comparison to dexmedetomidine plus ketamine or midazolam in congenital heart disease paediatric patients.
8. Cognitive function in patients undergoing Bi-directional Glenn surgery ‘Off pump’ versus On pump.

9. Comparison of role of Sonoclot in cyanotic and Acyanotic children.
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.
13. Neurological outcome in aortic arch replacement surgeries without Hypothermic circulatory arrest.

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-1 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).
7. Establishing normal reference range of serum Free light chains in healthy Indian adults (Lab oncology, BRA, IRCH, AIIMS).
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 for HIV-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.
3. Utility of 3 Tesla MRI In evaluating response to Immunosuppressant Therapy in Takayasu's Arteritis. AIIMS institute research funds 2010–11.

Departmental projects

Ongoing

1. Coronary CT angiography to predict vascular events in non-cardiac surgery patients' cohort evaluation study (Coronary CTA VISION).
2. Volumetric analysis and dynamic assessment of aortic aneurysm size with Gated CT angiography.
3. Comparison of CT angiography with catheter angiography for preoperative evaluation of patients with Tetralogy of Fallot.
4. Comparison of doppler, MR Angiography and DSA for evaluation of infrapopliteal artery disease.

Completed

1. Value of dual source computed tomography in assessment of chronic total occlusion of coronary arteries.
2. The effect of renal transplantation on coronary artery calcification and carotid intima-medial thickness in renal recipients.
3. Study of clinical characteristics and MRI features of restrictive cardiomyopathy (RCMP) and to devise MRI criteria for diagnosis of EMF.
4. Clinical spectrum, etiology and outcomes of percutaneous angioplasty in HVOTO-cohort prospective follow-up study.
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

1. Detection of myocardial ischemia in asymptomatic diabetes' with Tc99m-MIBI myocardial perfusion scintigraphy (2006–11). International Atomic Energy Agency. 5 years.

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.
4. Impact of partial volume effect correction in assessment of solitary pulmonary nodules.
5. Myocardial perfusion Imaging in patients after Arterial Switch Operation: A pilot study.

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.
2. Role of Phase Analysis on Equilibrium radionuclide angiocardiology in assessment of ventricular dyssynchrony in patients of dilated cardiomyopathy. Comparison with Echocardiography.
3. PET –CT in treatment response evaluation in patients with primary NSC lung cancer (MD. Nuclear Medicine thesis, 2010–13).
4. PET-CT in treatment evaluation of recurrent cervical cancer. (MD. Nuclear Medicine thesis, 2010–13).
5. Skeletonized vs. Pedicled harvest of left Internal Thoracic Artery in patients undergoing CABG: Affect on postoperative sternal vascularity, pain and dysesthesia – a prospective randomized study. (M. Ch. Cardiothoracic and Vascular Surgery, Research paper).

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 Ophthalmic 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 Ophthalmic 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 stimulatory 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

1. Evaluation of fibrosis in dilated cardiomyopathy.
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 cetp, 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 srebp1c. 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 pentoxifylline 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.
3. Study of oxidative stress risk factors in Alzheimer's disease and vascular dementia. Lab Medicine.

Ongoing

1. Prevalence of coronary heart disease and its risk factors in residents of urban and rural areas of NCR-A repeat survey. Community Medicine.
2. Effect of atorvastatin in hyperlipidemia and progression of carotid intima media thickness in steroid resistant nephrotic syndrome. Pediatrics.

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

Abstracts: 3

CARDIAC NUCLEAR MEDICINE

Journals: 3

Abstracts: 5

STEM CELL FACILITY

Journals: 13

Abstracts: 6

CARDIAC PATHOLOGY

Journals: 10

Chapter in Books: 1

CARDIAC BIOCHEMISTRY

Journals: 18

ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)

Journals: 1

Abstracts: 1

Books: 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
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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
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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-specialty) 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.

Professor U.K. Chowdhury was Editorial Board Member: World Journal of Paediatric and Congenital Heart Disease, USA; Reviewer for Circulation, World Journal of Pediatric and Congenital Heart Surgery, The Annals of Thoracic Surgery, Journal of American Society of Echocardiography, International Journal of Cardiology, Heart, Lung and Circulation, Indian Journal of Thoracic and Cardiovascular Surgery, Indian Journal of Medical Sciences, Heart, Lung and Critical Care, Journal of Heart Valve Diseases, Asian Cardiovascular and Thoracic Annals.

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 Representative 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 Upadhyay 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

1. Development of training module for oral health promotion, prevention and emergency care provision for AYUSH practitioners and medical officers. Naseem Shah, WHO–GOI, 1 year, Rs 2.5 lakhs.
2. Effect of traditional oral hygiene methods on dental hard and soft tissues: A descriptive cross sectional study of Delhi population. Naseem Shah, WHO–GOI, 2 years, Rs 6.05 lakhs.
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.

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.
4. Effect of apical foramen widening and clearing on apical ramification and bacterial load in root canal – a stereomicroscopic study.
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 composition of different dentifrices.
7. Effect of bleaching on color stability and marginal fidelity of direct and indirect composite laminate veneers – an in vivo study.
8. An evaluation of the effect of shortened dental arch on bite force and masticatory efficiency – a pilot study.
9. A comparative evaluation of changes in crestal bone height around implants placed with flapless vs open flap technique.
10. Effect of prosthodontic rehabilitation on the nutritional status of maxillectomy patients – A pilot study.
11. Comparatives evaluations of tooth wear opposing zirconia and metal ceramic crowns – An in vivo study.
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.

14. Evaluation of facial nerve morbidity in patients undergoing TMJ surgeries via preauricular extended temporal incision.
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-inferiority 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.
21. Long term evaluation of masseter and temporalis muscle EMG activity in a group of growing children having mid-face deficiency during maxillary protraction therapy.
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.
24. Measurement of upper airway volume in surgically treated cleft lip and palate patients – A CBCT study.
25. Characterization of surface morphology, structure and elemental composition in retrieved orthodontic mini-screws.
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.
7. Study of efficacy of bio-resorbable plates in the osteo-synthesis of mandibular fractures without postoperative maxillo-mandibular fixation: a prospective study.
8. Epidemiological study in the pathway of maxillofacial fracture seen at tertiary care hospital in North India.

9. Lactate Dehydrogenase Enzyme activity in Gingival Crevicular Fluid (GCF) – A marker of Orthodontic tooth movement.
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).
12. Evaluation of masseter and temporalis muscle EMG activity in a group of children having mid-face deficiency during maxillary protraction therapy.
13. Dentin non-collagenous proteins in gingival crevicular fluid as diagnostic and prognostic biomarker in trauma induced root resorption – a pilot clinical study.

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.

OPD attendance		New	Re-visits	Total
		29839	6495	36334
S. No.	Specialty Clinics	New cases	Re-visits	Total
1.	Conservative Dentistry & Endodontics	4794	14366	19160
2.	Orthodontics and Dentofacial Orthopedics	1413	11593	13006
3.	Prosthodontics and Implant Clinic	3856	8535	12391
4.	Oral and Maxillofacial Surgery	9513	13054	22567
5.	Pedodontics and Preventive Dentistry	2269	9227	11496
6.	Oral Prophylaxis	1712	10713	12425
7.	Trigeminal Neuralgia	27	197	224
8.	Combine Cleft Palate	34	269	303
	Total Specialty clinic attendance	23618	67954	91572
9.	Surgical procedures under LA	Major	Minor	Total
		960	9629	10589
10.	Surgical procedures under GA	103	1	104

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 Ongkila Bhutia appointed Member, Staff Council, AIIMS, 2012—13; Member, Organizing committee, 36th Annual Conference of Oral and Maxillofacial Surgeon of India, November 2011, New Delhi. Presented at 14th Annual Conference of the Indian Society of Neuroradiology, PGIMER, Chandigarh, 22–25 September 2011.

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, Manglore, 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 Cance Hospital

Professor and Chief

G.K. Rath
(Radiation Oncology)

Professors

P.K. Julka
(Radiation Oncology)

N.K. Shukla
(Surgical Oncology)

Vinod Raina
(Medical Oncology)

Subhash Chander
(Radiation Oncology)

Rajive Kumar
(Laboratory Oncology)

B.K. Mohanti
(Medical Oncology)

Lalit Kumar
(Medical Oncology)

Sidhartha Satpathy
(Hospital Administration)

Additional Professors

S.V.S. Deo
(Surgical Oncology)

Sanjay Thulkar
(Radiodiagnosis)

Sushma Bhatnagar
(Anaesthesiology)

Atul Sharma
(Medical Oncology)

Sameer Bakhshi
(Medical Oncology)

Pratik Kumar
(Medical Physics)

Seema Mishra
(Anaesthesiology)

Suman Bhaskar
(Radiation Oncology)

D. N. Sharma
(Radiation Oncology)

Associate Professors

Sushmita Pathy
(Radiation Oncology)

Ritu Gupta
(Lab. Oncology)

Administrative Officer

R.K. Sharma

Accounts Officer

D.P. Gangal

Sr. Medical Physicist

V. Subramani

Scientist-I

N. Manoharan

Sunil Kumar Verma

Medical Physicist

R. Prabhakar
Rajendran M

M.A.Laviraj

Kumari Seema Sharma
Ashish Binjola

Chief Technical Officer

Shri Gopal

Silas George

Sr. Programmer

Mallika Roy Barman

Sup. Med. Social Service Officer

Seema Sajid

P.P.S.

Satish Kumar Sachdeva

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 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 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 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 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.

- 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

Rajive Kumar: 1

Ritu Gupta: 5

Medical Physics Unit

Lectures delivered: 5

Oral papers/poster presented: 14

Radiation Oncology

Lectures delivered

GK Rath: 19

PK Julka: 36

B.K. Mohanti: 11

Subhash Chander: 2

D.N. Sharma: 5

Sushmita Pathy: 2

Suman Bhasker: 7

Surgical Oncology

N. K. Shukla: 3

S.V.S. Deo: 12

Oral papers/poster presented: 7

RESEARCH

Funded projects

Anesthesiology

Ongoing

1. Evaluation of the effect of rhythmic breathing process – Sudarshan Kriya and Pranayam (SKP) on pain perception among advance stage cancer patients having pain. Sushma Bhatnagar. Center Council for Research in Yoga and Naturopathy (Department of Ayush). 2 years.
2. Molecular Determinants of Response to opioids in cancer patients: Indian Scenario. Sushma Bhatnagar, ICMR, 3 years.
3. A randomized, comparative, clinical study to evaluate the efficacy and safety of oral transmucosal fentanyl citrate versus oral morphine in patients with breakthrough pain. Sushma Bhatnagar. Troikaa Pharmacenticals. 6 Months.
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-1 α 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.
2. Bioequivalence of Bmab-200 with Herceptin®: Comparative PK, Efficacy, Safety and Immunogenicity evaluation of Bmab-200 versus Herceptin®, both in combination with Docetaxel in patients with Her2+ Metastatic Breast Cancer: A Double Blind, Randomised, Active Control, Parallel assignment, Comparative Phase III, Clinical Trial. Vinod Raina. Clinigene, BIOCON. 20 March 2012–19 June 2013. Rs 10 lakhs.
3. A Randomized, Multicenter, Phase III Open-Label Study of the Efficacy and Safety of Trastuzumab-MCC-DM1 Vs. Capecitabine + Lapatinib in Patients with HER2 positive locally advanced or metastatic breast cancer who have received prior Trastuzumab-based therapy. Vinod Raina. ROCHE Products (India). 24 September 2011–23 September 2014. Rs 3 lakhs.
4. A Multi centre, pilot phase II trial assessing the efficacy and safety of Bevacizumab+ Gemcitabine+Carboplatin as first line treatment for patients diagnosed with Triple Negative Metastatic Breast Cancer. Vinod Raina. ROCHE Products (India). 1 July 2011–31 December 2013. Rs 3 lakhs.
5. A multi-country, multi-site, prospective, observational, burden of illness study of adult patients undergoing antiemetic therapy concurrent to initiating HEC or MEC for cancer treatment. Vinod Raina. Merck. 19 July 2012–18 February 2013. Rs 5 lakhs.
6. EU-CORESM: European CUBICIN Outcomes Registry and Experience for the Treatment of Serious Gram-positive Infections. Vinod Raina. Novartis India Limited. 23 January 2012–22 March 2013. Rs 5 lakhs.
7. Evaluation of circulating tumor DNA in serum of breast cancer patients. Vinod Raina. Department of Biotechnology. Project till October 2012. Rs 21 lakhs.
8. MRD Standardization: Standardization of response assessment in chronic myeloid leukemia' submitted under new indigo Era-Net Programme. Vinod Raina. Department of Biotechnology. Project till March 2014. Rs 71 lakhs.

9. A Phase III, Open Label, Randomized Multicenter Trial of Ofatumumab-Chlorambucil combination Vs. Chlorambucil Monotherapy in previously untreated patients with Chronic Lymphocytic Leukemia. Protocol No. OMB110911. Vinod Raina. GSK. Project till December 2013. Rs 5 lakhs.
10. A Phase III, Open Label, Randomized Trial Ofatumumab added to Fludarabine-Cyclophosphamide Vs. Fludarabine-Cyclophosphamide Combination in subjects with Relapsed Chronic Lymphocytic Leukemia. Protocol No. OMB110913. Vinod Raina. GSK. Project till December 2012. Rs 5 lakhs.
11. CML Registry: An Observational Study. Lalit Kumar. Novartis India Ltd. 2008–13.
12. Lenalidomide plus low dose Dexamethasone Versus Thalidomide plus low dose dexamethasone for multiple myeloma: A randomized Phase III study. Lalit Kumar. Dr Reddys Lab. 2008–12. SRF Salary.
13. A randomized, double-blind, placebo controlled, phase 3 study to assess the efficacy and safety of weekly Farletuzumab (MORAb-003) in combination with Carboplatin and Taxane in subject with Platinum sensitive ovarian cancer in first relapse. Lalit Kumar. Morphotec USA. 2010–13. SRF Salary.
14. A multicentric open label phase III study to evaluate the safety and efficacy of Rituximab (Zenotech) in non Hodgkin's lymphoma. Lalit Kumar. Ranbaxy, Gurgaon. 2011–12. Rs 4,68,000.
15. Global study to assess the addition of Bevacizumab to carboplatin and paclitaxel as first line treatment of epithelial ovarian cancer fallopian tube carcinoma or primary peritoneal carcinoma. Lalit Kumar. ROSIA study (Roche). 2011–2014. Rs 53,998.00.
16. Evaluation of Serum VEGF and Diffusion Weighted MRI in locally advanced Carcinoma Cervix treated with Neoadjuvant Chemotherapy followed by Chemo radiation. Lalit Kumar. AIIMS. Rs 40,000.
17. To evaluate the effect of Metformin versus placebo as an Add-on Therapy in patients with recurrent epithelial ovarian cancer receiving chemotherapy: A double blind randomized controlled clinical trial. Lalit Kumar. 2012–13. ICMR. Rs 1 lakh.
18. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian cancer: A phase 3 randomized study. Lalit Kumar. DBT. 2010–14. Rs 17,95,000.
19. To study the effect of non-ionizing electromagnetic field on human health. Lalit Kumar. ICMR. 2012–13. Rs 11,67,290.
20. A randomized phase III study of imatinib dose optimization compared with nilotinib in patients with chronic myelogenous leukemia and suboptimal response to standard dose. Lalit Kumar. Novartis India Ltd. 2011–16.
21. Randomized, Phase III-b, Multi-centre, Open-label, Parallel study of Enoxaparin (low molecular weight heparin) given concomitantly with chemotherapy Vs chemotherapy alone in patients with inoperable gastric and gastro-oesophageal cancer. Atul Sharma. Criterium, Pune. 2008-continue. Rs 7.6 lakhs.
22. A Phase III Study Of Erbb2 Positive Advanced Or Metastatic Gastric Or Esophageal Or Gastroesophageal Junction Adenocarcinoma Treated With Capecitabine Plus Oxaliplatin With Or Without Lapatinib. Atul Sharma GlaxoSmithKline Pharmaceuticals. 2009–12. Rs 4,34,398.
23. 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 Fluoropyrimidines/Irinotecan. Atul Sharma. CD Pharma India. 2010–13. Rs 12 lakhs.
24. Prognostic relevance of DNA methylation in chronic lymphocytic leukemia. Atul Sharma. DBT.
25. Assessment of multi-drug resistance pattern in acute myeloid leukemia and response to therapy. Atul Sharma, AIIMS.

26. Molecular 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 Sir Ratan Tata Trust. International Ongoing (2005 onwards), Rs 4.5 lakhs/year for Clinical Management.
29. Pharmacokinetic and Toxicity profile of High Dose Methotrexate: relationship with Serum Creatinine and MTHFR Polymorphisms in Indian Children. Sameer Bakhshi. JIV DAYA Foundation. 2008–on going, Rs 7.9 lakhs for 2 years.
30. A study to evaluate the anti-emetic effect of aprepitant versus placebo as an add-on therapy in children and adolescent receiving chemotherapy: A randomized double blinded controlled trial. Sameer Bakhshi. Dr Reddy's Laboratories Ltd. Ongoing (2011 onwards). Rs. 3,12,000/year.
31. Nutritional status in pediatric acute leukemia patients on follow-up. Sameer Bakhshi. ICMR. Rs. 19 lakhs. Ongoing (2011 onwards).
32. Functional significance acute myeloid leukemia. Sameer Bakhshi. AIIMS. 2011–12, Rs. 10,000.

Medical Physics Unit

Ongoing

1. Development of sensitive thermo-luminescent materials for radiation dose determination and their dosimetric applications in radiological medical imaging. Pratik Kumar. ICMR. 2009–12. Rs 12,10,416.
2. Evaluation of coronary artery plaque. Pratik Kumar. ICMR. 2012–15. Rs 17,54,283.

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.
3. A pilot study evaluating quality of life with AYUSH QOL-2C in non metastatic breast cancer patients treated with adjuvant chemotherapy/radiotherapy and correlating it with molecular markers. GK Rath. Central Council for Research in Ayurveda and Siddha. 2010. Rs. 51,45,777.
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.
5. A phase 1/2, modified dose escalation, open label trial to determine the therapeutic effect and safety of INCB007839 combined with trastuzumab in patients with previously untreated HER2 positive metastatic breast cancer. PK Julka. Siro. 2008. Rs 15 lakhs.
6. A randomized, double-blind, placebo-controlled, multi-centre phase 3 study of denosumab on prolonging bone metastasis-free survival in men with hormone-refractory prostate cancer. PK Julka. Quintiles. 2007. Rs 9 lakhs.
7. Prognostic significance of circulating tumor cells in locally advanced breast cancer patients. PK Julka. 2011. DST. Rs 23 lakhs.

Completed

1. An open label prospective multicentric study to evaluate the safety and efficacy of BIOMAB-EGFR (Nimotuzumab) as induction and maintenance therapy in combination with radiotherapy plus temozolomide (concomitant and adjuvant) in Indian patients with Glioblastoma multiforme. P.K. Julka. Clingene. 2008. Rs 3,26,800.
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

1. Analysis of Mediastinal T-Lymphoblastic Lymphoma - A Single Institute Study.
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.
4. Neoadjuvant chemotherapy with weekly Paclitaxel and Carboplatin followed by chemoradiation in locally advanced cervical carcinoma: a pilot study.
5. Analysis of allogenic stem cell transplants
6. Analysis of Adult Acute lymphoblastic leukemia.
7. Assessment of Kinetics of Peripheral Blood T-Regulatory Cells in Ewing's Sarcoma/PNET and Neuroblastoma - A Prospective Study.
8. A prospective study to detect the prevalence of Human Papillomavirus (HPV) infection in oropharyngeal cancer patients.
9. A Pilot Study for Analysis of Correlation of Tumor Associated Macrophage Marker (CD 68) By Immunohistochemistry with Treatment Outcome and Survival in Hodgkin's Lymphoma.

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

1. Development of protocol for quality assurance of medical image laser printer.
2. Continued maintenance of Microsoft Access based image reporting module.
3. Measurement of radiation dose in interventional fluoroscopy .
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.
4. Comparison of early clinical outcome in carcinoma cervix after radiotherapy: Conventional vs intensity modulated radiotherapy (IMRT).
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
11. Regimen in early breast cancer after breast conservation surgery.
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

1. Utility of intra-operative ultrasound (IOUS) for breast conservation surgery (BCS): A feasibility study.
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

1. Functional assessment of Oral cancer patients after Radical surgery and Radiotherapy.
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.
6. Study of deep vein thrombosis in patients of gynecological and lower G I cancers.
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).
2. Locally advanced lung cancer : randomized trial of chemotherapy and radiation.

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).
7. Immunophenotyping profile of B cell NHL. 2009–012 (Pathology).

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.
3. Phenotypic and functional characterization of CD4+ CD 25+ Foxp3+ regulatory T cells in patients with oral squamous cell carcinoma (Department Biotechnology).
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).
3. Intra-arterial chemotherapy (neoadjuvant) in patients with advanced laryngeal and hypopharyngeal cancer. (Radio-diagnosis).
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).
3. Evaluation of transrectal ultrasound, elastography and contrast enhanced sonography for detection of prostate cancer (Radio-diagnosis).

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 capectiabine 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 randomized, open label multicenter study of single agent larotaxel (XRP9881) at 90 MG/M2 every 3 weeks compared to continuous administrative of 5-FU for the treatment of patients with advanced pancreatic cancer previously treated with a gemcitabine-containing regimen (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 (Erbix) 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

Staff/Faculty	No.	Staff/Faculty	No.
Faculty	20	Resident Doctors	60
Nursing staff	197	Stores staff	6
Ministerial staff	18	Secretarial staff	5
Group 'D' staff	82	Daily wages	2
P.T.S.G.	8	Outsourced Sanitation Staff	123
Outsourced Data Entry Operators	10	Outsourced Security Staff	56
Technical Staff (Radiotherapy, Lab. Oncology, MRT, OT, Radiodiagnosis etc.)			143
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

No.	Name of the OPD/Clinic	New patients			Revisits		
		Male	Female	Total	Male	Female	Total
1.	Adult Medical Oncology	491	433	924	10444	13268	23712
2.	Adult Lymphoma Leukemia	03	-	03	3082	1606	4688
3.	AML/HL	75	35	110	706	319	1025

4. ALL/CML	153	71	224	1382	697	2079
5. Breast Cancer	29	472	501	85	3926	4011
6. Bone and Soft Tissue	140	77	217	437	244	681
7. Chemotherapy Evaluation	-	-	-	08	05	13
8. Familial Cancer	-	02	02	-	-	-
9. Gastrointestinal	386	328	714	717	558	1275
10. Gynaecology A	-	183	183	-	827	827
11. Gynaecology B	-	351	351	-	1832	1832
12. Gynaecology C	-	193	193	-	260	260
13. Head and Neck (Surgery) A	165	54	219	999	246	1245
14. Head and Neck (ENT) B	904	152	1056	3397	569	3966
15. Lung Cancer	92	24	116	311	87	398
16. NHL/MM/CLL	143	60	203	679	266	945
17. Ophthalmic tumour	06	04	10	123	63	186
18. Paediatric Medical Oncology	219	110	329	5289	2463	7752
19. Paediatric Lymphoma Leukaemia	128	44	172	2899	981	3880
20. Paediatric (Surgery)	70	37	107	1263	598	1861
21. Pain Relief	248	181	429	2537	1885	4422
22. Pain and Palliative care (RT-II)	-	01	01	02	13	15
23. Radiotherapy	1117	956	2073	3879	4323	8202
24. Surgical Oncology	120	135	255	151	131	282
25. Transplant	09	03	12	431	130	561
26. Urology Malignancy	182	24	206	1264	79	1343
Total	4680	3930	8610	40085	35376	75461
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)

State	Total	State	Total
Andhra Pradesh	7	Assam	31
Arunachal Pradesh	3	Bihar	1011
Chandigarh	3	Chhattisgarh	13
Delhi	2934	Dadar and Nagar Haveli	3
Daman and Diu	1	Haryana	1030
Himachal Pradesh	32	Jammu and Kashmir	89
Jharkhand	101	Kerala	15
Karnataka	3	Madhya Pradesh	96
Maharashtra	5	Meghalaya	2
Manipur	32	Mizoram	1
Nagaland	6	Orissa	80
Punjab	75	Pondicherry	1
Rajasthan	156	Sikkim	21
Tripura	3	Uttar Pradesh	2472
Uttaranchal	290	West Bengal	51
Other countries	43		

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. Verboplasty.
9. Scrambler Therapy.

Laboratory Oncology Services

Hemogram (Hb, TLC, Platelets)	54764
Peripheral Blood Smear (PBS)	6420
Bone Marrow Aspiration (BM)	3201

Cyto-Chemistry	739
Serum Protein Electrophoresis (SPE)	2859
Immunofixation (IFx)	223
Urine Electrophoresis (UE)	682
APAAP	71
Flow	24376
FNAC (Lymph Node)	45
Cyto-Spin	329
ESR	2340
Total	96049

Apheresis

Single Donor Platelets (SDP)	2070
Peripheral Blood Stem Cell – Harvest (PBSC)	138
Hemogram	15461
Plasma	01
Total	17670

MEDICAL ONCOLOGY

Clinical Services

New cases (CTE+ LL)	1965	Old cases (CTE+LL)	44094	Total 46059
Total chemotherapy in Day-Care	23471	OPD chemotherapy		5170
Admission (Ward and Day Care)=(5213+22659)			28872	

Diagnostic and Therapeutic procedures (n=5148)

Bone marrow biopsy	1058	Bone Marrow Aspiration	1813
Pleural Tapping	148	Skin biopsy	2
Catheterization/Removal	10	Other supportive services	82
Suturing/Removal	36		
Intrathecal therapy with cerebrospinal fluid	1999		

Laboratory Services

Haemogram	15460	Single Donor Platelet (SDP)	1972
SDP stored	3944	No. of infusions performed	113
Cytogenetics			
–for detection of Philadelphia chromosome	404	–for chimerism	4
Cryopreservation of PBSC	28	Mononuclear cell count	117
Viability of stem cells	113	CD34 count of stem cells	82

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, Nasopharyngo laryngoscopy 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.

10.4 Dr Rajendra Prasad Centre for Ophthalmic Sciences

Chief and Professor of Ophthalmology

Rajvardhan Azad (w.e.f. 5 October 2011)

Ex-Chief and Professor of Ophthalmology

Supriyo Ghose

Professors

Rasik B. Vajpayee

Anita Panda

Pradeep Sharma

J.S. Titiyal

Mahesh Chandra

Vimla Menon

Y.R. Sharma

Ramanjit Sihota

Radhika Tandon

Dilip R. Shende (Anaesthesiology)

S.P. Garg

Atul Kumar

Gita Satpathy (Ocular Microbiology)

S.K. Khokhar

Mandeep Singh Bajaj

Medical Superintendent

Shakti Kumar Gupta

Additional Professors

Raj Pal

Seema Sen (Ocular Pathology)

Seema Kashyap (Ocular Pathology)

Pradeep Venkatesh

Neelam Pushker

Praveen Vashist (Community Ophthalmology)

Niranjan Nayak (Ocular Microbiology)

Sanjay Sharma (Radio-Diagnosis)

Namrata Sharma

Tanuj Dada

T. Velpandian (Ocular Pharmacology)

Jasbir Kaur (Ocular Biochemistry)

Associate Professors

Rohit Saxena

Tushar Agarwal

Bhavna Chawla

Vinay Gupta

M.Vanathi

Renu Sinha (Anaesthesiology)

Rajesh Sinha

Parijat Chandra

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 Bandyopadhyay and Smt. Anjolie Ila 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.
5. National seminar on organ and tissue donation on the occasion of Indian Organ Donation Day-2011, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India and World Health Organization, AIIMS, New Delhi, 28 November 2011.
6. Eye Banking and Cornea Trendz 2011, Eye Bank Association of India, Abhinav Drishti Eye Hospital, Lucknow, Uttar Pradesh, 26–27 November 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.
9. Four training programmes for ASHA workers on “Primary eye care” in 4 CHCs of District Gurgaon, 4–11 July 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 intravitreal 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).

3. Phase – II Multicenter, prospective, randomized, age related macular degeneration, comparator controlled, dose ranging study evaluating pf-04523655 versus ranibizumab in the treatment of subjects with choroidal neovascularization (Monet Study).
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 of 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.
9. Prevalence of dry eye and its subtypes in hospital-based population in Northern Zone in India.
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.
14. Immunohistochemical detection of oestrogen and progesterone receptors in sebaceous cell carcinoma of the eyelid.
15. Ocular adnexal lymphomas and chlamydia: an immunophenotypic and molecular study.
16. Immunohistochemical detection of cell division cycle (CDC25) proteins in retinoblastoma.
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.
24. Cell sheet engineering for assembling human corneal construct.
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.
4. Conjunctivodacryocystorhinostomy using high density porous polyethylene tear drain tube.
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.
5. Anatomical and functional outcomes of intraoperative bevacizumab in diabetic vitreoretinal surgery.
6. Comparative evaluation of 23G and 25G microincision vitrectomy in management of diabetic tractional retinal detachment.

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.
9. Anatomical and visual outcomes of posterior segment trauma vitreoretinal surgery.
10. Role of posterior laser barrage in treatment of retinopathy of prematurity.
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.
12. Evaluation of predictors for success in macular hole surgery.
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.
16. Comparison of video angiography with standard angiography in retinal disorders.
17. Profile of paediatric epiphora patients.
18. Evaluation of oral vs. intralesional propranolol 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.
21. Voriconazole in the treatment of fungal orbital infections.
22. Chemoreduction failure in retinoblastoma – a study of clinical and histopathological risk factors.
23. Molecular studies and expression of cell cycle regulatory proteins in ocular surface squamous neoplasia.
24. Molecular analysis of mitochondrial gene associated with tumorigenesis in retinoblastoma.
25. Identification and characterization of differentially expressed genes in human retinoblastoma.
26. Regulation of apoptosis in human retinoblastoma.
27. Gene expression profile of human uveal melanoma.
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.

39. Epithelial-Mesenchymal Transition (EMT) in sebaceous carcinoma of the eyelid.
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.
6. Visual parameters in patients with regressed retinoblastoma.
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 hematopoietic 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.
13. Development and validation of a donor tracking protocol and establishment of a corneal graft registry.
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.
16. Anesthetic management for ophthalmic surgical procedures in children with congenital heart disease: an audit.
17. Evaluation of air-Q intubating laryngeal airway as a conduit for tracheal intubation in infants and children.
18. Anesthetic management for preterm babies for ROP surgery: a retrospective study.
19. Comparative evaluation of endovenous LASER ablation, radiofrequency ablation and surgery in the treatment of symptomatic lower limb varicosities.
20. Isolation, expansion and characterization of corneal limbal epithelial cells.
21. A randomized prospective study for comparison of effects of pascal photocoagulation with conventional laser photocoagulation in diabetic macular edema and proliferative diabetic retinopathy.
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).
9. Evaluation of rhythmic process of Surdershan Kriya Pranayam on cancer patients for pain management (with IRCH, AIIMS).

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).
7. Evaluation of extemporaneously prepared voriconazole stability and their topical penetration kinetics in patients undergoing cataract surgery (with Arvind Medical Research Foundation, Madurai).
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

	New Cases	Old Cases	Total
1. General O.P.D.	122835	83510	206345
2. Emergency	9725	19395	29120
Total Cases	132560	102905	235465

SPECIALITY CLINICS

1. Cornea Clinic	5588	15917	21505
2. Lens Clinic	960	1746	2706
3. Uvea Clinic	974	3440	4414

4. Contact Lens Clinic	1188	2019	3207
5. Glaucoma Clinic	2361	6383	8744
6. Ophthalmoplasty Clinic	2672	1613	4285
7. Pediatric Ophthalmology Clinic	633	407	1040
8. Trauma Clinic	651	664	1315
9. Retina Clinic	2504	5230	7734
10. Neuro-Ophthalmology Clinic	1965	1453	3418
11. Medical Ophthalmology Clinic	924	3008	3932
12. Vitreo Retinal Clinic	1095	776	1871
13. Ocular Surface Disorder Clinic	48	60	108
14. Retinoblastoma Clinic	224	845	1069
15. a) Orthoptic Clinic	5401	25714	31115
b) Squint Clinic	7156	30358	37514
16. Refraction	-	28096	28096
Total Cases	34344	127729	162073
Grand Total of Cases	166904	230634	397538

INDOOR

No. of cases

1. General Admissions	16790
2. Casualty Admissions	2111
3. Private Admissions	1386
4. Short Admissions	5775
5. Day Care Admissions	7819
Total	33881

OPERATIONS

1. Major	17041
2. Day Care	8419
Total Major	25460
3. Minor	7419
Grand Total	32879

YEARLY OTHER FIGURES

1. Average Bed Occupancy Ratio	87%
2. Average length of stay	4.6 days
3. Average OPD Attendance per working day	1338
4. Average No. of Indoor Admission per day	92
5. Average No. of Surgeries per day	90

Investigative Laboratories

YAG Laser	2948
Post Seg.	2759
FFA	2375
CP	644
OCT	4669
LASIK	4916
FA	2690
OCT	5003
Videoangiography	27
ECG	2422
LASER	933
ROP New	330
ROP Old	717
LVA+ ROP Ref	1134
UBMB-Scan	45
MF-ERG	70
Micro-perim	5
Cornea Service Lab (total no of inv.)	19408
Cornea Research Lab (total no of patients investigated)	8086
Glaucoma Facility Lab (total no of inv.)	50964

Ocular Microbiology

Bacterial culture and sensitivity	8638
Fungal culture	2351
Specimens processed for cytology	1362
Specimens processed for viral ag detection	58
Specimens processed for Chlamydia Ag detection	158
Specimens processed for PCR hsv	32 Specimens
processed for conjunctivitis (PCR. Ag detection, tissue culture)	12
Culture for acanthamoeba	64
Specimens processed for acanthamoeba PCR	64
Specimens processed for mycobacteria	7
Specimens processed for microsporidia	12
Grand total	12758

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
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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
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(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 Endowment 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 Yog Raj Sharma: Reviewer: Ophthalmology (AAO Journal); American Journal of Ophthalmology; British Journal of Ophthalmology; Paediatric Ophthalmology and strabismus, 2011.

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 AIOS for Ped Ophthalmology and Strabismus.

Professor Ramanjit Sihota: Awarded World Glaucoma Association “Research recognition award” 2011.

Professor J.S. Titiyal: Awarded National Best Medical Services award, Netrika Manav Samaj Utthan Sewa Samiti, July 2011, New Delhi.

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 Praveen Vashist: Reviewer, Indian Journal of Community Medicine since 2008; Indian Journal of Ophthalmology since 2006; appointed Counselor for New Delhi for Association of Community Ophthalmology in India (ACOIN).

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

the field of Ophthalmology; Awarded the Certificate of Academic Excellence from the Delhi Ophthalmology Society 2011–12; Awarded Certificate of “Esteemed Resource Teacher” by the Delhi Ophthalmology Society for the year 2011–12; Organised DOS Teaching Programme 7–8 January 2012.

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.

10.5 Jai Prakash Narayan Apex Trauma Centre

Chief

M.C. Misra

Additional Medical Superintendent

Shakti K. Gupta

Faculty in-charge, Hospital Administration

Kamran Farooque

Additional Professor

Kamran Farooque (Orthopaedics)

Associate Professors

Anaesthesia

Babita Gupta
Chhavi Shawney

Emergency Medicine

Sanjeev Bhoi
Vinay Gulati (Resigned)
Shefali K Sharma (Resigned)

Forensic Medicine

Sanjeev Lalwani
Adarsh Kumar (On assignment)
5 September 2011 to 4 March 2012

Laboratory Medicine

S. Arul Selvi
Purva Mathur

Neurosurgery

Deepak Agrawal
Deepak K Gupta
Sumit Sinha
GD Satyarthee

Orthopaedics

Vijay Sharma
Buddhadev Chowdhry
Vivek Trikha
John R Bera (Resigned)

Radiodiagnosis

Shivanand G.
Atin Kumar

Surgery

Biplab Mishra
Sushma
Amit Gupta
Subodh Kumar
Maneesh Singhal

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

S. No.	Name	From	To	Duration
1	Ms Sanah Sandhu	16 March 2011	16 April 2011	1 month
2	Mr Amitabh Chandra	29 March 2011	22 April 2011	1 month
3	Ms Boon Yuru	24 May 2011	3 June 2011	11 days
4	Ms Hui Li Yan Sandra	24 May 2011	3 June 2011	11 days
5	Ms Jolie Hwee	24 May 2011	3 June 2011	11 days
6	Mr Sidharth Mohan	8 August 2011	2 September 2011	4 weeks
7	Mr Ajit John Poovathinkal	16 August 2011	28 August 2011	13 days
8	Mr Alexander Peter Glogaza	16 August 2011	28 August 2011	13 days
9	Ms Mana Malek	16 August 2011	28 August 2011	13 days
10	Mr Sebastian Hofbauer	16 August 2011	28 August 2011	13 days
11	Ms Simeen Ali	5 September 2011	16 September 2011	12 days
12	Mr Ankur Dhar	28 November 2011	30 December 2011	33 days
13	Ms Arushi Madan	5 December 2011	16 December 2011	12 days
14	Ms Arushi Madan	26 December 2011	5 January 2012	11 days

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

1. Programme Director of AIIMS Community Emergency Care programme, AIIMS Basic Emergency Care Course (www.aiimsbecc.com) Critical and Emergency Sonography programme, AIIMS–Ultrasound Trauma Life Support Course, AIIMS, Disaster Ultrasound Course and Acute care Sonography for Nurses (www.aiimsultrasound.com).
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

1. Organizing Chairman, Sixth AIIMS Surgical Week – Endosurg 2012 – Live Operative International CME cum Conference at AIIMS, 16–18 March 2012.
2. Programme Convener and Course Director, Inaugural Rural Trauma Team Development Course (RTTDC), Organized at J P N 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.
4. Organizing Chairman, Wound Evaluation and Treatment Skills (WETS), JPNATC AIIMS, First Training Course for Trainers, 28–31 March 2012.
5. Convener, Workshop on 'Doctors as Leaders', conducted in collaboration with Mind Associates Inc, UK, Dr Ramalingaswami Board Room, AIIMS, 15 March 2012.
6. Organizing Chairperson, Inaugural Pre-Hospital Trauma Life Support (PHTLS) Provider and Instructor Courses, JPNATC, AIIMS, 28 February–6 March 2012.

7. Organizing Patron, 'Live surgery and CME on Brachial Plexus and Peripheral Nerve Injuries', JPNATC, AIIMS, New Delhi, 19–21 December 2011.
8. Organizing Vice President, 7th World Congress of World Interactive Network of Focused Ultrasound 'WINFOCUS 2011', JPNATC and AIIMS, New Delhi, 22–27 November 2011. Theme 'Ultrasound in Emergency and Critical Care'.
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.
10. Organizing Chairman, First International Summit and Workshop on 'Cost-Effective and Meaningful Use of Technology in Emergency Medicine (CEUTEH), JPNATC, AIIMS, New Delhi, 27–29 October 2011.
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

1. Scientific Chairman: INDUS-EM, October 2011, New Delhi
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, Aizawl, Mizoram, 28–29 March 2012.
- Programme Director and Course faculty: AIIMS Basic Emergency Care course, AIIMS Trauma Centre, New Delhi, 9 December 2011–May 2012); 4 April 2011, 13–April 2011, 10 May 2011, 24–August-14 September 2011, 7 December 2011, 21 December 2011, 17 January 2012, 1 February 2012, 16 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

1. Scientific Chair – 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.
2. Organizing Secretary: Sixth AIIMS Surgical week and Endosurg–2012, International CME cum Live Workshop, 16–18 March 2012.

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.
2. Joint Organizing Secretary: Sixth AIIMS Surgical week and Endosurg–2012, International CME cum Live Workshop, 16 –18 March 2012.
3. Joint Organizing Secretary: Breast oncoplasty and sentinel lymphnode biopsy. October 2012.

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

1. Scientific Chair, 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.
2. Workshop Director: Teaching Scenarios Using Low and Hi-Fidelity Simulation Tools. In 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.
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).
5. Faculty, Course on Preparedness for Emergency Response to CBRN Casualties – Developed by DRDE, Gwalior and National Disaster Management Authority, Government of India (2010–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.
4. Organising Secretary, 1st International Summit and Workshop on Cost Effective and Meaningful Use of Technology in Emergency Healthcare (CEUTEH 2011), 27–30 October 2011, AIIMS, New Delhi.
5. Organising Secretary, ‘2nd Live Operative Workshop and Symposium on Complex Spinal trauma’, JPNATC, AIIMS, 12–13 May 2012.

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

1. To study the role of recombinant human erythropoietin in trauma victims with hemorrhagic shock: An invitro approach to stem cell differentiation, Sanjeev Bhoi, ICMR, 2012.
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.
6. Evaluation of coagulation status among North Indian blood donors using thromboelastography and conventional methods, S Arulselvi, AIIMS, June 2011.
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.
10. Cleft lip and palate anomaly in India: Clinical profile, risk factors and current status of treatment – Hospital based surveys', ICMR 2011–13, Rs 54 lakhs.
11. Development of wound registry at trauma centre, AIIMS, AIIMS, Maneesh Singhal/Subodh Kumar/SushmaSagar Rs 1 lakh.
12. Distributed cognition and modelling complexity: a bioinformatics approach for decreasing medical errors, Deepak Agrawal, DST, 2011–13, Rs 1.2 crores.
13. Thromboelastometry (TEG): Utility and cost-effectiveness in diagnosing of infection in Neurosurgery Intensive care unit (NICU) as compared to established biomarkers, Deepak Agrawal, AIIMS, 2012–13, Rs 9 lakhs.
14. Role of thalamus in diffuse axonal injury: An autopsy study with histopathological correlation, Deepak Agrawal.
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.
19. Role of human umbilical cord blood stem cells and neural stem cells in neuronal regeneration and functional restoration: A comparative study in male adult rats with acute spinal cord injuries, Sumit Sinha, DBT funded project under the Rapid Young Investigator scheme 2011.
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 Arulsevi, 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.
8. Cysts, tumors and tumor like lesions of the jaw: Evaluation by panoramic radiographs and MDCT with limited MRI correlation.
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 trial 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.
9. Evaluation of magnitude, severity and outcome of thoracic trauma in a level I trauma centre.
10. Evaluation of neck masses using diffusion weighted MR imaging and ultrasound elastography.
11. Evaluation of role of CK, CK-MB, urinary myoglobin detection in the clinical diagnosis of trauma patients.
12. Influence of transfusion in the outcome of trauma patients.
13. Intra-arterial chemotherapy (neoadjuvant) in patients with advanced laryngeal and hypo-pharyngeal cancer.
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.

26. Safety and efficacy of Tranexemic Acid in patients undergoing surgery post trauma.
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 pneumothoraces 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.
36. Traumatic brachial plexopathies – analysis of post surgical functional and psychosocial outcome.
37. US and MR evaluation of peripheral neuropathies of upper extremity.

Collaborative projects

Completed

1. A prospective study on radiological evaluation in patients with vascular malformations in patients with vascular malformations of the extremities', (Department of Radiology).
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).
6. Comparison of chronic groin pain and quality of life after laparoscopic inguinal hernia repair – TEP vs TAPP', (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).
9. Evaluation of testicular blood flow and volume in patients undergoing laparoscopic inguinal hernia repair (with Department of Surgery).
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 and 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 fasciitis 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)
2. 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. In collaboration with Department of Nephrology and Psychiatry.
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, (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).
9. Blunt chest trauma: prospective and retrospective review. (Department of Surgery).
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).
14. Epidemiological study of patients of Road Traffic Injuries [RTI] attending Emergency department of Jai Prakash Narayan Apex Trauma Centre [JPNATC], AIIMS, New Delhi.
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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Creatinine	32,718	Calcium	16,115
Phosphorous	15,640	Uric acid	17,676
Sodium	32,745	Potassium	32,745
Total bilirubin	17,562	Direct bilirubin	17,562
Total protein	14,955	Albumin	15,398
SGOT	15,387	SGPT	15,387
ALP	15,355	Cholesterol	4,389
Amylase	4,588	HDL	1,097
LDL	1,097	TG	1,124
VLDL	1,124	CK	279
CRP	328	Mg	1,499
Lipase	385	CK-MB	168
CSF Sugar	1,200	CSF Protein	2,400
Peritoneal fluid protein	34	Urine protein	112
Peritoneal fluid sugar	28	Urine sugar	115
Drain fluid amylase	27	HbA1c	19
Urinary Sodium	36	Urinary potassium	36
ABG			
PO2	7,528	PCO2	7,528
PH	7,528	H+	7,528
Potassium (K)	7,528	Sodium (Na)	7,528
Calcium (Ca)	7,528	Chloride	7,528
Total tests done in biochemistry section	3,77,405		
4. Microbiology			
Culture	16,380	Bacterial identification	4540
Antibodies sensitivity	4540	HIV serology	551
Hepatitis B serology	586	Hepatitis C serology	487
Hospital infection surveillance culture	3389		
Total tests done in microbiology section	30,473		
5. Histopathology			
Number of specimens processed	523	Number of blocks	809
Total Number of slides	1383		

Radiodiagnosis

Details of Investigations, 1 April 2011–31 March 2012

S.No.	Investigation	Number
1.	Plain X ray emergency	38754
2.	OPD + ward X ray	9991
3.	CT	17560
4.	Ultrasound including Doppler and guided interventions	10451
5.	Digital subtraction angiography including interventional procedures	82
6.	MRI	1017
7.	Fluoroscopy guided procedures	88
Total		77943

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

Month	Donors screened	Donors Bled	Replacement donors			Voluntary donors			Indoor voluntary donor	Outdoor camp voluntary donor
			Total	Men	Women	Total	Men	Women		
Apr 11	825	650	517	514	3	133	116	17	62	71
May 11	904	765	693	630	9	126	120	6	82	44
June 11	801	683	593	591	2	90	83	7	90	nil
July 11	744	621	568	562	6	53	49	4	53	nil
Aug 11	826	714	563	560	3	151	136	15	75	76
Sep 11	1000	885	773	764	9	112	106	6	66	46
Oct 11	930	822	715	707	8	107	91	16	42	65
Nov 11	959	858	773	766	7	85	83	2	85	Nil
Dec 11	989	865	699	684	15	164	158	8	69	95
Jan 12	866	754	627	624	3	127	122	5	92	35
Feb 12	850	752	665	657	8	87	86	1	87	0
Mar 12	1057	888	698	694	4	190	169	21	102	88
Total	10750	9257	7884	7807	77	1425	1317	108	905	520

Number of voluntary blood donation camps 10

Component separation laboratory

Month	Pack RBC prepared	Fresh frozen plasma prepared	Platelets prepared	Cryoprecipitate prepared
Apr 11	650	631	610	Nil
May 11	765	732	715	Nil
June 11	683	581	602	38
July 11	621	579	552	31
Aug 11	714	673	656	32
Sep 11	885	781	747	98
Oct 11	822	768	696	97
Nov 11	858	837	753	Nil
Dec 11	865	861	718	21
Jan 12	754	731	676	20
Feb 12	752	739	646	58
Mar 12	888	809	637	58
Total	9257	8722	8008	453

Quality control of blood and components: 1% of all units

Infectious Marker Laboratory and Donor Counselling

Month	HIV		HBsAg		HCV		VDRL		MP	
	Done	Reactive	Done	Reactive	Done	Reactive	Done	Reactive	Done	reactive
April 11	807	3	803	7	804	4	715	4	650	nil
May 11	906	1	862	12	882	5	794	10	765	nil
June 11	834	1	847	6	849	6	733	5	683	nil
July 11	793	2	791	7	799	3	671	6	621	nil
Aug 11	868	1	873	10	821	5	752	6	714	nil
Sep 11	1032	6	1033	9	1043	4	899	1	885	nil
Oct 11	976	4	974	14	976	5	854	5	822	nil
Nov 11	1027	Nil	970	20	970	9	881	5	858	nil
Dec 11	1055	4	1059	15	1056	4	943	2	865	nil
Jan 12	750	1	752	7	742	5	759	2	731	nil
Feb 12	785	1	794	17	790	4	698	2	763	nil
March 12	960	6	824	14	922	5	930	4	890	Nil
Total	10793S	30	10582	138	10654	59	9629	52	9247	nil

Total donors reported and counseled 86

Total donors referred to VCTC 9

Grouping Laboratory

Number of donors and patient grouping done

Month	Donor grouping	Patient grouping	Total
April 11	650	765	1415
May 11	765	818	1583
June 11	683	841	1524
July 11	621	533	1154
Aug 11	714	804	1518
Sep 11	885	868	1753
Oct 11	822	889	1711
Nov 11	858	869	1727
Dec 11	865	796	1661
Jan 12	754	836	1590
Feb 12	752	915	1667
March 12	888	913	1801
Total	9257	9847	19104

Emergency Issue

Month	Samples received	No. of cross-match done	Packed RBC issued	FFP Issued	PRC Issued
Apr 11	765	1894	672	441	543
May 11	818	2010	796	510	669
Jun 11	841	1861	800	995	551
Jul 11	533	1335	672	590	455
Aug 11	804	1858	717	721	552
Sep 11	868	2145	853	630	705
Oct 11	889	2188	881	631	603
Nov 11	869	2095	865	755	753
Dec 11	796	1929	866	946	644
Jan 12	836	1943	797	582	513
Feb 12	915	2192	814	762	616
Mar 12	913	2146	806	652	514
Total	9847	23596	9539	8215	7118

Blood and components issued to other hospital blood banks

Month	Blood	FFP	Platelet
April 11	35	50	153
May 11	40	55	289
June 11	76	375	75
July 11	28	145	160
Aug 11	21	145	139
Sep 11	20	10	191
Oct 11	40	60	197
Nov 11	18	115	193
Dec 11	71	395	238
Jan 12	31	nil	97
Feb 12	17	100	155
March 12	2	nil	5
Total	399	1450	1892

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
<i>Criticality</i>	
Yellow	9888
Green	35964
Red	2990
No area	1052
<i>Age (in years)</i>	
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

State	Casualty attendance	Admissions		
		Regular	Short	Total
Delhi	44426	2996	69	3065
UP	2264	884	9	893
Haryana	1970	476	4	480
Punjab	41	7	0	7
Rajasthan	257	70	1	71
Gujarat	6	0	0	0
Andhra Pradesh	8	3	0	3
Madhya Pradesh	71	20	0	20
Maharashtra	13	8	0	8
Uttarkhand	120	45	1	46
Bihar	397	132	2	134
Jharkhand	60	23	0	23
Jammu and Kashmir	22	7	0	7
West Bengal	40	15	1	16
Orissa	26	14	0	14
Karnataka	6	0	0	0
Tamil Nadu	8	2	0	2
Others	159	25	0	25
Total cases	49894	4727	87	4814

Based upon data received from CRC

The complete statistical data for the period is as under.

I.	Total bed strength	186	Total functional beds	176
	Ward beds	120	Ward beds	144
	ICU beds 2nd floor	16	ICU beds 2nd floor	20
	ICU beds 3rd floor	20	ICU beds 3rd floor	12
	Triage			30
II	Total casualty attendance	50625	Average per day	138
	Total admissions	4904	Average admissions per day	14
	Average length of stay	11 days		
	Total follow-up OPD cases	27452		

III	Total cases in casualty	50625		
	Males	38758	Females	11867
	MLC	21417	NMLC	29208
IV	Total follow-up OPD cases	27452		
	New	11907	Old (Re-visit)	15545
	Males	21809	Females	5643
	<i>Specialty-wise break-up</i>			
	Orthopaedics	14108	Surgery	7778
	Neurosurgery	5566	Emergency medicine	0
V	Total admissions	4904		
	<i>Specialty-wise break-up</i>			
	Orthopaedics	1442	Surgery	1726
	Neurosurgery	1734	Emergency medicine	2
VI	Total operations performed	5026		
	Major	4418	Minor	608
	<i>Specialty-wise break-up</i>			
	Orthopaedics	1819	Surgery	1888
	Neurosurgery	1319		
VII	Total deaths	924		
	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 coordinating 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. 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 Annexe, 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

Chapter of Association of Surgeons of India (NC ASICON 2011), Indira Gandhi Medical College, Shimla, Himachal Pradesh, 6–8 May 2011; Expert, Chennai Emergency Management Exercise (CEMEx), with ‘A focus on humanitarian and Medical Response’ 4–8 August 2011, Sri Ramachandra University in Collaboration with National Disaster Management Authority, Government of India, and United Nations Disaster Management Team, India, in partnership with State Government of Tamil Nadu and Municipal Corporation of Chennai; Chaired Scientific Session, Trauma Care 2011, CME on Approach to Trauma, Department of Surgery, Command Hospital Air Force, Bangalore, 17 September 2011; Performed live demonstration of Bilateral Totally Extraperitoneal Repair of Bilateral Groin Hernia, 57th Annual Conference of International College of Surgeons, India Section, Kidney Hospital, Srinagar, J & K, 21–24 September 2011; Chaired scientific session during Surgery Update 2011, XXVIII National Continuing Medical Education Programme in Surgery, Department of Surgery, Maulana Azad Medical College, New Delhi, 25 September–1 October 2011; Congress President and National Guest Faculty, 4th Annual National Conference of the Society of Endoscopic and Laparoscopic Surgeons of India, SELSICON 2011, Gujarat Cancer Society Medical College, Ahmedabad, 7–9 October 2011; Chaired Scientific Sessions and participated in a panel discussion on ‘Laparoscopic Incisional and Ventral hernia repair’. 4th Annual National Conference of the Society of Endoscopic and Laparoscopic Surgeons of India, SELSICON 2011, Gujarat Cancer Society Medical College, Ahmedabad, 7–9 October 2011; Performed live surgery – Bilateral Totally Extraperitoneal Repair of Groin Hernia’, 4th Annual National Conference of the Society of Endoscopic and Laparoscopic Surgeons of India, SELSICON 2011, Gujarat Cancer Society Medical College, Ahmedabad, 7–9 October 2011; National Guest Faculty, 10th Postgraduate Course in Endocrine Surgery, Department of Endocrine and Breast Surgery, SGPGIMS, Lucknow, 3–6 November 2011; Convener cum Chairperson of a Scientific Session entitled ‘Endocrine Pathology Session’, during Clinico-pathological case conference, 10th Postgraduate Course in Endocrine Surgery, Department of Endocrine and Breast Surgery, SGPGIMS, Lucknow, 3–6 November 2011; Guest Faculty, Department of Surgery, Postgraduate Institute of Medical Education and Research, Chandigarh, Live Operative Workshop on Advanced Laparoscopic Procedures, 18 November 2011; Live operation on Bilateral Groin Hernia (Bilateral TEP repair), 4th National Conference and Live Workshop of Indian Hernia Society (IHSCON 2011), Department of Surgery, Government Medical College and Hospital, Chandigarh, 19–20 November 2011; Participated in panel discussion on ‘Leadership Challenges and Emerging Roles in the Health Sector’, National Institute of Health and Family Welfare, New Delhi, 14 December 2011; Guest, National Faculty, 4th Regional Congress and Live Workshop on Laparoscopic Surgery (LAPROCON 2012), Surgeons’ Club, Satna, Shri Sadguru Seva Sangh Trust Chitrakoot, Performed Live Surgery on Bilateral Groin Hernia (B/L TEP) and Laparoscopic Incisional Hernia repair, 4–5 February 2012; Chaired Scientific Session, ‘Asian EMS Showcase Track’, International Congress on Emergency Medical Service Systems, with a theme: Every Second Counts, AIIMS, New Delhi, 9–11 February 2012; Visiting Professor, Department of Surgical Oncology, University of Iowa Hospitals and Clinics, University of Iowa Healthcare; International guest faculty, 5th Meeting of International Endohernia Society (IEHS), Consensus Conference for Development of Guidelines on the Treatment of Laparoscopic Repair of Incisional and Ventral Hernias, Jiangsu Province, Suzhou, China, 13–16 October 2011.

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 fiberoptic in Airway, MAMC, February 2012; Conducted skill station on Cricothyrotomy 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 Sanjeev Bhoi was Programme Director and Faculty: AIIMS–Ultrasound life support course, 7–8 February 2012, New Delhi; 22 February, 2012, Hyderabad; 28–29 January 2012, Pune; 3 December, Ranchi; 4–5 November 2011, New Delhi; 15–16 July 2011, New Delhi; 6–7 May, 2011, New Delhi; 14–15 April 2011, Ranchi; Faculty, Ultrasound Certification Course: 22 November 2011, 7th WINFOCUS World Congress, New Delhi; Course Director:

Ultrasound Trainer Course, 23 November 2011, 7th WINFOCUS world Congress, New Delhi; Course Faculty: Airway and breathing Workshop, 26 November 2011, 7th WINFOCUS World Congress, New Delhi; Course Director: USTLS, BPLS1 and 7th WINFOCUS World Congress, 24–25 November 2011; Course Director, Ultrasound Trauma Life support, 10 November 2011; Demonstration of Telemedicine solution, 29 October, CEUTEH 2011; Auditor of EMTC Course, Vellore, 1–3 October, CMC Vellore; Workshop Director: Ultrasound Trauma Life support, Indo-US Emergency Medicine summit, 30 September–1 October 2011, New Delhi; Faculty: ATLS, Ahmedabad, 6–8 September 2011; Observer and auditor: Chennai Emergency Management Exercise, NDMA, 4–8 August 2011; Faculty: USLS Certification refresher course, AIIMS Trauma Centre, New Delhi; Programme director: Need Assessment (Global programme), Community Health Centre, Ballabgarh, AIIMS, 17 August, 2011; Faculty: Role of Emergency Ultrasound in ER, CAPITAL EM, MULLANA, Ambala, 2–4 April 2011.

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 Congress 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; 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, Pontifical Cathlic 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 Bernhard 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.
11. Participated as a Technical Expert for a programme ‘Hamara Swasthya’, on ‘Stan Cancer (Breast cancer) by ‘Akashvani FM Gold Channel’, New Delhi, broadcast on 25 October 2011.
12. Participated as an expert ‘Door Darshan News’ New Delhi for a Discussion on ‘Patient–Doctor Relationship – Ilaaj Karana Kitna Aasan – Kitna Mushkil’ during a live phone in programme, ‘Total Health’ on the occasion 400th Episode of ‘Total Health’. 30 October 2011 8:30–9:30 AM.
13. Participated as a Guest Expert for the Live-Phone-in programme, ‘Legal Point’, for a Discussion on ‘Clinical Establishment Act 2010 and its implemetation’. ‘Lok Sabha TV’ New Delhi, 5 November 2011 2:00–2:30 PM.
14. Participated as an Expert for discussion on Breast Cancer ‘DoorDarshan National’ New Delhi, for creating health awareness amongst women 19 November 2011.
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 Twelfth 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

Participated in health programme 'Total Health' live telecast on Doordarshan News, on Epilepsy Surgery, May 2011.

10.6 National Drug Dependence Treatment Centre

Professor and Chief

Rajat Ray

Professor

Raka Jain

Rakesh Lal

Meera Vaswani
(Retired, February 2012)

Additional Professor

Anju Dhawan

Associate Professor

Sonali Jhanjee

Atul Ambekar

Assistant Professor

N. Kaw

Scientists

Anita Chopra

Hem Sethi

Medical Social Service Officer

Braham Prakash

Deepak Yadav

Biochemist

Rizwana Quraishi

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

1. 'Training of Trainers' Programme for General Duty Medical Officers.' NDDTC, AIIMS and NFCDA, Department of Revenue, Ministry of Finance, Ghaziabad, 28 March–8 April 2011, 12–24 September 2011, and 13–25 February 2012.
2. 'Training of Trainers' Programme for General Duty Medical Officers.' NDDTC, AIIMS and NFCDA, Department of Revenue, Ministry of Finance, Chandigarh (17–19 August 2011), Imphal (21 November 2011), Ranchi (5–6 December 2011 and 12–13 February 2012), Mumbai (1–2 December 2011 and 22–23 February 2012).
3. Annual Day Symposium on 'Linkages between Government, NGO and Private Sector for Management of Substance Use Disorders.' NDDTC, AIIMS, Ghaziabad, 13 April 2011.
4. Training Programme for staff from NGOs on 'Intervention for Street Children.' NDDTC, Ghaziabad, 29 April–5 May 2011.
5. Workshop on 'Practical Approaches to the Effective Treatment of Drug Addiction in Asia.' NDDTC, AIIMS, and Adelaide University, New Delhi, 17–19 October 2011.
6. Training workshop on 'Methadone Maintenance Treatment in India.' NDDTC, AIIMS, and United Nations Office on Drugs and Crime – Regional Office for South Asia (UNODC-ROSA), New Delhi, 31 October 2011–4 November 2011.
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

1. National Capacity Building of Medical Professionals on Treatment of Substance Use Disorders. Rajat Ray, Anju Dhawan, NFDAC, Ministry of Finance, GOI, 2011–14, Rs. 230 lakhs.
2. Development of a Web-Portal on Problem Alcohol Use in India. Rajat Ray, Atul Ambekar, Sanjay Gupta, World Health Organization (Geneva), 2010–12, Rs. 4 lakhs.

3. Rapid Situation Assessment of Drug and Alcohol Use at Digboi, Assam. Rajat Ray, Atul Ambekar, Rakesh Lal, Deepak Yadav, India Oil Corporation Ltd, 2010–13, All costs borne by IOC Ltd.
4. Efficacy of Varenicline for smokeless tobacco use. Raka Jain, Sonali Jhanjee, Veena Jain, R Schnoll (University of Pennsylvania), National Institute of Drug Abuse (NIDA), NIH, 2011–14, Rs. 69 lakhs.
5. Feasibility of Transporting Urine Samples of Drug Users on Filter Paper for Screening Drugs of Abuse: A Pilot Exploratory Study. Raka Jain, Atul Ambekar, Rizwana Quraishi, ICMR, 2012–14, Rs. 12.5 lakhs.
6. Effect of Nalbuphine on Opiate Withdrawal in Rats: Behavioural, Biochemical and Molecular study. Raka Jain, TS Roy, Anju Dhawan, ICMR, 2012–15, Rs. 46 lakhs.
7. Methadone Maintenance Treatment in India: A multi-site Feasibility and Effectiveness Study. Anju Dhawan, Rajat Ray, Atul Ambekar, Raka Jain, Deepak Yadav, Anita Chopra, UNODC ROSA, 2011–14, Rs. 39 lakhs.
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

1. Co-ordination and Convergence of Delhi District Health Services Programmes and Drug Use Intervention for the Out-of-school Child. Rajat Ray, Anju Dhawan, WHO India, 2010–11.
2. Developing a Network of De-Addiction Services from the Government, NGO and Private Sector. Rajat Ray, Anju Dhawan. WHO India, 2010–11.
3. Addressing Alcohol Use at Diverse Workplace settings. Rajat Ray, Atul Ambekar, Rakesh Lal, Deepak Yadav, WHO India, 2010–11.
4. Managing Alcohol Use in Diverse Workplace Settings. Rajat Ray, Atul Ambekar, Deepak Yadav, WHO (India), 2011.
5. Molecular Genetics of Alcohol Dependence: Contribution of Polymorphisms in Dopaminergic and Serotonergic Pathway Genes. Meera Vaswani, Atul Ambekar, ICMR, 2008–10.
6. Effectiveness of Yoga in Patients of Opiate Dependence. Anju Dhawan, Raka Jain, Deepak Yadav, AYUSH, MOH&FW, 2009–12.
7. Oral Substitution Treatment in Tihar Prisons. Sonali Jhanjee, Raka Jain, Hem Sethi, UNODC-ROSA, 2008–12.
8. Factors influencing Performance of IDU TIs. Atul Ambekar, UNODC-ROSA, 2011.
9. Capacity Building Needs Assessment of IDU TIs in India. Atul Ambekar, UNODC-ROSA, 2011.

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.
2. National Drug Use Survey, Maldives. Atul Ambekar, RM Pandey (with Government of Maldives), UNODC-ROSA.
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.
2. Association of ANKK I polymorphism and Nicotine Dependence (ND): A Pilot Study.

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 Community and Mobile Clinic Sunder Nagri, Delhi)	73070
5. Admission	875
6. Discharges	868
7. Average % of Bed Occupancy	66%
8. Admission Charges Exempted	250

OPD and Specialty Clinics Attendance (NDDTC)

	New Cases	Old Cases	Total
General OPD	3984	34965	38949
Specialty Clinic			
Tobacco Use Cessation Clinic	72	596	668
Adolescent Clinic	7	31	38
Dual Diagnosis Clinic	45	273	318
A. Outpatient Department	4108	35865	39931
B. Trilokpuri Community Clinic	110	22622	22732
C. Mobile Clinic Sunder Nagri	10	10395	10405
Grand Total: A + B + C	4228	68882	73110

Biochemistry Laboratory (April 2011 to March 2012)

- Biochemistry tests: 20,569
- Hematological tests: 6,179
- HIV investigations: 322 (HIV Negative – 255, Positive – 50, awaited – 17)

Yearly record of Drug Screen Laboratory (April 2011 to March 2012)

Drugs	Nos.
1. Morphine	2713
2. Codeine	2159
3. Buprenorphine	2674
4. Proxyvon	2668
5. Avil	2159
6. Naltrexone	45
7. Pentazocine	42
8. Naloxone	362
9. Diazepam	2579
10. Nitrazepam	2579
11. Chlordiazepoxide	2579
12. Cannabis	382
13. Cotinine	360
14. Inhalants	68
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). 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 Atul Ambekar is a member of the Editorial Board of International Journal of Drug Policy, United Nations Reference Group on HIV and Injecting Drug Use, Technical Resource Group on HIV and Injecting Drug Use (NACO), Academic Committee of Delhi School of Social Work, University of Delhi, and International Research Advisory Committee (RAC) of the Community Action on Harm Reduction (CAHR) Project of the International HIV/AIDS Alliance. He convened a workshop on ‘OST with Buprenorphine’ in the 62nd Annual National Conference of the Indian Psychiatric Society, Kochi, 21 January 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.
4. A 5-member team of Government officials from Afghanistan (for observing Drug Abuse Monitoring System), 16 March 2012.

10.7 Neurosciences Centre

Chief

H. H. Dash

NEUROANAESTHESIOLOGY

Professor and Head

H. H. Dash

Professor

Parmod Kumar Bithal (Sabbatical Leave)

Arvind Chaturvedi

Additional Professors

Rajendra Singh Chouhan

Mihir Prakash Pandia

Associate Professor

Girija Prasad Rath

Hemanshu Prabhakar

NEUROLOGY

Professor and Head

Madhuri Behari

Professors

Kameshwar Prasad

M.V.Padma Srivastava

Additional Professors

Manjari Tripathi
Garima Shukla

Vinay Goyal

Achal Srivastava
Rohit Bhatia

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

P.S. Chandra

Ashish Suri

S.S. Kale
Manmohan Singh

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 anesthesiology. 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. Supt. 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. (Neuroanaesthesiology) 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

Lt. Col. (Dr) N.S.A. Chandra completed part of his training in Neuroanaesthesia on 30 June, 2011 (01 July 2009–30 June 2011).

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 neuroendoscopic 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.
2. Coagulation abnormalities following aneurysmal subarachnoid hemorrhage during perioperative period as detected by ROTEM thromboelastography (TEG). Dr Hemanshu Prabhakar. ICMR, 2011–2005.2012; Rs. 3,88,377.

Departmental projects

Completed

1. Effect of pregabalin premedication on preoperative anxiety and postoperative pain.
2. Postoperative complications in patients undergoing anterior cervical discectomy and fusion.

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.
8. Postoperative complications in patients undergoing transsphenoidal pituitary surgery.
9. To study laryngeal morbidity associated with fiberoptic intubation under general anesthesia with and without muscle relaxant.
10. Respiratory complications in the early postoperative period following elective craniotomies – A retrospective analysis.

Ongoing

1. Effect of intraoperative brain protection with propofol on postoperative cognition in patients undergoing temporary clipping during intracranial aneurysm surgery.
2. Perioperative management of children with encephalocele: An institutional experience.
3. Effect of Nitrous oxide in patients undergoing supratentorial craniotomy as assessed using S-100 β , 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.
6. Perioperative complications in patients undergoing awake craniotomy – A retrospective analysis.
7. Attenuation of hemodynamic response and recovery profile using dexmedetomidine and lignocaine.
8. Anaesthetic management and postoperative outcome in patients of Moya-Moya disease.
9. Effect of intraoperative dexmedetomidine on postoperative recovery profile children undergoing surgery for spinal dysraphism.
10. Clinical evaluation of C-Mac videolaryngoscope with or without use of stylet for endotracheal intubation in patients with cervical spine immobility.
11. Comparison of intubation success with McIntosh blade videolaryngoscope using stylet or bougie in patients undergoing neurosurgical procedures.
12. Effect of dexmedetomidine in attenuating hemodynamic response due to nasal speculum insertion in patients undergoing transsphenoidal resection of pituitary tumours.
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

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).
2. Neurosurgical operations: Total 2,764, Elective 2033, Emergency 731.
3. Neuroradiological procedures: Total 465, Diagnostic 240 (DSA 112, MRI 127, Cisternography 1; Under GA 222, MAC 18), Therapeutic 225 (including 2 Gamma knife surgery; Under G.A. 210, MAC 15).

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 Anaesthesiologists, 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 :

1st AIIMS workshop on stroke: Theme – ‘Stroke Basics’, 6 August 2011.

2nd AIIMS workshop on Stroke. Theme – ‘Acute stroke treatment’. 7 January 2012.

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 autologous 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. Beta Adrenergic Receptor and Angiotensin Converting Enzyme Encoding Gene Polymorphism as a Risk Factor for Stroke: A Case Control Study. K. Prasad. ICMR, 3 years, Rs 14,61,484.
12. 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.
13. Effects of Non-Ionizing Electro Magnetic Field (EMF) on Human Health. MV Padma Srivastava, ICMR, 5 years, Rs 40 lakhs.
14. 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 clinicroadiological 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 MTLT with intractable epilepsy. Manjari Tripathi, DBT, 3 years; Rs 30 lakhs,
21. Generating knowledge for assessment of emerging technologies – The effects of continuous positive airway pressure therapy for prevention of new vascular events in patients with sleep disordered breathing and stroke: A randomized controlled study. Garima Shukla, Department of Science and Technology, 2009–12, Rs 67 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.
4. Translation and validation of PDQ-39 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.
11. Olfactory functions in PD and Parkinsonism.
12. Treatment cost of PD in India.
13. Prevalence of Impulsive – compulsive behavior disorders in Parkinson's disease patient: Questionnaire-based study.
14. Evaluation of sexual function in PD and the urological dysfunction in PD, with correlation of urological parameters prospective study.
15. Predictors of refractoriness in patients with temporal lobe epilepsy. Effect of refractory epilepsy and controlled epilepsy versus controls.
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.
21. Obstructive sleep apnea in patients with first ever stroke versus those with refractory hypertension: search for common pathogenic mechanisms.
22. Add on treatment in patients with refractory epilepsy – effectiveness of Clobazam.
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).
3. Mobilization of stem cells using G-CSF in acute ischemic stroke patients: A randomized clinical trial. (Department of Biotechnology).
4. Autosomal dominant spinocerebellar ataxia and development of locus specific disease database. (Council of Scientific and Industrial Research).
5. Prevalence of the restless legs syndrome in women and its relationship with iron deficiency – a prospective case-controlled study from North India
6. Mitochondrial variation and common founders for the Friedreich's ataxia in the Indian population. (Indian Council of Medical Research).

PUBLICATIONS

Journals: 60

Abstracts: 12

Chapters in books: 14

Books: 1

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

Procedure	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
EEG	272	331	279	284	273	182	241	289	139	253	214	291
ECG	86	90	95	102	90	69	82	97	74	90	93	96
LTV EEG	12	19	14	17	10	13	29	19	23	16	14	13
STV EEG	23	18	21	15	17	14	19	12	20	20	16	
EP	16	35	26	32	30	35	27	37	32	31	29	41
EPS	270	318	343	352	269	343	379	400	319	298	335	333
SLEEP	14	15	12	27	24	25	23	17	15	26	28	33

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 Commission, 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.

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 Neurophysiology 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

1. Glial tumors: a correlative clinicopathological study of chromosomes 1p/19q status, epidermal growth factor receptor (EGFR) amplification and p53 expression. Chitra Sarkar. ICMR, 2007–11, Rs 16.5 lakhs.
2. Study of the role of bone marrow derived mononuclear cells in peripheral nerve repair of adult rats. Vaishali Suri, AIIMS, 2006–11, Rs 18 lakhs.
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.
5. Open label, prospective, multicentric study to evaluate the safety and efficacy of BIOMAb-EGFR (Nimotuzumab) as induction and maintenance therapy in combination with radiotherapy plus temozolamide (concomitant and adjuvant) in Indian patients with glioblastoma multiforme – Phase II/III clinical trial. Chitra Sarkar. Biocon Biopharmaceutical Pvt. Ltd., 2008–11, Rs 15 lakhs.

Ongoing

1. Glioblastoma in Glioblastomas in children and adults: A comparative study with special reference to molecular pathways and MGMT methylation status, Vaishali Suri. ICMR. 2010–13, Rs. 24 lakhs.
2. A Clinicopathological and Molecular Genetic Study of Polycomb Repressive Complexes in Gliomas. Chitra Sarkar. ICMR, 2012–15, Rs 50 lakhs.

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.
4. Hypoxia and Notch signaling in Glioblastoma: Implications for an adverse phenotype. Chitra Sarkar. Department of Biotechnology, 2011–12, Rs. 48 lakhs.
5. Molecular Mechanisms of Hypoxia Resistance in Glioblastoma: Role of MicroRNAs. Chitra Sakar. Department of Biotechnology, 2011–14, Rs.65 lakhs.
6. Clinical application of array based comparative genomic hybridization (array CGH) in the genetic evaluation of still births. Chitra Sarkar and MC Sharma. Department of Biotechnology, 2012–15, Rs 85 akhs.

Departmental projects

Completed

1. Study of PTEN and CDKN2 gene alterations in GBMs.
2. Study of IDH-1 mutations in gliomas.
3. Study of gliomagenesis: Role of Shh-Gli pathway.
4. Gliosarcoma: A clinicopathological and molecular study with special reference to MGMT promoter methylation.
5. Characterization of dendritic cells and expression of cytokines, chemokines and NF kB in idiopathic inflammatory myopathies.
6. Molecular Sub typing, EBV-CISH and Clinicopathological Analysis Of Primary CNS Lymphoma (PCNSL).
7. Expression of WNT and NOTCH Pathway Proteins in Ependymomas. A clinicopathologic and Immunohistochemical Study.
8. Analysis of CDKN2a/p16 alterations in Ependymomas.
9. Diagnostic accuracy of skin biopsy in diagnosing muscular dystrophy.
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 Dytstrophy (LGMD) Patients in Indian population using Calpain-3, Dysferlin and Sarcoglycan Protein Analysis.
4. Mutational analysis of Indian patients of Limb Girdle Muscular Dytstrophy (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.
7. Molecular genetic study of paediatric gliomas.
8. Analysis of genetic alterations in meningiomas.

Collaborative projects

Completed

1. Effects of administration of human umbilical cord blood cells (HUCBG) in combination with melatonin versus HUCBG alone 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

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, Alfried 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

1. Study of Cognition and QOL in chronic intractable epilepsy using Functional Magnetic Resonance Imaging (fMRI).
2. Markers of Stress and their Contribution in persons with Mild Cognitive Impairment and Dementia.
3. A cost of illness study to assess the economic burden of dementia care.
4. Functional and cognitive recovery after severe traumatic brain injury.
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 thesis/theses 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, Government 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.
3. 32nd International Congress of Paediatric Neurosurgery, Goa, October 2011.
4. Indian Society of Cerebrovascular 2011, AIIMS.
5. 3rd Indian Gamma Knife Conference, AIIMS, February 2012.
6. Neurological Society of India, Annual Congress, 2012.
7. Cervical Spine Workshop, Faridabad, March 2011.
8. Cervical Spine hands on workshop, Faridabad, September 2011.
9. DBT Indo-German Neurosurgery Skills Training Workshops, 15–17 April 2011, 5–7 August 2011 and 25–27 November 2011.
10. 11th Annual Conference of the Indian Society of Cerebrovascular Surgery and International Cerebrovascular CME and Live Neurosurgery and Intervention Workshop, AIIMS 6–9 October 2011, .
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).
15. Management of complex spinal trauma – live operative workshop and symposium, JPNATC, AIIMS, 27 August 2011.
16. 1st International Summit and Workshop on Cost Effective and Meaningful Use of Technology in Emergency Healthcare (CEUTEH 2011), AIIMS, New Delhi, 27–30 October 2011.
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.
21. AO Spine tumor week, AIIMS, 29 September–3 October 2011.
22. BRACHIALCON-AIIMS-2011, held at JPNATrauma Centre, 19–21 December 2011.

Lectures delivered/papers presented

A. K. Mahapatra: 18

P Sarat Chandra: 23

Ashish Suri: 7

Deepak Gupta: 8

Sumit Sinha: 3

Sachin A Borker: 6

RESEARCH

Funded projects

1. STICH 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.
6. Evaluation of Development of Neurosurgery Skills by Hands- on Skills Training and Interactive Virtual Training (Web Based, Tele-Education and Real Time Simulation Modules), AIIMS–IIT-Delhi (AIIMS –Delhi), Ashish Suri, ICMR.
7. Development of Low Cost Equipment System for Neurosurgery, AIIMS–IIT-Delhi (AIIMS–Delhi), Ashish Suri, Department of Science and Technology, DST-IDP, Ministry of Science and Technology.
8. Expansion of DST-DBT Sponsored Neurosurgery Skills Training Facility and Development of Stereoscopic (3 Dimensional) Virtual Modules for Neurosurgery Skills Training, Ashish Suri, ICMR, DHR.
9. Distributed cognition and modelling complexity: a bioinformatics approach for decreasing medical errors. Deepak Agrawal, DST, 2011–13), Rs. 1.2 crores.
10. Thromboelastometry (TEG): Utility and Cost-effectiveness in diagnosing of infection in Neurosurgery Intensive care unit (NICU) as compared to established biomarkers, Deepak Agrawal, AIIMS, 2012–13), Rs. 9 lakhs.
11. Eurotherm 3235 Trial: randomized, controlled trial on induced hypothermia in closed traumatic brain injury (TBI) in adults, Deepak Kumar Gupta.
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).
13. Role of human umbilical cord blood stem cells and neural stem cells in neuronal regeneration and functional restoration: A comparative study in male adult rats with acute spinal cord injuries, Sumit Sinha, DBT under the Rapid Young Investigator scheme 2011.
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. I¹³¹ 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
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Total number of surgeries

Major	592	Minor	992	Total	3,271
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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 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 a 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 total 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, Pontifical 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 Bernhard 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 Recherchecontréls cancers de l'Appareil Digestif)/ EITS (European Institute of telesurgery), Strassbourg, 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,

11.1 B.B. Dikshit Library

Chairperson

Chitra Sarkar

Chief Librarian

K.P. Singh

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 house keeping operation of the library (viz. acquisition, cataloguing, serial control) has been automated. The library is using a commercially available software package named LS-Premia.

COMPUTERIZED THESIS SEARCH

About 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 these 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, 1163 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

1. Jahangir Khan and Rakesh Rawat presented a paper titled 'Online access of electronic journals by health care professionals at AIIMS, New Delhi', National Convention of MLAI-2011, Dr Rajendra Prasad Government Medical College, Kangra, (Himachal Pradesh). 7-9 December 2011.
2. Prashant Shrivastava attended 13th Annual National Convention of MALIBNET, University of Delhi, Delhi, 13-15 October 2011.
3. Prashant Shrivastava attended National Convention of MLAI-2011, Dr Rajendra Prasad Government Medical College, Kangra, (Himachal Pradesh). 7-9 December 2011.
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.

11.2 Cafeteria

Chairman

Shri Vineet Chawdhary (Dy. Director, Admn)

Faculty In charge

O. P. Kharbanda

Accounts Officer

Shri S. K. Gupta

General Manager

Shri S. K. Kaushik

Dy. General Manager

Shri K. K. Sharma

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 Pulaoo, (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.

11.3 Central Animal Facility

Professor-In-Charge

D.N. Rao

Senior Veterinary Officer

P.K. Yadav

Veterinary Officer

Vijender Singh

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	
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.

11.4 Central Workshop

Faculty Coordinator

Shashi Kant

Chief Technical Officer

Adarsh Kumar Sharma

Senior Technical Officer

Kalu Ram

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

Painting , upholstery and carpentry

REPAIR AND MAINTENANCE

The Central Workshop carries out repair and maintenance of all types of equipment including blood pressure instruments, electrosurgical 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:

S.No.	Name of the item	Quantity	Department
1.	Tr. Tube	119	C N Center
2.	Stellet	41	COPD, CTVS
3.	Brail base plate	1	NMR
4.	Humidifier chamber	1	Pathology
5.	Handle for surgical equipment	22	Ortho OT
6.	Objective for MRI	20	NMR
7.	Cabs	1	Ortho OT
8.	I.V. stand wooden	1	NS OT
9.	Pelvic stand	1	Ortho OT
10.	Caps for nylon hammer	3	Ortho OT
11.	OT Table top	3	MOT
12.	Testicle balls	2	Paed. Surgery
13.	Head and arm hood cover	2	MOT
14.	Rat stand with 4 box	1	Anatomy
15.	Metal hammer	2	JPNATC OT
16.	Plastic mould	7	GOPD
17.	Gaskets	100	Boiler CSSD
18.	Tube stand	2	Forensic Medicine
19.	Specimen tray	6	NS2, IRCH
20.	Bed cradle	10	AB5 Ward
21.	Al Plaster board	15	Anesthesia store
22.	L Piece (Aluminum)	20	Anesthesia store
23.	Ample cutter	3	AB7 KTP
24.	Sample box	6	C6 Ward
25.	E.T Stellet (Aluminum)	2	IRCH MO Ward

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
(superannuated 31 August)

S.N. Ragu Kumar

Satish Prasad

Senior Programmers

Sushil Kumar Meher
S.P. Singh

Sanjay Gupta
Vinay Pande

Programmers

Hari Shankar
Shyamal Barua

Tripta Sharma
Ankita Saini

Sanjeev Kumar
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: Histology 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.
2. Accounts including (i) payroll and tax management (form 16, 16A), (ii) grand register, (iii) Cash book, (iv) Ledger, (v) TA/DA reimbursement, and (vi) Balance sheet.
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.
14. Continued management of Wi-Fi zone at B.B. Dikshit Library for internet and online journal access for students.
15. The website of *www.aiims.edu*, *www.aiims.ac.in* is being maintained in-house by the Computer Facility.
16. Internet facility for faculty and students was maintained 24×7 days on the AIIMS network at around 2500 nodes.
17. Full commissioning of 45 Mbps (1:1) leased line from Education and research network (ERNET India, Ministry of information and communication technology, GOI).
18. 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.
19. Creation and maintenance of users accounts for 700 aiims.ac.in domain email users.
20. The total number of visitors to AIIMS website was approx. 25 lakh till date.
21. Maintenance of Web server, Proxy server, Mail Server 24×7 days.
22. Provision of new internet connections to faculty and officers on regular basis.
23. Facility management and call maintenance for internet and network users complaints and resolution.
24. The software modules for Examination Section were developed for the AIIMS website.
25. 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.
26. 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.

11.6 Electron Microscope Facility

Officer-in-Charge

Shashi Wadhwa

Additional Professors

Taposh K. Das

T.C. Nag

Technical Officer

Sandeep Arya

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

1. Endemic fluorosis: Role of oxidative stress as a causative factor for skeletal fluorosis. Taposh K. Das, Ministry of Environment and Forests, 2010–13, Rs 23 lakhs.
2. Cellular localization of markers of oxidative stress in aging human retina. T. C. Nag, AIIMS, 2010–12, Rs 2 lakhs.

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.
4. Fine structural changes of the retinal pigment epithelium-choriocapillaris interface in human eyes.

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).
4. Cardioprotective mechanism of telmisartan in experimental model of myocardial infarction in streptozotocin-induced diabetic rats. (Department of Pharmacology).

PUBLICATIONS

Journals: 12

PATIENT CARE

Special laboratory facilities

During the year, special laboratory facilities provided for research and patient care are as follows:

S.No.	Facility	Users (n)		Specimens analysed	
		Internal	External	Internal	External
1.	Transmission Electron Microscope	101	172	709	1161
2.	Scanning Electron Microscope	28	88	262	509
3.	Immuno-electron Microscope	6	29	29	55
4.	Elemental Analysis (EDAX)	2	19	8	24

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.

11.7 Hostel Section

Superintendent

N.K. Mehra

Deputy Superintendents

S. K. Khandelwal	S. Datta Gupta	Neerja Bhatla
S.K. Maulik	Tanuj Dada	Rakesh Kumar
Raj Kumar Yadav	K.H. Reeta	Kapil Yadav
	Shashi Mawar	

Administrative Officer

Ravi Chauhan

Store Officer

Narender

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

S.No.	Hostel	Location	Single room	Double/Three/ Four/Five seater	Guest rooms (with 2 beds)	Total
Gents Hostel						
1.	I (Charak)	Main Campus	62	$3 \times 2 = 6$	–	68
2.	II (Jivak)	Main Campus	55	$2 \times 2 = 4$	1	60
3.	III (Sushruta)	Main Campus	70	$6 \times 2 = 12$	1	83
4.	IV (Madhava)	Main Campus	53	$7 \times 2 = 14$	–	67
5.	V (Nagarjuna)	Main Campus	52	$5 \times 2 = 10$	–	62
6.	VI (Vagbhatta)	Main Campus	69	$7 \times 2 = 14$	–	83
7.	VII (Ashwini)	Main Campus	108	$4 \times 2 = 8$	1	117
8.	VIII (Bharadwaj)	Main Campus	108	$1 \times 2 = 2$	1	111
9.	RPC-I (Dhanwantri)	Main Campus	72	–	1	73
10.	MMRDH (Single)	Masjid Moth	154	–	6	160
11.	JPNATC	Raj Nagar	57	–	2	59
		Total				943

S.No.	Hostel	Location	Single room	Double/Three/Four/Five seater	Guest rooms (with 2 beds)	Total
Married Quarters						
1.	F.Type	Ansari Nagar (West)		17		17
2.	MMRDH	Masjid Moth campus		42		42
3.	A.V. Nagar.	A.V. Nagar		80		80
4.	F.T.A.	A.V. Nagar		49		49
5.	JPNATC	Raj Nagar		6		06
		Total		194		
Ladies Hostels						
1.	IX (Saraswati)	Main Campus	62	16+1+1+0	1	102
2.	X (Pravati)	Main Campus	91	0+0+1+1	1	101
3.	RPC-II (Lakshmi)	Main Campus	20	13+0+0+0	1	47
4.	Ladies Hostel XI	Main Campus	-	15+0+0+0	-	30
		Total				280
New Nurses Hostel, Masjid Moth						
1.	Nursing Students	Masjid Moth	160	90+4+0+0	2	354
2.	Staff Nurses	Masjid Moth	34			34
		Total				388
		Grand Total				1,805

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 Ethis 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 Rajjinder 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 Thulkar, Associate Professor, Radiodiganosis, 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

Thesis: 481

Review Thesis: 436

Old Thesis: 3

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.

11.9 K.L. WIG Centre for Medical Education and Technology (CMET)

Professor-in-Charge

K.K. Deepak

Co-ordinator (Medical Sciences)

Rakesh Yadav

Co-ordinator (Dental Sciences)

O.P. Kharbanda

Educationist

B.V. Adkoli

Education Media Generalist

Yogesh Kumar

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

Item	Number of requisitions
Clinical Photography	784 (16701)
X-ray scan and A4 printing, slide scan	653 (6360)
Photographic colour prints, scanning of images and documents	506
Video recording and editing	493
Designing/printing of large format posters	1007

(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

1. Aalok L, Azad R, Sharma YR, Phuljhele S. Microperimetry and optical coherence tomography in a case of traumatic macular hole and associated macular detachment with spontaneous resolution. *Indian J Ophthalmol* 2012; 60: 66–8.
2. Abrol N, Gupta N, Kumar R. Medial thigh pain: An unusual presentation of giant calculi in sigmoid neobladder. *Indian J Urol* 2011; 27: 276–7.
3. Abrol N, Seth A, Sharma S. Pseudoaneurysm kidney: a rare complication of pseudopancreatic cyst. *Urology* 2012; 79: 111–12.
4. Acharya SK, Panda SK. Hepatitis E: Water, water everywhere—now a global disease. *J Hepatol* 2011; 54: 9–11.
5. Acharya SK, Sreenivas V, Gupta SD, Kumar S, Chawla YK, Tandon A, et al. Treatment of chronic hepatitis due to hepatitis C virus (CH–C) in India: A randomized control trial comparing daily interferon alpha–2b and ribavirin with daily interferon alpha–2b and glycyrrhizin – A multicentre study. *J Clin Exp Hepatol* 2012; 2: 10–18.
6. Agarwal A, Khanna P, Baidya DK, Arora MK. Trace elements in critical illness. *J Endocrinol* 2011; 1: 57–63.
7. Agarwal A, Khanna P, Narayanawamy S, Prasad G, Borle A. Anaesthetic management for emergency caesarean section in a patient with an untreated recently diagnosed phaeochromocytoma. *Indian J Anaesth* 2011; 55: 614–17.
8. Agarwal N, Nagananda MS, Rahman SMK, Sengupta A, Santhosh J, Anand S. Portable cost–effective EEG data acquisition system. *J Med Engg Tech* 2011; 35: 185–90.
9. Agarwal S, Sharma MC, Sarkar C, Suri V, Jain A, Sharma MS, et al. Extraventricular neurocytomas: A morphological and histogenetic consideration. A study of six cases. *Pathology* 2011; 43: 327–34.
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11. Aggarwal P, Mittal S, Malhotra N, Bahadur A. Idiopathic thrombocytopenic purpura managed by intravenous anti–D. *J Obstet Gynaecol* 2012; 32: 195–8.
12. Aggarwal P, Wig N, Bhoi S. Efficacy of two corticosteroid regimens in acute exacerbation of chronic obstructive pulmonary disease. *Int J Tuberc Lung Dis* 2011; 15: 687–92.
13. Aggarwal S, Bhattacharjee H, Misra MC. Practice of routine intraoperative leak test during laparoscopic sleeve gastrectomy should not be discarded. *Surg Obes Related Dis* 2011; 7: e24–5.
14. Aggarwal S, Gupta P, Sharma S. Laparoscopic management of gastric angiolipoma: case report and review of literature. *Surg Laparosc Endosc Percutan Tech* 2012; 22: e21–4.
15. Aggarwal S, Misra M, Ramaswamy N, Jaiswal R. Laparoscopic sleeve gastrectomy with and without staple line reinforcement: a randomized study. *Obes Surg* 2011; 21: 1105.
16. Aggarwal V, Kapoor PM, Choudhury M, Kiran U, Chowdhury U. Utility of Sonoclot analysis and tranexamic acid in tetralogy of Fallot patients undergoing intracardiac repair. *Ann Card Anaesth* 2012; 15: 26–31.
17. Aggarwal V, Malik V, Kapoor PM, Kiran U. Noonan syndrome: An anaesthesiologist’s perspective. *Ann Card Anaesth* 2011; 14: 214–17.
18. Agrawal D, Kumar S, Kumar A, Gombar S, Trikha A, Anand S. Design of an assistive anaesthesia drug delivery control using knowledge based systems. *Knowledge–Based Systems* 2012; 3: 1–7.
19. Agrawal D, Sahoo S, Satyarthee GD, Gupta D, Sinha S, Misra MC. Initial experience with mobile computed tomogram in neurosurgery intensive care unit in a level 1 trauma center in India. *Neurol India* 2011; 59: 739–42.
20. Agrawal D. Transforming trauma healthcare delivery in rural areas by use of an integrated call center. *J Emerg Trauma Shock* 2012; 5: 7–10.
21. Agrawal N, Kalaivani M, Gupta SK, Misra P, Anand K, Pandav CS. Association of blindness and hearing impairment with mortality in a cohort of elderly persons in a rural area. *Indian J Community Med* 2011; 36: 208–12.
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26. Ahmad ST, Arjumand W, Seth A, Kumar Saini A, Sultana S. Impact of glutathione transferase M1, T1, and P1 gene polymorphisms in the genetic susceptibility of North Indian population to renal cell carcinoma. *DNA Cell Biol* 2012; 31: 636–43.
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35. Ahuja A, Sharma MC, Suri V, Sarkar C, Sharma BS, Garg A. Pineal anlage tumour a rare entity with divergent histology. *J Clin Neurosci* 2011; 18: 811–3.
36. Ailawadhi P, Agrawal D, Satyarthee GD, Gupta D, Sinha S, Mahapatra AK. Use of O–arm for spinal surgery in academic institution in India: Experience from JPN apex trauma centre. *Neurol India* 2011; 59: 590–3.
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38. Ailawadhi P, Chandra PS, Sharam MS, Mahapatra AK. Central liponeurocystoma: Case report and review of literature. *Indian J Neurosurg* 2012; 1: 83–5.
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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.**

(RS. IN CRORES)

HEAD/SUB HEAD	ACTUAL EXPENDITURE						SANCTIONED BUDGET ESTIMATES		
	2010-11		2011-12				2012-13		
	PLAN	NON-PLAN	PLAN	NON-PLAN	PLAN	NON-PLAN	PLAN	NON-PLAN	
	Revenue(G)	Capital(N)	Revenue(G)	Capital(N)	Revenue(G)	Capital(N)	Revenue(G)	Capital(N)	
1	2	3	4	5	6	7	8	9	
A. (Main Instt.)									
Pay & Allow.	13.99	-	265.31	12.72	-	290.64	16.90	-	291.00
Incl.LS & PC, stipend etc									
Minor Works	22.40	-	-	27.41	-	-	25.00	-	-
Major work		40.84	-	-	93.22	-	-	70.00	-
Mach. & Equip.	-	86.74	5.72	6.60	74.21	2.68	6.50	100.00	1.80
Mat. & Supply	-	-	150.6	-	-	161.96	-	-	92.07
Maintenance of Bldg.	-	-	9.52	-	-	12.14	-	-	5.40
Pension & other pensionary benefits	-	-	41.73	-	-	49.53	-	-	50.00
Recoverable Advances	-	-	-	-	-	0.45	-	-	0.45
House Building Adv.	-	-	-	-	-	0.07	-	-	0.18
Instt. Research Grant	-	-	-	2.94	-	-	4.00	-	-
Books & Publication (M. & S.)	5.39	-	-	6.74	-	-	6.50	-	-
Conference/Symposia	-	-	-	1.17	-	-	2.25	-	-
Revolving Fund	-	-	6.13	-	-	-	-	-	-
Computerization	1.07	-	-	9.60	-	-	18.50	-	-
TOTAL A	42.85	127.58	479.01	67.18	167.43	517.47	79.65	170.00	440.90
B. SUPERSPECIALITIES									
C.N.Centre	10.17	52.50	105.05	8.55	28.61	116.74	16.80	40.00	105.10
Dr. R.P. Centre	4.03	21.95	55.35	8.52	27.36	59.41	10.40	30.00	45.20
Dr.B.R.A. I.R.C.H.	1.70	12.15	41.69	2.02	5.00	51.18	2.05	10.00	43.40
J.P.N.Apex	64.26	37.43	-	80.45	15.78	-	93.00	15.00	-
Trauma Centre									
Centre for Dental Education & Res.	4.79	2.21	-	4.29	0.60	-	5.10	2.00	-
Centre									
Total	84.95	126.24	202.09	103.83	77.35	227.33	127.35	97.00	193.70
TOTAL (A & B)	127.80	253.82	681.10	171.01	244.78	744.80	207.00	267.00	634.60
C. NDDTC	7.90			9.00					
GRAND TOTA (A&D)	135.70	714.85	681.10	253.82	681.10	744.80	246.45	610.00	

**ALL INDIA INSTITUTE OF MEDICAL SCIENCE
STATEMENT SHOWING REVENUE RECEIPT FROM APRIL 2011 TO MARCH 2012.**

(Rs. in Lakhs)

AIIMS(M)	C.N.C	R.P.C.	I.R.C.H	Trauma	C.D.E.R	TOTAL
6981.81	827.88	1743.88	239.79	323.52	15.85	10132.73
6981.81	827.88	1743.88	239.79	323.52	15.85	10132.73

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

RECEIPT & PAYMENT ACCOUNT

FOR THE YEAR 2011-2012

		AIIMS(Main) (A)		(Amount in ₹)	
RECEIPT		2011-12	2010-11	PAYMENT	
1	<u>OPENING BALANCES</u>			1	<u>Grants transferred to the Centres/Schemes Cell</u>
A	<u>Cash at bank</u>			A	<u>Dr. R.P. Centre</u>
i)	(a) AIIMS (MAIN)	452534434		i)	PLAN
	(b) Unspent Balance of specific grants remained with AIIMS(M)	408232569	860767003	a)	Creation of Capital Assets (New) 273600000
ii)	Scheme Cell	62074945	168733316	b)	Grant in Aid General 85200000
				ii)	Grant in Aid (Non-Plan)500000000
B	<u>CASH IN HAND (IMPREST)</u>				858800000
i)	AIIMS (Main)			B	<u>C.N. Centre</u>
	(a)Balance as per cash book of the cashier	599950		i)	Plan
	(b) Excess paid by the cashier	307426	292524	a)	Creation of Capital Assets (New) 250000000
C	<u>AMOUNT LYING UNDISBURSED</u>			b)	Grant in Aid General 85600000
i)	AIIMS (Main)			ii)	Grant in Aid (Non-Plan)1050065000
ii)	Scheme Cell	384882	325606	iii)	Transfer from receipts of AIIMS (Main) 20000000
D	<u>POOR PATIENT A/C</u>				1405665000
i)	AIIMS (Main)			C	<u>N.D.D.T.C.</u>
a)	Cash/Bank	1475638	1175983	i)	Plan
b)	FDRs	984180	984180		90000000
E	<u>PATIENT TREATMENT A/C</u>			D	<u>Scheme Cell</u>
	AIIMS	64128212	49928749	i)	Grants against receipts
F	<u>Hostels</u>			ii)	Non Plan grant for National Service Scheme
a)	Cash in hand	32881	18666	iii)	Institute Research Grant
b)	Cash at bank	322179	304695		28403000
c)	FDR's	4121000	3792601	E	<u>Dr.B.R.A.I.R.C.H.</u>
G	<u>DEPARTMENT OF GERIATRIC MEDICINE</u>			i)	Plan
a)	Cash at bank	0		a)	Creation of Capital Assets (New) 50000000
2	<u>GRANTS FROM GOVT. OF INDIA</u>			b)	Grant in Aid General 20500000
a)	PLAN			ii)	Grant in Aid (Non-Plan)466000000
i)	Creation of Capital Assets (New)	2464500000	2490000000	iii)	Transfer from receipts of AIIMS (Main) 20000000
ii)	Grant in Aid General (Plan)	1659000000	1310000000		556500000
b)	Grant in Aid (Non-Plan)	6500000000	6050000000	F	<u>J.P.N. APEX TRAUMA CENTRE</u>
c)	N.D.D.T.C.	900000000	790000000		Plan
d)	Oversight Committee	1055100000	317500000	i)	Creation of Capital Assets (New) 158900000
3	Miscellaneous Receipts	250076174	149321385	ii)	Grant in Aid General 804700000
4	Hospital Receipts	126446267	129321693		963600000
5	Interest	166972091	59429152	G	<u>CENTRE FOR DENTAL EDUCATION & RESEARCH</u>
6	Licence Fee	23076241	21945641		Plan
7	Tuition Fee /Examination Fee	22658306	13364877	i)	Creation of Capital Assets (New) 6000000
8	Employees Health Scheme (EHS)	36062621	29459258	ii)	Grant in Aid General 42962000
9	Pot Fund	28740	407585		48962000
10	Employees Insurance Scheme	15700661	15509969	2	<u>ADMINISTRATIVE EXPENDITURE</u>
11	GPF	390137488	358861099		<u>AIIMS (MAIN)</u>
12	Out side recoveries	380407494	302996544	a)	Pay and allowances
13	Security Deposits/ Earnest Money	55438282	39561396	b)	Travelling Allowances
				c)	Stipend
				d)	Leave salary & Pension contribution
				e)	Pensionary Benefits
				3	Office Contingency
				4	Material & Supply (Non-Plan)
				5	Repair and maintenance of Machinery & Equipment
				6	Maintenance of buildings
				7	Employees Insurance Scheme
				8	G.P.F.

14	Caution Money	19375	45300	9	Recoverable Advances		
15	Leave Salary & Pension contribution	1327296			a)Car	180000	180000
16	Recoverable Advances				b)Scooter/Motor Cycle	658000	628000
	a)Car	751328	909476		c)Bicycle	9000	6000
	b)Scooter/Motor Cycle	621528	653059		d)House Building Advance	702539	2525300
	c)Bicycle	5980	7740		e)Computer	720000	750000
	d)H.B.A.	3435779	3659377		f)Festival	2984250	2400000
	e)Computer	1287845	1205970	10	Expenditure out of grant received for specific purpose (Scheme Cell)		
	f) Festival	2629675	1665700	i)	Appendix-A	635004546	
17	Post Partum Programme (Incentive money)	400000	600000	ii)	Add undisbursed for 2010-2011 paid now	384882	
18	Grants received for specific purpose Appendix-A (Scheme Cell)	627878595	513437406	iii)	Less undisbursed for 2011-12	197351	635192077
19	Schemes						519630561
i)	Grants against receipt	686816150	370844809	11	Post Partum programme (Incentive money)	545175	684780
ii)	Grants transfer from A.I.I.M.S. Non-Plan			12	Furniture & Fixture	1517285	2339116
iii)	Direct received	58934952	42186657	13	Books & Publications	25508255	16783481
iv)	IRG Grant from AIIMS	28403000		14	<u>PLAN</u>		
20	Miscellaneous Donations (Appendix-D)	425337	290450	a)	Salary	127190439	117141981
21	Revolving Funds	72098705	70164253	b)	Spares & Accessories	65991491	22803071
22	New Pension Scheme	44190751	32865457	c)	Machinery & Equipment	216031990	375775377
23	Cochelar Inplant Patient Treatment A/c	34829450	36724000	d)	Expenditure of Urology against IRCH receipts	1000000	
24	Deposit Work			e)	Building Construction		-
(a)	Shri Sai Vishram Sadan	75000		i)	Major Works	109914765	67506447
(b)	MTNL for cable lying in A.V Nagar	42000		ii)	Minor Works	272586165	200344038
25	Recovery of excess paid by Cashier			f)	Institute Research Grant	989933	
a)	Recovery		307426	g)	Computerisation	700309	
b)	Interest		175542	h)	Travelling Allowances	11692798	
26	Janani Suraksha Yojana(JSY)	26000	26000	15	Purchase of Vehicles		
27	Received from IRCH under (Plan) for Urology	1000000		(a)	Transport Office		
28	Custom Duty deposited by Trauma Centre	20000000		(b)	Hospital Store	637563	
29	Travel Grant	233271		16	<u>Advance Payments</u>		
30	UNDCP Grant	219584		a)	Material & Supply (NP) for foreign purchase	9737625	13495899
31	Unspent balance (Construction Advance Received) from HSCC	299943		b)	Machinery & Equipment(Plan) for foreign purchase	418748632	420062408
32	TCIL payment for honorarium	394875		c)	PAO for procurement of Stores	4000000	4000000
33	Scholarship from Ministry of Tribal Affairs	75400		d)	Temporary/Contigent Advances	32084006	22974388
34	GSLI Settlement	20320		e)	Private firms for stores		3037061
35	Receipt for Patient Treatment	617753		f)	Custom Duty for Machinery & Equipment	105144337	79870853
36	Receipt for conference	886500		g)	For Books & Journals	41877157	37080547
				h)	National Informatics Centre Services Inc for computerisation	95293333	
				i)	HSCC for prep of master plan surgical block phase - II (oversight)	5868950	
				j)	HSCC for PC & Teaching Block phase II (oversight)	83814950	
				k)	HSCC for cont. of Hostel Bolck at AIIMS Campus (oversight)	55699950	
				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)		3000000
				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 Refregreation for p/o A/c units (minor work)		290518
				u)	M/s Sidwal Refregreation for p/o A/c (Major work)		481289
				v)	M/s Kohli & Co. for A/c (minor work)		253034
				w)	M/s Videcon Ind. Ltd. For p/o A/C (Minor work)		59622

x)	M/s Anu Solar Power (P).Ltd. for A/c (minor work)		1495194
y)	M/s Anu Solar Power (P).Ltd. for A/c (major work)		6454930
z)	M/s Universal Comfort for A/c unit (minor work)		1513900
aa)	M/s LG Elect. For p/o A/c (major work)		1310504
ab)	M/s LG Elect. For p/o A/c (minor work)		335815
ac)	Ex. Engg. SJH(CPWD) for sewage treatment plant (minor work)		12500000
ad)	Ex. Engg. SJH(CPWD) for installation of additional lifts (major work)		4868896
ae)	Ex. Engg. CPWD for installation of lift at ward block (major work)		1000000
af)	Ex. Engg. CPWD for sewage treatment plant (major work)		10900000
ag)	Ex. Engg. CPWD for covering of Nallah Phase-II (major work)		50000000
ah)	Ex. Engg. AIIMS CPWD for const. of Hostel (major work)		5000000
ai)	M/s Hitachi Homes Solutions for p/o A/c (minor work)		3823111
aj)	M/s Hitachi Homes Solutions for p/o A/c (major work)		488308
ak)	M/s Gurdev Singh Sons for A/c (minor work)		302357
al)	M/s Usha International Ltd. for A/c (minor work)		315020
am)	HSCC for renovation of RKAK OPD (major work)	16899950	
an)	HSCC Ex. Engineer, Delhi Water Service Haryana Govt. (major work)	50000000	
ao)	National Environment Engineering Res. Institute (NEERI) (major work)	900000	
ap)	DMRC for tunnel connection between AIIMS & Trauma Centre (major work)	250000000	
aq)	CPWD for Lift (major work)	10000000	
ar)	CPWD for covering of Nallah Phase-II (major work)	100000000	
as)	HSCC for underground parking (major work)	299499950	
at)	HSCC for outreach OPD Badsha (Hr.) (major work)	95000000	
au)	Mahindra & Mahindra Ltd for p/o Tractor (minor work)	431510	
av)	Seed advance for Tabassum Const. Co. (minor work)	680408	
aw)	Hitachi Homes for p/o split A/c (minor work)	204423	
ax)	Hitachi Homes for WTC units (minor work)	196328	
17	Security Deposit/ Earnest Money		
(i)	Payment made against the receipts upto the year 2010-11	41809764	
(ii)	Pertains to 2011-12	6125000	47934764
18	Outside recoveries	395397593	308313139
19	Miscellaneous Donations (Appendix-D)	343550	198250
20	Revolving Funds	54064822	61303001
21	New Pension Scheme		
i)	to National Securities Depository Ltd.		20408372
ii)	to GPF Section	102158307	102906967
22	Cochelar Inplant Patient A/c	34722600	37227550
23	Deposit Work		
a)	Shri Sai Vishram Sadan	74500	
b)	MTNL for cable lying in A.V Nagar	41888	
24	Deposit Linked Insurance Scheme	1223614	402697
25	Oversight committee		
a)	Major works	21681424	317499700
b)	Pay & Allowances	102100000	55100000
c)	Machinery & Equipment (Store)	38263518	
26	VVIP		1086213
27	WHO-in-Country fellowship	73772	345012
28	Transfer to Custom Duty Account	20000000	
29	Janani Suraksha Yojna(JSY)	25000	25000
30	Travel Grant	233271	
31	Unspent balance of construction Advance transfer to IRCH	299943	
32	UNDCP Grant	219584	

33	TCIL payment for honorarium	394875
34	GSLI Settlement	20320
35	Scholarship from Min. of Tribal Affairs	75400
36	Refund for Patient Treatment	617753
37	Refund for Conference	886500

POOR PATIENT ACCOUNTS

a) AIIMS	244600	367194
b) Interest	274404	42391
c) FDRs		

PATIENT TREATMENT ACCOUNTS

(a) AIIMS	95637076	72062707
(b) Interest	2951433	2000738

HOSTELS

I) Security Deposits	1517000	1415000
ii) Miscellaneous Receipts	74535	57575
iii) Interest earned	521583	42483

DEPARTMENT OF GERIATRIC MEDICINE

i) Grant in Aid	36687600	
ii) Funds received from Director (Main)	1000	
iii) Interest received	267477	

POOR PATIENT ACCOUNTS

1	AIIMS	90295	109930
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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	
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CLOSING BALANCES

A CASH AT BANK

1	a) AIIMS(Main)	1171035301	
	b) Unspent Balance of Specific Grants remained with AIIMS (Main)	341419426	1512454727
2	Schemes Cell	201224501	62074945

B CASH IN HAND (IMPREST)

1	AIIMS (Main)		
	a)Balance as per cash book of the cashier	683950	292524

C AMOUNT LYING UNDISBURSED

1	AIIMS (Main)		
2	Scheme Cell	197351	384882

D POOR PATIENT ACCOUNT

1	AIIMS (Main)		
	(a) Cash/Bank	1685917	1475638
	(b) FDR's	1202610	984180

E PATIENT TREATMENT A/C

	AIIMS	91464066	64128212
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F HOSTELS

1	Cash in hand	-	32881
2	Cash at Bank	396906	322179
3	FDR's	5026772	4121000

G DEPARTMENT OF GERIATRIC MEDICINE

	Cash at Bank	36954889	
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Sub-Total(A)	15956310909	13579041106	15956310909	13579041106
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DR. RAJENDER PRASAD CENTRE FOR OPHTHALMIC SCIENCES(B)

OPENING BALANCE

A	Cash at Bank	64667551	57013488
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B Cash in hand

i)	Imprest	20000	20000
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C Poor Patient A/C

	Cash/Bank	186104	104014
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II GRANT IN AID

i)	Capital (New)	273600000	200000000
ii)	Revenue General	85200000	45000000
iii)	Non-Plan	500000000	428500000

III	Security Deposits received	55000	35000
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IV	NSPB		4000000
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V GRANT IN AID (NON-RPC SCHEMES)

1	ABN AMRO Natra Raksha		..
2	Acuate Bacterial Conjectivities		..
3	Administrative charges received through Priojects	1469266	1658011
4	Akrosoft6 Bausch & Lomb		..

I A	Pay & Allowance	388802680	352614026
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B	Pay & Allowance (Revenue General)	44766275	24777754
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C	Daily Wages		
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II	Travelling Expenses	3230618	2382037
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III	Office Expenses	13506571	15905165
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IV	Capital Works (Revenue General)	12174067	15514496
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V	Maintenance of buildings	8406039	5584625
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VI Material & Supply

a)	Material & Supply	188531971	160058074
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b)	Advance Payment	8149089	196681060
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VII	Refund of Security	25000	285000
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VIII	a)Repair & Maint. Of Mach. & Equip. Non- Plan	60055	465472
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IX Mach. & Equipment (Plan)

i)	Actual Payment	7188237	42312873
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ii)	Adv. Payment made to foreign purchase	263349489	270537726
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iii)	Comprehensive Annual Maintenance Contract (CAMC) (RG)	28259658	
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X	Vehicle purchased		1606756
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XI	Furniture & Fixture	3062274	558173
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XII	NSPB		3999173
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XIII PAYMENTS TOWARDS NON RPC SCHEMES

1	ABN AMRO Natra Raksha	19989	..
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2	Acuate Bacterial Conjectivities		55633
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3	Administrative Charges	653453	585284
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4	Akrosoft6 Bausch & Lomb		798
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5	AMD View Study	1430441	3972557	5	AMD View Study	11155862	3495439
6	Bacterial Corneal Ulcer Eye	36000	97200	6	Bacterial Corneal Ulcer eye	37827	200133
7	Brimiridine DS/DDS	39366	208980	7	Brimiridine DS/DDS	208770	20899
8	Catract Patient (IOL)	189346	556152	8	Catract Patient (IOL)	304786	315588
9	Clinical Evaluation Polyherbal AOD	150000	..	9	Clinical Evaluation AOD	242150	74402
10	Clinical Evaluation on Blink & Clean (AMO)	..	50000	10	Clinical Evaluation on Blink & Clean (AMO)	..	50000
11	Clinical Evaluation OZONE	..	..	11	Clinical Evaluation OZONE	..	..
12	Clinical study of keratitis Conjunctivities (Allergen India Pvt. Ltd.)	..	..	12	Clinical study of keratitis Conjunctivities (Allergen India Pvt. Ltd.)	..	..
13	CRP	..	..	13	CRP	..	1194
14	CSIR	2554352	2766856	14	CSIR	2554352	2766856
15	DBT/ MA	..	..	15	DBT/MA	..	211848
16	DCDRF	35000	10000	16	DCDRF	35000	10000
17	DEGAS	131400	926550	17	DEGAS	265439	922073
18	DME	263988	1052055	18	DME	513609	1180927
19	DST Cyclosporine	..	..	19	DST Cyclosporine	..	22186
20	DST Evaluation of Tear fluid	..	375000	20	DST Evaluation of Tear fluid	..	375000
21	DST/FIST	..	250000	21	DST/FIST	..	250000
22	ENDURE Study	308400	545400	22	ENDURE Study	478020	375780
23	ESG Evaluation Study on Gloucoma	..	..	23	ESG Evaluation Study on Gloucoma	..	5800
24	FAME Study	..	615075	24	FAME Study	..	1940465
25	FTG	96090	189595	25	FTG	165987	119698
26	High Precision Bil Analitial (HP-BAF)	342700	412421	26	High Precision Bil Analitial (HP-BAF)	237612	233851
27	ICMR	7430522	12081998	27	ICMR	11004659	5199984
28	INDEGEN (LSTM)	..	..	28	INDEGEN (LSTM)	9617	20897
29	INDEYE	..	..	29	INDEYE	..	3559
30	INMAS Biomedical Dispensing Products	..	460000	30	INMAS Dispensing Biomedical Products	..	859958
31	INMAS Human Pharmacology	..	475000	31	INMAS Human Pharmacology	..	480549
32	LCIF	..	..	32	LCIF	..	3044
33	LUX 201 Omnicare	..	187704	33	LUX 201 Omnicare	83977	147930
34	LUX 211 PRA International	..	..	34	LUX 211 PRA International	..	47810
35	MA Foundation	600000	308400	35	MA Foundation	385067	158681
36	MBDL ILLY- LILLY	..	207720	36	MBDL ILLY LILLY	..	239777
37	Mayopia Study	1000000	..	37	Mayopia Study	829542	..
38	M.K. Media corneal Transplant (Min. of Finance)	..	..	38	M.K. Media Corneal Transplant(Min. of Finance)	475218	556388
39	Multifocal IOL	..	..	39	Multifocal IOL	..	4675
40	NAB	720000	500000	40	NAB	1513620	261065
41	NCDRC	..	..	41	NCDRC	..	..
42	Neema International	..	..	42	Neema International	..	14343
43	Novartis Shield study	8000	157500	43	Novartis Shield Study	14870	237930
44	Novartis Visudyme	..	179551	44	Novartis Visudyme	..	184943
45	NPCB DOS Training	..	976050	45	NPCB DOS Training	416720	470501
46	NPCB Eye Camp Godda Jharkhand	142165	248642	46	NPCB Eye Camp (Godda Jharkhand)	142165	248642
47	NPCB/DBCS	50000	877250	47	NPCB/DBCS	809221	115600
48	NPCB-NSU	..	300000	48	NPCB-NSU	162210	10000
49	NPCB-SSU	157935	303385	49	NPCB-SSU	274114	163250
50	OEU	330570	340054	50	OEU	355234	378852
51	ORBIS PECP	..	114956	51	ORBIS PECP	..	87268
52	Pharmacokinetic Quinacrine	..	443765	52	Pharmacokinetic Quinacrine	283583	154313
53	Phase II age related macular degeneration menet study (ARMD)	424800	849815	53	Phase II age related macular degeneration menet study (ARMD)	653692	839650
54	Pink Eye (Bausch & Lomb)	..	..	54	Pink Eye (Bausch & Lomb)	..	..
55	Polyherbal Evaluagion DES	..	..	55	Polyherbal Evaluagion DES	..	2323
56	Posudurex Allergan International	216641	358262	56	Posudurex Allergan International	694253	243940
57	PVD /VRT Study	..	..	57	PVD /VRT Study	..	936058
58	Reliance Relinatra	..	80100	58	Reliance Relinatra	..	154375
59	ROP Macugen	..	..	59	ROP Macugen	..	2335
60	ROP Workshop	..	187042	60	ROP Workshop	..	214661
61	RTI	..	..	61	RTI	..	..
62	Sight Saver	..	583750	62	Sight Saver	..	749327
63	SSMI-VFA	674000	585864	63	SSMI-VFA	667386	269984
64	Symposium Workshop	..	60000	64	Sysposium Workshop	..	60800
65	Treatment of Dry eye Allergan International	..	..	65	Treatment of Dry eye Allergan International	..	28400
66	Prevalence of dry eye	207000	..	66	Prevalence of dry eye	101700	..
67	WHO Malaysia	455600	..	67	WHO Malaysia	455600	..
68	WHO Gujrat Survey	-	-	68	WHO Gujrat Survey	..	15956
69	WHO-SEIND	..	..	69	WHO-SEIND	..	12050
70	WHO Short term training	148500	..	70	WHO Short term training	..	1191
71	Ozurdex Project	180000	..	71	Ozurdex Project	18000	..
VI	NIAF	..	30000	XII	NIAF	3417	3372
VII	Hospital Receipts including various kits	147015616	130553120	XIII	AIIMS Recoveries Remitted	94624196	84311143
VIII	Interest on Recoverabl Adv.	1170522	411582	XIV	Outside Recoveries remitted	32796569	25223098
IX	Misc. Receipts	1815142	3665349	XV	Difference of Dr./Cr. Advice	..	..
X	AIIMS Recoveries Received	94624196	84312643				
XI	Outside Recoveries Received	32796569	25223098				
XII	Interest on CLTD	24387210	5177059				
XIV	RECOVERABLE ADVANCE			XVI	RECOVERABLE ADVANCE		
a)	Car	86580	..	a)	Car	150000	..
b)	Scooter	46500	..	b)	Scooter	..	..
c)	Cycle	..	..	c)	Cycle	..	..

d) H.B.A.	210115			d) H.B.A.			
e) Computer	62500			e) Computer			
f) Festival	732825	1138520	899456	f) Festival	795000		795000
Poor Patient A/C				Poor Patient A/C			
Receipts				Payment	131255		98209
a) Interest		9801	5507				
b) Donation		267740	174295				
c) Misc. Receipts			497				
				XVII CLOSING BALANCE			
				a) Cash at Bank	112157899		64667551
				b) Cash in hand (Imprest)	20000	112177899	20000
				Poor Patient A/c			
				Cash / Bank		332390	186104
Sub-Total (B)	1246746053	1019677768				1246746053	1019677768

CARDIO-THORACIC & NEURO SCIENCES CENTRE (C)

1	OPENING BALANCES			1	ADMINISTRATIVE EXPENDITURE		
A	Cash at bank			a) Pay & Allowances (Non-Plan)	880425417		801287255
i)	C.N. Centre	171455298	168444476	b) Wages	6604688		4157262
ii)	CT Patient A/c			c) Travelling Allowance	3045724		1648750
a) Bank		21625780	19675665	2	Stores (Non-Plan)		
b) FDR		299400000	306900000	a) Repair & Maintenance of Machinery & Equipment	2916862		12608203
iii)	Angiography A/c			b) Material & Supply	229005920		199659278
a) Bank		14744516	13114110	3	Stores (PLAN)		
b) FDR		79200000	74300000	a) Machinery & Equipment (Advance Payment)	153787789		458864463
iv)	Gamma Knife patient A/c			b) Machinery & Equipment (Indian currency)	131089332		64861614
a) Bank		57268485	27927424	c) Furniture & Fixtures	1236790		1258424
b) FDR		126400000	136800000	d) Spares & Accessories	51484534		20678764
v)	Neuro Surgery patient A/c			e) Consumables spare & Accessories/ Maintaince	9118213		
a) Bank		9915213	3410417	f) Salary (Plan)	47576479		38956350
b) FDR		31800000	31800000	4	Building maintenance	28200134	20853476
B	CASH IN HAND (IMPREST)			5	Building construction (Plan)		
i)	C.N. Centre	41000	40000	6	Minor Work (Revenue General)	37948823	42103117
ii)	Cash in hand with Cashier	0	1000	7	Office Contingencies	14176979	10281555
C	POOR PATIENT A/C			8	Recoverable Advance (Non-Plan)		
i)	N.S. Centre			a) Car	0		180000
a) Cash/Bank		101932	104900	b) Scooter/Motor Cycle	360000		150000
2	GRANT-IN-AID			c) House Building Advance	1082500		648500
A)Capital Assets (New)		250000000	534110000	d) Computer	300000		270000
B)Revenue General (Plan)				e) Bi-cycle	3000		0
i)Revenue General	85600000		100000000	f) Festival	1317000		1116000
ii)Transfer of fund from patients accounts for spares & Accessories	61400000	147000000		9	Refund of Security Deposits	5980000	6634000
C)Non-Plan	1070065000	974600000		10	Donation	746020	272190
3	a) Miscellenous Receipts	9933823	10633920	11	Neurology Patient A/c	10365366	14416146
b)Private Ward		31161758	28539346	12	Blood Test/Lab. Charges	9500531	9526353
c)X-Ray		810210	1046825	13	Cardio Test	3573871	3335063
d)C.T.Scan charges		2638500	2022170	14	Thallium Test	3641495	168525
e)Ultra sound		148800	106405	15	Amount sent to PAO (GPF)		395500
4	Interest	20925401	22141634	16	i)GPF	102655871	
5	Security Deposit/ Earnest Money)	3254000	10110000	ii)Amt sent to PAO (GPF)	412000	103067871	94461024
6	Donations	5100	6020	17	New Pension Schemes		
7	Refund and Recoveries	1419213	1833470	(i) NPS (Subscription)	13829672		
8	Neurology Patient A/c	13424932	15034509	(ii) NPS (Employees Share)	5366751	19196423	16209625
9	Thallium Test	3429000	1799000	(iii) NPS (Govt)		5366751	0
10	Levy charges	81500	275240	18	Employees Health Services	5136325	4934945
11	Rent Charges/Licence Fee	922483	748467				
12	GPF	103067871	94856524				
13	New Pension Schemes	19196423	16209625				

14	Recoverable Advances						
	a) Bicycle		1200		0		
	b) Scooter		297536		331608		
	c) Car		89592		97320		
	d) House Building		1009540		1103545		
	e) Computer		210310		208900		
	f) Festival		1097075		1005450		
15	Cardio Test		4420820		4326420		
16	Blood Test/Lab. Charges		8316255		6864220		
17	Employees Health Services		5175330		4935070		
18	Outside Recovery		107474672		85387354		
19	Water Charges		552023		41366		
20	Pot Fund		35540		35592		
21	Institute Recovery (Computer Advance)		27971		17866		
22	NACO Fund		99900		100000		
23	Institute Recovery (Scooter Advance)		5060		14300		
24	Institute Recovery HBA		22000		11000		
25	Transport		0		1516		
26	P.M Relief Fund		0		804279		
27	Institute Rec (Festival Advance)		2500		0		

C.T. PATIENT A/C

1	a)Patient's Receipts during 2011-12	29899803		
	b) Patients' Refund 11-12	54398077		
	c) Add poor patient treatment out of interest earned during 2011-12	15020203	259621929	236995666
2	a) Interest during 2011-12	25107237		
	b) Poor patients treatment expenditure 11-12 (Less)	15020203	10087034	12186189
3	Cancelled Cheques		1877563	2827600

ANGIOGRAPHY PATIENT A/C

1	a)Patient's Receipts 2011-12	219873093		
	b)Patients refunds	35615995		
	c)Add Poor Patient's treatment out of interest earned during 2011-12	6288293	190545391	171709833
2	Interest during 2011-12		5361074	3206393
3	Cancelled Cheques		9348657	1188603

GAMMA KNIFE PATIENT A/C

1	Patient Receipts 2011-12	24543535		
	Refund to Patients	1595985	22947550	12800000
2	Interest		7037522	9289361

NEURO SURGERY PATIENT A/C

1	a)Patient Receipts 2011-12	67039105		
	b) Patient Refund	9445231		
	c) Add Poor patient Treatment out of interest earned during 2011-12	1726772	59320646	54283479
2	Fixed/CLTD			
	a) Interest 11-12	2213780		
	b) Poor patient treatment expenditure 2011-12	1726772	487008	29514
3	Cancelled Cheques		451253	101313

POOR PATIENT ACCOUNTS

	N.S. Centre Donation	35179		6232
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19	Outside Recovery			
	a)Outside Recovery 107473232			
	b)Amt Sent to PAO (E.I.S.)	1440	107474672	85385914
20	Amount Sent to PAO (E.I.S.)			1440
21	Pot Fund		35540	35592
22	Water charges		552023	41366
23	Institute Recovery (Computer Advance)		27971	15400
24	Amount sent to PAO (Computer Adv)		0	2466
25	NACO Fund		99900	100000
26	Amount sent to DARC Gzb.(Con. Advance)		0	12000
27	HBA Sent to Main Instt.		22000	11000
28	Scooter Advance Sent to Main Instt.		5060	2300
29	P.M Relief Fund		0	804279
30	Institute Rec (Festival Advance)		2500	0

C.T. PATIENT A/C

1	Purchase of Stores	324435514		255304927
2	Fresh Cheque		1853681	2254413
3	Transferred to AIIMS CNC A/cs		42500000	

ANGIOGRAPHY PATIENT A/C

1	Purchase for stores	200286819		168999058
2	Fresh Cheque		985379	575365
3	Transferred to AIIMS CNC A/cs		17500000	
4	Poor Patient's treatment expenditure during 2011-12		6288293	

GAMMA KNIFE PATIENT A/C

1	Purchase for Stores			2188300
2	MRI Charges			885000
3	Fresh Cheque			75000
4	Bank charges		438	

NEURO SURGERY PATIENT A/C

1	Purchase for Stores	53998610		47702234
2	Bank charges			195
3	Fresh Cheques		186830	207081
4	Transferred to AIIMS CNC A/cs		15000000	

POOR PATIENT ACCOUNTS

	N.S. Centre Expenditure		3988	9200
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CLOSING BALANCES**A CASH AT BANK**

i) C.N. Centre	103302133	171455298
ii) C.T. Patient A/c		
(a) Bank	53823111	21625780
(b) FDRs	170000000	299400000
iii) Angiography A/c		
a) Bank	54339147	14744516
b) FDRs	19800000	79200000
iv) Gamma Knife Patient A/c		
a) Bank	16353119	57268485
b) FDRs	197300000	126400000
v) Neuro Surgery Patient A/c		
a) Bank	16888680	9915213
b) FDRs	15900000	31800000
B C.N. Centre		
i) Imprest	41000	41000
ii) Cash in Hand with cashier		
D POOR PATIENT ACCOUNT		
i) N.S. Centre		
Cash at Bank	133123	101932

Sub-total (C)	3185394368	3206501136	3185394368	3206501136
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Dr. B.R.A. INSTITUTE ROTARY CANCER HOSPITAL (D)**1 OPENING BALANCES**

A Cash at bank	28911048	46936817	1 Pay & Allowances	283883913	249539942
B POOR PATIENT A/C			2 Festival Advance	326250	213000
a) Cash/ Bank	2546411	2419552	3 Expenditure under TA/DA	2584133	2417297
C PATIENT TREATMENT A/C			4 Contingency Bills	2989491	2507227
a) Cash/ Bank	30746984	32686499	5 Medical Oncology	1497848	1144373
b) Short Term Investment			6 RT Revolving Funds	6976699	4416053
c) FDR's	6000000	6000000	7 Maintenance of Building	10812820	10772244
D HMCPF A/C			8 Repair & Maintenance of M & E	12491605	7856542
a) Cash/ Bank	996555	40463	9 Computer Advance	0	60000
B Grant in Aid			10 Scooter/Motorcycle Advance	54000	60000
1 Creation of Capital Assets (New)	50000000	118000000	11 Material & Supply	180078844	124918747
Grant in Aid General (Plan)	20500000	17000000	12 Outsourcing	18528948	18889519
2 NON-PLAN	486000000	388600000	13 Refund of EMD/SD	24980	10000
3 ICMR	375000	375000	14 PLAN		
4 Interest Received	3643558	1936937	(i) Advance Payment to foreign		
5 Miscellaneous Hospital Receipt	17064366	13454596	purchase for M&E	19599500	90877918
6 RT Revolving Fund	2760458	2824110	(ii) Machinery & Equipment	20363041	15235705
7 Medical Oncology Fund	511460	609725	(iii) Custom Duty & PDA (Advance)	10000000	15415762
8 Computer Advance Recoveries	82200	69800	(iv) Furniture and Fixtures	32671	19795
9 Car Advance Recovery	16500	18000	Revenue General (Plan)		
10 Festival Advance Recovery	108750	180300	a. Comprehensive Annual Maintenance		
11 Scooter/Motor cycle Adv. Recoveries	58616	102816	Contract of Machinery & Equipment	17172166	13413900
12 EMD & Security deposit		94000	b. Minor Works	3051258	3523029
13 HSCC	299943		15 AIIMS Recoveries Remitted	37698656	30752418
14 AIIMS Recoveries Remitted	37698656	30752418	16 Outside Recoveries Remitted	30030758	26502822
15 Out side Recoveries Remitted	30030758	26502822			

POOR PATIENT ACCOUNT

a) I.R.C.H.	925731	442981
b) Interest on FDR's	549175	316840
c) Excess Credited		2000

PATIENT TREATMENT ACCOUNT

Receipt during 11-12	55378949	36393493
a) Cheque Cancelled	284382	114324
b) Interest	6143	4589

HMCPF ACCOUNT

a) Receipt during 2011-12	2027331	3000000
b) Cheque book & Account keeping charges received from bank		20550
c) Cheque Cancelled	15056	

POOR PATIENT ACCOUNT

a) During 11-12	565510	632962
b) Miscellaneous		2000

PATIENT TREATMENT ACCOUNT

a) During 11-12	44700161	38089221
b) Miscellaneous	53279	362700

HMCPF ACCOUNT

a) During 2011-12	1422162	2063808
b) Miscellaneous	685	650

CLOSING BALANCE

A CASH AT BANK	19863732	28911048
B POOR PATIENT ACCOUNT	3455807	2546411
C PATIENT TREATMENT ACCOUNT		
a) Cash/Bank	41663018	30746984
b) FDRs	6000000	6000000
D HMCPF ACCOUNT		
Cash/Bank	1616095	996555

Sub-Total (D)	777538030	728898632	777538030	728898632
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NATIONAL DRUG DEPENDENCE TREATMENT CENTRE & UNDCP PROJECT (E)

1 OPENING BALANCES

A Cash at bank

i) a) N.D.D.T.C.	1257618	11047879
b) UNDCP	7474748	464680
1 Grant-in-Aid (DAC)	90000000	79000000
2 Hospital Receipt	341880	309370
3 Miscellenous Receipt	15586	56298
4 Funds recovered under UNDCP	57000	
5 Security Earnest Money	140000	
6 UNDCP A/C receipt incorrectly deposited	632	

1 Pay & Allowances	51898392	49627028
2 Material & Supply	24021782	24684784
3 Wages	4247851	4226506
4 Books & Publication	3407107	423698
5 Furniture	382286	
6 Machinery & Equipment	1592075	3932193
7 Security Refund	5000	5000
8 Temporary Advance	65000	48932
9 Books & Publications advance		2538050
10 Custom Duty Adv.		
11 Motar Vehicle		3669738
12 Transfer for GIF-HIV A/c	11000	
13 Employee Contribution to NPS	164060	

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
11 New Pension Scheme	667826	549038

Institute Recovery Remitted

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 New Pension Scheme		549038
11 PM Relief fund		28461
12 New Pension Scheme	667826	

Outside Recovery

1 Income Tax	3121053	2882758
2 LIC	48141	48492
3 Court Rec.	154496	51996
4 Society	3246763	2895684
5 TDS	53522	

Outside Recovery

1 Income Tax	3117821	2882758
2 LIC	48141	48492
3 Court Recovery	154496	51996
4 Society	3246763	2895684
5 TDS	53522	

NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.) (UNDCP PROJECT)

1 Grant-in-Aid	3246094	7525450
2 Miscellenous Receipt	2695359	37808

NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.) (UNDCP PROJECT)

1 a)TA	2255000	170000
b) TA Advance	34000	
c) Pay & Allowances	358315	21400
2 a)Office contingency	71905	231073
b)Refreshment	194145	28900
c) Accommodation charges	285860	68727
d)Advance for Accommodation Charges	100000	
e)Salary		
f)Transportation	166777	33090
g) Medicine		
h) Training	2294250	
i) Training Advance	3809250	
3 Refund to WHO	898097	
4 Transfer to NDDTC	57000	
5 RTGS	150	
6 Inacorrectly deposited in NDDTC transferred bank account	632	

CLOSING BALANCES

A CASH AT BANK

i) N.D.D.T.C.	6021395	1257618
ii) UNDCP	2890820	7474748

Sub-Total (E)	121070766	112842535	121070766	112842535
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J.P.N. APEX TRAUMA CENTRE (F)

1 Opening Balance

Cash at bank	21126261	7809730
2 GRANT-IN-AID		
i) Creation of Capital Assets (New)	158900000	360000000
ii) Grant-in-Aid (General)	804700000	649600000

1 (a) Building Construction -Minor works	11991319	21279035
b Engg. Maintenance etc	90421117	84730316
c Security Deposite to NDMC		5979000
d Security Deposite to IGL		1200000
e Security Deposite 50% to IGL		104680
f Advance payment to "TRIGEN" (Min. of power) as per MOU.)		1170000
g Payment to HSCC		13500000

3 Other Receipts

a) Hospital Receipt	8098590	18574399
b) Security deposit(EMD)	6184000	7648000
c) Interest on TDR	15907532	3665413
d) Miscellenous Receipt		

2 Manpower

a Recurring & Out Sources	38555013	35875309
b Pay & Allowances	437532803	290394817
c Festival Advance Paid	40500	30000

(PT A/C,ATLAS/other Transferable Dues)	8345772	1722781	d	Material & Supply	208603969	196834112
Festival Advances Recoveries	39150	9600	e	Contingency	16300208	
			3	Furniture & Fixtures	1102741	342449
			4	<u>Machinery & Equipment</u>		
				Machinery & Equipment	75772233	110222922
				(a) Advance Payment made to		
				Foreign Purchases	52525026	184766328
				(b) Advance paid as Custom Duty	20000000	70000000
				(c) Advance paid as PDA	9500000	500000
			5	<u>Refunds</u>		
				a)Security Refunds	3888000	5970000
				b)PT A/C,ATLAS/other Transferable Dues	3525050	5004694
			6	<u>CLOSING BALANCES</u>		
				CASH AT BANK	53543326	21126261
Sub-Total (F)	1023301305	1049029923			1023301305	1049029923

CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)

A	<u>Cash at Bank</u>			1	Pay & Allownces	15794316	11775860
(i)	CDER	9822091	2107815		Office expences	2039776	1691812
	Cash in Hand	5000	5000		Bank charges	7840	3175
				2	Material & Supply	19740541	23408061
1	<u>Grant -in-Aid</u>			3	(a) Maint. Of Building		
i)	Capital (New)	6000000	28000000		(b) Maintenance	5778794	5282751
ii)	Revenue General	42962000	46900000		(c) Capital works	2242533	5770563
2	Security Deposit	310000	755000				
3	Interest on STDR	59176	1499528	4	Mach. & Equipment		
					(i) Actual payment	3919729	22067175
4	Miscellenous Receipt	8800	25900		(ii) Advance payment made to		
					Foreign Purchases		
5	Hospital Receipt	1517180	1628070	5	Advance paid to NDMC		
				6	Advance paid to Voltas Ltd.		
				7	Security refund	699845	1094825
					<u>Closing Balance</u>		
				A	Cash at Bank	10455873	9822091
				B	Cash in Hand (Imprest)	5000	5000
Sub-Total (G)	60684247	80921313				60684247	80921313
GRAND TOTAL (A) TO (G)	22371045678	19776912413				22371045678	19776912413

Financial Advisor

Senior Financial Advisor

DIRECTOR

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2011-2012

		<u>AIIMS(Main) (A)</u>		<u>(Amount in ₹)</u>	
<u>EXPENDITURE</u>		<u>2011-12</u>	<u>2010-11</u>	<u>INCOME</u>	
NON-PLAN				GRANT-IN-AID	
1	Pay & Allowances	2779826670	2546333850	Oversight Committee (Plan)	55100000
				Grant in Aid General (Plan)	140573479
2	Stipend	14872905	12510578	Grant in Aid General (Non-Plan)	4483935000
				REVENUE RECEIPTS	
3	Travelling Allowances	29040465	20592177	1	Hospital Receipts
					127236649
4	Pensionary Benefits	495281233	417243159	2	Tution Fee and Examination Fee
					22658306
5	Material & Supply			3	Employees Health Scheme
	i) Expenditure during 2011-12	1106674133			36062621
	ii) Adjustment of Advances	14892477		4	Licence fee
	iii) Adjustment of Advances	120343			23076241
	iv) Adjustment of Advances	1952013		5	Interest
	v) Adjustment of Advances	1976445	1100081001		166972091
6	Office Contingency			6	Miscellaneous Receipts
	i) Expenditure during 2011-12	413065126			250076174
	ii) Adjustment of Advances	23624452	398106891		149321385
7	Repair & Maintenance of Machinery & Equipment	26774871	57160004		
8	Maintenance of Buildings	121365634	95161141		
9	New Pension Scheme	122566679			
	i) Less Receipts	44190751	70041510		
10	Leave salary & Pension Contribution	4375538			
	i) Less Receipt	1327296	3048242		
11	Deposit Linked Insurance Scheme	1223614	402697		
12	Receipt transferred to:-				
	i) C.N. Centre	20000000			
	ii) Dr. B.R.A.I.R.C.H.	20000000			
PLAN					
13	Pay & Allowances	127190439	117141981		
14	Travelling Allowances	11692798			
15	Insitue Research Grant	989933			
16	Computerisation	700309			
17	Oversight Committee				
	Pay & Allowances	102100000	55100000		
HOSTELS				HOSTELS	
1	Miscellenous Expenditure	-	27960	1	Miscellenous Receipts
					74535
				2	Interest
					521583
					42483
DEPARTMENT OF GERIATRIC MEDICINE				DEPARTMENT OF GERIATRIC MEDICINE	
	i) Bank Charges	1188		i) Grant in aid	36687600
				ii) Interest	267477
EXCESS OF INCOME OVER EXPENDITURE				EXCESS OF EXPENDITURE OVER INCOME	
1	AIIMS (Main)			1	AIIMS(Main)
					89097469
2	Hostel	596118	72098		114596310
3	Department of Geriatric Medicine	36953889			
Sub-Total (A)		5432339225	4893239705	5432339225	4893239705

DR. RAJENDER PRASAD CENTRE FOR OPHTHALMIC SCIENCES(B)

1	i)Pay & Allowances	388802680	352614026	1	Grant-in-Aid		
	ii)Pay & Allowances (Revenue General)	44766275	24777754		i)Non-Plan	500000000	428500000
	iii)Spare & Accessories (RG)	28259658			ii) Pay & Allowances (Revenue General)	73025933	24777754
2	Daily Wages			2	Hospital Receipts i/c kits	147015616	130553120
3	Travelling Expenses	3230618	2382037	3	Interest on Recoverable Adv.	1170522	411582
4	Material & Supply			4	Miscellenous Receipts	1815142	3665349
	i) Reg. payment	188531971		5	Interest on CLTD	24387210	5177059
	ii) Material received during 2011-12	4611078	193143049				
5	Office Expenses	13506571	15905165				
6	Maintenance of Buildings	8406039	5584625				

7	i) Repair & Maintenance of Machinery & Equipment	60055	465472		
EXCESS OF INCOME OVER EXPENDITURE					
	Dr. R.P. Centre	67239478	16317784		
Sub-Total (B)		747414423	593084864	747414423	593084864

CARDIO-THORACIC & NEURO SCIENCES CENTRE (C)

Non-Plan			1 Grant-in-Aid		
1	Pay & Allowances & Wages	887030105	805444517	(a) Plan (Revenue General)	47651177 38956350
2	Travelling Expenditure	3045724	1648750	(b) Transfer of fund from Patient Account for consumables Spares & Accessories/Maint.	9915466
3	Material & Supply	231790718	199659278	(c) Non-Plan	1070065000 974600000
4	Office Contingency	14176979	10280555	2 Revenue Receipts	
5	Repair & maintenance of Machinery & Equipment	2916862	12608203	a) Hospital Receipts	34759268
6	Maintenance of Buildings	28200134	20853476	b) Amount received from outside patients 2011-12	57010
7	For consumables Spares & Accessories/Maint.	9118213		c) Amount due 2011-12	256350 34958608 31868381
8	Salary Plan (Revenue General)	47576479	38956350	3 Misc. Receipts	9933823 10633920
9	New Pension Scheme	5366751	0	4 Rent Charges/ Licence Fee	922483 748467
				5 Refund & Recoveries	1419213 1833470
				6 Interest	20925401 22141634
				7 Levy Charges	81500 275240
				8 Transport	0 1516
C.T. PATIENT A/C			C.T. PATIENT A/C		
1	Purchase for Stores	324435514	255304927	1 Patient's Receipts	259621929 236995666
2	Bank Charges			2 Interest during 2011-12	10087034 12186189
3	Transferred to AIIMS CNC A/cs	42500000		3 Cancelled Cheque	1877563 2827600
ANGIOGRAPHY PATIENT A/C			ANGIOGRAPHY PATIENT A/C		
1	Purchase for Stores	200286819	168999058	1 Patient's Receipts	190545391 171709833
2	Poor Patient Treatment Expenditure	6288293		2 Interest during 11-12	5361074 3206393
3	Transferred to AIIMS CNC A/cs	17500000		3 Cancelled Cheques	9348657 1188603
GAMMA KNIFE PATIENT A/C			GAMMA KNIFE PATIENT A/C		
1	Purchase of Stores		2188300	1 Patient Receipts	22947550 12800000
2	MRI Charges		885000	2 Interest	7037522 9289361
3	Fresh Cheques		75000		
4	Bank Charges	438			
NEURO SURGERY PATIENT A/C			NEURO SURGERY PATIENT A/C		
1	Purchase of Stores	53998610	47702234	1 Patient Receipts	59320646 54283479
2	Bank Charges		195	2 Fixed/CLTD Interest	487008 29514
3	Transferred to AIIMS CNC A/cs	15000000		3 Cancelled Cheques	451253 101313
EXCESS OF INCOME OVER EXPENDITURE			EXCESS OF EXPENDITURE OVER INCOME		
1	CT PATIENT A/C			1 CNC	33349294 8392151
2	ANGIO PATIENT A/C		7105771	2 CT PATIENT A/C	95348988 3295472
3	GAMMA KNIFE PATIENT A/C	29984634	18941061	3 NEURO SURGERY PT. A/C	8739703
4	NEURO SURGERY PT. A/C		6711877	4 ANGIO PATIENT A/C	18819990
Sub-Total (C)		1919216273	1597364552	1919216273	1597364552

Dr. B.R.A. INSTITUTE ROTARY CANCER HOSPITAL (D)

1	Pay & Allowances	283883913	249539942	1 Grant-in-aid (Non-Plan)	486000000 388600000
2	Expenditure of TA/DA	2584133	2417297	2 Grant in Aid General (Plan)	17448742
3	Material & Supply	180078844	124918747	3 Miscellaneous Hospital Receipt	17064366 13454596
4	Maintenance of Building	10812820	10772244	4 ICMR	375000 375000
5	Outsourcing	18528948	18889519	5 Interest Receipts	3643558 1936937
6	Contingency Expenditure	2989491	2507227		
7	Repair & Maintenance of Mach. & Equip.	12491605	7856542		
8	Comprehensive Annual Maintenance Contract of Machinery & Equipment	17172166			
EXCESS OF INCOME OVER EXPENDITURE			EXCESS OF EXPENDITURE OVER INCOME		
	I.R.C.H.			I.R.C.H.	4010254 12534985
Sub-Total (D)		528541920	416901518	528541920	416901518

NATIONAL DRUG DEPENDENCE TREATMENT CENTRE & UNDCP PROJECT (E)

1	Pay & Allowances	51898392	49627028	1	Grant-in-aid (Plan)	84618532	68436321
2	Wages	4247851	4226506	2	Hospital Receipt	341880	309370
3	i) Material & Supply 2011-12	24021782	24884784	3	Miscellaneous Receipt	15586	56298
	ii) Material received against advance	28932					
4	Transfer to GIF-HIV A/c	11000		4	Transfer from UNDCP	57000	
5	NPS	164060					

NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.) (UNDCP PROJECT)

NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.) (UNDCP PROJECT)

1	TA adjusted	2255000	170000	1	Grant-in-aid (Plan)	3246094	7525450
2	Misc./Office Contingency	71905	231073	2	Miscellaneous Receipt	2695359	37808
3	Transfer to NDDTC a/c	57000					
4	Refund to WHO	898097					
5	Pay & Allowances	358315	21400				
6	Accommodation adjusted	285860	68727				
7	Refreshment	194145	28900				
8	Transportation	166777	33090				
9	Traning advance adjusted	2294250					
11	RTGS	150					

EXCESS OF INCOME OVER EXPENDITURE

EXCESS OF EXPENDITURE OVER INCOME

1	NDDTC	4660981		1	NDDTC	9936329	
2	UNDCP Project		7010068	2	UNDCP Project	640046	
Sub-Total (E)		91614497	86301576	Sub-Total (E)		91614497	86301576

J.P.N. APEX TRAUMA CENTRE (F)

1	Material & Supply /Contingency	224904177	196834112	1	Grant -in -Aid Revenue (G) (Man power /Essentials services)	792708681	600535586
2	Manpower /Out sources	38555013	35875309	2	Hospital Receipts	8098590	18574399
3	Pay & Allowances	437532803	290394817	3	Interest on TDR	15907532	3665413
4	Engg. Maintenances etc.	90421117	84730316				

EXCESS OF INCOME OVER EXPENDITURE

J.P.N. APEX TRAUMA CENTRE 25301693 14940844

Sub-Total (F)		816714803	622775398	Sub-Total (F)		816714803	622775398
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CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)

1	Pay & Allowances	15794316	11775860	1	Grant in Aid (Plan) (RG)	42962000	46900000
2	Material & Supply	19740541	23408061	2	Interest on STDR by Bank	59176	1499528
3	Maintenance of Building	5778794	5282751	3	Miscellaneous Receipts	8800	25900
4	Office Expenses	2039776	1691812	4	Hospital Receipts	1517180	1628070
5	Bank Charges	7840	3175				

EXCESS OF INCOME OVER EXPENDITURE

EXCESS OF EXPENDITURE OVER INCOME

CENTRE FOR DENTAL EDUCATION & RESEARCH 1185889 7891839

Sub-Total (G)		44547156	50053498	Sub-Total (G)		44547156	50053498
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Grand Total (A) to (G)		9580388297	8259721111	Grand Total (A) to (G)		9580388297	8259721111
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Financial Advisor

Senior Financial Advisor

DIRECTOR

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
BALANCE SHEET AS ON 31.3.2012

AIIMS(Main) (A)

(Amount in ₹)

LIABILITIES	2011-12	2010-11	ASSETS	2011-12	2010-11
AIIMS (MAIN)			AIIMS (MAIN)		
1 BALANCE			1 CASH IN HAND		
a) Amount due but not paid (Scheme Cell)	197351	384882	a) Imprest (AIIMS CASHIER)	683950	292524
2 A) CAPITAL GRANTS FROM GOVT. OF INDIA			b) Amount due but not paid (Scheme Cell)	197351	384882
i) Upto 2010-11	10330885907		2 Cash at Bank		
ii) a) During 2011-12	2179893684		a) (i) AIIMS (Main)	1171035301	
b) Received from Dr. BRAIRCH	1000000		(ii) Unspent Balance of Specific Grants remained with AIIMS (Main)	341419426	1512454727
iii) a) Less on account of Machinery & Equipment condemned during 11-12	67852104		b) Scheme Cell	201224501	62074945
iv) Less Books weeded out during 2011-12	5935		3 GPF BANK ACCOUNT	61154988	67558097
v) Less on account of furniture condemned during 2011-12	829994		4 NPS Bank Account	16386441	10867288
vi) Less on account of vehicle condemned during 11-12	2116599	12440974959	5 Investment (Appendix-C)	3572687823	3014594656
B) Oversight Committee			6 Silver Jubilee Fund	200000	200000
i) Grant upto 10-11	317500000		7 Sundry Debtors Scheme Cell (Appendix-B)	4138161	3476841
ii) During 11-12	1000000000	1317500000	8 Misc. Deposits (Appendix-E)	330986	330986
3 Grant received from Ministry of Welfare for P.M.R. ADIP Scheme	1218	1218	9 Recoverable Advances		
4 Centralised Accident and Trauma Services	29142	29142	i) Car	1235461	1806789
5 Diabetes Control	420000	420000	ii) Motor Cycle-Scooter	1100576	1064104
6 AIDS	2400000	2400000	iii) Bicycle	132311	129291
7 NON-INSTITUTE SCHEMES			iv) Computer Advance	2823419	3391264
Unspent balance of grants received for specific purpose (APPENDIX-A)	546782088	473784355	v) House Building Advance	12119401	14852641
8 Donated Vehicles			vi) Festival	2106250	1751675
a) Up to 2010-11	3508197		10 Outside Recoveries		
b) During 2011-12			11 Employee Insurance Scheme		814015
c) Vehicle condemned dg11-12	3508197	3508197	12 Furniture & Fixture (AIIMS)		
9 Donated books			a) Upto 2010-11	724085	
a) Upto 2010-11	166238		b) During 2011-12	1517285	
b) During 2011-12	18415	184653	c) Furniture condemned During 2011-12	829994	1411376
10 Donations (Appendix-C)	10902514	10902514	13 Machinery & Equipment		
11 Miscellaneous Donations (Appendix-D)			A AIIMS (MAIN)		
a) Up to 2010-11	2873476		a) Upto 2010-11	5654728224	
b) Receipts during 2011-12	425337		b) During 2011-12		
c) Less Expenditure During 2011-12	343550	2955263	i) Machinery & Equipment	216031990	
12 Employees Insurance Schemes	2507778	2873476	ii) Spares & Accessories	65991491	
13 Outside Recoveries	26577498	41567597	c) Expenditure of Urology (Plan) against IRCH receipts	1000000	
			d) Equipment received during 2011-12	280815023	
			e) Machinery Condemned during 2011-12	67852104	6150714624
			B AIDS	820600	820600
			C NACO Machinery & Equipment purchased	1932605	1932605

R	Central Public Works Department for Lift	14000000		14000000
S	Central Public Works Department for Surgical Ward	1711770		1711770
T	Caryair Equipment India Private limited for building construction	192602		192602
U	Indian Oil Corporation for Lubricant Diesel Oil			
	i) Upto 10-11	7895039		
	ii) Adjustment during 11-12	7612565	282474	7895039
V	New Delhi Municipal Corporation for Building Construction	18733600		18733600
W	Upgrading Architectural cell of Engineering Services Department at AIIMS	45132		45132
X	Chief Controller of Accounts (M/s Deepak Elect. Co.) for Electric works	190890		190890
Y	Chief Controller of Accounts (M/s Sanico Ind.) for Electrics works	98486		98486
Z	Chief Controller of Accounts (M/s Surya Roshni) for Electric works	266165		266165
AA	M/s Blue Star Ltd.(for A/c works) for maintenance	1742488		1742488
AB	M/s Blue Star Ltd.(for A/c works) for Const.			
	i) Upto 10-11	222853		
	ii) Adjstment during 11-12	222853	0	222853
AC	M/s Compton Greaves Ltd.(for Electric Works)			
	i) Upto 10-11	180807		
	ii) Adjstment during 11-12	180807	0	180807
AD	M/s Universal comfort (for A/c work)			
	i) Upto 10-11	1262512		
	ii) Adjstment during 11-12	987411	275101	1262512
AE	M/s Carrier Air Conditioning (for A/c work)			
	i) Upto 10-11	2415422		
	ii) Adjstment during 11-12	1831187	584235	2415422
AF	M/s Videocon Ind. Ltd.(A/c work)			
	i) Upto 10-11	1083247		
	ii) Adjstment during 11-12	523406	559841	1083247
AG	M/s Voltas Ltd. for A/c work			
	i) Upto 10-11	859688		
	ii) Adjstment during 11-12	397855	461833	859688
AH	Chief Controller of Accounts for purchase of stores	3343957		3343957
AI	M/s Inderprastha for CNG Pipeline	10405000		10405000
AJ	Directorate General Supply & Disposal M/s Rashmi Industry for A/c work	2976242		2976242
AK	M/s LG Elect. Split A/c for A/c & Electric Work			
	i) Upto 10-11	1192355		
	ii) Adjustment during 11-12	930095	262260	1192355
AL	Ex. Engg. SJH(CPWD) for sewage Treatment plant	11344542		11344542
AM	M/s Hitachi flames for A/c work)			
	i) Upto 10-11	1032950		
	ii) Adjustment during 11-12	1032950	0	1032950
AN	M/s HSCC Ltd. for construction	1000000		1000000
AO	Justice Lokeshwar Pd. for Arbitration fee			
	i) Upto 10-11	22201		

ii)	Adjstment during 11-12	22201	0	22201
AP	Registrar, Guru Govind Singh Univ. for consultancy fee		18000	18000
AQ	M/s Indian Oil Corporation for lubricant Diesel Oil (minor work)		2487842	248784
AR	M/s Indian Oil Corporation for lubricant Diesel Oil (major work)			
i)	Upto 10-11	457695		
ii)	Adjstment during 11-12	457695	0	457695
AS	M/s HSCC for preparation of Master Plan (major work)		105874500	105874500
AT	M/s HSCC for repair & renovation of RKAK OPD (major work)		136540015	136540015
AU	M/s HSCC for facilitation block (Major work)		14500000	14500000
AV	M/s HSCC construction of P.C. Teaching block (major work)		3000000	3000000
AW	M/s Alpine Industries for p/o AC units (Major work)		36918	36918
AX	M/s Alpine Industries for p/o AC units (Minor work)		285376	285376
AY	M/s Sidwal Refregreation for p/o A/c units (minor work)			
i)	Upto 10-11	290518		
ii)	Adjstment during 11-12	68488	222030	290518
AZ	M/s Sidwal Refregreation for p/o A/c (Major work)			
i)	Upto 10-11	481289		
ii)	Adjstment during 11-12	481289	0	481289
BA	M/s Kohli & Co. for A/c (minor work)			
i)	Upto 10-11	253034		
ii)	Adjstment during 11-12	28198	224836	253034
BB	M/s Videcon Ind. Ltd. For p/o A/C (Minor work)		59622	59622
BC	M/s Anu Solar Power (P).Ltd. for A/c (minor work)			
i)	Upto 10-11	1495194		
ii)	Adjstment during 11-12	1495194	0	1495194
BD	M/s Anu Solar Power (P).Ltd. for A/c (major work)			
i)	Upto 10-11	6454930		
ii)	Adjstment during 11-12	6454930	0	6454930
BE	M/s Universal Comfort for A/c unit (minor work)			
i)	Upto 10-11	1513900		
ii)	Adjstment during 11-12	1513900	0	1513900
BF	M/s LG Elect. For p/o A/c (major work)		1310504	1310504
BG	M/s LG Elect. For p/o A/c (minor work)		335815	335815
BH	Ex. Engg. SJH(CPWD) for sewage treatment plant (minor work)		12500000	12500000
BI	Ex. Engg. SJH(CPWD) for installation of additional lifts (major work)		4868896	4868896
BJ	Ex. Engg. CPWD for installation of lift at ward block (major work)		1000000	1000000
BK	Ex. Engg. CPWD for sewage treatment plant (major work)		10900000	10900000
BL	Ex. Engg. CPWD for covering of Nallah Phase-II (major work)		50000000	50000000
BM	Ex. Engg. AIIMS CPWD for const. of Hostel (major work)		5000000	5000000
BN	M/s Hitachi Homes Solutions for p/o A/c (minor work)			
i)	Upto 10-11	3823111		
ii)	Adjstment during 11-12	3645524	177587	3823111
BO	M/s Hitachi Homes Solutions for p/o A/c (major work)		488308	488308
BP	M/s Gurdev Singh Sons for A/c (minor work)		302357	302357
BQ	M/s Usha International Ltd. for A/c (minor work)		315020	315020
BR	HSCC for prep of master plan surgical block phase - II (oversight)		5868950	
BS	HSCC for PC & Teaching Block phase II (oversight)		83814950	
BT	HSCC for cont. of Hostel Bolck at AIIMS Campus (oversight)		55699950	
BU	HSCC for renovation of RKAK OPD (major work)		16899950	
BV	HSCC Ex. Engineer, Delhi Water Service Haryana Govt. (major work)		50000000	

BW	National Environment Engineering Res. Institute (NEERI) (major work)	900000		
BX	DMRC for tunnel connection between AIIMS & Trauma Centre (major work)	250000000		
BY	CPWD for Lift (major work)	10000000		
BZ	CPWD for covering of Nallah Phase-II (major work)	100000000		
CA	HSCC for underground parking (major work)	299499950		
CB	HSCC for outreach OPD Badsha (Hr.) (major work)	95000000		
CC	Mahindra & Mahindra Ltd for p/o Tractor (minor work)	431510		
CD	Seed advance for Tabassum Const. Co. (minor work)	680408		
CE	Hitachi Homes for p/o split A/c (minor work)	204423		
CF	Hitachi Homes for WTC units (minor work)	196328		
15	Books & Publications			
i)	Books & periodicals (purchased)			
a)	Upto 2010-11	304030643		
b)	During 2011-12	25508255		
c)	Less books weeded out during 2011-12	5935		
c)	Adjustment of advances made in previous year	25357839	354890802	304030643
ii)	Books donated			
a)	Upto 2010-11	166238		
b)	During 2011-12	18415	184653	166238
16	Building Construction			
	AIIMS (Main)			
a)	Upto 2010-11	2800271854		
b)	during 2011-12	382500930		
c)	Adjustment of advances	9609605		
d)	Adjustment of advances	68000000		
e)	Adjustment of advances	141011943		
f)	Adjustment of advances	842700		
g)	Adjustment of advances	7612565		
h)	Adjustment of advances	222853		
i)	Adjustment of advances	180807		
j)	Adjustment of advances	987411		
k)	Adjustment of advances	1831187		
l)	Adjustment of advances	523406		
m)	Adjustment of advances	397855		
n)	Adjustment of advances	930095		
o)	Adjustment of advances	1032950		
p)	Adjustment of advances	22201		
q)	Adjustment of advances	457695		
r)	Adjustment of advances	68488		
s)	Adjustment of advances	481289		
t)	Adjustment of advances	28198		
u)	Adjustment of advances	1495194		
v)	Adjustment of advances	6454930		
w)	Adjustment of advances	1513900		
x)	Adjustment of advances	3645524	3430123580	2800271854
18	Advance Payment			
i)	Indian Iron & Steel Company	572139		572139
ii)	Tata Iron & Steel Company	654154		654154
iii)	Hindustan Steel Limited	520295		520295
iv)	Indian Iron & Steel Company	594000		594000
19	Land Account			
	Upto 2011-12	112832263		112832263
20	Vehicles			
A	Vehicle (purchased for AIIMS)			
a)	Upto 2010-11	31015554		
b)	During 2011-12			
i)	Transport Office			
ii)	Hospital Store	637563		
c)	Less Vehicles condemned during 11-12	2116599	29536518	31015554
B	Vehicles donated for AIIMS			
a)	Upto 2010-11	3508197		
b)	During 2011-12			
c)	Vehicle condemned dg11-12		3508197	3508197

21	Hospital receipts recoverable from outside patients			
a)	Upto 2010-11	4379079		
b)	During 2011-12	3316084		
c)	Amount recovered during 2011-12	2525702	5169461	4379079

22	Oversight Committee			
a)	Major works			
i)	upto 2010-11	317499700		
ii)	during 11-12	21681424	339181124	317499700
b)	Machinery & Equipment(store)		38263518	

POOR PATIENT A/C

1	AIIMS (Main)			
a)	Opening Balance			
i)	Cash/Bank	1475638		
ii)	FDR's	984180		
b)	Receipts			
i)	Grants	244600		
ii)	Interest	274404		
iii)	Payments	90295		
c)	Closing Balance			
i)	Cash/Bank	1685917	1475638	
ii)	FDR's	1202610	984180	

POOR PATIENT A/C

1	AIIMS (Main)			
a)	Cash/Bank	1685917	1475638	
b)	FDR's	1202610	984180	

PATIENT TREATMENT ACCOUNTS

1	AIIMS			
a)	Opening Balance	64128212		
b)	Receipts			
(i)	Grants	95637076		
(ii)	Interest	2951433		
(iii)	Payments	71234407		
(iv)	Bank Charges	18248		
c)	Closing Balance		91464066	64128212

PATIENT TREATMENT ACCOUNTS

AIIMS	91464066	64128212
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HOSTELS

Security Deposits

i)	Upto 2010-11	2227780		
ii)	receipts during 2011-12	1517000		
iii)	less refunds during 2011-12	1165500	2579280	2227780

HOSTELS

1	Cash in hand	-	32881
2	Cash at Bank	396906	322179
3	FDR's	5026772	4121000

DEPARTMENT OF GERIATRIC MEDICINE

1	Amount payable to Director (Main)	1000
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DEPARTMENT OF GERIATRIC MEDICINE

Cash at bank	36954889
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EXCESS OF INCOME OVER EXPENDITURE

1	AIIMS (Main)			
(i)	Upto 2010-11	94514989		
(ii)	Less Excess of Expd. over income during 11-12	91929632		
(iii)	Revolving funds added as Receipt' as per SFC approval	102168000	104753357	94514989
2	HOSTEL			
i)	Upto 2010-11	2248280		
ii)	During 2011-12	596118	2844398	2248280
3	DEPARTMENT OF GERIATRIC MEDICINE			
i)	upto 2011-12	36953889		
Sub-Total (A)		18382482739	14655543924	

DEPARTMENT OF GERIATRIC MEDICINE

Cash at bank	36954889
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DR. RAJENDER PRASAD CENTRE FOR OPHTHALMIC SCIENCES(B)

I	Capital Grant from Govt. of India			
i)	Upto 2010-11	1084453974		
ii)	During 11-12	273600000		
iii)	During 11-12 (R.G)	12174067		
iv)	Furniture condemned during 10-11	305305		
v)	M & E Condemned 11-12	53416408	1316506328	1084453974
II	NPCB as per last year	25629000	25629000	
III	Donated vehicles (upto 11-12)	896357	896357	
IV	Vehicles purchased under DBCS/NPCB (upto 11-12)	455574	455574	

1	<u>CASH IN HAND</u>			
a)	Imprest	20000	20000	
2	<u>CASH AT BANK</u>	112157899	64667551	
3	<u>RECOVERABLE ADVANCES</u>			
a)	<u>CAR</u>			
i)	Upto 10-11	98532		
ii)	Paid during 11-12	150000		
iii)	Recovered during 11-12	86580	161952	98532
b)	<u>SCOOTER</u>			

17	ENDURE			
i)	Upto 10-11	169620		
ii)	Rec. during 11-12	308400		
iii)	Exp. during 11-12	478020	0	169620
18	FTG			
i)	Upto 10-11	69897		
ii)	Rec. during 11-12	96090		
iii)	Exp. during 11-12	165987	0	69897
19	High Precision Bio Analytical (HP-BAF)			
i)	Upto 10-11	272380		
ii)	Rec. during 11-12	342700		
iii)	Exp. during 11-12	237612	377468	272380
20	ICMR			
i)	Upto 10-11	9902792		
ii)	Rec. during 11-12	7430522		
iii)	Exp. during 11-12	11004659	6328655	9902792
21	INDEGEN (LSTM)			
i)	Upto 10-11	125847		
ii)	Rec. during 11-12	0		
iii)	Exp. during 11-12	9617	116230	125847
22	LUX 201 Omnicare			
i)	Upto 10-11	1014374		
ii)	Rec. during 11-12	0		
iii)	Exp. during 11-12	83977	930397	1014374
23	MA Foundation			
i)	Upto 10-11	149719		
ii)	Rec. during 11-12	600000		
iii)	Exp. during 11-12	385067	364652	149719
24	M.K. Media Corneal Transplant (Min. of Finance)			
i)	Upto 10-11	762328		
ii)	Rec. during 11-12	0		
iii)	Exp. during 11-12	475218	287110	762328
25	NAB			
i)	Upto 10-11	1008648		
ii)	Rec. during 11-12	720000		
iii)	Exp. during 11-12	1513620	215028	1008648
26	Novartis Shield study			
i)	Upto 10-11	6870		
ii)	Rec. during 11-12	8000		
iii)	Exp. during 11-12	14870	0	6870
27	NPCB DOS Training			
i)	Upto 10-11	505549		
ii)	Rec. during 11-12	0		
iii)	Exp. during 11-12	416720	88829	505549
28	NPCB Eye Camp Godda ,Jharkhand			
i)	Upto 10-11	..		
ii)	Rec. during 11-12	142165		
iii)	Exp. during 11-12	142165	0	0
29	NPCB/DBCS			
i)	Upto 10-11	774250		
ii)	Rec. during 11-12	50000		
iii)	Exp. during 11-12	809221	15029	774250
30	NPCB-NSU			
i)	Upto 10-11	290000		
ii)	Rec. during 11-12	0		
iii)	Exp. during 11-12	162210	127790	290000
31	NPCB SSU			
i)	Upto 10-11	142065		
ii)	Rec. during 11-12	157935		
iii)	Exp. during 11-12	274114	25886	142065
32	OEU			
i)	Upto 10-11	116532		
ii)	Rec. during 11-12	330570		
iii)	Exp. during 11-12	355234	91868	116532
33	ORBIS PECP			
i)	Upto 10-11	71140		

3 Closing Balance 332390 186104

XI Excess of Income Over Expenditure

i) Upto 10-11 43029647
 ii) During 11-12 67239478 110269125 43029647

Sub-Total (B) 1470638607 1187605128 1470638607 1187605128

CARDIO-THORACIC & NEURO SCIENCES CENTRE (C)

1 Amount due but not paid (Cashier)

2 Capital Grant from Govt. of India
 A) Upto 2010-11 3900679137
 B) During 2011-12
 i) Capital Assets (New) 240703982
 ii) Revenue General 37948823
 iii) Transfer of fund from Patient Account for Spares & Accessories/Maint. 51484534
 C) Less Buy Back Correction of Machinery & Equipment 155963460 4074853016 3900679137

3 Amount transfer from IRCH 1478400 1478400

4 Cost of the vehicle donated by Sai Bhakta Samaj 613384 613384

5 CT Patient A/c Machinery & Equipment Transfer Sai Bhakta Samaj 49025000 49025000

6 Neurology Patient A/c
 i) Upto 2010-11 22511861
 ii) Receipt during 11-12 13424932
 iii) Less refund/Exp. 11-12 10365366 25571427 22511861

7 Outside recoveries/ Institute Recovery
 i) Upto 2010-11 303170
 ii) during 2011-12 39005 342175 303170

8 Donations
 i) Upto 2010-11 2094072
 ii) Receipt during 2011-12 5100
 ii) Less expenditure 2011-12 746020 1353152 2094072

9 Security Deposits
 i) Upto 2010-11 31490964
 ii) Receipt during 2011-12 3254000
 iii) Less refund 5980000 28764964 31490964

10 Thallium
 i) Upto 2010-11 2404157
 ii) During 2011-12 3429000
 iii) Less Expenditure 11-12 3641495 2191662 2404157

11 Heart Transplant Donation
 i) Upto 2010-11 274919
 ii) During 2011-12 0
 iii) Less Expenditure 0 274919 274919

12 Lab Test
 i) Upto 2010-11 3086695
 ii) During 2011-12 8316255
 iii) Less Expenditure 11-12 9500531 1902419 3086695

13 Cardiac Test
 i) Upto 2010-11 7211482
 ii) During 2011-12 4420820
 iii) Less Expenditure 2011-12 3573871 8058431 7211482

POOR PATIENT A/C

1 N.S. Centre
 a) Cash/Bank 101932
 b) Donations 35179
 c) Payments 3988
 d) Closing Balance 133123 101932

C.T. PATIENT A/C

1 Cash in hand
 a) Imprest (CNC Cashier) 41000 41000

b) Amount due but not paid
 2 Cash at Bank 103302133 171455298

3 Recoverable Advance
 a) Computer 936140 846450
 b) Car 606952 696544
 c) Cycle 1800 -
 d) Scooter 834676 772212
 e) House Building Advance 6219470 6146510
 f) Festival Advance 941585 721660

4 Machinery & Equipment
 i) Upto 2010-11 3184929047
 ii) During 11-12 131089332
 iii) Spares & Accessories of Machinery & Equipment 51484534
 iv) Mach. & Equip. Received against advance payment 156376451
 v) Less buy back correction of Machinery & Equipment 155963460 3367915904 3184929047

5 Machinery & Equipment Transfer From CT Patient A/C 49025000 49025000

6 Advance payment for Foreign Purchase
 a) Machinery & Equipment
 i) Upto 2010-11 138473223
 ii) During 11-12 151002991
 iii) Less equipments received During 11-12 156376451 133099763 138473223

7 Building construction/Minor Work
 i) Upto 2010-11 285594650
 ii) During 2011-12 37948823 323543473 285594650

8 Advance against works 174596762 174596762

9 Amount due from outside patients
 i) Upto 2010-11 1606180
 ii) During 2011-12 256350
 iii) Less amount Received During 2011-12 57010 1805520 1606180

10 Vehicles
 i) Ambulance ORBO 1305522 1305522

11 Furniture & Fixture
 i) Upto 2010-11 2603929
 ii) During 2011-12 1236790
 iii) Furniture condemned 3840719 2603929

POOR PATIENT A/C

1 N.S. CENTRE
 a) Cash/Bank 133123 101932

C.T. PATIENT A/C

1 Fixed Deposits 170000000 299400000
 2 Cash at Bank 53823111 21625780

ANGIOGRAPHY PATIENT A/C**ANGIOGRAPHY PATIENT A/C**

1	Cash recoverable from Sh. Dal Chand Verma, Cashier	3245441	3245441
2	Fixed Deposits	19800000	79200000
3	Cash at bank	54339147	14744516

GAMMA KNIFE PATIENT A/C**GAMMA KNIFE PATIENT A/C**

1	Fixed Deposit	197300000	126400000
2	Cash at Bank	16353119	57268485

NEURO SURGERY PATIENT A/C**NEURO SURGERY PATIENT A/C**

1	Fixed Deposits	15900000	31800000
2	Cash at bank	16888680	9915213

EXCESS OF INCOME OVER EXPENDITURE**EXCESS OF EXPENDITURE OVER INCOME**

1	<u>C.N.C.</u>			
a)	upto 10-11			
2	C.T. PATIENT A/C			
i)	Upto 2010-11	321025780		
ii)	less excess of expenditure over income 11-12	95348988		
iii)	Less fresh cheques issued against cancelled cheques	1853681	223823111	321025780
3	ANGIOGRAPHY PATIENT A/C			
i)	Upto 2010-11	97189957		
ii)	Excess of expenditure over income 2011-12	1881999	0	
iii)	Less fresh cheques issued against cancelled cheques	985379	77384588	97189957
4	GAMMA KNIFE PATIENT A/C			
i)	Upto 2010-11	183668485		
ii)	during 2011-12	29984634	213653119	183668485
5	NEURO SURGERY PATIENT A/C			
i)	Upto 2010-11	41715213		
ii)	Excess of expenditure over income 2011-12	8739703		
iii)	Less Fresh Cheques	186830	32788680	41715213
	Sub-Total (C)		4742211570	4664874608

1	<u>C.N.C.</u>			
i)	upto 2010-11	2359254		
ii)	During 2011-12	24053276	26412530	2359254

Dr. B.R.A. INSTITUTE ROTARY CANCER HOSPITAL (D)

1	Capital Grant			
a)	Upto 2010-11	1570673895		
b)	During 2011-12	50000000		
c)	Less During 11-12 Revenue General (Plan)	10362642		
d)	Less Machinery & Equipment condmned during 11-12	12796593		
e)	Less Furniture condmned during 11-12	112496	1597402164	1570673895
2	R.T. Revolving Fund			
(i)	Upto 2010-11	5928010		
(ii)	Add during 2011-12	2760458		
(iii)	Less payment during 2011-12	6976699	1711769	5928010
3	Medical Oncology Revovling Fund			
(i)	Upto 2010-11	1459007		
(ii)	Add during 2011-12	511460		
(iii)	Less payment during 2011-12	1497848	472619	1459007
4	EMD & Security Deposit			
(i)	During 2011-12	164000		
(ii)	Less Payment During 11-12	24980	139020	164000

1	Cash at Bank	19863732	28911048
2	Revenue General (Plan) Minor Works		
a)	Upto 2010-11	28574428	
b)	During 2011-12	3051258	31625686
3	Computer Advance		
(i)	Upto 10-11	275977	
(ii)	During 11-12		
(iii)	Less recoveries during 11-12	82200	193777
4	House Building Advance upto 2011-12		87750
5	Car/Scooter Advance		
i)	Upto 2010-11	113755	
ii)	Add during 2011-12	54000	
iii)	Less recoveries during 11-12	75116	92639
6	Advance Payment Machinery & Equipment		
a)	Upto 2010-11	73256360	
b)	Add during 2011-12	19599500	
c)	Adjustment of advances (LCs) During 11-12	78459002	14396858
7	Machinery & Equipment		
a)	Upto 2010-11	1105743874	
b)	Add during 2011-12	7364903	
c)	Add adjustment of advances (LCs) during 2011-12	78459002	
d)	Add adjustment of CDA/PDA	8279312	
e)	Less Machinery & Equipment condmned during 11-12	12796593	1187050498
8	Security Deposited NDMC	2626000	2626000

9(i) Building Construction			
Upto 2011-12	294456915		
Less receipt during 2011-12	29299943	294156972	294456915
10 Vehicle			
a) Upto 2011-12		1603082	1603082
11 Furniture & Fixture			
a) Upto 2010-11	10920197		
b) during 2011-12	32671		
c) Less furniture condmned during 11-12	112496	10840372	10920197
12 Advance payment to Custom Duty & PDA Account			
(i) Upto 2010-11	21185342		
(ii) Add during 2011-12	9584238		
(iii) Less Custom Duty adjusted during 2011-12	8279312	22490268	21185342
13 Festival Advance			
i) Upto 2010-11	132000		
ii) During 2011-12	326250		
iii) Less Recoveries dg.2011-12	108750	349500	132000

Poor Patient A/c

Dr. B.R.A.I.R.C.H.

a) Cash/Bank	2546411		
b) Receipts			
i) Grants	925731		
ii) Interest	549175		
iii) Excess Credited			
iv) Payments	565510		
c) Cloising Balance			
Cash/Bank		3455807	2546411

Patient Treatment A/c

Dr. B.R.A.I.R.C.H.

a) Opening Balance	30746984		
b) Short term investment			
c) FDR	6000000		
d) Receipts			
i) Grants	55378949		
ii) Cheque Cancelled	284382		
iii) Dly. Interest			
iv) Interest	6143		
v) Payments	44700161		
vi) Miscellaneous Payments	53279		
c) Closing balance			
i) Cash/Bank		41663018	30746984
ii) Short term investment			
iii) FDR's		6000000	6000000

HMCPF A/c

Opening Balance	996555		
Receipt	2027331		
Refund			
Cheque cancelled	15056		
Payment	1422162		
Misc.	685	1616095	996555

EXCESS OF INCOME OVER EXPENDITURE

i) Upto 2010-11			
Sub-Total (D)	1652460492	1618514862	

Patient Treatment A/c

Dr. B.R.A.I.R.C.H.

a) Cash/Bank	41663018	30746984	
b) Short term investment			
c) FDR	6000000	6000000	

HMCPF A/c

Cash/Bank	1616095	996555	
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EXCESS OF EXPENDITURE OVER INCOME

i) Upto 2010-11	10338184		
ii) During 2011-12	4010254	14348438	10338184

1652460492 1618514862 1652460492 1618514862

NATIONAL DRUG DEPENDENCE TREATMENT CENTRE & UNDCP PROJECT (E)

1 Capital fund upto 2010-11	166682002		
a) Capital funds dg. 2011-12			
b) Machinery & Equipment	1592075		
c) Furniture	382286		
d) Books & Publication	3407107		
e) Bks & Pub. dv.			
f) Adjustment of Custom Duty Adv.	400000	172463470	166682002
2 Institute Recovery			
i) Upto 2011-12	113215	113215	
3 Security Deposit			

1 Cash at Bank	6021395	1257618	
2 <u>Machinery & Equipment</u>			
a) Upto 2010-11	34175761		
b) During 2011-12	1592075	35767836	34175761
3 Books & Publication			
a) Upto 2010-11	18584407		
b) During 2011-12	3407107	21991514	18584407
4 <u>Furniture & Fixture</u>			
a) Upto 2010-11	3478648		

a)	Upto 2010-11	250000			b)	During 2011-12	382286	3860934	3478648
b)	Dg. 2011-12	140000							
c)	Security Refund 2011-2012	5000	385000	250000	5	Building Construction			
					a)	Upto 2011-12		101953715	101953715
4	Transferable to UNDCP		632		6	Vehicle			
					a)	Upto 2010-11	9033101		
					b)	During 2011-12	0		
					c)	Vehicle condemned		9033101	9033101
					7	Outside recovery			
					a)	Upto 2010-11	40708		
					b)	Less during 2011-12	3232	37476	40708
					8	Car Advance			
					a)	Upto 2010-11			
					b)	During 2011-12			
					9	Advance for Material & Supply			
					a)	Upto 2010-11	213932		
					b)	Dg. 11-12	65000		
					c)	Less Mat.& Supply Recvd. during 11-12	28932	250000	213932
					10	Custom duty Advance		400000	

NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.)
(UNDCP PROJECT)

Opening balance 464680 464680

EXCESS OF INCOME OVER EXPENDITURE

1	NDDTC			
	Upto 2010-11	1692673		
	Dg. 11-12	4660981	6353654	1692673
2	N.D.D.T.C. (UNDCP Project)			
	i) Upto 2010-11	7010068		7010068
	ii) Less excess of expd. over income during 11-12	640046	6370022	
	Sub-Total (E)		186150673	176212638

NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.)
(UNDCP PROJECT)

a) TA Adv Outstanding 34000
b) Training Advance Outstanding 3809250
c) Accommodation Advance Outstanding 100000
d) Amount receivable from NDDTC 632
Closing Balance 2890820 7474748

J.P.N. APEX TRAUMA CENTRE (F)

1	<u>Capital Grants from Govt. of India</u>			
(i)	Upto 2010-11	2061295400		
(ii)	During 2011-12			
	a) Capital Asset (New)	158900000		
	b) Revenue General	11991319	2232186719	2061295400
2	Security/ EM deposit			
(i)	Upto 2010-11	6157968		
(ii)	Receipt During 2011-12	6184000		
(iii)	Less Refund dg 2011-12	3888000	8453968	6157968
3	(PT A/C, ATLS)			
(i)	Upto 2010-11	842972		
(ii)	Refeipt during 2011-12	8345772		
(iii)	Less refund dg.11-12	3525050	5663694	842972

1	Cash at Bank	53543326		21126261
	<u>M/S HSCC</u>			
	Outstanding (10-11) Adj.	6500000		6500000
	Security deposite to NDMC	5979000		5979000
	Security Deposite with IGL	1304680		1304680
	Advance Payment to "TRIGEN" (Min. of Power as per MOU)	1170000		1170000
2	<u>Machinery & Equipment</u>			
	i)Advance Payment made for foreign purchase upto 10-11	75258078		
	ii) L.C. adv.During 11-12	52525026		
	iii)Less Adv. Adjusted 11-12	64839883	64839883	75258078
3	<u>Custom Duty Adv.</u>			
	i) upto 10-11	58422024		
	(ii) during 11-12	20000000		
	iii)Less Adjusted during 11-12	54288900	54288900	58422024
4	<u>PDA Advance</u>			
	i) upto 10-11	597845		
	(i)Adv. During 11-12	9500000		
	(ii) Less Adjusted dg.11-12	203660	9894185	597845
5	<u>Construction Building</u>			
	i) Capital works upto 11-12	663099432		663099432
	ii) Minor Works during 11-12	11991319		
	iii)Land A/C transferred AIIMS	54310794		54310794
6	<u>Festival Advance</u>			
	i) upto 10-11	20400		
	ii) during 11-12	40500		
	iii) recovered during 11-12	39150	21750	20400
7	<u>Machinery & Equipments</u>			
	i) upto 10-11	1160983416		1160983416
	(ii) during 11-12	75772233		

(iii) M & E received 11-1262943221			
(iv) Incorporation of Custom Duty			63673345
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
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CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)

1 Capital Grant				1 Cash in Hand		5000	5000
(i) Upto 10-11 transferred from AIIMS Main A/c	487260204			2 Cash at bank		10455873	9822091
(ii) During 2011-12	6000000	493260204	487260204	3 Machinery & Equipment			
2 Security Deposits				(i) Upto 2010-11	179627779		
(i) Upto 2010-11	2441090			(ii) During 2011-12	3919729		
(ii) During 11-12	310000			(iii) Add Machinery & Equipment received against advances during 2010-11		183547508	179627779
(iii) Less refund during 2011-12	699845	2051245	2441090	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 recvd 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		45668116	45668116
				(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 upto 10-11	184589		
				(b) Adv adjusted dg 11-12	184589	0	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	29267128996	24925830297			

Note:

- The accounts have been prepared on actual Receipt and Expenditure basis.
- No depreciation on Machinery & Equipment, vehicles etc. has been provided as the Institute is fully funded by the Govt. of India.
- 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.
- Institute is exempted from Income-Tax under Section 8G(5)(vi) of the Income Tax Act, 1961.
- The amount shown under four patient Accounts viz. C.T. Patient A/c, Angio Patient A/c, N.S. Patient Account and Gammaknife Patient A/c on the asset side of the Balance Sheet represents the amount as "Excess of Income over Expenditure" and the same is invested in term deposits. The amount is accumulated during the previous years on introduction of package charges in the year 1995. Package was introduced for convenience of patients and to ensure that quality products are used at reasonable rates. The package rates included service charges and ICU charges which were approved by Standing Finance Committee and ratified by Governing Body. Later on it was decided not to levy such charges from the patients and was withdrawn in the year 2000. During that period (1995-2000) accumulated balance amount and also the earned interest were invested in term deposit. A part of the interest only has however been utilised for treatment of poor patients as is reflected in the Receipt & Payment Account. The accumulated balance has not been utilised during the previous years in the absence of a guideline regarding its utilisation. Issue regarding the utilisation of accumulated balances on account of user charges and interest thereon was discussed in the Standing Finance Committee meeting held on 11.11.2010, wherein it was decided that all the Centres will prepare their sub-budget (from the financial year 2011-12 onwards) 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.
- 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 crores 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

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.10.21crore will be allocated during the financial year 2012-13.

7 Committee on Management on Finances at AIIMS had recommended that Revolving/Patient Funds may not remain open ended. Balances outstanding may be transferred to the General Revenue of the Institute leaving a 'start up' amount to meet initial costs of the services of the next cycle. The issue was discussed in the 197th meeting of the Standing Finance Committee held on 11.11.2010, and it was decided that after the close of Financial Year a start up amount sufficient to cater to two months requirement may be kept with the department concerned and excess fund be transferred to the respective main account of the Institute as normal Receipt. This was ratified by the Governing Body on 27.11.2010. Accordingly, a balance of Rs.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 EXPENDITURE OF THE GRANT RECEIVED
FOR THE VARIOUS RESEARCH PROJECTS FOR THE YEAR 2011-12

No.	Funding Agency	Opening Balance		Reciept	Total_Reciept	Expend	Estd	Expenditure	Adj.		Balance	
		Credit	Debit						Cr.	Dr.	Credit	Debit
	Institute Research Grant	0.00		28,403,000.00	28403000.00	2372190.00	0.00	2372190.00			26030810.00	
1	ICMR	80,294,340.00		231,116,346.00	311410686.00	206760400.00	7,538,230.00	214298630.00			97112056.00	
2	C.S.I.R.	16,955,514.00		34,842,440.00	51797954.00	32140796.00	119,538.00	32260334.00			19537620.00	
3	DST	47,418,982.00		45,966,725.00	93385707.00	72743230.00	1,560,754.00	74303984.00			19081723.00	
4	UNICEF	278,421.25		1,032,856.00	1311277.25	765862.00	51,642.00	817504.00			493773.25	
5	D.B.T.	140,443,265.00		136,344,620.00	276787885.00	110223530.00	5,169,094.00	115392624.00			161395261.00	
6	W.H.O.	14,188,160.00		6,760,201.00	20948361.00	6679910.00	201,773.00	6881683.00			14066678.00	
7	U.G.C.	7,350,696.00		6,291,367.00	13642063.00	12184537.00	0.00	12184537.00			1457526.00	
8	Ministry of Health and Family welfare	882,873.00		3,383,265.00	4266138.00	4077887.00	52,167.00	4130054.00			136084.00	
9	Ministry of Environment & Forest	172,326.00		1,047,200.00	1219526.00	660094.00	31,416.00	691510.00			528016.00	
10	Dabur Research Foundation	508,578.00		0.00	508578.00	0.00	0.00	0.00			508578.00	
11	DEPTT. OF ELECTRONICS	56,370.00		0.00	56370.00	0.00	0.00	0.00			56370.00	
12	Himalaya Drug Co.	74,494.00		1,291,742.00	1366236.00	0.00	0.00	0.00			1366236.00	
13	International Atomic Energy Agency	1,646,296.00		0.00	1646296.00	1341187.00	53,012.00	1394199.00			252097.00	
14	Convatee Sayibb	2,328.00		0.00	2328.00	0.00	0.00	0.00			2328.00	
15	Rajiv Gandhi Foundation		-989.00	0.00	-989.00	0.00	0.00	0.00				-989.00
16	Directorate of Education (NSS)	29,598.00		0.00	29598.00	6799.00	0.00	6799.00			22799.00	
17	Torrent Pharma	1,350,000.00		0.00	1350000.00	84671.00	0.00	84671.00			1265329.00	
18	INDO-US	749,033.00		0.00	749033.00	0.00	0.00	0.00			749033.00	
19	Ford Foundation	458,594.00		0.00	458594.00	0.00	0.00	0.00			458594.00	
20	Fulford India Ltd.	274,523.00		579,375.00	853898.00	464722.00	17,381.00	482103.00			371795.00	
21	National Thalassaemia Welfare Society	71,019.00		50,000.00	121019.00	118600.00	1,500.00	120100.00			919.00	
22	INCLN		-118,368.00	0.00	-118368.00	0.00	0.00	0.00				-118368.00
23	Institute of Cancer Research UK co-ordination Committee		-7,209.00	0.00	-7209.00	0.00	0.00	0.00				-7209.00
24	Central Council for Research in Yoga And Naturopathy	328,754.00		239,554.00	568308.00	623781.00	7,187.00	630968.00				-62660.00
25	Ranbaxy /Elililly & company pvt Ltd	1,895,062.00	446,581.00	2341643.00	341146.00	38,268.00	379414.00				1962229.00	
26	NATIONAL INSTITUTE OF HEALTH, USA	6,643,639.00		3,601,083.00	10244722.00	5167820.00	143,569.00	5311389.00			4933333.00	
27	NIE	32,665,302.00		21,747,307.00	54412609.00	11045168.00	0.00	11045168.00			43367441.00	
28	Sarabhai Chemicals		-4868	0.00	-4868.00	0.00	0.00	0.00				-4868.00
29	INSA	25,331.00		0.00	25331.00	0.00	0.00	0.00			25331.00	
30	SRB-Clinical Pharmacology		-3,154,100.00	0.00	-3154100.00	0.00	0.00	0.00				-3154100.00
31	Panacea biotech Ltd.	27,876.00		0.00	27876.00	19792.00	0.00	19792.00			8084.00	
32	Revolving Funds for Drugs. / SNMC	195,710.00		0.00	195710.00	0.00	0.00	0.00			195710.00	
33	Atomic Energy Regulatory Board	403,629.00		0.00	403629.00	-6000.00	0.00	-6000.00			409629.00	
34	Pfizer Ltd.	1,882,218.85		687,748.50	2569967.35	800185.00	20,632.00	820817.00			1749150.35	
35	NATCO Pharma India	24,579.00		0.00	24579.00	0.00	0.00	0.00			24579.00	
36	University of Maryland	90,282.00		0.00	90282.00	0.00	0.00	0.00			90282.00	
37	Glaxo India Ltd.	217,377.00		0.00	217377.00	0.00	0.00	0.00			217377.00	
38	Ministry of Defence (D.R.D.O)	1,286,072.00		0.00	1286072.00	979687.00	0.00	979687.00			306385.00	
39	MBI Kits.	8,867.00		0.00	8867.00	0.00	0.00	0.00			8867.00	
40	Nova Nordisk India Pvt Ltd.	303,321.00		0.00	303321.00	0.00	0.00	0.00			303321.00	
41	Indian Institute of Technology	222,292.00		640,700.00	862992.00	712642.00	32,035.00	744677.00			118315.00	
42	Cystic Fibrosis/World Wide, USA	14,605.00	0.00	14605.00	0.00	0.00	0.00	0.00			14605.00	
43	CONARD, USA	591.00		0.00	591.00	0.00	0.00	0.00			591.00	
44	The Cancer Foundation	44,245.00		0.00	44245.00	0.00	0.00	0.00			44245.00	
45	Novartis India Ltd.	3,550,796.53		1,643,972.94	5194769.47	2446070.00	92,372.00	2538442.00			2656327.47	
46	Maharishi Ayurveda	163400		0.00	163400.00	49075.00	0.00	49075.00			114325.00	
47	UN International Drug and crime Control Programme	438,126.00		2,473,352.00	2911478.00	874372.00	12,367.00	886739.00			2024739.00	
48	Russan Pharma Ltd Mumbai	5,425.00		0.00	5425.00	0.00	0.00	0.00			5425.00	

49	Central Council for Research in Ayurveda & Sidha	1,504,846.00	913,040.00	2417886.00	1613029.00	27,391.00	1640420.00	777466.00	
50	Ministry of Social Justice and Empowerment	77,882.00	0.00	77882.00	0.00	0.00	0.00	77882.00	
51	Quintiles Spectral India	3,025,329.86	1,149,453.10	4174782.96	1030396.00	34,485.00	1064881.00	3109901.96	
52	Ministry of Communication and Information & Technology	387,830.00	0.00	387830.00	440387.00	0.00	440387.00		-52557.00
53	University of Bergen, Norway	2,195,628.00	3,235,245.00	5430873.00	3533871.00	97,057.00	3630928.00	1799945.00	
54	Zydas Healthcare Ltd		-398.00	0.00	-398.00	0.00	0.00		-398.00
55	Oxford University, UK	2,587,013.00	1,474,693.78	4061706.78	2218076.00	44,241.00	2262317.00	1799389.78	
56	Federation of Obstetric & Gynaecological		-276.00	0.00	-276.00	0.00	0.00		-276.00
57	Aimil Pharmaceutical India Ltd.		-331.00	0.00	-331.00	0.00	0.00		-331.00
58	Pharmacia India Pvt. Ltd	837.00	0.00	837.00	0.00	0.00	0.00	837.00	
59	INCTR USA	291,378.00	714,362.00	1005740.00	1041558.00	0.00	1041558.00		-35818.00
60	Emcure Pharmaceutical Ltd.	49869.00	0.00	49869.00	56249.00	0.00	56249.00		-6380.00
61	Delhi State Control Society/AIDS	125,118.00	415,805.00	540923.00	423724.00	0.00	423724.00	117199.00	
62	Bharat Biotech International Ltd	12,241.00	0.00	12241.00	0.00	0.00	0.00	12241.00	
63	L.G. Chemicals India Pvt Ltd.		-668.00	0.00	-668.00	0.00	0.00		-668.00
64	Wockhardt, Mumbai	749,459.00	0.00	749459.00	0.00	0.00	0.00	749459.00	
65	NSD (Security Deposit)	2,667,350.00	2,041,000.00	4708350.00	604000.00	0.00	604000.00	4104350.00	
66	Sanofi Pasteur India Pvt Ltd	123,346.00	0.00	123346.00	0.00	0.00	0.00	123346.00	
67	Helpage India		873,500.00	873500.00	1300000.00	0.00	1300000.00		-426500.00
68	Johnson & Johnson	25,391.90	372,788.65	398180.55	340821.00	11,183.00	352004.00	46176.55	
69	Beijing Toshiba Pharmaceuticals Co. Ltd.	180,235.00	0.00	180235.00	0.00	0.00	0.00	180235.00	
70	C.P.W.W. Jersulam	6,534.00	0.00	6534.00	0.00	0.00	0.00	6534.00	
71	AVENTIS PHARMA CEUTICALS, USA	14,135.00	0.00	14135.00	0.00	0.00	0.00	14135.00	
72	Dr. Reddys Lab. Pvt. Ltd.	16,456.00	490,000.00	506456.00	368995.00	32,536.00	401531.00	104925.00	
73	Hindustan Latex Family Planning Promotion		-7,020.00	0.00	-7020.00	0.00	0.00		-7020.00
74	SIRO CLIN PHARMA PVT. LTD	2,204,368.00	561,535.00	2765903.00	1218432.00	26,846.00	1245278.00	1520625.00	
75	Charak Pharma (P)Ltd.	139,299.00	0.00	139299.00	57300.00	0.00	57300.00	81999.00	
76	INCLIN & USAID	24.00	0.00	24.00	0.00	0.00	0.00	24.00	
77	SAVING NEWBORN LIVES, USA		-10898	0.00	-10898.00	0.00	0.00		-10898.00
78	DANIDA RESEARCH COUNCIL	19.00	0.00	19.00	0.00	0.00	0.00	19.00	
79	THE MICRONUTRIENT INITIATIVE, ASIA		-4,702.00	0.00	-4702.00	0.00	0.00		-4702.00
80	Ministry of Health And Family Welfare(N.A.C.O)	449,074.00	3,280,115.00	3729189.00	3534387.00	58,356.00	3592743.00	136446.00	
81	The University of Alabama, USA	34,753,611.00	76,713,302.00	111466913.00	41417911.00	2,301,399.00	43719310.00	67747603.00	
82	Indian council of Philosophical Research	4,920.00	0.00	4920.00	0.00	0.00	0.00	4920.00	
83	Sterling Synergy System (P) Ltd.	63,580.00	0.00	63580.00	5000.00	0.00	5000.00	58580.00	
84	Reliance Clinical Research Services (P) Ltd.	2,718,777.64	230,769.00	2949546.64	654322.00	6,923.00	661245.00	2288301.64	
85	KLPF,USA	16,473.00	0.00	16473.00	0.00	0.00	0.00	16473.00	
86	Vulimini Ramalingaswami Foundation		-6,508.00	0.00	-6508.00	0.00	0.00		-6508.00
87	Texas A&M Research Foundation (TAMRF) USA	16,237.00	0.00	16237.00	0.00	0.00	0.00	16237.00	
88	Biomerieux India (P)Ltd.	12,011.00	0.00	12011.00	0.00	0.00	0.00	12011.00	
89	Media Lab Asia		-11,301.00	0.00	-11301.00	0.00	0.00		-11301.00
90	University of Warwick U.K		-1061	0.00	-1061.00	0.00	0.00		-1061.00
91	National AIDS Control Organisation	56.00	0.00	56.00	0.00	0.00	0.00	56.00	
92	BHARAT SERUMS AND VACCINES LTD.		-10,000.00	0.00	-10000.00	0.00	0.00		-10000.00
93	CD PHARMA INDIA PRIVATE LIMITED	357,698.00	1,468,823.00	1826521.00	915498.00	146,882.00	1062380.00	764141.00	
94	CODMAN & SHURTLEFF INC., USA	42,138.00	0.00	42138.00	0.00	0.00	0.00	42138.00	
95	KHANDELWAL LABORATORIES LTD.	805.00	0.00	805.00	0.00	0.00	0.00	805.00	

96	Directorate General of Health Services	1,250,047.00	0.00	1250047.00	1307314.00	0.00	1307314.00		-57267.00
97	Lajolla Pharmaceutical Company, California	454,411.00	0.00	454411.00	59074.00	0.00	59074.00	395337.00	
98	Institute De Recherches Internationales Servier (IRIS), France	-2034	0.00	-2034.00	0.00	0.00	0.00		-2034.00
99	BONE & JOINT DECADE INDIA	130.00	0.00	130.00	0.00	0.00	0.00	130.00	
100	ANTISENSE PHARMA Gmbh, GERMANY	3,339.00	575,649.00	578988.00	444614.00	57,564.00	502178.00	76810.00	
101	I.S.H.T.M	691,310.00	600,000.00	1291310.00	1260202.00	18,000.00	1278202.00	13108.00	
102	National Institute of Nutrition (NIN) Hyderabad	109.00	0.00	109.00	0.00	0.00	0.00	109.00	
103	Wyeth Pharmaceuticals Inc		2,656,942.00	2656942.00	79969.00	79,708.00	159677.00	2497265.00	
104	Peregrine Pharmac euticals, USA	783,913.00	297,000.00	1080913.00	618665.00	8,910.00	627575.00	453338.00	
105	B.A.R.C	-1210	278,759.00	277549.00	270264.00	8,363.00	278627.00		-1078.00
106	Ozone pharmaceuticals ltd.	107,209.00	123,640.00	230849.00	101990.00	3,709.00	105699.00	125150.00	
107	Ovation Pharmaceuticals, USA	39,827.00	0.00	39827.00	0.00	0.00	0.00	39827.00	
108	DELHI TAPEDIK UNMULAN SAMITI	10,824.00	0.00	10824.00	0.00	0.00	0.00	10824.00	
109	JOHN HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH (JHBSPH)	713,149.00	4,535,285.00	5248434.00	4572371.00	136,059.00	4708430.00	540004.00	
110	Clinigene International Pvt. Ltd	738,022.00	0.00	738022.00	12313.00	0.00	12313.00	725709.00	
111	D.R.D.O.	827,378.00	1,699,000.00	2526378.00	861596.00	84,950.00	946546.00	1579832.00	
112	FREEDOM TRIAL	86,253.00	0.00	86253.00	0.00	0.00	0.00	86253.00	
113	DIGENE CORPORATION, USA	42,184.00	0.00	42184.00	0.00	0.00	0.00	42184.00	
114	Ministry of Health & Family Welfare (AYUSH)	467,023.00		9,720,249.00	10187272.00	8583414.00	476,603.00	009060017.00	
115	KOBE, JAPAN	10,221.00	0.00	10221.00	0.00	0.00	0.00	10221.00	
116	AYUSH, Ministry of Health and Family Welfare	36,017.00	503,718.00	539735.00	506939.00	15,112.00	522051.00	17684.00	
117	Troikaa Pharmaceutical Ltd	25,414.00	25,000.00	50414.00	15000.00	2,500.00	17500.00	32914.00	
118	International Paedtrics Nephrology Association	615,762.00	0.00	615762.00	152803.00	0.00	152803.00	462959.00	
119	National Perinatal Epidemiology Unit, University of Oxford, UK	687,797.00	4,249,124.50	4936921.50	2814407.00	127,474.00	2941881.00	1995040.50	
120	ABBOTT VASCULAR, USA	482,902.00	0.00	482902.00	0.00	0.00	0.00	482902.00	
121	European Commission	1,958,286.00	2,566,604.00	4524890.00	2269645.00	76,998.00	2346643.00	2178247.00	
122	Synergy Network India Pvt Ltd,	551.00	0.00	551.00	0.00	0.00	0.00	551.00	
123	Solvey Pharma Ltd.	13,465.00	0.00	13465.00	0.00	0.00	0.00	13465.00	
124	Relisys Medical Devices Ltd.	-3,433.00	0.00	-3433.00	0.00	0.00	0.00		-3433.00
125	PPD Pharmaceutical Development India Pvt. Ltd.	-15,050.00	70,497.00	55447.00	76000.00	2,115.00	78115.00		-22668.00
126	Auxilium Technical & Management Services Pvt. Ltd.	400.00	0.00	400.00	0.00	0.00	0.00	400.00	
127	M/S ASPREVA PHARMACEUTICAL CORPORATION, CANADA	-41,266.00	0.00	-41266.00	0.00	0.00	0.00		-41266.00
128	CLINIRx RESEARCH PVT. LTD. GURGAON, HARYANA	119,602.00	593,221.00	712823.00	183263.00	17,797.00	201060.00	511763.00	
129	SANOFI-AVENTIS		43,950.00	43950.00	0.00	4,395.00	4395.00	39555.00	
130	Central Council for Research in Unani Medicine	551,024.00	2,432,000.00	2983024.00	1157185.00	112,600.00	1269785.00	1713239.00	
131	CLINCYTE, USA	665.00	0.00	665.00	0.00	0.00	0.00	665.00	
132	M/S Markansas Research Division	-4,745.00	0.00	-4745.00	0.00	0.00	0.00		-4745.00
133	THRESHOLD PHARMACEUTICALS, USA	-3,136.00	0.00	-3136.00	0.00	0.00	0.00		-3136.00
134	London School of Hygiene & Tropical Medicine, UK	137,225.00	0.00	137225.00	-9000.00	0.00	-9000.00	146225.00	
135	GlaxoSmith Kline Asia Private Ltd	998,675.00	1,976,391.00	2975066.00	276325.00	59,292.00	335617.00	2639449.00	
136	AJINOMOTA CO. JAPAN	43,855.00	442,475.00	486330.00	411001.00	44,247.00	455248.00	31082.00	

137	The International Society for Paediatric Neurosurgery (ISPNE)	408.00	0.00	408.00	0.00	0.00	0.00	0.00	408.00
138	MSD (India) Pvt. Ltd.	768,394.00	174,150.00	942544.00	644293.00	5,224.00	649517.00		293027.00
139	Solumiks Herbaceuticals Limited	13.00	0.00	13.00	0.00	0.00	0.00		13.00
140	Cadila Health care ltd.	52,751.00	59,000.00	111751.00	52611.00	5,900.00	58511.00		53240.00
141	AO Spine International, USA	373,985.00	262,241.00	636226.00	410208.00	7,867.00	418075.00		218151.00
142	Shire Human Genetic Therapies, Inc., USA	2,666,470.00	1,956,071.30	4622541.30	2176843.00	58,682.00	2235525.00		2387016.30
143	Centocor Research & Development, USA	55,079.00	0.00	55079.00	50282.00	0.00	50282.00		4797.00
144	Neeman Medical International Asia Ltd.	237,385.00	0.00	237385.00	0.00	0.00	0.00		237385.00
145	Apothecaries Ltd.	435.00	0.00	435.00	0.00	0.00	0.00		435.00
146	PAREXEL INTERNATIONAL LTD., U.K.	2,078,615.27	1,562,516.00	3641131.27	791691.00	46,875.00	838566.00		2802565.27
147	OXiGENE, USA	215,126.84	0.00	215126.84	0.00	0.00	0.00		215126.84
148	Hindustan Latex Limited	237,387.00	415,000.00	652387.00	202033.00	21,903.00	223936.00		428451.00
149	Deptt of Information Technology	122,761.00	0.00	122761.00	109839.00	0.00	109839.00		12922.00
150	Ovrseas associates	190.00	0.00	190.00	0.00	0.00	0.00		190.00
151	Glaxo Smith Kline	330,916.00	220,635.00	551551.00	19100.00	22,063.00	41163.00		510388.00
152	The Medical Research Council, UK		-550	78,539.00	77989.00	68897.00	2,356.00	71253.00	6736.00
153	Biogen Idec Limited, UK	392,923.00	1,185,219.00	1578142.00	933736.00	115,055.00	1048791.00		529351.00
154	Global Cancer Concern India	3,647.00	0.00	3647.00	0.00	0.00	0.00		3647.00
155	N.C.Pvt. Ltd	37,117.00	0.00	37117.00	0.00	0.00	0.00		37117.00
156	N.C.T.	69,344.00	0.00	69344.00	35760.00	0.00	35760.00		33584.00
157	NAIP	195,574.00	598,112.00	793686.00	776578.00	17,944.00	794522.00		-836.00
158	UNIVERSITY OF CALGARY, CANADA	57,187.00	0.00	57187.00	0.00	0.00	0.00		57187.00
159	CORVENTIS, USA	452,301.00	0.00	452301.00	144167.00	0.00	144167.00		308134.00
160	BRITISH COUNCIL, UK	674,328.00	3,601,206.00	4275534.00	3535775.00	108,036.00	3643811.00		631723.00
161	The Service de Dermatologie, France		-8,445.00	0.00	-8445.00	0.00	0.00		-8445.00
162	MERCK SERONO INTERNATIONAL S.A., SWITZERLAND	29,902.00	1,919,594.00	1949496.00	1882394.00	57,590.00	1939984.00		9512.00
163	University of Western Australia	6,180.00	0.00	6180.00	6180.00	0.00	6180.00		0.00
164	Centre For Chronic Disease Control	410.00	0.00	410.00	0.00	0.00	0.00		410.00
165	Lupin Limited	18,386.00	0.00	18386.00	0.00	0.00	0.00		18386.00
166	Coloplast		-5,775.00	0.00	-5775.00	0.00	0.00		-5775.00
167	Piramal Life Sciences	58,453.00	60,072.00	118525.00	69846.00	1,802.00	71648.00		46877.00
168	Criterion	641,436.00	0.00	641436.00	172390.00	0.00	172390.00		469046.00
169	M/s ARCHIMEDES DEVELOPMENT LTD., UK	57,100.00	0.00	57100.00	9896.00	0.00	9896.00		47204.00
170	University of Nottingham, UK	113,059.00	0.00	113059.00	105923.00	0.00	105923.00		7136.00
171	BRISTOL MEYER SQUIBB INDIA PRIVATE LIMITED	11,652.00	220,608.00	232260.00	205417.00	6,619.00	212036.00		20224.00
172	Brains Gate Ltd. ISRAEL	132.00	0.00	132.00	0.00	0.00	0.00		132.00
173	Central Council for Research in Homoeopathy (CCRH), Janak Puri, New Delhi	687,150.00	0.00	687150.00	617406.00	0.00	617406.00		69744.00
174	JIV DAYA FOUNDATION	698,016.00	1,306,079.50	2004095.50	1590034.00	66,531.00	1656565.00		347530.50
175	QED PHARMACEUTICAL SERVICES PVT. LTD	577,043.00	0.00	577043.00	0.00	0.00	0.00		577043.00
176	Amgen Technolgoy Private Limited	790,862.00	283,894.00	1074756.00	61000.00	8,517.00	69517.00		1005239.00
177	ACE PHARMACEUTICALS BV, NETHERLAND	219,361.00	1,444,616.00	1663977.00	1194908.00	43,340.00	1238248.00		425729.00
178	Actelion Pharmaceuticals Ltd. Switzerland	0.00	0.00	0.00	0.00	0.00	0.00		0.00
179	Macleods Pharmaceutical Ltd.	18.00	0.00	18.00	0.00	0.00	0.00		18.00
180	Department of Health and Human Services Centers for disease control, USA	9,147,937.00	15,660,765.00	24808702.00	15354437.00	469,823.00	15824260.00		8984442.00
181	PHARM-OLAM INTERNATIONAL, LTD.	16,923.00	0.00	16923.00	0.00	0.00	0.00		16923.00
182	MERK & CO., INC. USA	2,192,188.00	1,007,500.00	3199688.00	2391940.00	30,225.00	2422165.00		777523.00

183	Central Scientific Instruments Organisation	135,557.00	0.00	135557.00	0.00	0.00	0.00	0.00	135557.00
184	McMaster University, Canada	216,540.00	699,262.00	915802.00	226098.00	20,978.00	247076.00	668726.00	668726.00
185	Institute of Genomics & Integrative Biology	1,917,584.00	3,146,586.00	5064170.00	3697878.00	94,398.00	3792276.00	1271894.00	1271894.00
186	India Medtronic Pvt. Ltd	6,379.00	103,080.00	109459.00	52540.00	4,136.00	56676.00	52783.00	52783.00
187	Society of American Gastrointestinal and Endoscopic Surgeons	35,501.00	0.00	35501.00	0.00	0.00	0.00	35501.00	35501.00
188	Sun Pharmaceuticals	3,384.00	0.00	3384.00	0.00	0.00	0.00	3384.00	3384.00
189	National Knowledge Commission	8,988,535.00	0.00	8988535.00	3709928.00	0.00	3709928.00	5278607.00	5278607.00
190	GW Pharma Ltd. U.K.	9,261.00	0.00	9261.00	0.00	0.00	0.00	9261.00	9261.00
191	Lady Tata Memorial Trust	-500.00	96,000.00	95500.00	80000.00	0.00	80000.00	15500.00	15500.00
192	Liver Foundation	323,069.00	773,926.00	1096995.00	862101.00	23,217.00	885318.00	211677.00	211677.00
193	EMMES Corporation, Maryland, USA	3,297.00	0.00	3297.00	0.00	0.00	0.00	3297.00	3297.00
194	Flamentera AG, Switzerland	532,821.00	549,300.00	1082121.00	710203.00	16,479.00	726682.00	355439.00	355439.00
195	The Energy and Resources Institute	54,220.00	0.00	54220.00	46445.00	0.00	46445.00	7775.00	7775.00
196	Morphotek Inc. USA	20,602.98	1,096,843.30	1117446.28	367845.00	32,904.00	400749.00	716697.28	716697.28
197	Albert David Ltd	57,147.00	100,000.00	157147.00	20000.00	3,000.00	23000.00	134147.00	134147.00
198	Sanat Product Ltd	5,758.00	0.00	5758.00	0.00	0.00	0.00	5758.00	5758.00
199	I.C.G.E.&B	105,947.00	0.00	105947.00	92453.00	0.00	92453.00	13494.00	13494.00
200	IADV L	296,758.00	0.00	296758.00	274429.00	0.00	274429.00	22329.00	22329.00
201	Ministry of Chemical and petrochemicals	494650	0.00	494650.00	275341.00	0.00	275341.00	219309.00	219309.00
202	National Institute of pharmaceutical Education & Research	2743177	0.00	2743177.00	2092142.00	0.00	2092142.00	651035.00	651035.00
203	Max Neeman International	35920	0.00	35920.00	16100.00	0.00	16100.00	19820.00	19820.00
204	The George Institute for International Health, Australia	90487	394,702.93	485189.93	343537.00	26,547.00	370084.00	115105.93	115105.93
205	Apothecaries PvtLtd	91318	1,062,000.00	1153318.00	132094.00	106,200.00	238294.00	915024.00	915024.00
206	BRNS,Mumbai	138589	1,305,600.00	1305600.00	570346.00	65,280.00	635626.00	669974.00	669974.00
207	Centre for Chronic Diseases Control, New Delhi	138589	561,000.00	699589.00	409733.00	56,100.00	465833.00	233756.00	233756.00
208	BRIDGES, USA	1037756	1,289,530.00	2327286.00	699640.00	128,953.00	828593.00	1498693.00	1498693.00
209	DRDE(Gwallior)	90487	100,000.00	100000.00	159866.00	5,000.00	164866.00	-64866.00	-64866.00
210	CANNeCTIN, Canada	234174	677,774.00	677774.00	173000.00	33,889.00	206889.00	470885.00	470885.00
211	LG Life Sciences India Pvt. Ltd.	234174	607,117.00	841291.00	628245.00	60,711.00	688956.00	152335.00	152335.00
212	Merck Pharmaceuticals Ltd.	33867	0.00	33867.00	29400.00	0.00	29400.00	4467.00	4467.00
213	Canadian Institutes of Health Research, Canada	33867	-52000	257,565.00	205565.00	187720.00	12,878.00	200598.00	4967.00
214	St. Jude Medical Hong Kong	607972	556,885.00	556885.00	0.00	27,843.00	27843.00	529042.00	529042.00
215	International Union Against Cancer (UICC)	607972	0.00	607972.00	351261.00	0.00	351261.00	256711.00	256711.00
216	Qiagen Inc.India	405000	96,327.00	501327.00	139792.00	9,633.00	149425.00	351902.00	351902.00
217	Ipeca laboratoris	436772	493,585.00	930357.00	546700.00	49,359.00	596059.00	334298.00	334298.00
218	Fondazione Angelo Bianchi Bonomi, Milan- Italy	436772	221,869.00	221869.00	0.00	22,187.00	22187.00	199682.00	199682.00
219	Zenotech	73898	82,108.00	156006.00	87114.00	8,210.00	95324.00	60682.00	60682.00
220	Pharmacosmos A/S, Denmark	73898	81,000.00	81000.00	72900.00	8,100.00	81000.00	0.00	0.00
221	National Information Centre	73898	1,530,000.00	1530000.00	436224.00	76,500.00	512724.00	1017276.00	1017276.00
222	ROCHE Products(India) Pvt Ltd.	73898	241,178.00	241178.00	0.00	24,118.00	24118.00	217060.00	217060.00
223	Hamilton Health Sciences Corporation, Canada	73898	535,762.00	535762.00	274229.00	49,648.00	323877.00	211885.00	211885.00
224	Smith & Nephew Health care pvt lt	73898	102,594.00	102594.00	0.00	10,259.00	10259.00	92335.00	92335.00
225	Abbot health care pvt ltd.	73898	547,400.00	547400.00	319314.00	54,740.00	374054.00	173346.00	173346.00
226	Newcastle University, UK	73898	107,462.00	107462.00	0.00	5,373.00	5373.00	102089.00	102089.00
227	Clinical Marketing Pvt Ltd	73898	750,000.00	750000.00	400000.00	75,000.00	475000.00	275000.00	275000.00
228	Torrent Pharmaceutical Ltd	73898	187,729.00	187729.00	15000.00	18,773.00	33773.00	153956.00	153956.00
229	Ministry of Earth Science	73898	82,116.00	82116.00	0.00	4,106.00	4106.00	78010.00	78010.00
230	Bill & Melinda Gates Foundation, USA	73898	975,468.00	975468.00	818831.00	97,547.00	916378.00	59090.00	59090.00
473784355.12 -3476841.00 707340958.50 1177648472.62 613409496.00 21595050.00 635004546.00 0 0 546782087.62 4138161.00									

(Smt. Basanti Dalal)
Financial Advisor

APPENDIX-A1
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
RESEARCH SECTION

STATEMENT OF EXPENDITURE MADE FOR PURCHASING EQUIPMENT DURING THE FINANCIAL YEAR 2011-12

S.No.	Code No.	NAME OF PROJECT INVESTIGATOR	MONTH	AMOUNT
1	T106	DR. A.K.DEORARI	SEP 2011	41,664
2	1684	DR. A.K.DINDA	MAY 2011	112,370
3	1684	DR. A.K.DINDA	AUG 2011	527,554
4	1684	DR. A.K.DINDA	OCT 2011	720
5	1684	DR. A.K.DINDA	FEB 2012	3,366
6	1684	DR. A.K.DINDA	MAR 2012	39,497
7	D221	DR. A.K.MAHAPATRA	AUG 2011	399,988
8	N1215	DR. A.K.MAHAPATRA	JAN 2012	58,000
9	N1215	DR. A.K.MAHAPATRA	FEB 2012	21,000
10	N1124	DR. ARTI KAPIL	NOV 2011	-375,939
11	N1124	DR. ARTI KAPIL	FEB 2012	222,749
12	I644	DR. ARVIND JAYASWAL	AUG 2011	48,510
13	I644	DR. ARVIND JAYASWAL	DEC 2011	20,903
14	I644	DR. ARVIND JAYASWAL	FEB 2012	25,290
15	N1123	DR. Balram Bhargava	DEC 2011	97,119
16	N1123	DR. Balram Bhargava	JAN 2012	159,443
17	N1181	DR. C.S.BAL	JUL 2011	76,000
18	N1073	DR. D.N.RAO	MAR 2012	911
19	N1310	DR. D.N.RAO	MAR 2012	180,695
20	N1278	DR. S.B. RAY	AUG 2011	29,295
21	N1278	DR. S.B. RAY	SEP 2011	124,155
22	N1278	DR. S.B. RAY	OCT 2011	363,236
23	N1278	DR. S.B. RAY	NOV 2011	2,602,041
24	N1278	DR. S.B. RAY	DEC 2011	6,373
25	N1278	DR. S.B. RAY	MAR 2012	-9,731
26	D265	DR. G.P.BANDOPADHYAYA	FEB 2012	-308,448
27	D265	DR. G.P.BANDOPADHYAYA	MAR 2012	1,950
28	N1287	DR. H.N MALLICK	FEB 2012	44,776
29	I532	DR. K.ANAND	MAY 2011	149,730
30	I532	DR. K.ANAND	JUN 2011	59,115
31	D281	DR. KALPANA LUTHRA	OCT 2011	15,678
32	D281	DR. KALPANA LUTHRA	NOV 2011	7,138
33	D281	DR. KALPANA LUTHRA	DEC 2011	462,740
34	D281	DR. KALPANA LUTHRA	FEB 2012	555,475
35	D281	DR. KALPANA LUTHRA	MAR 2012	16,409
36	N1163	DR. Kameshwar Prasad	SEP 2011	453,184
37	N1163	DR. Kameshwar Prasad	DEC 2011	199,800
38	N1163	DR. Kameshwar Prasad	JAN 2012	25,000
39	N1163	DR. Kameshwar Prasad	MAR 2012	-27,274

40	D266	DR. M.R.RAJESWARI	MAR 2012	-59,058
41	D280	DR. M.R.RAJESWARI	JUL 2011	119,562
42	D280	DR. M.R.RAJESWARI	DEC 2011	3,656,200
43	D280	DR. M.R.RAJESWARI	MAR 2012	272,277
44	D222	DR. M.V.PADMA	JUN 2011	198,400
45	D273	DR. MADHULIKA KABRA	SEP 2011	168,625
46	D273	DR. MADHULIKA KABRA	NOV 2011	5,187
47	D273	DR. MADHULIKA KABRA	MAR 2012	9,356
48	D269	DR. MADHURI BEHARI	MAY 2011	51,049
49	N1239	DR. MANOJ K.SINGH	MAR 2012	469,641
50	I671	DR. KANCHAN MITTAL	JUN 2011	17,430
51	I671	DR. KANCHAN MITTAL	JUL 2011	87,150
52	I713	DR. KANCHAN MITTAL	AUG 2011	28,995
53	I713	DR. KANCHAN MITTAL	SEP 2011	94,815
54	I658	DR. N.C.CHANDRA	JUN 2011	6,287
55	I698	DR. NIKHIL TANDON	FEB 2012	18,701
56	I698	DR. NIKHIL TANDON	MAR 2012	44,438
57	N1234	DR. NASEEM SHAH	JAN 2012	12,800
58	I715	DR. GOVIND K MAKHARIA	OCT 2011	17,557
59	N1229	DR. GOVIND K MAKHARIA	OCT 2011	53,000
60	I702	DR. PRAMOD GARG	MAR 2012	261,718
61	I718	DR. RAVINDER GOSWAMI	NOV 2011	172,116
62	D274	DR. RAJESH SAGAR	JUN 2011	11,200
63	D274	DR. RAJESH SAGAR	SEP 2011	9,800
64	I630	DR. RAKESH KUMAR	FEB 2012	73,500
65	N1112	DR. RAKESH KUMAR	DEC 2011	84,714
66	I696	DR. RAMA CHAUDHARY	MAR 2012	397,688
67	N1235	DR. RAMA JAYASUNDEAR	OCT 2011	395,548
68	N1235	DR. RAMA JAYASUNDEAR	NOV 2011	2,001,510
69	N1235	DR. RAMA JAYASUNDEAR	DEC 2011	3,883,954
70	N1235	DR. RAMA JAYASUNDEAR	MAR 2012	168,336
71	N980	DR. RANDEEP GULERIA	AUG 2011	1,950
72	N980	DR. RANDEEP GULERIA	MAR 2012	24,668
73	D270	DR. RATNA SHARMA	AUG 2011	5,457,000
74	D270	DR. RATNA SHARMA	OCT 2011	775
75	D270	DR. RATNA SHARMA	DEC 2011	4,885
76	D270	DR. RATNA SHARMA	MAR 2012	-805,907
77	N1198	DR. S.K.MAULIK	DEC 2011	551,250
78	N1209	DR. S.K.PANDA	AUG 2011	-2,894
79	N1209	DR. S.K.PANDA	OCT 2011	10,752
80	N1209	DR. S.K.PANDA	FEB 2012	13,007
81	N1209	DR. S.K.PANDA	MAR 2012	62,537
82	I643	DR. S.K.SHARMA	MAR 2012	13,164
83	I725	DR. S.K.SHARMA	FEB 2012	50,675
84	N1184	DR. S.S.CHAUHAN	OCT 2011	21,465

85	N1184	DR. S.S.CHAUHAN	DEC 2011	57,994
86	N1184	DR. S.S.CHAUHAN	MAR 2012	-28,344
87	N1249	DR. SARMAN SINGH	DEC 2011	91,655
88	D022	DR. SHASHI WADHWA	OCT 2011	11,039
89	D022	DR. SHASHI WADHWA	NOV 2011	13,802
90	D022	DR. SHASHI WADHWA	DEC 2011	3,846
91	D022	DR. SHASHI WADHWA	MAR 2012	1,869
92	D022A	DR. SHASHI WADHWA	OCT 2011	281,740
93	D022A	DR. SHASHI WADHWA	NOV 2011	933,326
94	D022A	DR. SHASHI WADHWA	FEB 2012	11,323
95	D022A	DR. SHASHI WADHWA	MAR 2012	17,623,888
96	N1085	DR. SHASHI WADHWA	MAR 2012	61,875
97	I639	DR. SHOBHA BROOR	MAY 2011	100,170
98	I639	DR. SHOBHA BROOR	JUN 2011	32,000
99	I639	DR. SHOBHA BROOR	OCT 2011	18,225
100	I639	DR. SHOBHA BROOR	NOV 2011	567,667
101	I639	DR. SHOBHA BROOR	MAR 2012	-25,523
102	N1099	DR. SHOBHA BROOR	NOV 2011	567,667
103	N1099	DR. SHOBHA BROOR	DEC 2011	2,581
104	N1099	DR. SHOBHA BROOR	FEB 2012	54,275
105	N1099	DR. SHOBHA BROOR	MAR 2012	1,175
106	N1207	DR. SHOBHA BROOR	JAN 2012	131,681
107	N1207	DR. SHOBHA BROOR	MAR 2012	-367
108	D268	DR. SUJATA SHARMA	FEB 2012	2,290
109	D268	DR. SUJATA SHARMA	MAR 2012	800
110	D272	DR. SUJATA SHARMA	JUN 2011	53,550
111	D279	DR. SUJATA SHARMA	AUG 2011	150,930
112	N1272	DR. SUJATA SHARMA	JUL 2011	102,465
113	N1272	DR. SUJATA SHARMA	OCT 2011	144,000
114	N1272	DR. SUJATA SHARMA	FEB 2012	21,196
115	N1272	DR. SUJATA SHARMA	MAR 2012	1,753
116	I013	DR. SUNEETA MITTAL	JUN 2011	1,900
117	I472	DR. UMESH KAPIL	MAR 2012	5,800
118	I657	DR. V.K. PAUL	APR 2011	155,960
119	I657	DR. V.K. PAUL	JUN 2011	203,997
120	I657	DR. V.K. PAUL	JUL 2011	175,374
121	I657	DR. V.K. PAUL	AUG 2011	394,657
122	I657	DR. V.K. PAUL	SEP 2011	318,092
123	I657	DR. V.K. PAUL	OCT 2011	6,317
124	I657	DR. V.K. PAUL	JAN 2012	2,437,454
125	I657	DR. V.K. PAUL	FEB 2012	124,555
126	I657	DR. V.K. PAUL	MAR 2012	81,310
127	N1226	DR. V.K. PAUL	MAR 2012	174,320
128	N995	DR. Y.K.GUPTA	AUG 2011	73,648
129	N995	DR. Y.K.GUPTA	SEP 2011	215,542

130	N999	DR. Y.K.GUPTA	NOV 2011	110,998
131	I654	DR. LALIT DAR	AUG 2011	-2,724
132	I654	DR. LALIT DAR	MAR 2012	270
133	N1273	DR. B.R.MIRDHA	MAR 2012	11,411
134	N1190	DR. Manjari Tripathi	FEB 2012	23,231
135	I694	DR. ARVIND BAGGA	MAR 2012	3,950
136	N1261	DR. ARVIND BAGGA	JAN 2012	60,900
137	N1261	DR. ARVIND BAGGA	MAR 2012	44,940
138	I642	DR. RIMA DADA	MAY 2011	1,347
139	I642	DR. RIMA DADA	MAR 2012	-27,502
140	N1202	DR. RIMA DADA	MAY 2011	3,927
141	N1202	DR. RIMA DADA	MAR 2012	-132,008
142	N1232	DR. G. KARTHIKEYAN	JUL 2011	6,700
143	N000	SH. A.K.SHARMA	SEP 2011	613,556
144	N1220	DR. P.P. KOTWAL	SEP 2011	29,400
145	N1149	DR. SEEMA SOOD	AUG 2011	232,536
146	N1149	DR. SEEMA SOOD	FEB 2012	5,244
147	N1149	DR. SEEMA SOOD	MAR 2012	21,014
148	N1291	DR. V.K.SHARMA	OCT 2011	15,677
149	N1291	DR. V.K.SHARMA	FEB 2012	10,598
150	N1291	DR. V.K.SHARMA	MAR 2012	2,497,689
151	I627	DR. ANOOP SARAYA	OCT 2011	44,823
152	N1155	DR. ANOOP SARAYA	NOV 2011	484,965
153	N1155	DR. ANOOP SARAYA	MAR 2012	18,088
154	D255	DR. SUMAN JAIN	APR 2011	997,328
155	D255	DR. SUMAN JAIN	FEB 2012	37,222
156	D255	DR. SUMAN JAIN	MAR 2012	-186,199
157	I626	DR. POONAM MALHOTRA KAPOOR	JUL 2011	105,052
158	N1211	DR. SANJEEV SINHA	OCT 2011	391,321
159	N1211	DR. SANJEEV SINHA	DEC 2011	32,298
160	N824	DR. SANJEEV SINHA	MAR 2012	-286
161	N975	DR. SANJEEV SINHA	JUN 2011	5,286
162	N975	DR. SANJEEV SINHA	JUL 2011	1,310
163	N975	DR. SANJEEV SINHA	MAR 2012	16,800
164	I672	DR. SEEMA SEN	OCT 2011	15,678
165	I672	DR. SEEMA SEN	NOV 2011	7,139
166	I672	DR. SEEMA SEN	DEC 2011	16,400
167	N1266	DR. ANANT MOHAN	OCT 2011	183,750
168	N1231	DR. SUMAN BHASKER	NOV 2011	36,800
169	N1231	DR. SUMAN BHASKER	MAR 2012	28,400
170	N1021	DR. BALRAM AIRAN	JUN 2011	8,400,250
171	N1021	DR. BALRAM AIRAN	OCT 2011	15,678
172	N1021	DR. BALRAM AIRAN	NOV 2011	4,729
173	N1021	DR. BALRAM AIRAN	DEC 2011	98,778
174	N1021	DR. BALRAM AIRAN	FEB 2012	55,927

175	N1021	DR. BALRAM AIRAN	MAR 2012	546,669
176	I709	DR. S.VIVEKANANDHAN	FEB 2012	2,103,195
177	I709	DR. S.VIVEKANANDHAN	MAR 2012	3,392
178	N1238	DR. RACHNA SETH	DEC 2011	28,400
179	I647	DR. SUJATA MOHANTY	AUG 2011	1,950
180	I647	DR. SUJATA MOHANTY	DEC 2011	358,233
181	I647	DR. SUJATA MOHANTY	JAN 2012	734,001
182	I647	DR. SUJATA MOHANTY	FEB 2012	32,649
183	I647	DR. SUJATA MOHANTY	MAR 2012	-105,213
184	I720	DR. TANUJ DADA	DEC 2011	44,067
185	I730	DR. TANUJ DADA	DEC 2011	44,168
186	I730	DR. TANUJ DADA	FEB 2012	10,598
187	I730	DR. TANUJ DADA	MAR 2012	423,234
188	D226	DR. PUNIT KAUR	FEB 2012	79,840
189	N867	DR. DEEPAK KUMAR GUPTA	FEB 2012	17,500
190	I706	DR. RAJESH KHADGAWAT	OCT 2011	293,238
191	N1204	DR. RAJESH KHADGAWAT	MAR 2012	45,570
192	N912	DR. J.B. SHARMA	OCT 2011	18,800
193	N912	DR. J.B. SHARMA	JAN 2012	185,724
194	N1066	DR. V.K. BAHL	NOV 2011	9,000
195	N1147	DR. ASHISH SURI	MAR 2012	1,600
196	N1223	DR. P. SARAT CHANDRA	AUG 2011	49,988
197	D284	DR. VEENA JAIN	OCT 2011	15,678
198	D284	DR. VEENA JAIN	NOV 2011	7,138
199	D284	DR. VEENA JAIN	FEB 2012	122,045
200	I670	DR. ALPANA SHARMA	SEP 2011	180,849
201	I670	DR. ALPANA SHARMA	NOV 2011	199,125
202	I670	DR. ALPANA SHARMA	DEC 2011	2,898
203	I670	DR. ALPANA SHARMA	FEB 2012	753
204	I670	DR. ALPANA SHARMA	MAR 2012	13,630
205	N1268	DR. ALPANA SHARMA	DEC 2011	44,168
206	N1268	DR. ALPANA SHARMA	MAR 2012	467,903
207	C619	DR. SANDEEP .R. MATHUR	JAN 2012	187,931
208	N1091	DR. SHASHANK SHARD KALE	DEC 2011	73,500
209	N1216	DR. T.K.DAS	FEB 2012	10,598
210	N1216	DR. T.K.DAS	MAR 2012	13,164
211	I688	DR. SOMESH GUPTA	FEB 2012	29,953
212	N1115	DR. RAKESH YADAV	DEC 2011	5,500
213	N1115	DR. RAKESH YADAV	MAR 2012	120,000
214	N1200	DR. RAKESH YADAV	MAY 2011	2,800
215	N1200	DR. RAKESH YADAV	FEB 2012	15,400
216	I602	DR. ANITA SAXENA	JAN 2012	10,500
217	I602	DR. ANITA SAXENA	FEB 2012	10,600
218	I646	DR. ANITA SAXENA	JUN 2011	2,581
219	I646	DR. ANITA SAXENA	NOV 2011	-194

220	I646	DR. ANITA SAXENA	MAR 2012	6,513
221	N1265	DR. PARTHAPRASAS CHATTOPATHYAY	JAN 2012	915,710
222	N1140	DR. RAJEEV KUMAR	FEB 2012	52,300
223	N1183	Dr. Ajay Logani	OCT 2011	18,945
224	N1284	Dr. Sumit Sinha	SEP 2011	210,940
225	N1284	Dr. Sumit Sinha	OCT 2011	215,481
226	N1284	Dr. Sumit Sinha	FEB 2012	2,958
227	N1284	Dr. Sumit Sinha	MAR 2012	-12,080
228	N1315	Dr. Sumit Sinha	MAR 2012	612,275
229	I710	Dr. Y.S.Kusuma Kumari	NOV 2011	25,000
230	I717	Dr. Hemanshu Prabhakar	OCT 2011	190,344
231	N893	DR.P.CHATOPADHYAYA	AUG 2011	-195,000
232	N893	DR.P.CHATOPADHYAYA	SEP 2011	176,000
			Total:	72,950,979

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APPENDIX B
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
LIST OF SUNDRY DEBTORS (SCHEME CELL)

S.No.	Funding Agency	Debit
1	Rajiv Gandhi Foundation	989
2	INCLN	118368
3	Institute of Cancer Research UK co-ordination Committee	7209
4	Central Council for Research in Yoga and Naturopathy	62660
5	NIE	4868
6	SRB-Clinical Pharamacology	3154100
7	Minitstry of Communication and Information & Technology	52557
8	Zydas Healthcare Ltd	398
9	Federation of Obstetric & Gynaecological	276
10	Aimil Pharmaceutical India Ltd.	331
11	INCTR USA	35818
12	Emcure Pharmaceutical Inida Ltd	6380
13	L.G. Chemicals India Pvt Ltd.	668
14	Helpage India	426500
15	Hindustan Latex Family Planning Promotion	7020
16	Saving New born lives,USA	10898
17	THE MICRONUTRIENT INITIATIVE, ASIA	4702
18	Vulimini Ramalingaswami Foundation	6508
19	Media Lab Asia	11301
20	University of Warwick U.K	1061
21	BHARAT SERUMS AND VACCINES LTD.	10000
22	Directorate General of Health Services	57267
23	Institute De Recherches Internationales Servier (IRIS),France	2034
24	B.A.R.C	1078
25	Relisys Medical Devices Ltd.	3433
26	PPD Pharmaceutical Devlopement India Pvt. Ltd.	22668
27	Aspreva Pharmaceutical Corporation Canda	41266
28	M/S Markansas Research Division	4745
29	Threshold Pharmaceuticals ,USA	3136
30	NAIP	836
31	The Service De Dermatologie,France	8445
32	Coloplast	5775
33	DRDE (Gwallior)	64866
	Total	4138161

(Smt. Basanti Dalal)
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APPENDIX-C

STATEMENT SHOWING THE DONATIONS & INVESTMENT AS ON 31-03-12

<u>S.NO.</u>	<u>PARTICULARS & MODE OF INVESTMENT</u>	<u>AMOUNT OF DONATION</u>	<u>AMOUNT OF INVESTMENT</u>
1	AIIMS ROTARY CANCER HOSPITAL	70000	70000
2	MISC. DONATION - HEAMOTOLOGY UNDER Dr. A.K. SARAYA	8000	8000
3	Dr. A.K. SARAYA		
4	ANNONYMOUS DONORS	70000	70000
5	DR. B.B. DIXIT LIB.	10000	13700
6	CHACHAMA DONORS	150000	199600
7	MJ. GENERAL S.L. BHATIA	10000	9800
8	MJ. GENERAL AMIR CHAND	150000	149660
		100000	100000
9	SARUP CHAND HANS RAJ	20000	19500
10	RAJ KUMARI AMRIT KAUR	25000	25000
11	KATHERINE SORAL FREYMAN	5000	5000
12	DR. S.L. KALRA	6000	5800
13	R.L. RAJGARHIA	850000	850000
14	SMT. PRAKASH WATI DONATION	13800	13800
15	SMT. KRIPAL KAUR (UNIT TRUST)	6000	5908
16	LALA KHUSHI RAM	247753	247753
17	S.P. VIRMANI (FIXED DEPOSIT)	1500	1500
18	EAST INDIA COMMERCIAL PVT. LTD CALCUTTA (FIXED DEPOSIT) SRB	3200000	2800000
19	DR. KANTI KAPILA (UNIT TRUST)	10079	10002
20	DR. V. RAMALINGASWAMI (UNIT TRUST)	8000	7996
21	SR. S. SABHARWAL (UNIT TRUST)	10000	9951
22	DR. N.H. KASWANI (UNIT TRUST)	10000	9990
23	DR. V. HINGORANI	15000	15000
24	KUMUDINI KRISHNA MOORTHY	15000	15000
25	G.D. RADHAKRISHNA (SARWESHWARI MEMORIAL ORA	20000	19987
26	P.L. TANDON (FIXED DEPOSIT)	15000	15000
27	XV INTERNATIONAL CONGRESS OF PEADIATRICS (UNIT TRUST)	40000	40000
28	RAM LOBHAYA DONATION (FIXED DEPOSIT)	15000	15000
29	SUBHASH MEMORIAL FOUNDATION (V.L. TELEKAR DONATION)	10101	10101
30	SMT. INDIRA SATYANAND	10000	10000
31	SH. K.V. SUBA RAO	10000	10000
32	NEWZELAND HIGH COMMISSION	10000	10000
33	AKHILESH MITTAL (SUMITH MOHAN SADAN DAYAL TRUST)	20000	20000
34	PREMALATA KAPOOR	10000	10000
35	DWARKA PRASAD TRUST	50000	50000
36	LATE. SH. D.R. BAHRI	15000	15000
37	SEWA RAM	15000	15000
38	FACULTY BENEVELENT FUND	60065	60065
39	V.RANGA MEMORIAL TRUST	50000	50000
40	SH. DORABJI TRUST	10000	10000
41	CORPUS FUND	30000	30000
42	AIIMSONIANS	10000	10000

43	SARLA ATAM PRAKASH	15000	15000
44	K.L. WIG RESEARCH FOUNDATION	100000	100000
45	V.K. MITTAL	130000	130000
46	SNEHLATA SONI	15000	15000
47	AIIMSONIAN OF AMERICA	129850	129850
		151630	151630
		126471	126471
48	SMT. LEELA WATI SALWAN	15000	15000
49	DR. D.K. GUPTA	100000	100000
50	J.R. CHAWLA	15000	15000
51	URMIL SHARMA IN R/O SHYAM SHARMA	15000	15000
52	SMT. SUSHILA WATI MALHOTRA	500000	500000
53	BASANTI KUMARI	100000	100000
54	ORTHOPAEDICS FUND	250000	250000
55	DR. S.B. ROY	125000	125000
56	MR. R.V. KANDHARI	100000	100000
57	DR. B.K. KAPOOR	125000	125000
58	SMT.SAVITRI UGGARSEAN	100000	100000
59	VIMAL LAUMAS	200000	200000
60	MRS. PRAMADA BAJAJ	200000	200000
61	DR. V. RAMALINGASWAMI	100000	100000
62	DR. N.C. NAYAK	100000	100000
63	DR. H.D. TANDON	100000	100000
64	PROF. N. GOPINATH (CTVS)	1200000	1200000
65	PROF. L.K. BHUTANI ORATION	500000	500000
66	BINEY ROHTAGI & SMT. SHAKUNTALA	36000	-
67	Dr. K.L. WIG (SBI)	36990	37000
68	ZENITH FINANCE & CO. (SBI)	17000	17000
69	KAMANI CHARITY TRUST (SBI)	15000	15000
70	SMT. KAUSHALYA THAPAR (UNIT TRUST)	12000	12017
71	SMT. BRIJ RANI SAWHENY (UNIT TRUST)	22501	22472
72	KAMLA B.K. ANAND	100000	100000
73	SH. G.D JHANGINI	25500	25602
74	DR. B.K. ANAND (UNIT TRUST)	5000	4995
75	R.S. NANDA	78274	78274
76	GPF INVESTMENT		3062169399
77	NPS INVESTMENT		500000000
	TOTAL	10902514	3572687823

(Smt. Basanti Dalal)
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APPENDIX-D
ALL INDIA INSTITUTE OF MEDICAL SCIENCES

Details of Misc. Donations as on 31.3.2012

<u>S.NO.</u>	<u>DEPARTMENT</u>	<u>OP. BAL. AS ON 1/4/2011</u>	<u>GRANT</u>	<u>TOTAL</u>	<u>EXPD.</u>	<u>CL. BAL AS ON 31-03-2012</u>
1	R & AL	19475		19475		19475
2	PSYCHIATRY	28495		28495		28495
3	HEAMATOLOGY	12380		12380		12380
4	ORTHO	65586		65586		65586
5	IMMUNOLOGY	824		824		824
6	PAED SURGERY	32041		32041		32041
7	INSTT. MISC.	137338		137338		137338
8	DERMATOLOGY	15974		15974		15974
9	IRCH DR. V. KOCHUPILLAI	10460		10460		10460
10	LEPROSY PATIENT	115785		115785		115785
11	IRCH DR. A.K. BASU	17651		17651		17651
12	CN CENTRE	20418		20418		20418
13	BB DIXIT LIB	3324		3324		3324
14	EMP. WELFARE FUND	125139		125139		125139
15	PMR POOR FUND	34199		34199		34199
16	SURGERY	501		501		501
17	K.L. WIG CEMET	12021		12021		12021
18	N/MEDICINE	19571		19571		19571
19	CEU	30000		30000		30000
20	DR. NK MEHRA	597235		597235		597235
21	I.C.G.E.B. DR. T.P SINGH	444630		444630		444630
22	DR. VEENA KALRA	74682		74682		74682
23	LEVER CLINIC - GASTRO	2865		2865		2865
24	DR. N.P. GUPTA -UROLOGY	4982		4982		4982
25	DR. N. KOCHUPILLAI-POOR PT.	120000		120000		120000
26	PEAD. GENETICS	605760	425337	1031097	343550	687547
27	MRS. USHA SHARMA	176600		176600		176600
28	MISC. RECEIPT	145540		145540		145540
		<u>2873476</u>	<u>425337</u>	<u>3298813</u>	<u>343550</u>	<u>295526</u>

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APPENDIX - E
ALL INDIA INSTITUTE OF MEDICAL SCIENCES

Details of Misc. Deposits as on 31.3.2012

2011-2012

S.NO.	NAME OF THE DEPARTMENT	AMOUNT
1	Controller of Printing & Stationary	16076
2	C.P.W.D. Shimla	70432
3	C.P.W.D.	7096
4	Delhi Municipal Corporation	33750
5	Indian Institute of Technology	4250
6	N.D.M.C.	173242
7	P. & T. Circle Division	12796
8	Indian Telephone Industries	13344
	TOTAL	330986

(Smt. Basanti Dalal)
Financial Advisor

APPENDIX - F
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Details of GPF Investment
2011-2012

Opening Balance of Investment as on 1.4.2011	2662176232
Investment during 2011-12	1006814167
Add Closing Cash Book Balance	61154988
	<hr/> 3730145387
Investment matured during 2011-12	606821000
	<hr/> 3123324387

Details of NPS Investment
2011-2012

Opening Balance of Investment as on 1.4.2011	341900000
Investment during 2011-12	2445000000
	<hr/> 2786900000
Investment matured during 2011-12	2286900000
	<hr/> 500000000
Closing Cash Book Balance as on 31.3.2012	16386441
	<hr/> 516386441

(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

Receipts	Amount	Payments	
Cash book Opening Balance	67558097	Withdrawal	489844548
Receipt (Sub/Rec)	606498937	Investment during the year 2011-12	1006814167
Add Interest Received	276935669	Cash book closing Balance	61154988
Add Invest Maturity	606821000		
Total	1557813703	Total	1557813703

Balance Sheet of General Provident Funds of the AIIMS as on 31st March ,2012

Liabilities	Amount	Assests	Amount
General Provident		Investment	
Opening Balance	2729734329	Opening Balance	2662176232
Add Receipt during the year 2011-12	606498937	Add Investment during the year 2011-12	1006814167
Add Interest received	276935669	Add cash Book Closing Balance	61154988
	3613168935		3730145387
Less Withdrawal	489844548	Less maturity	606821000
Total	3123324387	Total	3123324387
Month	Receipts	Payments	
April	48803989	40290242	
May	48492131	30900437	
June	50044362	41450262	
July	49418930	43110611	
August	49316159	41158284	
September	50063800	45677564	
October	49306310	38534377	
November	51518758	33501558	
December	51899298	39154611	
January	52330618	45034345	
February	53076612	46689966	
March	52227970	44342291	
	606498937	489844548	
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

Receipts	Amount	Payments	
Cash book Opening Balance as on 01-04-2011	67558097	GPF withdraw including Final payment	489844548
GPF Sub/Rec of Advances	606498937	Investment during the year 2011-12	1006814167
Add Interest Received	276935669	Cash book closing Balance	61154988
Add Invest Maturity	606821000		
Total	1557813703	Total	1557813703

Balance Sheet of General Provident Funds of the AIIMS as on 31st March ,2012

Liabilities	Amount	Assests	Amount
General Provident Opening Balance	2729734329	Investment Opening Balance	2662176232
Add Receipt during the year 2011-12	606498937	Add Investment during the year 2011-12	1006814167
Less Withdrawal /Advances	489844548	Less maturity	606821000
Add Interest received	276935669		3062169399
		Add Cash Book Closing Balance	61154988
Total	3123324387	Total	3123324387

**(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:

Sl no	Name of centre	Amount in ‘ shown in the asset side as ‘PDA/CD Advance
1.	AIIMS (Main)	235127153
2.	Dr BRAICH	22490268
3.	NDDTC	400000
4	JPN apex trauma Centre	
	Custom Duty advance 54288900	
	PDA Advance 9894185	64183085
	Total	32,22,00,506

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

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