



शरीरमाद्यं खलुधर्मसाधनम्

58th AIIMS ANNUAL REPORT 2013-2014



**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
NEW DELHI 110029**

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ANNUAL REPORT

2013-14



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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 with over 2000 research publications by its faculty and researchers in a year. AIIMS also runs a College of Nursing.

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

AIIMS AT A GLANCE 2013-2014

Year of establishment 1956

Teaching Departments and Centres	52	Medical graduates	2717
Faculty members (Sanctioned 826)	492	Postgraduates	8688
Non-faculty staff (Sanctioned 10847)	9378	Nursing/paramedical graduates	2799
No. of Undergraduate students	764	Publications in journals/abstracts	2006
No. of Postgraduate students	1399	Chapters in books/books/monographs	308

Hospital Services

Hospital/Centre	Outpatients (including casualty)	Admissions	Surgery (Operations/ procedures)	Beds		
				General	Private	Total
Main Hospital	1752232	93898	81192	982	165	1147
Dr. R.P.Centre	233219	37156	37080	281	21	302
Dr. BRA IRCH	106261	34969	7667	167	15	182
C.T.Centre	158308	11689	4033	174	31	205
N.S.Centre	126433	8496	3503	174	32*	206
NDDTC	62016	966	-	50	-	50
C.C.M	222229	8105	2173	50	-	50
JPNAT Centre	90580	5408	5656	186	-	186
CDER**	35476	827	10290	100	-	100
Total	27,86,754	2,01,514	1,51,594	2164	264	2428

* 1 bed (Private) is used by NS Centre and CT Centre for 6 months each.

**CDER has 87 Dental Chair & 13 Indoor beds.

Hospital performance indices	2013-14		Comments
	Main Hospital	CNC	
Average length of stay (days)*	4.4	6.9	Indicates effective utilization of beds.
Average bed occupancy rate (%)*	86.7	85.8	Indicates fair occupancy.
Net death rate (%)*	1.6	3.3	Indicates low mortality rate despite the fact that a large no. of critically ill patients are admitted.
Combined crude infection rate (%)	6.0	-	

* These figures are for AIIMS Main Hospital and CT & NS Centre only

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AIIMS

ORGANISATION STRUCTURE

Institute Body



Governing Body



Finance
Committee

Selection
Committee

Academic
Committee

Estate
Committee

Hospital Affairs
Committee

1. Director's Review

I am privileged to present the Fifty-eighth Annual Report and audited statement of accounts for the year 2013–2014. All India Institute of Medical Sciences (AIIMS), Delhi made impressive progress in this period based on the hard work and inspiration of all the extraordinary members of the AIIMS family. I am pleased to highlight in this report a few of our remarkable accomplishments.

Established in 1956 by an Act of the Indian Parliament with the objective of developing a strong curricular foundation for undergraduate and postgraduate healthcare education in India based on Rajkumari Amrit Kaur's vision, AIIMS continually seeks to achieve a high standard of healthcare education, research and service. It is recognized in India and globally, as a medical institution that best combines excellent medical education with cutting edge research and quality healthcare.

Education

AIIMS continues to shape the future as it educates the next generation of leaders in medicine and science. Hence, it did not come as a surprise when AIIMS topped the India Today's best medical schools league table for the eleventh year in a row. It earned the top score of 100 in all parameters under consideration: reputation, academic quality, student care, infrastructure, and placement opportunities. With its 7 centres and 39 teaching departments, and manpower of over 10,000 including 826 faculty positions; AIIMS, Delhi 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 2013–2014, we enrolled 724 scholars in various courses. Under our training schemes, AIIMS provided postgraduate training to 675 short-term trainees, 20 long-term trainees, 70 WHO fellows (foreign national) under WHO fellowship programme and observer-ship to 63 foreign nationals (26 postgraduate and 37 undergraduates). AIIMS, Delhi also continues to play a significant role in nurturing and mentoring the AIIMS at Rishikesh, Bhubaneswar, Bhopal, Raipur, Jodhpur and Patna; and conducted entrance examination and counselling leading to final selection of students to MBBS and BSc (Hons) Nursing courses for them.

AIIMS continually reviews how medicine and science are taught so as to nurture a passion for scholarship and innovation, as medical knowledge is swiftly increasing, the nation's healthcare delivery system is undergoing rapid change, and biomedical science and technology are advancing at a fast pace. AIIMS is expanding the use of technical aids such as animations and videos across various specializations like surgery, orthopaedics and radiotherapy. The Anatomy department has an established e-Learning facility which was utilized to introduce 'Blended Learning' methods that supplement the traditional face-to-face learning methods with eLearning using workstations. The Department of Anaesthesia acquired a State-of-the-Art high-fidelity Human Patient Simulation system to provide training to postgraduates for routine events as well as crisis situations in real time scenarios. The department also established the Anaesthesia Skills Laboratory for training and continuing education of undergraduates, interns, junior and senior residents.

The Division of Neonatology, Department of Paediatrics introduced new courses and enrolled nearly 2000 students and doctors in different courses in the Essential Newborn Care and Sick Newborn Care courses with skill learning at participating institutions. Courses are administered to students from Maldives, Srilanka, Bangladesh, Nepal, Pakistan, Mauritius and India. The Division of Neonatology also updated a teaching-learning package for newborn care for online learning on an interactive platform to educate health professionals at distant places with skill learning at partner institutions. New Apps on smartphone for management of normal newborn as point of care tool for healthcare providers working in small hospitals were also developed. The Department of Neurology has initiated a regular continuing medical education programme on multiple sclerosis.

AIIMS offered Continuing Medical Education to thousands of physicians and healthcare professionals to help improve skills, increase knowledge and improve performance. The Institute organized/hosted 188 workshops, symposia, conferences and training programmes in collaboration with various national and international agencies. The Jai Prakash Narain Apex Trauma Centre (JPNATC) is making significant contribution towards capacity building in the country in both basic life support and advanced trauma life support to improve trauma care all across India. AIIMS Ultrasound Trauma Life Support (AUTLS) course has been designed in-house for point of care ultrasound scan for the assessment of ABCD in Trauma Evaluation and Management. The Department of Surgical Disciplines trained over 100 surgeons from all over the country in laparoscopic surgery at the Minimally Invasive Surgery Training Centre.

Research

In 2013–14, the research community at AIIMS contributed significantly to scholarship through its leadership in innovations and publications. Over 508 research projects were conducted in the year and the institute attracted extramural research grants of more than Rs. 71 crores in frontier and cutting edge biomedical areas. During the year the faculty and the scientists of the institute successfully completed 211 research projects and published over 1800 research papers in national and international journals and over 250 monographs, books and chapters in books.

The British Medical Journal (BMJ) has announced *BMJ Innovations*—a new quarterly online journal—in collaboration with AIIMS; with the aim of promoting innovative research which creates new, cost-effective medical devices, services and platforms that improve patient care to act as a platform to catalyse and seed more innovations. Fellows of the Stanford India Biodesign (SIB) Centre—a joint initiative of Stanford University, Delhi’s AIIMS and IIT Delhi funded by the Department of Biotechnology developed a low-cost splint made of hard cardboard that is easy to use on either right or left leg and does not have to be removed for X-rays, MRIs or CT scans. The splint was clinically tested at the AIIMS trauma centre and was licensed to HLL Lifecare Limited, a public sector undertaking, which will be supplying it to ambulance services and primary care centres.

AIIMS took up key initiatives to encourage integration and collaboration across the world to accelerate scientific breakthroughs. Notable among these efforts were launch of joint research projects to look into causes and treatment of stroke and dementia in the Indian population with Erasmus Medical Centre, Rotterdam, Netherlands; and with the National Health and Medical Research Council, Australia.

AIIMS has promoted research in the application of stem cells to treat diverse maladies. A breakthrough dental regeneration technique named the SealBio technique for infected root canal cure and regeneration was developed by the Department of Conservative Dentistry and Endodontics, Centre for Dental Education and Research, AIIMS.

Efforts at integrating modern science methods with wisdom of Indian systems of medicine led to the identification of Ayurvedic drugs which can potentially prevent the onset of Alzheimer’s disease and restrict its spread in affected patients.

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. Fifty-eight young faculty members were given training in cutting-edge research areas. In addition, intramural grants of Rs. 5 crores were disbursed to talented young faculty members for undertaking 66 new research projects.

Clinical care

Several surveys by The Week and Outlook magazines have named AIIMS the best hospital in India overall, as well as the best in several individual fields such as Cardiology, Neurology, Gastroenterology, Gynaecology, Ophthalmology, Orthopaedics, Trauma Care ahead of several specialized institutions. The hospital has been able to maintain high standards of quality while seeing large numbers of patients at very low cost to patients, many of whom live in extreme poverty. 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 (BRAIRCH), the Dr Rajendra Prasad Centre for Ophthalmic Sciences (RAPCOS), the Centre for Dental Education and Research (CDER), the National Drug Dependence Treatment Centre (NDDTC)—have a total bed strength of 2428, including day care beds. During the year 2013–2014, the institute attended to about 28.8 lakh outpatients and 2.1 lakh inpatients and performed close to 1.5 lakh surgical procedures at optimal patient care service parameters with average bed occupancy of about 85%, and average hospital stay of about 5 days. The AIIMS hospital reported a net death rate of below 2%. While AIIMS advances the delivery of healthcare in India, it is also taking a leadership role in service throughout the developing world. An increasing number of foreigners are coming for treatment to AIIMS, mostly from South and South East Asia. This trend was particularly salient in the departments of neurosurgery, orthopaedics, oncology and surgery.

AIIMS is in the process of expanding AIIMS Trauma Centre, surgical block, mother and child block and OPD Block. The expansion will happen in phases and when completed, will almost double the hospital’s capacity. The surgical block will also have a national endoscopy centre, a high dependency unit and kidney transplant facilities. In addition, the convergence block, critical care units, and a new Dharamshala were inaugurated during the year.

A free generic pharmacy store was opened at AIIMS for outpatients to cater to the needs of the weaker sections of the society. In a relief to patients facing cardiac emergencies, AIIMS has decided to perform procedures like

angiography, balloon angioplasty, opening of blocked heart valves and insertion of pacemakers free of cost for patients in general wards at AIIMS.

AIIMS has been undergoing a quiet revolution over the last year in bringing innovative and patient oriented services so as to cater to the huge number of patients who look up to AIIMS as the final word in affordable and quality healthcare. In an effort to streamline the rush for out-patient consultations, AIIMS started a computerized appointment system that allows patients to schedule appointments up to a week in advance. The AIIMS Trauma Centre (JPNATC) became the first centre in the country to make a successful shift from preparing manual Medico-Legal Cases (MLCs) to electronic MLCs. It has also begun using tablets to store outpatient information. The Department of Otorhinolaryngology started transoral robotic surgery for performing advanced head and neck cancer resections.

Taking benefits of advanced technology in healthcare to remote and rural areas of the country

The AIIMS faculty has been conducting medical camps at Leh and Kargil, Jammu and Kashmir for the benefit of the population belonging to these remote areas of the country. AIIMS faculty organized and performed an unbelievable feat by performing total knee replacement operation for underserved patients from Ladakh.

The Gurgaon-Chandu-Badli road serving AIIMS-2 at Badsa village in Jhajjar is being widened and upgraded from the existing two lanes to four lanes to improve access to the campus. In addition, the Union Cabinet approved the proposal for setting up of National Cancer Institute (NCI) at Jhajjar under AIIMS at a cost of Rs. 2035 crores. NCI is the largest tertiary healthcare facility (both public and/or private) in the country since independence. The proposed institute will have 710 beds for different facilities such as surgical oncology, radiation oncology, medical oncology, anaesthesia and palliative care, nuclear medicine and proton therapy. It will have a tissue repository which is the first-of-its-kind in India. The institute aims to plan, conduct and coordinate research on cancers which are more specific to India like tobacco related cancers, cancer of the uterine cervix, gall bladder cancer and liver cancers.

Achievement and Merit

The Division of Neonatology, Department of Paediatrics was recognized as a WHO Collaborating Centre and as an Advanced Centre for Newborn Health Research by ICMR. The Department of Transplant Immunology and Immunogenetics was designated as a 'Centre of Excellence in Molecular Medicine' by the ICMR. The Centre for Community Medicine continues to serve as the nodal agency to provide technical support to HIV sentinel surveillance in five northern states (Bihar, Delhi, Jharkhand, UP, and Uttarakhand). It also houses the WHO Collaborating Centre for Capacity Development and Research in Community based NCDPC. The Department of Geriatric Medicine was designated as a Regional Medical Institution by the Ministry of Health and Family Welfare. It serves as nodal centre for training and referral for the states of Haryana, Himachal Pradesh, Madhya Pradesh, Punjab, Uttarakhand and National Capital Region of Delhi. The Department of Pulmonary Medicine and Sleep Disorders was designated as Centre of Excellence for Extra-pulmonary-TB (EPTB) by the Ministry of Health and Family Welfare. It has initiated steps towards accreditation of sleep laboratories in India.

Driving achievement at AIIMS are the many exceptional members of our community. It is impossible to list each accomplishment here, but our long tradition of leadership continued with five faculty members being awarded the Padma Shree by the President of India on January 31, 2014.

AIIMS has made a sincere effort to live up to the mandate given to it by Parliament as it strives to assist the government in its endeavour to provide quality healthcare to our people. For AIIMS faculty, trainees and staff alike, each day is a celebration of study and practice of medicine from dedicated clinical care to dedicated education and exhilarating discovery.

We profusely thank the Chairman and Members of the Parliamentary committee on health for overwhelming support, appreciation, encouragement and recommending provision of adequate funds to AIIMS.

Professor M. C. Misra
Director, AIIMS

2. The Institute and its Committees

INSTITUTE BODY

- 1. Shri Ghulam Nabi Azad** President
Union Minister for Health and Family Welfare
Nirman Bhawan, New Delhi 110011
- 2. Smt. Sushma Swaraj, MP (Lok Sabha)** Member
8, Safdarjung Lane, New Delhi 110011
- 3. Shri Motilal Vora, MP (Rajya Sabha)** Member
33, Lodhi Estate, New Delhi 110011
- 4. Dr Jyoti Mirdha, MP (Lok Sabha)** Member
31, Meena Bagh, New Delhi
875, Sector-17B, Gurgaon, Haryana 122001
- 5. Professor Dinesh Singh** Member (Ex-Officio)
Vice Chancellor, University of Delhi, Delhi 110007
- 6. Shri Keshav N. Desiraju** Member
Secretary (Health), Ministry of Health and Family Welfare
Government of India, Nirman Bhawan, New Delhi 110011
Shri Lov Verma Member
Secretary (Health), Ministry of Health and Family Welfare
Government of India, Nirman Bhawan, New Delhi 110011
(w.e.f. 28 February 2014)
- 7. Dr Jagdish Prasad** Member (Ex-Officio)
Director General of Health Services
Government of India, Nirman Bhawan, New Delhi 110011
- 8. Dr M.K. Bhan** Member
Secretary, Department of Biotechnology, 7th Floor,
Ministry of Science and Technology, CGO Complex,
Lodhi Road, Block-II, New Delhi 110003
- 9. Dr S.P. Agarwal** Member
Secretary General, Indian Red Cross Society,
Rafi Marg, New Delhi
- 10. Professor K.C. Pandey** Member
Department of Zoology, Lucknow University, Lucknow 226007
- 11. Shri Ashok Thakur** Member
Secretary, Department of Higher Education,
Ministry of Human Resource Development,
Shastri Bhawan, New Delhi 110001
- 12. Professor K.K. Talwar** Member
President, National Academy of Medical Sciences,
Ansari Nagar, New Delhi 110029
- 13. Dr R.A. Badwe** Member
Director, Tata Memorial Hospital, Dr E. Borges Road,
Lower Parel, Mumbai

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| 14. Dr Ramakant Panda
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 S.K. Srivastava
Additional Secretary and Financial Adviser, Ministry of
Health and Family Welfare, Nirman Bhawan, New Delhi 110011 | Member
(up to 29 January 2014) |
| Shri Gautam Guha
Additional Secretary and Financial Adviser, Ministry of
Health and Family Welfare, Nirman Bhawan, New Delhi 110011 | Member
(w.e.f. 28 March 2014) |
| 17. Professor R.C. Deka
Director, All India Institute of Medical Sciences | Member Secretary
(up to 30 September 2013) |
| Professor M.C. Misra
Director, All India Institute of Medical Sciences | Member Secretary
(w.e.f. 11 October 2013) |
| 18. Dr Sundeep Kumar Nayak
Joint Secretary, Ministry of Health and Family Welfare,
Nirman Bhawan, New Delhi 110011 | Special Invitee |
| 19. Dr Shashi Wadhwa
Dean, All India Institute of Medical Sciences | Special Invitee
(up to 31 July 2013) |
| Dr P. K. Julka
Dean, All India Institute of Medical Sciences | Special Invitee
(w.e.f. 29 October 2013) |
| 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. Shri Ashok Thakur | Member |
| 5. Shri Keshav N. Desiraju | Member
(up to 29 January 2014) |
| Shri Lov Verma | Member
(w.e.f 27 February 2014) |
| 6. Professor K.K. Talwar | Member |
| 7. Dr R.A. Badwe | Member |
| 8. Dr Jagdish Prasad | Member |
| 9. Dr S.P. Agarwal | Member |

- | | |
|-----------------------------------|--------------------------------------------------|
| 10. Shri S.K. Srivastava | Member
(w.e.f 5 June 2013 to 29 January 2014) |
| 11. Professor R.C. Deka | Member Secretary
(up to 30 September 2013) |
| Professor M.C. Misra | Member Secretary
(w.e.f. 11 October 2013) |
| 12. Dr Sundeep Kumar Nayak | Special Invitee |
| 13. Dr Shashi Wadhwa | Special Invitee
(up to 31 July 2013) |
| Dr P. K. Julka | Special Invitee
(w.e.f. 29 October 2013) |
| 20. Dr D.K. Sharma | Special Invitee |

STANDING FINANCE COMMITTEE

- | | |
|-----------------------------------------------|--------------------------------------------------|
| 1. Shri Keshav N. Desiraju | Chairman
(up to 29 January 2014) |
| 2. Shri Motilal Vora, MP (Rajya Sabha) | Member |
| 3. Dr Jagdish Prasad | Member |
| 4. Shri S.K. Srivastava | Member
(w.e.f 5 June 2013 to 29 January 2014) |
| 5. Shri Ashok Thakur | Member |
| 6. Dr S.P. Agarwal | Member |
| 7. Professor Dinesh Singh | Member |
| 8. Professor R.C. Deka | Member Secretary
(up to 30 September 2013) |
| Professor M.C. Misra | Member Secretary
(w.e.f. 11 October 2013) |
| 9. Dr Sundeep Kumar Nayak | Special Invitee |
| 10. Dr Shashi Wadhwa | Special Invitee
(up to 31 July 2013) |
| Dr P. K. Julka | Special Invitee
(w.e.f. 29 October 2013) |

STANDING ACADEMIC COMMITTEE

- | | |
|-------------------------------------------|----------|
| 1. Dr Jagdish Prasad | Chairman |
| 2. Dr Jyoti Mirdha, MP (Lok Sabha) | Member |
| 3. Professor Dinesh Singh | Member |
| 4. Dr M. K. Bhan | Member |
| 5. Shri Ashok Thakur | 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 (up to 30 September 2013)
Professor M.C. Misra	Member Secretary (w.e.f. 11 October 2013)

STANDING SELECTION COMMITTEE

1. Dr R.A. Badwe	Chairman
2. Dr Jagdish Prasad	Member
3. Shri Ashok Thakur	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 (up to 30 September 2013)
Professor M.C. Misra	Member Secretary (w.e.f. 11 October 2013)

STANDING ESTATE COMMITTEE

1. Dr S.P. Agarwal	Chairman
2. Dr Jyoti Mirdha, MP (Lok Sabha)	Member
3. Shri S.K. Srivastava	Member (w.e.f 5 June 2013 to 29 January 2014)
4. Dr M.K. Bhan	Member
5. Professor R.A. Badwe	Member
6. Dr Jagdish Prasad	Member
7. Professor K.K. Talwar	Member
8. Professor R.C. Deka	Member Secretary (up to 30 September 2013)
Professor M.C. Misra	Member Secretary (w.e.f. 11 October 2013)

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 (up to 30 September 2013)
Professor M.C. Misra	Member Secretary (w.e.f. 11 October 2013)

3. Academic Section

Dean

Shashi Wadhwa (up to 31.7.2013)
P.K. Julka (w.e.f. 29.10.2013)

Sub-Dean

Rakesh Yadav (up to 07.11.2013)
Virinder Kumar Bansal (w.e.f. 08.11.2013)

Registrar

Sanjay Kumar Arya

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

UNDERGRADUATE EDUCATION

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

Bachelor of Medicine and Bachelor of Surgery (MBBS)

The pattern of education in MBBS course was reviewed and re-structured from July 2004 onwards. The MBBS course is of 5½ years duration which comprises of 3 phases and internship.

The details are as follows:

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

In the MBBS course, at present, every year 72 students are admitted. There is provision for nomination of foreign nationals. However, this year no foreign national was admitted. For Indian nationals, the 72 seats were filled from the various categories as below:

General	OBC	SC	ST
37	19	11	05

These selections were made based upon an All-India entrance test organized by AIIMS, New Delhi. 3% reservation on horizontal basis was provided for Orthopaedic Physically Handicapped (OPH) candidates. For these 72 seats, 76,014 applications were received and 58,002 candidates appeared in the entrance examination held on 1 June 2013.

The total number of MBBS students on rolls as on 31 March 2014 was 379 including 80 interns. In this year, 6 meritorious MBBS students were awarded scholarships for securing first and second positions in first, second and final phase of examination.

Paramedical and Nursing Education

In 2013–14, 77 students (39 General, 12 SC, 6 ST and 20 OBC) were admitted for BSc (Hons) Nursing course. For BSc Nursing (Post-certificate) course, 22 students (11 General, 2 SC, 3 ST and 6 OBC) were admitted. For other undergraduate courses, i.e. BSc (Hons) Ophthalmic Techniques, 19 students (9 General, 4 SC, 1 ST and 5 OBC) and in BSc (Hons) Medical Technology in Radiography, 9 students (5 General, 1 SC, 1 ST and 2 OBC) were admitted. The number of students on rolls in these courses as on 31 March 2014 was:

Course	Number of students
Nursing	
BSc Nursing (Post Certificate)	48
BSc (Hons) Nursing	259
Paramedical	
BSc (Hons) Ophthalmic Techniques	52
BSc (Hons) Medical Technology in Radiography	26

POSTGRADUATE EDUCATION

The Academic Section looks after all activities pertaining to admission and training of postgraduate students including junior and senior residents. It handles all activities related to PhD, DM, MCh, MD, MS, MDS, MHA, MBIotech and MSc courses in different disciplines.

The admissions to all postgraduate courses for Indian nationals as well as sponsored candidates are done through an All India Entrance Examination which is held twice a year except for MSc and MBIotechnology courses for which the examination is held once a year. For PhD/DM/M.Ch/MD/MS/MHA/MDS courses, under sponsored category, foreign nationals as well as nominees from various states, PSUs, etc. are admitted through the same entrance examination test. For other postgraduate courses (MSc, MBIotechnology and MScs Nursing) foreign students are considered on inter se merit among all eligible applicants.

In 2013–14, 513 students (including 42 Foreign Nationals/Sponsored) were admitted to various courses. The number of postgraduate and doctoral students on roll as on 31 March 2014 was 1399.

Admissions in various courses in 2013–2014

S. No.	Name of course	July 2013	January 2014	Total
1	MSc/MBiotech/MSc Nursing	57	0*	57
2	MD/MS/MDS/MHA	122	163	285
3	DM/M.Ch	41	40	81
4	PhD	40	50	90
	Total	260	253	513

*Admissions are done once a year

Postgraduate student on rolls as on 31 March 2014

S. No.	Name of course	Number of students enrolled
1	PhD	429
2	DM	148
3	MCh	76
4	MD/MHA	520
5	MS	82
6	MDS	37
7	MSc/MBiotech/MSc Nursing	107
	Total	1399

Subject-wise distribution of PhD students on rolls as on 31 March 2014

S. No.	Subject	Open	Sponsored
1	Anatomy	30	0
2	Biochemistry	35	0
3	Biophysics	46	0

S. No.	Subject	Open	Sponsored
4	Biostatistics	6	0
5	Biotechnology	16	0
6	Cardiac Anesthesiology	3	0
7	Cardiac Biochemistry	2	0
8	Cardiac Radiology	1	0
9	Cardiothoracic and Vascular Surgery	2	0
10	Community Medicine	2	0
11	Community Ophthalmology (Dr RP Centre)	2	0
12	Dental Surgery	3	0
13	Dermatology and Venereology	4	0
14	Emergency Medicine (Trauma Centre)	2	0
15	Endocrinology and Metabolism	7	0
16	Forensic Medicine	3	0
17	Gastroenterology and Human Nutrition Unit	9	0
18	Geriatric Medicine	3	0
19	Haematology	9	0
20	Laboratory Medicine	13	0
21	Laboratory Oncology	1	0
22	Medical Oncology (Dr BRA IRCH)	4	0
23	Medical Physics (Dr BRA IRCH)	2	0
24	Medicine	9	0
25	Microbiology	25	1
26	Neuro Anaesthesiology	1	0
27	Neuro Biochemistry	7	0
28	Neuro Psychology (Neurosciences)	3	0
29	Neurology	16	0
30	Neuro-Surgery	8	0
31	Nuclear Magnetic Resonance	8	0
32	Nuclear Medicine	5	1
33	Obstetrics and Gynaecology	2	0
34	Pulmonary Medicine and Sleep Disorder	3	0
35	Ocular Biochemistry (Dr RP Centre)	3	0
36	Ocular Microbiology (Dr RP Centre)	1	0
37	Ocular Pathology (Dr RP Centre)	2	0
38	Ocular Pharmacology (Dr RP Centre)	4	0
39	Ophthalmology (Dr RP Centre)	7	0
40	Paediatric Surgery	1	0
41	Paediatrics	11	0
42	Paediatrics (Clinical/Epidemiology)	0	2
43	Paediatrics (Genetics/Basic Sciences)	8	1

S. No.	Subject	Open	Sponsored
44	Pathology	10	0
45	Pharmacology	18	0
46	Physiology	28	1
47	Psychiatry (Clinical Psychology)	8	0
48	Psychiatric (Addiction Psychiatry)	2	0
49	Radiation Oncology	2	0
50	Reproductive Biology	4	0
51	Radiotherapy	3	0
52	Surgery	4	0
53	Transplantation Immunology and Immunogenetics	12	0
54	Anaesthesiology (Dr BRA IRCH)	3	0
	Total	423	6

Subject-wise distribution of DM students on rolls as on 31 March 2014

S. No.	Subject	Open	Sponsored
1	Cardiac Anaesthesiology	6	2
2	Cardiology	16	2
3	Clinical Haematology	5	3
4	Endocrinology	8	3
5	Gastroenterology	10	3
6	Haemato-Pathology	4	3
7	Medical Oncology	12	0
8	Neonatology	4	3
9	Nephrology	8	5
10	Neuro-Anaesthesiology	8	1
11	Neurology	14	2
12	Neuroradiology	3	1
13	Paediatric Neurology	6	3
14	Clinical Pharmacology	3	1
15	Pulmonary Medicine and Sleep Disorders	8	1
	Total	115	33

Subject-wise distribution of MCh students on rolls as on 31 March 2014

S. No.	Subject	Open	Sponsored
1	Cardiothoracic and Vascular Surgery	12	1
2	Neurosurgery	16	3
3	Gastrointestinal Surgery and Liver Transplantation	12	3
4	Paediatric Surgery	5	3
5	Urology	8	3
6	Surgical Oncology	8	2
	Total	61	15

Subject-wise distribution of MD/MS/MDS students on rolls as on 31 March 2014

S. No.	MD	Open	Sponsored
1	Anaesthesiology	33	1
2	Anatomy	04	0
3	Biochemistry	13	0
4	Biophysics	14	0
5	Community Medicine	23	0
6	Dermatology and Venereology	14	3
7	Forensic Medicine	9	0
8	Hospital Administration (MHA)	8	0
9	Laboratory Medicine	7	0
10	Medicine	54	3
11	Microbiology	14	0
12	Nuclear Medicine	13	1
13	Obstetrics and Gynaecology	42	1
14	Ophthalmology	100	0
15	Paediatrics	28	2
16	Pathology	19	0
17	Pharmacology	13	0
18	Physical Medicine and Rehabilitation	6	0
19	Physiology	11	0
20	Psychiatry	29	2
21	Radiodiagnosis	25	2
22	Radiotherapy	9	0
23	Geriatric Medicine	10	2
24	Emergency Medicine	5	0
	Total	503	17
	MS		
25	Orthopaedics	18	1
26	Otorhinolaryngology (ENT)	14	1
27	Surgery	45	3
	Total	77	5
	MDS		
28	Conservative Dentistry and Endodontics	9	1
29	Orthodontics	9	2
30	Prosthodontics	8	0
31	Oral and Maxillofacial Surgery	8	0
	Total	34	3
	Grand Total	614	25

Subject-wise distribution of MSc students on rolls as on 31 March 2014

S. No.	MSc	Open	Sponsored
1	Anatomy	7	–
2	Biochemistry	5	3 (Foreign National)
3	Biophysics	1	–
4	Pharmacology	1	1 (Foreign National)
5	Physiology	4	–
6	Perfusion Technology	10	–
7	MBiotechnology	25	1 (Foreign National)
8	Nuclear Medicine Technology	3	–
	Total	56	5

Subject-wise distribution of MSc (Nursing) students on rolls as on 31 March 2014

S. No.	MSc (Nursing)	Open	Sponsored
1	Cardiological/CTVS Nursing	12	1
2	Neurosciences Nursing	6	-
3	Paediatric Nursing	13	-
4	Psychiatric Nursing	9	1 (Foreign National)
5	Oncological	4	0
	Total	44	2

TRAINING PROGRAMMES

There is a provision for short term, long term and elective training to students and employees from various organizations in India as well as abroad. During 2013–14, 853 persons underwent training as listed below:

S. No.	Training	No. of trainees
1	Short Term training: Indian nationals	705
2	Short Term training: Foreign nationals	26
3	Long Term training: Indian nationals	18
4	Elective Training: Foreign nationals (UG students)	37
5	WHO Fellows: Indian nationals	0
6	WHO Fellows: Foreign nationals	67
	Total	853

COMMITTEE MEETINGS

The Academic Section is responsible for organizing meetings of the Academic committee, Staff Council, Dean's Committee, Faculty and Research Presentations. During 2013–14 the number of meetings held was as under:

1	Academic Committee	2
2	Staff Council	1
3	Dean's Committee	2
4	Faculty (General Discussions)	8
5	Research Presentations	4

ORATIONS

The Academic Section organized the following Oration during 2013–14

S. No.	Name of Oration	Name of Orator	Date
1	24th Sarveshwari Memorial Oration	Professor Henry W. S. Schroeder Ernst Mortiz University, Department of Neurosurgery, Sauerbruchstr, Greifswald, Germany	22.02.2014

CONVOCATION

The 41st Annual Convocation of the Institute was held on 12.09.2013 at the Jawaharlal Auditorium, AIIMS, New Delhi. The Hon'ble President of India, Shri Pranab Mukherjee addressed the Convocation. He distributed Institute Medals/Awards to the outstanding meritorious students and delivered convocation address. The President, AIIMS and Hon'ble Minister of Health and Family Welfare, Government of India, Shri Ghulam Nabi Azad distributed the degrees.

4. Examination Section

Professor-Incharge (Exams)

Prof. Kaushal K. Verma (1.4.2013 to 19.11.2013)

Prof. S. Datta Gupta (w.e.f. 20.11.2013)

Sub-Dean (Exams)

Dr. Nand Kumar

Asstt. Controller of Exams

Sh. A.K. Gigoo

Accounts Officer

Sh. S.K. Tikoo

During the period under review (2013 - 2014), the Examination Section undertook various activities as detailed below.

1. Postgraduate & Under Graduate Professional Examination

Examination section conducts examinations for candidates pursuing various courses at AIIMS.

Details of various undergraduate and postgraduate professional examinations conducted by examination section from 01.4.2013 to 31.3.2014 are given below.

Professional Examinations held between 1.4.2013 – 31.3.2014

S. No.	Month and year	Examination	Number of students			
			Appeared	Absent	Passed	Failed
1	MAY 2013	Final Postgraduate/Postdoctoral (MD/MS/MDS/DM/M.CH/MHA)	191	01	180	10
2	-do-	M.Sc. (Nursing) Phase-I	24	-	24	-
3	-do-	M.Sc. (Nursing) Phase-II	19	-	19	-
4	-do-	Second MBBS (Supple.)	07	-	07	-
5	-do-	Final MBBS (Supple.)	05	01	04	-
6	-do-	B.Sc Nursing (Post-certificate) Phase-I	24	-	18	06
7	-do-	B.Sc Nursing (Post-certificate) Phase-II	23	-	23	-
8	-do-	B.Sc. (Hons.) Nursing Phase-I	76	-	63	13
9	-do-	B.Sc. (Hons.) Nursing Phase-II	57	-	56	01
10	-do-	B.Sc. (Hons.) Nursing Phase-III	52	-	51	01
11	-do-	B.Sc. (Hons.) Nursing Phase-IV	56	-	56	-
12	JULY 2013	First Professional MBBS	78	03	67	08
13	-do-	B.Sc. (Hons) Ophthalmic Techniques Phase-I	17	01	09	07
14	-do-	B.Sc. (Hons) Ophthalmic Techniques Phase-II	12	01	06	05

S. No.	Month and year	Examination	Number of students			
			Appeared	Absent	Passed	Failed
15	-do-	B.Sc. (Hons) Ophthalmic Techniques Phase-III	14	-	14	-
16	-do-	B.Sc.(H) Medical Tech. in Radiography Phase-I	08	01	02	05
17	-do-	B.Sc.(H) Medical Tech. in Radiography Phase-II	08	-	06	02
18	-do-	B.Sc.(H) Medical Tech. in Radiography Phase-III	09	-	06	03
19	AUG. 2013	First MBBS Professional (Supplementary)	10	-	09	01
20	NOV. 2013	B.Sc.(H) Ophthalmic Tech. Phase-I (Supple.)	06	-	03	03
21	-do-	B.Sc.(H) Ophthalmic Tech. Phase-II (Supple.)	06	-	06	-
22	-do-	B.Sc.(H) Medical Tech. in Radiography Phase-I(supple)	06	-	05	01
23	-do-	B.Sc.(H) Medical Tech. in Radiography Phase-II(supple)	02	-	02	-
24	-do-	B.Sc.(H) Medical Tech. in Radiography Phase-III(supple)	03	-	02	01
25	DEC.2013	Final Postgraduate/Postdoctoral (MD/MS/MDS/DM/M.CH/MHA)	120	-	114	06
26	-do-	Final MBBS Professional	78	04	63	11
27	-do-	Second MBBS Professional	77	-	70	07
28	-do-	B.Sc. (P.C.) Nursing Phase-I (Supple.)	06	-	06	-
29	-do-	B.Sc.(Hons) Nursing Phase-I (Supple.)	13	-	12	01
30	-do-	B.Sc.Hons.(Nursing) Phase-II (Supple.)	01	-	01	-
31	-do-	B.Sc.(Hons) Nursing Phase-III (Supple.)	10	-	10	-
32	-do-	B.Sc.(Hons) Nursing Phase-IV (Supple.)	04	-	04	-
33	JAN. 2014	Final MBBS (Compartmental examination)	05	-	04	01
		Grand Total:	1027	12	922	93

2. Entrance Examinations Conducted :

Examination section conducts entrance examinations for various courses being run at AIIMS New Delhi and All India Post Graduate Dental Examination. This section also conducts examination for recruitment of personnel at AIIMS.

Details of various examinations held between 1.4.2013 to 31.3.2014 are as below:

- All India Post Graduate dental entrance exams-2014 Examination for admission to MDS Courses against 50% open merit seats quota was held in 36 centers (Local=11, out station=25) in 5 cities of India on 25.01.2014. The Result was declared on 05.02.2014.
- AIIMS PG Entrance Examination for admission to MD/MS/MDS courses was conducted on 12th May, 2013 for July, 2013 session at 58 Centres (Delhi-23, Outstation- 35) and 10th November, 2013 for January, 2014 session at 127 (Delhi-39, Outstation-88) respectively. The results were declared on 29th May, 2013 and 15th November, 2013 respectively.
- Selections for various Post-Doctoral (super-specialty) courses viz. DM/M.Ch and Master in Hospital Administration for July, 2013 and January 2014 sessions were made on the basis of a two stage performance evaluation between 19th -27th May, 2013 and 15th- 21st December, 2013 respectively.
- The Institute has also conducted online test for the Post of Senior Residents/ Senior Demonstrators for July 2013 session on 23rd June, 2013 and January 2014 session on 05th January, 2014 respectively.
- Selections of candidates for registration to Ph.D. Programme for July, 2013 and January 2014 sessions were held between 15th July, 2013 and 29th January, 2014. The results were declared on 15th July,2013 and 29th January, 2014 respectively.
- The Entrance Examination for admission to MBBS course of AIIMS including six new AIIMS like Institute for August 2013 session was held in 240 (local = 44 and outstation = 196) centres in eighteen (18) cities of India on 1st June, 2013.
- B.Sc. (Hons.) Nursing Entrance Examination was held in Delhi & six (6) AIIMS (Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur & Rishikesh) on 06th July, 2014 in CBT online mode.
- The Entrance Examination for admission to M.Sc. Course and M. Biotechnology courses for August, 2014 session was held in Delhi on 20th July, 2014 and 15th June, 2014 in online mode.
- The Entrance Examination for admission to M.Sc. Nursing course was held on 29th June, 2014 in Delhi only in CBT online mode. The admission was made by allotment of seats on merit basis through counseling held on 14.07.2014 and 21.07.2014.
- B.Sc. Nursing (Post-Certificate) Entrance Examination was held in Delhi in CBT online mode on 22.06.2014 followed by the personal assessment of candidates on 26.06.2014.
- The Entrance Examination for admission to Para-Medical courses viz. B.Sc. (Hons.) in Bachelor of Optometry and B.Sc. (Hons.) Medical Technology in Radiography for August, 2014 session was held in Delhi at one centre in CBT online mode on 7th June, 2014. The admissions to these two courses were made by allotment of seats on merit basis through counseling held on 2nd July, 2014 and 15th July, 2014.
- Total number of candidates who Passed Ph.D. Viva Voce Examination during this period (1st April, 2013 to 31st March, 2014) were 66 (Sixty Six).
- The Examination Section also conducted Written/Skill Test for recruitment to the following posts at the Institute:
 - i) Written test for recruitment to the post of Sister Grade-II in the year 2013 was held on 25.08.2013 followed by interviews held from 8th October to 12th October & on 14th October, 2013.
 - ii) Written test for recruitment to the post of ophthalmic Technician was held on 12.01.2014 followed by interview held on 05.02.2014.
 - iii) Written test for recruitment to the post of Lab. Technician was held on 30.03.2014 followed by interviews held from 6th August, 2014 to 8th August, 2014.

These activities have been summarized in tables below.

Table 1: Entrance Examinations Held for Undergraduate and Postgraduate Courses from 1.4.2013 to 31.3.2014

Sl. No.	Course	Date of examination	No. of candidates	
			Applied	Appeared
1.	MD/MS/MDS (AIIMS) July Session 2013	12.05.2013	25197	20459
2.	DM/MCh/MHA July Session 2013	19.05.2013	2297	1868
3.	M.B.B.S. (AIIMS) August Session 2013	01.06.2013	137370	115804

Sl. No.	Course	Date of examination	No. of candidates	
			Applied	Appeared
4.	Online B.Sc. (Hons) Nursing 2014	06.07.2014	3856	2056
5.	Online B.Sc. Nursing (Post-Certificate) 2014	22.06.2014	109	78
6.	Online B.Sc. (Hons) Paramedical Courses 2014	07.06.2014	1067	644
7.	Online M.Sc. Courses 2014	20.07.2014	594	290
8.	Online M.Sc. Nursing 2014	29.06.2014	1302	873
9.	Online M. Biotechnology Entrance Examination 2014	15.06.2014	649	368
10.	Senior Residents Recruitment Examination, July, 2013 Session	23.06.2013	1535	1104
11.	Ph.D. July Session 2013	06.07.2013	724	481
12.	Senior Residents Recruitment Examination, January, 2014	05.01.2014	808	580
13.	MD/MS/MDS (AIIMS) January 2014 Session	10.11.2013	33431	27038
14.	DM/MCh/MHA January, 2014 Session	15.12.2013	1956	1557
15.	AIPGDEE- 2014	25.01.2014	10204	9363
16.	Ph.D. January, 2014 Session *	19.01.2014	604	389
		Grand Total	221703	182952

Table 2: Examinations held for Recruitment from 1.4.2013 to 31.3.2014

S. No.	Name of Exam	Written Exam	Interview	Applied	Appeared
1	Sister Grade-II	25.08.2013	8,9,10,11,12, & 14.10.2013	34685	25966
2	Ophthalmic Tech	12.01.2014	05.02.2014	177	122
3	Lab Tech	30.03.2014	6,7, & 8.08.2014	9103	5394
Grand Total				43965	31482

3. Participation in other events:

- The Examination Section actively participates in the counseling for admission to AIIMS-PG, MBBS, B.Sc (Hons) Para-Medical, M.Sc. (Nursing) courses and personnel assessment for B.Sc. (Nursing) Post-Certificate course.
- The Examination Section helped in the evaluation of P.G. students' thesis (Approx 65) from B.P. Koirala Institute of Health Sciences, Dharan, Nepal.
- Examination Section is also providing technical expertise to various Universities and Institutions in India and abroad for conduction of their Entrance Examinations.

4. Significant Events:

- The Examination Section has conducted the MBBS Entrance Examination of North Eastern Indira Gandhi Regional Institute of Health & Medical Sciences, Shillong, Meghalaya from 2010 to 2012.
- As a further step towards introduction of more checks and balances, so as to maintain complete confidentiality and integrity of the examination system, question papers for outstation centres are now kept in the safe custody of approved Banks. In order to avoid any case of impersonation, thumb impressions are obtained during the entrance examination. In addition to this physical frisking with the help of Metal Detector has also been started from the year 2006.
- The Examination Section has been inviting the online Applications for all Entrance Examination from January, 2010. Candidates can now apply online and also get their Admit Cards downloaded from the

internet. This has been done to overcome the difficulty in obtaining Prospectus & Application Forms, as reported by the candidates, from time to time. After launching online method of submission of application forms, the problem of non-availability of Prospectus-cum-Application form has been completely resolved.

- The Examination Section has introduced Integrated mode of payment (Debit Card, Credit Card, online transfer etc) for submission of Application Fee from 2012 Session. The examination section has also introduced online helpline from 2012 onwards to cater the needs of aspirants as well as students of AIIMS, so that their doubts may be instantly cleared.
- In all the Entrance Examinations, each candidate is being provided pen to write. This was 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 Transactions carried by AIIMS Representative to meet the examination expenditure has been minimized by sending 90-95% amount through Demand Draft/ Bankers Cheque in advance to the designated Exam centres.
- The quality of the OMR Sheet has been improved for better marking system. 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)

Dr R.S. Shukla

Deputy Secretary/Chief Vigilance Officer

Sanjeev Chaturvedi

The General Administration, including Personnel and Establishment Security, Estate, matters related to Engineering Services Department, Stores, Vigilance and Public Relations activities of the Institute are controlled and supervised by the Dy. Director (Admn.). There are various branches looking after the above mentioned areas. Each branch is headed by a Senior Officer with supportive officers and staff members. A brief description of the Officers/Staff looking after various branches is given below.

Chief Administrative Officer

Attar Singh

Superintending Engineer

Manjul Rastogi

Executive Engineers

S. Bhaskar
V.K. Jaiswal (w.e.f. 1 May 2013)

V.K. Sharma (w.e.f. 30 October 2013)
Vidya Bhushan (w.e.f. 29 November 2013)

Chief Procurement Officer

A. K. Kamra

Deputy Chief Security Officer

Rajeev Lochan (under suspension w.e.f. 29 November 2013)
R.S. Rawat

Sr. Administrative Officer

K.K. Vaid
K.K. Giridhari (w.e.f. 8 May 2013)

Administrative Officers

R.K. Sharma
Sonal Gulati
K.P. Singh (w.e.f. 31 May 2013)

Razi Javed
S.K. Agarwal
Neeraj Kumar (w.e.f. 18 April 2013)
Madan Singh Rawat (w.e.f. 2 July 2013)

Sr. Stores Officer

K.D. Sharma (w.e.f. 30 October 2013)

Stores Officer(s)

K.D. Sharma (up to 30 October 2013)
Rakesh Kumar Sharma

Pradeep Kumar Gupta
Narender Kumar (w.e.f. 30 November 2013)

Assistant Administrative Officers

Mahesh Kumar Sharma
Ashok Kumar Gupta
Ashok Kumar Sharma

B.S. Gill

Renu Bhardwaj
Gopal Datt (up to 12 September 2013)
Karamchand (up to 30 April 2014)

Raj Kumar

Narender Kumar
Lalit Oraon
Sukh Ram (up to 30 September 2013)
Rajendran Pillai

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

The total sanctioned staff of the Institute is 11,673 and includes staff of all Centres/Main Hospital/D.O. The number of group-wise sanctioned strength and staff in-position is mentioned below.

S.No.	Category/Group	Sanctioned Strength	In-position
1.	Faculty	826	492
2.	'A'	559	408
3.	'B'	5530	5018
4	'C'	4758	3952
	Total	11673	9870

Scheduled Caste/Scheduled Tribe Cell

Liaison Officer

Dr Rajpal

Professor of Ophthalmology, Dr R. P. Centre

Assistant Administrative Officer

Lalit Oraon

During the year (1 April 2013 to 31 March 2014) various representations from SC/ST Category employees were received in the SC/ST cell. These are as under.

Representations received	12
Cases resolved/disposed off	9
Cases under consideration	3

Brief summary of the cases

1. Joint representation received from Smt. Meena Panda, DNS, Ms. Madhu Bala Koli, DNS and Ms. Hanumati Devi, DNS regarding harassment and humiliation by the ANS at Dr R.P. Centre. The matter was examined by the Competent Authority and a warning letter was issued to the accused. **The matter has been disposed off.**
2. Smt. Sushil, Sister Gd. II received through National Commission for SC, regarding harassment at workplace by DNS/ANS, the matter was examined by the Competent Authority and resolved; a reply to this effect has been sent to National Commission for SC on 8 June 2013 and 26 April 2014, respectively.
3. Dr Dilip Shende, Professor, Department of Anaesthesia, Dr R.P. Centre, regarding continuous discrimination and harassment by Dr Chandralekha, Professor and Head, Department of Anaesthesia. The matter is under consideration with the Competent Authority.
4. Shri O.P. Benewal, Senior Steward, Department of Dietetics Services, Dr R.P. Centre, received through National Commission for SC regarding promotion. A factual report has been sent to National Commission for SC.
5. Shri Pradeep Kumar, H.No. 54, Gali No. 3, Navlu Colony, Ballabgarh, District Faridabad, Haryana, regarding manipulation in the list of Scheduled Castes. Successful candidate for the post of OTA, a reply to this effect has been sent to the National Commission for SC on 23 September 2013 and **the matter has been disposed off.**
6. Smt. Daya, S/A, representation received through National Commission for SC regarding harassment. A factual report/reply has been sent to the National Commission for SC and **the matter has been disposed off.**
7. Shri Avinash B. Dhargava, Chief Physiotherapist, Department of Physical Medicine and Rehabilitation, regarding discrimination against SC officer at AIIMS. The Head, Department of Physical Medicine and Rehabilitation has discussed the matter with Shri Avinash B. Dhargava in detail and concluded the discussion, that there has

been no discrimination by any one towards Shri Avinash B. Dhargave either personally or on the basis of caste.
The matter has been disposed off.

8. Shri Kamal Kumar Raja, Workshop Technician Gd. II, complaint against Chief Technical Officer, Central Workshop. The matter is under consideration with the Competent Authority.
9. Shri M.A. Laviraj, Medical Physicist, Department of Radiotherapy, regarding complaint against Dr V. Subramani humiliating by calling PAGAL.
10. Shri M. A. Laviraj, Medical Physicist and Shri M. Rajendran, Medical Physicist, regarding increase in work load at main radiotherapy department side by Dr V. Subramani. Order in the matter has been issued on 21 January 2014.

Since the aforesaid grievance/matter at S. No. 9 and 10 are intrinsically interlinked, an order to this effect regarding rotation posting of Medical Physicist has been issued on 17 October 2013 and 21 January 2014 and the status report of the case has also been sent to the National Commission for SC as well as to the Ministry of Health and Family Welfare and **the matter has been disposed off.**

11. Representation of Ms. Anita Yash, Sister Gd. II regarding harassment by her seniors at work place. The matter is under consideration with the Competent Authority.
12. Representation of Shri Gopal, Sanitary Attendant (Temporary status) regarding harassment. A factual report in the matter has been sent to the National Commission for SC and **the matter has been disposed off.**

6.0 Main Hospital

Medical Superintendent

D.K. Sharma

Professor

Sidhartha Satpathy

I.B. Singh

Sanjay Arya

Assistant Professor

Nirupam Madaan

Anoop Daga

Amit Lathwal

Mahesh R.

Beds (including General, ICU and private wards)	Number
Main Hospital	1147
Cardiothoracic and Neurosciences Centre	411

Hospital performance indices	2013–14		2012–13		Inference
	Main Hospital	CNC	Main Hospital	CNC	
Average length of stay (days)	4.4	6.9	4.9	6.6	Effective utilization of beds
Average bed occupancy rate (%)	86.7	85.8	84.7	84.1	Fair occupancy
Net death rate (%)	1.6	3.3	1.9	3.6	Low mortality rate despite a large number of critically ill patients admitted
Combined crude infection rate (%)	6.0	–	7.8	–	

Please see Tables I and II for details.

6.1 Medical Records Services (Hospital)

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

N.K. Sharma

EDUCATION AND TRAINING

1. A group of 19 MSc Nursing students of College of Nursing, AIIMS, visited Medical Record Section (Main Hospital) and a brief lecture was delivered on Medical Record Management at AIIMS by Shri N.K. Sharma, Chief Medical Record Officer, on 26 April 2013.
2. A group of 10 students of Medical Record Technology Course from St. Stephens Hospital, New Delhi, visited Medical Record Section (Main Hospital), Central Admission/Enquiry Office and Dr Raj Kumari Amrit Kaur Out Patient Department of AIIMS on 26 April 2013.

MEETINGS

1. Representatives of Medical Record Section attended a meeting conducted by Department of Health, NDMC on 29 August 2013 at Palika Kendra, New Delhi regarding problems/ procedures in corrections in Birth/Death records as per RBD Act, 1969.
2. Representatives of the Medical Record Section attended a Training Programme on MCCD and assigning of ICD-10 Coding organized by Chief Registrar (Birth and Deaths) and Directorate of Economics and Statistics, Vikas Bhawan, New Delhi, on 20 February 2014.

COURT ATTENDANCE

A total of 548 summons/notices were received in the Medical Record Section (Main Hospital) from various Courts of Delhi and outside Delhi. The concerned doctors or consultants (as per case) and staff from the Medical Record Department were deputed to attend the courts on behalf of AIIMS Hospital to settle the disputes.

ISSUING OF CASE RECORDS

Approximately 7300 medical case records (Case Sheets) have been issued to residents authorized by the concerned consultants for research, education and other official purposes.

COMPUTERIZATION OF MEDICAL RECORDS

The Central Admission Office and Hospital Enquiry of Main Hospital as well as Medical Records Section have been computerized by NIC.

IN-PATIENT SERVICES

The AIIMS Hospital has maintained its tradition of services and quality of patient care, inspite of ever increasing number of patients from all over the country as well as from abroad. A total number of 1,14,083 patients were admitted during the year in various clinical units of the Main Hospital and C.N. Centre. The department-wise, state-wise and gender-wise admissions are given in Tables III and IV.

The number of surgical procedures done during the year in various surgical disciplines is given in Table V.

Medical records of indoor patients are systematically classified and categorized for easy retrieval for the purposes of education, research, etc. These records are stored in compactors. All the in-patient records of C.N. Centre are also maintained by the Medical Record Section of the Main Hospital.

In addition to the above, 17 beds have been commissioned for admission purposes from August 2013 in Centre for Dental Education and Research.

CENTRAL ADMISSION OFFICE AND HOSPITAL ENQUIRY

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

Two additional admission counters at Dr Rajkumari Amrit Kaur OPD Block have been introduced for patients in order to streamline the admission procedure.

OUT PATIENT DEPARTMENT AND SPECIALITY CLINICS

A total of 17,52,232 patients attended various outpatient departments (OPD) and specialty clinics of the Main Hospital (AIIMS). The details are given in Table VI.

Table I. Yearly statistical health bulletin

S. No.	Detail	Main Hospital	CN Centre	Total
1.	Total patients admitted	93898	20185	114083
	a. Adults and children	90967	-	-
	b. Newborn infants	2931	-	-
2.	Total patients discharged	87867	19141	107008
	a. Adults and children	85014	-	-
	b. Newborn infants	2853	-	-
3.	Total days of care	386893	131518	518411
	a. Adults and Children	366370	-	-
	b. Newborn infants	20523	-	-
4.	Average length of stay (ALS)	4.4	6.9	4.8
	a. Adults and Children	4.3	-	-
	b. Newborn infants	7.2	-	-
5.	Total number of patients in hospital (as per daily census)	341107	128657	469764
	a. Adults and Children	338672	-	-
	b. Newborn infants	2435	-	-
6.	Daily average number of patients (as per daily census)	935	352	1287
	a. Adults and Children	928	-	-
	b. Newborn infants	7	-	-
7.	Average bed occupancy (%)	86.7	85.8	86.4
	a. Adults and Children	87.7	-	-
	b. Newborn infants	33.4	-	-
8.	Births in hospital	2685	-	-
	a. Male	1419	-	-
	b. Female	1266	-	-
9.	Total deaths (including newborns)	2474	920	3394
	a. Death within 48 hours	1095	302	1397
	b. Death over 48 hours	1379	618	1997
	c. Gross death rate (%)	2.8	4.8	3.2
	d. Net death rate (%)	1.6	3.3	1.9
10.	Attendance in Casualty	134096	-	134096
	Deaths in casualty	2120	-	2120
	Brought dead in casualty	1019	-	1019

Table II. Department-wise admissions, 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	1410	1253	11643	9.3	226	115	111	18.0	9.8
Medicine II	1010	946	8067	8.5	239	120	119	25.3	14.4
Medicine III	1881	1880	9410	5.0	251	128	123	13.4	7.0
Surgery I	1459	1306	8888	6.8	29	12	17	2.2	1.3
Surgery II	1992	1750	10967	6.3	26	7	19	1.5	1.1
Surgery III	1440	1343	10078	7.5	23	5	18	1.7	1.3
Surgery IV	2424	2130	11287	5.3	23	8	15	1.1	0.7
Orthopaedics I	2648	2548	15657	6.1	12	3	9	0.5	0.4
Orthopaedics II	2652	2412	14806	6.1	11	2	9	0.5	0.4
Obstetrics and Gynaecology I	4164	3868	18661	4.8	4	1	3	0.1	0.1
Obstetrics and Gynaecology II	5111	4767	18466	3.9	8	3	5	0.2	0.1
Obstetrics and Gynaecology III	4035	3759	16873	4.5	6	2	4	0.2	0.1
Nephrology	8134	7534	21047	2.8	151	56	95	2.0	1.3
Endocrinology	610	587	8377	14.3	8	1	7	1.4	1.2
Gastroenterology	2674	2457	19030	7.7	448	232	216	18.2	9.7
Geriatric medicine	861	806	8126	10.1	48	7	41	6.0	5.1
Haematology	10091	9623	23944	2.5	248	94	154	2.6	1.6
Psychiatry	290	240	7809	32.5	-	-	-	-	-
Urology	5842	5362	16323	3.0	27	12	15	0.5	0.3
Otolaryngology I	1695	1589	5697	3.6	5	2	3	0.3	0.2
Otolaryngology II	1328	1299	4963	3.8	1	1	-	0.1	-
Otolaryngology III	1374	1323	5004	3.8	6	2	4	0.5	0.3
Dermatology	4556	4395	12704	2.9	9	1	8	0.2	0.2
Newborns	2685	2675	19501	7.3	31	27	4	1.2	0.2
Neonatal ICU	246	178	1022	5.7	25	11	14	14.0	8.4
Paediatric I	3699	3442	9977	2.9	60	27	33	1.7	1.0
Paediatric II	1732	1750	7719	4.4	69	26	43	3.9	2.5
Paediatric III	10303	9620	15759	1.6	68	33	35	0.7	0.4
Paediatric Surgery	2729	2555	16932	6.6	74	19	55	2.9	2.2
Pulmonary Medicine and Sleep Disorders	1420	1201	8269	6.9	157	53	104	13.1	9.1
Radiotherapy	35	23	28	1.2	6	6	-	26.1	-
Dental surgery/CDER*	827	801	1767	2.2	-	-	-	-	-
Nuclear Medicine	449	407	951	2.3	-	-	-	-	-
Gastrointestinal surgery and liver transplantation	1089	1018	12807	12.6	81	19	62	8.0	6.2
Physical Medicine and Rehabilitation	29	29	1151	39.7	-	-	-	-	-

Institute Rotary Cancer Hospital	548	564	2736	4.9	94	60	34	16.7	6.7
Anaesthesiology	426	427	447	1.0	-	-	-	-	-
Total (Main)	93898	87867	386893	4.4	2474	1095	1379	2.8	1.6
Cardiology	8147	7964	28406	3.6	200	103	97	2.5	1.2
Cardiothoracic and vascular surgery	3542	3371	33419	9.9	278	65	213	8.2	6.4
Neurology I	1672	1586	11136	7.0	79	25	54	5.0	3.5
Neurology II	1174	1136	8669	7.6	67	27	40	5.9	3.6
Neurology III	1174	1090	7707	7.1	62	20	42	5.7	3.9
Neurosurgery I	2657	2243	23378	10.4	131	34	97	5.8	4.4
Neurosurgery II	1817	1750	18802	10.7	103	28	75	5.9	4.4
Neuro-anaesthesiology	2	1	1	1.0	-	-	-	-	-
Total (CNC)	20185	19141	131518	6.9	920	302	618	4.8	3.3
Grand Total (Main +CNC)	114083	107008	518411	4.8	3394	1397	1997	3.2	1.9

* CDER admissions commenced from the month of August 2013

Table III. State-wise distribution of in-patients

State	Main Hospital	CNC	Total
Delhi	44431	6410	50841
Uttar Pradesh	20673	4617	25290
Haryana	8564	1831	10395
Bihar	11276	4055	15331
Rajasthan	1456	609	2065
Punjab	338	176	514
J&K	572	349	921
Other States	6132	2060	8192
Other Countries	456	78	534
Total	93898	20185	114083

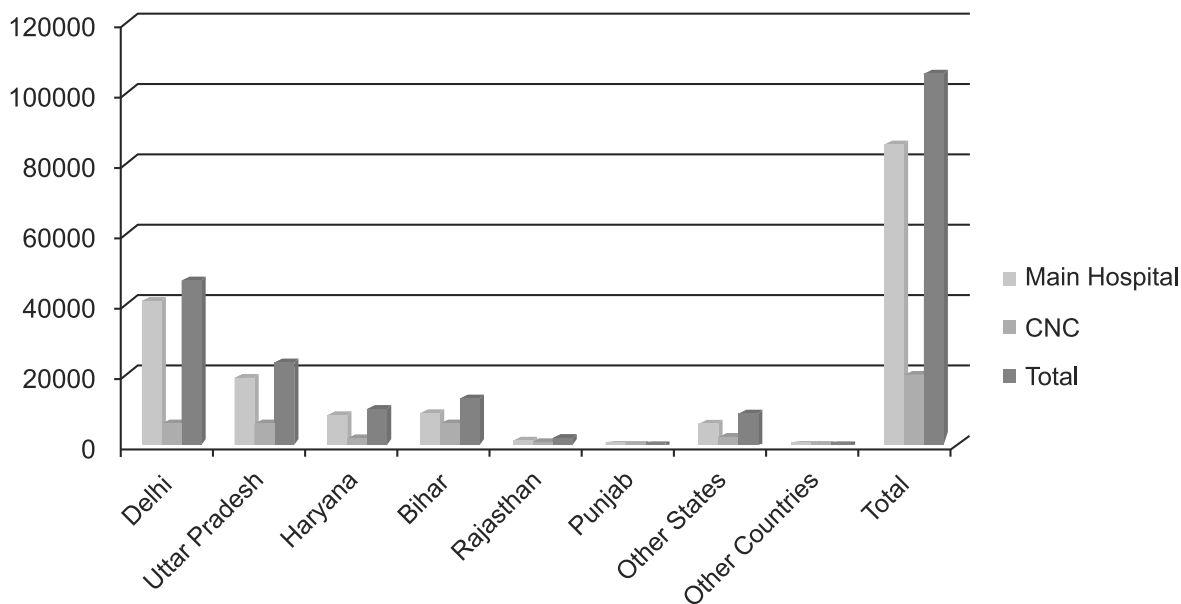


Table IV. Gender-wise distribution of in-patients (Main Hospital and CN Centre)

Site	Male	Female	Male child	Female child	Total
Main Hospital	34543	33655	17378	8322	93898
C. N. Centre	10377	5310	3108	1390	20185
Total	44920	38965	20486	9712	114083

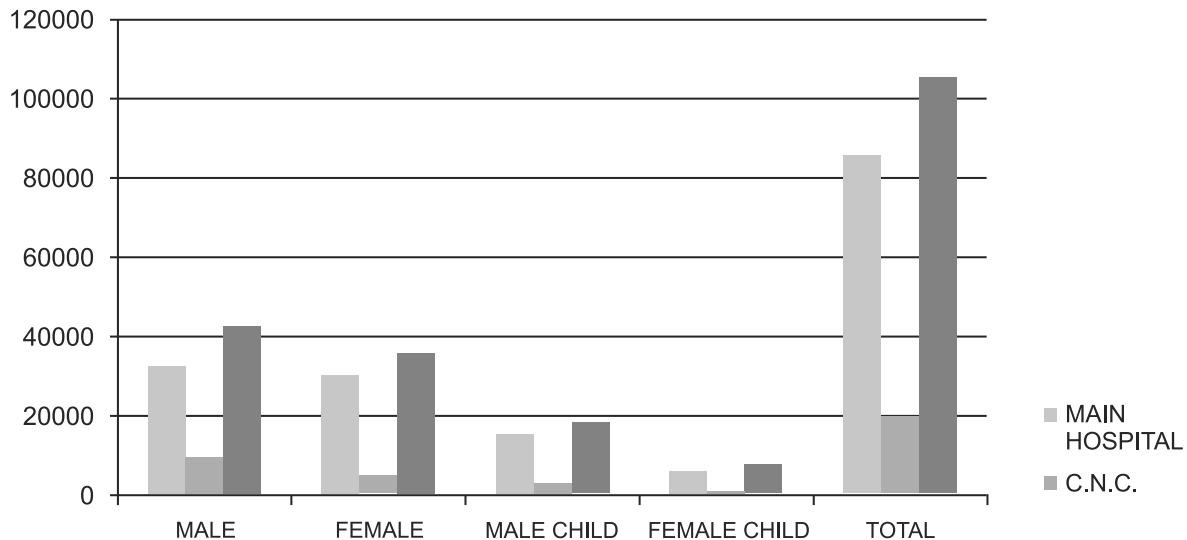


Table V. Surgical procedures

Department	Major	Minor		Total
		Indoor	Outdoor	
Surgery I	722	352	3347	4421
Surgery II	1098	405	3328	4831
Surgery III	728	285	2622	3635
Surgery IV	1086	559	3407	5052
Gastrointestinal surgery and Liver transplantation	662	2	-	664
Urology	1457	448	10793	12698
Obstetrics	1155	242	-	1397
In vitro fertilization	-	212	-	212
Gynaecology	1840	1646	-	3486
Foetal Medicine	-	400	-	400
Otorhinolaryngology	2382	1752	33264	37398
Orthopaedics I	1618	707	-	2325
Orthopaedics II	1352	970	-	2322
Paediatric Surgery	1935	89	-	2024
Dental Surgery	130	1	-	131
Casualty	-	196	-	196
Total (Main)	16165	8266	56761	81192
Cardiothoracic and vascular Surgery	3962	71	-	4033
Neuro Surgery I	1672	197	-	1869
Neuro Surgery II	1486	148	-	1634
Total (CNC)	7120	416	-	7536
Grand Total (Main + CNC)	23285	8682	56761	88728

Table VI. Attendance in OPDs and speciality clinics

Discipline	New cases	Old cases	Total
Medical Specialties			
Medicine			
1. General O.P.D.	71041	70349	141390
2. Speciality Clinics			
a) Chest	-	-	-
b) Rheumatology	82	5977	6059
c) Geriatric	9402	15852	25254
d) Sleep related breathing disorders	8996	19489	28485
e) Nuclear Medicine	2197	6451	8648
f) Endocrinology	12773	27110	39883
g) Renal	8284	29251	37535
h) Renal transplant	152	7378	7530
i) Renal transplant counseling	477	2324	2801
Haematology	3291	22526	25817
Gastroenterology	22505	36295	58800
Paediatrics			
1. General O.P.D.	41057	52026	93083
2. Speciality Clinics			
a) Well Baby	591	19	610
b) Follow up tuberculosis	287	1751	2038
c) Renal	575	3886	4461
d) Paediatric neurology	756	1899	2655
e) Paediatric chest	514	3848	4362
f) High risk neonatal	324	1687	2011
g) Genetic and birth defects	3083	1379	4462
i) Oncology	339	2648	2987
j) Child development	546	426	972
k) Endocrinology	569	1662	2231
l) Neurocysticercosis	397	1933	2330
m) Paediatric cancer survivor	93	1102	1195
n) Rheumatology	237	1956	2193
o) Myopathy	503	1190	1693
Dermatology			
1. General O.P.D.	39930	40657	80587
2. Specialty Clinics			
a) Sexually transmitted diseases	653	999	1652
b) Allergy	492	1661	2153
c) Leprosy	414	2895	3309
d) Pigmentation	475	1915	2390
e) Derma-Surgery	613	1468	2081

Psychiatry			
1. General O.P.D.	15097	12243	27340
2. Speciality Clinics			
a) Walk-in-clinic	2312	35851	38163
b) Child guidance	479	564	1043
Surgical Specialties			
Surgical Discipline	46179	33136	79315
Urology	15653	35157	50810
Gastrointestinal Surgery and Liver Transplantation	2459	7299	9758
Paediatric Surgery			
1. General O.P.D.	6302	12585	18887
2. Speciality Clinics			
a) Hydrocephalus	21	142	163
b) Intersex	-	4	4
c) Paediatric Urology	427	3120	3547
d) Craniosynostosis	-	-	-
Anaesthesia			
a) Pain	979	1969	2948
b) Pre-anaesthesia	7422	665	8087
Orthopaedics			
1. General O.P.D.	52604	64357	116961
2. Speciality Clinics			
a) Physiotherapy	18620	44264	62884
b) Occupational therapy	1714	7382	9096
c) Hydrotherapy	1026	8226	9252
d) Follow up	-	11477	11477
e) Tuberculosis	129	587	716
f) Polio	-	-	-
g) Scoliosis	666	1608	2274
h) Hand	1213	1498	2711
i) Congenital talipes equino varus	181	2635	2816
j) Arthritis	-	-	-
k) Sports	176	155	331
Otorhinolaryngology including RUAS			
1. General O.P.D.	47211	48995	96206
2. Speciality Clinics			
a) Audiology	109	41	150
b) Speech	1242	1430	2672
c) Hearing	821	1419	2240
d) Voice	788	866	1654
e) Vertigo	104	70	174
f) Rhinology	66	45	111

Obstetrics and Gynaecology			
1. General O.P.D.	36117	65159	101276
2. Specialty Clinics			
a) Postnatal	-	-	-
b) Infertility	-	-	-
c) IVF	743	2928	3671
d) Family welfare	7473	4662	12135
e) Antenatal	920	4086	5006
f) Endo-gynaecology	60	81	141
g) High risk pregnancy	2959	11509	14468
h) Postoperative (Gynae)	-	-	-
i) Menopause	-	-	-
Radiotherapy	338	3123	3461
Others			
Casualty	121080	13016	134096
Employees Health Scheme	107056	71133	178189
Nutrition	6312	—	6312
Physical Medicine and Rehabilitation	30071	96085	126156
Sex and Marriage Counselling Clinic	1836	2038	3874
Total	770613	981619	1752232

6.2 Hospital Dietetics Services

Chief Dietician

Dr (Mrs) Alka Mohan Chutani

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

S. No.	Type of diet	Number
1.	Normal	368476
2.	Private ward	84315
3.	Semisolid	46899
4.	Therapeutic	157889
5.	Enteral feeds	37496
6.	Total	695075

Outpatient and inpatient nutrition counselling

Patients	Total	Male	Female
Inpatient	5323	2394	2929
Outpatient	6329	3133	3196

6.3 Welfare Unit

Welfare Officer
Mrs Preeti Ahluwalia

PATIENTS WELFARE

Patients care: Rs 55,48,800 (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	Rs. 4,26,500	Jawahar Bhawan Trust
	Rs. 1,28,000	Rajendra Bhawan
	Rs. 1,03,726	Sahu Jain Trust
	Rs. 1,61,000	Dharampal Satyapal Ltd.
	Rs. 77,000	Bajj Nath Bhandari Public Charitable Trust
	Rs. 50,532	Other donors
AIIMS Poor Patients Fund Account	Rs. 35,000	Col Yash Bhatnagar
Anti-cancer drugs provided free to patients	Rs. 44,60,611	Gopal Foundation
	Rs. 1,06,528	Dr Chetan Memorial Divine Trust

In addition to the above, poor patients are guided and assisted to avail of financial assistance for their treatment from Rashtriya Arogya Nidhi, PM's National Relief Fund, Health Minister's Discretionary Grant and other governmental and non-governmental agencies.

Assistance to poor patients from the Hospital Poor Patient Fund is also extended and they are also guided and helped for admission, exemption of levy charges, investigation charges, etc.

DHARAMSHALAS

As a welfare activity through the aegis of the AIIMS Hospital Social Welfare Society, the Rajgarhia Vishram Sadan, Sureka Vishram Sadan and Shri Sai Vishram Sadan provided shelter to over 15,000 patients and their attendants who were undergoing treatment at the Institute and its Centres. A pick and drop facility from the Sadans to the hospital is also being run by the Institute for the benefit of the patients and their attendants.

A water cooler was donated for the inmates of the Rajgarhia Vishram Sadan by 'Yogdaan' (i.e. an employee's initiative of a reputed MNC).

A Yoga class is being held once a week for the benefit of the inmates of the Vishram Sadans and Diwali and Holi was also celebrated with the inmates of the Vishram Sadans. (Courtesy: Cancer Patients Aid Association).

EMPLOYEES WELFARE

Redressal of grievances

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

Appointment on compassionate grounds

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

Counselling services

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

Women grievances cell

A Women grievances cell was constituted at AIIMS to resolve grievances/complaints.

Activities of the Sub Task Force for Development of Gender Sensitisation/Awareness Modules at AIIMS

- A 'Training programme in Self Defence' for the benefit of girl students, resident doctors and women employees

of the Institute was organized from 18 to 31 March 2014. The training was conducted by the Special Police Unit for Women and Children (SPUWC, Delhi Police) Nanak Pura, New Delhi. The training was free of charge and was for a period of 10 days. Certificates were awarded by SPUWC on successful completion of the training.

- A Lecture cum Interactive Session on 'Women Safety and Gender Sensitisation' by Mrs Kuljit Kaur, Member Incharge, All India Women Conference was organized on 29 October 2013 in the J.L. Auditorium, AIIMS for the benefit of students, residents, nurses, faculty and staff of the Institute.

Opening of Kendriya Bhandar

A Kendriya Bhandar Grocery/Consumer Retail Store was inaugurated by Director, AIIMS on 15 April 2013. The Kendriya Bhandar was opened in F-37, Ansari Nagar Campus (West) for the benefit of the AIIMS family.

Diwali celebration

The Employees Welfare Committee celebrated Diwali with children studying in the Nursery and Primary School run by the Medical Institute Residents Welfare Association (MIRWA). On this occasion, Professor M.C. Misra, Director, AIIMS and Dr D.K. Sharma, Medical Superintendent, AIIMS presented sweaters, gifts and sweets to the children. (Courtesy Donors: Mr and Mrs Sunil Bhutani).

Free Hearse Van Facility

Free Hearse Van Facility has been organized through Shri Sai Bhakta Samaj (Regd.), Lodhi Road, New Delhi to enable easy transportation of bodies of deceased patients by the relatives to their homes/crematorium in Delhi (i.e. within a radius of around 15 km).



Diwali celebration with school children. In the picture (L to R) Professor M.C. Misra, Director, AIIMS and Dr D.K. Sharma, Medical Superintendent, AIIMS, Mrs Preeti Ahluwalia, Welfare Officer and Mr D.P. Gangal, F&CAO & General Secretary, MIRWA presenting sweaters, gifts, sweets to children studying in the Nursery and Primary School run by the Medical Institute Residents Welfare Association (MIRWA) at Community Hall, AIIMS.

6.4 Medical Social Welfare Unit

Chief Medical Social Service Officer (Acting)

B. R. Shekhar

Supervising Medical Social Service Officer

Pankaj Kumar

The Medical Social Welfare Unit was started in 1960 when the first Medical Social Worker was appointed in the main hospital. The Unit works under supervision of the Medical Superintendent. The integration of Medical Social Services has yielded positive results as it provides social and psychological support to patients and alleviates the distress while receiving treatment. The Medical Social Welfare Unit, Main Hospital has 10 Medical Social Service Officers (MSSOs) taking care of OPDs and wards of 16 important departments in the main hospital. In addition to the MSSOs, there are 25 part-time social guides (PTSG) and one Hospital Attendant working under the unit for patient care and guidance.

OBJECTIVES

1. To create a therapeutic network among doctors, patients, their families and the community.
2. To facilitate holistic healing leading towards complete physical, psychological, social and vocational rehabilitation.
3. To ensure protection of the basic human rights of patients.
4. To facilitate various services for the poor and indigent patients.
5. To coordinate with the hospital administration and treating doctors to facilitate patient welfare services.
6. To impart training and orientation of medical social work to students of social work.
7. To conduct and coordinate research studies initiated by the unit and other departments of AIIMS.

HIGHLIGHTS

1. Free Medicines and Surgical items
 - a. For in-patients: More than 800 consultations/requisitions were entertained for poor patients for medicines and surgical items.
 - b. For OPD patients:
 - Free medicines and surgical items worth Rs. 13,88,942 to more than 20,000 patients from voluntary donors through Medical Social Welfare Unit.
 - Arranged Rs. 72,000 donation from NGOs for the treatment of poor patients
2. National Illness Assistance Fund (NIAF)/Rashtriya Arogya Nidhi (RAN): 331 cases were processed and approved by AIIMS NIAF Subcommittee for disbursement of financial assistance of Rs. 9,94,10,166
3. Exemption of hospital charges: More than 2000 cases for exemptions of different hospital charges including CT, MRI, PET, and HLA were processed.
4. Renal Authorization Coordination: 28 cases of unrelated kidney donors were scrutinized, assessed, documented and presented before the Renal Transplant Authorization Committee by this unit.
5. Coordination and Rehabilitation of Medico-Legal Cases (MLC) and Non-MLC Unknown/ Unattended/Destitute/ Orphan patients: More than 200 cases were dealt with and rehabilitated.
6. Referral of Economically Weaker Section (EWS) patients to Private Hospitals: 57 patients were referred to avail free treatment (under EWS category as per the Hon'ble High Court Order).
7. Financial help through 'AIIMS Poor Fund':
 - MSSO Poor Fund
Number of patients helped: 127 Total help given to the patients: Rs. 30,000
 - MS Poor Fund
Number of patient helped: 35 Total help given to the patients: Rs. 46,800
8. Psycho-social Counseling and Guidance: More than 30000 patients were helped through Counseling and Guidance.
9. Railway Concession: More than 8000 Railway Concessions cases were facilitated by this unit.

10. Diwali Celebration and Magic show in AB-5 ward on 29 October 2013: The Medical Social Welfare Unit organized a Magic Show and Diwali function which was graced by Director, AIIMS, the Medical Superintendent, AIIMS and Head, Department of Paediatric Surgery.

EDUCATION

Teaching activities

Sessions for MHA Students (Hospital Administration) were conducted by Mr Vivek Kumar Singh, MSSO.

1. Role and Responsibility of Medical Social Service Officer in AIIMS
2. Financial Assistance for poor patients through NIAF
3. Role of Non-Violent Communication in Hospital setting
4. Social Work Methodologies

Training activities by Medical Social Welfare Unit

Social Work training: Total 19 trainees from the following institutions were given training in Medical Social Work: (i) Sri Ram Manohar Lohia University, Faizabad, UP: 3 students; (ii) Gautam Buddh University, GB Nagar, UP: 1 student; (iii) Motilal Nehru National Institute of Technology, Allahabad, UP: 2 students; (iv) St. Joseph College, Bangalore: 2 students; (v) Benaras Hindu University, Varanasi, UP: 1 student; (vi) DPS, RK Puram, New Delhi: 1 student; (vii) Dibrugarh University, Assam: 2 students; (viii) Annamalai University: 1 student; (ix) Loyala College, Chennai: 1 student; (x) IGNOU, New Delhi: 1 student; (xi) Sri Shankaracharya University of Sanskrit, Ernakulam, Kerala: 2 students; (xii) BR Ambedkar College, New Delhi: 2 students.

Social Work Orientation Session: Orientation about 'Medical Social Services in hospital setting' was given by Mr B. R. Shekhar, Chief MSSO and Mr. Vivek Kumar Singh, MSSO to Social Work Student groups and faculty members of the following institutes: (i) St. Joseph's College, Devagiri, Calicut, Kerala: 25 students, 2 faculty members; (ii) Bhopal School of Social Work, Bhopal, M.P.: 22 students, 1 faculty member; (iii) Loyala College, Chennai: 19 students, 2 faculty members; (iv) Central University of Kerala: 27 students, 1 faculty member.

Conferences attended and papers presented

1. B. R. Shekhar, Chief MSSO presented a paper on 'Medical Social Work Practices in AIIMS', at a seminar on 'Social Work Practices in Health Care: Challenges and Innovations' jointly organized by Association of Medical Social Workers of PGIMER, Chandigarh and All India Association of Medical Social Work Professionals, New Delhi. PGIMER Chandigarh, 23 March 2014.
2. Pankaj Kumar, Supervising MSSO, attended 'Social Work Practices in Healthcare: Challenges and Innovations', jointly organized by Association of Medical Social Workers of PGIMER, Chandigarh and All India Association of Medical Social Work Professionals, New Delhi. 23 March 2014, PGIMER, Chandigarh.

PATIENT CARE SERVICES

1. Psycho-social and Economic assessment and Social diagnosis: The MSSO helps patients to get benefits from different schemes for poor patients through the psycho-social and economic assessment of MSSO.
2. Facilitating free medicines and surgical items: Consultation comes from various wards to the MSSO for the Socio-economic review along with the recommendation of the Chief MSSO which helps poor/indigent patients to get free medicines/surgical items. Similarly poor/indigent patients getting follow-up in OPDs get help from the MSSO for free medicines/surgical items.
3. Exemption of Hospital charges of BPL patients and indigent patients: The MSSO exempts various hospital investigations and admission charges after the recommendation of the Chief MSSO on the basis of socio-economic assessment of the patients.
4. Facilitation of services available for EWS (Economically Weaker Section) patients: As per the Honorable High Court orders, all individuals who have a family income of less than Rs. 8554 per month are categorized as EWS and they are entitled to free medical treatment in 46 private hospitals in Delhi which have been built on land acquired at concessional rates from the government.
5. Facilitation of Financial Assistance through Nation Illness Assistance Fund (NIAF): NIAF or RAN (Rashtriya Arogya Nidhi) is a centrally sponsored scheme under the Ministry of Health and Family Welfare initiated in 1997 with an aim to provide financial assistance to patients, living below poverty line and who are suffering from major life threatening diseases. The NIAF cases are counseled and documented by Mr Pankaj Kumar, Supervising MSSO and he represents these cases in AIIMS NIAF Subcommittee with Mr B.R. Shekhar, Chief MSSO.

6. Coordination of Renal Authorization Committee and assessment of unrelated Kidney Donors: The cases of Unrelated Kidney Donors are referred to Mr B.R. Shekhar, Chief MSSO/Nodal Officer for the renal authorization and the Chief MSSO and Mr Anil G. Mali, MSSO for counselling, coordination and documentation present the cases in the Renal Authorization Committee (RAC) as per The Transplantation of Human Organs Act (TOHA), 1994.
7. Counseling services: The Medical Social Welfare Unit is the first contact point of the patients when they enter AIIMS. The patients and their attendants not only receive basic information but the MSSO gives psycho-social counselling and guidance to them throughout their stay in the hospital.
8. Coordination and Rehabilitation of Medico-Legal Cases (MLC) and Non-MLC Unknown/ Unattended/Destitute/ Orphan patients: The Casualty MSSO coordinates with all stakeholders to rehabilitate unknown, without attendant, destitute and orphan patients through Govt./NGOs.
9. Financial help through AIIMS Poor Fund: In case of immediate need and urgency, poor/ indigent patients can receive financial help from AIIMS Poor Fund; and they can also receive Rs. 300 to Rs. 1500 from this fund. The MSSO does the socioeconomic assessment and facilitates this service.
10. Providing Railway concession facility: The Medical Social Welfare Unit provides Railway Concession to the patients suffering from cancer, aplastic anemia, TB, Leprosy, Thalassemia, Kidney transplant, Dialysis, and Deaf and dumb patients. This facility results in a good follow-up and compliance from the patients.
11. Providing accommodation facilities to outstation patients and their attendants.
12. Research and Training: Imparting training to NSS, BSW, MSW students from different colleges across India and conducting and coordinating the research studies.
13. Health promotional and educational activities: Disseminating Health-education and Health-awareness through IEC material and Health-camps (e.g. Blood Donation Camp, AIDS Awareness Camp and Health Awareness Meetings).
14. Planning and Administration
 - Coordination with the Hospital Administration and various departments to improve the patient welfare activities and create a more patient-friendly environment
 - Managing various information and guidance services in the main hospital through Part-time Social Guides
15. Fund-raising and networking: Coordinating and networking with various NGOs and donors for patient welfare.
16. Emergency care in Casualty
 - Providing all Medical Social Services round-the-clock including shifting and rehabilitation of patients, creating a smooth work-flow in the casualty.
 - Special services during epidemics, disasters and natural calamities for managing the patient care efficiently.

6.5 Nursing Services

Chief Nursing Officer
 Ms BD. Prema H. Kumar
 1.4.2013 to 30.10.13

 Ms Chand Ram Bhardwaj
 1.11.13 to 31.3.2014

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

Staff strength

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

Chief Nursing officer	1 (Acting CNO)
Nursing Superintendent	4
Deputy Nursing Superintendent	36
Assistant Nursing Superintendent	168
Sister Grade I	812
Sister Grade II	2280
Total	3301

Orientation/ Briefing session

A well planned orientation programme was conducted at the time of recruitment of Grade II staff nurses by designated nursing personnel, to give an overview of the policies and functioning of the hospital in general and of nursing service department in particular.

From 10 to 24 March 2014, 122 newly recruited nurses received orientation regarding various aspects, viz. hospital layout, various departments, OPD schedules and their professional duties and responsibilities.

Experts from nursing service along with nursing educators 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 the standard of nursing care at AIIMS.

Nursing in-service education programme

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

Facilitator : Ms. Prema H Kumar, CNO (Acting), AIIMS

Mentor : Ms. Anamma Neelakantan, DNS, w.e.f. February 2012 to till date

Educator : Ms. Rebecca J. Herald, Sister Grade I (HR)
Ms. Jessy Shaji Paul, Sister Grade I
Ms. Merin Lisa Kuriakose, Sister Grade II

During January to December 2013, 3233 nurses from different departments in main hospital attended this programme. The following 17 lectures were taken for different batches during 2013.

1. Classes for Sister In charges/ANS/DNS/NS/CNO
 - Nursing Administration
 - Staffing in Nursing Unit
 - Meeting staff socialization and educational needs
 - Nursing audit and physical verification
 - Motivation in clinical setting
 - Management of client with suicidal ideation
 - Promotion of hospital cornea retrieval programme
 - Infection prevention in vascular access
2. Classes for bedside nurses
 - Medicine administration safety
 - Care of dying and death

- Nursing process
- Fluid and electrolyte imbalance
- Nursing management of patient in shock
- Pressure ulcer and incontinence dermatitis
- Nursing management of elderly patient
- Promotion of hospital cornea retrieval programme
- Infection prevention in vascular access

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

CNO/NS: 10 DNS: 61 ANS: 446
 Sister Grade I: 940 Sister Grade II: 1776

Higher studies in Nursing

Nursing services at AIIMS focus on improving the nursing care by facilitating abundant opportunities for higher studies. After 5 years of regular services, nurses are eligible for pursuing higher studies with full pay. 13 nurses were pursuing post basic BSc nursing programme and 6 pursued MSc nursing during this year.

Conferences and workshops attended

During 2013, nurses from different departments in main hospital attended several national and international conferences/workshops. Details of various Workshop/Conferences attended by nurses in the year 2013–14 are as below:

- 13 April 2013: Workshop on ‘Research, Ethics and publications for Nurses’, Seminar Room, JPNATC, AIIMS. Total participants: 22
- 10–17 April 2013: TNAI workshop on ‘Nurses role in National Programme related to Maternal, Newborn and Child Health’, TNAI Central Institute of Nursing and Research and Elderly Care Home, Greater Noida, Gautam Budh Nagar, U.P. Total participants: 2
- 28 April 2013: National Conference on ‘State of the Art Antenatal Care—Basic in Fetal Medicine’, J.L.N. Auditorium, AIIMS. Total participants: 9
- 8 June 2103: ‘Delhi chapter meeting for Infusion Nurses Society (INS)’, Max Super Specialty Hospital, Saket, New Delhi. Total participants: 10
- 28–29 June 2013: ‘Nurses Training on HIV/AIDS and ART under GFATM Round7Project Strengthening Institution Capacity for Nurses Training’, Nightingale Institute of Nursing, Noida, U.P. Total participants:5
- 29 June 2013: ‘Essential Newborn Care’, Paediatrics Seminar Room, AIIMS. Total participants: 22
- 6 July 2013: ‘Essential Newborn Care’, Paediatrics Seminar Room, AIIMS. Total participants: 13
- 6 August 2013: Orientation programme for newly inducted nurses on contract-basis. (AIIMS graduates). Total participants: 11
- 26–28 September 2013: Workshop on ‘Tobacco Prevention and Cessation’, College of Nursing, AIIMS, New Delhi. Total participants: 16
- 4 October–6 December 2013 (Every Friday): Workshop on ‘Breast Feeding’, 5th Floor Paediatric Seminar Room, AIIMS, New Delhi. Total Participants: 154
- 18 October 2013: Workshop on ‘Paediatric Hematology Oncology’, Dental Board Room, AIIMS, New Delhi. Total Participants: 8
- 21 October–1 November 2013: Training Course, ‘Management for Senior Nursing Administrators’, National Institute of Health and Family Welfare, Baba Ganga Nath Marg, Munirka, New Delhi. Total participants: 2
- 8–10 November 2013: ‘Inter National Congress, CME cum Live Workshop and 6th Conference of Indian Society for Trauma and Acute Care on Promote Safety—Prevent Pain’, JPN Apex Trauma Centre and AIIMS, New Delhi. Total participants: 17
- 11–16 November 2013: ‘Quality Management Programme for Nursing Administrators’, AHA House, Institutional Area, Noida, U.P. Total participants: 2

- 16 November 2013: ‘Sports Nutrition Updates’, J.L.N Auditorium, AIIMS, New Delhi. Total participants:5
Nurses from different departments participated and performed as facilitators for skill stations and hands-on-training sessions in various workshops, CME and national conferences conducted last year.

VISITORS

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

- Bel-Air, College of Nursing, Panchgani, Satara. 23 April 2013 (BSc Nursing final year students and lecturers)
- M.S. Ramaiah Institute of Nursing Education and Research, 25 April 2013 (41, BSc Nursing students and lecturers)
- College of Nursing, Ellen Thoburn Cowen Memorial Hospital, Kolar, 30 April 2013 (31, BSc Nursing final year students and lecturers)
- St. Ann’ College of Nursing, Fathimanagar, Warangal (AP), 23 July 2013 (34, BSc Nursing final year students and lecturers)
- Govt. College of Nursing, Medical College Thrissure, Kerala, 1 August 2013 (10, MSc Nursing final year students and lecturers)
- College of Nursing, Christian Medical College, Vellore, 10 September 2013 (28, MSc Nursing final year students and lecturers)
- Sankar Madhab College of Nursing, Panikhaiti, Guwahati, Assam, 8 October 2013 (35, 4th year BSc Nursing students and lecturers)

7. College of Nursing

Principal

Dr Manju Vatsa

Lecturers

Dr Sandhya Gupta
Ms Deepika C Khakha
Ms Poonam Joshi

Ms Rachel Andrews
Ms Kamlesh Sharma

Ms Ashia Qureshi
Ms Shashi Mawar
Mr L. Gopichandran

Senior Nursing Tutor

Ms Geeta Razdan

Nursing Tutors

Ms Kiran Singh Simak
Ms Sucheta
Ms Meena Ara
Ms Anubha D.
Ms Nemkholam

Ms Gayatri Batra
Ms Babita Sahoo
Ms Seema Sachdeva
Ms Aditi Sinha

Ms Poonam Joshi
Ms Philomina Thomas
Ms Ujjwal Dahiya
Ms Neelima
Ms Hansaram

HIGHLIGHTS

This academic year 60 BSc (Hons) Nursing, 24 BSc Nursing (PC) students and 19 MSc nursing students graduated from the college. The college has conducted 13 workshops/conferences and trained 750 nurses.

EDUCATION

Undergraduate

1. BSc (Hons) Nursing: 60 students graduated from the four year course.
2. BSc Nursing (Post-certificate): 24 students graduated from the two year course.

Postgraduate

M. Sc. Nursing: 19 students graduated from the two year course.

Twenty-three students have joined the programme this year in the following specialties:

1. Paediatric Nursing
2. Psychiatric Nursing
3. Cardiology/ CTVS Nursing
4. Oncological Nursing

The College of Nursing conducted orientation/briefing sessions for:

- 11 groups of visitors from various educational institutions of India.
- 3 groups of visitors from abroad- Afghanistan delegation for general development cooperation British council and the global epidemiology of stroke and Apos
 1. Faculty members of the college attended more than 20 workshops/conferences and delivered lectures for continuing nursing/medical education programmes and workshops during the year.
 2. Faculty members acted as examiners for several universities in India

Continuing Nursing Education (CNE) Workshops: 8

National and International Conferences Organized: 5

Lectures delivered

Dr Manju Vatsa: 12

Mrs Kamlesh Sharma: 4

Ms Poonam Joshi: 6

Mrs Deepika C. Khakha: 10

Ms Ashia Qureshi: 2

Mr L. Gopichandran: 5

Ms Rachel Andrews : 2

Ms Shashi Mawar: 7

Ms Philomina Thomas: 3

RESEARCH

Collaborative projects

1. A study to compare the child versus parent report of health related quality of life in children with epilepsy with healthy children and to assess the knowledge and attitude of parents of children with epilepsy (Pediatrics and Nursing Services).
2. Perception of health care professionals on neonatal intensive care services in a selected tertiary level NICU (Nursing services and Neonatology).
3. Apps for management of sick newborn: Evaluation of impact on health care professionals. (Neonatology Division, Paediatrics).

PUBLICATIONS

Journals: 11

Abstracts: 5

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
 - i) Participated in 4 rounds of pulse polio programme at 6 centres of South Delhi, organized by Govt of N.C.T. of Delhi. Ms Shashi Mawar coordinated and supervised the programme.
 - ii) Organized 85 health education sessions in rural areas and more than 80 in urban slums and OPDs of AIIMS on various health issues.
 - iii) Conducted 9 surveys in community to identify their health and social needs and conducted awareness programmes in the form of role plays and exhibitions. Conducted screening surveys in block 1, 2, 14, 19, and 20 of Ambedkar Nagar for hypertension among elderly. Door to door visits were made to screen for hypertension and referred to clinic. Organized an exhibition for Public Awareness on World Health Day theme on Vector Borne diseases “small bite, big threat” at Raj Kumari Amrit kaur OPD, 7 April 2014.
 - iv) Celebrated health days including TB Day, Leprosy Day, World Health Day, Adolescent Health Day, Organ Donation Day, World Kidney Day, Glaucoma Day, No Smoking Day, World Aids Day, World Cancer Day, Reproductive and Sexual Health Day, World Breast Feeding Week, World Mental Health Day, World Obesity Day, Diabetes Day, World COPD Day, etc. Organized exhibitions and role plays on related subjects.
 - v) Students won awards/cash prizes during Hindi Pakhwara

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Manju Vatsa was nominated Member, Board of Studies in Nursing for PhD, MM University Ambala; UG and PG Board of Studies in Nursing, PGIMS Rohtak and BHU Varanasi; Member National Editorial Advisory Board, Prism's Nursing Practice – Journal of clinical nursing – education, training and career development, (earlier called The Journal of Nursing) since its inception in 2005; Member International Advisory Board, Journal of Neonatal Nursing; awarded first Prize for Thomas T, Vatsa M. A study to find out the effect of timing of umbilical cord clamping practices on selected outcomes of neonates. 5th Annual conference of IANN, Ambala, February 2014; Interviewed by Aakashvani programme Hamare mehman on Nursing in Hamari Awaz, 10 July 2013, Rajdhani Channel, All India Radio; Elected President, Indian Association of Neonatal Nurses; General Body, Executive and Nursing Education Committee Member, Indian Nursing Council; Core group member, INC PhD Consortium; Peer team member, NITTE College of Nursing, Mangalore, for NAAC (national assessment and accreditation Council of UGC); Peer team member, MIMS College of Nursing, Mallapuram, Kerala for NAAC; Member UGC expert committee for inspection of Eternal University Baru Sahib, HP, and Maharaj Vinayak Global University, Jaipur; Inspector, Ch. Charan Singh University, Meerut for inspection of NIMT Institute of Medical and Paramedical Sciences, NOIDA; Member, Selection committees UPSC New Delhi, PGI Chandigarh, Rajasthan Public Service Commission, AIIMS Bhubaneswar, PGIMS Rohtak; Examiner for RGHUS-INC PhD consortium; Invited for Symposium on health professionals education for a new century, National Board of Examination and PHFI; Participated in various committees of AIIMS: Prevention of sexual harassment at workplace, Task force on women safety and gender sensitization, Women grievance cell, Ethics sub-committee, Staff Council, Selection committee CMET-staff development, Anti ragging squad; Judge, Hindi Essay Competition by Hindi section, AIIMS during

Hindi Pakhwara; Executive member, AIIMSONIANS; Expert for MoHFW–Child health division for Implementation guidelines on KMC and optimal feeding for LBW babies; Member, Expert Advisory Committee, MOHFW on Nursing education and research and specification of equipment for six new AIIMS under PMSSY; Expert member, PHFI Consultation on Essential Primary Health Package for India; Expert, National Medical Library and National Neonatology Forum.

Ms Rachel Andrews was Examiner for PGI, Chandigarh, WB University of Health Sciences, Gujarat University and Jamia Hamdard University, Delhi; Member, Curriculum committee, Heart Link International Organization with Indian Collaboration, developing 3–6 months course on critical care of CTVS Paediatric Patients.

Ms Deepika Khakha chaired a paper presentation session of Delhi Neurological Society Conference New Delhi, 1 February 2014; Member, Expert Committee for interviews of Junior Lecturers at PGI Rohtak, 6 March 2014; Did Content Validity for MD Thesis (MHA), A study on training needs of nursing personnel, AIIMS and identification of preferred approaches to performance improvement and four M.Sc. Nursing dissertations; Attended meeting of research on Collaborate Care of Diabetes with Depression, 13–14 February 2014; Did 2 sessions of Research Methodology at Gyan Darshan Channel on Introduction to Research and Research approaches, 15 May 2013; Member, Editorial Board, Journal of Nursing Science and Practice; Reviewer, Journal of Advances Research in Nursing Science; Examiner, Gujarat University, PGIMER Chandigarh, Baba Farid University of Health Sciences, Jamia Hamdard University, and Chaudhary Charan Singh University; Counselling Supervisor for GFATM R-7 District of Delhi; Transport In-charge, Conducted rounds for Anti –ragging rounds in the hostels

Ms Kamlesh Sharma was Examiner for Gujarat University, PGIMER Chandigarh, Jamia Hamdard University, and PGIMS, Rohtak; Ad-hoc inspector, Indian Nursing Council; Co-opted member, Nursing Education Committee, Indian Nursing Council for revising competencies of nursing programmes and revising curriculum for Health Supervisor (Female); Co- author of a paper awarded first prize in International Conference on Heart and Stroke, 2013, AIIMS, New Delhi (Alphonsa A, Aggarwal M, Sharma KK, Bhatia R, Sharma G. A study to assess the knowledge regarding oral anticoagulation therapy among patients with stroke and those at high risk of thromboembolic events with a view to developing an information brochure); Chaired, Plenary session, Advances in Genetic Disorders and congenital malformations, 5th Annual Conference of Indian Association of Neonatal Nurses, Mullana, Haryana, 14–16 February 2014; Coordinated workshop on ‘Advances and Trends in Nursing’; Coordinated 5th Annual Conference of Indian Association of Neonatal Nurses Care of Low Birth Weight Baby; Student Nurses Association (SNA) advisor since 2012; Treasurer of Indian Association of neonatal Nurses till October 2013

Ms Ashia Qureshi chairperson of session during Cost Effective Technology Conference, and Judge of Scientific poster organized by JPNTC, AIIMS, September 2013; Chairperson Judged the posters on MCH, Session on maternal and child health issues, International Epidemiology Conference, Pokhra, Nepal, 25–29 September 2013; Attended 5th Congress of Asia Pacific Paediatric Cardiac Society Conference, 6–9 March 2014; Participated in in-service education programme on maternal care in pregnancy, labour and postnatal for CRHS Ballabgarh nursing staff, New Delhi; Advisor to strengthen and reinforce administration and other work of College of Nursing, RIMS, Imphal, by Regional Institute of Medical Sciences, Imphal, under MOHFW, and Govt of India, 29 May 2013; Examiner and Thesis evaluator, MSc Nursing, Baba Farid University, Punjab, 12–14 September 2013; Organized many health education sessions in maternity units, Janani Suraksha Yojna Unit (MCU) Kangaroo Care Unit, of AIIMS with M.Sc., B.Sc., and PC nursing students; Expert, Interviews of nursing tutors by Rajasthan Public Service Commission, Ghoograhati, Ajmer, 21–22 October 2013; Guided 5 thesis and co-guide for 4 thesis of MSc Nursing; Member and Expert, Advisory Committee Meeting Board, College of Nursing, RIMS, Imphal, 5 December 2013; Resource person, 5th Annual Conference of Indian Association of Neonatal Nurses, Mullana, Ambala, 14–16 February 2014, Spoke on humanitarian care in NICU; Organized various Health Education Sessions for a group of mothers and new born on various topics concerning them in Mother and Child Care Unit (MCU); Member, Selection committee, Interviews for nursing lecturer post in PGIMS Rohtak, Haryana, 6 March 2014; visited various hospitals, colleges of nursing, nursing schools, in USA to update experiences and learnt their set up and structure.

Ms S. Mawar was Organizing Chairman, 47th Annual Conference of Urological Society of India (USICON 2014), New Delhi, January 2014; Examiner for Rufaida College of Nursing, Jamia Hamdard University; Chaired session at USICON 2014, New Delhi, 31 January 2014.

Ms Poonam Joshi, Lecturer was given AIIMSONIANS of America award for best nurse in research work for the year 2012; Examiner, Gujarat and Jamia Hamdard, Hamdard University and supervisor for MBBS entrance exam AIIMS; Chief Guide for two thesis/dissertations and co-guide of the another two thesis/dissertations; Instructor for advanced NRP courses as part of NNF-IAP NRP programme, February 2014; Took three sessions in CME programme of PAN African e-network project on 'Nursing care of child with Hirschprung's disease', 1 July 2013, 'Nursing care of child with ALL', 30 August 2013, and 'Nursing care of child with ESRD', 15 January 2014; Teleconferencing and radio-conferencing at IGNOU in 2013–14 on 'Care of Low Birth Weight Baby', 'Neonatal Resuscitation', and on 'Feeding Low Birth Weight Babies'; Organized Pre-conference Workshop on Neonatal Resuscitation Programme, 5th Annual Conference of IANN, 14–16 February 2014, MM College of Nursing, Haryana; Examiner, Child Health Nursing, MSc Nursing second year, Jamia Hamdard and Gujarat University.

Mr L. Gopichandran was Editorial member of Journal of Advanced Research in Nursing Science and Journal of Advanced Nursing.

8. Research Section

Dean

A.B. Dey (up to 29.10.2013) N.K. Mehra (w.e.f 29.10.2013)

Sub-Dean (Research)

R. Goswami (up to 8.11.2013)

Pramod Garg (w.e.f 8.11.2013)

Administrative Officer

Narender Kumar

Accounts Officer

A.K. Sharma

Stores Officer

Rakesh Sharma

Research is a major thrust area for the faculty and scientists of AIIMS and towards that end this section plays an important facilitatory role by providing encouragement for obtaining extramural research projects funded by various national/international agencies such as Indian Council of Medical Research (ICMR), Department of Science and Technology (DST), Department of Biotechnology (DBT), Council of Scientific and Industrial Research (CSIR), Ministry of Health and Family Welfare (MoHFW), World Health Organization (WHO), Wellcome Trust and international scientific collaborations. The Research Section is the nodal point for supporting all research activities at AIIMS by providing efficient administration, developing guidelines, maintaining and managing accounts and stores of research funds, appointment of research staff, payment and purchase of equipment, etc.

The section has three functional units, viz. administrative, accounts and stores. In addition, a technology transfer and patent cell guides faculty/scientists in Intellectual Property Rights (IPR) and filing appropriate patents. The day-to-day work is managed by the Dean (Research) and Sub-Dean (Research), with a team of officers looking after the administration, finance and store purchase. The section appoints research, technical and non-technical support staff in extramural research projects and the staff thus appointed are called Project Staff. All machinery, equipment, chemicals, contingent purchases, etc. are done through this section. The section deals with all the research related work as per guidelines framed for this purpose.

The extramural research in AIIMS is managed under the guidance of Dean's Research Committee (DRC) and Research Advisory Council (RAC).

DEAN'S RESEARCH COMMITTEE (DRC)

The committee was constituted on 09.12.2013 to discuss various suggestions received towards improving the functioning of the Research Section, to provide directions so as to enhance the overall atmosphere of biomedical research, and to promote mission-oriented and theme-based inter-departmental, inter-institutional and inter-country research collaborations. The DRC provides guidance for better coordination with funding agencies for encouraging time-bound research activities and lays down policies relating to administrative, financial and procurement matters. The DRC has the following members:

- | | |
|-----------------------------------------------------------------------------------------|----------|
| 1. Professor N.K. Mehra
Dean (Research) | Chairman |
| 2. Professor P.K. Julka
Dean (Academic) | Member |
| 3. Professor Anurag Srivastava
Head, Department of Surgical Disciplines | Member |
| 4. Professor V.K. Paul
Head, Department of Paediatrics | Member |
| 5. Professor Lalit Kumar
Head, Department of Medical Oncology
Dr BR Ambedkar IRCH | Member |
| 6. Professor Kameshwar Prasad
Head, Department of Neurology | Member |
| 7. Professor Arvind Bagga
Department of Paediatrics | Member |

8.	Professor J.S. Tyagi Department of Biotechnology	Member
9.	Professor A.K. Dinda Department of Pathology	Member
10.	Professor K. Anand Centre for Community Medicine	Member
11.	Professor Raju Sharma Department of Radiodiagnosis	Member
12.	Professor Nikhil Tandon Department of Endocrinology	Member
13.	Professor V.K. Mohan Department of Anaesthesiology	Member
14.	Professor Vineet Ahuja Department of Gastroenterology	Member
15.	Dr Rohit Bhatia Additional Professor, Department of Neurology	Member
16.	Dr V. Sreenivas Additional Professor, Department of Biostatistics	Member
17.	Dr Amit Gupta Additional Professor, Department of Emergency Medicine JPN Apex Trauma Centre	Member
18.	Sub-Dean (Academic)	Member
19.	Dr Poorva Mathur Additional Professor, Department of Microbiology JPN Apex Trauma Centre	Member
20.	Dr Gurvinder Kaur Scientist-IV Department of Transplantation Immunology and Immunogenetics	Member
21.	Professor Pramod Garg Sub-Dean (Research)	Member-Secretary

RESEARCH ADVISORY COUNCIL (RAC)

The Research Advisory Council was constituted on 11.02.2014 to suggest policy and strategy with regard to research infrastructure, priorities, capacity development, resource mobilization and linkages with the overall aim of promoting clinical and basic research relevant to the present day needs. The RAC also suggests measures to promote inter-departmental, inter-institutional and inter-country collaboration and provide specific inputs to encourage and achieve translational value of the research activities.

1.	Professor M.K. Bhan Former Secretary, Department of Biotechnology, Government of India, New Delhi	Chairman
2.	Professor V.M. Katoch Secretary, Department of Health Research and Director General, Indian Council of Medical Research, New Delhi	Alternate Chairman
3.	Professor Vijay Raghavan Secretary, Department of Biotechnology, Government of India, New Delhi	Member
4.	Professor M.C. Misra Director, AIIMS, New Delhi	Member

5.	Professor N.K. Ganguly Distinguished Professor of Biotechnology Former Director General, Indian Council of Medical Research National Institute of Immunology, New Delhi	Member
6.	Professor Yogesh Chawla Director, Post Graduate Institute of Medical Education and Research, Chandigarh	Member
7.	Professor P.K. Julka Dean (Academic), AIIMS, New Delhi	Member
8.	Professor Gullapalli N. Rao Distinguished Chair of Eye Health Chair, Hyderabad Institute Founder, LV Prasad Eye Institute, Hyderabad	Member
9.	Dr T.K. Chandrasekhar Secretary, Science and Engineering Research Board (SERB), 5 & 5A, Lower Ground Floor, Vasant Square Mall, Sector-B, Pocket-5, Vasant Kunj, New Delhi	Member
10.	Dr S.S. Kohli Scientist 'G', Department of Science & Technology Technology Bhawan, New Mehrauli Road, New Delhi	Member
11.	Professor T.P. Singh Former Head, Department of Biophysics, Distinguished Professor of Biotechnology, AIIMS, New Delhi	Member
12.	Dr Satyajit Rath Scientist-VII, National Institute of Immunology Aruna Asaf Ali Road, New Delhi	Member
13.	Professor Syed Hasnain Distinguished Professor of Biological Sciences Indian Institute of Technology, New Delhi	Member
14.	Dr Sudhir Krishna The National Centre for Biological Sciences GKVK, Bellary Road, Bangalore	Member
15.	Dr Shubhada V. Chiplunkar Director, Advance Centre for Treatment Research and Education in Cancer (ACTREC), No.2, Sector, 22, Kharghar, Navi Mumbai	Member
16.	Dr Soumya Swaminathan Director, National Institute for Research in Tuberculosis No.1, Mayor Sathiyamoorthy Road, Chetpet, Chennai, Tamil Nadu	Member
17.	Dr T.S. Rao Senior Advisor, Department of Biotechnology Government of India, New Delhi	Member
18.	Dr D.K. Sharma Medical Superintendent, AIIMS, New Delhi	Member
19.	Professor Pramod Garg Sub-Dean (Research)	Member
20.	Professor N.K. Mehra Dean (Research)	Member Secretary

INTRAMURAL RESEARCH GRANTS (Basic and Clinical Sciences)

The management of Intramural Research Grants has been transferred from Dean (Academic) to Dean (Research) as per Memo No.5-59/Intramural res/2010/RS dated 2.7.2011. The Standing Finance Committee in its meeting held on 4.7.2011 vide item No. FC-198/15 approved enhancement of the total intramural research support from Rs. 50 lakhs to Rs. 5 crores per annum. The intramural research projects for the year 2013-14 are listed below.

S. No.	Principal investigator	Funds sanctioned	Project title
1	Tulika Seth	500000	Aplastic anemia and telomerase complex
2	Neeta Singh	500000	Impact of local endometrial trauma on the outcome of IVF in women with previous failed implantation: Exploring the genome wide transcriptomic basis
3	Madhavi Tripathi	500000	Comparative evaluation of Tc-99m HMPAO labeled leucocytes SPECT/CT and F-18 FDG PET/CT in fever of unexplained origin (FUO)
4	Sunil Kumar Verma	500000	Evaluation of novel markers of acute coronary syndrome in young adults
5	Haresh KP	500000	A pilot study to evaluate the tumoricidal effect of antiviral agents and herbal formulations in addition to radiotherapy in HPV positive carcinoma cervix cell lines.
6	Devasenathipathy Kandasamy	500000	Urinary diversion of hydronephrosis in locally advanced cervical cancer- Randomised trial
7	Chandrashekhara SH	500000	Angiographic guided transarterial chemotherapy with concurrent radiotherapy in cervical cancer- Randomised trial
8	Shalimar	500000	Use of indocyanine green in assessment of patients with hepatocellular carcinoma undergoing transarterial chemoembolisation as a predictor of development of liver failure
9	A. Shariff	500000	The effects of neonatal phototherapy on rat testis
10	Sushmita Pathy	500000	Predictive biomarkers for response to neoadjuvant chemoradiotherapy in locally advanced rectal cancer
11	S. Datta Gupta	500000	Hepatic cytokine expression, hepatocyte proliferation and progenitor cell activation in chronic viral hepatitis
12	Tapas Chandra Nag	500000	Status of histone acetyl transferase and SIRT 1 expression in a rat model of light-induced retinal damage
13	Sameer Bakhshi	500000	Assessment of expression of vascular endothelial growth factor in non Hodgkins lymphoma in children <18 years: A prospective study
14	Sachin A Borkar	252194	Diffusion tensor imaging (DTI) tractography for prediction of facial nerve position in vestibular Schwannoma and its intra-operative correlation
15	Ashutosh Biswas	241000	Role of biomarkers in severe dengue fever
16	Gita Satpathy	500000	A prospective comprehensive study of the atypical conjunctivitis occurring in Delhi and development of a multiplex PCR assay for rapid diagnosis of viral conjunctivitis
17	Sambhunath Das	358000	Clinical efficacy and safety of perioperative dexmedetomidine therapy in patients undergoing valvular heart surgeries - A randomized control trial

18	Mihir Prakash Pandia	300000	Coagulation abnormalities during excision of large intracranial tumours: A prospective study
19	Sharmistha Dey	500000	Frailty in old age: Development of sirtuin as protein marker for diagnosis
20	Rachna Seth	495000	Molecular alterations in childhood acute lymphoblastic leukemia: Role of CRLF2 rearrangements and janus kinase (JAK 1 & JAK2) mutations: A pilot study
21	Sanjeev Kumar Gupta	500000	IKZF1 (Ikaros) mutations in B cell acute lymphoblastic leukemia
22	Richa Aggarwal	41500	Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit: A preliminary, randomised controlled trial
23	Ajoy Roychoudhury	315000	A case-control study to evaluate correlation between biomarkers for hypercoagulability and development of temporomandibular ankylosis in mandibular condylar fracture patients
24	D. N. Rao	500000	Pentavalent antigenic peptide (PAP) based approach towards diagnosis of dengue infection
25	Archana Singh	500000	Assessment of mitochondrial DNA copy number in pediatric cases of acute lymphoblastic leukemia
26	Rama Chaudhry	495000	Detection of Legionella pneumophila from hospital environment and development of LAMP-PCR for rapid detection of Legionella species from environmental samples
27	Vaishali Suri	500000	A study of clinicopathological features and molecular genetic alterations in adult versus pediatric meningiomas
28	Mehar Chand Sharma	500000	Role of transcription factors in epithelial-to-mesenchymal transition (EMT) in ependymomas
29	Vimi Rewari	97500	Continuous transverses abdominis plane (TAP) block for postoperative analgesia after lieno-renal shunt surgery
30	Bhavna Chawla	500000	Cancer stem cell markers in retinoblastoma and their clinical correlation
31	S. B. Ray	500000	Local administration of cannabinoid receptor 1 agonist at the surgical site relieves postoperative pain in rats
32	Mamta Bhushan Singh	500000	Effect of an AED holiday on subsequent seizure frequency after reinstating the drugs in medically refractory epilepsy patients- A prospective observational controlled study
33	Kapil Dev Soni	500000	Role of microdialysis derived metabolic parameters in predicting postoperative complications following laparotomy in trauma patients
34	Renu Sinha	150000	Evaluation of minimum alveolar concentration (MAC) of sevoflurane and bispectral index (BIS) for maintenance of central eye position during short ophthalmic procedure in spontaneous breathing children under general anaesthesia and correlation of MAC of sevoflurane with BIS
35	Kapil Yadav	500000	Effectiveness of directly observed iron supplementation during pregnancy in a rural population in Haryana: A randomized control trial

36	Madhulika Kabra	500000	Mutation spectrum in Indian children with cystic fibrosis: Search for a possible second common mutation
37	Sanjay Kumar Agarwal	500000	Effect of rifampicin as part of antitubercular therapy on antihypertensive drug requirement in patients of kidney disease.
38	Sandeep Singh	500000	Impact of femoral access site closure after percutaneous coronary intervention
39	Sumit Malhotra	444000	Population based study on refractive errors, presbyopia and spectacle coverage in rural north Indian adults
40	T. S. Roy	500000	Age related morphological and neurochemical changes in the human spiral ganglion
41	Ravi Mittal	500000	Isolation and molecular characterization of human bone marrow derived mesenchymal stem cells
42	Uma Kanga	500000	Role of HLA-G in acute rejection following renal transplantation
43	Nutan Agarwal	500000	To study the levels of cytokines and pentraxin 3 levels in women with unexplained recurrent pregnancy loss and its relation to the pregnancy outcome
44	Uma Sharma	450000	Correlation of metabonomics, enzyme activity, absorptive and secretory activity of duodenal enterocytes in celiac disease using NMR spectroscopy and immunohistochemistry
45	Chittaranjan Behera	500000	Association of menstruation with completed suicide - A hospital based case control study
46	Smriti Hari	240000	Role of CE-MRI of breast and MR guided breast biopsy for preoperative evaluation of patients diagnosed with breast cancer and selected for breast conservation surgery
47	Srinivas M	500000	GDNF and GFR-A1 in children with Hirschsprung's disease
48	Nishkarsh Gupta	405000	Comparative evaluation of forced air warming and infusion of amino acid enriched solution on intraoperative hypothermia in patients undergoing major oncological surgeries: A prospective randomized study
49	Mohd Ashraf Ganie	500000	Improvement on levothyroxine replacement of clinical, biochemical, hormonal and insulin sensitivity parameters in women with polycystic ovary syndrome (PCOS) presenting with subclinical hypothyroidism (SCH)
50	Yatan Pal Singh Balhara	360000	A comparative study of prevalence of metabolic syndrome among patients with opioid and alcohol dependence syndrome
51	Venkateswaran K Iyer	500000	A pilot study on micro RNA expression pattern in Wilms tumor samples and peripheral blood: Relation to histopathology classification and stage
52	H. Krishna Prasad	500000	The role of histone like proteins (Hip) of M. tuberculosis and related pathogens during infection
53	Ritu Sehgal	500000	The expression of p75NTR and TrkA receptors in breast cancer
54	Jasbir Kaur	500000	Expression profile of genes involved in pathogenesis of diabetic retinopathy

55	Ravinder Kumar Pandey	400000	To evaluate the efficacy of tranexamic acid in reducing inflammatory response in lieno-renal shunt surgeries- A randomized, double blind control study
56	Bhavuk Garg	150000	Does thumb opposition recover following surgery for severe carpal tunnel syndrome: A clinical, radiological and electrophysiological pilot study
57	Radhika Tandon	500000	Efficacy and safety of newer broad spectrum antibiotics and antimycotic as an additive in intermediate storage media, a preservation medium for human corneal donor tissues
58	Deepak Kumar Gupta	492380	Role of ischemia biomarkers and hyperglycemia for predicting outcome in severe traumatic brain injury: A microdialysis study
59	Lalit Kumar	500000	Study of NF-kB pathway molecules in multiple myeloma
60	Pravas Mishra	500000	Role of tissue factor and tissue factor pathway inhibitor gene polymorphisms in the pathogenesis of DVT in India
61	Neeraj Parakh	500000	Manual thrombus aspiration with fractional flow reserve guided stenting during primary angioplasty
62	Adarsh Kumar	135800	Study of quantitative determination of aluminium and zinc levels as a tool in fatal phosphide poisoning
63	Suraj Senjam Singh	200000	Study of sense of coherence and spectacles compliances among secondary school students in Delhi
64	S. Baskar Singh	500000	Studies on gamma synuclein as a potential tumour marker and possible drug target for breast cancer patients
65	Anil Kumar Goswami	500000	Non-communicable diseases (NCDs) among elderly persons in a resettlement colony of Delhi
66	Anita Dhar	500000	Evaluation of nitric oxide, nitric oxide synthase, vascular endothelium growth factor, interleukin in lower arterial disease and their association with clinical outcome

EXTRAMURAL RESEARCH PROJECTS

The Research Section receives project proposals from the faculty/scientists of AIIMS forwarded by Centre Chiefs and Head of Departments. It is mandatory for a project proposal to be routed through the Research Section for the first stage of wetting in accordance with the procedure being followed at AIIMS. During 2013–14, the Research Section received extramural research support of Rs. 71 crores from various national and international agencies. The details of the projects are given in individual departments and centres.

RECOGNITION OF RESEARCH ACHIEVEMENT AT AIIMS

The Research Section recognizes quality research output of its faculty/scientists by awarding 'AIIMS Excellence Awards'. During 2013–14, the following awards were given:

Basic Category Awards 2014

S. No.	Name and Department	Paper/Publication Title	Prize
1	Parthaprasad Chattopadhyay, Professor, Biochemistry	Biogenesis of intronic miRNAs located in clusters by independent transcription and alternative splicing	First
2	D.S. Arya, Professor, Pharmacology	Regulation of heat shock proteins 27 and 70, p-Akt/p-eNOS and MAPKs by naringin dampens myocardial injury and dysfunction in vivo after ischemia/ reperfusion	Second

3	Radhika Tandon Professor, R.P. Centre for Ophthalmic Sciences	Surface-modified electrospun poly (ϵ -Caprolactone) scaffold with improved optical transparency and bioactivity for damaged ocular surface reconstruction	Third
4	Suman Jain, Additional Professor, Physiology	Repetitive auditory stimulation at a critical prenatal period modulates the postnatal functional development of the auditory as well as visual system in chicks (<i>Gallus domesticus</i>)	Third
5	Savita Yadav, Additional Professor, Biophysics	Three low molecular weight cysteine proteinase inhibitors of human seminal fluid: Purification and enzyme kinetic properties	Third
6	Jaya S. Tyagi, Professor, Biotechnology	Essentiality of DevR/DosR interaction with SigA for the dormancy survival program in <i>Mycobacterium tuberculosis</i>	Commendation Certificate
7	T. Velpandian, Additional Professor, Ocular Pharmacology, Dr R.P. Centre for Ophthalmic Sciences	Role of organic cation transporters in the ocular disposition of its intravenously injected substrate in rabbits: Implications for ocular drug therapy	Commendation Certificate
8	Sharmistha Dey, Assistant Professor, Biophysics	Sirtuin1: A promising serum protein marker for early detection of Alzheimer's disease	Commendation Certificate
9	Ashok Kumar Jaryal, Additional Professor, Physiology	Renal transplantation normalizes baroreflex sensitivity through improvement in central arterial stiffness	Commendation Certificate

Clinical Category Awards 2014

S. No.	Name and Department	Paper/Publication Title	Prize
1	Y.S. Kusuma, Additional Professor, Centre for Community Medicine	Migration and access to maternal healthcare: Determinants of adequate antenatal care and institutional delivery among socio-economically disadvantages migrants in Delhi, India	Second Prize
2	Parveen Vashist, Additional Professor, Dr R.P. Centre for Ophthalmic Sciences	Rapid assessment of trachoma in underserved population of Car Nicobar Island, India	Second Prize
3	S.K. Sharma, Professor and Head, Medicine	Rifamycins (rifampicin, rifabutin and rifapentine) compared to isoniazid for preventing tuberculosis in HIV-negative people at risk of active TB (Review)	Third Prize
4	P. Sarat Chandra, Professor, Neurosurgery	Distraction, compression, and extension reduction of basilar invagination and atlantoaxial dislocation: A novel pilot technique	Third Prize
5	D.N. Sharma, Additional Professor, Radiotherapy	Perioperative high-dose-rate interstitial brachytherapy boost for patients with early breast cancer	Third Prize
6	Anand Krishnan, Professor, Centre for Community Medicine	Effectiveness of demand and supply side interventions in promoting institutional deliveries- a quasi-experimental trial from rural north India	Third Prize

7	G. Karthikeyan, Additional Professor, Cardiology	Urgent surgery compared with fibrinolytic therapy for the treatment of left-sided prosthetic heart valve thrombosis: A systematic review and meta-analysis of observational studies	Third Prize
8	Sheffali Gulati, Professor, Paediatrics, Child Neurology	Neurodevelopmental and epilepsy outcome in children aged one to five years with infantile spasms-A north Indian cohort	Commendation Certificate
9	G. Sethuraman, Professor, Dermatology	Threshold levels of 25 (OH) D and parathyroid hormone for impaired bone health in children with congenital ichthyosis in type IV and V skin	Commendation Certificate
10	Namrata Sharma, Additional Professor, Dr R.P. Centre for Ophthalmic Sciences	Comparative evaluation of topical versus intrastromal voriconazole as an adjunct to natamycin in recalcitrant fungal keratitis	Commendation Certificate
11	Renu Sinha, Additional Professor, Anaesthesia, Dr R.P. Centre for Ophthalmic Sciences	A randomised comparison of lidocaine 2% gel and proparacaine 0.5% eye drops in paediatric squint surgery	Commendation Certificate
12	Neelam Pushker Professor, Dr R.P. Centre for Ophthalmic Sciences	Role of oral corticosteroids in orbital cellulitis	Commendation Certificate

OTHER ACTIVITIES

The following activities have been initiated for the benefit of the faculty/scientists.

1. Clinical investigator development program: Being A Principal Investigator
2. Courses on research methodology for postgraduates

9.1 Anaesthesiology

Professor and Head

Chandralekha

Professors

M. K. Arora
S. Rajeshwari
L. Kashyap
Virender K Mohan

D. K. Pawar
Anjan Trikha
Dilip Shende (RPC)

Ravinder K. Batra
Maya Dehran
Ganga Prasad
Vimi Rewari

Additional Professors

Vanlalnghaka Darlong
Ravinder Pandey
Babita Gupta (JPNATC)

Renu Sinha (RPC)
Anjolie Chhabra

Jyotsna Punj
Rashmi Ramachandran
Chhavi Sawhney (JPNATC)

Associate Professor

Amar Pal Bhalla

Assistant Professors

Dalim Baidya (Dental) Devlina Goswami (Dental) Naveen Yadav (JPNATC)

HIGHLIGHTS

Anaesthesia services were started at the Centre for Dental Education and Research. The department at JPNATC was merged with the main department and rotation of the faculty, junior and senior residents was started.

This department has a state of the art High Fidelity Human Patient Simulation system. It was used to provide training to postgraduates. Simulation sessions help residents to rehearse management of both routine events as well as crisis situations in real time scenarios. Regular workshops were conducted to provide training to health professionals for development of proficiency in crisis management in real time.

The department has an established Anaesthesia Skills Laboratory for training and continuing education of undergraduates, interns, junior and senior residents. The department offers short term and long term training in various specialty areas such as General Anaesthesia, Intensive Care, Advanced Monitoring techniques and Pain clinic. Advanced monitoring in intensive care is provided to both postoperative as well as critically ill patients in the AB8 intensive care unit.

EDUCATION

Teaching and training of undergraduates, postgraduates and nursing students (BSc and MSc) are regular features. The teaching programme for the postgraduates is conducted on four days of the week and includes Seminars, Case presentations, Journal clubs and Tutorials.

Regular postgraduate training on High Fidelity Human Patient Simulation System is being done. Anaesthesia Skills Lab is used for training undergraduates, interns and postgraduates for developing expertise in various skills, e.g. intravenous cannulation, lumbar puncture, epidural puncture, central venous cannulation, airway management, endotracheal intubation, nerve blocks and CPR (BLS and ACLS).

CME/Workshops/Symposia/National and International Conferences

1. International Symposium on Endocrine Anesthesia (30 November–1 December 2013) brought together national and international faculty in Anesthesiology, Endocrinology and Surgery on a single platform. The management guidelines for patients with endocrine disorders presenting for anesthesia and surgery were discussed and outlined.
2. Ultrasound Guided Regional Anaesthesia Workshop was conducted on 18 January 2014 at JPNATC, New Delhi.
3. Additional services were provided by administration of Anaesthesia department for 10 surgical workshops in 31 operation theatres (4 Orthopaedics in 8 OTs, 3 Surgery in 16 OTs, 1 Urology in 2 OTs, 1 Paediatric Surgery

in 3 OTs and 1 Gastroenterology in 2 OTs).

Long and short-term training

Short-term training was provided to 5 candidates from diverse streams (one from Hindu Rao Hospital, Delhi; two DM students of Paediatric Neurology; one MD trainee from Emergency Medicine; one Extern from Germany)

Lectures delivered: 58

M.K. Arora: 4	D.K. Pawar: 9	Ravinder K. Batra: 5	S. Rajeshwari: 5
Anjan Trikha: 18	Maya Dehran: 1	L. Kashyap: 1	Dilip Shende: 2
Ganga Prasad: 2	Vimi Rewari: 5	Anjolie Chhabra: 3	Dalim Baidya: 3

Oral papers/posters presented: 15

M.K. Arora: 2	D.K. Pawar: 2	L. Kashyap: 3	Dilip Shende: 3
V.K. Mohan: 3	Vimi Rewari: 1	R.K. Pandey: 3	Anjolie Chhabra: 1

RESEARCH

Funded projects

Completed

1. Pain assessment in the critically ill mechanically ventilated adult patients: a comparison between skin conductance algometer index, critical care pain observation tool and physiologic indicators, Prof Chandralekha, CSIR.
2. Comparative sono-anatomy of “medial-oblique” probe position with classic “short axis” probe position for US guided IJV cannulation: A cross-over study, Dr Dalim K Baidya, 2013–14.
3. Analgesic efficacy of single shot caudal block in paediatric laparoscopic surgeries: a retrospective study, Dr Dalim K Baidya, 2013–14.
4. Peri-operative Complications of Obstructive Sleep Apnoea Patients Undergoing Upper Airway Surgeries: A Retrospective Analysis, Dr Dalim K Baidya, 2013–14.
5. Comparison of efficacy and safety of classic LMA, Ambu LMA and Air-Q intubating laryngeal airway in infants, Dr V Darlong, 2013–14.

Ongoing

1. To assess the efficacy of intra-lock intravenous cannula with catheter and injection valve, Dr R.K. Batra, ICMR.
2. Continuous transverses abdominis plane (TAP) block for postoperative analgesia after leino-renal shunt surgery, Dr Vimi Rewari, AIIMS Intramural fund, 2 years, (2013–15), Rs 97,500.
3. Entropy monitoring for titrating anesthetic requirements with TCI-TIVA in adults undergoing laryngeal surgery under propofol or propofol-dexmedetomidine anaesthesia, Dr A. Chhabra, AIIMS Research grant, ongoing from March 2011, Rs 84,000.
4. To evaluate the efficacy of tranexamic acid in reducing inflammatory response in lieno-renal shunt surgeries– A randomized double blind placebo control study, Dr R. K. Pandey, AIIMS Research grant, ongoing since 2014, Rs 5 lakhs/year.
5. Comparison of intraocular pressure change with facemask vs laryngeal mask airway in anaesthetised children, Dr V. Darlong, AIIMS Research grant, ongoing since 2014, Rs 5 lakhs/year.
6. Optimum timing of LMA Proseal insertion after induction of anaesthesia with propofol in adults: a randomized time response study, Dr Dalim K Baidya, 2013–ongoing.
7. Incidence and risk factors of back pain after cesarean section: A prospective observational study, Dr Dalim K Baidya, 2014–ongoing.

Departmental projects

Completed

1. Comparison of two doses of IV paracetamol as adjunct to caudal ropivacaine in children undergoing lower abdominal surgery: A prospective, randomized, controlled, double blind trial.
2. Effect of age and head rotation on the anatomical relationship between internal jugular vein and carotid artery and children.
3. Efficacy and safety of dexmedetomidine in providing analgesia for patients undergoing tubal ligation under

local anesthesia.

4. Safety and efficacy of TAP block for laparoscopic inguinal hernia repair.
5. Retrospective analysis of effect of anesthesia on the outcome of pregnancy after IVF.
6. To evaluate the safety and efficacy of dexmedetomidine in major arthroscopic knee surgery.
7. Postoperative analgesia in total knee replacement: A comparison of 3 in 1 femoral nerve block versus intra articular infiltration.
8. Comparison between caudal epidural block and popliteal nerve block for postoperative analgesia in children undergoing foot surgery
9. Comparison of two techniques of fascia Iliaca block in Total hip arthroplasty.
10. To study the changes in predictors of Difficult Intubation during pregnancy.
11. 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.
12. Analgesic efficacy of Transversus Abdominis Plane block for primary laparoscopic inguinal hernia repair in adult patients: a randomized controlled trial.
13. Sonoanatomical analysis of right internal jugular vein and carotid artery at different levels of PEEP in anaesthetised paralysed patients.

Ongoing

1. To compare the efficacy of 0.25% bupivacaine alone or in combination with 50mcg/kg morphine administered via the caudal route for relief of postoperative pain in patients of ankylosing spondylitis undergoing total hip replacement surgery.
2. Effect of clonidine as an adjuvant to ropivacaine in paediatric tap block.
3. Comparison of two fluid regimens in neonates in the intra operative period.
4. Safety and efficacy of dexmedetomidine for procedural sedation during laparoscopic tubal ligation with MTP
5. Continuous thoracic paravertebral infusion in modified radical mastectomy: randomised, prospective double blinded study to compare efficacy of ropivacaine with and without fentanyl.
6. Breast reconstruction using muscle sparing latissimus dorsi flap for volume replacement following breast conservation surgery: A study of cosmesis and resected margin status.
7. Lipomodelling of breast following breast conservative surgery.
8. A comparative evaluation of total laparoscopic hysterectomy versus laparoscopic supracervical hysterectomy.
9. Effect of intravenous dexmedetomidine as an adjuvant to epidural morphine on the perioperative analgesic requirement in patients undergoing thoracotomy
10. Effect of various doses of clonidine 15,25,35 micrograms to hyperbaric bupivacaine 0.5%, 2ml (10mg) on subarchnoid block characteristics & haemodynamic parameters in patients undergoing transurethral resection of prostate & transurethral resection of bladder tumour.
11. To study the peri-operative outcome of laparoscopic and open splenectomy in patients with Idiopathic thrombocytopenic purpura.
12. Safety and efficacy of intrathecal morphine for peri operative analgesia in patients undergoing total laparoscopic hysterectomy.
13. Efficacy of single-shot TAP in enhancing perioperative analgesia in patients undergoing inguinal hernia repair under local anesthesia.
14. Comparison of 3 analgesic techniques for laparoscopic donor nephrectomy: a randomized, controlled clinical trial.
15. To evaluate the efficacy of obturator nerve block in controlling the adductor muscle spasm during transurethral resection of bladder tumor involving lateral wall : Nerve stimulator guided versus ultrasound guided technique.
16. Effect of modified 45° Head up in lateral decubitus position on the success rate of lumbar puncture in obstetric patients undergoing caesarean section.
17. Total intravenous anaesthesia versus subarachnoid block in unilateral total knee arthroplasty : comparison of

recovery profile and time to readiness for discharge.

18. Comparison of caudal epidural block with paravertebral block for renal surgeries in paediatric patients.
19. Effect of dexmedetomidine as an adjuvant in femoral nerve block for perioperative analgesia in patients undergoing total knee replacement arthroplasty under subarachnoid block – A dose response study.
20. Comparison between caudal epidural block and popliteal nerve block for postoperative analgesia in children undergoing foot surgery.
21. Paravertebral Block and Transverses Abdominis Plane Block for Perioperative Pain Relief in Patients undergoing Live Donor Open Nephrectomy: A Randomized Controlled Trial.
22. Comparison of ultrasound guided versus landmark-based technique for ilioinguinal-iliohypogastric nerve blockade in children undergoing inguinal surgical procedures.
23. Comparison of Sub-Tenon and Peribulbar block for postoperative analgesia in pediatric cataract surgery.
24. Comparison of efficacy of oral versus regional clonidine for postoperative analgesia following ilioinguinal/iliohypogastric block in children.
25. To evaluate effects of combination of intrathecal morphine and fentanyl with bupivacaine in unilateral total knee arthroplasty.
26. Non-invasive estimation of central venous pressure in mechanically ventilated patients using bedside ultrasonography: A comparison of two techniques.
27. Comparison of Tramadol and Clonidine as an Adjunct to Bupivacaine for Continuous Fascia Iliaca Compartment Block in Arthroscopic Knee Surgery - A Prospective Randomized Study.
28. AirQ ILA as a conduit for orotracheal intubation in children - a comparison between supine and lateral positions.
29. To assess the analgesic efficacy of Transversus Abdominis Plane (TAP) block with ropivacaine in adult patients undergoing open inguinal hernia repair under local anaesthetic infiltration.
30. Comparison of paravertebral block performed by anatomical landmark technique with ultrasound guided paravertebral block for providing anaesthesia in patients undergoing Breast surgery.
31. Comparison of three different dextrose containing intraoperative fluid regimens on glucose homeostasis and electrolyte balance in neonates.
32. Safety and efficacy of low dose intrathecal morphine for total laparoscopic hysterectomy – A double-blind randomized controlled trial.
33. Comparison of efficacy and safety of McIntosh laryngoscope, McCoy laryngoscope and Glidescope videolaryngoscope for intubation in morbidly obese patients.
34. Anatomical evaluation of epiglottis in infants: A prospective observational study.
35. Comparison of safety and efficacy of self-pressurising proseal LMA with AirQ ILA in children.
36. Effect of fentanyl 2µg/kg on reducing induction dose of propofol at different time intervals.
37. A comparative study to evaluate the effectiveness of video teaching program v/s mannequin demonstration on basic life support to the family members of patients at high risk of cardio pulmonary arrest.

Collaborative projects

Completed

1. Comparison of outcomes after laparoscopic incisional hernia repair using absorbable versus non-absorbable tackers (with Surgery).
2. A prospective, randomized comparison of long-term outcomes: chronic groin pain and quality of life following totally extraperitoneal (TEP) and trans-abdominal-preperitoneal (TAPP) laparoscopic inguinal hernia repair (with Surgery).
3. Transoral robotic surgery in the treatment of T1- T3 carcinoma of middle 1/3 of tongue and oropharynx (with Otorhinolaryngology).
4. Anaesthetic implications and perioperative concerns in pregnant patients with antiphospholipid antibody syndrome – a retrospective audit (with Obstetrics and Gynaecology).
5. Continuous Transversus abdominis plane (TAP) block for post operative analgesia after Leno Renal Shunt surgery (with GI Surgery).

6. Peri-operative complications of cochlear implant surgery in children: A Retrospective analysis (with Otorhinolaryngology).
7. Peri-operative complications of obstructive sleep apnoea patients undergoing upper airway surgeries: A Retrospective Analysis (with Maxillo-Facial Surgery).

Ongoing

1. Comparison of outcomes in patients undergoing Single Incision Laparoscopic Surgery (SILS) versus conventional 4-port cholecystectomy (with Surgery).
2. Comparison of pain between patients undergoing open versus laparoscopic donor nephrectomy (with Surgery).
3. Comparison of PaCO₂ levels with varying pneumoperitoneum pressures in patients undergoing laparoscopic cholecystectomy (with Surgery).
4. Randomized Controlled Trial For Comparison Of Functional Outcome In Total Knee Replacement With Tourniquet And Without Tourniquet (with Orthopaedics).
5. Prevalence and Clinical Significance of Occult Contralateral Inguinal Hernia in Patients Undergoing Unilateral Hernia Repair (with Surgery).
6. A study to evaluate the efficacy of supervised exercise therapy in patients of peripheral vascular disease in a tertiary care centre and its effect on their quality of life (with Surgery).
7. To assess the analgesic efficacy of Transversus Abdominis Plane (TAP) block with ropivacaine in adult patients undergoing open inguinal hernia repair under local anaesthetic infiltration ((with Surgery).
8. Comparison of paravertebral block performed by anatomical landmark technique with ultrasound guided paravertebral block for providing anaesthesia in patients undergoing Breast surgery (with Surgery).
9. Assessment of the efficacy of laparoscopic approach for appendicectomy and orchiopexy across the pediatric age and size (quantitated as body surface area) spectrum (with Paediatric Surgery).
10. Incidence and risk factors of back pain after cesarean section: A prospective observational study (with Gynaecology and Obstetrics).

PUBLICATIONS

Journals, Abstracts and Book chapters: 54

PATIENT CARE

Number of Anaesthetics administered

1. Main Operation Theatres:

Department of Surgical Disciplines: 2747

Urology: 1169

Obstetrics and Gynaecology: 950

Dental surgery: 176

Gastrointestinal surgery: 401

Otorhinolaryngology: 1064

Paediatric surgery: 1488

2. Main Operation Theatres Emergency cases:

Total cases: 4412

Total peripheral calls for various invasive/non invasive procedures and resuscitation: 1655

3. Peripheral Operation Theatres:

Maternity (Cesarean and obstetric procedures): 2405

In Vitro Fertilization (IVF): 285

Dr. R.P. Centre for ophthalmic sciences:

Routine surgery

GA: 7075

Emergency surgery: 570

Dental (Centre for Dental Education and Research): 52

Orthopaedics: 2868

Monitored anaesthesia care: 85

4. Procedures under General anaesthesia at the periphery:

Modified Electroconvulsive Therapy: 262

CT Scan: 826

MRI: 262

Paediatric USG (RPC): 55

Others (Digital subtraction angiography, lithotripsy): 90

Grand Total of anaesthetics administered: 28,737

1. Interventional pain management procedures: 461

2. Intensive care unit AB8

Admissions: 473

Transfers to ward: 378

Deaths: 95

3. Preanaesthesia clinic: 7379

New Cases: 6787

Old Cases: 592

4. Pain clinic: 2991

New cases: 1049

Old cases: 1942

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Chandralekha is associated with Women Power Connect and the Centre of Social Research which work towards the empowerment of women across India.

Professor M.K. Arora made two notable poster presentations at an international forum organized by European Society of Regional Anaesthesia (ESRA-2013) from 4-7 Sept, 2013 at Glasgow, UK: Comparison of two doses of iv paracetamol as adjunct to caudal ropivacaine in children undergoing lower abdominal surgery: a prospective randomized double blind trial ; Spinal anaesthesia in high risk pediatric patients: An Indian experience from a tertiary care Institute

Professor D.K. Pawar conducted the Pediatric Anesthesia CME-2013 and moderated a session on Pediatric difficult airway management on 28 July 2013 at Fortis Hospital, Gurgaon. He made a poster presentation Comparison of Magill and Mackintosh laryngoscope in neonates for intubation at the 2014 Combined AACA and ASURA on 21–25 February 2014, Auckland Convention Center, New Zealand.

Professor R.K. Batra is currently the Vice Chairman, PG Committee and Member and Co-ordinator, Speciality Board of Anaesthesiology at the Medical Council of India; Member and Co-ordinator, Speciality Board of Anaesthesiology and Member Thesis Ethics Committee at the National Board of Examination; Expert for selection of Reader, Govt Medical College, Chandigarh, Union Public Service Commission, New Delhi on 09.04.2013 as well as for Assistant Professor in Himachal Pradesh Service Commission, Shimla on 5 August 2013. He was Chairman, Ethics Subcommittee and Member of Ethics Committee till 8.1.2014 as well as Member Budget Assessment Committee till May 2013 at AIIMS. He served as: assessor at Sagar Hospital, Bangalore on 26 August 2013 (DNB); appraiser at Base Hospital, Delhi on 27 August 2013 (DNB); assessor at Govt Medical College, Chandigarh, Haryana (MCI); appraiser at Mohandai Oswal Cancer Treatment & Research Foundation, Ludhiana on 27.06.13 (DNB Panel); assessor at the Kauvery Medical Centre & Hospital, Trichy, on 23.01.2014 (DNB).

Professor S. Rajeshwari was designated Faculty-in-charge, B.B. Dikshit library, w.e.f. Feb. 2014, being fully involved in updating library catalogues, online journal access, aesthetic library upkeep, amongst other activities. She was Organizing Chairperson as well as Chairperson, Pheochromocytoma session at the International Symposium on Endocrine Anesthesia (Nov 2013).

Professor Anjan Trikha was invited to the Editorial Board of the Year Book of Anaesthesia 2014; nominated member of academic committee of Indian College of Anesthesiologist, President of Association of Obstetric Anesthesia and Chief Editor of Journal of Obstetric Anesthesia and Critical Care (JOACC).

Prof Maya Dehran provided OPD services in Dispensary at Bhatti Centres Radha Swami Satsang Beas, N. Delhi on all Sundays of the year 2013–14. She also provided first aid and critical care services till the patients were shifted to tertiary care hospitals during major public gatherings for satsang at Radha Swami Satsang Beas N. Delhi for a period of 12 days in 2013–14. She was invited as a judge for evaluating poster competition session by Indian Society of Anaesthesia Annual Conference Delhi Branch, 2013, organized by RML Hospital, N. Delhi.

Professor Ganga Prasad is currently technical expert to Department of Anaesthesia, Ram Manohar Lohia Hospital, PGIMER, New Delhi; member of Bureau of Indian standard for Anaesthesia equipments, New Delhi; technical expert for Uttar Pradesh public service commission, Allahabad (October 2013).

Professor Vimi Rewari was awarded Membership of the National Academy of Medical Sciences (NAMS). She continues to be Editorial board member, Journal of Obstetric Anaesthesia and Critical Care.

Dr R.K. Pandey made an oral presentation under the top 10 best abstract submissions category during the Combined 2014 AACA and ASURA Conference at Auckland, New Zealand (21–25 Feb 2013) as well as oral presentation Unpredicted neurological complications after Robotic Laparoscopic radical cystectomy and ileal conduit formation in steep trendelenburg position : series of 2 cases at the 30th Annual Scientific sessions of college of Anaesthesiologists, Srilanka. He also received an appreciation award for Poster presentation entitled Airway management of undiagnosed tracheoesophageal fistula detected accidentally intraoperatively at the latter venue for the Sashidaran Poster Prize Competition.

Dr Anjolie Chhabra won the 2nd prize at the ISEA 2013 free poster paper session for her poster Perioperative manifestation of Carcinoid tumor masquerading as insulinoma. She continues as core Editorial team member of Trends in Anaesthesia and Critical Care, an Elsevier journal.

Dr Dalim Baidya was selected as National Editor of Chettinad Medical Journal.

9.2 Anatomy

Professor and Head

Shashi Wadhwa (upto 31 July 2013)

T.S. Roy (w.e.f. 1 August 2013)

Professors

R.D. Mehra (upto 31 July 2013)

Pushpa Dhar

Rima Dada

A. Shariff

S.B. Ray

Arundhati Sharma (Genetics)

Additional Professors

T.K. Das (Electron Microscopy)

T.C. Nag (Electron Microscopy)

Renu Dhingra

Ritu Sehgal

Assistant Professor

Saroj Kaler

HIGHLIGHTS

The department has an established e-Learning facility which was utilized to introduce 'Blended Learning' methods in anatomy that supplement the traditional face-to-face learning methods with eLearning using workstations. The department has facilitated the conduct of several cadaveric workshops from Neurosurgery, Orthopaedics and Surgery departments and helped in providing training to personnel. Several members have served as visiting faculty to different universities and institutes and have delivered guest and invited lectures both in India and abroad. Research work undertaken by faculty and students has been presented in various national and international conferences. Several students have won awards for their work in areas of gross anatomy, neurosciences, embryology and genetics. The faculty has been engaged in research with grants from intra and extramural agencies and have noteworthy research publications in peer reviewed journals. They have also served as members of editorial boards of several national and international journals and have acted as reviewers for research projects submitted for intramural funding as well as from extramural funding agencies. Service in the form of embalming facilities and patient care through diagnostic tests and counselling for various genetic and metabolic disorders has been provided by the department.

EDUCATION

Innovative educational activity

Introduced 'Blended Learning' methods in anatomy, supplementing the traditional face-to-face learning methods with eLearning, using the eLearning facilities established in the department. All the undergraduate and postgraduate students admitted in August 2013 were enrolled in the eLearning facility and provided secure user accounts. eLearning resource materials in histology and gross anatomy were administered using workstations in the microanatomy lab and dissection hall. Online formative assessment tests were also administered securely to MBBS students using networked workstations in the microanatomy lab. Access to the eLearning facility is also provided to all users using their own tablets/laptops/smart phones over a wi-fi network throughout the department. Facilities for production of eLearning resource materials in anatomy in-house are under development.

Undergraduate, postgraduate, paramedical teaching Short and long term training

Imparted training in 'Embalming & Staining Techniques' to technicians from New Delhi MCD College. Faculty from the department are visiting faculty for MSc Neuroscience and Human Genetics at Jiwaji University, Gwalior.

CMEs/Workshops/Symposia/National and International conferences

The department helped in the conduct of several cadaveric workshops which has facilitated in the training of personnel from different departments such as Surgery, Neurosurgery and Orthopaedics on 26-28 April, 23-25 August and 25-29 November and 1 December 2013.

Lectures delivered

T.S. Roy: 4

T.C. Nag: 5

Pushpa Dhar: 5

Ritu Sehgal: 1

Rima Dada: 8

Oral papers/posters presented

R.D. Mehra: 1

T. S. Roy: 4

Arundhati Sharma: 5

Faculty and Residents: 18

RESEARCH

Funded projects

Ongoing

1. Age related morphological and neurochemical changes in the human spiral ganglion. PI- TS Roy, AIIMS, 2012-2014. 8 lakh
2. A stereological study of age related morphological and neurochemical changes in the human cochlear nucleus. PI- TS Roy, ICMR 2010-2014, Funds: 29.3 lakhs.
3. Study to identify the genetic basis underlying Stevens–Johnson syndrome (SJS), Arundhati Sharma, ICMR, 3 years, 2011-2014, Rs.22 lakhs.
4. A study on the genetic association and correlation of Monoaminergic, GABAergic and Glutamatergic pathway gene polymorphisms with brain imaging (PET/SPECT) in Alcohol dependence, Arundhati Sharma, 3 years, 2011-2014, Rs.29 lakhs.
5. Molecular genetic analysis of Posterior polar cataract families, Arundhati Sharma, 1 year, 2013-2014, Rs 5 lakhs
6. 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. P. Dhar, ICMR, 3 years, 2012, Rs 50,25,321.
7. Estrogen induced regulation of complement system in rat brain: An approach to understand neuroprotective and anti-inflammatory role of the hormone. Pushpa Dhar, ICMR, 2.8 years, 2012, Rs 49,03,761.
8. Endoplasmic reticulum stress in pathogenesis of preeclampsia: An in vitro study. Renu Dhingra, AIIMS, 2 years, 2013-15, 10 lakhs.
9. Study on the effect of hydrogen sulfide on migration and invasion potential of trophoblast cells, Renu Dhingra, ICMR, 3 years, 2014-17, 45 lakhs.
10. Estrogen mediated immune regulation and neuroprotection in female rat hippocampus. R.D. Mehra, ICMR, 3 years, 2012-15, 8 lakhs
11. The Expression of p75NTR and TrkA Receptors in Breast Cancer, Ritu Sehgal, AIIMS, 2 years, 2013-15, 10 lakhs.
12. Morphological and biochemical changes in neonatal chick retina following exposure to variable photoperiods, TC Nag, DST, 3 years, 2013-16, 33 lakhs.
13. Status of Histone acetyl transferase and SIRT 1 expression in a rat model of light-induced retinal damage, TC Nag, AIIMS, 1 year, 2013-14, 5 lakh

Completed

1. Structural and biochemical changes in the vascular network of aging human retina, TC Nag, AIIMS, 2 years, 2011-13, 5 lakh

Departmental projects

Ongoing

1. A study on the association of *VEGF* and *sFLT-1* polymorphisms with Preeclampsia.
2. Study on the Genotype-Phenotype Correlation in Asian Indian Subjects with Childhood Onset of Growth Hormone Deficiency.
3. A study to identify the genetic basis underlying Epidermal Necrolysis.
4. A study on the genetic association and correlation of Monoaminergic and GABAergic pathway gene polymorphisms with brain imaging (PET/SPECT) in Alcohol & Opioid Dependence
5. Epigenetic changes of Dopaminergic pathway genes and association of GRIN2A gene polymorphism in Alcohol Dependence
6. Genetic Study of Posterior Polar Cataract
7. Effect of antioxidants on sodium arsenite induced neurotoxicity in the developing rat cerebellum.
8. Morphometric evaluation of Mandibular condyle using Cone Beam Computed Tomography.
9. Role of s-VEGFR in endoplasmic reticulum stress in preeclampsia
10. Effect of hypoxia on the expression of PPARs and angiogenic factors in trophoblast cells

11. Effect of hydrogen sulphide on migration of trophoblast cells during placental development and its status in preeclampsia
12. Estrogen hormone interactions in female rat hippocampus
13. Neuroprotective and anti-inflammatory role of estrogen and tamoxifen via regulation of complement proteins in female rat hippocampus
14. Effect of exogenous α -Lipoic acid on arsenic induced oxidative stress in developing rat kidney
15. Immune regulation of neuroprotective and anti-inflammatory properties of estrogen and tamoxifen in female rat hippocampus
16. Morphometry of the lumbar pedicle using CT scans and digital images
17. Morphometry of Mitral and Tricuspid valves in cadaveric adult human heart
18. Bone height measurement of post-canine maxilla from alveolar ridge to sinus floor using CT scans
19. Development and aging of the human auditory system
20. Age changes in the human trochlear, abducent and cochlear nerve
21. Morphology of the fetal and adult human pancreatic duct system
22. Expression patterns of iron regulatory proteins in rat retina with aging and in experimental iron overload

Completed

1. Polymorphism and Methylation studies of genes in monoamine pathways in alcohol dependence
2. Study on the association of HLA-G polymorphisms with Recurrent Pregnancy Loss
3. Polymorphism and Methylation studies of genes in monoamine pathways in alcohol dependence
4. Immune regulation of Neuroprotective and Anti-inflammatory properties of estrogen and tamoxifen in female rat hippocampus.
5. Age changes in the human trochlear and abducent nerves

Collaborative projects

Ongoing

1. Study on the genotype-phenotype correlation in Asian Indian patients with growth hormone deficiency (with Endocrinology, AIIMS)
2. Congenital Adrenal hyperplasia – Psychological assessment (with Endocrinology, AIIMS)
3. MEN1 gene mutation in patients of primary hyperparathyroidism, pancreatic tumors and pituitary tumors and its clinical implications (with Endocrinology, AIIMS)
4. Evaluation of development of neurosurgery skills by hands–on skills training and interactive virtual training (with Neurosurgery, AIIMS).
5. Expansion of DST + DBT Sponsored Neurosurgery Skills Training Facility and Development of 3D Virtual Training Modules for Neurosurgery Skills Training (with Neurosurgery, AIIMS).
6. Department of Science and Technology DST FIST Program DST FIST Level 2. Neurosurgery, Neurosciences Centre, AIIMS
7. The Expression of p75NTR and TrkA Receptors in Breast Cancer (with Surgery and Pathology, AIIMS).
8. Evaluation of development of neurosurgery skills by hands–on skills training and interactive virtual training (with Neurosurgery, AIIMS)
9. Expansion of DST and DBT Sponsored Neurosurgery Skills Training Facility and Development of 3D Virtual Training Modules for Neurosurgery Skills Training (with Neurosurgery, AIIMS)
10. Functional development of the visual cortex following prenatal repetitive auditory stimulation in chicks (*Gallus domesticus*): role of noradrenaline (with Physiology, AIIMS).
11. Cardioprotective mechanism of telmisartan in experimental model of myocardial infarction in streptozotocin-induced diabetic rats (with Pharmacology, AIIMS).

Completed

1. Phenotypic, molecular and ultrastructural studies of coagulase negative *Staphylococcus* sp. and their biofilm in device-related infections (with Ocular Microbiology Unit, RPC)
2. Studies on Pharmacological and molecular mechanisms to investigate an angiotensin type I receptor blocker, Irbesartan in experimental model of ischemia-reperfusion injury (with Pharmacology, AIIMS).

PUBLICATIONS

Journals: 27 Abstracts: 16 Chapters in Books: 5

PATIENT CARE

Genetic Diagnostic and Counselling Services

Chromosome analysis

Yqmicrodeletion analysis by PCR	115	Karyotyping	680
Seminal ROS estimation	402		

Molecular screening

Corneal dystrophy	41	MEN2A syndrome	18
GHD & other miscellaneous cases	61		

<i>Embalming of Dead Bodies</i>	695		
For transportation	550	For teaching/research	14

Fluorosis Diagnostic Laboratory: Fluoride Estimation

Urine	48	Blood/serum	38
Drinking water	27		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shashi Wadhwa as Dean attended to all administrative matters pertaining to Academic Section till end of July. She was coordinator for Counselling of 7 AIIMS held in July 2013; Continued to be on various committees of AIIMS: Governing body, Institute body, Standing parliamentary Committee and Estate Committee; Chairperson, Deans' committee; Member, Patent cell committee and Institutional committee for stem cell research and therapy; External examiner for 6 MD/MS thesis of Lucknow University and one PhD thesis from Banaras Hindu University; Paper setter for integrated PhD course for NBRC, May 2013; Member of National Apex Committee for Stem Cell Research and Therapy and CSIR travel Grant committee; Reviewed Textbook of Neuroanatomy Eighth Edition by Inderbir Singh.

Professor R.D. Mehra was invited as external examiner for MD at King George's Medical College, April 2013; Awarded Dr Sukhbir Prasad Jain oration, Anatomical Society of India, November 2013; External examiner, Anatomy for 1st Professional MBBS at AIIMS-Rishikesh and Govt. Medical College, Srinagar; 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 of AIIMS; Member, Chronic Disease Biology (Neuroscience, biomarkers and neuroengineering) Task Force of DBT.

Professor T.S. Roy was nominated member, Executive Committee, Indian Academy of Neurosciences, 2013-14; Paper setter for integrated PhD course and external examiner at NBRC, Manesar, Haryana; External Examiner, MD thesis at KGMC, Lucknow, 2013-14; Invited external expert for selection of faculty members MD University Rohtak; Central Public Information Officer (CPIO) for RTI for Anatomy Department; Co-chairperson of the AIIMS animal ethics committee; Chairperson of the institute animal welfare committee; Member of various other committees of AIIMS: security advisory committee and MBBS curriculum committee; Member, Editorial board, Pancreas; Reviewed neuroscience research projects and annual project reports for ICMR and DST; Continued as executive and life member of Association of Gerontology, India; Coordinator and member of the Medical Council of India expert committee for evaluation of medical colleges in India; Examiner and expert for postgraduate examination and faculty selection committee for various Indian Universities; Member, Board of Studies, Department of Anatomy, Aligarh Muslim University, Aligarh; Member, Postgraduate Board of Studies in Anatomy, Pt. B. D. Sharma, University of Health Sciences, Rohtak; Reviewed manuscripts for the journals Clinical Anatomy, Pancreas, National Medical Journal of India, Indian Journal of Medical Research, Anatomical Society of India and Neuroscience Letters; Member, Review committee of intramural projects funded by AIIMS; UGC inspector for affiliation of MD Anatomy of HNB Garhwal University, Srinagar, Garhwal, November 2013; attended (i) Annual Conference of Indian Academy of Neurosciences, University of Allahabad, Allahabad, 25-27 October 2013, (ii) annual conference of the Indian Association of Medical Journal Editors, 16-17 November 2013, AIIMS, New Delhi, and (iii) National conference of the Anatomical Society of India, PGI Chandigarh, Chandigarh, 23-25 November 2013; received the Dr P.N. Dubey Gold Medal Award (November 2013) for Sharma S, Nag TC, Thakar A, Bhardwaj DN, Roy TS. Age associated

changes in the human cochlear nucleus—a three-dimensional modelling and its potential application in brainstem implants, 61st Annual meeting of the Anatomical Society of India, Nov 2013, Chandigarh.

Dr Pushpa Dhar was invited as Technical Subject Expert & External Expert, Selection Committee for Recruitment of Teaching Faculty at NDMC Medical College and Faculty Selection in Anatomy at LHMC (DU) respectively; Reviewed papers submitted to Journal of Experimental Pathology; Chaired Scientific Sessions: Histology, Histochemistry, Cytology & Immunology at NATCON61 (PGI, Chandigarh, 23/11/14); STOX, 2013; Preservation techniques of Human Body, Embalming & Museology at MAMC, New Delhi, 8 Feb 2014.

Dr Rima Dada received Award by International Society of Andrology for Role of paternal factors in Recurrent spontaneous abortions at Annual meeting of American Society of Andrology, Arizona, 4 April 2013; Received Lalor Foundation award and National Institute of Health award at 36th annual Meeting of American Congress of Andrology, 4-5 April 2013, Arizona, USA for her work on Sperm Factors-Underlying cause of childhood morbidity and Sperm DNA damage- Impact of assisted conception outcome; Jury member, Medical Research Council fellowships, Edinburgh and Royan International research awards in Reproductive Biomedicine and Stem cells, Iran; Reviewed articles submitted to Journal of Reproduction and Contraception, PLoS one, Am J Human Genetics, RBM online, Indian J Med Res, Andrologia, Fertility and Sterility, Mitochondria, BMJ case report, J Paediatr Neurol, J Paediatric Biochem, Indian J Urol Genetics and Molecular Research, Current Paediatr Res, Human Reproduction Expert Reviews in Gynaecology and Obstetrics, Asian J Androl, Indian J Biochem Biophys, Breast Cancer Res Treat; Reviewed projects submitted to DBT, ICMR, Indo US technology Forum and Wellcome Trust; Editorial board, J Paediatr Neurol and J Paediatr Biochem, Open Androl J, Int J Med; Nominated member, American Society of Andrology and Indian Society of Fertility; Member ICMR task force on male Infertility; Evaluated three MD and 2 PhD theses in Genetics; External examiner for PhD thesis at Hamdard University and JNU, New Delhi; Examiner for Genetics for BSc Genetics at Pt BD Sharma University of Rohtak; Member, Core committee for AIIMS convocation, AIIMS institute day exhibition and cultural evening, and Anti ragging committee, Institute Biosafety committee on Recombinant DNA research, Committee to look at improvement of standard of research activities in autonomous institutions; Faculty incharge of MBBS schedule and member of curriculum committee; Presented 3 posters at International symposium on genetics of male infertility at Florence in September 2013; Chaired a session and was judge at Asia Arvo meeting, October 2013, New Delhi, presented two posters on genetic evaluation in Congenital cataract and Genotype/phenotype studies in POAG. For this she and her team were awarded the second prize.

Dr Arundhati Sharma served as chairperson and judge in the ‘Ophthalmic Genetics’ sections of the ASIA-ARVO conference for the Genetics session and free papers presentations, respectively; Paper setter of MSc Molecular Human Genetics, Jiwaji University, Gwalior; External examiner for PhD theses from KGMU, RGUHS, BHU OU and BPKIHS, Nepal; Reviewed projects for Department of Biotechnology (DBT) and reviewed several papers from National and International journals; External Faculty for Genetics, Department of Molecular Human Genetics, Jiwaji University, Gwalior; Course coordinator for Human Molecular Genetics course conducted by DBT for M Biotech at AIIMS

Dr Renu Dhingra was Member of editorial board of journal of international society of plastination. Continue to be member of international society of plastination , executive member of DASMOS and member of teaching schedule committee of AIIMS , Member of the academic advisory panel for virtual teaching in AIIMS,committee for rules for student conduct. Member of DBT task force for premature placentas, Technical advisor-Anatomy Musculoskeletonultrasound society Reviewed research papers submitted to International journal of plastination. Reviewed research project submitted to ICMR.

9.3 Biochemistry

	Professor and Head Neeta Singh	
	Professors	
Subrata Sinha (on deputation)	D.N. Rao	Nibhriti Das
S.S. Chauhan	M.R. Rajeswari	P.P. Chattopadhyay
	Kalpana Luthra	
	Additional Professors	
Alpana Sharma		Kunzang Chosdol
	Assistant Professors	
Sudip Sen		Archna Singh

HIGHLIGHTS

- 31 research projects are ongoing in the department funded by various national and international agencies such as DBT, DST, ICMR, CSIR, DRDO, Indo-Canadian and UKIERI, amounting to Rs. 12.0 crores and 7 research projects were completed this year.
- 47 publications and 18 abstracts published in indexed National and International Journals.
- 1 book and 7 chapters in different books were also published by the faculty.
- Two faculty members received AIIMS Excellence award 2013 for best publications.
- Department faculty members have presented their research work at various national and international scientific forums.
- Seven guest lecturers were delivered in the department by eminent scientists from abroad.
- 8 MSc, 12 MD and 28 registered Ph D students in the department.
- Department organized symposium on “Integrating Teaching and Research at UG and PG level” and a workshop on Basics of Flowcytometry.

EDUCATION

Undergraduate

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

Postgraduate

These include 8 MSc and 12 MD students. The department also had 28 PhD students.

Conference Organized

1. The department organized a workshop on “Basics of Flowcytometry: Lectures & Workshop” on 23rd -24th December 2013 under Delhi Chapter of Indian Association for Cancer Research (IACR).
2. Organized Symposium on “Integrating Teaching and Research at UG and PG level”, on 11th February, 2014 at AIIMS, New Delhi.

Lectures delivered

Neeta Singh: 8

Shyam S. Chauhan: 1

Alpana Sharma: 7

D.N. Rao: 6

M.R. Rajeswari: 4

Sudip Sen: 2

Nibhriti Das: 3

Kalpana Luthra: 2

Archna Singh: 1

RESEARCH

Funded projects

Completed

1. Development of HPV18 chimaeric vaccine candidate. Neeta Singh, DBT, 2011–14, Rs. 23.85 lakhs.
2. To evaluate the FoxP3 mediated immuno suppression mechanism via chromatin remodelling during the leprosy disease progression. D.N. Rao, ICMR, 2011-13, Rs. 20.00 lakhs.

3. Translating head and neck cancer markers into diagnostic assays. S.S. Chauhan, DBT (Indo–Canada), 2010–13, Rs. 78.51 lakhs.
4. 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

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 Cancer Prognostic Test for prediction of aggressive disease in breast cancer patients. Neeta Singh, Indo-Canada, 2013–15, Rs. 40 lakhs.
3. Nano particle based vaccine for chikungunya. D.N. Rao, DST, 2013-16, Rs. 50 lakhs.
4. Effect of non-Ionizing electromagnetic field (EMF) on hematological and biochemical parameters of normal male & female volunteers. D.N. Rao, ICMR, 2012-15, Rs. 25 lakhs.
5. Effect of non-ionizing electromagnetic field (EMF) on human health. D.N. Rao, ICMR, 2010-15, Rs. 26.92 lakhs.
6. To clone and express E1 & E2 & E3 proteins of Chikungunya virus and synthesize peptide spanning these sequences to identify B & T cell epitopes to develop subunit vaccine for Chikungunya virus. D.N. Rao, 2011-14, DRDO, Rs. 36 lakhs.
7. Developing IgM based diagnosis for dengue disease, D.N. Rao, Intramural Grant, AIIMS, 2013-14, Rs. 5 lakhs.
8. To construct tetravalent antigenic peptide (TAP) specific to B and T cells epitope from envelope and NS1 proteins of dengue virus (DENV 1-4) and their evaluation for diagnostic and vaccine potential. D.N. Rao and Reeta Rai, DST Woman Scientist, 2013-15, Rs. 24.31 lakhs
9. To identify B and T cell epitopes and study their humoral and cell mediated immune response of peptides derived from envelope proteins of Chikungunya virus (Chik V), D.N. Rao and Santwana Pradhan, DBT Women Bio Care, 2013-15, Rs. 25.70 lakhs
10. A new research partnership between the university of Liverpool and AIIMS India, Nibhriti Das UGC-UKIERI. (Intentional proposal). 2013-15, Rs. 20.35 lakhs.
11. A Study on Clinical Significance of PTEN Regulated Genes in Human Primary Glioblastoma. S.S. Chauhan, DBT, 2013-16, 49.98 lakhs
12. 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.
13. Plasma Circulating Mitochondrial DNA In The Assessment Of Friedreich's Ataxia (FA), M.R. Rajeswari, ICMR, 2013–16, Rs. 34.60 lakhs.
14. Impact of transcriptional gene silencing of HIV1C on ecto-enzymes and negative co-stimulatory molecules expressed by T cell subsets: relevance to chronic immune activation in HIV infection. P Chattopadhyay, DBT, 2013-16 Rs. 22.23 lakhs.
15. Promoter mediated tumour cell targeting by siRNA mediated gene silencing. P Chattopadhyay, DBT, 2011-14, Rs. 33.54 lakhs.
16. Identification of neutralizing antibody epitopes on Indian and South African HIV-1 subtype C viruses for HIV vaccine design. Kalpana Luthra, DST, 2011-15, Rs. 85.5 lakhs
17. Functional characterization of Dendritic cells in HIV-1 Infection. Kalpana Luthra, DST, 2012-15, Rs. 37 lakhs
18. Evolution of the HIV-1 clade C envelope in chronically infected Indian pediatric patients. Kalpana Luthra, DBT, 2012-15, Rs. 92 lakhs.
19. Immune network in the pathogenesis of pediatric HIV-1 infection. Kalpana Luthra, DBT, 2012-15, Rs. 79.8 lakhs
20. Characterization of genetic diversity and neutralizing antibody response in HIV-1 infected Indian children. Kalpana Luthra, ICMR, 2011-14, Rs. 29 lakhs
21. Generation and characterization of pseudoviruses from Indian HIV-1 infected patients. Kalpana Luthra, AIIMS, 2012-14, Rs. 6 lakhs.
22. Study of Th-1 and Th-2 type cytokine gene polymorphism and their association with Parthenium induced contact dermatitis. Alpana Sharma, 2010-13, Rs. 25.33 lakhs.
23. Study of T cells and its Scavenger Receptor (SCART) in the pathogenesis of autoimmune skin disorder:

- Pemphigus Vulgaris. Alpana Sharma, DBT, 2011-14, Rs 47.51 lakhs.
24. Study of circulatory levels of Fibulin-1 and Nidogen (Extracellular matrix proteins) in multiple myeloma. Alpana Sharma, AIIMS, 2011-13, Rs. 3 lakhs.
 25. Study of TH17 and Treg Lymphocytes in the Pathogenesis of Pemphigus Vulgaris. Alpana Sharma, CSIR, 2012-15, Rs. 28 lakhs.
 26. Molecular and proteomic profiling of HAS in transitional cell carcinoma. Alpana Sharma, ICMR, 2012-15, Rs. 29.59 lakhs.
 27. To analyze 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.
 28. Hypoxia and notch signaling in glioblastoma: Implications for an adverse phenotype. Kunzang Chosdol, DBT, 2011-14, Rs. 47.81 lakhs.
 29. Integrative investigation on critical transcriptional modules involved in proliferation of malignant cells. Sudip Sen, DBT (Twinning program for the North East, Guwahati), 2012-15, Rs. 27 lakhs.
 30. Isolation and molecular characterization of colorectal cancer stem cells. Sudip Sen, AIIMS, 2012-13, Rs 5 lakhs.
 31. Effect of heating on the trans-fatty acid content of commonly consumed Indian edible oils and fried snacks in South Delhi. Archana Singh, DST (SERC FAST TRACK SCHEME), 2011-14, Rs. 17 lakhs.

Departmental projects

Completed

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

Ongoing

1. Development of HPV18 candidate vaccine prototype.
2. Evaluation of genetic alterations in DNA repair genes and mitochondrial DNA in HPV associated cervical cancer progression
3. Effect of non-ionizing Electro Magnetic fields (EMFs) on human health
4. Evaluation of effects of metformin on epithelial ovarian cancer
5. Development of Cancer Prognostic Test for prediction of aggressive disease in breast cancer patients.
6. Thermodynamic Stability of Binding of Triplex Forming Oligonucleotides with Different Regions of *hmg1* Gene and Their Effect on *hmg1* Expression.
7. 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.
8. In vitro stability and thermodynamics of DNA triple helices, targeted to *hmg1* and their effect on *HMGB1* expression in cancer.
9. Effect of iron availability on the survival of β -lactam-resistant *Acinetobacter baumannii*: A proteomic approach.
10. Production and Characterization of Human Antibodies against the Envelope Glycoprotein of HIV-1 (Clade-C).
11. Genetic polymorphisms of *IRS-1*, *TNF- α* and *PPAR α* in insulin-resistance and their association with metabolic profile.
12. Generation and characterization of single chain variable region (scFv) antibody fragments against envelope gp120 of HIV-1 clade C.
13. Molecular and immunological characterization of Indian HIV-1 subtype C primary isolates Purification and characterization of clones from HIV-1 anti-V3 human scFv phage library.

14. Th1 and Th2 Cytokine gene polymorphism in parthenium induced contact dermatitis.
15. Study of Hyaluronic acid signaling cascade in Urothelial carcinoma.
16. Study of cytokines, transcription factors , chemokine receptors and their ligands of Th17 and Treg cells in pemphigus vulgaris.
17. Expression of cytokines and transcription factor of Th17 cells in patients of transitional cell carcinoma of the bladder.
18. Expression of Versican, and its associated molecules in Indian patients of multiple myeloma.
19. Study of small-leucine rich proteoglycans in transitional carcinoma of urinary bladder.
20. Study of telomerase activity and shelterin complex and its associated factors in multiple myeloma.
21. Generation and characterization of recombinant immune antibody libraries for hepatitis B virus.
22. FAT1 and inflammation related pathways in glioma.
23. FAT1 and YAP1: Functional interaction and role in glioma cell survival and proliferation
24. Regulation of FAT1 gene expression in glioma.
25. To study the gene expression in GBM cell lines under different degrees of hypoxia and the role of p53 in HIF1 regulation under severe hypoxic condition.
26. Analysis of gene expression in colorectal cancer stem cells.
27. Analysis of the expression of mucins and angiogenesis markers in human oral mucosal epithelial cells (OMEC) on using mycophenolate mofetil (MMF) and Bevacizumab (BVCZ) *in vitro*.

Collaborative projects

Completed

1. Role of cobalt chloride induced hypoxia on MA10 cells (Dept of Reproductive Biology, AIIMS).
2. Isolation and analysis of the outer membrane proteins, beta lactamases of *Acinetobacter baumannii* (Dept of Microbiology, AIIMS).
3. A comparative evaluation of levels of interleukin-1- α in GCF during canine distraction and canine refraction, (Dept of Dental Surgery, AIIMS).
4. An evaluation of the effect of shortened dental arches on the bite force and mastication efficacy- A pilot study, (Dept of Dental Surgery, AIIMS).
5. Structural Characterization of Plasmodium vivax Tryptophan rich antigens (Dept of Biotechnology, AIIMS)
6. Mitochondrial CNA, CNA and other biochemical parameters of neurological disorders Freidreich's ataxia and spinocerebellar ataxia, 2, 3 ,12 (Dept of Neurology, AIIMS).
7. Proteomic analysis of host parasite interactive proteins of Cryptosporidium, (Dept of Microbiology, AIIMS).
8. Characterization of Salmonella Enterica Serotype Typhi strains from north India, (Dept of Microbiology, AIIMS).

Ongoing

1. To study the safety in efficacy of intravenous estrogen as an therapeutic adjunct for the treatment of Trauma Hemorrhagic shock patients (Trauma Centre)
2. To study the role of erythropoietin in Trauma Hemorrhagic shock patient through stem cell differentiation; an in vitro approach (Trauma Centre)
3. To study the effect of climate, air pollution, and socio economic factors on health (immunological) and disease state (Rheumatoid Arthritis) (Department of Medicine, AIIMS).
4. Study on role of intensive physiotherapy and tms on growth factors as biomarkers for stroke recovery (Department of Neurology, AIIMS)
5. HMGB1 proteins in periimplantitis around temporary anchorage device (TAD) (Centre for Dental Sciences and Research, AIIMS).
6. Development of diagnostic panel of blood biomarkers for acute ischemic stroke: (Dept. Of Neurology, AIIMS)
7. Evaluation of cytokines in patients undergoing total hip replacement and their correlation with osteolysis (Department of Orthopedics, AIIMS).
8. Impact of transcriptional gene silencing of HIV1C on ecto-enzymes and negative co-stimulatory molecules expressed by T cell subsets: relevance to chronic immune activation in HIV infection (Department of HLA, AIIMS).

9. Determination of catecholamines and their metabolites in Vitiligo patients undergoing melanocyte transplantation (Department of Dermatology, AIIMS)
10. Elucidating Foxp3 expression and Foxp3 promoter methylation level in active non-segmental Vitiligo (Department of Dermatology, AIIMS).
11. To study the role coenzyme on oxidative stress mediated dysfunction and idiopathic recurrent miscarriage (Obst. Gynec., AIIMS)
12. Structural characterization of *plasmodium vivax* tryptophan rich antigens" (Dept of Biotechnology, AIIMS).
13. Effect of progressive resistance exercise training (PRT) on hepatic fat in Asian Indians with non-alcoholic fatty liver disease (NAFLD) (Dept. of Medicine, AIIMS).
14. Effect of hypoxia on the expression of PPARs and angiogenic factors in trophoblast cells- an in vitro study (Dept. of Anatomy, AIIMS).
15. Role of T helper cytokines in skin autoimmune disorder Pemphigus vulgaris. (Dept. of Dermatology & Venereology, AIIMS)
16. Study of catecholamines in melanocyte transplanted patients of vitiligo (Dept. of Dermatology & Venereology, AIIMS)
17. Study of T regulatory cells in Vitiligo (Dept. of Dermatology & Venereology, AIIMS)
18. Epithelial-Mesenchymal transition (EMT) in carcinoma of the eyelid- An immunohistochemical and molecular study. (Dr. R.P. Centre, AIIMS)
19. Isolation and molecular characterization of human bone marrow derived mesenchymal stem cells (Dept. of Orthopaedics, AIIMS)
20. Molecular alterations of microscopic pre-neoplastic lesions in human colorectal mucosa: searching new possibilities for future colorectal cancer screening(Dept. of Pathology, AIIMS).
21. Development of Objective light microscopic and morphometric criteria for diagnosis and follow-up of Celiac disease in Indian patients (Dept. of Pathology, AIIMS)

PUBLICATIONS

Journals: 46 Abstracts: 18 Chapters in Books: 7 Book: 1

PATIENT CARE

Tumor marker tests	:	1579
PSA	:	86 samples
CA 19.9	:	653 samples
CEA	:	840 samples

AWARDS, HONOURS AND SIGNIFICANT EVENTS

1. **Dr Anand Singh** awarded Dr Arun Fotedar Memorial award for PhD student 2013 by The AIIMSONIANS.
2. **Dr Sujata Pathak** awarded Shri Mohanlal Wig Gold Medal for the best work in clinical research 2012 at the Institute day, 25 Sept 2013.
3. **Dr Sandeep Agrawal** and **Dr Janvie Manhas**, MD students awarded ICMR thesis grant, August, 2013
4. **Khushboo Irshad** (PhD student) awarded First prize for an oral presentation and Best Paper Award in Cancer Neurobiology at the AIIMS-NBRC Post Graduate Symposium on 'Frontiers in Neuroscience Research', New Delhi, September 28, 2013
5. **Dr Janvie Manhas** awarded Prof. L. M. Srivastava Gold Medal for best oral presentation at 3rd Annual CME of Clinical Biochemistry at Sir Ganga Ram Hospital, Delhi (23rd March, 2014), best oral presentation at AMBI CME at Lady Hardinge Medical College & Hospital (6th March, 2014 and 3rd Prize (Poster presentation) at 4th International conference on stem cells and cancer (ICSCC-2013) at Mumbai; 2013

Professor Neeta Singh was awarded Shri R J Kinarivala Research Oration Award, 2014 to recognize & felicitate lifetime service of a person in the field of Oncology, by Gujarat Cancer Society and Gujarat Cancer Research Institute, Ahmedabad; Member, selection committee for faculty selection of Employees' State Insurance Corporation (ESIC); Ram Manohar Lohia Inst. of Med. Sciences, Lucknow; Institute. of Liver & Biliary Sciences, New Delhi. Expert member of assessment committee for regularization of Scientists of Rajiv Gandhi Centre for Biotechnology, Trivandrum and for assessing performance of scientists at NII; Member of Deans Committee, B. B. Dixit Library

Committee, PhD reforms committee, Hospital Management Committee and Anti ragging Committee of AIIMS; Chairperson, Teaching Schedule Committee, Sexual harassment committee, Womens grievances committee. Elected President, Indian Association for Cancer Research for 2014-16, Editorial Board member, Indian Journal of Clinical Biochemistry; 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 Radical Research in India, Asia-Oceania Research Organization in Genital Infection & Neoplasia (AOGIN), Association for Clinical Biochemists of India (ACBI) and Fellow of National Academy of Medical Sciences, India. Chairperson, Life Sciences Committee of Women Scientists Scheme of DST. Core committee member of ACBICON-2013, New Delhi, 3–6 December 2013; Project Reviewer, Ganga Ram Hospital, DBT, DST, ICMR, CSIR, Council for Science and Technology-UP; Reviewed manuscripts for J of Interferon and Cytokine Research, Intl. J. of Cancer, Indian J Clin Biochem, Current Science, Archives of Medical Research; External examiner, PhD thesis of Mumbai University, ACTREC/BARC, Mumbai, Banaras Hindu University, Jamia Hamdard University, Kerala University, KGMU Lucknow, Delhi University, Gujarat University & for MD at BPKIHS, Dharan, Nepal. Moderate & onsite assessor for DNB in Biochemistry at National Board of Examination, New Delhi; Member, Review board for framing guidelines for submission of research work for publication by residents/PhD scholars, Member of Technical Committee/Specifications Committee for procurement of equipment at six AIIMS like Institutes/HLL, for ICMR, and for VPCI, Delhi University. Chairperson of counselling committee for MSc nursing, AIIMS, New Delhi. Visitors nominee on the selection committee for the appointment of faculty under the school of Chemical Science & Pharmacy at the Central University of Rajasthan, Member of the Committee for development of minimum standards under the National Council for clinical establishments under Ministry of Health & Family Welfare. Organized talk on Gender sensitization at AIIMS. Member of the AIIMS committee for DMA Diamond jubilee award - 2012 for best all rounder MBBS student. Member of curriculum committee of MSc Cancer Biology course of Gujarat Cancer Institute, Ahmedabad; Chaired session on Lifestyle and reproductive health, National Symposium on changing environment and lifestyle: Impact on reproductive health (NSCEL-2013), 19 November 2013; Chaired session at 33rd Annual convention of IACR held at Kollam, Kerala on 14th February 2014.

Professor D.N. Rao was Recipient of Dr Pran Nath Chuttani Oration Award by National Academy of Medical Sciences, New Delhi, Vice president of FIMSA; Secretary of Indian Immunology Society; Officer In-charge, CAF and Ethics Committee member of various institutions in Delhi, SAC member, project review member of various extramural funding agencies by DST, DBT and ICMR; Selection committee member of various medical colleges and universities; Ethical committee member of small animals of AIIMS and other institutions in Delhi. Conducted CME programmes in Immunology at various places in India.

Professor Nibhriti Das was Member organizing committee of ACBICON-2013: December 03-06, 2013 at New Delhi. (Co-chairperson, Scientific Committee; Chairpersons in different sessions; Judge for poster sessions); Member National Advisory Committee; Chairpersons in different session; Judge in young scientist presentations IMMUNOCON-2013; Chairperson in different sessions ISARCON-2013; Organized and presented as the AIIMS team leader at the 1st UKIERI Workshop at New Delhi, 18-20 March, 2014 “A new research partnership between the university of Liverpool and AIIMS, India”. 3rd Annual CME of Clinical Biochemistry-”Thinking beyond the routine” at Department of Biochemistry, Sir Gangaram Hospital, New Delhi, March 23, 2014. (Judge for young scientists award presentations). Life Member Indian Immunology Society, IUIS, FIMSA, National Environmental Science Academy, Association of Cell Biology, Association of Clinical Biochemists of India, Indian Society for Atherosclerosis Research, International Society for Atherosclerosis Research, Member of the International Complement Society, Professional Member of the American Heart Association, Advisory Board of the Biosciences Research Institute, Chennai, India, Treasurer of the Indian Immunology Society for the year 2010-2013. Member of the Award Committee, Indian Society for Atherosclerosis Research. Member of the Selection Committee for faculty selection of ESIC, Delhi, University of Health Sciences, Rohtak (Haryana), Reviewer of projects submitted to ICMR & DST. Reviewed manuscripts to international journals like Lupus, BBA, Mol. Immunology, Immunobiology, Human Hypertension, NMJI, IJCB, IJMR, etc. Member of instrument specification committees for Physiology and Medicine at AIIMS.

Professor Shyam S. Chauhan was Member Central Recruitment Committee of Research Staff, Apex Condemnation Committee, Institute day celebration Committee, Biotechnology Teaching Advisory Committee.

Professor M.R. Rajeswari was Elected as Fellow of Andhra Pradesh Academy of Sciences 2013 ; Received “Shiksha

Rattan Puraskar”, 2013; continues to be the Standing Committee Member of the National Mission on Education through - SAKSHAT- Initiative by Min. Hum. Res. Dev. (MHRD). Expert Mentor for DST-INSPIRE (Innovation of Science Pursuit for Inspired Research) programme. Continues to be Member Of Executive Council for “Society For Neurochemistry, India” and DNA Society of India.

Professor Kalpana Luthra received AIIMS Excellence Award in Research, September 2013 (2nd prize) Member of PRC (Project Review Committee) ICMR. Member Annual Report Editing Committee, AIIMS. Patent: A human anti-HIV monoclonal antibody generated in our lab was patented and awarded South African patent for the technology “Neutralizing human anti-V3 monoclonal antibodies and use thereof for the production of vaccine against HIV”. Patent granted in February 2014 (ZA Patent no. 2013/04490).

Dr Alpana Sharma was Project review committee member R & D Twinning program for NE region (DBT), Elected Executive member, Indian Immunology Society and Indian Academy of Biomedical Sciences. Reviewer for projects from DBT, DST and ICMR. External Examiner for PhD, MD and MBBS. at KG Med. Univ , Lucknow, Gajaraja Med College, Gwalior, Univ of Kashmir, AIIMS Bhubaneswar, AIIMS Rishikesh, MLN Med College, Allahabad and Delhi University. Active member of American Association for Cancer Research , Member Int Gyne Cancer Society, Ind Academy of Biomedical sciences. Subject expert for MCQ validation at National Board of Exam (NBE), New Delhi. Reviewer for various journals: Clin Chimica Acta, Annals of Hematology, Clinical Immunology, Leukemia and Lymphoma, Int J Gyne cancer, BMC Cancer etc. Technical Expert for Clinical Biochemistry Equipments purchase committee at VMMC, Safdarjung Hospital , New Delhi. Member Annual Report Committee, AIIMS.

Dr Kunzang Chosdol was Awarded the third prize, AIIMS Excellence award 2013, Course Co-ordinator for training in basic research techniques for Faculty members of AIIMS. Project review committee member DBT. Reviewer for projects from DBT. External examiner for PhD, MPhil, MBBS of various institutes. Chaired session on ‘Cancer biology’ in ACBI and IACR annual Conferences. Member, Indian Association for Cancer Research (IACR), Association for Clinical Biochemists of India (ACBI), Society for NeuroChemistry of India (SNCI), Indian Society of Neuro Oncology (ISNO).

Dr Sudip Sen was External expert for a selection committee for selecting Research project staff at NII, New Delhi. Continue to be a member of American Association for Cancer Research (AACR), European Association for Cancer Research (EACR), Indian Association for Cancer Research (IACR), Association for Clinical Biochemists of India (ACBI), Association of Medical Biochemists of India (AMBI).

Dr Archana Singh was awarded 2nd prize at PHFI Research Symposium, 20-21 March, 2014 for poster presentation and Consolation Prize at 46th Annual IDA conference held at Pune from 12th-14th December, 2013 for poster

VISITING SCIENTISTS

1. Prof. Srinivas N. Pentylala, Director of Translational Research, Stony Brook Medical Centre, New York, USA on “Serendipity in Translational Research: Development of Drugs, Diagnostics and Devices” on 31st August, 2013.
2. Dr. Balaji Narasimhan, Iowa State University, Ames, USA on “Pathogen Mimicking Nanovaccine Platform Technology : A New Paradigm” on 10th October, 2013.
3. Prof. Steven Edward Liverpool University UK on “Interferon gene expression signature in rheumatoid arthritis neutrophils predicts response to anti-TNF therapy” 28th Oct.13
4. Prof. Philip Andrew, Department of Biochemistry and Chemistry, University of Michigan, USA on “Dynamics of Histone Modifications and Applications of Structural Mass Spectrometry” on 11th November, 2013.
5. Dr. Vivek Mittal from Weill Cornell Medical College, New York, USA on “Targeted therapeutic strategies for metastatic breast cancer” on 10th December, 2013.
6. Dr. S. Vijayaraghavan, Professor of Biochemistry, Kent State University, USA on “Signaling proteins associated with sperm motility and its impact on male fertility” on 12th February, 2014.
7. Dr. C.C. Mandal, current affiliation: Faculty at Central University of Rajasthan; PDF: Dept. of Pathology, University of Texas Health Science Center at San Antonio, Texas, USA on “ To atherosclerosis and beyond – novel therapeutic viewpoints of statins in breast cancer and skeletal metastasis” on 31st March, 2014.

9.4 Biomedical Engineering

Veena Koul

Professors

Sneh Anand

Harpal Singh

Associate Professor

Nivedita Karmarkar Gohil

Assistant Professors

S.M.K. Rahman

Sandeep Kumar Jha

Dinesh Kalyanasundaram

Anup Singh

Neetu Singh

HIGHLIGHTS

The department has collaborative projects with major institutes and hospitals in India. Over the years the department has become a premier centre in the country and has provided interdisciplinary base to develop healthcare technologies. Our focus has always been on thrust area projects of national importance, which are: (i) diagnostics and therapy; (ii) mechanistic studies to understand disease processes; (iii) tissue engineering; (iv) biomedical implants; and (v) medical electronics.

The department continues to work on focused areas of national medical importance. Also, with changing scenarios in the funding agencies, the department is hoping to further strengthen the technology output programs by having more Technology Business Incubator Units (TBIU). We also intend to strive for increased industry-academia interaction for technology transfers. To inculcate and strengthen entrepreneurship among our students we plan to organize various seminars throughout the year and invite 'Role models' and industries to participate. In addition, CBME will co-ordinate a course/workshop on Bioethics and Entrepreneurship.

New inductions

The department has hired four new faculties in past one year to further strengthen its research and academic endeavours. These faculties have diversified expertise in areas related to medical diagnostics, imaging, etc. We have also undertaken modernization and creation of common facilities/labs in the past one year. The following research facilities/labs are being initiated: (i) Common Chemistry lab (Wet lab); (ii) Lab-on-a-chip facility; (iii) Animal cell and microbial cell culture facility; (iv) Medical Imaging laboratory; (v) Prototyping & medical device laboratory; (vi) Experimental Biology laboratory; (vii) Bio-Instrumentation laboratory; (viii) Biomedical Nanotechnology; (ix) Drug delivery laboratory; and (x) Bioelectronics Lab.

A safety Committee was constituted in March 2014. The committee will be identifying and evaluating hazards in our laboratories and addressing the same. Some of the immediate actions planned are:

1. Outsource the disposal of laboratory waste to authorized waste management organization.
2. Modernization of laboratories as per good laboratory practices:
 - a) Safety signs such as exit, biohazards, and others to be posted in each laboratory and in corridors.
 - b) Install eyewash/showers, fire extinguishers at appropriate places.
3. Laboratory safety inspections to be scheduled every month.
4. Compulsory safety training for new and old students/research staff/technician working in laboratories.
5. Conduct safety training regularly.

Conferences attended by faculty/students (Abroad)

1. A paper strip based non-invasive glucose biosensor for salivary analysis. "Biosensors 2014" 24th Anniversary World congress on Biosensors. 27-30 May. Melbourne, Australia
2. Transverse Relaxation Amplified by Chemical Exchange (TRACE): A New Method for Mapping Molecular Integrity of Cartilage, Joint Annual Meeting ISMRM-ESMRMB (2014), p-1496.
3. A study on T1 ρ mapping of Healthy and Fibrotic Human Liver, Joint Annual Meeting ISMRM-ESMRMB (2014), p-2159.

4. Reproducibility of High-Resolution T1 ρ Mapping of Human Knee Cartilage at 7T, Joint Annual Meeting ISMRM-ESMRMB (2014), p-7228.
5. pH Dependence of gagCEST at 7T, Joint Annual Meeting ISMRM-ESMRMB (2014), p-305. (Oral)

Conferences in India

1. Design and Evaluation of EGCG loaded Gelatin Nanofibrous Scaffold for Excisional Wound, APA International Conference on Polymers: Vision & Innovations (APA 2014) February 19-21, 2014, India Habitat Centre, New Delhi, India (*Invited Talk*)
2. Studies on Biocompatibility and Cell Material Interactions of Dual Targeted pH-Responsive Doxorubicin Conjugated ATRP Fabricated pPEGMA-PCL-pPEGMA Polymeric Nanoparticles. APA International Conference on Polymers: Vision & Innovations (APA 2014), February 19-21, 2014, Indian Habitat Centre, New Delhi, India
3. Redox Sensitive Amphiphilic Tri-block copolymer pPEGMA-PCL-ss-PCL-pPEGMA Polymersomes as Vehicles for Drug Delivery, APA International Conference on Polymers: Vision & Innovations (APA 2014), February 19-21, 2014, Indian Habitat Centre, New Delhi, India
4. Multifunctional neurosurgical instrumentation for microscopy and endoscopy, Poster Presentation, 16th Annual Conference of Delhi Neurological Association, India Habitat Centre, New Delhi on February 1-2, 2014.

COLLABORATIONS

The department is actively engaged in collaborations with various national and international organizations and these have been strengthened in past one year and new collaborations have been established.

International

1. Professor Sakhti Kumar, Toyo University, Japan and IITD, Under BNER Programme
2. Professor Kharbanda, Dana Farber Cancer Institute, USA
3. Professor Pranav Soman at Syracuse University.

National

1. All India Institute of Medical Sciences (AIIMS), New Delhi: Departments of Homeopathy, Pathology, Physical Medicine and Rehabilitation, Anaesthesia, Surgery, Neurosurgery, Hematology, Microbiology, Biostatistics, Physiology, Orthopedics, Radiology, ENT, Biotechnology, NMR and Stem Cell facilities.
2. Dept. of Physiology and applied science (DIPAS)
3. Central Electro Chemical Research Institute (CEECRI), Karaikudi
4. Fortis Hospital, Gurgaon, Haryana
5. Safdarjung Hospital, New Delhi
6. National Chemical Laboratory, Pune
7. National Institute of health and family welfare (NIHFW), New Delhi
8. Inter University Accelerator Centre, New Delhi
9. Central Scientific Instrumentation Organization, Chandigarh
10. Postgraduate Institute (PGI), Chandigarh
11. Sir Ganga Ram Hospital, New Delhi
12. Raja Ramanna Centre for Advance Tech., Indore
13. Christian Medical College, Vellore
14. Department of AYUSH, Ministry of Health & Family Welfare, New Delhi

Inter-departmental

1. Department of Chemistry, IIT Delhi
2. Department of Biochemical Engineering & Biotechnology, IIT Delhi

3. Centre for Polymer Science & Technology, IIT Delhi
4. Department of Chemical Engineering, IIT Delhi
5. Department of Applied Mechanics, IIT Delhi
6. School of Biological Sciences, IIT Delhi
7. Department of Mechanical Engineering, IIT Delhi
8. Department of Applied Mechanics, IIT Delhi
9. Department of Chemical Engineering, IIT Delhi

Intra-departmental

1. Dr Sandeep K. Jha (PI); Professor Sneh Anand (Co-PI), Mr S.M.K. Rahman (Co-PI), DBT project
2. Dr Dinesh Kalyanasundaram (PI), Dr Sandeep K. Jha (Co-PI) DST project
3. Professor Sneh Anand (PI) and Professor Veena Koul (Co-PI)
4. Professor Veena Koul, Dr Nivedita K. Gohil, Dr Neetu Singh

With industry

1. AVM healthcare, Noida, UP
2. RMS, Chandigarh
3. Timpac Healthcare, Narayana, New Delhi
4. HCL Healthcare, New Delhi
5. SGST Gurgaon
6. Excel Soft, New Delhi
7. Neurosynaptic Premier Units, New Delhi

RESEARCH

Funded projects

Ongoing

1. Designer biodegradable copolymers from renewable resources: Evaluation of Properties and Applications, Harpal Singh, CBME, IIT Delhi, Rs. 88.0 lakhs, DBT, Delhi
2. Development of polymeric films for absorption of blood biological fluids, Harpal Singh, CBME, IIT Delhi, Rs. 12.0 Lakhs INMAS, DRDO, Delhi
3. Mathematical Modeling and Analysis of Medical Images Using Soft Computing, Sneh Anand, Rs. 53.2 Lakhs, Department of Biotechnology, Ministry of Sc.& Tech
4. Development of Low-Cost Versatile Endoscopic Equipment System for Neurosurgery (Ventricular, Intra-Cranial and Skull-Base surgery), Sneh Anand, Department of Science & Technology (DST) Rs. 32.1 Lakhs
5. Development of Novel Polymer Based Formulation for Decorporation of Heavy Metals Using Approved Chelating Agents, Harpal Singh, Rs. 20.1 Lakhs, Department of Science & Technology (DST)
6. Monitoring cognition of healthcare workers in emergency & intensive care setting & its relation to medical error, Sneh Anand, Rs. 29.4 Lakhs, ICMR, New Delhi

PUBLICATIONS

Journals: 17

Abstract: 1

New courses offered

Course code	Course Name	Credits	Developed by	Status
BMV700	Biomechanical Design of Medical Devices	1-0-0	Dinesh K	Active
BML750	Point of care medical diagnostic devices	3-0-0	Sandeep K. Jha	Waiting for approval
BML770	Fundamentals of Biomechanics	3-0-0	Dinesh K.	Waiting for approval
BML735	Biomedical signal and Image Processing	3-0-0	Anup Singh	Waiting for approval
BML720	Medical Imaging	3-0-0	Anup Singh	Waiting for approval
BML736	Mathematics for Biomedical Engineers	1-0-0	Anup Singh	Active

AWARDS

1. Ms Sonal Atreya was awarded Second Best Poster of IIT Delhi Open House 2014.
2. Mr Ramandeep Singh was awarded First Best Poster at 16th Annual Conference of Delhi Neurological Association held at Indian Habitat Centre from 1st-2nd Feb' 14.
3. Dr Neetu Singh. 2014. Innovative Young Biotechnologist Award. DBT India
4. Shatanu Lale awarded Dogra Endowment Medal for Best Publication in CBME for the year 2014

Technology transferred

TBIO Unit for development of opto electronic hemoglobinometer (Wrig Nanosystems Pvt. Ltd., New Delhi) (V. Koul)

9.5 Biophysics

Distinguished Biotechnology Research Professor

T.P. Singh

Professor and Head

Punit Kaur

Professor

A. Srinivasan

Additional Professors

Savita Yadav

Sujata Sharma

Krishna Dalal

Assistant Professors

Sharmishtha Dey

G. Hariprasad Rao

Ethayathulla A.S.

Scientists

S. Baskar Singh

Asha Bhushan

HIGHLIGHTS

The department had over 17 ongoing research projects funded by extramural grants. Research in the department is concerned with determining the molecular basis of biological process, rational structure based drug design and discovering new specific biomarkers. The department provides facilities for data collection on protein and small molecule crystals, medical bioinformatics, protein sequencing and peptide synthesis, proteomics and dynamic light scattering. The department had received a Fund For Improvement of Science and Technology Infrastructure in Higher Educational Institutions (FIST) grant from Department of Science and Technology (DST), Govt. of India, which has been ongoing in the last year. In the past year, faculty and scientists had 45 research publications in various peer reviewed journals. The department continued providing postgraduate education and short and long term training to MSc, PhD and MD students. The faculty members and scientists were invited to deliver lectures and seminars all over the country.

EDUCATION

Postgraduate

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

Short and Long term Training

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

Lectures delivered

T.P. Singh: 9 Punit Kaur: 6 Savita Yadav: 5

Krishna Dalal: 2 Hariprasad G.: 5

Oral papers/posters presented: 36

Funded projects

Ongoing

1. Protein Structure determination and drug design, T.P. Singh, DBT, 5 years, 2009-2014, Rs. 55 lakhs
2. Fund for Improvement of S&T infrastructure in universities & higher educational institutions, Punit Kaur, DST, 5 years, 2012-2017, Rs. 323 lakhs
3. Rational Structure-based development of anti-viral protease inhibitors: *In Silico* and Experimental Drug Design against dengue Non Structural Protein 3, Punit Kaur, ICMR, 2 years, 2012-2014, Rs. 34 lakhs
4. Bio-Medical Informatics Facility at AIIMS, Punit Kaur, ICMR, 5 years, 2013-2018, Rs. 100 lakhs

5. Protein interactions of Alzheimer's peptide: picking those relevant to pathogenesis ICMR, A. Srinivasan, ICMR, 3 years, 2011-2014, Rs. 28.2 lakhs
6. Diversity of shell proteins from mollusks along Parangipettai coast (East coast of India), A. Srinivasan, Ministry of Environment and Forests, 3 years, 2012-2015, Rs. 34.3 lakhs
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 & Forestry, 3 years, 2012-2015, Rs 20.6 lakh
8. HE4: A potential multifaceted role in human reproduction, Savita Yadav, DST, 3 years, 2012-2015, Rs. 28.87 Lakh
9. Human Serum Albumin- Prolactin Inducible Protein (HSA-PIP) complex in seminal plasma: Role in fertility/ Infertility. Savita Yadav, ICMR, 3 years, 2012-2015, Rs. 44 lakh
10. Three-Dimensional Structure determination of Methionine Aminopeptidase (MeTAP) from a multidrug resistant pathogenic bacteria, *Acinetobacter Baumannii*, Sujata Sharma, DBT, 3 years, 2012-2015, Rs. 9 lakhs
11. 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, 3 years, 2011-2014, Rs. 41 lakhs
12. 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, 3 years, 2011-2014, Rs. 29 lakhs
13. Determination of efficacy and safety of reflexology therapy for the patients with intractable epilepsy: a multi-centre randomized clinical trial, Krishna Dalal, DBT, 2 years, 2012-2014, Rs. 134 lacs
14. Development of p38 β mitogen activated protein kinase as a biomarker in oral cancer, Sharmistha Dey, ICMR, 3 years, 2010-2014, Rs. 20 lakhs
15. Development of sirtuin as protein marker for diagnosis, Sharmistha Dey, AIIMS, 2 years, 2013-2015, Rs. 10 lakhs
16. Comparative proteomic analysis of ovarian cancer tissue to understand the protein profile of responders and non-responders to first line chemotherapy, Hariprasad G., AIIMS, 2 years, 2013-2015, Rs. 5 lakhs
17. Studies on Gamma Synuclein as a potential tumour marker and possible drug target for breast cancer patients, S. Baskar Singh, AIIMS, 2 years, 2014-2016, Rs. 10 lakhs

Completed

1. Purification, Crystallization and structure determination of Disintegrin and Integrin – Disintegrin Complex, Savita Yadav, DST, 3 years, 2004-2007, Rs 8.1 lakhs
2. Isolation, Purification and structural and functional characterization of new proteins from seminal plasma, Savita Yadav, DST, 4 years, 2008-2012, Rs 22.8 lakhs
3. Purification, Biochemical and functional characterization of heparin binding proteins in human seminal plasma, Savita Yadav, DBT, 4 years, 2008-2012, Rs 27.2 lakhs
4. Extraction, purification and characterization of medicinal proteins from plant source having antimicrobial, anti-inflammatory and anti-cancer properties, Sharmistha Dey, ICMR, 2 years, 2012-2014, Rs. 10 lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. Demonstration of the functioning of Optical Coherence Tomography (OCT) instrument (which is proposed to be newly procured and to be installed) on human skin (up to a depth of 2mm) in vivo and ex-vivo conditions and hence to collect data records
2. Evaluation of reflexology as an adjunctive therapy in children with intractable epilepsy including west syndrome.
3. Evaluation of reflexology as an adjunctive therapy in children with spastic cerebral palsy
4. Investigation of genetic variation in chi311 and effect on YKL40 production in Indian asthmatic patients
5. Relationship of ACE coding and promoter region gene polymorphism with GDM
6. Evaluation of reflexology as an adjunctive therapy in patients with lower back pain
7. Markers of stress and their contribution in persons with mild cognitive impairment and dementia
8. Significance of NFKB1 and NFKB1A in progression of HNSCC in Indian population

9. Development of a protein marker for Parkinson disease and design of peptide inhibitor for the same
10. Design, Synthesis and Assessment of Antimicrobial Peptides Against Antibiotic Resistant Pathogens
11. Evaluation of Cell signaling molecules as serum protein marker in Head and Neck Squamous Cell Carcinoma (HNSCC) and Non Small Cell Lung Cancer (NSCLC) proposing therapeutic target
12. Role of Sestrin in Neurodegenerative diseases and its therapeutic implication

Completed

1. Estimation of the level of Cartilage Oligomeric Matrix Protein (COMP) in osteoarthritis and designing of an inhibitor to control the progression of osteoarthritis
2. Evaluation the role of Sirtuin protein in age related diseases and development of its activator and inhibitor
3. Purification, characterization and evaluation of biological activity of medicinal protein from plant sources

Collaborative projects

Ongoing

1. Infertility in crossbred bulls: Search for spermatogenic cell markers for early prediction of fertility” 2012-2016 funding Agency: ICAR, National Dairy Research Institute.
2. Investigation of anti-cancer activities of some selected plants and their molecular target on human oral cancer cell line (Biotechnology, AIIMS, New Delhi)
3. Evaluation of novel intracellular proteins in serum as marker of ageing (Geriatric Medicine, AIIMS, New Delhi)
4. Cancer in older Indians: Development of an instrument for comprehensive functional assessment and a biomarker (Geriatric Medicine, AIIMS, New Delhi)

Completed

1. Evaluation of cortical activation patterns in response to color vision using functional resonance imaging in normal & congenital color deficient individuals & to determine the outcome of reflexology as a treatment modality (R P Center, AIIMS)
2. Performance enhancement for athletes through reflexology (Sports Authority of India, represented by Laksmibai National College of Physical Education, Thiruvananthapuram, Kerala).

PUBLICATIONS

Journals: 41 Abstracts: 6

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor T.P. Singh was conferred with Distinguished Professorship of the University of Mysore, Feb 2014; awarded the Distinguished Lecture Award of the A.P. Science Congress - November 2013; Convener of the INSA Sectional Committee, 10 August 2013; elected President of the Indian Biophysical Society - Feb 2014; nominated as the Member of the Governing Board of the UGC - DAE Consortium for the Scientific Research-2013; was nominated as the Member of the Scientific Advisory Committee to the Chief Minister of Jammu and Kashmir – 2013; nominated as the Member of the Research Council of the Indian Institute of Toxicological Research, Lucknow-2014; nominated as Member of the Review Committee of the Indian Institute of Technology - Roorkee -2014; awarded the Professor D.M. Bose Memorial Award of the Bose Institute, Kolkata – 2013.

Professor Punit Kaur was the Convener of the 42nd National Seminar in Crystallography, which was held during November 21 -23, 2013 at Jawaharlal Nehru University, New Delhi; organized the Current Trends in Bio-informatics which was held during September 3-6, 2013 at All India Institute of Medical Sciences, New Delhi.

Dr Savita Yadav received the AIIMS research excellence award (Third Prize); received the Best Poster award in 19th Annual Congress of Society of Andrology, India (ANDROCON 2014) Amity University 14-15 March, 2014; organized the National Symposium on Changing environment and Life style: its impact on reproductive health held on 19-20th November, 2014 under ISSRF at AIIMS, New Delhi

Dr Sujata Sharma received the ‘National Bioscience Award for Career Development’ from Sh. Jaipal Reddy, Minister of Science and Technology on December 17, 2013 at the Scope Complex, New Delhi; organized an international conference “Current Trends in Structural Biology in Multi-Drug Resistant Bacterial Therapeutics and Thrombosis” held during February 27-28, 2014 at All India Institute of Medical Sciences, New Delhi.

Dr Krishna Dalal was Corresponding Member (contd), American epilepsy society, USA; Life Member, Indian League against Epilepsy, India; Expert member of sports authority of India, Trivandrum; Research advisory committee member, Central council for research in Siddha, Chennai; Committee member of Bishwa Bandhan Foundation (India) for Cerebral Palsy, Kolkata

Dr Sharmishta Dey was Member of National Academy Medical Sciences; Life member of Indian Biophysical Society; Life member of European Peptide Society; Life member of Indian Peptide Society; Life member Indian Science Congress

Dr Hariprasad G. won a travel award at CANCERCON 2014 held at IIT, Chennai

Ms Asha Bhushan was invited to the Eduroam- 'Global Educational wifi service'; attended the IPv6 Roadshow cum Workshop by ERNET India, 15 April 2014, Indian Habitat center, New Delhi; honoured with "Bharat Jyoti Award" in the seminar "Economic Growth & National Integration" by IIFS society on 26th March 2014 in New Delhi.

VISITING SCIENTISTS

The following noted scientists and eminent academicians visited the department and delivered lectures and discussed scientific cooperation:

1. Professor Robert Huber, Max Planck Institute for Biochemistry, Germany
2. Professor J. Fox, University of Virginia, USA
3. Professor R.M. Kini, National University of Singapore, Singapore
4. Dr K. Clemetson, University of Berne, Switzerland
5. Dr I. Francischetti, National Institutes of Health, USA
6. Professor Faizan Ahmed, Jamia Milia Islamia, India
7. Dr Pushkar Sharma, National Institute of Immunology
8. Professor R.K. Saxena, Delhi University, India
9. Professor Rakesh Bhatnagar, Jawaharlal Nehru University, India

9.6 Biostatistics

Professor and Head

R.M. Pandey

Professor

S.N. Dwivedi

V. Sreenivas

Assistant Professor

Maroof A. Khan

Scientists

Guresh Kumar

M. Kalaivani

HIGHLIGHTS

The department had more than 30 ongoing research projects, mostly in collaboration with various departments in the Institute; and 14 completed collaborative research projects with various centres/departments in the Institute. Faculty members and scientists served on various administrative and scientific committees in the Institute; Invited members of various scientific committees of the ICMR, DBT, DST, AYUSH; Served on Data Safety Monitoring Boards (DSMB) of several National and International Clinical Trials; Delivered more than 40 invited lectures all over the country during various workshops on various aspects of Research Methodology and Biostatistics; and, Examiners to various universities in the country. In the past one year, faculty and scientists had ninety nine (99) research publications in various peer reviewed (mostly in international) medical journals. Faculty members and scientists continued to be reviewers for almost all the major medical journals in the country and for a number of International Medical Journals from various medical specialities.

EDUCATION

The department continued teaching 'Biostatistics and Essentials of Research Methods' for undergraduate, paramedical and postgraduate courses, viz. MBBS, BSc (Hons) in Medical Technology in Radiology, MBiotech, BSc and MSc Nursing, and MD Community Medicine. As in past years, series of fourteen evening classes on 'Essentials of Biostatistical Methods and Research Methodology' was organized for residents, PhD students and other research staff in the Institute. On request faculty members delivered series of lectures for the residents, PhD students in several centres/departments in the Institute. On request, faculty and scientists participated and contributed in departmental scientific presentations in most departments in the Institute. Besides guiding PhD students in the department, faculty members and scientists contributed to the academic activities of other departments in the Institute as Co-Guides, DC Members of PhD, DM, MCh, MD/MS students. With an objective to build capacity of data management and statistical analysis, three workshops on 'Hands on Training in using STATA' of 3-5 days duration were organised for postgraduate students in the Institute. Also, departmental faculty and scientists delivered more than ten lectures in various national conferences across the country. A sponsored faculty member from Jammu & Kashmir completed his short term training in the department for a period of three months.

Lectures delivered

R.M. Pandey: 10 V. Sreenivas: 11

Oral papers/posters presented

V. Sreenivas: 2

RESEARCH

Funded projects

Ongoing

1. Prevalence of Systemic hypertension among sea level natives posted/dwelling at high altitude. R.M. Pandey, DIPAS-DRDO, one year, July 2013–July 2014, Rs.6.73 lacs.

Departmental projects

Ongoing

1. A study on appropriate statistical models to determine quality of life and mortality in head injured trauma patients

2. Comparison of statistical models for recurrent exacerbations and long term control of Asthma in children in Northern India
3. Multilevel modeling to identify the factors associated with the neonatal mortality in India

Collaborative projects

Ongoing

1. Age related morphological and neurochemical changes in the human spiral ganglion, Department of Anatomy, AIIMS.
2. Age related changes in the human Inferior Colliculus: A Morphological and Neurochemical Study, Department of Anatomy, AIIMS
3. Study of involvement of specific neuropeptides at spinal level in the rat model of post operative pain, Department of Anatomy, AIIMS.
4. Evaluation of plasma circulating nucleic acids and in-vitro analysis of triplex binding proteins in relevance with the pathogenesis of friedreich-Ataxia, Department of Biochemistry, AIIMS.
5. Investigating the association between differentiation and tumor microenvironment in human colorectal cancer. Department of Biochemistry, AIIMS.
6. Epidemiological Study of Respiratory Pathogens in Acute Respiratory Tract Infections among children and Elderly in India, Centre for Community Medicine, AIIMS.
7. Development of Neonatal Healthcare Service Delivery Model for Rural India, Centre for Community Medicine, AIIMS.
8. Economic Evaluation of Influenza Immunization of under five children in India, Centre for Community Medicine, AIIMS.
9. Epidemiological study of Diabetic Retinopathy in North India, Department of Community Ophthalmology, Dr. RP Center, AIIMS
10. Randomized trial of systemic steroids (prednisolone) and propranolol in the treatment of Infantile hemangioma, Department of Dermatology, AIIMS.
11. Molecular Analysis of Epidermolysis bullosa, Department of Dermatology, AIIMS.
12. A comparative study of Immunohistochemistry antigen mapping with immunofluorescence mapping in the diagnosis of inherited epidermolysis bullosa, Department of Dermatology, AIIMS
13. A Comparative study to assess the efficacy, viability and composition of various cell populations of extracted hair follicle outer root sheath cell suspensions (EFF ORS CS) prepared using a single enzyme (trypsin) and multiple enzymes (trypsin, collagenase and dispase) for transplantation in vitiligo, Department of Dermatology, AIIMS
14. Correlation of serum levels of 25(OH) D with skin color (melanin index), Department of Dermatology, AIIMS.
15. Effect of Vitamin D supplementation on the bone mineral homeostasis in children with congenital Ichthyosis, Department of Dermatology, AIIMS.
16. Role of Contrast enhanced CT abdomen in decision making in elderly patients presenting to the emergency department with acute undifferentiated abdominal pain, Department of Emergency Medicine, AIIMS.
17. Clinical, Biochemical, hormonal familial characteristics and FTO gene variation in women with PCOS, with and without family history of type 2 Diabetes Mellitus, Department of Endocrinology, AIIMS.
18. 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, Department of Endocrinology, AIIMS.
19. A Study of Clinical, Epidemiological and Environmental Risk Factors Associated with Fragility Hip Fractures in Elderly Asian Indians, Aged \geq 60 Years, Department of Endocrinology, AIIMS.
20. A Randomized Double Blind Controlled Trial to Investigate the Effects of Vitamin D supplementation on maternal and new-born baby's vitamin D status in Asian-Indian Subjects, Department of Endocrinology, AIIMS.
21. Role of contrast enhanced ultrasound in the diagnosis of hepatocellular carcinoma in patients of cirrhosis, Department of Gastroenterology, AIIMS.
22. Assessment of liver fibrosis in patients with chronic liver disease using Transient elastography, Shear wave elastography and serum biochemical markers, Department of Gastroenterology, AIIMS.

23. Randomized controlled trial of trans-arterial chemoembolization (TACE) versus TACE plus oral chemotherapy in the treatment of unresectable hepatocellular carcinoma, Department of Gastroenterology, AIIMS.
24. Randomized controlled trial of trans-arterial chemotherapy (TAC) versus oral chemotherapy in the treatment of unresectable hepatocellular carcinoma, Department of Gastroenterology, AIIMS.
25. Randomized controlled trial of oral chemotherapy versus supportive therapy in the treatment of unresectable patients of hepatocellular carcinoma, Department of Gastroenterology, AIIMS.
26. Incidence of colorectal carcinoma in ulcerative colitis, Department of Gastroenterology, AIIMS.
27. Dynamics of differential T-regulatory cell expression in patients with inflammatory bowel disease and intestinal tuberculosis, Department of Gastroenterology, AIIMS.
28. Effectiveness of occupational therapy for older people with dementia and their caregivers, Department of Geriatrics, AIIMS.
29. 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, Department of Medicine, AIIMS.
30. A prospective double-blind, randomized, placebo-controlled trial to determine the effect of vitamin D supplementation on the development of active tuberculosis and pneumonia in HIV-infected individuals, Department of Medicine, AIIMS.
31. Effect of continuous positive airway pressure (CPAP) on biomarker in patients with obstructive sleep apnea, Department of Medicine, AIIMS.
32. Clinicopathological correlation with outcome in Lupus Nephritis, Department of Medicine, AIIMS.
33. Validation of Hindi Version of ESS, Department of Medicine, AIIMS.
34. Predictors of response in Lupus Nephritis, Department of Medicine, AIIMS.
35. Management of ART induced dislipidemia with Statins in HIV AIDS, Department of Medicine, AIIMS.
36. Prevalence of Electrolyte imbalances in the intensive care unit (ICU) and their impact on clinical outcomes, Department of Medicine, AIIMS.
37. Randomized Controlled Trial on safety and efficacy of Daily, Part Daily and thrice weekly intermittent anti tuberculosis therapy in HIV sero positive patients with tuberculosis, Department of Medicine, AIIMS.
38. Sleep quality in pregnancy and its relationship with pregnancy outcomes, Department of Medicine, AIIMS.
39. Comparative drug susceptibility test in M.Tb by solid culture method and line probe assay in MDR Tb patients, Department of Medicine, AIIMS.
40. Incidence of ovarian failure with cyclophosphamide therapy in females < 40 years, Department of Medicine, AIIMS
41. Ambulatory blood pressure monitoring in patients with Obstructive Sleep Apnoea, Department of Medicine, AIIMS.
42. Expression analysis of potential microRNA in tuberculosis, Department of Medicine, AIIMS.
43. Proteomic study of Tuberculosis pleural effusion to identify potential biomarker(s) for early and definitive diagnosis of Tuberculosis, Department of Medicine, AIIMS.
44. Prevalence of X/MDR-TB (extensively/multi-drug resistant tuberculosis) in Delhi state by using LJ (Lowenstein Jensen) media method, Department of Medicine, AIIMS.
45. Profiling of drug resistant pattern in pulmonary T.B cases in Delhi state using liquid culture MGIT-960, Department of Medicine, AIIMS.
46. Circulating inflammatory biomarkers as predictor of HIV-tuberculosis associated immune reconstitution inflammatory syndrome (IRIS), Department of Medicine, AIIMS.
47. Disease related biomarkers in patients with obstructive sleep apnea using proteomics approach, Department of Medicine, AIIMS.
48. Clinical and biological significance of mutations in mitochondrial DNA regulatory region in acute myeloid leukemia, Department of Medical Oncology, IRCH, AIIMS.
49. A prospective study of stem cell yield with G-CSF mobilization and factors predictive of poor mobilization in patients admitted for Auto-HSCT at IRCH, AIIMS, Department of Medical Oncology, IRCH, AIIMS.

50. Low dose chemotherapy (Metronomic Therapy) versus best supportive care in progressive and/or refractory pediatric malignancies: a double blind placebo controlled randomized study, Department of Medical Oncology, IRCH, AIIMS.
51. Pediatric Hodgkin Lymphoma – Biology and Outcome. Unfunded DM thesis project, Department of Medical Oncology, IRCH, AIIMS.
52. To study the biological and clinical significance of Wnt/B- Catenin Signaling pathway in AML patients, Department of Medical Oncology, IRCH, AIIMS.
53. Clinical and Biological significance of mutations in mitochondrial DNA, Department of Medical Oncology, IRCH, AIIMS.
54. Outcome and prognostic factors of osteo-sarcoma patients treated at IRCH, Department of Medical Oncology, IRCH, AIIMS
55. Circulatory T-regulatory cells in pediatric non-hodgkins lymphoma patients, Department of Medical Oncology, IRCH, AIIMS
56. Molecular characterization of clinical isolates of Vancomycin and High level Gentamicin Resistant *Enterococcus faecium* and *Enterococcus faecalis* Department of Microbiology, AIIMS.
57. Analysis of Putative Virulence Factors and Molecular typing of Clinical isolates of Vancomycin and High-Level Gentamicin Resistant *Enterococcus faecium* and *Enterococcus faecalis*, Department of Microbiology, AIIMS
58. Magnitude of Prosthetic Joint Infections and role of amplification based DNA analysis for identifying microbial profile of prosthetic joint infection in a tertiary care hospital, Department of Microbiology, AIIMS.
59. Clinical and microbiological characteristics of Bacteremia caused by coagulase negative Staphylococci in a tertiary care hospital, Department of Microbiology, AIIMS.
60. Rapid Diagnosis of Scrub Typhus by molecular methods, Department of Microbiology, AIIMS.
61. Analysis of putative virulence factors and molecular typing of clinical isolates of Vancomycin and high level Gentamicin resistant *Enterococcus faecium* and *Enterococcus faecalis*, Department of Microbiology, AIIMS.
62. Prevalence of *Chlamydia trachomatis* in patients with infertility and urogenital infections and genotyping by PCR-Restriction Fragment Length Polymorphism and OMPA sequencing, Department of Microbiology, AIIMS.
63. Diagnosis of *Legionella pneumophila* infection by molecular methods and analysis of clinical and environmental isolates of *Legionella pneumophila* using molecular markers, Department of Microbiology, AIIMS.
64. Rapid Diagnosis of neonatal sepsis with special reference to molecular typing of *Klebsiella pneumoniae*, Department of Microbiology, AIIMS.
65. Molecular Characterization of *Neisseria Gonorrhoeae* strains with decreased susceptibility to Extended Spectrum Cephalosporins, Department of Microbiology, AIIMS.
66. Role of CD56CD16+CD3- Natural Killer Cells in HIV infected Indian Individuals, Department of Microbiology, AIIMS.
67. Development of a molecular diagnostic probe for detection of *Cryptosporidium* spp. And further characterization of the parasite in patients, Department of Microbiology, AIIMS.
68. A study on alternate antimicrobial agents against Typhoidal *Salmonellae*. Unfunded, Department of Microbiology, AIIMS.
69. Quantitative real time PCR and genotyping for Cytomegalovirus in ulcerative colitis, Department of Microbiology, AIIMS.
70. Magnitude of Prosthetic Joint Infections (PJI) and role of amplification based DNA analysis for identifying microbial profile of prosthetic joint infections in a Tertiary Care Hospital, Department of Microbiology, AIIMS.
71. Development of a diagnostic panel of blood markers in the diagnosis and prognostication of acute ischemic stroke, Department of Neurology, CN center, AIIMS.
72. Genetic and clinical factors associated with aspirin resistance in Indian patients with Ischemic stroke, Department of Neurology, CN center, AIIMS.
73. Feasibility, patient acceptability & efficacy of follow-up of stable epilepsy patients by phone – A Randomized Controlled study, Department of Neurology, CN center, AIIMS.

74. Standardization of dynamic F-18 FDG PET/CT protocol and comparison of whole body F-18 FDG PET CT with whole body diffusion weighted MRI for early treatment response evaluation in non-small cell lung cancer, Department of Nuclear Medicine, AIIMS.
75. A Randomized open labeled comparative study of safety and efficacy of metformin and subcutaneous insulin in Asian women with gestational diabetes, Department of Obstetrics & Gynecology, AIIMS.
76. Understanding the BRB Transponder Functions and Evaluation of Aptamers in the Experimental Model of Uveitis, Department of Ocular Pharmacology, Dr. RP Center, AIIMS.
77. Immunohistochemical detection of altered protein expression in microscopic preneoplastic mucosal lesions of colon, Department of Pathology, AIIMS.
78. Gene deletions and mutations in Wilm's tumour: correlation with histopathology and outcome, Department of Pathology, AIIMS.
79. Center for Advanced Research in Newborn Health, Department of Pediatrics, AIIMS.
80. Role of gain in fat mass in early infancy on programming of adiposity and biochemical markers associated with cardiometabolic risk, Department of Pediatrics, AIIMS.
81. Diagnostic Performance of Distortion Product and Transient Evoked Otoacoustic Emissions for newborn hearing screening, Department of Pediatrics, AIIMS.
82. A study on identification of risk groups for probability of surgery in children with PUJ-type hydronephrosis, Department of Pediatric Surgery, AIIMS.
83. Optimization of sentinel lymph node biopsy and evaluation techniques in breast cancer in Indian settings, Department of Pediatric Surgery, AIIMS.
84. Influence of complete spinal cord injury on ventromedial hypothalamic functions: Role of magnetic field. Unfunded Ph.D thesis project, Department of Physiology, AIIMS.
85. Effect of magnetic field on behavioural, electrophysiological and neurochemical correlates of pain in rats exposed to 3G frequency band, Department of Physiology, AIIMS.
86. Quantitative EEG correlates of Cognitive Deficits and Stress Reactivity in Mild Cognitive Impairment and Alzheimer's disease, Department of Physiology, AIIMS.
87. Quantitative EEG correlates of emotion induced changes in cognitive performance in healthy volunteers, Department of Physiology, AIIMS.
88. Neuroregeneration following implantation of iron oxide nanoparticle along with magnetic field exposures in spinal cord injuries, Department of Physiology, AIIMS.
89. Effect of nalbuphine on opiate withdrawal in rats: Behavioral, Biochemical and molecular study, Department of Psychiatry, AIIMS.
90. Impact of total sleep time on neurocognitive performance and behavioral patterns among school going adolescents, Department of Psychiatry, AIIMS.
91. Role of Dual Energy CT in assessment of renal calculi, Department of Radio-Diagnosis, AIIMS.
92. Evaluation of neck masses using diffusion weighted MR imaging and ultrasound elastography, Department of Radio-Diagnosis, AIIMS.
93. Magnetic Resonance Imaging evaluation of adult traumatic brachial plexus injury, Department of Radio-Diagnosis, AIIMS.
94. Dynamic MRI in evaluating upper airway in Obstructive Sleep Apnoea Syndrome, Department of Radio-Diagnosis, AIIMS.
95. Role of perfusion CT in evaluation of non-small cell lung carcinoma in patients undergoing chemotherapy, Department of Radio-Diagnosis, AIIMS.
96. Study to evaluate bench training on the operative performance of general surgery residents, Department of Surgery, AIIMS.
97. Analysis of a computerized prospective database of patients with early breast cancer, Department of Surgical Oncology, IRCH, AIIMS.
98. Genomic diversity of HLA in Indian population, Department of Transplant Immunology, AIIMS.

Completed

1. Prevalence of Vitamin D Deficiency and rickets in children with congenital ichthyosis and keratinizing disorders, Department of Dermatology, AIIMS.
2. Validation and Comparative Evaluation of Vitiligo Impact Scale in Assessing Psychosocial Burden in Vitiligo, Department of Dermatology, AIIMS.
3. A study to validate the clinical criteria for diagnosis of segmental vitiligo, Department of Dermatology, AIIMS.
4. Mucocutaneous manifestations in HIV as a marker of immunosuppression, Department of Dermatology, AIIMS.
5. Contrast enhanced ultrasound for the assessment of therapeutic response following locoregional therapy in patients of hepatocellular carcinoma, Department of Gastroenterology, AIIMS.
6. Evaluation of Risk Factors for severity of Dengue Fever and Dengue Hemorrhagic Fever, Department of Medicine, AIIMS.
7. Study of Predictors of Mortality in Severe Malaria, Department of Medicine, AIIMS.
8. Predictors of Response to Methotrexate in Rheumatoid Arthritis, Department of Medicine, AIIMS.
9. Biomarker Profile and their relationship with Mortality in Sepsis, Department of Medicine, AIIMS.
10. Comparison of efficacy of different treatment regimens in pulmonary hypertension secondary to lung disease and or hypoxia, Department of Medicine, AIIMS.
11. Observational study of patient ventilator asynchrony in Medical ICU, Department of Medicine, AIIMS.
12. Role of serum vitamin D level and mthfr polymorphism in response to methotrexate in patients of rheumatoid arthritis, Department of Medicine, AIIMS.
13. Prevalence and role of enteric bacterial pathogens in emergence of HIV drug resistance among HIV infected individuals, Department of Medicine, AIIMS.
14. 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”, Department of Medical Oncology, IRCH, AIIMS.
15. Establishment of networking for Neisseria gonorrhoeae surveillance in India, Department of Microbiology, AIIMS.
16. A Prospective Cohort Study for the Incidence and Risk Factors for Central Line Associated Blood Stream Infections (CLABSI) in Pediatric ICU (PICU), Department of Microbiology, AIIMS.
17. Evaluation and comparison of factors associated with local recurrence in operated cases of osteosarcoma and Ewings sarcoma – a retrospective study, Department of Orthopedics, AIIMS.
18. Evaluation of Perfusion Index in preterm infants with hemodynamically significant Patent Ductus Arteriosus, Department of Orthopedics, AIIMS.
19. A study of chronic exposure to magnetic field on pain status of fibromyalgia patients, Department of Physiology, AIIMS.
20. Role of rTMS in non-responding Obsessive Compulsive Disorder patients, Department of Psychiatry, AIIMS.
21. Evaluation of Neck Masses Using Diffusion Weighted MRI and Ultrasound Elastography, Department of Radio-Diagnosis, AIIMS.
22. Role of Dual energy CT in Diagnosis of Gout, Department of Radio-Diagnosis, AIIMS.
23. Role of Perfusion CT in Pancreatic Pathology, Department of Radio-Diagnosis, AIIMS.

PUBLICATIONS

Journals: 66

Abstracts: 4

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor R.M. Pandey was Executive Committee Member of the Indian Society for Medical Statistics (ISMS). Member: Scientific Advisory Committee of National Institute of Nutrition (NIN); Regional Medical Research Centre of the ICMR; Various project Advisory Committees of the ICMR and DBT; Operations Research Committee on RNTCP, Govt of India; Institute Hindi Committee.; and, editorial board of Indian Journal of Pediatrics. Reviewer of almost all medical journals published from India. External examiner for Ph.D. in various Indian Universities.

Professor V. Sreenivas was Member of the Screening Committee for the post of Scientist C, National Institute of Medical Statistics, ICMR, May 30, 2013, new Delhi. Statistical Consultant for the Journal of Indian Association for Child and Adolescent Mental Health (Elsevier). Biostatistics Section Editor for the Journal of Cutaneous and Aesthetic Surgery (Walters Kluwer). Biostatistics Section Editor for the Indian Journal of Dermatology, Venereology & Leprology (Walters Kluwer). Biostatistical reviewer for the Journal of Clinical Oncology (American Society for Clinical Oncology); Pediatrics (American Academy of Pediatrics); Indian Journal of Medical Research; Indian Pediatrics; Indian Journal of Pediatrics. Member of the Selection Committee, Central Council for Research In Unani Medicine (CCRUM), Dept. of AYUSH, 23 Jan, 2014, New Delhi. Member of the Expert Group to review research proposals on the hazards of EMF Radiation, Department of Science & Technology (DST), Feb. 12, 2014, New Delhi. Member of the Technical Evaluation Committee to review the proposals for Inter-Sectoral Convergence & Coordination for Promotion and Guidance on Health Research, Department of Health Research (DHR), Feb. 21, 2014, New Delhi. Member of the Selection Committee, Institute for Liver and Biliary Sciences (ILBS), Feb. 27, 2014, New Delhi. Member of the Task Force Group on Mycobacterium Avium, Indian Council of Medical Research, March 18, 2014, New Delhi . Member of the Expert Group on Registry of People with Diabetes with Young Age at the Onset”, Indian Council of Medical Research, March 26, 2014, New Delhi; Co-author of the work which received AIIMS Excellence Award 2013: Outcome, Pathology and Compliance in Orbital Retinoblastoma (IRSS Stage III) Treated with Neoadjuvant Chemotherapy Based Protocol: a Prospective Study. Radhakrishnan V, Kashyap S, Pushker N, Sharma S, Pathy S, Mohanti BK, Vishnubhatla S, Ghose S, Bakhshi S. Ophthalmology 2012; 119: 1470-1477.

Dr M.A. Khan was Scientific reviewer of Indian Journal of Medical Research, Scientific reviewer of PLOS One-Journal, Participated/Attended in short course- Multiple Regression, Logistic Regression and Survival analysis for categorical and continuous data at CMC Vellore. Participated/Attended in short course-Multilevel Modelling and Generalized Estimating Equation approach at CMC Vellore

9.7 Biotechnology

Professor and Head

Y.D. Sharma

Professors

J.S. Tyagi

H. Krishna Prasad

S.N. Das

Assistant Professor

Anushree Gupta

EDUCATION

Lectures delivered

Y.D. Sharma: 3 Jaya S. Tyagi: 2 H.K. Prasad: 6 S. N. Das: 4

Oral/Poster presentations

Y.D. Sharma: 3 Jaya S. Tyagi: 1 H.K. Prasad: 1 S.N. Das: 1

RESEARCH

Funded projects

Ongoing

1. Immunological and genetic polymorphism studies on *P. vivax* tryptophan-rich antigens. Y.D. Sharma, ICMR, 3 years, 2013-16, Rs. 22.5 lacs.
2. Post Graduate Training Programme in Biotechnology with special application to Biomedicine, Y.D. Sharma, DBT, 5 years, 2009-14, Rs 67.5 lacs
3. Exploiting temporal transcription profile, computational analysis and post transcriptional gene silencing to identify and intercept interactions between host and dormant and actively replicating *Mycobacterium tuberculosis*. Centre of Excellence, Category III-CIEB project. Jaya S. Tyagi, DBT, 2, years, 2011-13, Rs. 89.94 lacs
4. SysTB: A Network Program for Resolving the Intracellular Dynamics of Host-pathogen Interactions in TB infection. DBT Network project. Jaya S. Tyagi, DBT, 5 years, 2011-16, Rs 1.46 Cr
5. National Alliance Program for Biodesign and in-vitro diagnostics between Translations Health Science and Technology Institute and All India Institute of Medical Sciences. Jaya S. Tyagi, THSTI (DBT), 5 years, 2010-15, Rs 1 Cr
6. J.C. Bose National Fellowship. Jaya S. Tyagi, DST, 5 years, 2012-17, Rs. 68 lacs
7. Isolation and characterization of anti-tubercular principle from contaminating bacterial strain. Jaya S. Tyagi, (DBT), 2 years, 2013-15, Rs. 4.70 lacs
8. Phenotypic and functional characterization of T helper 17 (Th 17) cells in patients with oral squamous cell carcinoma and evaluation of their anti-tumour activity. S.N. Das, DBT, 3 years, Rs. 51,15,000/-
9. Investigations of anticancer activities of some select medicinal plants and their molecular targets on human oral cancer cell lines. S.N. Das, AYUSH, Ministry of Health & Family Welfare, 3 years, Rs. 25,71,000.
10. Study of immunological impact of type 1 interferon(s) on immune response in tuberculosis patients, H.K. Prasad, ICMR, 2 years, 2013-15, Rs. 35.0 lacs
11. The role of histone like protein (Hlp) of *M. tuberculosis* and related pathogens during infection, H.K. Prasad, AIIMS, 2 years, 2013-14, Rs. 5.0 lac
12. 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, 4 years, 2011-15, Rs. 34.17 lacs

Completed

1. Molecular studies on *Plasmodium vivax* tryptophan-rich proteins. Y.D. Sharma, DBT, 3 years, 2010-14, Rs. 20.40 lacs
2. Analysis of genomic variants of *Mycobacterium tuberculosis* complex isolates using large scale parallel sequencing: preliminary studies, H.K. Prasad, DBT, 3 years, 2010-13, Rs.33.36 lacs

Departmental projects

Ongoing

1. Studies on phosphoinositide 3-kinase signaling and antitumour activities of its natural inhibitors in oral cancer.
2. Phenotypic and functional characterization of TH17 cells in patients with oral squamous cell carcinoma.
3. Phenotypic and functional characterization of CD4+CD25+Foxp3+ regulatory T cells (TReg) in patients with oral squamous cell carcinoma.
4. Studies on prognostic biomarkers in oral and oropharyngeal carcinoma.
5. Innate immunity to *Mycobacterium tuberculosis*.
6. Human immune response to *Mycobacterium tuberculosis*
7. Diagnosis of tuberculosis in humans and cattle

Completed

1. Studies on Beclin1, mTOR signaling and autophagy in oral cancer.
2. Functional and phenotypic characterization of Natural Killer T (NKT) cells and dendritic cells in Oral cancer.
3. Study of anti-cancer activity of Capsaicin in oral cancer.
4. Study of the anti-cancer activity of Plumbagin on oral cancer cell lines.
5. Deciphering a new molecular interface essential for the dormancy survival programme in *Mycobacterium tuberculosis*
6. Characterization of phosphatase defective DevS mutants of *Mycobacterium tuberculosis*
7. Development of sputum filtration technique for improved smear microscopy based TB diagnosis.
8. Development of *E. coli* as a surrogate host for studying *Mycobacterium tuberculosis* promoters.
9. To study the role of selected dimerization and histidine phosphotransfer (DHp) domain residues in phosphatase activity of DevS protein of *Mycobacterium tuberculosis*.
10. Study of vaccine response in children immunized with *Mycobacterium bovis* BCG

Collaborative projects

Ongoing

1. 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)
2. Clinical correlation of ER, PR, HER2, neu expression and BRCA1 gene mutations in Indian Breast cancer patients (BRA-IRCH).
3. Studies on single nucleotide polymorphisms in TLR2 genes in patients with oral cancer.

PUBLICATIONS

Journals: 14 Chapters in Books: 1 Books: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Y.D. Sharma is a Fellow of all the three National Science Academies. He is Member of Sectional Committee of Medical Sciences for Indian Academy of Sciences, Bangalore; Member, DBT Task Force Subcommittee on Human Resources Development; Member, DBT-JRF examination committee; DBT Special Committee for malaria vaccine projects; Chairman, DSIR Project monitoring committee on Malaria; Member, Board of Studies of Biotechnology of South Asian University, Delhi; Member, Biosafety Board of South Asian University, Delhi; Expert member of Biosafety Committee of Univ. College of Medical Sciences (UCMS), Delhi; Member, UGC-Science Advisory Panel for Centre for Molecular Medicine at JNU, New Delhi; Expert Member; Board of PG Studies in Biotechnology of Banasthali Vidyapeeth; Expert Member, Teaching Advisory Committee of Banaras Hindu University, Varanasi; Member, RDC Himachal University, Shimla; Member, Board of Studies, University of Delhi at South Campus, Delhi; Member, Board of Studies in Neurosciences at Jiwaji University, Gwalior; Expert in the Doctoral Committee of Faculty of Engineering & Interdisciplinary Sciences, Jamia Hamdard University, New Delhi; Chairman, Store Purchase Committee of AIIMS; Member, Selection Committee for faculty positions at several universities and Research institutions; ; Member, QRT of CIFA, ICAR, PG External Examiner of PGI, Chandigarh; Member, Project Review Committee on Vector Science Forum, ICMR; Member, DST-INSPIRE Faculty Fellowship.

Professor Jaya S. Tyagi: Stree Shakti Science Samman 2012, J.C. Bose National Fellow, Fellow of all three National Science Academies (National Academy of Sciences, Allahabad, Indian Academy of Sciences, Bangalore, Indian National Science Academy New Delhi), Member Guha Research Conference, Member Governing Body National Institute of Immunology, Member Scientific Advisory Committee National Institute for Research in Tuberculosis Chennai and JALMA Institute for Leprosy and other mycobacterial diseases Agra, Member Scientific Advisory Committee Institute of Pathology, Member Scientific Advisory Committee Centre for DNA fingerprinting and Diagnostics Hyderabad, member of Selection Committee DST-INSPIRE Faculty Fellowship, Member Screening Selection and Evaluation Committee for Innovation Awardees THSTI, External expert, Selection committee meeting for selection of SRF in DBT funded project at GBU Greater Noida, UP, member CSIR Animal Science and Biotechnology Research Committee and Project monitoring committee, Member, JNU Selection Committee for SES promotion of faculty member, Mentor TB diagnostics programme CBD THSTI, Member, AIIMS Patent Committee, Member, AIIMS Review Committee of Intra mural projects (Basic sciences), Member, Committee for proposed Inter-Institutional Bio-Design Centre (AIIMS, IIT Delhi and THSTI Faridabad), Central Public Information Officer (CPIO), Department of Biotechnology, AIIMS, Doctoral Committee member for students of AIIMS, NII, IOP and IIT Delhi, Reviewer of research projects submitted to DBT, CSIR, DST, Reviewing manuscripts for International and National journals, Examiner of PhD thesis from various National Institutions, Universities and Laboratories, Member NIH Alumni Association, Life member of the Society of Biological Chemists (India), Indian Society of Cell Biology, Association of Microbiologists of India.

Professor H.K. Prasad Expert Member of Technical Committee of NRDC, ICMR and National JALMA Institute for Leprosy & Other Mycobacterial Diseases, Agra; Purchase Committee, School of Environmental Sciences, JNU and Department of Anatomy, AIIMS; Scientific Advisory Committee, Leprosy Mission's Stanley Browne Laboratories; Institutional Animal Ethics Committee (IAEC), University of Delhi South Campus (UDSC); Selection Committee of LRS Institute of Tuberculosis & Respiratory Diseases and Jawaharlal Nehru Fellowship, JNU; Project Monitoring Committee (PMC), SBIRI-BCIL, Department of Biotechnology, Ministry of Science and Technology; Board of Studies in Biotechnology, Jiwaji University, Gwalior; ICMR Immunology Task Force Committee; Project Review Committee of ICMR, DBT, and DST; Member, Committee of Review of ACRs format of Scientist Cadre of AIIMS, New Delhi; Vice Chief Librarian, B.B. Dikshit Library, AIIMS and Examiner: various Universities and Institutions. Served as an expert in the Second joint Indo-SA Project Monitoring and Governance Committee (PGMC) of the Mega project "Indo-SA HIV Vaccine Research Collaboration defining the HIV antigens required for inclusion in a safe and effective HIV Vaccine" at Bangalore on 1-2 August, 2013.

Professor S.N. Das: Elected as Fellow of the National Academy of Medical Sciences, Continue to be Fellow, International Academy of Biological Therapy; Life Member, Indian Immunology Society; The Cytometry Society, India; Member: American Association for Cancer Research, USA, DKFZ Alumni Association, Heidelberg, Germany, Alexander von Humboldt Foundation Alumni Association, Germany; Task Force group on Cancer Biology DBT, Ministry of Science & Technology, Govt of India; Technical Committee, Institute of Pathology (ICMR) New Delhi; Member, Bioethics Committee for Recombinant DNA Research, AIIMS; Member, Negotiation Committee, AIIMS; Nominated as 'Regular Member of the Doctoral Committee for the Department of Medical Elementology and Toxicology, Jamia Hamdard University, New Delhi; Member, Research Advisory Committee, Guru Gobing Singh Medical College, Baba Farid University, Faridkot, Punjab; Ph.D. Examiner- Jamia Hamdard University, New Delhi, Pondicherry University, Birla Institute of Technology, Pilani, Rajasthan, Jadavpur University, Jadavpur, Kolkata; Member, 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, Human Immunology, International Journal of Human Genetics, International Journal of Cancer, Journal of Oral Pathology and Medicine, Plos ONE, Cancer Letters, Indian Journal of Medical Research, Indian Journal of Cancer.

9.8 Centre for Community Medicine

Professor and Head
Chandrakant. S. Pandav

Professor

Shashi Kant
Kiran Goswami

Sanjeev Kumar Gupta
Anand Krishnan

Additional Professor

Baridalyne Nongkynrih
Sanjay Kumar Rai

Puneet Misra
Y.S. Kusuma Kumari

Assistant Professor

Kapil Yadav

Anil Goswami

PHN Supervisor

Mercy John

HIGHLIGHTS

The main focus area of the Centre has been on evolution of a replicable model of comprehensive health services and providing consultancy to strengthen capacity of health organizations at national and international level. The services provided by the Centre comprise of rural and urban health programs. The Urban health program provides community based health services to an urban resettlement colony in Dakshinpuri Extension, Ambedkar Nagar, New Delhi. In addition, the urban health program also comprises of Sex and Marriage Counselling Clinic (SMCC), AIDS Education and Training Cell (AETC) including helplines Shubhchintak/eShubhchintak, National Service Scheme (NSS) Unit. The Rural health program of the Centre is also known as the Comprehensive Rural Health Services Project (CRHSP), Ballabgarh established in Ballabgarh Block, Faridabad District of Haryana as a collaborative project between Haryana State Government and AIIMS. The project comprises of a 50 bed hospital and Intensive Field Practice Area (IFPA) with two primary health centres.

CCM is the nodal department for Disease Prevention and Outbreak Response Cell (DPORC) at AIIMS. Dr Chandrakant S Pandav is the Chairperson, Dr Sanjay Rai is the Co-chairperson and Dr Anil Goswami is the nodal officer. The mandate of DPORC is prevention and control of communicable diseases e.g. Dengue, Malaria, Hepatitis etc. in AIIMS campus. CCM houses the WHO Collaborating Centre for Capacity Development and Research in community based NCDPC which is headed by Dr Anand Krishnan. CCM is the nodal agency to provide technical support to HIV sentinel surveillance in five northern states (Bihar, Delhi, Jharkhand, UP, and Uttarakhand) of India since 2006.

EDUCATION

BSc Nursing and Post-certificate Nursing Students

BSc nursing students and post certificate nursing students are posted both with urban health program and one and half months at CRHSP. The rural posting is residential. They have to spend one month at referral hospital Ballabgarh and two weeks in PHC Dayalpur. They are provided training in ANC care, ward management and immunization. They are also posted in ward. They provide health talks and IEC in OPD and ward. Training of nursing students is supervised by faculty from College of Nursing, AIIMS.

Undergraduate

The programme remains the same. They are posted for five weeks as a residential posting in rural area during their seventh semester and for the same duration in urban area during their fourth/fifth semesters. An Orientation Programme of National Service Scheme (NSS) was conducted for new batch of MBBS students on 15.07.2013. MBBS students (7th Semester) are posted for one and half months at CRHSP, Ballabgarh. This is a residential posting that includes training on epidemiology, community health, health system, and health programmes including special emphasis on IMNCI.

Interns

The interns are posted for duration of three months at CRHSP Ballabgarh. The interns are posted for 6 weeks at

referral hospital Ballabgarh and 3 weeks each at Dayalpur and Chhainsa Primary Health Centre (PHC). At referral hospital, they learn application of basic clinical skills in OPD, and ward. They are posted to all clinical discipline under the supervision of Senior Resident of the respective department. During PHC posting interns participate in health care delivery at primary care level. They also get the experience in community level activities such as supervision of health workers, follow up of people who defaulted while on anti-tuberculosis treatment, sub-centre supervision etc.

Postgraduates

The postgraduates of the department are posted in the urban and rural areas for 18 months each. During their urban posting they provide outpatients services to various clinics run by the department. In the rural area, they spend 5 months 10 days each at referral hospital, and both PHCs on rotation basis. They are encouraged to take active participation in decision-making. They also do different field based exercises during the posting. The regular teaching exercises include seminars, family and clinical case presentations, exercises based on hospital, field practice area and hospital management information system (HMIS).

CMEs/Workshops/Symposia/National and International Conferences

Workshops

International

1. 'Brainstorming meeting to identifying multi-sectoral priority actions for diet in NCDs in India', collaboration with MGIMS Wardha and Umea University Sweden, 23-24 May 2013, AIIMS, New Delhi. The meeting was attended by representatives of Food Industry, Government, Consumer organizations, Academia, Confederation of Indian Industry and provided a forum for sharing of view and plan for future action.
2. National workshop on 'Estimation of Mortality due to Influenza in India' in collaboration with CDC Atlanta, AIIMS New Delhi, 18-19 May 2013. Epidemiologists, Statisticians and virologists attended this meeting.

National

1. Pre-conference Workshop of the 6th World Music Therapy Congress was organised by the Department on 7th March 2014, AIIMS, New Delhi. The theme of the workshop was 'Music Therapy—a complementary medical intervention'.
2. In collaboration with Department of AIDS Control (DAC), MOHFW, GOI, CDC and FHI 360 is organized a three days workshop on Pre Surveillance Assessment (PSA) Training of Trainers (ToT) Workshop from 30 May 2013 to 1 June 2013 at Ramalingaswamy Board Room, AIIMS.
3. Organized a 2-day hands-on training of field investigators of Uttar Pradesh, Gujarat, Jharkhand, Rajasthan, and Punjab for Pre testing of Questionnaires & CAPI (Computer Assisted Personal Interviewing-CAPI) system for sampling frame development (SFD), and data collection methodology of IBBS at CRHSP Ballabgarh, 6–7 March 2014.
4. In collaboration with NACO, Departments of AIDS Control, MOHFW, GOI, organized a seven days National Integrated Biological and Behavioral Surveillance (IBBS), Regional Training of Trainers (ToT) for the faculty members and field research agency of four sates (Bihar, Jharkhand, Uttar Pradesh, and Uttarakhand) from March 31 to April 6, 2014 at Ramalingaswamy Board room and Hotel Atrium, Surajkund, Faridabad, Haryana.

Lectures delivered

Shashi Kant: 4 Kiran Goswami: 3 Sanjay K. Rai: 3

Anil Goswami: 7

Oral papers/posters presented

International: 19 National: 15

RESEARCH

Funded projects

Ongoing

1. Influenza Immunization of Children in India. Funded by CDC-University of Colorado, USA)
2. A phase III, observer-blind, randomized, multi-country, non-influenza vaccine comparator controlled study to demonstrate the efficacy of GlaxoSmithKline Biologicals quadrivalent seasonal influenza candidate vaccine

GSK2321138A (FLU D-QIV), administered intramuscularly in children 6 to 35 months of age (Glaxo Smith Kline India)

3. Effect of Iron and Folic Acid tablet versus capsule formulation on treatment adherence and iron status among pregnant women: a randomized control trail.
4. Migration, poverty and access to healthcare: a study on people's access and health system's responsiveness in Delhi, Y. S. Kusuma, ICMR, 3 years, 2011-2014, Rs. 42 lakhs
5. Migration, mobility and antenatal care: an exploratory study to identify key elements to improve coverage and utilization of antenatal care services among migrant pregnant women in Delhi, Y. S. Kusuma, DST, 1 year, DST, Rs.14 lakhs
6. Emerging infectious diseases in the Republic of India: Influenza disease burden, Sanjay K Rai, Center for Disease Control, Atlanta USA, 6 years, 2009-2014, Rs. 2.07 lakhs
7. Compliance monitoring of prohibition of smoking in public places (under COPTA act) in four jurisdictions of India., Sanjay K Rai, International Union Against Tuberculosis and Lung Diseases (The Union), 1 year, 2013-14, Rs. 2.8 lakhs
8. Non-Communicable Diseases (NCDs) among elderly persons in a resettlement colony of Delhi, Anil Kumar Goswami, AIIMS, One year, 2013-14, Rs. 5 lakhs

Completed

1. 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, 2.5 years, 2010-2013, Rs. 22 lakhs

Departmental projects

Ongoing

1. A Cost descriptive study of delivery care services in rural Ballabgarh, Haryana.
2. A Cost descriptive study of a NCD clinic at CRHSP Ballabgarh, Haryana, India.
3. Dietary calcium intake, and serum calcium level among pregnant women residing in a rural community of Ballabgarh, Haryana
4. Study on depression among elderly persons in rural area of Ballabgarh, Haryana
5. Prevalence of urinary carriage of Extended Spectrum Beta Lactamase producing Enterobacteriaceae in a rural community of Ballabgarh, Haryana, India.
6. Community-based study of childhood injuries in an urban resettlement colony in New Delhi.
7. Pregnancy wastage in a rural community of Haryana
8. Evaluation of home based postnatal care in district Faridabad, Haryana

Complete

1. Study of functional disability among elderly persons in rural Ballabgarh, Haryana.
2. A study of prevalence of work-related neck pain in desk-job workers at All India Institute of Medical Sciences, New Delhi.
3. Assessment of under-nutrition in under-five children in rural Ballabgarh, Haryana.
4. Implementing and monitoring healthy settings approach for prevention of non-communicable diseases in middle schools of rural Ballabgarh, District Faridabad, Haryana, India.
5. Determinants of Breast Feeding Practices Amongst Women Delivered at Government Health Facilities in District Faridabad, Haryana.-A qualitative study.
6. Reproductive health issues among adolescent girls in rural Ballabgarh
7. An assessment of sexual High Risk Behavior among Female Factory workers in Faridabad
8. A study on needs assessment of children attending pediatric OPD for HIV care at a tertiary care hospital in Delhi

Collaborative projects

Ongoing

1. Acute Respiratory Viral Infections in a Rural India (Department of Microbiology)

2. Migration, poverty and access to healthcare: a study on people's access and health system's responsiveness in Delhi (ICMR)
3. Community-based epidemiological study on corneal disorders (Department of Community Ophthalmology, Dr. R. P. Centre for Ophthalmic Sciences)
4. 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)
5. A comparative study to assess opinion, attitude and practices regarding care and protection of children among parents living in selected rural and urban community in Delhi NCR (College of Nursing)

Complete

1. A study to assess cardiovascular risk factors among Delhi school children (College of Nursing)

PUBLICATIONS

Journals: 49

Abstracts: 1

Books: 2

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Rahul Srivastava (Senior Resident, CCM, AIIMS) was awarded Research Grant of Rs 300,000 by Maternal Health Young Professionals Mentoring Programme organized by St. John's Medical College in collaboration with Maternal Health Task Force, Harvard School of Public Health, USA. Dr Shashi Kant was internal mentor for Dr Rahul Srivastava for the Research Grant.

Professor C.S. Pandav was appointed Chairman of the Committee of 'Dengue Prevention and Outbreak Response Cell (DPORC)', AIIMS, New Delhi; Member of the Technical Resource Group of the National Urban Health Mission by the Min. of Health & Family Welfare, Government of India; Member of the Expert Group for Development of Regulations and Guidelines for Food Fortification, by Food Safety and Standards Authority of India, (Ministry of Health and Family Welfare of India), Government of India; Member (External) on the Board of Studies (BOS) of Community and Family Medicine, AIIMS, Patna; Invited as an External Examiner to Conduct MD (Community Medicine)/Community Dentistry Parts - I & II Examinations held from 12-16 August, 2013 at Colombo, Sri Lanka.

Professor Sanjeev Kumar Gupta member of the Core Committee of the AIIMS, under the Revised National Tuberculosis Control Programme; reviewer of many international and national journals, e.g., BMC Public Health, The National Medical Journal of India, BioMed Research International, Indian Journal of Community Medicine; examiner for theses of MD (CHA), for the University of Delhi South Campus.

Professor Kiran Goswami was Core group member-Steering Group *National Research Priority Setting Exercise in Maternal, Neonatal & Child Health & Nutrition (MNCHN)* An ICMR-INCLIN Initiative; Member, *National Certification Committee for Polio eradication* – expert for certification process for state of Rajasthan, November 2013; Expert for FGD conduction amongst ANMs and mother in community for *Brain to Society Diagnostics for Prevention of Childhood obesity and its chronic Diseases Consequences* – 13.7.2013; Expert for selection of Asst. Prof. (Community Medicine) at ESI hospital Delhi, Faridabad, Shimla; Examiner, MD Annual Exam April 2013 University of Delhi, MD (CHA) Annual Exam March- April 2014, NIHF; Advisor PT Board, Combined Medical Services Examination, October 2013, UPSC; Interviews in Swasth Bharat, All India Radio: (i) Stress in adolescents and its management, (ii) Health Care Services for Elderly, (iii) Care of under five children, (iv) Nutrition of under five children, (v) Health Care of Diabetics in Winter, (vi) Mental development of growing children.

Dr Baridalyne Nongkynrih was member project review committee in ENT projects, ICMR; External examiner MBBS final prof to JNIMS Manipur and VMMC Safdarjung Hospital; Thesis evaluation for B.P. Koirala Institute of Health Sciences, Dharan, Nepal; Government Medical College Agartala, Tripura; Thesis evaluation for Community Medicine School of Public health PGIMER Chandigarh; Reviewer for Indian Journal of Community Medicine, Global Health Action, Indian Journal of Public Health, Indian Journal of Maternal & Child Health, Journal of Health, Population and Nutrition, ICDDR Bangladesh; Member, Journal Advisory Committee of Indian Journal of Community Health; Member, Curriculum development for Community Family medicine in Conclave on Community Medicine & Family Medicine for six AIIMS institutions held by the Ministry of Health & Family Welfare. Chaired session on Adolescent Health in annual conference of the IAPSM held in Government Medical College Agartala, Tripura in February 2014.

Dr Sanjay K. Rai was nominated by National AIDS Control Organization (NACO), Department of AIDS Control

(DAC), Ministry of Health and Family Welfare, Government of India as a *focal person* for providing technical assistance for HIV Sentinel Surveillance (HSS) to five northern states (Delhi, Bihar, UP, UK and Jharkhand) of India; Received the INDEPTH Travel Award for oral presentation ‘Transition of mortality pattern at Ballabgarh HDSS: evidence from verbal autopsy tool’ during INDEPTH SCIENTIFIC CONFERENCE 2013, held at **School of Public Health of the University of Witswatersrand, Johannesburg, South Africa** from 28th -31st October 2013; Member, National Steering Group for Research Priority Setting in Maternal, Newborn, Child Health and Nutrition (MNCHN) for ICMR and INCLN; Technical Advisory Group Member on an Innovative training model for PHFI; Peer reviewer for Health & Population Perspective and Issues, Indian Journal of Public Health, Indian Journal of Community Medicine, International Journal of Epidemiology, Indian Journal of Pediatrics etc.; Participated in INDEPTH workshop on “Cause of Death Determination with Inter VA-4” held at Bangkok, Thailand, October 13-15, 2013; Participated in investigators group meeting of project influenza Immunization of Children in India held at CDC, Atlanta, Georgia, USA, 17-18 July 2013; Nominated by PGIMS Rohatak, NIHFV and Delhi University as a member of the Board of Examiners in community medicine for 2013-14. Was external examiner for MBBS final professional examination at MAMC New Delhi, and PGIMS Rohtak, from 25-29 November 2013, and 10-13 January 2014 respectively; Conducted several supervisory field visits of Bihar, Jharkhand, Delhi, Uttarakhand and UP to monitor HIV Sentinel Surveillance 2012-13 and provided technical support to these states; Unanimously elected Vice President (north zone) of Indian Public Health Association for 2013–15.

Dr Y.S. Kusuma was Member of the ‘National Task Force on Migrants’ Healthcare of Indian Council of Medical Research (ICMR)’; Member, ‘The Global Burden of Metabolic Risk Factors for Chronic Diseases Collaboration Group’; Developed and implemented IEC strategies in collaboration with state health authorities and other NGOs, under an ICMR interventional project; Departmental screening committee member of Department of Science and Technology (DST); Editorial Board Member for *Studies on Ethno-Medicine* and *Afro-Asian Journal of Anthropology & Social Policy*; Serving as Reviewer to international and national professional journals such as *Asia-Pacific Journal of Public Health*, *Annals of Human Biology*, *Asian Pacific Journal of Tropical Medicine*, *BMC Public Health*, *BMC Family Health*, *BMJ Open*, *Global Health Action*, *Health and quality of life outcomes*, *Journal of Human Hypertension*, *Journal of Urban Health*, *Journal of Public Health*, *Indian Journal of Medical Research*, *Maternal and Child Health Journal*, *Studies on Ethno- Medicine*, *Journal of Human Ecology*, *Journal of Immigrant and Minority Health*, etc.; adjudicator to PhD theses/M Phil dissertations; Reviewer for research proposals of ICMR and DST.

Dr Anil Goswami was appointed as Nodal officer for Disease Prevention Outbreak Response Cell (DPORC), AIIMS; A telephonic ‘Dengue helpline’ was made operational during 2013-14; Appointed as Hindi Nodal officer for Centre for Community Medicine, AIIMS; Member, All India Radio Family Welfare Programme Advisory Committee.

PATIENT CARE

Urban Health Programme

The Urban Health Programme of the Centre is located at Dakshinpuri Extension, Dr Ambedkar Nagar in South Delhi. Apart from providing healthcare to the inhabitants, it acts as training and teaching centre for MBBS, MD and Nursing students. Patient care services are provided at the Urban Health Centre.

	Activities	Number
OPD	Total no of patients seen (including immunization)	28,871
	Total number of referrals	1,531
Immunization	0 dose OPV	54
	BCG	114
	DPT I	86
	DPT II	144
	DPT III	214
	OPV I	335
	OPV II	357
	OPV III	368

	DPT booster + OPV booster	445
	Measles	425
	MMR	411
	TT I (ANC)	163
	TT II or Booster (ANC)	136
	Hepatitis I	97
	Hepatitis II	144
	Hepatitis III	232
	Pentavalent I	249
	Pentavalent II	213
	Pentavalent III	154
	Typhoid	497
	Vitamin A solution	805
	Iron & Fe tablets distributed (Adult)	60,635
	Iron & Fe tablets distributed (Paed)	7,170
Family planning	No of Condoms distributed	3,750
	No of Oral contraceptive pill cycles distributed	101
Laboratory services	Rapid test for malaria	145
	Hemoglobin	1,357
	Urine (albumin & sugar)	61
	Blood sugar	1,464

Health education and Social Services activities

	Health Education Activities	No. of Participants
1.	Exhibition and Posters on “High Blood Pressure” were displayed at Medicine & Pediatrics Emergency Ward, Medicine & Pediatrics OPDs, RAK OPD, Cardio Thoracic Centre & Foyer on 06.04.2013	OPD patients
2.	Organized “World Health Day Exhibition and Talk” at Urban Health Centre, Dakshinpuri Extension, New Delhi on 08.04.2013	115 participants
3.	Total Relief material (Medicines+Biscuits+ Channa+ Bandages + Soaps) etc. donated to the victims of Utrakhand Flood Disaster	Rs 10,000
4.	“World Population Day” was observed by organizing an Exhibition and a Talk at Urban Health Centre, Dakshinpuri Extention, New Delhi 03.08.2013	90 Participants
5.	Organized Intervention Programme on “Alcohol Prevention” with the collaboration of an NGO “Alcohol Anonymous” at Urban Health Centre, Dakshinpuri Extension, New Delhi on 09.09.2013	210 Participants
6.	Posters & films were screened on public health issues on the eve of “Institute Day Health Exhibition” at AIIMS from 25.09.2013-27.09.2013	21 posters and 18 films
7.	Banners on Vector Borne Diseases were displayed in AIIMS and its residential campuses on 07.10.2013	30
8.	Organized an Exhibition on “World AIDS Day” at Dakshinpuri Extension, New Delhi 05.12.2013	160 participants
9.	Total number of health talks conducted at Dakshinpuri Extension for patients and general public on Vector-Borne Diseases, Water-Borne Diseases, Epilepsy, Organ Donation, Common Cancers, Hypertension, Diabetes Mellitus, Breast Feeding & Weaning, malnutrition, Environment, Drug Abuse, Population control.	88

10.	Booklets on Dengue distributed in OPDs, Wards, Public places & all residential areas of AIIMS.	>5000
Social Service Activities		
1.	Patients identified for social services	4321
2.	Financial help arranged for medicines, food, education, clothes etc.	38
3.	Counseling for patients and families	
4.	Individuals	
5.	Families	1200110
6.	Referral and Rehabilitative Services	40
7.	Training of MSW students posted in CCM	05

Sex and Marriage Counseling Clinic (SMCC), AIIMS Hospital

(Room No. 38, Main hospital, 3 days a week, Dr Sanjay K Rai is faculty In-charge)

New Patients seen	1819
Old Patients seen	2038
Total Patients seen	3857

Comprehensive Rural Health Services Project, Ballabgarh

Comprehensive Rural Health Services Project (CRHSP), Ballabgarh comprises of a referral hospital (Civil Hospital), and two primary health centres (PHCs - Dayalpur and Chhainsa). CRHSP Ballabgarh provided OPDs services to 2,85,397 patients along with emergency services to 40,413 patients, and inpatient services to 8,105 patients in the year 2013-14. In the CRHSP, Ballabgarh, around 2,173 surgeries (major and minor) were performed in this year. CRHSP caters a rural Intensive Field Practice area with a population of 93,906 through a network of two PHCs and associated 12 sub centres.

A. Referral Hospital, Ballabgarh:

1. Outpatient Departments:

- Daily: General medicine, General surgery, Child welfare centre (Paediatrics), Ophthalmology, Dental, Obstetrics and Gynaecology, Psychiatry, Homeopathy (AYUSH), Ayurveda (AYUSH)
- Thrice weekly: ANC Clinic
- Twice weekly: ENT
- Weekly: Orthopedics, Physical Medicine and Rehabilitation (PMR), Paediatric Surgery, NCD, Dermatology (started during the current financial year).

Total Outdoor Patients : 222 229

- Old & New Patients : 215 000
- ANC Registration : 7229
- Immunization : 6668

2. Inpatient

- Total no. of beds : 50
- Total no. of admissions including births : 8105
 - Through Causality : 3719
 - Through OPD : 1376
 - Newborn : 3010
- Bed Occupancy rate (BOR) : 90%
- Total number of deliveries in hospital : 3010
- Average duration of stay : 2.02

Distribution of Inpatients

Specialty	Number of patients	Specialty	Number of patients
Medicine:	100	Surgery:	271
Obstetrics & Gynaecology:	4153	Paediatrics:	389
Ophthalmology:	182	Newborn:	3010
3. <u>Casualty (Six beds)</u>			
Patients registered:	40413	Medico Legal Cases:	5126
Emergency admissions (6 beds):	2067		
Medicine:	1719	Paediatrics:	348
4. <u>Laboratory and diagnostic services</u>			
Lab investigations:	189273	X-ray*:	15929
Ultrasonography:	9280	Malaria slides:	7951
<i>Malaria cases P. vivax:</i>	56	P. falciparum:	2

*Digital X-ray Machine facility has installed during the current financial year

5. Revised National Tuberculosis Control Programme (RNTCP)

Ballabgarh hospital is a Tuberculosis Unit (TU) under the Revised National Tuberculosis Control Programme. Four designated microscopy centres (DMCs) are under this unit. Total tuberculosis cases treated at Ballabgarh Hospital from 1 April 2013 to 31 March 2014:

Cases treated at Ballabgarh Microscopy Centre (Category wise)

New cases:	496	Previous treated cases:	147
TOTAL	643		

6. Integrated Counselling and Testing Centre

Counselling and testing services provided for HIV : 5657
 Tested positive for HIV (%) : 50 (0.9)

7. Computerization of services

Computerized OPD registration, computerized admission entry & discharge summary of patients, computerized database, and computerized inventory management were started during the current financial year.

B. **Community Health Services**

CRHSP, Ballabgarh provides community health services to Intensive Field Practice Area (IFPA) of 28 villages through a network two Primary Health Centres (Dayalpur and Chhainsa), and 12 sub health centres. Domiciliary, outpatient, inpatient, and referral services are provided in the IFPA. Important demographic indicators for the IFPA as follows:

Population:	93,906	Birth Rate per 1000 population:	21.3
Death rate per 1000 population:	5.9	Sex ratio at birth:	812
Sex ratio overall:	855		
Neonatal mortality rate per 1000 live births:	25.2		
Infant mortality rate per 1000 live births:	36.4		
Under 5 mortality rate per 1000 live births:	45.7		
Maternal Mortality Rate per 100,000 live births:	102		

1. OPD Services in IFPA

Name of PHC	New Cases	Repeat visits	Total
Dayalpur	18904	18325	37229
Chhainsa	11099	14624	25939

2. Family Welfare and Maternal Child Health: The IFPA is dependent on the District Health Department (Immunization, and family planning division) for the supply of vaccines and other logistics.

Total antenatal cases (new registration)	:	2290
Pregnant women receiving antenatal care	:	90%
Complete TT coverage of registered cases	:	100%
Institutional deliveries	:	93.1%

Total deliveries in delivery hut

PHC Dayalpur:	338	PHC Chhainsa:	430
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Expanded Programme on Immunization

Total Immunization coverage	:	97.5%
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3. National Programmes

Malaria

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

Indicators	Dayalpur PHC	Chhainsa PHC
Total number of slides collected	6101	4552
Total number of positive cases	41	95
Annual blood examination rate (%)	13.2	9.6
Annual parasite incidence (per 1000)	0.9	2.0
Slide positivity rate (%)	0.7	2.1

Tuberculosis

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

New cases	98	Previously treated cases	39
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4. Special services:

Animal bite management clinic

Dayalpur PHC	127	Chhainsa PHC	330
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Family welfare camp (PHC Chhainsa)

Number of Vasectomy	3	Number of Tubectomy	36
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OutReach Specialty OPD (ORSO)

Outreach specialty OPD services are provided at both PHCs on every Tuesday. Paediatrician, Gynaecologist, Psychiatrist, and Ophthalmologist are available during these specialty OPDs. The ORSO services are started in July 2013 to provide specialty services to people of IFPA in the PHCs.

5. Computerization

Computerized OPD registration and computerized inventory management is started during the current financial year. Computerized discharge summary of patients was already in place.

6. IEC Activities

Group Health Talks: Neonatal care and kangaroo mother care, Breast feeding and weaning, Antenatal care, high risk pregnancy, anemia in pregnancy, importance of institutional delivery, Immunization, Malaria and Dengue, Tuberculosis, anemia in children, malnutrition in children, Vit A deficiency, Diabetes, Hypertension, HIC/AIDS, accidents in children, personal hygiene, family planning methods, postnatal care and diet, care of newborns, swine flu, geriatric care, Mental health programme, etc.

Short film shows are shown in Child welfare centre, Ballabgarh, PHC, Dayalpur, and PHC, Chhainsa on important topics i.e. Breast feeding, antenatal care, child care, female feticide, eye care, Vitamin A deficiency, malnutrition, and diarrhoea during OPD timings.

VISITING SCIENTISTS

<u>Topic of Guest Lecture</u>	<u>Speaker</u>	<u>Date</u>
What do editors look for in manuscripts	Dr Anita Jain, India Editor, BMJ	17 April 2013
FLUOROSIS: Mitigation of the disease and associated issues: Recent developments in India	Prof A.K. Susheela	29 August 2013
Music therapy: a promising medical intervention for Indians	Dr T.V. Sairam, Nada Music Centre	26 September 2013
Groundwater Arsenic Contamination in Ganga-Meghna-Brahmaputra Plain: an emerging public health challenge	Prof. Dipankar Chakraborti, Director (Research), School of Environmental Studies, Jadavpur University	20 December 2013
GENOMIC and EPIGENOMIC Analysis of Hepatocellular Carcinoma	Dr Chrisopher Taylor Barry, University of Rochester Medical center, Rochester, NY, USA	22 January 2014
Women and Peace: Victims of violence, agents of social change	Dr Rama S Singh, Professor, Department of Biology and Centre for Peace studies, McMaster University, CANADA	4 March 2014
Equity and Public Health	Dr Yogesh Jain, Jan Swasthya Sahyog	11 March 2014
Basics of marriage and issues related to dispute	Mr I N Khan, Hum Tum Foundation	20 March 2014

9.9 Dermatology & Venereology

Professor and Head

Vinod Kumar Sharma

Professors

Neena Khanna
Binod K. Khaitan

Kaushal K. Verma
Sujay Khandpur

M. Ramam
G. Sethuraman

Additional Professor

Somesh Gupta

HIGHLIGHTS

The department organized XI International Congress of Dermatology, December 4-7, 2013 at New Delhi with Professor V.K. Sharma as Congress President. It was attended by over 4000 delegates from 60 countries. The department has many funded projects including International collaboration with University of Michigan, USA 'Genetic Analysis of Psoriasis and Psoriatic Arthritis in India' projected funded by NIH. Professor G. Sethuraman is focussing on Pediatric Dermatology with 4 research projects in hand and one has been completed. The faculty has been honoured with editorship of journals namely

Dr V.K. Sharma : Section Editor, British Journal of Dermatology

Dr M. Ramam : Chief Editor, Indian Journal of Dermatology Venereology and Leprology

Dr Sujay Khandpur : Editor, Indian Journal of Dermatopathology and Diagnostic Dermatology

The department is running busy OPD services with 105491 cases in morning OPD and 10790 in afternoon clinic and wards with 895 regular admission and 3903 short admission for pulse therapy and Rituximab therapy. The department has also started weekly skin OPD at Ballabgarh managed by a Senior resident.

EDUCATION

- Four candidates completed MD Dermatology and Venereology training, 8 candidates took short term training from 2-4 weeks

CMEs/Workshops/Symposia/National and International conferences

Organized by the department

1. XI International Congress of Dermatology and 42nd Annual conference of Indian Association of Dermatologists, Venereologists and Leprologists organized by Dr V.K. Sharma, Professor and Head, Department of Dermatology and Venereology held on December 4-7, 2013 attended by more than 4000 delegates.
2. State Level workshop on Recent advances in Leprosy organized by Dr Neena Khanna, Professor

Lectures delivered

V.K. Sharma: 10

Neena Khanna: 5

Kaushal K. Verma: 11

M. Ramam: 8

Binod K. Khaitan: 3

Sujay Khandpur: 9

G. Sethuraman: 3

Somesh Gupta: 5

Oral papers/posters presented: 12

RESEARCH

Funded projects

Ongoing

1. Genetic Analysis of Psoriasis and Psoriatic Arthritis in India, V.K. Sharma, NIH, USA, Rs. 68 lakhs, 2010-2013
2. Elucidating role of Foxp3 promoter DNA methylation. Level in active non-segmental Generalized vitiligo, V.K. Sharma, DBT, Rs. 60 lakhs, 2011-2014
3. Comparison of clinical efficacy and safety of PUVAsoL and Unani medicine (UNIM-401 orally and UNIM-403 oil for local application) in treatment of chronic plaque psoriasis, Neena Khanna, AYUSH Min. of Health & family welfare, 4 years, 2010-2014, Rs. 36,47,734.

4. Randomized clinical trial of azathioprine versus methotrexate weekly pulse for the treatment of chronic plaque psoriasis, Kaushal K. Verma, ICMR, Rs. 32 Lacs, 2010-1014
5. Urologic Evaluation of Dermatologic patients on chronic cyclophosphamide therapy. Sujoy Khandpur, AIIMS, Rs 1 lakh.
6. Comparison of clinical efficacy and safety of methotrexate versus etanercept in moderate to extensive chronic plaque psoriasis, Sujoy Khandpur, AIIMS, Rs. 3.30 lacs.
7. Randomized trial of systemic steroids and propranolol in the treatment of Infantile hemangioma, 2012-2014, G. Sethuraman, ICMR, Rs. 18 Lakhs
8. Molecular Analysis of Epidermolysis bullosa, 2012-2015, G. Sethuraman, ICMR, Rs 30 Lakhs
9. A comparative study of Immunohistochemistry antigen mapping with immunofluorescence mapping in the diagnosis of inherited epidermolysis bullosa, DST, 2013-2016, Rs 40 lakhs
10. Determination of plasma and urinary levels of catecholamines in patients with vitiligo and their correlation with stability and outcome of melanocyte transplantation, 4 years, 2011-2014, Rs 10 lacs plus staff, ICMR, Somesh Gupta

Completed

1. Prevalence of antibiotic resistant *Propionibacterium acnes* in periadolescent acne before and after treatment with oral retinoids, Neena Khanna, ICMR, 4 years, 2009-2013, Rs. 27,09,770
2. Intralesional immunotherapy with killed *Mw vaccine* for treatment of giant condylomata accuminata, Kaushal K. Verma, DBT.
3. Prevalence of Vitamin D deficiency Rickets in children with congenital ichthyosis and keratinizing disorders. 2010-2013, G. Sethuraman, ICMR, Rs. 18 Lakhs
4. The role of immunological factors in determining stability of pigmentation by comparing the levels of immunohistochemical markers in successful & unsuccessful re-pigmentation at 0, 2 weeks, 2012-2013, Rs. 5 Lacs, AIIMS, Somesh Gupta

Departmental projects

Ongoing

1. A randomized comparative study of the effect of betamethasone oral mini pulse therapy and oral azathioprine in progressive non-segmental vitiligo.
2. A randomized controlled study to evaluate the efficacy of topical tacrolimus ointment versus clobetasole propionate ointment in patients with morphea and lichen sclerosus.
3. A Study of the Histopathological Features of Alopecias on Transverse Sections of Scalp Biopsies
4. A Study to validate the AIIMS clinical criteria for diagnosis of segmental vitiligo.
5. Assessment of quality of life (QoL) in Indian patients with genital herpes.
6. Clinical and histopathological study of Lupus miliaris disseminatus faciei and granulomatous cheilitis
7. Clinical profile of photodermatoses at AIIMS
8. Clinico-pathological study of granulomatous cheilitis and lupus miliaris disseminatus faciei
9. Comparison of three treatment regimes in palmoplantar psoriasis
10. Dermatological manifestations of reactive arthritis
11. Dermoscopic study of alopecia.
12. Dermoscopy in alopecia
13. Dermoscopy in hyperpigmentary disorders
14. Dexamethasone – Cyclophosphamide pulse therapy in pemphigus.
15. Efficacy of pulsed dye laser 595 nm in facial portwine stains.
16. Histological evaluation of palmoplantar psoriasis versus palmoplantar dermatitis
17. ND Yag laser in the treatment of N. Ota lentigines, Melasma etc.
18. Occupational dermatoses
19. Perimenstrual eruptions in females
20. Pulse Dye laser for PWS

21. Study of cytokines, transcription factors, chemokine receptors and their ligands of Th17 and Treg cells in pemphigus vulgaris.
22. Study of occupational contact dermatitis
23. Use of methotrexate in pemphigus group of disorders
24. Utility of horizontal sections of scalp biopsies in alopecias.
25. Validation and Comparative Evaluation of Vitiligo Impact Scale in Assessing Psychosocial Burden of Vitiligo
26. Weekly azathioprine pulse (WAP) therapy versus betamethasone oral mini pulse therapy in the treatment of moderate to severe alopecia areata.
27. Correlation of serum levels of 25(OH) D with skin color (melanin index)
28. Effect of Vitamin D supplementation on the bone mineral homeostasis in children with congenital Ichthyosis

Completed

1. Prevalence of metabolic syndrome and cardiovascular risk factors in patients with chronic plaque psoriasis in northern India
2. Efficacy and safety of long pulse diode lasers in hair reduction in Indian patients.

Collaborative projects

Ongoing

1. To evaluate the role of CD4+TCR $\alpha\alpha$ +cells in polar forms of leprosy (Biochemistry)
2. Immuno-genetics mechanisms in epilepsy patients taking anti-epileptic medications. (Neurology)
3. A study to identify the genetic basis of Stevens-Johnson syndrome (SJS) (Anatomy)
4. Prevalence of *Chlamydia trachomatis* in patients with infertility & urogenital infections and genotyping by PCR-Restriction Fragment Length Polymorphism and Omp A sequencing (Microbiology)
5. Real Time Polymerase Chain Reaction for Herpes Simplex Viruses- with Department of Microbiology, AIIMS.
6. Radioactive skin patches for treatment of Basal Cell Carcinoma and Keloids- with Department of Nuclear Medicine, AIIMS.
7. Genetic polymorphism in Th-1 and Th-2 cytokines and their association with Parthenium induced contact dermatitis – with Department of Biochemistry, AIIMS.
8. Role of Fox P3+ regulatory T cells in polarized immunity among leprosy patients (funded by ICMR) (with Transplant Immunology)

Completed

1. Evaluation of T - cell cytokines profile in patients of Parthenium dermatitis. (Department of Biochemistry). (ICMR grant).
2. Determination of telomerase activity and telomere length in T-cells of peripheral blood in patients of Parthenium induced contact dermatitis and its co-relation with disease severity (Department of Biochemistry) (Funded by DBT).
3. Evaluation of topical cyclosporine in ocular involvement in Stevens-Johnson syndrome (Ophthalmology, Dr. RP Centre) (Funded by ICMR).

PUBLICATIONS

Journals: 35

Chapters in books: 5

Books: 2

PATIENT CARE

The department has 29 bedded ward including two isolation rooms. Total admissions from April 2013 to March 2014 is 895 and total short admission for pulse therapy is 3903. OPD General dermatology and special clinics on STD, Leprosy, Dermatotomy, Pigmentation, Allergy and lasers on Diode Laser, Carbon Dioxide Laser, ND:YAG laser, Pulse Dye laser Rituximab and DCP Therapy for pemphigus is carried out, Phototherapy, side lab procedure. One Senior Resident is visiting Ballabgarh and subcenter. Every week OPD services with 105491 cases in morning OPD and 10790 in afternoon clinic

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor V.K. Sharma was awarded Certificate of appreciation by International League of Dermatologic Societies

for life time achievement; conducted International Congress of Dermatology in New Delhi on December 4-7, 2013 as Congress President; Section Editor of British Journal of Dermatology October 2013 for three years, first editor from India; Editorial Board of journal of American Society of Contact Dermatitis Named 'Dermatitis'; Attended 22nd Congress of European Academy of Dermatology & Venereology at Istanbul, Turkey from October 2-6, 2013. Attended Executive Committee and General Body meeting of EADV, International Society of Dermatology; Attended Editorial Board meeting of Dermatitis Journal March 20, 2014, Denver, USA; Attend University of California, San Francisco, California Dermatosurgery clinic March 28, 2014; Guest of Honour at Inauguration of 2nd National Conference on Nail Disorder from 8th-10 November 2013 at Dr. Ram Manohar Lohia Hospital, New Delhi; Judge for 'Zonal Round of Torrent Young Scholar Award 2013' for Dermatology on September 15, 2013 at Delhi; Attended Executive meeting in Society of Dermatology and presented report of XI Congress of Dermatology.

Professor Neena Khanna was awarded Indian Association of Dermatology & Venereology L.K. Bhutani Memorial Award for Teaching and Research: Dec. 2013; Chief Editor, World Clinics in Dermatology.

Professor Kaushal K. Verma was Professor In Charge (Examinations), AIIMS, with administrative and financial powers of Dean (Examination) till Nov 2013; Vice Chair – International Union against Sexually Transmitted Infections – Asia Pacific (IUSTI-AP), South Asia Region 2012-14; Chair Elect - International Union against Sexually Transmitted Infections – Asia Pacific (IUSTI-AP) 2012-2014; President, Pemphigus and Pulse Therapy Foundation 2011-2013; Member, Academic Committee, Jiwaji University, Gwalior, Madhya Pradesh; On editorial board/reviewer of 8 reputed indexed international/national journals; Member- Scientific Committee of International Union against Sexually Transmitted Infections- Asia pacific Conference to be held in Bangkok in November 2014; Led a team of Indian Expert for Swedish-Indian Workshop 'Improved Diagnostics and Prevention of Occupational and Environmental Dermatoses in India' held at Malmo, Sweden from April 21-25, 2013; Chaired a session on 'HIV and STI: The Fatal Attraction' in HIV Congress 2014, March 21-23, 2014 at Mumbai; Contributed to an International workshop on 'Evidence based recommendations and Bio-engineering methods for skin protection and skin cleansing' at Osnabrueck University, Germany; Member selection committee for faculty selection of North East Indira Gandhi Regional Institute of Health and Medical Sciences; Contributed to national television programs on common skin problems and skin care as public awareness programs.

Professor M. Ramam was Visiting Professor, Department of Dermatology, University of California, San Francisco September 2013; Editor-in-Chief Indian Journal of Dermatology Venereology and Leprology from January 2014.

Professor Binod K. Khaitan was Member organizing committee, XI International Congress of Dermatology & 42nd Dermacon held at New Delhi on 4-7 December 2013; Member central scientific committee, 42nd Dermacon held at New Delhi on 4-7 December 2013; Chaired the scientific sessions for poster presentation as jury for best poster award ASPCR-ASDR conference, 17-19 May 2013, Sydney, Australia; Chaired the session "Viligo in Depth", Aestheticon 2013, 23-25 August 2013, New Delhi; Chaired the session "Clinical onychology", Onychocon, 9-10 November 2013, New Delhi; Chaired the session "Systemic Therapy", XI International Congress of Dermatology and 42nd Dermacon, 4-7 December 2013, New Delhi; Chaired the session "Free papers: Pediatric Dermatology" XI International Congress of Dermatology & 42nd Dermacon, 4-7 December 2013, New Delhi; Chaired the session "Free papers: Genodermatoses", XI International Congress of Dermatology & 42nd Dermacon 4-7 December 2013, New Delhi.

Professor Sujoy Khandpur was awarded the Professor Ganapati Panja award 2013 by IADVL for outstanding contribution to field of Dermatopathology and Clinical Dermatology; Editor-in-Chief, Indian Journal of Dermatopathology and Diagnostic Dermatology 2013 onwards; Section Editor on Cutaneous Pathology in Journal of Cutaneous and Aesthetic Surgery 2013 onwards; Member, Advisory Committee IADVL Text Book 2013 onwards; Medical Council of India expert for drafting UG curriculum in Dermatology; Member Expert Committee on Review of Multidrug therapy for leprosy under Ministry of Health & Family welfare Member, Special Interest Group on Clinical trials and Research Methodology of IADVL; Reviewer of British Journal of Dermatology, Dermatology, Clinical and Experimental Dermatology, Leprosy Review, Indian Pediatrics, Indian Journal of Dermatology; Joint Organizing Secretary, XI International Congress of Dermatology 2013; Vice President Indian Association of Dermatology, Venereology and Leprology (Delhi Branch)

Professor G. Sethuraman was Section Editor Pediatric Dermatology & LASERS, Journal of Cut and Aesthetic Surgery

Dr Somesh Gupta was Editor-in-Chief of Journal of Cutaneous and Aesthetic Surgery; Joint Editor of Sexual health (Australia); AIIMS Excellence Award-2013, First Prize; Regional Director for Asia-Pacific Region of International Union against Sexually Transmitted Infections (IUSTI); Hon. Treasurer of Indian Association of Dermatologists, Venereologists and Leprologists; Vice President of Pigmentary Dermatology Society; Treasurer for International Congress of Dermatology, December 4-7, 2013

VISITING SCIENTISTS

1. Prof. James T Elder and Dr. Rajan Nair, Department of Dermatology, University of Michigan, USA, delivered lecture on “ Genetic Study in Psoriasis” on January 29, 2013.
2. Dr. Amit Pandya, Professor, Department of Dermatology, University of Texas lecture on” Melasma” on December 2, 2014.

9.10 Emergency Medicine

Professor and Head

Praveen Aggarwal

Professor

L.R. Murmu

Assistant Professor

Mohammed Tahir Ansari

Meera Ekka (Contract)

Jamshed Nayer (Contract)

HIGHLIGHTS

The department has been in the forefront of providing round-the-clock, quality emergency care to patients with different types of medical, pediatric and non-traumatic emergencies. Initial emergency care is also provided to patients with any type of trauma. Nearly 1,35,000 patients visited the department during the year. It is one of the few academic departments in India, which has been providing postgraduate degree in the specialty of Emergency Medicine. The Department also provides teaching and training to undergraduate students, nurses and paramedics in initial care of seriously ill patients. The departmental faculty has actively participated in providing training to the existing and future faculty of Medical Council of India recognized colleges in the discipline of Emergency Medicine. At international level, the Department has been actively collaborating with several universities from the USA to organize conferences on Emergency Medicine with the aim of training doctors, nurses and paramedics in this field. Some of these Universities include University of South Florida, SUNY Downstate New York and Michigan State University.

EDUCATION

The Faculty organized life support courses for undergraduates and postgraduates posted in the Department. The Department runs a schedule of academic activities for the residents of Emergency Medicine (seminars, journal clubs, case discussions) thrice a week. In addition, the department faculty was involved in didactic teaching of undergraduates, postgraduates and nursing students through lectures and seminars. The Department imparted short term training to 5 undergraduate and postgraduate students from USA, England, Australia and India.

Continuing Medical Education

Conferences/seminars/workshops organized

1. Emergency Medicine Practices and Advanced Clinical Therapeutics, 7–11 August 2013, Pune.
2. Advanced Toxicological Life Support Workshop, 9th Indo-US Emergency Medicine Summit-2013, Thrissur, Kerala, 23–27 October 2013

Lectures delivered

Praveen Aggarwal: 4

Meera Ekka: 2

Jamshed Nayar: 1

Oral papers/posters presented by Residents: 2

RESEARCH

Departmental projects

Ongoing

1. Comparative evaluation of biomarkers with clinical severity scores for outcome prediction in patients with sepsis in the emergency department
2. Accuracy of urinary Multistix 10 SG leukocyte esterase reagent strip test in making the diagnosis of spontaneous bacterial peritonitis.
3. Utility of urinary toxicology screen in patients with undifferentiated altered level of consciousness presenting to the Emergency Department.
4. Prognostic utility of plasma neutrophil gelatinase-associated lipocalin (NGAL) in patients presenting with acute heart failure in the Emergency Department
5. Evaluation of diagnostic scores (Alvarado and Eskelinen Score) with computerized tomography of abdomen in diagnosing Acute Appendicitis.

6. Evaluation of undifferentiated abdominal pain in elderly patient.

PUBLICATIONS

Journals: 13

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Praveen Aggarwal continues to be Chief co-Editor, Journal of Emergencies, Trauma and Shock, an international journal indexed in PubMed; Nominated Member of Signal Review Panel of the Central Drugs Standard Control Organization and the Indian Pharmacopoeia Commission for Pharmacovigilance Programme of India (PvOI); Member, Scientific Body, Indian Pharmacopoeia Commission, Ministry of Health & Family Welfare, Government of India; Member, Expert Committee for developing Curriculum and Training Module on High Altitude Mountain Medicine under Directorate General of Health Services, Ministry of Health and Family Welfare; Member, Ethics Committee, AIIMS; Dean, Academic College of Emergency Experts in India.

Dr Meera Ekka was Awarded Fellow of Academic College of Emergency Expert in India (FACEE-INDIA) by ACEE-INDIA; Invited for instructor course for AIIMS Ultrasound Trauma Life Support Course (AUTLS), JPNA Trauma Centre, AIIMS, New Delhi; Achieved certificate of professional diploma in clinical research (PDCR) after 6 months of distance course from Catalyst Clinical Services Pvt. Ltd., May 2013.

PATIENT CARE

Average no. of patients: 11,174/month

Total number of Patients: 1,34,096

VISITING SCIENTISTS

1. Dr Timothy Erickson, Director for the UIC Center for Global Health and a Professor of Emergency Medicine and Medical Toxicology, USA, visited the Department and delivered a talk on Preventive Emergency Medicine
2. Dr Ronald F. Maio, Professor Emeritus, Department of Emergency Medicine, University of Michigan Medical School, University of Michigan Injury Research Center, USA visited the department over three days. Several projects of mutual interests including biomarkers in acute coronary syndrome and emergency sepsis registry were discussed.

9.11 Endocrinology and Metabolism

Professor and Head

Nikhil Tandon

Professors

Nandita Gupta

Ravinder Goswami

Additional Professors

Rajesh Khadgawat

Viveka P. Jyotsna

Assistant Professor

Mohd. Ashraf Ganie

Scientist Gd. IV

M.L. Khurana

EDUCATION

CME/Workshops/Symposia/National and International Conferences

Lectures delivered

Nikhil Tandon: 18

Ravinder Goswami: 3

Rajesh Khadgawat: 8

Viveka P. Jyotsna: 4

Mohd. Ashraf Ganie: 2

Oral papers/posters presented

Nikhil Tandon: 13

Rajesh Khadgawat: 4

Viveka P. Jyotsna: 9

RESEARCH

Funded projects

Completed

1. Skeletal muscle strength, energy metabolism, bone mineral homeostasis in Asian Indians with chronic hypovitaminosis D before & after oral cholecalciferol supplementation, Dr. R. Goswami, ICMR, 2010-2013, Rs 27,00,000.
2. Pattern of Th1/Th2 cytokines expression profile in Asian Indians with chronic hypo-vitaminosis D and its change after oral cholecalciferol supplementation, Dr. R. Goswami, ICMR, 2011-2014, Rs 44,00,000.
3. 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, Dr. R. Khadgawat, LG Pharmaceuticals, 2008-2013 (5 yrs.), Euro 50,000/-.
4. A prospective phase III, multicentric, randomized, open label study to evaluate the comparative safety and efficacy of recombinant growth hormone (hGH) of USV with Eutropin in treatment of pre-pubertal of children (4-12) yrs with growth hormone deficiency, Dr. R. Khadgawat, USV limited, 2010-2012 (2 yrs.), Rs 10 Lakh.
5. Effect of Comprehensive yogic breathing program on glycemic control, quality of life and oxidative stress markers in patients of type 2 diabetes, Dr. V. P. Jyotsna, ICMR, 2009-2012 (3 years), 25,00,000/-.
6. Effect of antiepileptic drug – valproate on bone mineral density with relation to dose and duration, Dr. V. P. Jyotsna, AIIMS, 2012-2013 (1 year), 1,00,000/-.
7. Metabolic consequences of Childhood obesity in Kashmiri Schools, Dr. M.A. Ganie, DST, 3 years, 18,00,000 INR.
8. Role of inflammation in Indian women with Polycystic ovary syndrome (PCOS) and its modulation by dietary factors, Dr. M.A. Ganie, DBT India, 3 Years, Rs. 56,87,580/-.

Ongoing

1. Registry of people with diabetes in India with young age at the Onset – II, Dr. N. Tandon, ICMR, 2012 – 2017 (5 yrs), Rs. 93,90,120/-.

2. Childhood Obesity in India: A Multi-center study on its measurement and determinants, Dr. N. Tandon, ICMR, 2011 – 2014 (3 yrs 6 Mths), Rs. 80,31,766/-.
3. Childhood Obesity: inflammatory markers, Gene Variation and Epigenetics, Dr. N. Tandon, DBT, 2012 - 2015 (3 yrs), Rs. 60,91,000/-.
4. Genetic determinants of birth weight and growth trajectory and influence of parental genotype on these anthropometric indicators, Dr. N. Tandon, DBT, 2012 – 2015 (3 yrs), Rs. 1,26,63,880/-.
5. Dx-Phone, Dr. N. Tandon, DBT, 2013 – 2015 (18 Months), Rs. 22,30,000/-.
6. Effect of oral administration of pro-biotic preparation VSL#3, a clinically safe mixture of 8 strains of viable live, lyophilized lactic acid bacteria, on the metabolic control in individuals with type I diabetic mellitus (T1DM) a randomized, double blind placebo controlled trial, Dr. N. Tandon, CD – Pharma, 2013 – 2015 (2 Yrs), Rs. 5,13,744/-.
7. Developing and Testing Integrated Multi factorial CVD Risk Reduction Strategies in South Asia, Dr. N. Tandon, NIH, USA, 2011 – 2015 (3yrs 6 Mths), Rs. 12,61,713/-.
8. Global Health activities in developing countries to combat non-communicable chronic cardiovascular and pulmonary disease (CVPD) – centre of excellence (COE), Dr. N. Tandon, NIH, USA, 2011 – 2016 (5 Yrs), Rs. 41,77,532/-.
9. Changing Diabetes in Children (CDiC), Dr. N. Tandon, Novo Nordisk, 2012 – 2014 (2 Yrs.), Rs. 5,00,000/-.
10. Th1 and Th2 expression pattern and HLA predisposition in patients with sporadic idiopathic hypo-parathyroidism, Dr. R. Goswami, DBT, Rs. 44,00,000/-.
11. Assessment of the molecular factors predisposing basal ganglia for calcification, Dr. R. Goswami, AIIMS, Rs. 5,00,000/-.
12. 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, Dr. R. Khadgawat, ICMR, 2011-14 (3 years), Rs 45 lacs.
13. A Study of Clinical, Epidemiological and Environmental Risk Factors Associated with Fragility Hip Fractures in Elderly Asian Indians, Aged e"60 Years, Dr. R. Khadgawat, 2014-16 (3 years), Rs 33.2 lacs.
14. To Study the Variability in Content Strength of Commercially Available Cholecalciferol Preparations in India, Dr. R. Khadgawat, Indian Society of Bone & Mineral Research (ISBMR), 2014-15 (1 year), Rs 2.5 lacs.
15. A randomized double blind placebo controlled parallel group study to evaluate the efficacy and safety of SAR236553/REGN727 in patients with hetrozygos familial hypercholesterolemia not adequately controlled with their lipid modifying therapy, Dr. R. Khadgawat, Sanofi-Aventis, 2014-16 (3 years), Rs 10 lacs.
16. Efficacy and safety of Liraglutide in combination with metformin versus metformin monotherapy on glycemic control in children and adolescents with type 2 diabetes: A 26 weeks double blind randomized, parallel group, placebo controlled multi-centre trial followed by a 26-week open label extension, Dr. R. Khadgawat, Novo Nordisk, 2014-15 (2 years), Rs 10 lacs.
17. Genotype Phenotype correlation in Asian Indian patients with growth hormone deficiency, Dr. V. P. Jyotsna, DST, 2012-2015 (3 years), Rs. 22,25,000/-.
18. Menin gene mutations in patients with primary hyperparathyroidism, pancreatic and pituitary tumors and its clinical implications, Dr. V. P. Jyotsna, DST, AIIMS, 2013-2015 (2 years), Rs. 5,00,000/- per year.
19. Disorders of sexual differentiation (DSD): Clinical, Social, Psychological implications, Dr. V. P. Jyotsna, ICMR, 2014-2016 (2 years), Rs. 19,57,420/-.
20. Impact of levothyroxine replacement in women with subclinical hypothyroidism and Polycystic ovary syndrome (PCOS), Dr. M.A. Ganie, AIIMS, 1 year, Rs. 5,00,000/-.

Departmental projects

Completed

1. To investigate the effects of vitamin D supplementation on insulin resistance and beta cell functions in Asian-Indian subjects with polycystic ovarian syndrome (PCOS): A pilot study.
2. Childhood obesity in India: Delhi component of a multicentre study on its measurements and determinants.
3. Tumour induced osteomalacia.

4. Effect of basal ganglia calcification on its glucose metabolism and dopaminergic function in idiopathic hypoparathyroidism.
5. To study the prevalence of vitamin D deficiency in pregnant women at first and third trimester during the routine care
6. Correlation between first trimester glucose screening & serum insulin levels with development of gestational diabetes mellitus in pregnancy.
7. Prevalence of thyroid peroxidase antibody positivity in pregnant Asian-Indian subjects.
8. To assess the prevalence of vitamin D deficiency in patients with non-traumatic fracture of hip.
9. To study the clinical, biochemical and radiological features of primary hyperparathyroidism: impact of vitamin D nutrition and histopathology.
10. To Study Carotid Intima Media Thickness (CIMT) As A Marker Of Atherosclerosis And Its Correlation To Insulin Resistance In Children With Obesity In The Age Group Of 4-18 Years.
11. To study the correlation of serum vitamin d level with insulin resistance and beta cell function in subjects with obesity in the age group of 6-18 years.
12. Assessment of arterial stiffness in obese children and adolescents in the age group of 6-18 years.
13. To investigate the effects of Vitamin D supplementation on insulin resistance and beta cell functions in Asian-Indian Subjects with Polycystic Ovarian Syndrome (PCOS): A pilot study.
14. To study the correlation of serum parathyroid hormone level and serum vitamin D with histo-pathological parameters in subjects with Primary Hyperparathyroidism.
15. To study the onset of puberty in Indian children and adolescent and effect of BMI on onset of puberty.
16. To study the clinical, biochemical and radiological profile of subjects with tumor induced osteomalacia.
17. Study of bone health parameters in patients with epilepsy on valproate.
18. To study effect of rhythmic breathing (Sudarshan Kriya Yoga and Pranayam) on glycemic control, quality of life and cardiac autonomic functions in patients of diabetes in addition to standard treatment of diabetes.
19. Effect of rhythmic breathing (Sudarshan Kriya Yoga and Pranayam) on antioxidant status and lipid profile in patients of diabetes in addition to standard treatment of diabetes.
20. Prevalence and Odds of depression among type 2 diabetes on oral hypoglycemic agents on oral hypoglycemic agents in relation to duration and complications of diabetes.

Ongoing

1. Epidemiology of acute and chronic diabetes complication and cardiovascular disease risk factors among youth onset type 1 and type 2 diabetes patients in India- A registry based study.
2. Economic evaluation (EE) of chronic care delivery strategies in people at high risk of CVD.
3. Effect of oral administration of probiotic preparation VSL#3, a clinically safe mixture of 8 strains of viable live, lyophilized lactic acid bacteria, on the metabolic control in individuals with type-1 diabetes mellitus (T1DM); a randomized, double-blind, placebo controlled trial – A pilot study.
4. Seizures in patients with idiopathic hypoparathyroidism: effect of antiepileptic drug withdrawal on recurrence of seizures and serum calcium control.
5. To study the impact of adiposity on serum androgen parameters in apparently healthy male subjects.
6. To study determinants of insulin resistance in children and adolescents with obesity.
7. Phenotype and radiological correlation in children with growth hormone deficiency.
8. Study of awareness of diabetic foot care measures among patients with diabetes visiting Endocrine OPD.
9. Study of prevalence of foot at risk in patients visiting the Endocrine OPD.
10. Serum B12 levels in diabetes mellitus on metformin compared to those not on metformin: Does metformin intake effect serum B12 levels?
11. Invasive fungal rhinosinusitis in diabetes: Clinical, microbiological and Radiological Profile.
12. Succinate dehydrogenase gene mutations in patients with pheochromocytoma/ paraganglioma syndrome in Indian population.
13. Study of gene mutations of (NR5A1, DAX1, DHH, WT1, SRY, DMRT1, SOX9) in patients with 46 XY gonadal dysgenesis and agenesis.

14. Clinical, biochemical, hormonal and familial characteristics in special reference to *FTO* and *Omentin* gene polymorphism in Polycystic ovary syndrome (PCOS) women with/without family history of type 2 diabetes mellitus.
15. Effect of Metformin on pregnancy outcomes in infertile PCOS patients – a randomised control trial.
16. Evaluation of nonalcoholic Fatty Liver disease among young women with Polycystic Ovary Syndrome and its correlation with insulin sensitivity and body fat distribution.
17. To study the lipid parameters in patients with Cushing's syndrome and evaluate their relation to remission.

Collaborative projects

Completed

1. Prospective surgery to evaluate the impact of bariatric surgery on glucose metabolism - comparison of laproscopic roux en Y gastric bypass and laproscopic sleeve gastrectomy. Dept. of Surgery.
2. A study to assess bone health in persons with epilepsy and to evaluate their knowledge related to bone health with an aim of developing a teaching module. College of Nursing, AIIMS.
3. Efficacy and safety of FIAsp in a basal-bolus regimen versus basal insulin therapy, both in combination with metformin in adult Subjects with type 2 diabetes onset@3Trial phase: 3a Trial ID: NN1218-4049. Multicenter trial SUSTAIN Trial, Novo Nordisk, 180,000 INR.

Ongoing

1. Center for Cardiovascular and Metabolic Disease Research (CARDIOMED). CSIR-Institute for Genomics and Integrative Biology.
2. Project UDAY. PHFI.
3. Brain-to-Society Diagnostics for Prevention of Childhood Obesity and its Chronic Disease Consequences. INCLEN.
4. Functional characterization of HLA class I restricted CD8+T cells in Type 1 diabetes. Department of Transplant Immunology and Immunogenetics, AIIMS.
5. mPower Heart. Centre for Chronic Disease Control.
6. YogaCARE. Centre for Chronic Disease Control.
7. To study the causes of secondary Immune thrombocytopenia and effect of treatment in these patients. Department of Hematology, AIIMS.
8. To study the causes of secondary Immune thrombocytopenia and effect of treatment in these patients. Department of Hematology, AIIMS.
9. mWellcare. PHFI.
10. Relationship of birth size, infant and childhood growth on telomere length and telomerase activity in adulthood. Department of Cardiac Biochemistry, CN Centre, AIIMS.
11. Relation of gestational age, birth weight and serial changes in Body Mass Index from birth till adulthood with epidemiological biomarkers of Chronic Kidney Disease in early middle age. Department of Nephrology, AIIMS.
12. Study to investigate relationship between pulmonary functions and endothelial functions in type 2 diabetes mellitus. Dept. of Physiology, AIIMS.
13. Tuberculosis treatment outcomes in treatment of Diabetes mellitus. Dept. of Medicine, AIIMS.
14. A comparative study to assess the reproductive health of women with epilepsy with that of the non-epileptic women with a view to develop guidelines on counseling of women with epilepsy. College of Nursing, AIIMS.
15. To investigate the effects of vitamin D supplementation on insulin resistance and beta cell function in Asian Indian subjects with polycystic ovarian syndrome (PCOS).
16. International Follow up study, after the investigational drug exposure in diabetic patients previously included in the REGULATE trial (benflurex versus pioglitazone). Serdia.
17. A phase III randomized, placebo-controlled clinical trial to assess the safety and efficacy of Odanacatib (MK-0822) to reduce risk of fracture in osteoporotic post menopausal women treated with vitamin D and Calcium. Merck.
18. Health survey of tribal population in Kashmir valley with special reference to magnitude and risk factors of non-communicable disease: A collaborative cross sectional study sponsored by DST.

19. Efficacy and safety of semaglutide once weekly versus insulin glargine once daily as add-on to metformin with or without sulphonylurea in insulin native subjects with type 2 diabetes. Multicenter trial SUSTAIN sponsored by Novo Nordisk.
20. A trial comparing cardiovascular safety of insulin degludec versus insulin glargine in subjects with type 2 diabetes at high risk of cardiovascular events. Multicenter trial SUSTAIN Trial sponsored by Novo Nordisk.

PUBLICATIONS

Journals: 50

Abstracts: 3

Chapters in Books: 5

PATIENT CARE

Special Laboratory Facilities

Service Lab. for immunoassay of Hormones (Total samples assayed = 58,326)

Hormone	Tube assays done	Hormone	Tube assays done
T4	10,243	TSH	15,043
TPO	1577	LH	2030
FSH	2112	PRL	2179
CORTISOL	4380	TESTOTERONE	2258
DHEA	776	17 OHP	343
ACTH	2228	PTH	3356
VITAMIN D	3932	INSULIN	3495
C PEPTIDE	1688	GH	807
GAD	199	F T4	965
IGF 1	478	E2	233
CALCITONIN	4		
TOTAL	58, 326		

Biochemical investigations done in the Metabolic Laboratory

Investigation	Number	Investigation	Number
Blood sugar	14, 033	Glycated haemoglobin	12, 066
Urine pH	151	Osmolality	309
Cholesterol	5602	Triglyceride	5602
HDL	5602	LDL	5602
VLDL	5602		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor N. Tandon was elected President, Indian Society for Bone and Mineral Research for the second term (2013-2015) and designated the President Elect of the Endocrine Society of India. He also delivered the National Academy of Sciences India (NASI) Award Lecture in the field of Toxicology (January, 2014).

Professor R. Goswami was elected as the fellow of the National Academy of Medical Sciences, India (NAMS). He continues to be Member of the selection committee for the SRF and Research Associates of the ICMR since 2007 to date.

Dr Rajesh Khadgawat was awarded the 'Dev Raj Bajaj Research Prize' for the best paper submitted in the field of the development of newer Techniques / Instrumentation in Physiology / Pharmacology / Allied Sciences and the 'Best Oral Paper Award' at the Annual Conference of Indian Society of Bone & Mineral Research (ISBMR), Srinagar, J & K (7-8 September, 2013). He continues to be Secretary, Indian Society of Bone & Mineral Research (ISBMR) and member of the following: Project Review Group (Nutrition), ICMR; ICMR Taskforce study on Childhood obesity - A multicentre study on its measurement and determinants; Expert Group Meeting on Drafting Technical & Operational Guidelines for Calcium supplementation, Gestational Diabetes Mellitus, Deworming, and Hypothyroidism in pregnancy, as well as Expert Committee on SAE, Central Drug Standard Control Organization, Ministry of Health and Family Welfare, Govt. of India.

Dr Viveka P. Jyotsna reviewed several peer-reviewed national and international journals of repute: Journal of Clinical Endocrinology and Metabolism, Clinical Endocrinology, Diabetes, Diabetes Research and Clinical Practice, Osteoporosis international, Indian journal of Endocrinology and Metabolism, Annals of Saudi Medicine, Indian Journal of Medical Research, National Medical Journal of India. She was invited as expert to Review project proposals for AIIMS and ICMR. Her PhD student was awarded an international travel grant by DST to present work in European conference of human genetics 2014 in Milan (Italy).

Dr Mohd. Ashraf Ganie was appointed coordinator to convene “Brainstorming meeting of Indian Experts for Research in Polycystic ovary syndrome, joint meeting between AIIMS-ICMR on 11th September 2014; selected as Jury member for research paper oral presentations at the 12th Annual Meeting of AEPCOS Society October 22--23, 2014(Kauai Marriott Resort and Beach Club Kalapaki Beach, Lihue, Kauai, Hawaii, USA; and selected for the AIIMS-Michigan University Research Course (1–5 December, 2014).

9.12 Forensic Medicine and Toxicology

Professor and Head

S.K. Gupta

Professor

D.N. Bhardwaj

Additional Professors

O.P. Murthy
Sanjeev Lalwani (JPNATC)

Millo Tabin
Adarsh Kumar (JPNATC)

Assistant Professor

Chittaranjan Behera

Scientist II

Anupama Raina

Chemist

A.K. Jaiswal

HIGHLIGHTS

The department was engaged in multiple activities. It was involved in teaching, research, training, medico-legal autopsy, embalming of MLC deaths, casualty work, clinical forensic medicine services, expert opinion in medico-legal cases & court related works. The department provided expert opinions in referred cases from courts, CBI, Crime branch of different states, NHRC and other investigating agencies. The department continued to run three laboratory services-Toxicology, DNA Fingerprinting and Histopathology. The computerisation of the Post-mortem reports was done in this year and started being issued on A4 size paper for the convenience of all. A policy decision to release the dead body from the ward/ICU/emergency itself to the legal heirs was taken in public interest and convenience to general public at large.

EDUCATION

The department was actively engaged in undergraduate and postgraduate teaching. Seven postgraduate (MD) students and three PhD students were enrolled in the department. The department imparted training in DNA fingerprinting and Medical Toxicology to BSc and MSc students of the other universities from all over India.

Short term training : One Foreign national was imparted training by the department

CMEs/Workshop/Symposium/Conferences

Lectures delivered

Chittaranjan Behera: 2

Oral papers/posters presented: 10

RESEARCH

Funded projects

Ongoing

1. Association of Menstruation with completed suicide-A Hospital based case control study, Chittaranjan Behera, AIIMS, 1 years, 2013-2014 (extended), Rs. 5 lakhs.

Departmental projects

Ongoing

1. Quantitative study of Alcohol in Post-Mortem Blood Samples with respect to different time interval
2. Histopathological and microbiological study of various organs in neurotrauma cases dying of septicemia
3. Study of tattoo marks in medico-legal autopsy
4. Student suicide: A cross sectional descriptive study for South Delhi
5. A quantitative study of alcohol in post-mortem blood samples with respect to different time interval

Completed

1. A retrospective review of autopsy characteristics of unclaimed dead bodies (2006-2012)
2. Student suicide: a retrospective study from South Delhi

Collaborative projects

Ongoing

1. An evaluation of the different endoscopic approaches to inner ear (ENT)

Completed

1. Stereological study of age related morphological and neurological changes in human cochlear nerve (Anatomy)

PUBLICATIONS

Journals: 28

Books: 1

PATIENT CARE

Casualty services

The department of Forensic Medicine and Toxicology provided round-the-clock medico-legal services like in cases of injury, sexual offences, poisoning etc. to the south and South-east district of Delhi. About 1500 such calls were attended during this period.

Mortuary Services

A total of 2583(1728+855-JPNATC) medico legal autopsies were conducted at mortuary.

Clinical Forensic Medicine

603 cases of age estimation, potency and other medico-legal examination brought by investigating officer and referred from court were dealt by the department. About a dozen of cases from CBI were dealt by medical board of the department. Subsequent Opinions in complicated cases referred from Casualty etc was offered in total 517 (325+192-JPNATC) cases.

Summons

Doctors of the department attended court of law in 814 cases from Delhi and other states

Medical Toxicology

About 149 tests were performed for various poisons referred from the clinical department of AIIMS, medico-legal cases and in academic cases

Forensic Pathology

The department provided histopathology services for the samples of medico-legal autopsy cases from South and South-east district and also research purpose. Total 115 cases and 693 samples were done during this period.

Embalming facility

The department provided embalming facility for MLC cases (Postmortem cases). 93 bodies were embalmed during this period.

Organ Retrieval for Therapeutic Transplantation

246 corneas were retrieved at mortuary and handed over to National Eye bank, RPC, AIIMS, New Delhi for therapeutic transplantation.

Toxicology Laboratory

Patient case/MLC

Total cases 49

Total samples 70

Total tests 108

Academic

Total cases 27

Total samples 12

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor D.N. Bharadwaj was nominated as member in PG board of studies in Forensic Medicine at PGIMS, Rohtak.

Dr Chittaranjan Behera was Member of committee to Formulate Advisory/guidelines to mortuaries for central Govt. Hospital constituted by H & FW, Govt. of India; Member of technical committee for Formulation of qualitative requirements & Trial directive of BR Helmets (Ballistics) against 9mm protection for CAPFs, Ministry of Home affairs, BPRD, New Delhi; Co-chairman of a scientific session in the conference IAMLE-2014, held at Goa; Assistant editor of International Journal of Medical Toxicology & Legal Medicine

Dr A.K. Jaiswal was Awarded Fellow, International Science Congress Association (FISCA), Indore,India.

9.13 Gastroenterology and Human Nutrition

Professor and Head

S.K. Acharya

Professors

Anoop Saraya
Pramod Garg

Umesh Kapil
Vineet Ahuja

Govind K Makharia

Assistant Professors

Shalimar

Baibaswata Nayak

Scientist Grade IV

Shyam Prakash

Highlights

Dr S.K. Acharya was awarded the Padma Shri by the President of India on 31 January 2014. The department organized World Hepatitis Day on 28th July 2013. On this occasion, public lectures were organized to increase awareness of Viral Hepatitis in India. The department organized another CME, 'Current Perspectives in Liver Diseases' (CPLD-2013) at AIIMS, New Delhi, 5–6 October 2013. The department organized endoscopic ultrasonography (EUS) training course at AIIMS on 24–25 August 2013. The faculty of the department continued to be on national and international boards related with education, research and programs.

EDUCATION

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

Long term training: 13 DM candidates 7 PhD candidates

Short term training: 12 trainees were trained for periods of 3-6 months.

CME/Workshops/Symposia organised by the department

1. Organized public lectures to increase the awareness of Viral Hepatitis in India. The event was attended by more than 500 patients and general public and it was a successful program. The main message was that Hepatitis B and C which are major causes of cirrhosis and liver cancer in India are preventable and treatable, 28 July 2013, AIIMS, New Delhi.
2. Endoscopic Ultrasonography (EUS) Training Course at AIIMS on 24-25 August 2013, New Delhi.
3. Current Perspectives in Liver Diseases (CPLD-2013), AIIMS, New Delhi, 5-6 October 2013.
4. World Gastroenterology Organization and Asia Pacific Association of Gastroenterology Working Party Meeting on 20-21 April 2013.

Lectures delivered

S.K. Acharya: 15

Pramod K. Garg: 13

Govind Makharia: 14

Shalimar: 2

B. Nayak: 4

RESEARCH

Funded projects

Ongoing

1. Natural course of immunotolerant patients with chronic HBV infection. S.K. Acharya, MSD (Fulford India), 3 years, Rs. 18,79,750.
2. Randomized control trial (RCT) of Transarterial Chemoembolization (TACE) versus TACE and Oral Drug Therapy in the Treatment of Unresectable Hepatocellular Carcinoma. S.K. Acharya, ICMR (HCC sanctioned project), 3 years, Rs. 42,27,933.
3. 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), 3 years, Rs. 14,05,895.
4. 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), 3 years, Rs. 22,98,821.
 5. 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), 3 years, Rs. 31,51,663.
 6. Pathogenesis in Lean NAFLD, S.K. Acharya, DST, 3 years, Rs. 48,00,000.
 7. J.C. Bose Award, S.K. Acharya, DST, 5 years, Rs. 68,00,000.
 8. Randomized, Open-label, active-controlled, Superiority Study to Evaluate the Efficacy and Safety of Tenofovir Disoproxil Fumarate (TDF) in Combination with Peginterferon a-2a (PegasysR) versus Standard of Care Tenofovir Disoproxil Fumarate Monotherapy or Peginterferon a-2a Monotherapy for 48 weeks in Non-Cirrhotic Subjects with HBeAg-Positive or HBeAg-Negative Chronic Hepatitis B (CHB). S.K. Acharya, Gilead Sciences, USA, 2 years, Rs. 24,00,000.
 9. A Phase 3, Randomized, Double – Blind Study to Evaluate the Safety and Efficacy of Tenofovir Alafenamide (TAF) 25 mg QD versus Tenofovir Disoproxil Fumarate (TDF) 300 mg QD for the Treatment of HBeAg-Negative, Chronic Hepatitis B, S.K. Acharya, Gilead Sciences USA, 3 years, Rs. 48,93,900.
 10. Assessment of Prevalence of Vitamin D Deficiency and Associated Factors amongst Children in the Age Group of 6 -18 years from Three High Altitude Regions (1000 meters and above) of Himachal Pradesh, India, Umesh Kapil, DBT, 2 years, Rs. 59,00,000.
 11. Association of Vitamin D and Calcium with Development of Breast Cancer: A Case Control Study, DBT, Umesh Kapil, 2 years, Rs. 39,00,000.
 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, 15 month, Rs. 54,00,000.
 13. Iodine Status in Three Regions of Uttarakhand State, India, Umesh Kapil, ICMR, 2 years, Rs. 60,00,000.
 14. Iodine Status of Pregnant Mothers, School Age Children and Neonatal Thyroid Stimulating hormone concentration in three regions of Himachal Pradesh, India. Umesh Kapil, DBT, 2 years, Rs. 71,00,000.
 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, 2 years, Rs. 29,00,000.
 16. Genome Wide Association Study of Chronic Pancreatitis. Pramod Garg, DBT, 3 years, Rs. 1.63 crores.
 17. A Study of SPINK-1, Cathepsin B and CFTR gene mutations as risk factors for gallstone induced acute pancreatitis. Pramod Garg, ICMR, 3 years, Rs. 27,00,000.
 18. The Role of Endoplasmic Reticulum Stress in the Pathogenesis of Caerulein Induced Acute Pancreatitis in Mice and the Effect of Chemical Chaperones on the Severity of Acute Pancreatitis. Pramod Garg, ICMR, 3 years, Rs. 45,00,000.
 19. Zoonotic potential of Mycobacterium avium paratuberculosis (MAP) in Human Ulcero-constrictive Ileocaecal Disease. Vineet Ahuja, ICMR, 3 years, Rs 57,00,000.
 20. Vitamin A is the microenvironmental cue for triggering disease activity in patients with Inflammatory bowel disease (Ulcerative colitis, Crohn's Disease). Vineet Ahuja, DBT, 3 years, Rs 82,00,000.
 21. Indo US Joint R&D network centre of excellence on Inflammatory Bowel Diseases, Harvard Medical School and Gastroenterology, AIIMS, Vineet Ahuja, Indo US Science and Technology Forum, 2 years, Rs. 57,00,000.
 22. Phase III multicenter trial for evaluating integrin inhibitor in Ulcerative colitis and Crohn's Disease. Vineet Ahuja, Millenium Pharmaceuticals, Boston, 7 years, Rs. 27,00,000
 23. 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 program. Govind Makharia, Central TB Division, Ministry of Health and Family Welfare, Government of India, 4 years (2008–14), Rs 57 Lakhs.

24. Pathophysiology of paracellular permeability and tight junctions in the first degree relatives of patients with celiac disease. Govind Makharia, DBT, 4 years, Rs. 43,82,000.
25. Detection of Markers of villous atrophy. Govind Makharia, AIIMS (intramural grant) (2012-13). Rs 7.5 Lakhs
26. Small intestinal and whole gut metagenome in patients with celiac disease, their first degree relatives and controls. Govind Makharia, DBT, 3 years, Rs. 39,47,600.
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 Makharia, ICMR, 3 years, Rs.75,42,394.
28. Biomarker(s) for assessment of villous abnormalities in patients with celiac disease and other enteropathies, DST, 2014-17, 50 Lakh
29. Role of ICG in prediction of post TACE liver failure. Shalimar, AIIMS, 1 year, Rs. 5 lacs.

Completed

1. Identification of biomarker (s) for differentiation of Crohn's disease from intestinal tuberculosis using proteomic. S.K. Acharya, DBT, 3 years, Rs. 43,00,000.
2. Probiotics for spontaneous bacterial peritonitis. S.K. Acharya, CD Pharma, Supply of drugs.
3. Resolution of Bitot's Sports after administration of Mega-dose of Vitamin A in a cohort of children in 1-5 years of age with Bitot's sport. Umesh Kapil, ICMR, 2 years, Rs. 16,58,381.
4. An inexpensive and rapid diagnostic method for detection of HCV RNA by LAMP, Shyam Prakash, DBT, Rs. 24.75 lakhs.
5. To study the pathogenesis of Non Alcoholic Fatty liver disease in Indian Population, S.K. Acharya, DST-2013, Rs. 27 Lakhs.
6. Effect of IL 28B gene polymorphism on outcomes of Hepatitis C virus therapy in Indian patients, AIIMS intramural, Rs. 5 Lacs

Departmental projects

Ongoing

1. HBsAg –ve chronic hepatitis B: Magnitude, Viral & host characteristics.
2. Immunotolerant chronic HBV infection: Natural course
3. Neutrophilic functions in ALF
4. Comparison of phenotype and genotype of young patients with chronic pancreatitis from different geographical and ethnic background of the world: Implications for etiopathogenesis.
5. Frequency, natural course, and predictors of resolution of acute fluid collections in acute pancreatitis.
6. Frequency, cause and impact of intra-abdominal hypertension in acute pancreatitis.
7. Prevalence of multidrug resistant tuberculosis in Intestinal tuberculosis.
8. Prevalence of Colorectal cancer in IBD and cancer surveillance techniques.
9. Visceral fat as a marker of inflammation and disease severity in Crohn's Disease
10. Pregnancy outcomes and effect of pregnancy on disease outcome in IBD
11. Familial prevalence amongst first and second-degree relatives of patients with celiac disease.
12. Assessment of adherence to gluten free diet and quality of life in patients with celiac disease (DM thesis).
13. Infertility in celiac disease: A meta-analysis.
14. A study of apoptotic marker in early and advance villous atrophy in patients with celiac disease.
15. Recovery of intestinal histology changes after gluten free diet in patients with celiac disease
16. To study the pathophysiological changes in patients with Hepatitis E virus related Acute on Chronic Liver Failure.
17. To study the role of C-reactive protein in assessment of response to locoregional therapy in Hepatocellular carcinoma.
18. Assessment of cytokine profile in an open labelled randomized controlled trial of standard dose vs. once a day intravenous albumin in patients with spontaneous bacterial peritonitis"
19. Role of C-Reactive protein in predicting response to locoregional therapy in HCC.
20. Hepatitis B virus breakthrough in chronic hepatitis patients on Tenofovir therapy.

21. Neutrophil function in acute liver failure phagocytic activity.
22. Assessment of cytokine profile in an open labelled randomized controlled trial of standard dose vs. once a day intravenous albumin in patients with spontaneous bacterial peritonitis.
23. To study the pathophysiological changes in patients with acute on chronic liver failure

Completed

1. Predictors of Response in CH-C in Indian population.
2. Correlation of arterial ammonia with sepsis in acute liver failure.
3. Mutation Profile of HBV strains circulating in North Indian Population
4. Acute on chronic liver failure due to hepatic insult.

Collaborative projects

Ongoing

1. A randomized trial of endoscopic versus laparoscopic drainage of pancreatic pseudocysts (with Surgery).
2. A randomized trial of surgery versus endoscopic therapy for chronic pancreatitis (with GI Surgery).
3. Susceptibility genes in inflammatory bowel disease and their association with microflora (with School of Life Sciences, Jawaharlal Nehru University, New Delhi).
4. Analysis of mucosal gene expression in inflammatory bowel disease (with School of Life Sciences, Jawaharlal Nehru University, New Delhi).
5. Assessment of differences between fecal microbiota of Inflammatory Bowel Disease patients and healthy controls (with School of Life Sciences, Jawaharlal Nehru University, New Delhi).
6. Prevalence of TPMT polymorphism in Ulcerative colitis patients and healthy volunteers in Indian population (with School of Life Sciences, Jawaharlal Nehru University, New Delhi).
7. microRNA (miRNA) expression profiling in colonic mucosa of Ulcerative Colitis patients in different stages and conditions of disease (with School of Life Sciences, Jawaharlal Nehru University, New Delhi).
8. Functional analysis of susceptibility genes of IBD (with School of Life Sciences, Jawaharlal Nehru University, New Delhi).
9. Th9 responses and dendritic cells in IBD (with Translational Health Sciences and technology Institute; THSTI).
10. Th1 and Th17 responses in microdomains of Ulcerative colitis and Crohn's disease (with Translational Health Sciences and technology Institute; THSTI).
11. Feasibility and short-term efficacy study of a novel device designed to manage fecal incontinence in hospitalized bed-ridden patients (with Stanford Bio design, India, AIIMS).
12. Prevalence of celiac disease in IgA nephropathy (with Nephrology and Pathology).
13. Recovery of intestinal histology changes after gluten free diet in patients with celiac disease (with Pathology).
14. Prevalence of celiac disease in patients with short stature (with Endocrinology).
15. A correlation between anti tissue transglutaminase titre and severity of villous abnormalities (with Pathology).
16. Detection, identification and molecular characterization of Intestinal coccidia and Microsporidia in patients with chronic diarrhea and malabsorption syndrome (with Microbiology).
17. Development of molecular diagnostic probe for the detection of *Cryptosporidium* species and further characterization of the parasite in patients (with Microbiology).
18. Detection of blastocystis hominis in the patients of irritable bowel syndrome and their subtyping (with Microbiology).
19. Metabonomics study of celiac disease by NMR spectroscopy (with NMR).
20. Diabetes- Liver disease embrace: A cross-sectional Multicentric study to explore the effect of Diabetes on short term outcome of Chronic Liver Disease (with IPGIMER, Kolkata & PGIMER, Chandigarh).

Completed

1. Role of surface promoter mutations in hepatitis B surface antigen production and secretion in occult hepatitis B virus infection

PUBLICATIONS

Journals: 71

Abstracts: 20

Chapters in Books: 3

Book: 1

PATIENT CARE

Special clinics

Name of the clinic	New cases	Old cases
Liver	1324	13380
Pancreas	658	2362
IBD and Ulcer	834	4217
Interventional	322	340
Celiac	155	424

Routine Clinic

New cases: 24344 Old cases: 28141

List of procedures

Diagnostic and therapeutic endoscopies	: 19185
Diagnostic and therapeutic colonoscopies	: 3520
Diagnostic sigmoidoscopies	: 3245
EST and EVL	: 5240
Side viewing endoscopies	: 845
Endoscopic retrograde cholangiopancreatography	: 2745
Endoscopic ultrasound (Diagnostic and therapeutic)	: 752
Fibroscan	: 2500

Tests done in the department

HBV (Real Time PCR)	: 4425	HBV Genotyping	: 8
HBV (PCR)	: 160	HCV RNA Real time PCR	: 1236
HCV RNA (PCR)	: 42	HCV Genotyping (sequencing)	: 8
HBV resistance profile	: 8	HEV RNA (PCR)	: 112
Free radical Antioxidant potential (FRAP)	: 450	Lipid peroxidation	: 450
Vitamin C	: 450	Superoxide dismutase	: 450
Total cholesterol	: 450	Triglyceride	: 250
HDL	: 250	Endotoxin assay	: 35
Serum ceruloplasmin	: 825	Serum copper	: 731
24 hour urinary copper	: 628	Anti-TIG-Ab (ELISA)	: 2531
TNF- α (ELISA)	: 250	IL-6 (ELISA)	: 250
IL 1 β (ELISA)	: 250	Plasma Amino acid (HPLC)	: 150
Clustrin	: 200	D-Xylose	: 360
Faecal chymotrypsin	: 306	Faecal fat	: 246
Hydrogen Breath Test	: 200	Faecal elastase	: 300
TGF-Beta	: 80	PDGF-BB	: 80
CRP	: 80	Serum trefoil factor	: 160
Urinary isoprostase	: 80	Serum calprotectin	: 80
iFABP mRNA	: 10	Urinary Lactulose	: 250
Urinary mannitol	: 250	Plasma Citrulline by HPLC	: 500
Nitro tyrosine	: 240	Serum Reg 1-alpha	: 40
Antigliadin Ab	: 480	Blood ammonia	: 326
Prothrombin time	: 7500	Adiponectin	: 250
Insulin	: 250	Leptin	: 250
IL28b-rs12979860 genotyping	: 64	IL28b-rs8099917 genotyping	: 64

CFTR SNP Multiplex genotype fragment analysis)	:	235
Cathespin B SNP genotype (fragment analysis)	:	235
Map (paratuberculosis) Realtime PCR	:	146

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor S.K. Acharya was awarded “**Padma Shree**” in January 2014 by Govt. of India, Selected as member of ‘Science & Engineering Research Board’ under DST, Govt. of India, Nominated as member of Institute body of Jodhpur A.I.I.M.S.

Professor Umesh Kapil was nominated as Member of the Meeting of Human Resource Development and Health and Family Welfare in context of National Food Security Ordinance (NFSO) and implementation of Mid-Day Meals Scheme by Planning Commission, 2 August 2013; Nominated Member, Advisory Panel, National Academy of Medical Sciences (NAMS) in discipline of Nutrition for advising the Credential Committee in the Selection of candidates for Fellowship of the Academy for 2014; Nominated by WHO to review and update the Regional Nutrition Strategy: addressing malnutrition and micronutrient deficiencies (2011–15) which consists of following chapters i) Introduction; ii) Profile of the South East Asia Region Countries and Food Security and iii) Assessment of Nutrition; Nominated Member of Technical Meeting of International Malnutrition Task Force on ‘Severe Acute and Moderate Malnutrition in South-East Asia’ 27-29 May 2013, Bangkok, Thailand

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

Professor Vineet Ahuja is Editor, Tropical Gastroenterology, Nominated Contributing Associate Editors-in-Chief of the *World Journal of Gastroenterology (WJG)*; Nominated Member, Editorial Board, Journal of Crohn’s and Colitis; Nominated Member, Editorial Board, Journal of Gastroenterology and Hepatology

Professor Govind Makharia was nominated Chairman of World Gastroenterology Organization and Asia Pacific Association of Gastroenterology Working Party on Celiac Disease; Continues to be member, Asia Pacific Working Party on Colorectal cancer and Polyps; Core Member, Asia Pacific Working party on Inflammatory Bowel Disease; Treasurer, Indian Society of Gastroenterology and Indian Society of Evidence Based Medicine; Governing Council, Functional Disease and Motility Disorders of India; Editorial board member, Indian Society of Gastroenterology; Coordinator, Indian Society of Gastroenterology: Young Clinician Program; Coordinator, Indian Society of Gastroenterology: Taskforce on Inflammatory Bowel Disease; Screening Committee member of taskforce on RNAi by DBT; Screening Committee member of Task Force on Nano-medicine; Member, ICMR Taskforce on celiac disease; Editor in Chief, *Frontiers in Medicine (Gastroenterology)*; Organized a World Gastroenterology Organization and Asia Pacific Association of Gastroenterology Working Party meeting on Celiac Disease in Asia-Pacific region; Organized Young Clinician Program in Mumbai on behalf of Indian Society of Gastroenterology; Coordinator Indian Consensus on Standardization of pathology and endoscopic reporting of inflammatory bowel disease.

Dr Baibaswata Nayak was reviewer for the following journals: *Biochemistry and Biotechnology Research*, *Drug Research*, *Tropical Gastroenterology*, *Indian Journal of Virology*, *PLoS One*, *Virus Research*, *Virology Journal*, *Viral Immunology*, and *Journal of Veterinary Science*.

VISITING SCIENTISTS

1. Dr Hari Conjeevaram, Medical Director, University of Michigan, USA, 4 October 2013.
2. Dr Patrick Kamath, Professor of Gastroenterology, Mayo Clinic, USA, 23 January 2014.
3. Dr Pratima Sharma, University of Michigan, USA, 24 March 2013.

9.14 Gastrointestinal Surgery and Liver Transplantation

Professor and Head

Peush Sahni

Additional Professor

Sujoy Pal

Nihar Ranjan Dash

EDUCATION

The faculty of the department is involved in the didactic teaching program for undergraduates, postgraduates and postdoctoral trainees. The department also conducts small group discussions on about 10 topics for each undergraduate batch of students posted to the department of surgery. In addition, joint teaching activities have been re-started with the department of gastroenterology. For the MCh residents, new rotations for training in endoscopy and radiodiagnosis have been introduced.

CME/National/International Conference organized by the department

1. Annual Conference of the Indian Association of Medical Journal Editors, AIIMS, New Delhi, 16-17 November 2013.
2. COPE Seminar: Publication ethics in India: Inspiring excellence, AIIMS, New Delhi, 15 November 2013
3. Workshops for authors/peer reviewers, AIIMS, New Delhi, 16-17 November 2013

Lectures delivered

Peush Sahni: 23

Sujoy Pal: 5

Nihar Ranjan Dash: 7

Oral papers/posters presented: 10

RESEARCH

Funded projects

Ongoing

1. Posterior (SMA- first) approach vs. standard pancreatoduodenectomy in patients with pancreatic cancer with special focus on circumferential resection margins and medium term survival outcome: a prospective randomized controlled trial, Sujoy Pal, AIIMS, 3 years, 2012-2015, Rs. 5,00,000.00
2. RCT on skin preparation with chlorhexidine alcohol prep vs. savlon/betadine prep in elective gastrointestinal surgery, Peush Sahni, AIIMS, 3 years, 2011-2014, Rs 1,50,000.00
3. Esophageal resection vs. bypass in patients with corrosive stricture of the esophagus requiring surgery. N.R. Dash, AIIMS, 3 years, 2011-2014, Rs. 1,50,000
4. Development of low cost device for non-invasive management of incontinence (fecal/urinary), Peush Sahni, DST, 2012-15, Rs 21.6 lakhs

Completed

1. Survey of awareness and beliefs regarding brain death and the role of educational intervention on its acceptance and deceased donation rates. Sujoy Pal, AIIMS, 2 years, April 2011-March 2013, Rs.1,50,000.00

Departmental projects (including thesis/dissertations)

Ongoing

1. A prospective randomized study of comparison of 2 techniques of PJ reconstruction: duct to mucosa vs. dunking
2. A prospective study analyzing the role of EUS elastometry to characterize pancreatic parenchymal consistency/ texture and correlate it with PJ leak post PD/distal resections.
3. Prospective study to evaluate the role and efficacy of neoadjuvant chemoradiotherapy in patients with locally advanced but resectable gall bladder cancer.
4. Prospective study to evaluate the role of neoadjuvant chemotherapy in patients with GE junction cancers.
5. A randomized controlled trial to compare preoperative short course radiotherapy vs. surgery alone for SCC of the esophagus.

6. A randomized controlled trial to compare SEMS + Chemoradiotherapy vs. SEMS + RT alone in patients with unresectable/metastatic esophageal cancer.
7. A prospective evaluation of the role of CT esophagography for evaluation of esophageal cancer.
8. Roll of PET CT in the evaluation of gall bladder cancer patients undergoing surgery with or without neoadjuvant chemotherapy.
9. Role of preoperative biliary drainage before pancreatoduodenectomy: a randomized controlled trial.
10. A randomized controlled trial of pyloric ring excising vs. classical pancreatoduodenectomy with respect to occurrence of delayed gastric emptying.

Completed

1. Role of prophylactic surgery in NCPF.
2. Best supportive care compared with chemotherapy for unresectable gall bladder cancer: a randomized controlled study.
3. Role of prophylactic surgery in EHO.
4. Positron electron tomography for evaluation and characterization of solid/cystic pancreatic masses in patients with or without chronic pancreatitis.
5. Randomized controlled trial comparing antecolic pylorojejunostomy vs. retrocolic pylorojejunostomy following a pylorus preserving pancreatoduodenectomy w.r.t. postoperative occurrence of delayed gastric emptying.
6. Randomized Trial Comparing Side-to-Side Stapled and Hand-Sewn Esophagogastric Anastomosis in Neck.
7. Prospective evaluation of the QOL of patients following palliative esophageal stenting (SEMS) for unresectable advanced esophageal cancer.
8. A RCT comparing QOL in patients with advanced unresectable esophageal cancer undergoing palliative stenting with or without radiotherapy.
9. Retrospective study of long term results of shunt surgery and devascularization in EHPVO.
10. A retrospective study to evaluate the efficacy of proximal lienorenal shunt surgery for portal hypertension due to non-cirrhotic portal fibrosis. All patients of NCPF operated in GI Surgery over the last 30 years.

Collaborative projects

Ongoing

1. Preoperative chemoradiation and surgery vs. surgery alone in gastroesophageal junction adenocarcinoma. (Oncology/RT)
2. Predicting postoperative pancreatic fistula (POPF) after pancreatic resections using preoperative endoscopic ultrasound (EUS) elastography (EUSE): A prospective study (Gastroenterology).

Completed

1. Concurrent versus sequential neoadjuvant chemoradiotherapy followed by surgery in operable carcinoma gallbladder patients: a pilot study (Medical oncology/Radiotherapy)
2. Prediction of pancreatic fistula and fibrosis in patients undergoing pancreatic resections using differential pancreatic enhancement pattern on multi phasic computed tomography (MPCT) scan: A prospective study (Radiology/Gastroenterology).

PUBLICATIONS

Journals: 6

Abstracts: 8

Chapters in Books: 5

Book: 1

PATIENT CARE

OPD and specialty clinics

The department runs a regular stoma clinic for patients from all departments.

Special laboratory facilities

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

Inpatients

Number of procedures (Special interest areas)

Total admissions	: 868	Surgical procedures	: 677
Elective	: 432	Emergencies	: 245
Biliary obstruction	100	Portal hypertension	53
Oesophageal cancer	52	Carcinoma gall bladder	37
Ulcerative colitis	44	Upper GI haemorrhage	20
Lower GI haemorrhage	28	Acute pancreatitis	17
Chronic pancreatitis	19	Biliary strictures	18
Pancreato-duodenectomy	57	Liver resections	19

AWARDS, HONOURS AND SIGNIFICANT EVENTS

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

Dr Sujoy Pal was member of the executive committee, Indian Association of Surgical Gastroenterology.

Dr Nihar Ranjan Dash continues as President, The Ostomy Society, a registered society for welfare of the stoma patients. He organised a public lecture, interactive sessions and field visits in Delhi and NCR to create public awareness on 'How to leave happily with a stoma and its acceptance in society'. He also took part in the organization of 'walk for Organ Donation'.

9.15 Geriatric Medicine

Professor and Head

A.B. Dey

Assistant Professors

P.C. Das (on Contract)

Sobia Nisar (on Contract)

HIGHLIGHTS

The department was established in January 2012 and provides comprehensive health services to senior citizens (persons aged over 60 years). The department has a postgraduate (MD) programme in Geriatric Medicine and a PhD programme. From 2012-13, 12 MD students (including two sponsored students from Nepal) and three PhD students have been enrolled. The department has been designated as a Regional Medical Institution under the National Programme for Health Care of the Elderly (NPHCE) under Ministry of Health and Family Welfare, Government of India. As a Regional Medical Institution it serves as nodal center for training and referral for the states of Haryana, Himachal Pradesh, Madhya Pradesh, Punjab, Uttarakhand and National Capital Region of Delhi. As a part of commitment to the National Programme for Health Care of the Elderly, the department conducted a training and reorientation programme for programme managers and medical officers in district hospitals and PHCs involved in implementation on 3-4 May 2013 at AIIMS. The programme was inaugurated by Shri Keshav Desiraju, Secretary, Ministry of Health and Family Welfare with Dr Jagdish Prasad, Director General of Health Services as the Chief Guest.

EDUCATION

The department conducted one day training programme on 'EASY Care' in collaboration with EASY Care International, Professor Ian Philp, Chief Medical Officer, **Hull and East Yorkshire Hospitals NHS Trust, Hull, UK**. The department conducts a half day training course for nurses every month since January 2014 in collaboration with Nursing In-service Education Unit. This programme will continue during the 12th Five Year Plan Period under the National Programme for Health Care of the Elderly. The department conducts five sessions of postgraduate education programme every week.

Training

The department trained a senior physician from Armed Forces in Geriatric Medicine for one year.

CMEs/workshops/symposium/ National and International conferences

Two symposia were conducted at 20th IAGG Congress of Gerontology and Geriatrics in Seoul, South Korea in June 2013:

1. Improving outcome of emergency care in older population
2. National Programme for Health Care of the Elderly (NPHCE): a major initiative in old age care in India.

Oral papers/posters presented:

A.B. Dey: 4 P.C. Das: 2

RESEARCH

Ongoing projects

1. Impact of age and age related co-morbidities on cancer and cancer care. A.B. Dey, NPHCE, 2012-14
2. A study of health and well being of the oldest old. A.B. Dey, NPHCE, 2012-14
3. Impact of Nutritional Supplementation and Rehabilitation in Pre. A.B. Dey, NPHCE, 2012-14

Departmental projects (including thesis/dissertations)

Ongoing

1. A study of health and functionality in oldest old in a tertiary health care setting
2. Assessment of biomarker of frailty in ageing population
3. Early detection of cognitive impairment in old age
4. Functional status and co-morbidities of elderly cancer patients

5. Clinical profile of older patients with heart failure
6. Clinical and biochemical profile of mild cognitive impairment (MCI) among older Indians
7. Cardiovascular complications in COPD in elderly patients
8. Assessment of Palliative care needs among older patients with cancer
9. Validation of a new clinical protocol and biochemical tool for detection of frailty among older Indians
10. Study of orthostatic hypotension among older Indians
11. Impact of diabetes and its complications on mental health and quality of life in older people in India
12. Study of TSPO enhanced Pet Scan in evaluation of cognitive impairment in older adults
13. Chronic metabolic diseases and cancers of upper aero-digestive tract in old age development of comprehensive assessment instruments and assessment of novel protein markers
14. Evaluation of novel intracellular proteins in serum as marker of aging
15. Study of skeletal muscle regeneration in old age

Publications: 7 Abstracts: 8 Chapters in books: 1

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor A.B. Dey was member of Programme Advisory and Monitoring Committee of “Technology Initiatives for Disabled and Elderly” programme of the Department of Science and Technology, Government of India

9.16 Haematology

Professor and Head

R. Saxena

Professor

H.P. Pati

Additional Professors

S. Tyagi

M. Mahapatra

Associate Professors

Tulika Seth

Pravas Mishra

Scientist – II

S.Sazawat

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 also involved in routine diagnosis and management of patients with haematological disorders. Till date the department has completed 140 allogenic blood and marrow transplants for aplastic anemia, thalassemia, leukaemias and myelodysplastic syndrome patients. Autologous transplants for myelomas, acute myeloid leukaemias, lymphomas and one case of multiple sclerosis were also performed. The outcome of the transplant from the unit has been comparable to the best in the world.

EDUCATION

The department has DM courses in Clinical Haematology and Hemato-pathology. 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 MD Pathology students in Haematology.

Lectures delivered

R. Saxena: 19

H.P. Pati: 1

M. Mahapatra: 15

Pravas Mishra: 7

Oral papers/posters presented: 15

RESEARCH

Funded projects

1. Inhibitor Development in Previously untreated patients (PUPs) or Minimally Blood Component Treated Patients (MBCTPs) when exposed to von Willebrand Factor-Containing Factor VIII (VWF/FVIII) Concentrates and to Recombinant Factor VIII (rFVIII) concentrates: an International, Multicentre, Prospective, Controlled, Randomized, Open Label, Clinical Trial. Tulika Seth, Angelo Bianchi Bonomi Foundation, Italy, 2012-2016
2. Aplastic Anemia and Telomerase Complex, Tulika Seth, AIIMS, 2013-2015
3. A study of the genetic profile of chronic immune thrombocytopenic purpura patients at a North India tertiary care centre by Tulika Seth, CSIR, 2013-2015
4. Incidence of invasive fungal infection in patients undergoing chemotherapy for acute myeloid leukemia–impact of antifungal prophylaxis. A prospective, multicenter, observational study in India, Tulika Seth, MERCK, CMC Vellore, 2014-2015
5. Role of modulating factors on phenotype of sickle cell disease, R. Saxena, DST, 2013-2016.
6. A Comparison of the Clinical and Molecule Features of Chronic Lymphocytic Leukaemia (CLL) in Indian and Canadian Populations, R. Saxena, Indo Shastri Grant, 2013-2015.
7. TFPI mutations in Thrombosis and correlation with Post thrombotic syndrome, P. Mishra, AIIMS, Intramural Fund, 2013-2016

Completed

1. Community based planned intervention for the change in perception and health seeking behavior of cancers in Delhi: A pilot study, Tulika Seth, ICMR, 2009-2012

2. Assessment of T cell immune markers and their predictive utility in management of aplastic anemia, Tulika Seth, AIIMS, 2011-2013
3. Molecular profiling of Acute Myeloid Leukemia, R. Saxena, DBT, 2013-2016.
4. Role of modulating factors on phenotype of sickle cell disease, R. Saxena, DST, 2013-2016.
5. Evaluation of safety, efficacy and immunogenicity of RECOMBINATE in Hemophilia A: - a RECOMBINATE Post Marketing Authorization safety Surveillance study, H.P. Pati and M. Mahapatra, Baxter India Private Ltd., 2013.
6. Novel TKI in CML phase II study, P. Mishra, NATCO, 2012-2014

Departmental projects

Ongoing

1. T helper cell subsets and their functions in aplastic anemia
2. Evaluation of expression of osteopontin in Acute Myeloid Leukemia and its prognostic impact
3. Evaluation of the role of fibrin monomer in the diagnosis of Disseminated Intravascular Coagulation” 2013-15
4. Comparison of erythrocyte osmotic fragility by flow cytometry and conventional method in hereditary spherocytosis
5. To study the prognostic significance of CD34+CD38low/-CD123+ leukemic blasts in Acute Leukemia by seeing the response to the standard induction chemotherapy 2013-15
6. Standardization of BCR ABL in Chronic Myeloid leukemia
7. Cardiology complications of Anthracyclines in patients with acute myeloid leukemia

Completed

1. Intracellular interferon-gamma in circulating T cells detected by flow cytometry and the response to immunosuppressive therapy (Anti Thymocyte Globulin (ATG) and/or Cyclosporine) in patients with Idiopathic Aplastic Anemia (IAA).management of aplastic anemia
2. To study the causes of secondary Immune thrombocytopenia and response to treatment in these patients
3. Evaluation of CD55/CD59/CD66b/CD16 viz-a-viz CD55/CD59 in diagnosis of Paroxysmal Nocturnal Hemoglobinuria
4. Thromboelastography for vwd screening
5. Analysis of flt3 itd and npm1 mutation in aml patients and its correlation with immunophenotype and blast morphology
6. Safety and efficacy of tranexamic acid prophylaxis in patients with aplastic anemia
7. Central nervous system involvement in Acute lymphoblastic leukemia
8. Study of splenectomy and its early complications in hematological diseases
9. Modified thromboelastographic assay in Von Willebrand Disease

Collaborative projects

Ongoing

1. Pathophysiology of thrombocytopenia in dengue infection (Regional Centre for Biotechnology, Gurgaon)
2. Hypersplenism in patients with extrahepatic portal venous obstruction its correlation with splenomegaly and severity of portal hypertension and course following surgery (GI Surgery 2014-2016)
3. To test whether hypercoagulable state of blood is a risk factor for post traumatic temporomandibular joint ankylosis and in vitro effects of hypoxia and activated protein C on mesenchymal stem cells (Oral and Maxillofacial Surgery 2013-2016)
4. Incidence of deep vein thrombosis (DVT) in major gastrointestinal surgery: A prospective observational study (GI Surgery 2013-2015)
5. To evaluate the pancreatic tissue perfusion and vascular changes and their inflammatory mediators in the pathogenesis of acute necrotizing pancreatitis in humans (Gastro 2013-2015)
6. To study the perioperative outcomes of laproscopic and open splenectomy in patients with idiopathic thrombocytopenic purpura (General Surgery 2013-2015)

7. Evaluation of inflammatory predictors of severity in DHF: A prospective case control study (Medicine 2014-2016)
8. Hematological and coagulation abnormalities in severe malaria – A prospective observational study (Medicine 2013-2015)
9. Celiac disease and Iron deficiency anemia (Gastroenterology)
10. Cardiology complications of Anthracyclines in patients with acute myeloid leukemia (Cardiology)

Completed

1. Effect of iron and folic acid tablet versus capsule formulation on treatment adherence and iron status among pregnant women: a randomized control trial (Community Medicine 2012-2014)
2. Correlation of serum erythropoietin levels, serum transferrin receptor levels and serum ferritin levels with other hematological indices and their response to various treatment modalities in normal pregnancies and iron deficiency anemia in late pregnancy (Obst. & Gynae., 2012-2014)
3. Deep venous thrombosis and role of dalteparin as prophylaxis in surgeries for pelvic malignancies (Surgical Oncology, IRCH, 2012-2014)
4. To compare the efficacy of intravenous ferric carboxymaltose versus iron sucrose in the management of anemia of abnormal uterine bleeding (Obst. & Gynae., 2012-2014)

PUBLICATIONS

Journals: 34 Abstracts: 9 Chapters in books: 5

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor R. Saxena was Member of PRC, ICMR, PAC DST and DBT, Coordinator of ISHTM – AIIMS EQAP programme, Member of Membership Council of International Society of Thrombosis and Hemostasis, Member of ICMR task force on Myelodysplastic syndrome

Professor H.P. Pati was Editor-In-Chief of Indian Journal of Hematology & Blood Transfusion

Dr M. Mahapatra was Honorary Secretary of Indian Society of Hematology and Blood Transfusion (ISHBT)

Dr Tulika Seth received NAMS membership at the NAMSCON in Jodhpur, 2013

Dr Pravas Mishra was member of ICMR task force on Myelodysplastic syndrome

9.17 Hospital Administration

Professor and Head

Shakti Kumar Gupta (1.4.2013 to 19.3.2014)

Sidhartha Satpathy (w.e.f. 20.3.2014)

Medical Superintendent, Main Hospital

D.K. Sharma

Professors

I.B. Singh

Sanjay Arya

Aarti Vij

Assistant Professors

Nirupam Madaan

Amit Lathwal

Anoop Daga

Mahesh R.

HIGHLIGHTS

The department organized the '2nd International Congress on Emergency Medical Service Systems (EMS 2013)' and '2nd International Conference on Innovation & Entrepreneurship in Healthcare (IEH 2013)', 18-20 October 2013, AIIMS, New Delhi in collaboration with the Center for Health Systems Innovation, Spears School of Business and Center for Health Sciences, Oklahoma State University, USA. The conference provided an enabling platform of synergy for the Policy Makers, Healthcare Providers, Administrators, Industry Partners and other Stakeholders to deliberate on variables and imperatives of Innovation, Entrepreneurship and Recent advances in Emergency Medical Service Systems and Healthcare Provisioning. The conference brought together thought leaders, scholars, health managers, clinical practitioners, innovators and entrepreneurs from across the globe to present research and innovations, and to stimulate discussions on how creativity, innovation and entrepreneurship can help transform health and healthcare delivery. During the conference 'Innovation and Entrepreneurship Awards 2013' were awarded under three categories—Innovation & Entrepreneurship in Healthcare, Emergency Medical Service Systems and Healthcare IT. Scientific abstracts presented in the conference have been published in the Australian Medical Journal (AMJ) Volume 7; No. 2; 83-135. It is a peer-reviewed journal and the abstracts can be accessed online at www.amj.net.au.

The department also organized the 10th Healthcare Executive Management Development Programme (HxMDP), Srinagar, April 28 to May 4, 2013. This programme was designed for senior healthcare professionals (medical or non-medical) occupying/likely to occupy leadership positions in medical and healthcare organizations and aims to enhance healthcare leaders' abilities to plan, organize, control, and lead their organizations and enable them to discover new ways to handle issues, seize challenges and take their organizations and people to new avenues.

EDUCATION

The Department of Hospital Administration is running a postgraduate degree programme for medical graduates viz. MHA (Masters in Hospital Administration), which entered its 48th year after inception. It was officially started in February 1966, for the first time in India and has since been recognized as a distinct postgraduate discipline. The Residency Programme in Hospital Administration focuses on 'hands on training', where Resident Administrators man the 'Administrative Control Room' of hospital, round the clock as 'Duty Officers', and coordinate all the hospital activities after duty hours. It works as the nerve centre of the Institute.

Resident Administrators have to submit one thesis and four dissertations during the two years tenure.

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

Training of students from different institutes

- One student from Deenbandhu Chotturam University, Sonapat, Haryana
- One student from Devi Ahilya University, Indore, Madhya Pradesh
- Three MD (Hospital Admn) students from Sher-I-Kashmir Institute of Medical Sciences, Sringar, Jammu & Kashmir
- One student from Leh, Ladakh, Jammu & Kashmir

CONTINUING MEDICAL EDUCATION

Conferences, Seminars & Workshops organized by the department

- 10th Healthcare Executive Management Development Programme, Srinagar, Jammu & Kashmir, 28 April to 4 May 2013.
- 2nd International Conference on Emergency Medical Service Systems and Innovation & Entrepreneurship in Healthcare, 18–20 October 2013, AIIMS, New Delhi.
- Training Programme on 'Hospital Management and Administration' for Medical Superintendents, GDMOs of Coal India Ltd. at Indian Institute of Coal Management (IICM), Ranchi, Jharkhand, 3 February 2013 to 7 March 2014.

Lectures delivered

S. Satpathy: 15

I. B. Singh: 5

Aarti Vij: 21

Nirupam Madaan: 4

Mahesh R.: 2

Oral/Poster presentations

S. Satpathy: 3

I. B. Singh: 3

Aarti Vij: 1

Nirupam Madaan: 2

Mahesh R.: 1

RESEARCH

Departmental projects

Completed

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

Ongoing

1. Application of Operation Research Techniques in improving patient processes at Dr. R.P. Centre, AIIMS
2. Study the waiting time for elective surgical procedures in select surgical specialties at AIIMS hospital, analyse the factors leading to waiting time and suggest ways to reduce the same.
3. To study the risk assessment of work place violence at AIIMS
4. To study the factors influencing, the patient flow as a cause for overcrowding in new emergency at AIIMS
5. To study the communication between healthcare providers as a tool of patient safety in Dept of GI Surgery
6. Costing of inpatient care of senior citizens at AIIMS hospital
7. Study of medical equipment procurement practices at AIIMS main hospital, extent of competition in the tenders; and factors which determine participation in bidding process
8. Study of the status of Emergency Medical Service System across India
9. To develop a Duty Officer's manual for day to day operations in the Control Room
10. Development of a business model for a 100-bedded specialty hospital
11. Development of Hospital Procurement Manual

12. To study the application of IT in Primary Healthcare and to develop an implementable module for the same

PUBLICATIONS

Journals: 3

Abstract: 1

Chapters in Books: 2

PATIENT CARE

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

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Shakti Kumar Gupta was Member of Expert Advisory Committee on Ophthalmology for six new AIIMS set up at Bhopal, Bhubneswar, Jodhpur, Patna, Raipur & Rishikesh; Member for developing terms & conditions of contract for Modular OT, Medical Gas Pipe Line and CSSD systems at AIIMS, Rishikesh; Member, Technical Committee for training on equipment, machinery and other patient care items being procured under PMSSY; Assisting recruitment for Group C posts at AIIMS Patna; Member of C-II National Committee on Healthcare for the year 2013-14 and contributed in shaping the agenda for the Healthcare Sector; Member, Expert Advisory committee for the proposed five programmes—Pharmacovigilance, Haemovigilance, Bio-vigilance, Materiovigilance and Antimicrobial Resistance to be implemented under the Pharmacovigilance Programme of India (PvPI) during the 12th Five Year Plan (2012-17), DGHS, CDSCO, Ministry of Health & Family Welfare, Govt. of India; Member of the Technical Specification Committee for procurement of 90 BLS and 10 ALS Ambulances to be procured for CATS, Govt of India; Member, Academic Advisory Council of Institute of Health Management Research, Jaipur; Member, Constituted Committee to frame specifications, estimated cost and requirements for balance furniture for six new AIIMS under the chairmanship of the Director, AIIMS, Bhopal; attended National Conference on Ethics in Medical Records ETHICSON-2013, AIIMS Jodhpur; attended National Conference on Hospital Administration; Decadal Changes & Frontier ahead NADCFACON-2014 at SGPGIMS Lucknow; attended selection/promotions of faculty members of Dept of Hospital Administration at SGPGI, Lucknow; conducted practical part of MD (Hospital Administration) annual examination at Sher-i-Kashmir Institute of Medical Sciences, Srinagar; attended HxMDP as resource faculty invited by Dept of Hospital Administration, AIIMS at Goa; attended the selection committee meeting at SKIMS for selection of candidates for various faculty positions for Hospital Administration at SKIMS, Srinagar; attended the meeting regarding master plan and other development works of SMS Hospital, Jodhpur; attended the selection committee meeting as a subject expert for the selection of faculty position in the specialty of Hospital Administration at KGMU, Lucknow; attended the selection committee meeting as an external examiner for MHA practical examination at Himalaya Institute of Medical Sciences, Dehradun; attended the Standing Selection Committee for selection of the post of Medical Superintendent at Indira Gandhi Institute of Medical Sciences, Raebareli Road, Lucknow; delivered oration on 2nd memorial programme in the memory of Dr R.K. Banerjee at Ranchi Institute of Neuro-Psychiatry Allied Sciences (RINPAS), Kanke, Ranchi, attended selection committee for selection of Dy. Nursing Supdts and Asstt. Nursing Supdts at AIIMS, Bhubaneswar; attended adhoc selection committee for recruitment of Group A and B posts at AIIMS, Bhopal; conducted practical and viva-voce examination for Master in Hospital Administration at PGIMER, Chandigarh; attended the special programme on Hospital Management and Administration for Medical Superintendent, GDMOs at IICM, Ranchi

Dr D.K. Sharma was 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 & Family Welfare, Central Pollution Control Board, Govt. of NCT of Delhi, etc.; attended the special programme on Hospital Management and Administration for Medical Superintendent, GDMOs at IICM, Ranchi; Chairman/Principal member of various committees of Bureau of Indian Standards (BIS), India on Hospital planning, medical equipments, surgical instruments, disposable and dressings; permanent special invitee member of the Pradhan Mantri Swasthya Suraksha Yojna (PMSSY) of Ministry of Health & Family Welfare to establish six AIIMS like institutions; member of selection committee for recruitment of Group-A & B posts at AIIMS, Bhopal, member of selection committee for selection of DNS & ANS at AIIMS, Bhubneswar; external examiner for the term end examination of Diploma in Hospital Admn at SGPGIMS, Lucknow; member of the standing selection committee for selection of the post of Medical Superintendent, Indira Gandhi Institute of Medical Sciences, Patna; subject expert of the selection committee for

the selection of faculty position in Hospital Administration at KGMU, Lucknow; attended the special programme on Hospital Management and Administration for Medical Superintendents, GDMOs at IICM, Ranchi; conducted the practical and viva-voce examination for Master in Hospital Administration at PGIMER, Chandigarh

Professor Sidhartha Satpathy was awarded Fellowship of International Medical Services Association in 2014; Member, Building Committee of National Brain Research Institute – an autonomous Institute of Department of Biotechnology, Ministry of Science & Technology, Govt. of India; Expert Member of Selection Committee for post of Medical Superintendent & Faculty position of Hospital Administration at various Medical Colleges; Expert Member of Health Sector Skills Council (HSCC) – National Curriculum Approval Committee for development of National Occupational standards; external Examiner for QMAHO Programme at Academy of Hospital Administration, Noida, UP; visited NTPC Project Hospitals as Expert Member of Committee for assessment of Hospitals for Swarn Shakti Award (Best Healthcare Service Award) at NTPC in 2013.

Professor I.B. Singh appointed an Assessor for the physical and the other teaching facilities available at Narayana Medical College, Nellore for purpose of recognition of MD- Hospital Administration course under NTR University of Health Sciences, Vijay Wada on 15-05-2013 and 16-05-2013; member of the Expert Committee for procurement of common and/ or specialized equipments for six new AIIMS under PMSSY; appointed examiner for the Post Graduate Degree Course- Master in Hospital Administration Final Examination at AIIMS; thesis Examiner for M. D. in Hospital Administration at Nizam's Institute of Medical Sciences, Hyderabad in April 2014; presented three papers in the International Conference on Hospital Management – IHMCON-2013 jointly organized by Sir Sunderlal Institute of Medical Sciences, Banaras Hindu University (BHU), UP and IHA held from 20 to 22 Dec 2014 at Swatantra Bhawan, BHU, UP; member of the Expert Committee, constituted for Revision of Formulary proprietary drugs included in Drug formulary for CGHS and MSO; member of the Expert Technical Committee, for granting approval of Plans for NIPS, Najafgarh, RIPS, Chandigarh under Ministry of Health and Family Welfare, Department of Health and Family Welfare –PMS Division; Expert committee member of Hospital Planning Sectional Committee, MHD 14, Bureau of Indian Standards, for drafting 'Basic Requirements for Hospital Planning Part -1 up to 30-bedded Hospital; As nodal officer, invited to attend the 'workshop to scale up Provision of Free Medical Care to Economically Weaker Section in Private Hospitals', 5-1-2013 organized by Department of Health and Family Welfare, Govt. of Delhi in Delhi Secretariat; Resource faculty for the training program on "Hospital Management and Administration (3rd February to 9th March, 2013) for Medical Superintendents GDMOs, Non-specialists of Coal India Limited, at IICM, Ranchi". Chaired two scientific sessions in the International Conference on Hospital Management, IHMCON-2013 jointly organized by Sir Sunderlal Institute of Medical Sciences BHU (U.P.) and IHA-held from 20-22 December, 2013 at Swatantra Bhawan, BHU (U.P.).

Professor Aarti Vij contributed in framing Transplantation of Human Organ Rules, 2014; designed and updated real time and vibrant ORBO website, 224 organs and tissues were procured for transplantation; collaboration with various organization to promote the noble cause of organ and tissue donation; organized various awareness activities at Delhi and NCR

Dr Anoop Daga was faculty and lead trainer in Hospital Disaster Management Planning Training Workshop at Dibrugarh Emergency Management Exercise (DiEMEx-2014) organized by National Disaster Management Authority (NDMA), New Delhi at district Dibrugarh (Assam State), 3–7 February 2014; lectures taken in Healthcare Management Development Programme for Sr. Medical Officers of Coal India Ltd. at IICM, Ranchi, Jharkhand.

Dr Nirupam Madaan organized training programme for Group D staff in September, 2013 along with CMET, organized orientation programme for new batch of MBBS students on 31 July and 1 August 2013 at AIIMS; attended National Seminar on Healthcare Management (NASHCAM-2013) at Manipal, Karnataka, 3–5 December 2013; attended National Conference on Ethics in Medical Research at Jodhpur, 9–10 December 2013; Received membership to National Academy of Medical Sciences at NAMSCON 2013 held in Jodhpur in October 2013.

Dr Amit Lathwal organized training programme for Group-D staff in September, 2013 along with CMET; organized orientation programme for new batch of MBBS students on 31 July and 1 August 2013 at AIIMS; attended National Seminar on Healthcare Management (NASHCAM – 2013) at Manipal, Karnataka, 3–5 December 2013; attended National Conference on Ethics in Medical Research at Jodhpur, 9–10 December 2013; took lectures on Healthcare Management Development Programme for Sr. Medical Officers of Coal India Ltd. at IICM, Ranchi, Jharkhand; Resource faculty on Hospital Preparedness in Disasters at the Dibrugarh emergency management exercise (DiMEx) organized by NDMA and Assam State Disaster Management Authority at Dibrugarh, Assam. Member of Technical

committee for vetting inter-alia approving/amending draft technical specifications for medical equipments for Indira Gandhi Institute of Child Health, Kabul. Member of the committee for providing technical specifications of medical equipments for setting up of temporary OPD for AIIMS Rai Bareilly and for local shopping of small items.

Dr Mahesh R was Principal Member of Medical Equipment & Hospital Planning Division Council (MHDC), Bureau of Indian Standards; Expert in the committee for development of Pack Warnings, MOHFW, GOI (Tobacco Control Division); Member Sub-Committee for Development of Minimum Standards for Clinical Establishments, GOI, DGHS; Technical expert for Specification Committee for procurement of Equipments for Nepal Bharat Maitri Emergency & Trauma Centre, Kathmandu, Nepal; Member Sub-Committee for Development of Minimum Standards for Clinical Establishments, GOI, DGHS; Conducted a training as organizing secretary on Haemo-vigilance Programme of India on 7 May 2013 organized in collaboration with National Institute of Biologicals & Indian Pharmacopoeia Council, MOHFW, Govt. of India.

9.18 Laboratory Medicine

Professor and Head

A.K. Mukhopadhyay

Professors

M. Irshad

Sarman Singh

Additional Professor

Subhadra Sharma

Scientists

Vandita Vasudev, S-III

HIGHLIGHTS

The department continued to serve the laboratory investigations for the outpatients and inpatients of AIIMS hospital. The department trained postgraduates from the Department of Pathology and Biochemistry from AIIMS and guided research activities of MD and PhD students. The faculty drew major grants from international funding agencies, presented papers and chaired sessions in National and International Conferences, brought accolade and awards at national and international level.

EDUCATION

Short Term Training

One PhD student from PGIMER, Chandigarh was trained in cloning and other molecular technologies.

CMEs/Workshops/Symposia

Organized by the Department

A short-term training on recent techniques in infectious disease diagnosis for Mid-career Scientists /Doctors of North East Region of India, was organized from 29th April to 9th May, 2013.

Lecture delivered

A.K. Mukhopadhyay: 1

Sarman Singh: 7

RESEARCH

Funded projects

Ongoing

1. The study of mitochondrial mutations, mitochondrial function and oxidative stress in Parkinson's Disease, A.K. Mukhopadhyay, DBT, 2011–2014)
1. A novel loop mediated isothermal amplification (LAMP) assay for rapid detection and differentiation of mycobacterium tuberculosis, M. avium complex & other mycobacterium species directly from clinical samples, Sarman Singh, DBT, 2011-2014, Rs. 63 lakhs.
2. 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, 2011-2013, Rs. 47 lakhs.
3. Molecular epidemiology and genetic characterization of M.tuberculosis in HIV seropositive patients. Sarman Singh, ICMR, 2012-2015, Rs 19 lakhs
4. Medicinal orchids of Arunachal Pradesh: Micro Propagation: Phytochemical Characterization and Biological activity evaluation. Sarman Singh, DBT, 2013-16, Rs. 86 lakhs.
5. Kinetoplastid Drug Development: Strengthening the preclinical pipeline KINDReD. Sarman Singh, European Commission, 2013-16, Rs. 2 crores
6. Comparative evaluation of C reactive protein and total leucocyte count in patents with Infectious and inflammatory disorders, Sarman Singh, ICMR, 2014-15 Rs. 6.55 lakhs
7. A side by side comparison of the current gold standard method for diagnosing M. Tuberculosis from sputum with DNA Genotek chemistries. Sarman Singh, 2013-14, Rs. 7.10 lakhs.
8. Leishmania kinesin Motor Domain with BCG as a vaccine formulation against experimental visceral Leishmaniasis. Sarman Singh, ICMR, India.

9. 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 Lacs)

Completed

1. The role of neurotrophins, cytokines and genetic polymorphisms in clinical manifestation of depression in adolescents. A.K. Mukhopadhyay, DBT 12-01-2010 to 11-07-2013) Rs. 35.99 Lakhs.
2. Animal studies on chimeric DNA vaccine for the prophylaxis of leishmaniasis and tuberculosis. Sarman Singh, ICMR, India, Rs. 63.00 lakhs.
3. Zinc supplementation in childhood tuberculosis patients in Delhi, India. Sarman Singh, Norwegian Grant. Rs. 42.00 lakhs.
4. Cloning, expression, purification and evaluation of a recombinant antigen for diagnosis, prognosis and prediction of MDR/XDR tuberculosis. Sarman Singh, ICMR, India, Rs. 31.13 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

Departmental projects

Ongoing

1. Raising Polyclonal Antibodies against novel Mycobacterium tuberculosis antigens and their diagnostic value in TB diagnosis.
2. Isolation and characterization of Leishmania-like parasite (S) from seropositive goats.
3. Association of various genotypes of M. tuberculosis with clinical, pathological manifestation and disease outcome of post-primary tuberculosis.”
4. To see the prevalence of Microsporidia in stool samples of HIV sero-positive and HIV sero-negative adult and pediatric patients with diarrhea.
5. Leishmania Kinesin Motor Domain with BCG as a vaccine formulation against experimental visceral leishmaniasis.
6. Multiplexing assays for hepatitis viruses.
7. Role of TTV in renal failure patients.
8. Epidemiological studies on CRF in Indian Communities.
9. Cloning, sequencing and expression of TTV related polypeptides.
10. Genotyping of TTV in Indian population.
11. Real time PCR for sero detection of HCV genotypes.
12. Significance of HCV-genotypes in Cirrhosis / HCC.

Collaborative projects

1. Study of Diagnostic Utility of Genexpert IN Diagnosis of Pleural and Lymph Node Tuberculosis. (with Department of Medicine).
2. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis or organ dysfunction and sepsis (with Department of Lab Medicine).
3. Development and validation of rapid and accurate diagnostic test for tuberculosis (with Department of Biotechnology)
4. Correlation between first trimester glucose screening & serum insulin levels with development of gestational diabetes mellitus in pregnancy (with Departments of Laboratory Medicine and Endocrinology & Metabolism).
5. A multicentric study on Chronic Renal Failure (CRF) in Indian population (with Department of Laboratory Medicine and Nephrology).

PUBLICATIONS

Journals: 33

Abstracts: 8

Chapters in Books: 5

PATIENT CARE

Centralised Blood Collection Facility

- I. Total number of phlebotomy and sample: 76,586
(Primary & Post Prandials)

II. Distribution of blood samples

A) Department of Lab Medicine	
i) Clinical Chemistry:	69,782
ii) Clinical Haematology:	57,940
iii) Clinical Microbiology:	2,906
iv) Clinical Pathology:	185
B) To Laboratories Outside department	
i) CN Centre:	9,465
ii) Department of Microbiology:	5,720
iii) Department of Transfusion Medicine:	3,200

III. Investigations Performed

A) Bleeding Time, Clotting Time:	1,470
Prothrombin Time:	3,674
APTT:	336]
Total:	2,31,264

Emergency Laboratory Service (Round the clock)

Haematology Section

S. No.	Test	Total
1	Hb	100177
2	TLC	100177
3	PLT	100177
4	PT	35470
5	MP in PS	3045
6	CSF Cell Count	10148
7	Urine	3360
8	Blood C/S	7950
9	CSF C/S	3250
10	Slide Stain	3492
11	H.D. Stool	3251
12	MCV	100177
13	MCH	100177
14	MCHC	100177
15	PCV	100177
16	RBC	100177
17	B/C	230
18	Others	15200
	Total	8,86,812

Services from Room no. 18

Adenosine Deaminase Assay (ADA):	1699
Neuro cysticercosis (NCC) Serum IgG Antibodies:	121
Total:	1820

Miscellaneous

S. No.	Test	Total
1	Serum Vit. B-12	850
2	Serum Folic Acid	544
3	Serum Ferritin	215
4	CEA	145
5	CA 15.3	120
6	CA 19.9	115
7	Serum PTH	85
	Total	2074

Haematology section

S. No.	Test	OPD	Ward
1	Hb96197	81818	
2	TLC	96197	81818
3	PCV	96197	81818
4	DLC	96197	81818
5	ESR	65200	52006
6	P/s Morphology	61350	42510
7	PLT	96197	81818
8	Retic Count	3520	7240
9	Abs Eos. Count	10190	11818
10	ANC	16107	10800
11	MP	22500	18920
12	Thick Smear	2500	3524
13	MCV	96197	81818
14	MCH	96197	81818
15	MCHC	96197	81818
16	RBC	96197	81818
17	RDW	96197	81818
18	MPV	96197	81818
19	PT	3674	20682
20	BT	1470	–
21	CT	1470	–
22	APTT	336	4472
23	TT	–	1442
24	D-DIMER	–	901
25	Others	9890	7802
	Total	12,56,374	10,83,125

Grand Total: 23,39,499

* 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

Clinical Biochemistry Emergency Services

Test	Number	Test	Number
Glucose:	52,112	Urea:	1,35,221
Creatinine:	1,35,221	Bilirubin Total:	82,502
Amylase:	10,465	CSF Protein:	6,577
<i>Electrolytes:</i>			
Sodium:	1,44,319	Potassium:	1,44,319
Ionized calcium:	46,705	Chloride:	46,705
ABG with electrolytes:	26,305		
Total:	8,30,451		

Clinical Biochemistry Routine Services

Test	Blood	Urine	Fluid
Sugar	1,31,312	612	1,155
Urea	2,96,401	288	–
T. Protein	2,81,111	–	1,155
Albumin	2,81,111	–	1,155
24h Albumin	–	45,603	–
Bilirubin			
i) Total	2,84,309	–	–
ii) Conjugated	1,56,215	–	–
Alkaline phosphatase	2,79,501	–	–
Cholesterol	89,719	–	–
Na	2,95,204	3,713	–
K	2,95,204	3,713	–
Calcium	2,19,506	5,300	–
Phosphate	1,90,332	5,300	–
Uric acid	2,10,118	5,300	–
Amylase	15,763	–	–
Creatinine	2,86,132	8,116	–
SGOT	2,81,903	–	–
SGPT	2,81,903	–	–
ACP	2,100	–	–
ABG	501	–	–
pCO ₂	501	–	–
pH	501	–	–
pO ₂	501	–	–
HCO ₃	501	–	–
CO ₂	501	–	–
AsDO ₂	501	–	–
O ₂ saturation	501	–	–
BE	501	–	–
Total:	38, 87, 285	77, 945	3,465

Clinical Biochemistry Rare Investigations

Test	Number	Test	Number
HBsAg	400	IgM anti HBc	400
HBeAg	400	Anti HCV	800
IgM Anti HEV	200	IgM Anti HDV	100
IgM Anti HAV	200	HCV RNA	500

TTV-DNA	1000	CK	100
LDH	100	GGT	100
TG	100	LDLc	300
HDLc	300		
TOTAL	5,000		

Microbiology section

A. Routine Investigations

1. Urine

Name of the Tests	O.P.D	WARD	TOTAL
Medical board	3730	-	3730
Routine	34247	31835	66082
Microscopic	34247	31835	66082
pH	34247	31835	66082
Specific gravity	34247	31835	66082
Acetone	34247	31835	66082
Bile pigment/salt	34247	31835	66082
Urobilinogen	34247	31835	66082
Blood	34247	31835	66082
Bence Jones Protein	95	260	355
Chyluria	105	246	351
Porphobilinogen	20	35	55
Myoglobinuria	8	244	252
Urine Cultures	17330	-	17330
Strain identifications tests	14950	-	14950
Antibiotic Sensitivity	2990	-	2990
Subtotal	313204	255465	568669

2. Stool Investigations

Specific gravity	34247	31835	66082
Wet mount saline	6485	2644	9129
Wet Iodine stain	6485	2644	9129
Occult blood in stool	2463	801	3264
Fat globules	248	149	397
Special stains for stool Z-N stain, Modified Z-N stain, Trichrome and chromotopo	1674	954	2628
Subtotal	17355	7192	24547

3. Semen analysis

Routine	3878	-	3878
No. of Reactions	3878	-	3878
Motility	3878	-	3878
Count	2580	-	2580
Fructose	1525	-	1525
Morphology	2580	-	2580
Subtotal	18319		18319

B. Specialized Investigations

Serological & Molecular Diagnosis Tests

TEST* (these tests remained suspended for most of the year)	TOTAL
TORCH	
Toxoplasma gondii IgG	192
Toxoplasma gondii IgM	189
Rubella IgG	296
Rubella IgM	301
Cytomegalo virus IgG	459
Cytomegalo virus IgM	483
Herpes Simplex virus IgG	448
Herpes Simplex virus 2 IgG	448
Herpes Simplex virus (1+2) IgM	350
Toxoplasma gondii IgG avidity	48
Rubella IgG avidity	168
Cytomegalo virus IgG avidity	38
Parvo virus B19 IgG	20
Parvo virus B19 IgM	20
Sub Total	3460
<u>Viral Markers & HIV</u>	
Anti HAV IgM	624
HBsAg	7062
Anti HBcIgM	227
HBeAg	557
Anti HBe	306
Anti HBs	256
Anti HCV antibody	4280
HEV IgM	00
HIV (1+2) ELISA	2812
HIV Spot Test	50
HBsAg (spot)	100
Subtotal	16274
<u>Others</u>	
Measeles IgG	32
Measles IgM	24
Mumps IgG	32
Varicella IgG	48
Varicella IgM	48
EBV IgG	250
EBV IgM	250
HHV-6 IgG	250
HHV-7 IgG	250
HHV-8 IgG	250
Subtotal	1434

<u>Molecular Tests</u>	
Leishmania PCR	24
TB PCR	11026
HHV-6 PCR	100
HHV-8	100
EBV PCR	100
HSV (192) PCR	100
CMV (RT PCR)	170
HIV Viral Load (NASBA)	200
Subtotal	11820
<u>Leishmania Serology</u>	
Serology	85
Miscroscopy for L.D	12
Leishmania Culture from patient sample	12
Leishmania Strain maintenance (In vitro)	1392
Leishmania Strain maintenance in Hamster (<i>in-vivo</i>)	24
Subtotal	1525

TB Laboratory

<u>S. No.</u>	<u>Test</u>	<u>Total</u>
1.	Total Number of samples received	6225
2.	ZN staining:	29600
3.	LJ medium inoculated	6046
4.	BACTEC MGIT 960 inoculated	6121
5.	BACTEC MGIT 960:	450
6.	Colorimetric Redox Indicator assay (CRI)	95
7.	Nitrate Reducatase assay (NRA)	226
8.	Biochemical analysis performed:	152
9.	Tuberculin Skin Test Performed (PPD)	241
10.	TB Culture confirmation test performed by strips	127
11.	Line Probe assay (HAIN'S Test)	225
12.	GeneXpert MTB/RIF	700
13.	DNA Sequencing	180
	Subtotal	50388
	Grand Total	6,96,436

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor A. K. Mukhopadhyay was Member of Standing Selection Committee of IGNOU; chosen as member of Nominating Council for 2013 BBVA Foundation Frontiers of Knowledge Awards, Spain; member of Nominating Council for Infosys Science Foundation Award, 2013; Expert, Ministry of Health, Govt. of India; Member of the Standing Committee on CDEC, DGHS, Ministry of Health & Family Welfare, Govt. of India; Chairman, Pathology & Laboratory Medicine, in the subcommittee for 'Development of Minimum Standards for Clinical Establishments' Reviewer for American Journal of Alzheimer disease

Professor M. Irshad was nominated as Member, Editorial Board, World Journal of Hepatology, 2013-14; Paper published in Journal of Gastroenterology and Hepatology 2013; 28: 1869–76 was graded as an excellent paper by its Editor-in-chief; nominated for ‘Indira Gandhi Shiromani Award’ by India International Friendship Society (IIFS).

Professor Sarman Singh received three prestigious awards, the Chkitsa Ratan Award of Delhi Medical Association, Med-Achiever Award of Indian Medical Association and Life time achievement award of the Society for Immunology and Immunopathology; Elected President of the Society for Immunology and Immunopathology at Bikaner; Chairman, Award committee for best Hindi book writing on medical sciences, Indian Council of Medical Research (ICMR); Member, Task Force on Tuberculosis, Department of Biotechnology, Government of India; Task Force of DBT for North Eastern Region-Biotechnology Programme Management Cell (NER-BPMC) Department of Biotechnology, Government of India; Global Technical Committee of International Organization for Standardization (ISO), Geneva; Bureau of Indian Standards (BIS), New Delhi; CPCSEA (Ministry of Environment, Government of India) nominee for Institutional Animal Ethics Committees (IAEC) of Defense Institute of Physiology and Allied Sciences (DIPAS), Institute of Genomics and Integrative Biology (IGIB) and University of Delhi; Member, Condemnation Board, ICMR, New Delhi; Technical Evaluation Committee of Establishment of Model Rural Health Research Units (MRHRU) in the States; Equipment purchase committee of ICMR, New Delhi; Core Committee Member of the Assessment Board for Promotion of ICMR Scientists under the Flexible Complementing Scheme for Scientists B to Scientist E; Post-Doctoral Fellowship Award committee of ICMR; Expert committee of ICMR for re-employment of retired ICMR scientists; Editorial and review boards of ‘The Open AIDS Journal’, Bentham Publications, USA; ‘Journal of Infection in Developing Countries’, Italy; ‘Clinical Medicine: Dermatology’, La-Press, Australia; Lancet, JAMA, Clinical Infectious Diseases, Maternal & Child Health, Clinical and Experimental Immunology, FEMS Immunology, Journal of Medical Virology, Journal of Medical Microbiology, Journal of Infection, AIDS Care & Behaviour, Archives of Medical Research, Infectious Diseases in Clinical Practice, International Journal of Integrative Biology, Journal of Parasitology, Medical Science Monitor, International Journal of Genetics and Molecular Biology, International Journal of Medicine and Medical Sciences, Expert Reviews in Molecular Medicine, Biomed Central-Infectious Diseases, Tropical Medicine and Health, Evidence Based Complementary and Alternative Medicine, Molecular and Cellular Biochemistry (MCBI), Scandinavian Journal of Clinical & Laboratory Investigation, Tropical Medicine and International Health, PLoS Neglected Tropical Diseases, Annals of Clinical Microbiology and Antimicrobials, International Research Journal of Biotechnology, Current Science, Journal of Parasitic Diseases, Journal of Laboratory Medicine, Neurology India, Journal of Postgraduate Medicine, Indian Journal of Gastroenterology, Indian Journal of Leprosy, Indian Journal of Medical Research, Indian Journal of Experimental Biology, Indian Journal of Paediatrics, Indian Journal of Physiology & Pharmacology, Indian Journal of Medical Microbiology, Indian Journal of Animal Parasitology; Indian Journal of Vector Borne Diseases, Lung India, Tropical Parasitology, World Journal of Hepatology and several others; Abstract Reviewer for Annual International AIDS conference for the last 7 years consecutively; Editor, Tuberculosis Research and Treatment, Hindawi Publishing Corporation; Editor-in-Chief, Journal of Laboratory Physicians, New Delhi; Chaired Scientific Session during the National Symposium on ‘Innovation in TB Diagnostics, Drug Targets and Biomarkers’, Mahatma Gandhi Institute of Medical Sciences, Wardha, India, January 27-28, 2014; Chaired a scientific session titled “TB Immunology & Laboratory Diagnosis”, 6th National Conference on Tuberculosis (NATCON), at NIRTD, New Delhi, February 24-26, 2014.

9.19 Medicine

Professor and Head

S.K. Sharma

Professors

Rita Sood
Ashutosh Biswas

Naveet Wig
Uma Kumar

Additional Professor

Sanjeev Sinha

Naval Kishore Vikram

Assistant Professor

Manish Soneja
Anup Singh

Piyush Ranjan
Kuldeep Kumar

EDUCATION

The Department runs a comprehensive undergraduate and postgraduate teaching programme which includes integrated lectures, seminars, bedside clinical case discussion and journal club. The students are assessed regularly at end of each clinical posting.

Continuing Medical Education organized by the department

1. Total Health Programme on DD India News on Tuberculosis on 22nd December 2013 and 30th March 2014.
2. Awareness programme organised on World Sleep Day on 14th March 2014, AIIMS, New Delhi.
3. Awareness programme organised on World Tuberculosis Day, 24th March 2014, AIIMS, New Delhi.
4. CME on Adult Immunisation- Indian perspective 12th April 2014 at AIIMS, New Delhi.
5. Guest lecture by the President, American College of Physicians - Digital Pedagogies, flipped classrooms & MOOCs: what they mean for health professions education, 14th March 2014 at AIIMS, New Delhi.
6. Patient Awareness Programme on Arthritis, 11 Oct 2013, Jawaharlal Auditorium, AIIMS, New Delhi.
7. Organized API-DSC – XXIII ANNUAL CME, New Delhi, 28-29 December 2013.

Short- and long-term training

Fifteen students from Austria, Bangladesh, Germany, USA, UK, Afghanistan received training in the Department this year. Physicians from Govt. institutions (national and international) received training for 6 months in Rheumatology

Lectures delivered

Rita Sood: 8 **Ashutosh Biswas: 5** **Uma Kumar: 9**
Sanjeev Sinha: 5 **Naval K. Vikram: 4**

RESEARCH

Funded projects

Completed

1. Dyslipidemia among HIV infected patients receiving Anti Retro Therapy (ART) a prospective observational study, Ashutosh Biswas, ICMR 3 years, 3 months, 2009-2012, Rs. 35 lakhs.
2. Nevirapine versus Efavirenz-based highly active antiretroviral therapy regimens in antiretroviral-naive patients with HIV and Tuberculosis infection in India. Sanjeev Sinha. Funded by NACO. Year 2008, Total amount Rs 65.5 lakhs.
3. 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 tuberculosis. Funded by Dept. of Pharmaceuticals, Govt. of India. (A collaborative project between NIPER, Ahmedabad and AIIMS). Sanjeev Sinha. Year 2010. Total amount: Rs 48 lakhs.

Ongoing

1. Evaluation of Inflammatory predictors of severity in DHF: A prospective observational case-control study, ICMR, Ashutosh Biswas, 3 years, 2013-16, Rs. 44.63 lakhs.
2. Role of Biomarkers in Severe Dengue Fever, Ashutosh Biswas, AIIMS, 2 years, 2013-14, Rs. 4.82 lakhs.
3. Genome sciences and predictive medicine, Uma Kumar, funded by Department of Bio-technology, for Sept 2008 –Aug 2014, Rs 28.34 lakhs.
4. 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, funded by Bristol-Myers Squibb for Nov 2008-Jan2015, Rs 14.2 lakhs.
5. Multicentric, randomized, active controlled parallel group study to evaluate efficacy, tolerability and safety of Adalimumab (Zydus) and Adalimumab (Reference) in patients with Rheumatoid Arthritis. Uma Kumar funded by Zydus for Jan 2014-Aug 2014. Rs 4.8 lakhs.
6. Prospective, Comparative, Open Label, Randomized, Multicenteric Phase III study to compare the safety and efficacy of Etanercept of Intas Biopharmaceuticals Ltd. against Enbrel in patients with Active Rheumatoid Arthritis, Uma Kumar funded by Intas for Jan 2012-July 2014. Rs 1.2 lakhs.
7. To study the effect of climate, air pollution, and socio economic factors on health (Immunological) and disease state (Rheumatoid Arthritis), Uma Kumar, funded by Department of Science & Technology for May 2013-April 2016, Rs 55.8 lakhs.
8. Representation, trafficking and functional interaction of effector and regulatory T cells: Impact on local immune response in rheumatoid arthritis, Uma Kumar, funded by Department of Science & Technology for April 2012-March 2015. Rs 18 lakhs.
9. Once daily dose of Nevirapine (400 mg) versus twice daily dose (200 mg) of Nevirapine -based highly active antiretroviral therapy regimens in antiretroviral-naive patients with HIV and Tuberculosis infection in India. Sanjeev Sinha. Funded by NACO. Year 2012. Total amount: Rs 48.5 lakhs.
10. Studies on the Prevalence, Risk factors and Outcomes of Cancers in HIV in India. Sanjeev Sinha. Funded by ICMR (A collaborative UCLA,USA and AIIMS project). Year 2013. Rs 38.57 lakhs.
11. The Role of Vitamin D in prevention of tuberculosis (MTb) disease in HIV-infected individual. Sanjeev Sinha. Funded by ICMR. Year 2013. Rs 39,48 lakhs.
12. Non-alcoholic fatty liver disease: Associations with bone mineral density, vitamin D and adipokines. Naval K Vikram, Department of Biotechnology, 2013-2016
13. Biomarkers predicting severity and outcome in malaria. Intramural, 2 years, 5 lakhs. Manish Soneja
14. Biomarkers assessing the activity of interstitial lung disease in systemic sclerosis (PI), All India Institute of Medical Sciences, (2012-2014) Piyush Ranjan
15. ASHA improving health and nutrition of Indian women with AIDS and their children. Funded by NIH, USA (A collaborative UCLA, USA and AIIMS project). Year 2013. Total amount: Rs 3,64,48,763, Sanjeev Sinha
16. Studies on molecular approaches to tuberculosis: determination of the prevalence of MDR and XDR strains and drug susceptibility testing, development of new diagnostic test and test a hypothesis for new drug discovery platform for tuberculosis. Funded by Dept. of Pharmaceuticals, Govt. of India. (A collaborative project between NIPER, Mohali & AIIMS). Year 2013. Total amount: Rs 1,06,09,447
17. Reducing AIDS stigma among health professionals in India. Funded by NIH, USA(A collaborative UCSF, USA and AIIMS project). Sanjeev Sinha, Year 2013. Total amount: Rs 1,36,00,000

Departmental Projects

Completed

1. Study of Predictors of Mortality in severe Malaria (Microbiology, Emergency Medicine)
2. Effects of implementing a ventilator associated pneumonia (VAP) prevention bundle on outcome in patients on mechanical ventilation (Emergency Medicine)
3. Haematological and coagulation abnormalities in severe malaria- A Prospective observational study (Microbiology)
4. Evaluation of various parameters for early detection of ethambutol toxicity to retina and optic nerve

(Ophthalmology)

5. Evaluation of an automated high throughput flowcytometry based technique for diagnosis of malaria (Microbiology)
6. Evaluation of Risk factors for Severity of Dengue Fever and Dengue Hemorrhagic Fever.
7. Observational Study of patient Ventilator asynchrony in Medical ICU
8. Study of non-alcoholic fatty liver disease and coronary artery disease in Asian Indians
9. Association of non-alcoholic fatty liver disease with obstructive sleep apnoea in Asian Indians

Ongoing

1. Clinical and pathological profile of peripheral lymphadenopathy (Pathology, Radiodiagnosis).
2. Clinical, Investigative and therapeutic profile of patients presenting with Hemoptysis (Radiodiagnosis, ENT)
3. Study of the diagnostic utility of GeneXpert in pleural and lymph node tuberculosis (Laboratory Medicine)
4. Evaluation of risk factor for severity of malaria
5. Pathogenetic Markers in Severe Dengue Fever
6. Biomarkers in severe dengue fever
7. Management of ART induced dyslipidemia with statins in HIV/AIDS Patients
8. Prolonged fever and the diagnostic utility of FDG-PET/CT among HIV/AIDS
9. Correlation of carotid intima media thickness with ART induced dyslipidemia
10. Pentavalent antigenic peptide (PAP) based approach towards diagnosis of Dengue infection, (Biochemistry)
11. Utility of PET/CT/HRCT Chest in the assessment of disease activity of interstitial lung disease in patients with connective tissue diseases 2012-2015
12. Ovarian failure with cyclophosphamide in women less than 40 years of age, 2011-2014
13. Role of serum vitamin D level & MTHFR mutation in predicting the response to methotrexate in Rheumatoid Arthritis, 2010-2013
14. Predictors of response to Methotrexate in Rheumatoid Arthritis, 2010-2013.
15. Clinico-pathological correlation with outcome in lupus nephritis - A retrospective cohort study 2010-2013
16. Association of ectopic fat deposits with metabolic syndrome
17. Fatty acid composition of abdominal subcutaneous adipose tissue compartments in NAFLD
18. Study of autonomic functions in non-alcoholic fatty liver disease
19. Study of non-alcoholic fatty liver disease and metabolic syndrome in patients with chronic kidney disease
20. Association of non-alcoholic fatty liver disease with bone mineral density and adiposity
21. Hepatic left lobe volume as an indicator of adiposity and related metabolic abnormalities

Collaborative Projects

Completed

1. Indo-US Programme on human Immunity to Chikungunya Virus (Geriatrics)
2. Expression & modulation of leucocytes complement and receptor1 and CD59 (protection) in relation to Rheumatoid arthritis (Biochemistry)
3. Expression of leucocyte CR1 & CR2 (Complement receptor! and 2) and its significance in the pathophysiology and clinical disease activity of rheumatoid arthritis. (Biochemistry)
4. Role of dual energy computed tomography in diagnosis of gout. (Radiology)

Ongoing

1. Pentavalent antigenic peptide (PAP) based approach towards diagnosis of Dengue infection (Biochemistry)
2. Genetic analysis of psoriasis and psoriatic arthritis in Indians (Dermatology)
3. To study the role of Th-17 cells in arthritis patients in Indian population (Anatomy)
4. Preparation and quality control of ¹⁸⁸Re-labelled tin colloid for the treatment of refractory inflammatory arthritis. (Nuclear Medicine)
5. Understanding biology of Rheumatoid arthritis: Functional characterization of some/ novel genetic determinants

(University of Delhi)

6. Effect of Transcranial magnetic Stimulation on pain modulation status in Fibromyalgia patients (Physiology)
7. Representation, trafficking and functional interaction of effector and regulatory T cells: Impact on local immune response in rheumatoid arthritis (Transplant & Immunology department)
8. Childhood Obesity in India: A multi center study on its measurements and determinants, Department of Endocrinology and Metabolism, A.I.I.M.S., and INCLEN.
9. 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) Interleukin-6 (IL-6) C-reactive protein (CRP), Insulin receptor substrate (IRS) Insulin receptor substrate (IRS) 1 and Leptin receptor genes in Obstructive sleep apnea syndrome (OSAS) and non alcoholic fatty liver disease (NAFLD) Department of Pulmonary Medicine and Sleep Disorders, A.I.I.M.S.
10. Role of acute lung injury biomarker gene polymorphisms in obstructive sleep apnea, Department of Pulmonary Medicine and Sleep Disorders, A.I.I.M.S.
11. Influence of genetic polymorphisms, clinical and biochemical parameters in determining susceptibility to non-alcoholic fatty liver disease in Indian overweight adolescents, Department of Pediatrics, A.I.I.M.S.
12. Obesity and metabolic syndrome: The role of nutrition, physical activity, and inflammation, Department of Pulmonary Medicine and Sleep Disorders, A.I.I.M.S.

PUBLICATIONS

Journals: 35

Abstracts: 2

Chapters in books: 6

PATIENT CARE

Medical OPD

New cases	76312	Old cases	43953
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Infectious Disease Clinic

New Cases	170	Old Cases	108
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Sleep related Breathing Disorder (SRBD) Clinic

New Cases	257	Old cases	338
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Chest Clinic

New cases	414	Old cases	774
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Antiretroviral (ART) Centre

Total registered till March 2014	8018	ART started till March 2014	3851
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Regular follow up till March 2014	1850	ART started in 2013-14	401
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AIIMS DOTS Centre

Total patients started on DOTS (April 2013-march 2014)

Cat I	1150	Cat II	424
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Rheumatology Clinic

New cases registered	82	Number of follow up visits	5977
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Laboratories

Sleep lab:

Sleep studies	332	EZY Scan	26
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Ambulatory monitoring of blood pressure	286	Endothelial dysfunction studies	31
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PFT Lab:

Pulmonary Function Test	4010	6 Minute walk test	166
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Number of Bronchoscopies done	111		
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ADA/ACE Lab

Adenosine deaminase tests	646	ACE tests	332
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DOTS AND PMDT services

Samples for sputum smear	9019	Samples for Solid culture	6460
Samples for liquid culture	2218		
Samples for solid Drug Susceptibility test (DST)	557	Samples for liquid DST	258
Samples for Line Probe Assay (LPA)	3415	Samples for GeneXpert	2170

Clinical immunology lab

Number of blood sample received	13900	Number of tests done	38765
<i>Test</i>	<i>Number</i>	<i>Test</i>	<i>Number</i>
RF	7513	ANA	9363
Anti-dsDNA	3433	C3	3101
Serum IgG,IgA,IgM	4005	Cryoglobulins	639
ANCA	3592	ACL	4521
Anti-LKM-1	1416	ASMA	1452

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rita Sood was invited as keynote and guest speaker to International Conferences and meetings in medical education at Lahore (Pakistan), Quito (Ecuador) and Durban (South Africa), organized by their respective National Associations; was re-nominated and is continuing as President of South East Asian Regional Association for Medical Education (SEARAME) and executive committee member of World Federation for Medical Education (WFME). In these capacities, attended the 8th Executive Committee meeting of SEARAME at Ayutthaya, Thailand on 12 Nov'13 and WFME executive council meeting at Quito, Ecuador on 29 July'13; nominated as founder President of the newly formed Indian Academy of Health Professions Education (IAHPE), launched during 5th National Conference of Health Profession (NCHPE'2013) conference, organized by Seth Medical College & KEM Hospital, Mumbai (25-28 Sept.13); delivered convocation address during graduation ceremony of CMCL-FAIMER fellows during its Educational leadership fellowship program at CMC, Ludhiana from 10-11 Feb.14; nominated member of Academic council of MCI, during 2012-13. Attended many meetings of academic council at MCI during the year 2013; appointed as external examiner by the Sultan Qaboos University, Muscat, Oman for three years for examination of the integrated module course of graduate education (May'2013); invited as an Adviser by UPSC to assist the Commission in personality test from 28th Oct to 1st Nov.13; participated in 10th Health care executive management development program at Sri Nagar, in April'13 and National Workshop on "Creating Effective MCQ's at Manipal, Karnataka, " on 18th Feb' 2014; invited by Department of Research and Medical Education, Govt. of Punjab, for selection of faculty.

Professor Ashutosh Biswas was nominated as temporary advisor to WHO, SEARO for Prevention, control and management of Dengue Fever in 2013; member of International Examiners of Bangladesh for BCPS examination; Members of International Experts invited by WHO in Male, Maldives for National Meeting on Strengthening Dengue Prevention and Control; Expert member by WHO, Sri Lanka in Expert consultation meeting on case management of Dengue; Expert member of advisory committee in National Vector Borne Diseases Control Programme (NVBDCP), MOH & FW for planning strategies for prevention, control and management of Dengue in India; national trainer for the clinical training of Dengue in India; expert member in framing WHO guideline for Dengue case management; expert member of selection committee in BMHTC, Bhopal for SR, JR and faculties; external examiner for MD Medicine examination in Civil Hospital, Gujarat University, Ahmedabad, Gujarat; Expert member of work group of WBSCVE&T for skills development in the health care paramedical sector at West Bengal state council of vocational education & training; Expert member of Quality assurance of Anti-TB drugs, DCGI, New Delhi; Expert member of Technical Standing Committee in Medicine, Nirman Bhawan, New Delhi; Expert member of the committee to review action plan and activities undertaken in India for prevention and control of Dengue; member of National expert committee for preparing National guideline on clinical management of Dengue Fever; member of International Society of Infectious Diseases.

Professor Uma Kumar was invited as Expert group member of Asia Pacific steering committee involved in preparation of guidelines for management of rheumatoid arthritis; elected Editorial board member of International Journal of Rheumatic diseases (indexed in pub med); invited for organizing Delhi Rheumatology Association monthly clinical meeting; awarded Kolkon oration (2013) by Indian Rheumatology Association for overall contribution to rheumatology; President-Elect of Delhi Rheumatology Association for 2014-2016; awarded "Bhartiya Manav Adhikar

Samman” (2013) on international human rights day by All India Council of Human Rights, Liberties and Social Justice; awarded Shaheed Bhagat Singh bravery award (2013) for community service and patient care.

Dr Sanjeev Sinha was elected as member of Association of Physician of India. He is also Member of IndiaClen; Member, National Academy of Medical Sciences (MNAMS), Member of Indian Chest Society, Member of Indian Thyroid Society, Member of American Thoracic Society, Member of International AIDS Society; member of Medical Board Antarctica Expedition, Govt. of India, Goa; member of Scientific Committee, NACO, Ministry of Health & FW, Govt. of India; member of Health wellness programme, Ministry of Tourism, Govt. of India; Chaired session on Sleep disorder at ATS conference, Philadelphia, USA (May 2013); Chaired session during API-DSC – XXIII ANNUAL CME, New Delhi (29, December 2013); Chaired session during Workshop on Clinical Trials, SGPGI, Lucknow, (March 2014).

Dr N.K. Vikram was awarded the ‘National Bioscience Award for Career Development 2012’ by the Department of Biotechnology, Government of India, in December 2013; was awarded Second Prize in AIIMS Excellence Award-2013 for outstanding publication entitled ‘Non-alcoholic fatty liver disease is associated with subclinical atherosclerosis independent of obesity and metabolic syndrome in Asian Indians’ in September 2013.

Dr Anup Singh received publication research award for excellence in academic publication in year 2013 from Institute of Medical Sciences, Banaras Hindu University, Varanasi in April 2014; delivered various training sessions in ART training for Medical officer in COE, BHU; Joint Organising Secretary in UP Diabetic Association Conference (UPDACON), Varanasi, 2013.

9.20 Microbiology

Professor and Head

J.C. Samantaray

Professors

R. Chaudhry
B.R. Mirdha

A. Kapil
B.K. Das
B. Dhawan

L. Dar
I. Xess

Additional Professors

M. Vajpayee

S. Sood

Urvashi B. Singh

Assistant Professors

S. Mohapatra
G. Singh

A. Chaudhary
A. Angrup

H. Gautam
N. Verma

EDUCATION

The department is involved in teaching undergraduate medical students, BSc Nursing students, and Postgraduates for MD and PhD in Microbiology.

Short- and long-term summer training

Short-term training was imparted to 32 MSc and MD students coming from various institutes/universities of the country.

CMEs/Workshops/Symposia/National and International Conferences

Dr B.R. Mirdha

- Organized 4th Annual Conference of Indian Association of Medical Microbiologists on September 2013, at All India Institute of Medical Sciences, New Delhi.

Dr Urvashi B. Singh

- Organized one day symposium (CME) on the occasion of World TB Day on March 24, 2014: entitled 'Find Treat Cure TB'.

Lectures delivered

B.R. Mirdha: 3 Immaculata Xess: 1 Seema Sood: 1

Urvashi B. Singh: 2

RESEARCH

Funded projects

Ongoing

- Detection of Mycoplasma pneumonia and Legionella pneumophila in respiratory tract infection by molecular assay: "A multicentric study". Rama Chaudhry, ICMR, 3 years, March 2011-March 2014. Funds: Rs. 49.66 lakhs.
- Characterization of putative prolipoprotein signal peptidase gene from Mycoplasma pneumoniae, a potential drug target. Rama Chaudhry, ICMR, 2 years, March 2012-Aug 2014. Funds: Rs. 30 lakhs.
- Detection of Legionella pneumophila from hospital environment and development of LAMP-PCR for rapid detection of Legionella species from environmental sample. Rama Chaudhry, AIIMS, 1 year, from 27 Sep 2014. Funds: Rs. 5 lakhs.
- Nodal Coordinating Centre for Surveillance Network of Antimicrobial Resistance In Salmonella enterica serotype Typhi and Paratyphi A. Arti Kapil, ICMR, 4 years, 2013-2017. Funds 1st year Rs. 56.78 lakhs.
- Study of genetic polymorphism of dihydropteorate synthase (DHPS) gene in Pneumocystis jirovecii isolates and its correlation with treatment, failure and clinical outcome in patients with Pneumocystis carinii pneumonia. B.R. Mirdha, DST, 6 years, 2009-2014. Funds: Rs. 31 lakhs.

6. Molecular characterisation and development of immunological based diagnostics for *Naegleria fowleri* infection. B.R. Mirdha, Defence Research Development Organisation (DRDO), 5 years, 2010-2014. Funds: Rs. 24 lakhs.
7. Population Genetic study of coccidian with special reference to cryptosporidium species and *Enterocytozoon bineusi* and its correlation with transmission detection and disease risk in patients with diarrhoea. B.R. Mirdha, ICMR, 3 years, 2013-2015. Funds: Rs. 18 lakhs.
8. A detailed study of T cell immune exhaustion: Its causes and repercussion on disease progression, in HIV infected Indian individuals. M. Vajpayee, ICMR, 3 years, 2011-2014. Funds: Rs. 40.64 lakhs.
9. 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, 3 years, 2011-2014. Funds: Rs. 58.35 lakhs.
10. Multisite monitoring of human influenza virus in India- Phase II. L. Dar, Dept. of Health Human Services USA (DHHS) and ICMR, 5 years, 2009-2014. Funds: Rs.1.57 crore.
11. Referral centre for early infant diagnosis of HIV by DNA PCR. L. Dar, National AIDS Control Programme, Department of AIDS Control from 2012. Funds: 4.5 lakhs/year.
12. Apex referral laboratory for dengue and chikungunya diagnosis. L. Dar, National Vector Borne Disease Control Programme (NVBDCP) from 2011. Funds: Rs. 1 lakh/year.
13. Establishment of networking for *Neisseria gonorrhoeae* surveillance in India. Seema Sood, ICMR, 3 years, 2010-2013. Funds: Rs. 32 lakhs.
14. In-vitro assessment of potential antimicrobials for *Neisseria gonorrhoeae*. Intramural Research Project, f AIIMS, 2 years, 2012-2014. Funds: Rs. 5 lakhs.
15. Molecular characterization of Clinical isolates of Vancomycin and High-Level Gentamicin Resistant *Enterococcus faecium* and *Enterococcus faecalis*. B. Dhawan, ICMR, 3 years, June 2012 to June 2015. Funds: Rs. 33.88 lakhs.
16. Development of immunoblot assay for diagnosis of Sub-Clinical Cryptococcosis. I. Xess, DBT, 3 years, 2012-2015. Funds: Rs. 40.93 lakhs.
17. Antifungal susceptibility testing and genotyping of Cryptococcal isolates from Delhi and other parts of India. I. Xess, DBT, 3 years, 2012-2015. Funds: Rs.79.84 lakhs.
18. Role of early diagnosis of drug resistant tuberculosis in guiding therapeutic strategies in treatment of Extra-pulmonary tuberculosis. Urvashi B. Singh, ICMR, 3 years, 2012-15. Funds: Rs. 45 lakhs.
19. Identification & Evaluation of *Mycobacterium tuberculosis* antigen as Biomarkers in Clinical Samples from Pulmonary and Extra pulmonary Tuberculosis Patients. Urvashi B. Singh, ICMR, 3 years, 2012-15. Funds: Rs. 41 lakhs.
20. Evaluation of molecular methods (PCR, immunohistochemistry) against conventional methods (histopathology, culture, afb staining in endometrial samples) and laparoscopy in detection of genital tuberculosis in infertile women.(an ICMR task force study). Urvashi B. Singh, ICMR, 3 years, 2012-15. Funds: Rs. 40 lakhs.
21. Development and Evaluation of in-house line probe assay for rapid detection of MDR and XDR Tuberculosis. Urvashi B. Singh, DBT, 3 years, 2011-2014.
22. Pediatric population: Expediting the diagnosis of intra-thoracic tuberculosis and multidrug resistant tuberculosis, Urvashi B. Singh, AIIMS.
23. Evaluation of immunological correlates of treatment failure in Category I, II and MDR Pulmonary tuberculosis patients on treatment, Urvashi B. Singh, AIIMS.

Completed

1. LAMP as Point-of-Care Test for Gonorrhoea. Seema Sood, DBT, 3 years, 2009-2012. Funds: Rs. 44 lakhs.
2. Role of oral vitamin D as an adjunct therapy in Category I Pulmonary Tuberculosis along with assessment of immunological parameters, Urvashi B. Singh, DBT, 6 years, 2007-2013.
3. Development and clinical evaluation of a real time PCR assay for detection of *Chlamydia trachomatis* in Indian women with Infertility. B. Dhawan, ICMR, 3 years, 2010-2013. Funds: Rs. 19.53 lakhs

Departmental projects

Ongoing

1. A study on alternate antimicrobial agents against Typhoidal *Salmonellae*.

2. Characterization of *Burkholderia cepacia* causing infections in patients with cystic fibrosis.
3. Detection of *Blastocystis hominis* and their molecular typing in patient of irritable bowel syndrome: A cross sectional study (MD Thesis, Microbiology, Pediatrics and Gastroenterology)
4. Molecular characterization of *Neisseria gonorrhoeae* strains with decreased susceptibility to extended spectrum cephalosporins.
5. A study on the role of viral and host factors in the pathogenesis of chikungunya.
6. Sequencing and phylogenetic analysis of dengue virus strains.
7. Analysis of putative virulence factors and molecular typing of clinical isolates of vancomycin and High-Level Gentamicin Resistant *Enterococcus faecium* and *Enterococcus faecalis*.
8. Prevalence of *Chlamydia trachomatis* in patients with infertility and urogenital infections and genotyping by PCR-Restriction Fragment Length Polymorphism and *OmpA* sequencing.
9. Magnitude of Prosthetic Joint Infections and role of amplification based DNA analysis for identifying microbial profile of prosthetic joint infection in a tertiary care hospital.
10. Clinical and microbiological characteristics of Bacteremia caused by coagulase negative Staphylococci in a tertiary care hospital.
11. Aspergillosis in immunocompromised patients: Epidemiology and drug resistance.

Completed

1. DNA fingerprinting of clinical isolates of *Cryptococcus* collected during recent 5 years in AIIMS ((Institute project 2012-2013).
2. Comparison of real time PCR assay with Reverse transcriptase based assay for HIV-1 viral load quantitation.
3. Role of newly identified TH17 cells: its interplay with other T helper (TH) subsets and consequence on disease progression, in HIV infected Indian individuals.
4. Real time PCR for herpes simplex viruses.
5. Detection and typing of human papillomavirus types by PCR and reverse hybridization in head and neck cancers.
6. Detection and genotyping of human cytomegalovirus from bone marrow transplant recipients.
7. Early prediction of invasive fungal infections by serum (1,3)- β -D-glucan assay and sensitivity profile of invasive fungal infection in acute pancreatitis- a prospective study.

Collaborative projects

Ongoing

1. Analysis of metagenomics for isolation of novel bacteriocins. (TERI, New Delhi).
2. Analysis of human gastrointestinal microbial diversity by molecular methods and application of Metagenomics for isolation of novel bacteriocin. (with DBT)
3. To study the effect of highly active antiretroviral therapy on B cell sub-populations in HIV infected children. (with Department of Pediatrics).
4. Surveillance of infection in neonates- An ICMR task force study (ICMR head quarters and six centers in India).
5. Zygomycetes and mucormycosis: epidemiology, taxonomy and molecular biology. (PGI, Chandigarh).
6. Role of Genexpert MTB/RIF assay in the diagnosis of Intrathoracic Tuberculosis in children. (ICMR, Govt. of India).
7. A study on treatment of Genital Tuberculosis-Randomized Controlled Trial of either discontinuation at 6 months or continuation till 9 months after initial response to 6 months RNTCP category I treatment. (with Department of Obstetrics and Gynaecology).
8. Evaluation of Clinical and Pharmacological parameters as risk factors for relapse and treatment failures in Pulmonary Tuberculosis patients on Category II regimen. (with ICMR).
9. Double blind, placebo controlled, randomized, controlled trial to evaluate the efficacy of adjuvant treatment with homeopathic medication *Thuja (Arbor vitae)* in decreasing severity and decreasing post-surgical recurrence in recurrent respiratory papillomatosis. (with Department of Otorhinolaryngology, ICMR).
10. Evaluation of inflammatory predictors of severity in dengue haemorrhagic fever: A prospective observational study. (with Department of Medicine, ICMR).

11. Dermatological manifestations of Reiter's disease. (with Dermatology and Venereology).

Completed

1. Administration of *Lactobacillus rhamnosus* GG for the prevention and treatment of *Clostridium difficile* infection and subsequent diarrhoea in Indian population. (TERI, new Delhi).
2. Prevalence of antibiotic resistant *Propionibacterium acne* in adolescent and peri adolescent acne before and after treatment with oral retinoids (with Dermatology and Venereology).
3. Molecular analysis of MDR and XDR strains of *Mycobacterium tuberculosis* isolated from a tertiary care hospital. Dr. Urvashi B. Singh, funded by ICMR, New Delhi.
4. Role of ATT for positive Endometrial Aspirates DNA PCR in reproductive outcome in infertile patients in Indian setting: A randomized trial. (with ICMR).
5. Characterization of community associated methicillin resistant *Staphylococcus aureus* strains in pyoderma (with LHMC, New Delhi).

PUBLICATIONS

Journals: 44 Abstracts: 2 Chapters in books: 2 Books: 2

PATIENT CARE

Bacteriology Laboratory

Sample	Number	Sample	Number
Pus	25080	Urine	38400
Blood	46250	CSF	11150
Sputum/ Throat/Tracheal Swabs	25080	Stool	2697
Total			148657

Antimicrobial Susceptibility testing 51654

Hospital Infection Control Laboratory

Total no. of samples from hospital for surveillance	22437
Total no. of water samples tested for bacteriological quality	1334
Total	75425

Serology Laboratory

VDRL	6768	TPHA	101
Widal Test	4677	ASLO	30
Total			11576

STD lab

High vaginal swabs (HVS)	289	Semen	808
Expressed prostatic secretions (EPS)	47	Urethral discharge	09
Vaginal discharge	45	Cervical discharge	04
Total			1202

Antimicrobial susceptibility testing

HVS	46	Semen	67
EPS	17	Urethral discharge	04
Total			134

Anaerobic Bacteriology			
Anaerobic culture			971
Stool culture for <i>Clostridium difficile</i>			205
ELISA for <i>C. difficile</i> - toxin A and toxin B			205
Culture for <i>Bartonella</i>			41
IFA for <i>Bartonella</i> IgM antibodies			41
Culture for <i>Leptospira</i> spp.			268
ELISA for <i>Leptospira</i> IgM antibodies			268
ELISA for <i>Legionella pneumophila</i> IgM antibodies			166
ELISA for <i>Legionella pneumophila</i> IgG antibodies			117
Culture for <i>Legionella</i>			213
IgM ELISA for Scrub typhus			40
Mycoplasma			
ELISA for <i>Mycoplasma pneumoniae</i> IgM antibodies	236		
ELISA for <i>Mycoplasma pneumoniae</i> IgG antibodies			192
<i>Mycoplasma pneumoniae</i> culture			493
<i>Mycoplasma hominis</i> culture			528
<i>Ureaplasma urealyticum</i> culture			528
Antibiotic Susceptibility			
for <i>Mycoplasma hominis</i>	2	for <i>Ureaplasma urealyticum</i>	4
ELISA for <i>Chlamydia pneumoniae</i> IgM antibodies			166
ELISA for <i>Chlamydia pneumoniae</i> IgG antibodies			142
Polymerase Chain Reaction			
for <i>Mycoplasma pneumoniae</i>	454	for <i>Mycoplasma hominis</i>	528
for <i>Ureaplasma urealyticum</i>	528	for <i>C. trachomatis</i>	555
Total			6891
Parasitology Laboratory			
Serological Investigation			
Amoebic Serology of anti-amoebic IgG antibodies by ELISA			162
Hydatid disease serology by Indirect haemagglutination test			164
Toxoplasmosis serology for IgG antibodies by ELISA			18
Investigation for Malaria			
Fluorescent staining (Acridine Orange)			4972
Giemsa staining			4972
Quantitative Buffy Coat (QBC) Assay			1483
HRP-II Antigen Detection tests			630
Investigation for Kala-Azar			
Fluorescent staining (Acridine Orange)	313	Giemsa staining	313
Quantitative Buffy Coat (QBC) Assay	313	Kala-azar serology (rk-39)	916
Examination of Fecal Samples for Intestinal Parasitosis			
Direct and concentration techniques	2513	In-vitro Culture	48

Modified Acid-fast and special staining for intestinal coccidian			2513
Tissue specimens (homogenates)	25		
Examination of Aspirates			
Sputum, pus and others	159		
Investigation for Filariasis			
Direct and Concentration	138	Acridine Orange	138
Thin & Thick Smear	138		
Other Investigations			
Investigation for <i>Pneumocystis jirovecii</i> infection (PCP)			170
Cerebrospinal fluid examination for Free Living Amoebae (FLA)			213
Total			20311

Mycology and ICP Laboratory

Samples	No.	Samples	No.
BAL	2215	Urine	2044
CSF	780	Sputum	753
Swab	481	Pus	709
Miscellaneous	2151	Tissue/Biopsy	401
Nail/Hair/skin	96	Bone Marrow	199
Blood	1857	BACTEC	50
Fungal serology			
Cryptococcus (Ag) serology	533	Aspergillus (Ab) serology	119
Galactomannan antigen	177	Histoplasma (Ab)	72
Total			12637

HIV Laboratory

Immunology			
CD4 Test	4954	HIV serology	3588
Total			8542

Virology

Viral antibody detection			
Measles CFT (serum and CSF)	272	Dengue IgM antibody ELISA	2314
Chikungunya ELISA	97		
Viral antigen detection and qualitative PCR			
Dengue NS1 antigen			70
		CMV PCR/ pp65 antigen	328
HSV PCR	364		
HIV PCR	1717		
Viral Real-time PCR			
Influenza (diagnosis and surveillance, including A/H1N1 pdm strain)			1548
Viral culture and identification (HSV, dengue, etc)			138
Miscellaneous (Tzanck smear etc.)			20
Total			6868

Tuberculosis Laboratory

Samples processed for ZN Smear & Culture on LJ medium	11056
Samples inoculated for Rapid Culture on MGIT 960	1990
Anti-tubercular Drug Sensitivity done on BACTEC	650
PCR for <i>Mycobacterium tuberculosis</i>	5641
Genxpert	1123
Total	20460

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor L. Dar was a member of the Project Evaluation Committee for the North East Twinning Projects of Department of Biotechnology, Govt. of India; Core Accreditation Committee of the National Accreditation Board for Testing and Calibration Laboratories (NABL); Project Review Committee for Virology and the Approval Committee for Viral Diagnostic Laboratories of the Indian Council of Medical Research (ICMR); HIV Technical Resource Group (Laboratories) for the National AIDS Control Programme; Participated in a panel discussion on “Papilloma virus: Epidemiology, Diagnosis and Prevention” during the meeting of the Indian Association of Medical Microbiologists, Delhi Chapter, in Delhi on 3 August 2013 Completed a 13-week online certificate course from Harvard School of Public Health and edX entitled “Health in Numbers: Quantitative Methods in Clinical and Public Health Research” in 2013.

Professor B.R. Mirdha received ‘AIIMS EXCELLENCE AWARD’ on 25th September, 2013 at AIIMS, New Delhi. He was conferred “Fellowship of Indian Academy of Tropical Parasitology” (FIATP) during VIIth National Conference of Indian Academy of Tropical Parasitology at SGPGI, Lucknow on 7th January, 2014. He was invited reviewer of International Journals (J. Med. Microbiol Mycopathologica. Int. J. Med Microbio). He was nominated as the Joint Secretary of Indian Academy of Tropical Parasitology (IATP) for a period of three years (2013-2015). He is the Secretary of Indian Association of Medical Microbiologists (IAMM) , Delhi and NCR Chapter for a period of three years (2011-2013); Editorial Board member of Indian Journal of Tropical Parasitology (IJTP); invited and co-opted as Editorial Board Member of New Journal of Science (Microbiology), Hindawi Publications (USA).

Dr Seema Sood was awarded Dr. P.S. Ranganathan Memorial Prize (1st Prize & Gold Medal) at 37th National Conference of IASSTD & AIDS, September 27-29, 2013, JSS Medical College, JSS University, Mysore. She was appointed Assistant Editor, Indian Journal of Medical Microbiology (IJMM); member of National Mentoring Committee for Regional STI centres; member Advisory Committee- Journal of Indian Medical Association (JIMA).

VISITING SCIENTISTS

Dr. Suresh Boppana, Professor, Department of Pediatrics and Infectious Diseases, University of Alabama at Birmingham, USA, in 2013-14, for a collaborative project in virology.

9.21 Nephrology

Professor and Head

S.K. Agarwal

Professors

D. Bhowmik

S. Mahajan

Assistant Professor

Soumita Bagchi (Trauma Centre)

EDUCATION

DM students: 13

Lectures delivered

S.K. Agarwal: 8

D. Bhowmik: 3

S. Mahajan: 8

Oral papers/posters presented

D. Bhowmik: 1

S. Mahajan: 1

RESEARCH

Funded projects

Ongoing

1. Prevalence of Chronic Kidney Disease in Adults in Urban Indian population, S.K. Agarwal, ICMR, 3 years, Oct 2012 to Oct 2015, Rs 2.98 crore
2. Prospective cohort study to find Circulating Levels of Anti Phospholipase A2 receptor (PLA2R) Antibodies and its Correlation with Idiopathic Membranous Nephropathy (IMGN), S.K. Agarwal, ICMR, 3 years, March 2014 to March 2017, Rs 30 lakhs

Completed

1. To evaluate the clinical efficacy and safety of Kremezin on suppression of progression of chronic renal failure, S.K. Agarwal, LG Life Sciences India Pvt. Ltd, 2.5 years, Nov 2010–May 2013, Rs 11.56 lakhs
2. Effect of rifampicin as part of antitubercular therapy on antihypertensive drug requirement, stratified for degree of renal function, S.K. Agarwal, AIIMS, 2 years, Oct 2013 to Oct 2014, Rs 5 lakhs

Departmental projects

Ongoing

1. Clinicopathological correlation of HBV and HCV infection in patients on renal replacement therapy
2. Impact of CsA and Tacrolimus on outcome of living related renal transplantation
3. Prospective Cohort Study of the process and Outcome of Chronic Kidney Disease (CKD) Care in India
4. Relation of gestational age, birth weight and serial changes in body mass index from birth till adulthood with epidemiological biomarkers of chronic kidney disease in early middle age
5. Evaluation of progression of Carotid artery intimal medial thickness in chronic kidney disease patients not on dialysis and its correlation with endothelial dysfunction and biochemical parameters
6. FGF-23 in Peritoneal dialysis and its correlates
7. To evaluate changes in CIMT in CKD-5D patients undergoing renal transplant
8. Incidence of adverse drug reactions in HD patients
9. Retrospective study for evaluating the Oxford classification of IgA nephropathy in the Indian population

Completed

1. Effect of rifampicin based antitubercular therapy on antihypertensive drug requirement, stratified according to renal function
2. Ambulatory BP monitoring and clinic based BP measurement in living donors before and after nephrectomy – a short term follow-up study.

3. A study of ambulatory BP and home based BP measurement in patients before and after renal transplant and its relation with markers of inflammation if any in Indian population

Collaborative projects

Ongoing

1. Genetic polymorphism and expression of toll-like receptors, mannose binding lectin and matrix metalloproteinase and its correlation with co-morbidity and infection in patients with chronic peritoneal dialysis (with Microbiology)
2. Study of nonalcoholic fatty liver disease and metabolic syndrome in patients with chronic kidney disease (with Medicine)
3. Identification of biomarkers that predict response to treatment in lupus nephritis (with Medicine)
4. Influence of CYP3A5 & MDR1 genetic polymorphisms on tacrolimus pharmacokinetics and clinical outcomes in renal transplant recipients (with Pharmacology)

Completed

1. Evaluation of systemic co morbidity in patients with diabetic retinopathy (with Rajendra Prasad Centre for Ophthalmic Sciences)
2. To assess the efficacy of Thalidomide-Cyclophosphamide-Dexamethasone vs Bortezomib-Dexamethasone in patients with multiple myeloma with light chain-induced acute renal failure (with Medical Oncology)
3. Prevalence of thrombotic thrombocytopenic purpura in Systemic Lupus Erythematosus (with Medicine)

PUBLICATIONS

Journals: 11

Abstracts: 1

Chapters in Books: 21

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor S.K. Agarwal was invited by Swedish Ministry for Health and Social Affairs, as technical expert to this high-level conference titled 'Fine-tuning health care-improved outcomes and cost efficiency using quality registries', which took place in Stockholm, Sweden, 21-22 May 2013; Member, Clinical Endpoint Adjudication Committee (CEAC) for Centre of Excellence – Centre for Cardio-metabolic Risk Reduction in South Asia (COE-CARRS) Translation trial to reduce CVD risk and events in diabetes patients funded by National Institutes of Health– National Heart, Lung and Blood Institute, USA; Awarded MS Amaresan Oration award 2013 by Madras Medical College, Tamil Nadu; Awarded Dr Vidya N Acharya Oration by the West Zone Indian Society of Nephrology, 2013; Member, External Endpoint Adjudication Committee of CAARS Trial; Member, International advisory board of Biannual periodical from the Nephrology unit of Cairo University titled Kasr Alainy Nephrology Update

Dr D. Bhowmik was involved in Training of Medical Officers of the Delhi School Health for kidney diseases, Directorate Health Services, Karkardooma, Delhi, 25-26 June 2013; Member of Ladakh Camp for Chronic Diseases in May 2013; Organizing Secretary of Annual Update of Delhi Nephrology Society in April 2013

Dr S. Mahajan was Member of the National PD Guidelines committee; Member of the Indian CKD-MBD Guidelines committee; Awarded fellowship of the Indian College of Physicians (FICP); Nominated by the University Grants Commission to the Planning board of DY Patil Vidyapeeth, Pune; Nominated as member to the First Court of Central University of Gujarat by the Ministry Human Resource & Development; North Zonal Executive of the Peritoneal Dialysis Society of India; Awarded the 'Bharat Jyoti Award' by the India International Friendship Society; Awarded the 'Best Citizen of India Award' by the Best Citizen publishing House.

9.22 Nuclear Magnetic Resonance

	Professor and Head N.R. Jagannathan	
	Additional Professors	
Rama Jayasundar		S. Senthil Kumaran
	Assistant Professors	
Uma Sharma		Virendra Kumar
	Scientists	
Sujeet Kumar Mewar		Pawan Kumar

HIGHLIGHTS

The Department has procured and installed the state-of-the-art high field Animal MRI system (7 T) for preclinical and other biomedical research using small animals.

EDUCATION

Postgraduate

The faculty and Scientists participated and delivered lectures for course titled “*Structural Biology and NMR Technology*” and “*Molecular Medicine*”, of MBiotech programme of the Dept. of Biotechnology, AIIMS.

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

Short/Long Term Training

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

Continuing Medical Education

‘Training on safety, emergency procedures, service: first level debugging, patient scanning- a glimpse’, was organized for the officers and staff of the Department working in the MRI Facility. In continuation, training on applications and tweaking certain protocols was held for technologists on 30 November 2013.

Lectures delivered

N.R. Jagannathan: 8

Rama Jayasundar: 16

S. Senthil Kumaran: 5

Uma Sharma: 14

Oral papers/posters presented

N.R. Jagannathan: 19

Rama Jayasundar: 23

S. Senthil Kumaran: 13

Virendra Kumar: 1

RESEARCH

Funded projects

Ongoing

1. Magnetic Resonance (MR) Multi-parametric Approach to the Study of Breast Cancer and its Correlation with Molecular Markers, N. R. Jagannathan, Department of Science & Technology, 3 years, September 2013 to September 2016, Rs 53.7 Lakhs
2. Spectroscopic analysis of medicinal plants from an ayurvedic perspective to aid in new standardization and quality assessment parameters, Rama Jayasundar, National Medicinal Plant Board (NMPB), Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India, 4 years, 2011-15, Rs 96.9 lakhs
3. 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, 3.5 years, 2010-14, Rs 22,10,800
4. Functional and neurobiological analysis in visually impaired subjects, S. Senthil Kumaran. DST-Cognitive Science Initiative, 3 years, 2014-16, Rs 34,02,480

5. Metabonomics of Celiac Disease Using In-Vitro NMR Spectroscopy, Uma Sharma, Department of Biotechnology (DBT), 3 years, Dec 2011-Dec 2014, Rs 33.63 lakhs
6. Correlation of metabonomics, enzyme activity, absorptive and secretory activity of duodenal enterocytes in celiac disease using NMR spectroscopy and immunohistochemistry, Uma Sharma, AIIMS, 1 year, Nov 2013-Nov 2014, Rs 4.5 lacs

Departmental projects

Ongoing

1. A randomized investigation of the role of repetitive Transcranial magnetic stimulation in Parkinson's disease
2. Abnormalities in brain neurochemistry assessed by magnetic resonance spectroscopy in unmedicated obsessive compulsive disorder patients and changes after 12 weeks of escitalopram treatment.
3. Cue Induced Craving In Adolescent Inhalant Users : A functional magnetic resonance imaging (fMRI) study
4. Evaluation of Cortical Brain Activation & Visual Pathway in cases of Acute Optic Neuritis by fMRI and Diffusion Tensor Imaging
5. Evaluation of fumaric acid esters (FAEs) in experimental model of stroke in rats.
6. Fatty acid composition of abdominal subcutaneous adipose tissue compartments in non-alcoholic fatty liver disease (NAFLD)
7. Magnetic Resonance (MR) Multi-parametric Approach to the Study of Breast Cancer and its Correlation with Molecular Markers
8. Metabolomic profile of healthy neonates
9. Metabonomics study of celiac disease by NMR spectroscopy
10. Molecular and biochemical characterization of hepatic glycogeneses Type I and III
11. Neuro-cognitive and neurobiological aspects of bilingual developmental dyslexia studied pre- and post-therapy
12. Neurochemical Correlates of Cognitive Functions in Euthymic Patients with Bipolar I Disorder
13. Neurocognitive and visual pathway alteration associated with perception and semantic tasks in visually impaired subjects, using functional magnetic resonance imaging (fMRI)
14. Neuroprotective study of lercanidipine and citalopram in experimental model of stroke in rats.
15. Neuroprotective study of nano carrier based Berberine chloride in middle cerebral artery occlusion model of transient focal cerebral ischemia in rats.
16. Role of MR spectroscopy in CNS involvement in HIV in Indian population.
17. Role of proton magnetic resonance spectroscopy in the management of soft tissue sarcomas.
18. Role of various magnetic resonance imaging and spectroscopic methods in the evaluation of prostate cancer
19. Spectroscopic analysis and pharmacological evaluation of select ayurvedic formulations
20. Spectroscopic analysis of medicinal plants
21. Spectroscopic analysis of select medicinal plants from an ayurvedic perspective
22. Study of cognition and quality of life (QOL) in chronic intractable epilepsy using functional Magnetic Resonance Imaging (fMRI)
23. To study the pathogenesis of non-alcoholic fatty liver disease (NAFLD) in Indian population

Completed

1. MR studies on rat models of multiple sclerosis (MS)
2. Spectroscopic characterization and pharmacological evaluation of select ingredients of an anticancer polyherbal formulation
3. Spectroscopic analysis and evaluation of Antiangiogenic activity of select medicinal plant
4. A Study of Acoustic Space in Motor Disorders of Speech as in Cases of Stroke with or without Aphasia and Parkinson's Disease
5. Creativity and bipolar affective disorder: an fMRI study
6. Evaluation of structural and functional changes over time in Anisometropic Amblyopes before and during occlusion therapy using fMRI and diffusion tensor imaging

7. Study of functional magnetic resonance imaging in children and adolescents with specific learning disorder (dyslexia)
8. Molecular studies of the excitatory and inhibitory synapses of the auditory cortex analogue in developing chick (*Gallus domesticus*) exposed to prenatal chronic noise”.
9. Role of various magnetic resonance imaging and spectroscopic methods in the evaluation of prostate cancer
10. Brain MR Spectroscopy at 3 Tesla in obstructive sleep apnea (OSA)

Collaborative projects

Ongoing

1. Abnormalities in brain neurochemistry assessed by magnetic resonance spectroscopy in unmedicated obsessive compulsive disorder patients and changes after 12 weeks of escitalopram treatment (Psychiatry).
2. Cognitive activation studies of language and memory as a preoperative evaluation in patients with intractable epilepsy – A novel noninvasive method for investigation (Neurology and Neurosurgery)
3. Comparison of constrained induced movement therapy and electrical stimulation for patients with chronic stroke measured on disability outcome scales and functional imaging (Neurology).
4. Effect of dexamethasone on metabolic profile of human monocytic cell-line (THP1) (Biotechnology).
5. Evaluation of fumaric acid esters (FAEs) in experimental model of stroke in rats (Pharmacology).
6. In vitro NMR spectroscopy of Breast milk in preeclampsia (Bharti Vidyapeeth Univ., Pune)
7. Mapping neurophysiological, neurochemical and cerebral blood flow changes in attentional processes related to yoga (S-VYASA university, Bangalore).
8. Metabolic profile of serum samples of tuberculosis patients, contacts and control (Biotechnology).
9. Metabolomic profile of healthy neonates (Pediatrics).
10. Molecular and biochemical characterization of hepatic glycogeneses Type I and III (Pediatrics).
11. Neurochemical Correlates of Cognitive Functions in Euthymic Patients with Bipolar I Disorder (Psychiatry).
12. Neuroimaging and cerebral metabolite changes in children undergoing treatment for acute lymphoblastic leukemia: a pilot study (Pediatrics).
13. Neuromapping of functional deficits associated with Parkinsonian disorders (Neurology, AIIMS and Centre of Linguistics, JNU).
14. Neuroprotective study of lercanidipine and citalopram in experimental model of stroke in rats (Pharmacology).
15. Neuroprotective study of nano carrier based Berberine chloride in middle cerebral artery occlusion model of transient focal cerebral ischemia in rats (Pharmacology).
16. NMR metabolomics study of blood plasma, urine and seminal plasma in bull fertility (GADVASU, Ludhiana).
17. Predicting functional outcome after acute stroke: evaluation of a module of clinic-radiological parameters and growth factors in Asian Indians (Neurology and Biochemistry)
18. Prevalence of minimal hepatic encephalopathy in chronic liver disease in children: Brain Magnetic Resonance Spectroscopy (MRS) study (SGPGIMS, Lucknow).
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, Neuro-Surgery and CTVS, Stem Cell Facility).
20. Role of proton magnetic resonance spectroscopy in the management of soft tissue sarcomas (Dr BRAIRCH).
21. Spectroscopic analysis of medicinal plants (Ocular Pharmacology and Pharmacy).
22. Study of paracrine mechanisms of autologous mononuclear stem cells in chronic ischemic stroke using biofunctional markers (Neurology).

Completed

1. Engineered Multifunctional Nanomaterials for Multimodal Imaging of Retinoblastoma (Sastra Univ., Thanjavur).
2. Evaluation of covalently linked iron oxide and mesoporous silica as magnetic contrast agent by MRI (Cardiology).
3. Molecular studies of the excitatory and inhibitory synapses of the auditory cortex analogue in developing chick (*Gallus domesticus*) exposed to prenatal chronic noise (Anatomy).

PUBLICATIONS

Journals: 12

Abstracts: 1

Chapters in Book: 3

Books: 1

PATIENT CARE

The department has three whole body MRI scanners (two 1.5 Tesla and one 3.0 Tesla) for patient care and research. The department provides more than twelve hours per day of patient care MRI services. The number of patients scanned during from April 2013 to March 2014 were

Clinical Diagnostic MRI Scan : 6153 patients

Research : 704 patients and subjects

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor N. R. Jagannathan was elected Fellow (FNA) of the Indian National Science Academy (INSA); awarded prestigious Drs Kunti & Om Prakash Oration Award for significant contribution in the field of biomedical sciences, Indian Council of Medical Research (ICMR), Government of India; awarded AIIMS Excellence Award (2nd prize) for best paper published in 2012-13; President, Asian Biophysics Association (ABA); First Indian invited for talk at Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA; Member, Program Committee, 2014 World Molecular Imaging Congress (WMIC), Seoul, South Korea; Vice-President, Molecular Imaging Society of India (MISI); Member, Young Investigators Awards (YIA) Committee, International Society for Magnetic Resonance in Medicine (ISMRM), USA; Member, Inspection Committee for University of Mysore and Bangalore University under Promotion of University Research and Scientific Excellence (PURSE) program of Department of Science and Technology, Government of India; adjudged a Distinguished Reviewer of J Magnetic Resonance Imaging (Wiley); continues to be member, editorial board, of following international journals: (a) *MAGMA (Magnetic Resonance Materials in Physics, Biology and Medicine)*, (Springer); (b) *Magnetic Resonance Insights* (Libertas Academica, USA); (c) Deputy Editor *Neuroscience Imaging*; (d) *NMR Biomedicine (John Wiley & Sons)*; (e) *Magnetic Resonance Imaging (Elsevier)*; (f) *Biomedical Spectroscopy & Imaging* (IOC Press, Netherlands); (g) *Biophysical Reviews* (Springer); Elected member, Executive council, International Union of Pure and Applied Biophysics (IUPAB) (2008-2014); Member, Steering committee, Asian Biophysics Association (ABA); Council member, International Conference on Magnetic Resonance in Biological Systems (ICMRBS), USA; Member, Program Advisory Committee, Section for Biochemistry, Biophysics and Molecular Biology, Department of Science and Technology, Government of India; Member, Steering Committee of the Sophisticated Instruments Facilities of Department of Science and Technology, Government of India; Member, FIST Committee, Department of Science and Technology, Government of India; Member, PURSE Committee, Department of Science and Technology, Government of India; Coordinator, Expert panel on Biomedical Devices and Bioengineering, Life Sciences Research Board, DRDO; Member, INSA committee, International Union of Pure and Applied Biophysics (IUPAB); Member, Management Advisory Committee, Sophisticated Instruments Facility, CDRI, Lucknow; Member, Management Advisory Committee, Sophisticated Instruments Facility, Indian Institute of Science, Bangalore; Member, Scientific Advisory Committee, Biosciences and Bioengineering Group, IIT Indore; Member, Research Council (RC), Institute for Nuclear Medicine & Allied Sciences, DRDO; Member, Science Advisory Council, National Brain Research Center, Manesar, Haryana; Past President, Indian Biophysical Society (IBS); Fellow, Indian Academy of Sciences (FASc), Bangalore; Fellow, National Academy of Sciences (FNASc), Allahabad; Fellow, National Medical Academy of Sciences (FAMS), Delhi; Fellow, International Society for Magnetic Resonance in Medicine (ISMRM), USA.

Dr Rama Jayasundar delivered the Sarath Chandran Memorial Lecture, Sri Venkateswara College, University of Delhi, 2013; Women and Innovation in Technology National Award 2013, Bharatiya Stree Shakti, India, 2013; Achiever Award, Chetana - Conscience of Women, New Delhi, India, 2013; Invited to be member of the Advisory Board for International Research Seminar on Ayurveda, Germany, 2013; Member, Executive Committee, National Magnetic Resonance Society of India, 2014.

Dr Uma Sharma was reviewer for International Willey Journals, NMR Biomedicine and J Magn Reson Imaging.

9.23 Nuclear Medicine

Professor and Head

C.S. Bal

Professor

Rakesh Kumar

Additional Professor

Chetan D Patel (CNC)

Assistant Professor

Madhavi Tripathi
Nishikant A. Damle

Anil K. Pandey (Medical Physics)
Shamim A. Shamim

Lectures delivered

Rakesh Kumar: 6 Chetan D Patel: 1 Madhavi Tripathi: 4

A.K. Pandey: 3

Oral papers/posters presented as co-author: 2

RESEARCH

Funded projects

Ongoing

1. Co-ordinate research project on the use of sentinel detection in breast, head & neck cancer, C.S. Bal, IAEA, Vienna, 3 years, 2011-14, Rs 12 Lacs
2. Standardization of 18F-FDG PET/CT interpretation criteria for early response evaluation in pediatric lymphoma, C.S. Bal, IAEA, Vienna, 3 years, 2013-16, Rs 12 Lacs
3. To develop 68 Gallium labeled rituximab for the diagnosis of B cell Non-Hodgkins Lymphoma patients, C.S. Bal, IAEA, Vienna, 3 years, 2011-14, Rs 12 lacs
4. Study of the changes in sleep architecture, melatonin levels and metabolic abnormalities on F-18 Fluorodeoxyglucose Positron Emission Tomography (FDG-PET) in persons with Mild Cognitive Impairment (MCI) progressing to Alzheimers type dementia (AD), Madhavi Tripathi, DST (Cognitive Science Neuroinitiative), 3 years, 2013-16, Rs 54,42,400
5. Biological dosimetry of patients undergoing diagnostic PET/CT scan using gamma-H2AX assay, Anil Kumar Pandey, AIIMS, 2 years, 2013-15, Rs 5 lakhs
6. Value of intraventricular synchronism assessment by Gated SPECT myocardial perfusion imaging (MPI) in the management of heart failure patients submitted to cardiac resynchronization therapy, Chetan D, Patel, IAEA, Vienna, 3 years, 2013-16, Euros 6000
7. 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, Rakesh Kumar, ICMR, 3 years, 2010-13
8. 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. Funded by an Indian Council of Medical Research (ICMR), Delhi, India, (2010- 2013).

Completed

1. Re-establishment of normal reference range of uptake value in the Era of Universal salt iodization, C.S. Bal, AIIMS Intramural Research Project, 2 years, 2012-14, Rs. 8 lakhs
2. Lu-177 EDTMP in hormone refractory prostate in cancer patients with bone metastases, A phase 1 activity escalation study, C.S. Bal, IAEA, Vienna, 3 years, 2011-14, Rs. 12 lakhs

Departmental projects

Ongoing

1. Comparative evaluation of Tc-99m HMPAO labeled leucocytes SPECT/CT and F-18 FDG PET/CT in fever of unexplained origin (FUO) [intramural project]
2. Comparison of generator based PET radiopharmaceutical Ga-68 NOTA bisphosphonate conjugate with cyclotron based F-18 Fluoride PET/CT for the imaging of skeletal metastasis in carcinoma breast.
3. Tc-99m DMSA planar imaging versus dual detector SPECT for the detection of Renal Cortical Scars in patients with CKD-3.
4. Role of texture analysis for the evaluation of neo-adjuvant chemo-hormonal therapy in locally advanced breast cancer
5. Optimisation of the PET/CT protocol to decrease the total radiation dose to the pediatric population without compromising the diagnostic quality of fused PET/CT.
6. Optimisation of image acquisition and reconstruction parameters of I-131 MIBG SPECT/CT using SIMIND Monte Carlo simulation software
7. Standardization of Dynamic F-18FDG PET/CT protocol and comparison of whole body F-18 FDG PET/CT with whole body diffusion weighted MRI for early treatment response evaluation in non-small cell lung cancer
8. Role of FDG PET-CT in early staging of carcinoma of cervix
9. Assessment of cardiac dyssynchrony in patients with non-ischemic dilated cardiomyopathy undergoing Cardiac Resynchronization therapy using Tc-99m MIBI myocardial perfusion imaging. Comparison with Radionuclide ventriculography
10. Relationship between left ventricular dyssynchrony, myocardial perfusion abnormalities and systolic function assessed on Tc99m-MIBI myocardial perfusion SPECT in comparison with quality of life and functional status of heart failure patients
11. Comparison of Myocardial perfusion abnormalities detected by stress adenosine Tc99m MIBI Myocardial Perfusion SPECT and Coronary Flow Reserve on adenosine stress echocardiography for the screening of patients after Arterial Switch Operation

Collaborative projects

Ongoing

1. Comparative Evaluation of F-18 FDG PET/CT Vs Conventional Imaging for the Staging of Pediatric Rhabdomyosarcomas (Medical Oncology).

PUBLICATIONS

Journals: 72

Abstracts: 14

PATIENT CARE

Radionuclide Investigation and Therapy

DMSA	1032	HIDA	303
Renal Dynamic Study	3213	Thyroid Scan	482
Parathyroid	91	Bone Marrow	8
Blood Pool	24	DRCG	245
ECD: ICTAL	231	ECD: Inter ICTAL	283
GER	491	GET	61
GHA-Brain	6	Lymphoscintigraphy	135
MDP-Bone	2288	MIBG: Diagnostic	306
I-131 MIBG Therapy	9	I-131 therapy for Carcinoma Thyroid	543
I-131 therapy for Thyrotoxicosis	270	¹⁷⁷ Lu-EDTMP Bone Pain Palliation	44
Meckels	36	RAIU	1337
RBC Survival	1	Planar Sentinel Lymphnode	140
SPECT/CT Dia.	5	SPECT/CT HIDA	5

SPECT/CT Iodine	76	SPECT/CT MDP	183
SPECT/CT MIBG	47	SPECT/CT Sentinel Lymphnode	8
SPECT/CT Thyroid	5	TRODAT Scan	128
WBS-131I-Diagnostic	791	WBS-131I-PostTherapy	631
GFR	1579	FDG	4257
68Gallium-PET/CT	338	18F-PET/CT Bone Scan	74
Myocardial Perfusion Infection (MPI)	1533	MUGA	841
Cardiac PET	25	Misc. (VQ)	31

AWARDS, HONOURS AND SIGNIFICANT EVENTS

AIIMS Excellence Award 2013 for research paper titled “Diuretic 18F-FDG PET/CT imaging for detection and loco-regional staging of urinary bladder cancer: prospective evaluation of a novel technique. Published in Eur J Nucl Med Mol Imaging. 2013;40:386-93.

9.24 Obstetrics and Gynaecology

Professor and Head

Alka Kriplani

Professors

Sunesh Kumar
K.K. Roy

Deepika Deka
Neena Malhotra
Nutan Agarwal

Neerja Bhatla
Vatsla Dadhwal

Additional Professors

J.B. Sharma

Neeta Singh

Assistant Professors

Aparna Sharma
Garima (JPNATC)

Reeta Mahey
P. Vanamail

Scientists

Rohiini Sehgal (G.I)

A. Chandra Tiwari (G.II)

HIGHLIGHTS

The department continues to organize monthly meetings for postgraduate training since 2001. The training component includes clinical and surgical skills, development of 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. The department offers short and long term training in various super specialty subjects like Gynae Endoscopy Surgery, High Risk Pregnancy, Gynae Oncology, Ultrasonography and Infertility. During the year there were 2 long term trainees.

The Post Partum Programme (PPP) is a mandatory centre 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 Pediatrics, Community Medicine, Surgery and Anesthesiology.

EDUCATION

Undergraduate, Postgraduate, Paramedical

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

Long Term Training (2)

1. Lt Col Reema Kumar, Military hospital, Jalandhar: Fetal Medicine
2. Dr Shakeela Ishral, Bangladesh: Endoscopy

Short Term Training (17)

1. Dr Monika Dayal Sharma: Fetal Medicine
2. Dr Jaya Chawla, Army College of Medical Sciences, New Delhi: Fetal Medicine
3. Dr Shamimaa Haq: Obst & Gyane
4. Dr Sangeeta Gupta, ESI, Hospital, New Delhi: (3 months) ART
5. Dr Geeta Jain, Govt. Medical College, Haldwani: (4 months) ART
6. Dr Latha Chaturvedula, Prof, Obst & Gynae, JIPMER Pondicherry (1 month) Infertility
7. Dr Kunzes Dolma, Leh, Ladakh:
8. Dr Sangeeta Agarwal, Faridabad:

9. Dr Atamm Sarkar, Dr Swati Prasad; Agartala: 2 months
10. Dr Muong Sok Jon, Dr You Ok kim, DPR Korea: 8 weeks
11. Dr Stanzin Angmo, Leh, Ladakh: 2 months
12. Dr Stanzin, Leh, Ladakh: 2 months
13. Dr Apratim Mohan Debbama and Dr Smita Punia, Agartala: 2 months
14. Mr Florian Riedl from Austria
15. Ms Daljit Kumar, Univ of Otago, New Zealand
16. Ms Caroline Alice Diapur, UK, 1 month
17. Ms Anila Mohan, Pakistan, 1 month

CME/Workshops/Symposia organised by the department

1. National conference of Gynae Endocrinology, Pune, 3-5 May 2013, Jt Organising Secretary.
2. Organized Pre-congress workshop on 'USG in ART' for FERTIVISION, 9th Annual conference of Indian Fertility Society, 6th December 2013, AIIMS, New Delhi.
3. 35th Annual Conference of Association of Obstetrics and Gynaecologist Society of Delhi (AOGD), 21st–22nd September 2013, New Delhi.
4. Live workshop of Single Port TLH symposium on Science of tissue management & Advanced Laparoscopic Techniques for Gynaecology, AIIMS, Delhi, 30 September 2013.

Lectures delivered

Alka Kriplani: 74	Sunesh Kumar: 7	Dipika Deka: 15
Neerja Bhatla: 26	K.K. Roy: 5	Neena Malhotra: 17
Nutan Agarwal: 10	J.B. Sharma: 3	Neeta Singh: 8
Garima: 7	Aparna Sharma: 11	

Oral papers/posters presented by the department faculty

Sunesh Kumar: 5	Dipika Deka: 3	Neerja Bhatla: 22
K.K.Roy: 3	Neena Malhotra: 9	Neeta Singh: 1

RESEARCH

Funded projects

Ongoing

1. International Study of Caesarean Section Surgical Techniques: the follow-up study trial with National Perinatal Epidemiology Unit. Oxford, UK, J.B.Sharma, National Perinatal Epidemiology Unit. Oxford, UK, 7 years, Rs 1,80,00,000.
2. Study of treatment of Genital TB: A randomised controlled trial of either discontinuation at 6 month or continuation till 9 months after initial response to 6 months RNTCP Category: 1 treatment with central TB Division ministry of Health, Govt. of India. J.B. Sharma, Central TB Division ministry of Health, Govt. of India for 5 years, Rs 4,80,00,000.
3. Effects of non-ionizing electro-magnetic field (EMF) on Human Health. J.B. Sharma, ICMR, New Delhi, 5 years, Rs 40,00,00,000.
4. 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 \$ 216,000.
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 olds), with a comparison to Young Women (16 to 26 year olds). Neerja Bhatla; MSD Pharmaceuticals Pvt. Ltd.; 2010-14; Rs 9,20,250.
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; 2010-14; Rs 5,70,757.

7. Phase II placebo-controlled study of VGX-3100, (HPV16 E6/E7, HPV18 E6/E7 DNA Vaccine) delivered IM followed by electroporation (EP) with CELLECTRA-5P for the treatment of biopsy-proven CIN 2/3 or CIN 3 with documented HPV-16 or 18. Neerja Bhatla; Max Neeman; 2012-14; Rs 6,47,469.
8. Prevalence, Genotype Distribution of HPV in Cervical Infection, and its Attribution to Cervical Intraepithelial Neoplasia and Cervical Cancer in Indian Women. Neerja Bhatla; Shantha Biotechnics Ltd.; 2013-14; Rs11,91,600.
9. A Randomized open label comparative study of safety & efficacy of Metformin and subcutaneous insulin in Asian women with Gestational Diabetes. Neeta Singh, ICMR, 2011-14, Rs 29 Lacs
10. A study on treatment of Genital Tuberculosis Randomized controlled trial of either discontinuation at 6 months or continuation till months after initial response to 6 months RNTCP categ1 treatment. Neeta Singh, MH&FW TB Div., 2009-14, Rs 42 Lacs.
11. Evaluation of Molecular methods (PCR, Immunohistochemistry) against conventional methods (Histology, culture, AFB staining ion endometrial samples) and laparoscopy in detection of genital Tuberculosis in infertile women-A. Neena Malhotra, ICMR, 2012-15, Rs 40,00,000.
12. A randomized double blind controlled trial to investigate the effects of Vitamin D supplementation on maternal and new-born baby's vitamin D in Asian-Indian subjects, Garima Kachhawa, ICMR, 3 years, Rs 47 lacs.

Completed

1. Evaluation of curcumin in the management of advanced cancer cervix. Sunesh Kumar, DBT, 2007-13, Rs 48 lacs.
2. Oxidative stress (OS) biomarkers in Follicular fluid and their correlation with in-vitro-fertilization (IVF) outcome in women with endometriosis undergoing IVF cycle. Neena Malhotra, AIIMS, 2012–14, Rs 10,00,000.

Departmental projects

Ongoing

1. Isolation and Characterization of Mesenchymal Stem Cells derived from Amniotic fluid and Wharton jelly.
2. To assay the role of semen ROS levels and sperm DNA damage levels in unexplained foetal congenital anomalies.
3. Biochemical Alterations in Anemic Fetuses of Rh-isoimmunized mother.
4. Isolation of differentiation of mesenchymal stem cell derived from amniotic fluid.
5. Co-relation of Doppler velocimetry in various blood vessels with fetal anaemia in women with Rh-isoimmunized pregnancy.
6. Comparison of strength of association of Reid's Colposcopic Index vs Swede score with histology in colposcopic guided biopsy.
7. A study of acceptability, feasibility and efficacy of cervical screening during pregnancy.
8. The expression of human epididymis protein 4 (HE4) in ovarian carcinoma and correlation with prognosis
9. Role of Endometrial Scratching in IVF Cycle.
10. Correlation of CA-HE4 and EA-125 in Epithelial Ovarian Carcinoma.
11. Vitamin D Level and Effects of Vitamin Supplementation in SUI Patients.
12. A Clinical Imaging & Diagnostic Evaluation of Female Genital Tuberculosis.
13. A Pilot Study: Comparing Mini Laparoscopy (5 mm) with modified Mini Laparoscopy (2.9 mm) in Chronic Pelvic Pain.
14. Randomised with Comparative Clinical Trial of Hysteroscopic Adhesiolysis using Conventional Versus Mini Hysteroscopy in Patients of Asherman Syndrome.
15. Natural Cycle Versus HRT in FET
16. To study the level of cytokines and pentraxin 3 in women with unexplained recurrent pregnancy loss and its relation to pregnancy outcome. Intramural project funded by AIIMS.
17. Impact of local endometrial trauma on the outcome of IVF in women with previous failed implantation: Exploring the Genome wide transcriptomic basis
18. Ovarian reserve and assisted reproductive technique outcome after laparoscopic proximal tubal occlusion or salpingectomy in women with hydrosalpinx undergoing in-vitro—fertilization: A randomized controlled trial.

19. The role of GnRH analogues in improving outcome in women undergoing superovulation and intra-uterine insemination after surgical correction of minimal to mild endometriosis–A randomized controlled trial
20. A Randomized Controlled Trial comparing Manual and Automated Methods of Follicle Monitoring in Women Undergoing In-Vitro-Fertilization
21. Pregnancy outcome after bed rest versus early ambulation following embryo transfer during IVF cycles–a randomized controlled study
22. Susceptibility gene profile in the granulosa cells of PCOS women with or without insulin resistance: A correlation with glucose metabolism
23. Evaluation of Vascular Endothelial function by physiological and biochemical markers in women with preeclampsia versus normal healthy pregnancies.
24. The expression of human epididymis protein 4 (HE4) in ovarian carcinoma and correlation with prognosis.
25. A study of prevalence of human papilloma virus infection and cervical abnormalities in human immunodeficiency virus infected women.
26. To compare the efficacy of intramyometrial vasopressin plus rectal misoprostol with intramyometrial vasopressin alone to decrease blood loss during laparoscopic myomectomy: A randomized clinical trial.
27. To evaluate the pregnancy rate after endometrial scratching in couples with unexplained infertility in ovulation induction and IUI cycles.

Completed

1. The role of semen oxidative stress and sperm DNA damage in an explained fetal congenital anomalies
2. To assess the role of addition of bevacizumab therapy to carboplatin and paclitaxel as front line treatment of epithelial ovarian cancer.
3. A comparative study of treatment of gestational diabetes mellitus by metformin versus insulin: A randomized control trial.
4. Randomized comparative study of Hysteroscopic septal resection using monopolar versus unipolar resectoscope.
5. A comparison of outcome of trial of labour after previous two caesarean sections versus previous one caesarean section.
6. A Comparative Study of Treatment of Gestational Diabetes Mellitus by Metformin Versus Insulin: A Randomised Control Trial v.
7. Prospective Randomised Comparative Study of Hysteroscopic Septal Resection Using Unipolar Resectoscope Versus Bipolar Resectoscope.
8. Interventional Study of the Effect of Antituberculosis Treatment on Endometrium, Fallopian Tubes and Ovaries in Genital Tuberculosis.
9. Cisplatin Resistance in Cervical Cancer: Role of PARP-1 & B-catenin
10. Role of Sub-endometrial implantation of autologous stem cells in women with Asherman's syndrome –A Pilot Study.
11. To evaluate the effect of Laser Assisted Hatching on In-vitro-fertilization success rates in women undergoing frozen embryo transfer cycle.
12. Levels of oxidative stress bio-markers in follicular fluid of women with PCOS undergoing IVF and its relation with ART outcome
13. Role of Phosphorylated Insulin- like growth factor binding protein -1 (phIGFBP-1) in cervical secretions for prediction of preterm delivery by rapid dipstick.

Collaborative projects

Ongoing

1. 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 (Neurosurgery).
2. Prenatal Screening Initiative by Dried Blood Spots: Role for Triaging and Resource Utilization. (Maulana Azad Medical College).

3. Identification of Human Chromosome 21-Derived miRNA in Maternal Circulation for Non Invasive Prenatal Diagnosis of Down Syndrome.
4. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian cancer: A phase 3 randomized study (Medical Oncology).
5. Cross-sectional study of cord blood immune markers in term appropriate for gestational age and small for gestation age neonates (Paediatrics).
6. Optimisation of HPV detection by Hybrid Capture-II for use on DNA extracted from cytology smears: A method suitable for developing countries (Pathology).
7. 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).
8. Patterns of care for Cervical Cancers in India (Radiation Oncology).
9. Maternal, perinatal and neonatal sciences (Paediatrics).
10. Endoplasmic reticulum stress in preeclampsia: an in vitro study (Anatomy).
11. Randomised Open Level Comparative Study of Safety and Efficiency of Metformin and Subcutaneous Insulin in Asian Indian Women with Gestational Diabetes (ICMR).
12. Exploring the Role of Proteomic Signature in Saliva: A Step Towards Non Invasive Diagnostic Tool for Ovarian Cancer (ICMR).

Completed

1. Evaluation of vascular functions, baroreflex sensitivity and biochemical factors to investigate Pre eclampsia (Physiology).
2. 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 (Genetics).
3. To compare integrated screening with contingent screening for prenatal detection of Down syndrome in the Indian context (Genetics).
4. Prevention of Type II diabetes in women with gestational diabetes mellitus in urban India: A feasibility study (Endocrinology & Metabolism).
5. CORONIS-International Study of Caesarean Section Surgical Technique-A Randomized Control Trial (Oxford University, London).
6. Role of Sub antologons Stem Cell Implantation in Women with Asherman Syndrome (ICMR).
7. A Pilot Study: Role of Subendometrial Transplantation of Autologus Stem Cell in women with Asherman Syndrome and Poor Endometrium (ICMR).

PUBLICATIONS

Journals: 56

Abstracts: 38

Chapters in Books: 15

Books: 5

PATIENT CARE

Patient attendance in different clinics

Clinics	Number of times/ week	New	Old
General OPD	6	36119	65445
High risk pregnancy clinic	3	2633	13429
Gynae Endocrine clinic	3	44	96
Gynaecological cancer clinic	2	672	2672
IVF clinic	1	754	2906
Medical termination of pregnancy clinic	6	982	–
Family Welfare clinic	6	7473	4662

Postpartum programme:

Achievements of different Family Planning Methods, Post Partum Programme

Methods	Current year (2013-14)
Cu T	809
Oral pills	1053 pkts
Conventional contraceptives	30,820 pieces
<i>Sterilizations</i>	
Tubectomy	1110
Vasectomy	10

Maternal and Child Health (MCH) performance

Services	Performance in current year (2013-14)
Pregnant women	
TT 1st dose	1669
TT 2nd dose	1144
Children(0-1 year) immunization	
DPT 3rd dose	
Males	245
Females	186
Polio 3rd dose	
Males	245
Females	186
BCG	
Males	1580
Females	1338
Measles	
Males	810
Females	543
DT (<5 years)	Not administered

Surgical procedures**Gynaecological**

Major

Surgery for benign diseases	: 1840	Oncology surgery	: 251
Infertility	: 805	Plastic surgery	: 132
Endoscopy surgeries: Laparoscopy+ Hysteroscopy	: 784		

Minor

D&C/EA	: 2153	Colposcopy/cryo/LEEP	: 280
Diagnostic hysteroscopy	: 1092	MTP	: 982
Pap's smear	: 4615	Cervical biopsies	: 329

Obstetrics

LSCS	: 1154
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Minor	:			
Operative vaginal deliveries (Forceps)	:	127	Normal vaginal deliveries	: 1348
EB OT	:	2345	Gynae Ultrasound	: 9200
Ovarian cyst aspirations	:	38		
<u>Fetal Medicine</u>				
Cordocentesis	:	55	Chorionic Villus Sampling	: 237
Amniocentesis	:	375	In-Utero Infusion	: 141
<u>High risk Obstetrics</u>				
Obstetric ultrasound	:	6062	NST	: 3212

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Alka Kriplani delivered the orations on Shri Chuda Nanda Vaidya at 11th International conference of NESOG (Nepal Society of Obstetricians and Gynaecologists), Kathmandu, Nepal, 2013; National Conference on Gynae Endocrinology-2013 Pune, Organized by GESI, Pune; 18th Dr Bamandas Mukherjee Memorial (Foundation Day) Oration at 77th Foundation day celebration, The Bengal Obstetric & Gynaecological Society, Kolkata, 2013; Chhattisgarh Oration 9th State level conference under aegis of AOGCG, Raipur Obstetric & Gynaecological Society, Raipur, 2013; Silver Jubilee Oration at GYNAECON-2013, The Nagpur Obstetric & Gynaecological Society, Nagpur, 20 Oct 2013; Annual Oration at Yuva FOGSI-North Zone 2013, Amritsar Obstetrics & Gynaecological Society & Government Medical College, Amritsar, 2013; 'Chak de' oration, 15th Annual CME & Workshop–Medico Legal Issues, Ghaziabad Obstetric & Gynaecological Society, (GOGS 2013), Ghaziabad, 2013; Dr Sagi Lakshmi Kantham Oration at Inaugural Ceremony of 47th Annual CME-2013, Obstetrics & Gynaecological Society of Visakhapatnam, Visakhapatnam, 2013; AMPOGS–Conference Oration, IX Annual Conference of AMPOGS-2014 (All Madhya Pradesh Obs & Gynae Society), Rewa Obs & Gynae Society & Shyam Shah Medical College, Rewa, Madhya Pradesh, 2014.

Dr Sunesh Kumar was peer reviewer 'European Journal of Obstetric, Gynaecology and Reproductive Medicine'; Member, Interview Board for the post of Medical Officer, Union Public Selection Commission (UPSC), New Delhi; Member, Selection Committee for selection of faculty in Gynae at PGI, Chandigarh; Member, Selection Committee for selection of faculty in Gynae at PGIMER, Rohtak; Member, Selection Committee at Pt. B.D. Sharma University of Health Sciences, Rohtak; Member, PG Teaching Board, Aligarh Muslim University; Member, ICMR Group on Research in Reproductive Medicine; Member, ICMR Research Advisory Committee for Model Rural Health Research Unit (MRHRU), Rajasthan; Member, Selection Committee for the selection of Faculty at Sher-e-Kashmir Institute of Medical Sciences, Srinagar; Member, Bureau of Indian Standard, Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India; Member, DBT Sub-Group Committee for finalizing the REACH Scheme for Biotechnology based Programme for Women; Member, Subcommittee on Cancer Cervix, Tata Memorial Hospital, Mumbai; Central Public Information Officer, under RTI, AIIMS, New Delhi; Member, Technical Specification/Selection Committee at AIIMS, New Delhi; Member, Staff Council at AIIMS, New Delhi.

Dr Dipika Deka delivered 29th Dr Sudhir Chandra Bose Memorial Oration 14 June 2013, Calcutta Medical College and Hospital, Bengal Obst. & Gynae Society, Kolkata; the Noida Obst. & Gynae Society at NOGS Annual CME Oration, Radisson Hotel, Noida, 25 August 2013; Dr Leela Dubey Oration on 'Fetal Therapy', Lata Mangeshkar College and Hospital, Nagpur, 22 September 2013, Nagpur Obst & Gynae Society; Dr R.K. Das Memorial Oration on 24th Northeast Obst and Gynae Society Conference 2013, 7 December 2013, Assam Medical College, Dibrugarh.

Dr Neerja Bhatla was awarded Second Prize for Oral Presentation at National Conference of Gynae Endocrinology–2013 on 'A study of the role of combined hormonal vaginal ring in the management of dysfunctional uterine bleeding'; Life Member, Indian Association for Cancer Research (IACR)–2014; Life Member, Indian Association of Gynaecological Endoscopists (IAGE).

Dr Nutan Agarwal was awarded Leelawati Award from AIIMS for best thesis in Obstetrics and Gynae 2013: 'To study the role of combined hormonal vaginal ring in management of dysfunctional uterine bleeding (Candidate Dr. Monica Gupta), as chief guide; Ace gene polymorphism insertion and deletion in gestational diabetes mellitus. First prize for poster presentation at National Conference of Gynae-Endocrine Society, Pune (Ph.D. candidate – Parul Agarwal) as senior author; Second prize for best paper presented on 'Role of Nuvaring and DUB' at National Conference of GESI, Pune 2013 (Candidate Monica Gupta), as chief guide; Dr Neera Agarwal's Medal (1st prize) for best paper on 'Therapy with oral hypoglycemic glibenclamide versus insulin in diabetes during pregnancy' at

35th Annual Conference of AOGD, New Delhi, September 2013 (Candidate Dr Raj Gopal), as chief guide; Dr U.P. Jha and Dewan Balkram Award (1st prize) on Gynae-Oncology titled 'Ovarian tumours in young females' at 35th Annual Conference of AOGD, September 2013, New Delhi (Candidate Dr Kusum Lata) as senior author; 1st prize on poster competition (case report) on 'Rare case of acute renal failure post blood transfusion after cesarean section in a Rh isoimmunized patient' at 35th Annual Conference of AOGD 2013 (Candidate Dr Shikha Baithwal), as chief author; nominated Founder Secretary of Gynae-Endocrine Society of India (GESI); Chairperson of Gynae-Endocrine Committee of AOGD; Chief Editor, Indian Journal of Obstetrics and Gynaecology, introduced in April 2013.

Dr Garima was awarded with Best Video prize for the presentation 'Endoscopic management of placenta accreta' at IAGE-ISGE 2013 Crossing all Boundaries in Gynae Endoscopy & Minimal Access Surgery, 3-6 October 2013, Mumbai; Awarded best paper and poster prizes: Dr Neelam Bala Vaid's Medal, Bhattacharya Ganguli Award, Dr U.P. Jha & Dewan Balkram 35th Annual Conference of Association of Obstetricians and Gynaecologists of Delhi, New Delhi, and Mrs Indumati Jhaveri Prize and FOGSI Corion Award at 57th All India Congress Obstetrics and Gynaecology at Patna; Conferred Life Membership of Indian Association of Gynae Endoscopists, Mumbai; Member, Scientific Committee, National Conference on Gynae Endocrinology-2013, Organized by Gynaecological Endocrine Society of India, Pune, 3-5 May 2013.

Dr Reeta Mahey received a Gold medal for the best paper presentation in AOGD Conference, 29-31 August 2013.

9.25 Orthopaedics

Professor and Head

P.P. Kotwal

Professors

Shishir Rastogi
Hira Lal Nag

Arvind Jayaswal
Ravi Mittal

Rajesh Malhotra
Chandra Shekhar Yadav

Additional Professors

Shah Alam Khan

Vijay Kumar

Assistant Professors

Bhavuk Garg

Ashok Kumar

HIGHLIGHTS

The department continues to be ranked as the best Orthopedic Department in the country and occupies an eminent position in the field of Orthopaedics in Southeast Asia. Newer and highly complex surgeries in the field of trauma, tumour, hand, spine, joint replacement, arthroscopic surgery and paediatric orthopaedics are done on a regular basis. The department has facility for comprehensive physiotherapy and rehabilitation of the patients. We also have facility for bone banking including cadaver bone banking. A number of research projects funded by IMRG, ICMR, DST, DBT and CSIR are being carried out in the department. The department continues to publish articles in indexed journals of repute. Many faculty members have actively contributed in many CMEs at national and international levels. The department also serves the country at various health camps at far-flung remote areas.

EDUCATION

1. Postgraduate teaching programme in Orthopaedics Surgery (MS Orthopaedic)
2. Undergraduate teaching programme
3. Nurses training Programme
4. Short term training Programme

CME/Workshops/Symposia organised by the department

1. Train with Master- Surgeon to Surgeon Training Course at AIIMS on April 12th, 2013
2. Advance Knee Replacement Course at AIIMS, New Delhi on April 19 -20, 2013
3. AIIMS Cadaver Arthroplasty Course on 6th -7th April 2013 at AIIMS, New Delhi
4. Complex Primary Knee Arthroplasty Course on July 21st, 2013 at AIIMS, New Delhi
5. Current Concepts in Arthroplasty 2013 on August 17-18, 2013 at AIIMS, New Delhi
6. 6th Annual congress of the World Society for Endoscopic Navigated & Minimal Invasive Spine Surgery (WENMISS 2013) on 8-10 November, 2013 at The Oberoi, New Delhi.
7. 1st AIIMS Arthroplasty Update on 30th December, 2013 at AIIMS, New Delhi
8. AIIMS Cadaver Arthroplasty Course on 1st -2nd March 2014 at AIIMS, New Delhi
9. Symposium on Gender based Knee Replacement Solutions on the occasion of Women's Day at AIIMS, New Delhi on March 7th, 2014
10. AIIMS ELBOWCON on 29-30 March, 2014 at AIIMS, New Delhi

Lecture delivered

P.P. Kotwal: 18

Shishir Rastogi: 4

Arvind Jayaswal: 34

Rajesh Malhotra: 48

Hira Lal Nag: 12

Ravi Mittal: 31

Chandra Shekhar Yadav: 39

Shah Alam Khan: 36

Vijay Kumar: 6

Bhavuk Garg: 16

Oral papers/posters presented by the department faculty

P. P. Kotwal: 6

Shishir Rastogi: 2

Arvind Jayaswal: 3

Rajesh Malhotra: 9

Ravi Mittal: 2

Vijay Kumar: 2

Bhavuk Garg: 3

RESEARCH

Funded projects

- 1 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.
- 2 Evaluation of functional and radiological outcome of surgically treated posterior wall fractures of acetabulum – a prospective study.
- 3 Comparative study of MR Arthrogram and Wrist Arthrogram and Wrist Arthroscopy in Evaluation of Chronic Wrist pain.
- 4 Randomised trial comparing platelet rich plasma vs. corticosteroid injection in the treatment of subacromial impingement syndrome.
- 5 A Randomized control trial between 6 months short intermittent and 9 months short intermittent ATT Regimen in extra-spinal osteo-articular tuberculosis: A non-inferiority trial.
- 6 Assessment of proximal femoral bone mineral density and systemic metal ion levels after Birmingham Mid Head Resection Arthroplasty. Rajesh Malhotra, ICMR, for 3 years.
- 7 A multi-centre, prospective, controlled post-market clinical follow-up study (PMCFs) to monitor the survival and performance of the Delta Motion Cup System in subjects requiring a total hip replacement. Rajesh Malhotra, Funding agency: Johnson & Johnson Medical India, 3 years.
- 8 To study the bacterial adherence and bacterial tendency of bio-film formation of different bacteria to various Bio-materials, Rajesh Malhotra, ICMR, for 1 year.
- 9 Medication use patterns, treatment satisfaction, and inadequate control of Osteoporosis Study (MUSIC): An Asia Pacific study of postmenopausal women treated for osteoporosis in clinical practice. Rajesh Malhotra, MERCK for 1 year.
- 10 Evaluation of cytokines in patients undergoing total hip replacement and their correlation with osteolysis. Rajesh Malhotra, ICMR for 4 years.
- 11 Anthropometric evaluation of a new Asian specific knee prosthesis – The Genesis II Slim. Rajesh Malhotra, Smith and Nephew, Duration 2 years and 6 months.
- 12 An observational study to assess back pain in patients with severe osteoporosis treated with teriparatide versus antiresorptives. Rajesh Malhotra, Eli-Lilly Company Pvt. Ltd. Duration 5 years.
- 13 Comparison of yearly zoledronic acid versus weekly alendronate in preference, convenience, compliance, persistence and bone turnover markers in Indian Postmenopausal osteoporotic women. Rajesh Malhotra, Funding agency: ICMR.
- 14 Medications use patterns, treatment satisfaction, and inadequate control of osteoporosis study (MUSIC-OS): an international study of postmenopausal women treated for osteoporosis in clinical practice. Rajesh Malhotra.
- 15 Database of scoliosis patients. Arvind Jayaswal, ICMR for 5 years.
- 16 Prevalence of shoulder peri-arthritis in patients with type I diabetes mellitus and idiopathic hypoparathyroidism attending tertiary care centre AIIMS. Case control comparative study. Hira Lal Nag, ICMR for 3 years.
- 17 Isolation and molecular characterization of human bone marrow derived mesenchymal stem cells. Ravi Mittal, AIIMS for 2 years.
- 18 Does thumb opposition recovers following carpal tunnel release. Bhavuk Garg, AIIMS for 2 years.

Departmental projects

- 1 Ultrastructural morphology of anterior cruciate ligament stump in ACL injured patients and semitendinosus graft used for ACL reconstruction with the help of electron microscopy and light microscopy: A comparative Study.
- 2 To study the waiting time for elective surgical procedures in select surgical specialities at AIIMS Hospital. Analysed the factors leading to wait time and suggest ways to reduce the same.
- 3 Role of NMR spectroscopy in recurrent and aggressive giant cell tumors – A clinical pathological and radiological correlation.
- 4 Evaluation of comparison of factors associated with local recurrence in operated cases with osteosarcoma and Ewing's Sarcoma.
- 5 Botulinum toxin versus single event multilevel surgery (SEMS) in children with lower limb deformities in spastic cerebral pals: A randomised comparative study.

- 6 Role of bisphosphonates in the management of giant cell tumors of bone – a randomized, comparative clinical, histo-pathological and radiological study.
- 7 Role of extra corporeal radiation therapy in malignant bone tumors – a clinical and biomechanical study.
- 8 Effect of pre-operative psychological factors on the postoperative outcome following total knee arthroplasty.
- 9 Evaluation of results of Unicompartment Knee Replacement with an attempt to define its role in Indian population.
- 10 A randomized controlled study comparing navigated vs conventional technique of total hip arthroplasty.
- 11 MRI evaluation of chronic ankle pain.
- 12 MRI evaluation of chronic elbow pain.
- 13 Total intravenous anaesthesia vs subarachnid block in unilateral TKA-A comparison of recovery profile and time to readiness for discharge.
- 14 Magnitude of prosthetic joint infection and role of amplification based DNA analysis for identifying microbial profile of prosthetic joint infection in a tertiary care hospital.
- 15 A prospective randomized study to compare systemic emboli in computer assisted navigation versus conventional surgical technique of total knee arthroplasty.
- 16 Postoperative analgesia in total knee arthroplasty: Three in one single shot femoral nerve block versus intra-articular infiltration.
- 17 A prospective randomized study comparing the alignment of femoral and tibial component and outcome following navigation assisted and conventional total knee arthroplasty.
- 18 MRI evaluation of upper limb peripheral neuropathies.
- 19 Comparison of two techniques of fascia iliaca block in total hip arthroplasty.
- 20 Arthroscopy of the hip in children with Legg-Calve-Perthes disease and its correlation with imaging.
- 21 Management of adhesive capsulitis of shoulder.
- 22 Evaluation of tunnel widening and bony bridge between femoral and tibial tunnels in patients treated with Double Bundle ACL.
- 23 Reconstruction for ACL tear using multi-detector CT scan and their correlation with the knee stability and functional outcome.
- 24 Evaluation of a novel clinical test for diagnosis of tear of posterior horn of medial meniscus of knee with the help of magnetic resonance imaging.
- 25 Retro-prospective analysis of “partial” bundle anterior cruciate ligament tear – diagnosis and management with ACL augmentation
- 26 Comparative assessment of bone loss at anteroinferior part of glenoid in recurrent shoulder dislocation between arthroscopic findings and 3D CT Scan.
- 27 Ultrastructural study of ACL stump in ACL injured patient and semitendinosus graft with electron microscopy and light microscopy- a comparative study.
- 28 Management of adhesive capsulitis of shoulder
- 29 Arthroscopic elbow synovectomy in rheumatoid arthritis- Long term follow up of more than 2 years
- 30 3D CT scan evaluation of ACL femoral footprint on femur and the position of femoral tunnel of single bundle ACL graft
- 31 Evaluation and comparison of factors associated with local recurrence in operated cases of osteosarcoma and Ewings sarcoma- A retrospective study
- 32 A prospective randomized study comparing the alignment of femoral and tibial component and functional outcome following Navigation Assisted and conventional total knee arthroplasty

Collaborative projects

- 1 Design and development of hip protective device, (collaboration with Indian Institute of Technology, Delhi)
- 2 Etiology of rheumatoid arthritis – An exploratory study of the role of phosphoproteomics” (In collaboration with Institute of Genomics and Integrative Biology, New Delhi)
- 3 Efficacy and safety of *Lowsonia intermis*, *Colchicum luteum*, *Terminella chebula* in experimental models of arthritis
- 4 A study of establish the role of T – helper 17 (Th-17) cells in Asian Indian arthritis patients.
- 5 Efficacy & safety of *Gloriosa superba*, *Berberis aristata*, *Cissus quadrangularis* in experimental models of Arthritis rats.

- 6 Comparison between caudal epidural block and popliteal nerve block for postoperative analgesia in children undergoing foot surgery” (Collaboration with Department of Anesthesia, AIIMS).
- 7 Evaluation of clinico-pathological characteristics, prognostic factors and treatment outcomes of patients with Ewings sarcoma/PNET” (Collaboration with IRCH, AIIMS).
- 8 Preoperative embolisation of bone tumors (collaboration with Department of radiodiagnosis, AIIMS).
- 9 Patient specific stress analysis in congenital dislocation of the hip (collaboration with Department of Mechanical Engineering, IIT, Delhi)
- 10 Biomechanical investigation of extracorporeal irradiation therapy in malignant bone tumors (Collaboration with Department of Mechanical Engineering, IIT, Delhi).
- 11 Clinical and molecular investigation of bone tuberculosis in humans. (Collaboration with Institute of Genomics & Integrative Biology, Delhi).

PUBLICATIONS

Journals: 35

Chapters in Books: 5

PATIENT CARE

1. Disability Clinic
2. Scoliosis Clinic
3. Hand Clinic
4. Sports Injury Clinic
5. CTEV Clinic
6. Bone & Soft Tissue Tumor Clinic

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor P.P. Kotwal is on the panel of experts for providing medical cover to Hon'ble Prime Minister and Hon'ble Vice President of India; Expert for selection of faculty posts in Research and Medical Education, Punjab 2013; Awarded Paul R. Manske Award for 2013 for publishing an article with the greatest impact on surgical care of Children hand; Chief Guest, Inaugural function of Pelvi-Acetabular Fractures workshop organized at AIIMS, Jodhpur, 2014; Trustee- AO Trustee India AO Foundation, Switzerland, Attended the AO Trustees' meeting at Lima, Peru 2013, AO Trauma Asia Pacific Country Council at Chiang Mai, Thailand, 2013; Vice-President, Indian Society for Surgery of the Hand; Chairman - Vidyalaya Management Committee of Kendriya Vidyalaya, INA Colony, New Delhi; Chairman, Committee for Computerisation at AIIMS, 2014; Chairman, Departmental Promotion Committee for the post of Physiotherapist at AIIMS, 2013; Chairman, installation of 3 ATMS at different locations of AIIMS; Chairman, finalization of specifications of equipment for six new AIIMS set up under PMSSY, 2013; Chairman, MOU for creation of Wi-Fi Access network throughout AIIMS between AIIMS & ERNET India, GOI; Chairman, Selection Committee constituted by the Director, National Centre for Antarctic and Ocean Research, Goa, to select Medical Officers for the Indian Scientific Expedition to Antarctica, 2013; Chairman, UG/PG Curriculum Committee of Indian Orthopaedic Association; Member - National Council for Clinical Establishments by National Council; Member, Sub-committee for development of minimum standards in the field of Orthopaedics, 2014; Member, Governing Body of Automobile Association of Upper India; Member, NDAC constituted by the DCGI, New Delhi; Member, AIIMS delegation to meet and interact with a delegation from the University of Michigan, USA, 2013; Member, Departmental Promotion Committee Meeting for the post of Sr. Programmer at AIIMS, 2013; Member, Allotment of rooms in porta cabin above SRB Lab and OPD Block at AIIMS, 2013; Member, committee for considering the proposal for Creation of Department of Physiotherapy at AIIMS, 2014; Member, Manpower & Equipment's for the proposed new Emergency Block at Masjid Moth, AIIMS, 2014; Professor In-Charge & Centre Public Information Officer, Computer Facility, AIIMS; Nominee of His Excellency Governor of Haryana and Chancellor of Pt. B.D. Sharma University of Health Sciences, Rohtak for Selection Committee for two years, 2013; Internal Advisor for Selection Committee for the post of Asstt. Prof. of Orthopaedics at AIIMS; Co-ordinator Examiner for Fellowship Exit Examination (FEE) in Trauma Care of the National Board of Examinations, at AIIMS, New Delhi, 2013.

Professor Arvind Jayaswal has been elected as President of WENMISS; Chairman– Spine Section of Asia Pacific Orthopaedics Association, 6th Congress of WENMISS 2013; Vice President of Spinal Cord Society of India; Editorial Article reviewer –Journal of Orthopaedics & Trauma & Asian Spine Journal (Published from Korea); Demonstration

Spine Surgeries at Operative Courses in spinal surgery at Kuching, Malaysia, Dhaka, Bangladesh, & Coimbatore; Board/ Executive committees member of PASMIS, WENMIS, ASSI & Indo- IASA; Course coordinator for conducting Spine Course & CME by APOA and resource person for live surgical workshop at Dibrugarh.

Professor Rajesh Malhotra was awarded International recognition and distinctions in form of Fellowship of American College of Surgeons (FACS); Awarded Past President Oration of Delhi Orthopaedic Association; FRCS (Glasgow) degree and was invited as faculty for International Meetings 2013; The best prize in the 12th Winter Meeting of Ranawat Orthopaedic Conference (ROC).

Professor Hira Lal Nag has been awarded as Honorary consultant for SAI; Secretary General of IFSM; Member - Hospital Management Board; Technical Specification Selection Committee of Surgical Items; Selection Committee member for recruitment of sister grade II posts, AIIMS; DNB Trainees by National Board of Examination; Member Interview Board for selection of lecturer in Orthopaedic by UPPSC, UP; External examiner for MS and DNS examinations; Secretary, Orthopaedic Research Society, AIIMS; Nominated expert of High powered Therapeutic Use Exemption (TUE) Commission of (NADA), Govt. of India; Expert, Standing Selection committee for Faculty, NIGRMS Shillong.

Professor Ravi Mittal has been awarded IOS-UK Indo British senior travelling fellowship 2013; Member, Post-Graduate Board of Studies in Department of Orthopaedics of Pt. BD Sharma University of health sciences at Rohtak, 2013; Editorial board member of Journal of Foot and Ankle Surgery Asia Pacific, Journal of Krishna Institute of Medical Sciences university; Core committee member of RNTBCP in 2013 – 2014; Member, Selection Committee for the selection of faculty for medical college at Hindu Rao hospital in 2014; Member, Drug Selection Committee AIIMS; Reviewer for IJO, CORR, Asian Journal of Sports Medicine; External examiner for D.Orth examination at PGIMS Rohtak 2013; State representative for Delhi at IOA 2013-15; Organizing secretary of ELBOWCON 2014 at AIIMS.

Professor Chandra Shekhar Yadav acted as Panellist - Basic Atthroplasty Course, 2013 Fortis NOIDA, Saw bone demonstration THA, Basic Atthroplasty Course, KITS University, Bhuvneshwar; Examiner Postgraduate examination, Teaching hospital, Kathmandu, Nepal; Chaired Scientific Sessions, NZIOACON –2013 Srinagar, IOACON – 2013; Expert for selection of lecturers in UP Medical colleges, 2014; Moderated Session in ROC 2014 Delhi; Provided Tips & Pearls of Uncemented THA; Judge for the Gold medal award session of Postgraduates, UP ORTHOCON 2104; Panellist OSSAPCON – 2014, Mehubnagar, AP.

Dr Shah Alam Khan was selected the First Indian Orthopaedic Surgeon to make presentation at prestigious Musculoskeletal Tumor Society annual meeting held in San Francisco, USA in 2013; Member Reviewer, Journal of Bone & Joint Surgery; Member- International Editorial Board, Journal of Clinical Rehabilitative Tissue Engineering Research (China); Member, ICMR Taskforce on Guidelines for the Management of Sarcomas; Member, Dean's Committee of the AIIMS, New Delhi for two years; Expert panel member for Orthopaedics at the UPPSC.

Dr Vijay Kumar has been awarded Fellowship Commonwealth Academic at Nuffield Orthopaedic Centre, Oxford, 2013.

Dr Bhavuk Garg has been awarded Innovative Young Biotechnologist Award 2013 by the Department of Biotechnology, Govt of India; Awarded Delhi orthopedic association publication award 2013; Program Chair M.Ch (orth.) Texilla University, South America; Co-guide for (PhD), Texilla University, South America; Member, project review committee, ICMR; Awarded Fellowship of FIMSA; Awarded Associate fellowship of American College of Surgeons; Received Travelling Fellowship by Delhi Orthopedic Association; Member, Scientific committee of ASSI 2013.

VISITING SCIENTISTS

1. Alok D. Sharan, M.D., Chief, Orthopedic Spine Service, Montefiore Medical Center, Assistant Professor, Albert Einstein College of Medicine, New York, USA
2. Ashish B. Shah, MD, Assistant Professor Orthopaedics, Foot and Ankle Section, University of Birmingham at Alabama, USA
3. Duncan Whitwell, Consultant Orthopaedics, Nuffield Orthopaedic Centre, Oxford, UK

9.26 Otorhinolaryngology and Head and Neck Surgery

Professor and Head
Suresh Chandra Sharma

Professor
Alok Thakar

Additional Professor
Rakesh Kumar

Assistant Professor
Kapil Sikka Chirom Amit Singh Hukam Singh
(contract)

HIGHLIGHTS

The department is among the best in the country and has developed expertise in most of the current subspecialties in Otorhinolaryngology. Its activities have included expanding the horizons for use of endoscopes in paranasal sinus and skull base surgery. The faculty have taken ahead the transoral robotic surgery program in performing advanced head and neck cancer resections like supraglottic laryngectomy transorally. The department has done over 560 cochlear implant procedures for deaf patients and has expanded its experience of microvascular free flap reconstruction for complex head and neck defects.

EDUCATION

The formal lecture schedule for the MBBS students are held in the 6th and 8th semesters and consist of 1 hour lectures. The undergraduate students are posted in the department (OPD and Ward) for 2 months on rotation. Here they learn basic ENT examination, become familiarized with diagnosing common ENT diseases and learning elementary management, including communication skills.

For postgraduates, the major goals are patient care, teaching, research ability, and team work. PG student will have to do presentation of seminar/paper, research writing, acquire clinical decision making ability and management expertise. Postgraduate students perform major and minor surgical procedures under supervision of a faculty member/ a senior resident.

The department also organizes workshops and conferences from time to time on various recent topics of interest. The department also has observers from India and abroad and hosts them to observe departmental activities, specialty clinics, seminars and operative procedures.

CMEs and Conferences organized by department

1. 3rd AIIMS Temporal bone dissection course, 17-19 January 2014, AIIMS, New Delhi
2. Training workshop for cochlear implant, Habitationalists and Audiologists, AIIMS, 7 October 2013.
3. 2nd AIIMS temporal bone dissection workshop, AIIMS, New Delhi, 24-25 August 2013.

Lectures delivered

Alok Thakar: 24 **Rakesh Kumar: 4**
Kapil Sikka: 9 **Chirom Amit Singh: 2**

Oral papers/posters presented

Kapil Sikka: 2 **Chirom Amit Singh: 3**

RESEARCH

Funded projects

Ongoing

1. Double blinded, placebo controlled, randomized, controlled trial to evaluate the efficacy of adjuvant treatment with homeopathic medication thuja (arbor vitae) in decreasing severity and decreasing post-surgical recurrence in recurrent respiratory papillomatosis, Alok Thakar, ICMR, 3 years, 2012–15, Rs 55,25,188.
2. Phase II/III randomized placebo controlled clinical trial of curcumin in resectable stage iii and iv oral squamous cell cancer, Alok Thakar, DBT, 6 years, 2005-2013, Rs 102,67,000.

3. Effects of non-ionizing electromagnetic field on human health: effects on auditory and vestibular system, Rakesh Kumar, ICMR, 3 years, 2012, Rs 50,00,000 (approx.)
4. Evaluation of surgical trauma to intracochlear structures after insertion of intracochlear electrode arrays, Kapil Sikka, AIIMS, 2 years, 2012–14, Rs 4.9 lakhs
5. An evaluation of different endoscopic approaches to inner ear, Chirom Amit Singh, AIIMS, 2 years, 2012–14, Rs 4.78 lakhs

Collaborative projects

Ongoing

1. Molecular genetic studies in Indian families with autosomal recessive non-syndromic hearing loss (with Paediatrics).
2. Age-related morphological and neurochemical changes in the human spiral ganglion (with Anatomy).

Completed

1. Congenital cytomegalovirus infection and hearing loss in rural Indian population (with Microbiology).
2. Translating head and neck cancer markers into diagnostic assays (with Dr Michael Siu, Canada and Biochemistry, AIIMS).
3. A stereological study of age related morphological and neurochemical changes in the human cochlear nucleus (with Anatomy)
4. Deregulated initiation of translation in oral carcinogenesis (with Biochemistry)

PUBLICATIONS

Journals: 17

Abstracts: 1

PATIENT CARE

Apart from OPD, Operation theatre and minor OT services, the department runs a rehabilitation unit of audiology and speech pathology and specialty clinics in Audiology and skull base with cochlear implant, rhinology, vertigo, voice and swallowing, and twice a week head and neck cancer clinic. The department also provides rural services at CRHSP Ballabgarh and Outreach OPD, Jhajjar. The statistics are as follows:

Patients operated

Main OT

Major cases : 2095 Minor cases : 1815

OPD

Minor OT procedures : 33,264

Patients seen in OPD

New patients : 47,189 Old patients : 70,196

Total ward admissions: 1564 (In ENT ward)

Specialty clinic attendance

S.No.	Clinic	New cases	Old cases	Total
1	Vertigo	104	70	174
2	Audiology and Skull Base	113	41	154
3	Cochlear implant (This clinic runs along with audiology)	54	16	70
4	Voice	822	921	1743
5	Rhinology	66	44	110
6	Head and Neck cancer	4276	1048	5324

Community service clinics

- Twice weekly clinics in community hospital in Ballabgarh (Recently started operative facilities)

- Weekly clinics in primary health centre in Gurgaon
- Weekly clinics in community hospital in IIT Delhi
- Outreach OPD Jhajjar; to improve services further, faculty has also been posted at Jhajjar and once a week at Ballabgarh.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Alok Thakar was Hony. Secretary, Foundation for Head-Neck Oncology; Hony. Treasurer, Skull Base Surgery Society of India; Invited to Steering Committee (sole member from Asia)—Global Tracheostomy Collaborative; Editorial board member (i) Journal of ENT Masterclass, UK, (ii) The Otorhinolaryngologist, UK, (iii) Advances in Otolaryngology, (iv) Otology India, (v) Indian Journal of Otology; Expert Member, Department of Health Research-MOHFW/ICMR for Consensus Statement on (i) Cancer Tongue, (ii) Cancer Larynx and Hypopharynx, (iii) Obstructive Sleep Apnea and (iv) Disability Research; Member, Project Review Committee, Indian Council of Medical Research

Dr Rakesh Kumar was honorary Secretary, Neuro Equiliometric Society (NES) of India; Member of BIS Committee looking after the Indian standards for ENT instruments; Invited faculty at annual national/state clinical meetings and presented papers and participated in panels; Invited expert for live talk show on ‘Common ENT problems in rainy seasons’, Lok Shabha TV; Helped in organizing hands on temporal bone dissection workshop at AIIMS New Delhi.

Dr Kapil Sikka was awarded the International visiting scholarship by American academy of Otolaryngology, Head and Neck Surgery foundation (US\$ 2000) for attending American Academy of Otolaryngology, Head and Neck Surgery annual meeting at Vancouver; Invited visiting observer at University Medical School, Stanford for 2 weeks; Invited guest faculty at 4 national clinical meetings and presented various papers and participated in panels; was part of organizing team for 2 temporal bone workshops; was also part of organizing team for the audiology training workshop for cochlear implant recipients and also parents’ orientation program for our cochlear implant recipients; Member, Executive committee, Association of Otolaryngologists of India, Delhi Branch.

Dr Chirom Amit Singh was part of the organizing team for 2 temporal bone workshops.

VISITING SCIENTISTS

1. Dr Daud Yaqoobi, Afghanistan
2. Dr Rajni Sachdeva
3. Dr Saed Manzoor Ali
4. Dr Showkat Ahmed Shoukat
5. Dr Benjamin John Miller

9.27 Paediatrics

Professor and Head

Vinod K. Paul
(Neonatology)

Professors

Ashok K. Deorari (Neonatology)
Sushil K. Kabra (Pulmonology, Intensive Care,
Tuberculosis and Rheumatology)
Pankaj Hari (Nephrology)

Arvind Bagga (Nephrology)
Madhulika Kabra (Genetics)
Sheffali Gulati (Neurology)

Additional Professors

Ramesh Aggarwal (Neonatology)
Rachna Seth (Oncology)

Vandana Jain (Endocrinology)
Rakesh Lodha (Pulmonology, Intensive Care,
Tuberculosis and Rheumatology)

Assistant Professors

Biswaroop Chakrabarty (Neurology)
Neerja Gupta (Genetics)
Kanha Ram Jat
(Pulmonology, Intensive Care, Tuberculosis and Rheumatology)

Aditi Sinha (Nephrology)
M. Jeeva Sankar (Neonatology)
Jhuma Sankar

Scientists

Madhumita Roy Choudhary
Shivram Shastri (Contract)

Manju Saxena
Rashmi Shukla (Contract)

Clinical Psychologist

Savita Sapra

Biochemist

Pallavi Mishra

Dietician

Anuja Agarwala

Physiotherapist

Sumita Gupta

Medical Social Service Officer

D. Yadav

HIGHLIGHTS

Neonatology

1. Approved as 'Advanced Centre for Newborn Health Research' for 4th consecutive year by ICMR, New Delhi.
2. Recognized as WHO Collaborating centre, for fifth consecutive term. (2008-2013)
3. Updated a teaching learning package for Newborn care for online Learning on an interactive MOODLE platform. The program is available online to educate health professionals at distant places with skill learning at partner institutions.
4. New Apps on smartphone for management of normal newborn as point of care tool for healthcare providers working in small hospitals are developed on iOS system and Android Google play.
5. 16 podium and poster presentations in Pediatric Associated Society Meeting. 4-7 May 2013. Washington DC.
6. Performed about 20 systematic reviews for WHO Geneva for development of global guidelines on care of sick preterm neonates.
7. Member Programme Advisory Board under NHSRC, Ministry of Health & Family Welfare on 'Country wide technical skill development for Biomedical/clinical Engineering 2013-14.
8. Introduced new courses and have enrolled nearly 2000 student and doctors in different courses in the Essential Newborn Care (ENC) and Sick Newborn Care course with skill learning at participating institutions. Courses are administrated to students from Maldives, Srilanka, Bangladesh, Nepal, Pakistan, Mauritius, and India. One can access the package on www.ontop-in.org/sick-newborn.

Neurology

1. Organised Developmental examination symposium for post graduate students and Autism Awareness day for parents
2. Collaborating institute in RBSK

Genetics

1. Dr Madhulika Kabra was appointed as Co-Chairperson for the RBSK Birth Defects committee, Government of India

EDUCATION

The department runs MD and DM courses (Neonatology and Neurology) and PhD programs in basic sciences and clinical and epidemiology. For MD program department trains a total of 28 junior residents (4-5 are taken in each session). For DM program in Neonatology and Neurology department department trains 7-8 residents in each speciality (1-2 are taken every session in each course). The department runs an active PhD program. Two types of programs are run i e Basic sciences related to Pediatrics and clinical & Epidemiology of Pediatrics. A total of 22 scholars are persuing their PhD at present (1-3 students are registered in each session). Faculty of Pediatrics deapratment is actively involved in teaching of MBBS, BSc and MSc nursing students.

Training

The department imparts short and long term training in all the divisions. In 2013-14 a total of 24 trainees in dietetics, 11 in genetics, 12 in neonatology and 1 each in neurology and pulmonology were enrolled for short or long term training.

CMEs/Workshop/Symposium/National and International Conferences: 27

Dietetics

1. Dietary Management of inborn error of Metabolism: Jointly organized with Satellite meeting of International Conference on 'Inborn Errors of Metabolism' and 2nd National Conference of Indian Society of inborn error of metabolism' at Sir Gangaram Hospital, 8th April 2013, New Delhi
2. '24 Hour recall and food Frequency – Methods of Nutritional assessment' - Continuous Professional Development Workshop at AIIMS, 5th May 2013, New Delhi.
3. 'Role of Communication in Nutrition' and 'Nutrition in Critical Care'. 1st June 2013
4. 'Sports Nutrition Update' at AIIMS on 16th Novr 2013.
5. 1st 'Dietetics Day' celebration at Dilli Haat. Theme: 'A Healthy Foundation for a healthy tomorrow', 10th Jan 2014
6. 'Women's Health' on the occasion of International Women's Day in collaboration with Marico, 8th March 2014
7. PATIENT CARE: Interaction Programmes – Continuing Patient– Parents Education:
 - a. 28th May 2013: '1st Childhood Obesity Meet – study patients' organized by Endocrinology unit, Department of Pediatrics, AIIMS.
 - b. 8th September 2013: 'World Cystic Fibrosis Day celebration and education program for parents' organized by Cystic Fibrosis South Asian Trust and Department of Pediatrics, AIIMS.
 - c. 31st August 2013: '9th Childhood Diabetes Meet' organized by Endocrinology unit, Department of Pediatrics, AIIMS.
 - d. 12th October 2013: Educational Program for parents and their children undergoing CAPD and HD, Nephrology Unit, department of Pediatrics, New Delhi

Endocrinology

1. '1st Childhood Obesity Meet – study patients' organized by Endocrinology unit, Department of Pediatrics, AIIMS, 28th May 2013.
2. '9th Childhood Diabetes Meet' organized by Endocrinology unit, Department of Pediatrics, AIIMS, 31st August 2013.

Genetics

1. 8th Asia Pacific Regional Meeting of the International society of Neonatal Screening from 27th-29th September 2013 organised by Dr Madhulika
2. Regional Consensus on Preconception Care to Reduce Maternal and Childhood Mortality and Morbidity 6th - 8th August 2013 funded by WHO organised by Dr Madhulika
3. Fetal Autopsy Workshop on 1st June 2013 at AIIMS Organized by Dr Madhulika

Nephrology

1. VIII Annual Training Course in Pediatric Nephrology in collaboration with International Society of Nephrology at AIIMS New Delhi on 10 November 2013 organised by Dr Arvind Bagga
2. Organized patient and parent education and interaction on 'Nutrition in Chronic Kidney Disease' on the occasion of World Kidney Disease, on 13 March 2014
3. Educational Program for parents and their children undergoing CAPD and HD, Nephrology Unit, department of Pediatrics, New Delhi. 12th October 2013:

Neurology

1. Development Assessment, Symposium for Postgraduate, 13th April 2013, Organized and conducted by Dr. Sheffali Gulati.
2. Autism Awareness Programme for parents, 22nd April 2013. AIIMS. Organized and conducted by Dr. Sheffali Gulati.
3. Conducted a workshop on 'Psychological Interventions for Autistic Disorder', ICMHAIIMS-2014 (International conference on Multidisciplinary Healthcare AIIMS 2014), 14th January 2014, Neuro Rehabilitation unit , Neurosciences Centre, AIIMS, New Delhi.

Neonatology

1. Annual Conference of the Indian Association of Medical Journal Editors. 16th November 2013, AIIMS, New Delhi.
2. Annual Meeting of the Indian Academy of Pediatrics, Delhi Chapter. December 22, 2013, AIIMS, New Delhi.

Oncology

1. Work Shop On 'Psychosocial Issues In Childhood Cancer' (Preconference Work Shop, PHOCON 2013) AIIMS, Board Room, Center for Dental Education & Research, (CDER), AIIMS, Dated 18-10-2013
2. Childhood Cancer : Patient education program November 2013, LT1

Pulmonology and ICU

1. Education program for parents of cystic fibrosis and cystic fibrosis day on 8th September 2013 at AIIMS, LT 1
2. Dr KC Chaudhury oration an IJP research awards on 15.9.2014 at AIIMS in Board room

Lectures delivered

V.K. Paul: 8

A.K. Deorari: 15

Arvind Bagga: 13

S.K. Kabra: 23

Madhulika Kabra: 22

Pankaj Hari: 4

Sheffali Gulati: 23

Ramesh Agarwal: 3

Vandana Jain: 1

Rachna Seth: 8

Rakesh Lodha: 25

Neerja Gupta: 8

Savita Sapra: 3

Anuja Agarwala: 14

Oral papers/ posters presented: 59

RESEARCH

Funded projects

Ongoing

Endocrinology

1. Role of gain in fat mass in early infancy on programming of adiposity and biochemical markers associated with cardiometabolic risk. PI: Vandana Jain, DBT, 3 yrs, 2012-15, Rs 69,87,324.00.

2. Influence of genetic polymorphisms, clinical and biochemical parameters in determining susceptibility to nonalcoholic fatty liver disease in Indian overweight adolescents. PI: Vandana Jain, ICMR, 3 yrs, 2012-15, Rs 49,00,000.00.
3. Influence of genetic polymorphisms, clinical and biochemical parameters in determining susceptibility to nonalcoholic fatty liver disease in Indian overweight adolescents. PI: Vandana Jain, ICMR, 3 yrs, 2012-15, Rs 49,00,000.00.
4. *GHR* gene mutations in children with Idiopathic short stature. PI: Vandana Jain, AIIMS, 2 yrs, 2012-14, Rs 5,00,000.00.
5. Body composition of term low birth weight infants at 3 years and association with growth trajectory. PI: Vandana Jain, AIIMS, 1 yr, 2013-14, Rs 2,00,000.00.

Genetics

1. Clinical application of array-based Comparative Genomic Hybridization (array CGH) in the genetic evaluation of stillbirths. PI: Madhulika Kabra, DBT, 3 years, 2012-2014, Approximately 85 lacs.
2. Identification of Human Chromosome 21-Derived miRNA in Maternal Circulation for Non Invasive Prenatal Diagnosis of Down Syndrome. PI: Madhulika Kabra, DBT, 3 years, 2013-2015, 57 Lacs.
3. Molecular Genetic Studies in Indian patients with Tuberous Sclerosis. PI: Madhumita Roychowdhury, Madhulika Kabra (Co-PI), ICMR, 3 years, 2013-2015, 50 Lacs.

Neonatology

1. Centre for Advanced Research in Newborn Health. Prof Vinod K Paul and Prof A K Deorari. ICMR, 5 years, 2010-16, Rs 9.5 Crores.

Nephrology

1. Randomized controlled trial to compare the efficacy and safety of mycophenolate mofetil versus levamisole in children with frequently relapsing or steroid dependent nephrotic syndrome. PI: Arvind Bagga, Indian Council of Medical Research (ICMR), 3 years, 2012-2015, Rs. 28,08,221.
2. Functional characterization and genetic basis of anti-complement factor H autoantibodies in hemolytic uremic syndrome. PI: Arvind Bagga, Department of Biotechnology (DBT), 4 years, 2011-2015, Rs. 108,33,018.
3. Serum soluble urokinase receptor as putative permeability factor in children with focal segmental glomerulosclerosis and steroid resistant nephrotic syndrome. PI: Arvind Bagga, DBT, 3 years, 2012-2015, Rs. 44,86,635.
4. Anti-factor H autoantibody associated hemolytic uremic syndrome. PI: Arvind Bagga, Indo-French Centre for the Promotion of Advanced Research, 3 years, Rs. 2012-2015, 40,67,280.
5. Research on nephrotic syndrome. PI: Arvind Bagga, Trilateral Partnership in Research, UK India Education and Research Initiative.
6. Effect of atorvastatin on hyperlipidemia and progression of carotid intima media thickness in steroid resistant nephrotic syndrome: a randomized controlled trial. PI: Pankaj Hari, Indian Council of Medical Research (ICMR), 3 years, 2011-2014, Rs. 29,40,142.

Neurology

1. Randomized Placebo Controlled Trial of Valproate and levocarnitine in Children with Spinal Muscular Atrophy aged 2-15 years, PI: Dr Sheffali Gulati, Institute Research Grant, AIIMS, 2 years, 2012 onwards, Rs 5,00,000 per year.
2. Blood heavy metal levels and quantitative EEG in children with Autism- A cross sectional study. PI: Dr Sheffali Gulati, ICMR, 3 yrs, 2014 onwards, Rs 49,04,232.

Oncology

1. Glue grant Scheme entitled 'Developing a long term partnership for translational health research in child health'. VK Paul, R Seth (Co-Investigator), DBT, 5 years, 2010-2015, Rs 7 crores.
2. Neuroimaging and cerebral metabolite changes in children undergoing treatment for acute lymphoblastic leukemia: a pilot study'. Dr Rachna Seth, AIIMS, 2 years, 2011-2013, Rs 1,00,000.
3. Chemo to Cure (C to C): A study of cancer Survivorship. Rachna Seth, Jiv Daya Foundation, 3 years, 2011-2014, Rs 20,00,000.

4. Molecular Alterations In Childhood Acute Lymphoblastic Leukemia: *CRLF2* Rearrangements And Janus Kinase (JAK 1 & JAK2) Mutations: A Pilot Study. PI: Dr Rachna Seth, AIIMS, 1 year, 2013-2014, Rs 1,00,000.

Pulmonology

1. Role of zinc supplementation in children with cystic fibrosis: randomized controlled trial. agency: (I 727). Kabra SK, ICMR, 2 years, 2011-2013, Rs.2000000.
2. Identification of correlates of disease severity in pediatric dengue patients in Delhi. Kabra SK, DBT, 3 years, May 2012-May 2015, 4642172.
3. Why acute respiratory infections during infancy lead to chronic airway diseases during childhood: differential role of smaller airways and immune imbalance. (N 1368). Kabra SK, DBT, 3 years, March 2012 to March 2015, Rs 12438192.
4. Hib Meningitis Sentinel Surveillance in North India, (NI-1088). Kabra SK, INCLEN, 4 years, 2011 To Dec 2014, 1,09,88,946.
5. Role of GeneXpert MTB/RIF assay in the diagnosis of pulmonary tuberculosis in children. (project code 1830). Kabra S, ICMR, 3 years, 2013-15, 6455379.
6. To study the effect of highly active antiretroviral therapy on B cell sub-populations in HIV infected children. Rakesh Lodha, ICMR, 3 years, 2011-14, Rs 39,87055.
7. Effects of malnutrition and HIV infection on pharmacokinetics of anti-tubercular drugs in children. PI: Dr. Rakesh Lodha, ICMR, 3 years, 2012-15, Rs. 48 lakhs.
8. Identification of correlates of disease severity in pediatric Dengue patients in New Delhi. PI: Dr. Rakesh Lodha. DBT, 3 years, 2012-15, Rs 4642172. Biomarker discovery in asthma using an integrated –omics approach. PI: Dr. Rakesh Lodha, IGIB, 6 year, 2009-2015, Rs. 123 lakhs.
9. Systematic Review (WHO): ‘First hour fluid resuscitation rates for improving mortality and other outcomes in 2 to 60 months old children with impaired circulation: A systematic review. PI: Dr. Rakesh Lodha, WHO, 5 months, May-September, USD 10600.

Completed

Genetics

1. An Open-Label Extension Study of Gene-Activated® Human Glucocerebrosidase (GA-GCB) Enzyme Replacement Therapy in Patients with Type I Gaucher Disease’ . PI: Madhulika Kabra, Shire Human genetic Therapies, USA, Two years , 2011-2013, 15 Lacs.

Neonatology

1. Coordination of Regional National Networks for Newborn Health and Birth Defects in South East Asia Region. (T-NI-1424). A.K. Deorari, WHO, SEARO, 10 months, 01.04.13 to 31.12.13 13,15,000.
2. Updating of Learning Resource Materials for training of health care professionals in newborn care and birth defects (T-144). A.K. Deorari, WHO, SEARO, 4 months, 18.07.13 to 15.11.13, 6,30,000.
3. The Helping Babies Survive Program; Beta Testing and Evaluation of Educational Validity’. A.K. Deorari, American Academy of Pediatrics, US, 6 weeks, 15.07.13 to 31.08.13, 8,50,000.
4. Systematic Reviews on Priority Questions Related to Management of the Preterm Newborns. Ramesh Agarwal, WHO, 1 year, Rs.14,44,800.
5. Improving the quality of childbirth and neonatal care in Primary Health Centres in two districts in Haryana, India. Ramesh Agarwal, WHO, 3 years, USD 25000.
6. To carry out analysis of training needs for nursing professionals to contribute to facility based neonatal care in India. A.K. Deorari, Indo Canadian Shastri Institute & WHO SEAROT 137 (Joint), 3 months, 21-01-13 to 31-3-2013, C\$ 8000, and Rs 4,50,000.

Nephrology

1. 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. PI: Arvind Bagga, ICMR, 3 years, 2011-2014, Rs. 26,89,683.
2. Effect of rituximab on lymphocyte subsets in children with difficult nephrotic syndrome. PI: Arvind Bagga, ICMR, 3 years, 2011-2014, Rs. 16,58,128.

3. Pathogenesis of idiopathic nephrotic syndrome of childhood: Th1/Th2 polarization of T cells in patients with idiopathic nephrotic syndrome and its relation to disease course. PI: Arvind Bagga, DBT, 3.5 years, 2010-2014, Rs. 52,52,371.
4. Antiproteinuric effect of oral calcitriol in chronic proteinuric nephropathies: a randomized controlled trial. PI: Pankaj Hari, ICMR, 4 years, 2010-2013, Rs. 29,10,592.

Neurology

1. Neuro Developmental Disabilities among children in India – An INCLEN Study Site PI & Network Coordinator. Sheffali Gulati, NIH, AUTIS M SPEAKS & National Trust & Ministry of Social Justice & Empowerment, Over 6 yrs, 2006- 2013, Rs 20,254,269.

Oncology

1. Detection of minimal residual disease (MRD) in B cell lineage acute lymphoblastic leukemia (ALL) at end of induction. By Flowcytometry. Rachna Seth, ICMR, 3 years, 2010-2013, Rs 34,82,535.
2. Chemo to Cure (C to C): A study of cancer Survivorship. Rachna Seth, Jiv Daya Foundation, 3 years, Extension granted , 2011-2014, Rs20,00,000.

Departmental projects

Ongoing

1. Clinical and biochemical characterization of short stature in 4 to 16 year old children with special attention to idiopathic short stature.
2. Effect of total body fat and its regional distribution on bone health in adolescents.
3. Exploring the genetic basis of idiopathic short stature in children: Prevalence of *SHOX*, *GHR* and *IGFALS* mutations.
4. Clinical and biochemical characterization of short stature in 4 to 16 year old children with special attention to idiopathic short stature.
5. Effect of total body fat and its regional distribution on bone health in adolescents.
6. Exploring the genetic basis of idiopathic short stature in children: Prevalence of *SHOX*, *GHR* and *IGFALS* mutations
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 & III.
10. To study the mutation profile of Indian patients with common organic acidurias.
11. Molecular genetic studies in Indian patients with Ectodermal dysplasia.
12. Stress, Quality Of Life and Coping Responses of Mothers Having Children with Down Syndrome.
13. Mutation spectrum in TSC gene in Indian patients with tuberous sclerosis.
14. To study the mutation spectrum & its correlation with histopathology, neuroimaging & biochemical metabolites in Indian patients with mitochondrial disorders'. Molecular And Biochemical characterization of Hepatic Glycogenoses Type I and III.
15. Comparative study of virtual and conventional autopsy in the phenotypic characterization of still births.
16. Effect of MECP2 genotype ,X chromosome inactivation pattern and common BDNF polymorphism on the phenotype of classical Rett syndrome patients.
17. Non invasive prenatal diagnosis of fetal Rh and Beta Thalassemia.
18. 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
19. Comparison of the profile of DNA damage in lymphocytes of neonates with hyperbilirubinemia receiving high versus low irradiance using light emitting diode phototherapy.
20. Angiogenesis factors in cord blood as a predictor for development of retinopathy of prematurity. AIIMS WHO CC STPs apps for managing common newborn conditions evaluation of impact on knowledge and skills among special newborn unit doctors.
21. Effect of step wise intervention in improving hand hygiene compliance among healthcare providers in a level III nicu before and after study.

22. Pharyngeal pressure in preterm infants receiving nasopharyngeal positive airway pressure.
23. Does ultrasound guidance for peripherally inserted central catheter (PICC) insertion reduce the incidence of tip malposition? – A randomized trial (Dr. O Tejo Pratap)
24. Can point-of-care ultrasonography replace X-Ray for ascertaining the endotracheal tube tip position in neonates?
25. Nasal mask versus nasal prongs in the delivery of continuous positive airway pressure in preterm infants – an open label randomized controlled trial.
26. Evaluation of perfusion index in preterm infants with a hemodynamically significant patent ductus arteriosus.
27. Comparison of two irradiance levels for efficacy of phototherapy in late preterm and term infants with hyperbilirubinemia – Randomized controlled trial.
28. To study the profile and early natural history of neonatal cholestasis syndrome in preterm (\leq weeks' gestation) neonates – A prospective cohort study.
29. Randomized open labeled controlled trial to compare the efficacy and safety of mycophenolate mofetil and tacrolimus in maintaining remission in patients with steroid resistant nephrotic syndrome.
30. Open label, randomized, controlled study trial to compare the efficacy of daily therapy with low dose prednisolone versus standard therapy on alternate days in patients with frequently relapsing/ steroid dependent nephrotic syndrome.
31. Gonadal function in children with nephrotic syndrome treated with oral cyclophosphamide
32. Clinical spectrum of Psychogenic non epileptic events in children (6 -16 yrs).
33. Role of skin biopsy in childhood muscular dystrophies.
34. Comparison of radiological outcome of 7 days versus 28 days albendazole therapy along with steroid in patients with parenchymal neurocysticercosis with lesion load ≤ 5 : a randomized controlled trial.
35. Efficacy of Modified Atkins diet versus Ketogenic diet in children with refractory epilepsy aged 1 to 8 years age- A randomized controlled trial.
36. Telephone based follow up of children with west syndrome and lennox gastaut syndrome aged 4 months to 7 yrs: How critical is it to identify critical clinical events requiring face to face consultation.
37. Prevalence of electrophysiologically defined peripheral neuropathy among post kidney transplant children: a cross sectional study.
38. To study the Quality of life in children with Dystrophinopathy and their parents.
39. Cardiovascular autonomic dysfunction in children aged 2-18 years with Rett Syndrome; a descriptive study.
40. Effect on serum Vitamin D levels and Bone mineral density in children and adolescents aged 3 to 14 yrs with newly diagnosed epilepsy on 6 months of valproate monotherapy: A prospective study
41. Prevalence of Invasive Fungal Infections in Children with Febrile Neutropenia treated for Acute Leukemia.
42. Clinicopathological Analysis Of Malignant Mediastinal Masses .
43. To determine the role of Procalcitonin in febrile neutropenic episodes in children taking chemotherapy.
44. To determine the prevailing organism profile and antimicrobial sensitivity in febrile neutropenic episodes .
45. To evaluate the outcome of children with recurrent LCH using prednisone, Cytosine arabinoside and VCR.
46. Invasive aspergillosis in immune suppressed children: Diagnosis and prognosis
47. Pharmacokinetics of antitubercular medications in children.
48. Cloning and expression of Chickengunia Virus genes and evaluation of their role in chickengunia pathogenesis in children and adults.
49. Effects of exercise intervention program on bone mineral accretion in children and adolescents with Cystic fibrosis.
50. Ventilator associated pneumonia in Pediatric intensive care unit: incidence, risk factors and etiological agents.
51. Etiology of pulmonary exacerbations in children with cystic fibrosis. Pharmacokinetics of antitubercular drugs in children.
52. Association of Fluid Overload with Outcomes in Critically Ill Mechanically Ventilated Children.
53. Serum Vitamin D levels and its association with level of control of childhood asthma

Completed

1. Effect of daily physical activity in preterm neonates less than 35 weeks of gestation on salivary cortisol and clinical markers of stress.
2. Evaluation of perfusion index in preterm infants with a hemodynamically significant patent ductus arteriosus.
3. Comparison of two irradiance levels for efficacy of phototherapy in late preterm and term infants with hyperbilirubinemia – Randomized controlled trial.
4. To study the profile and early natural history of neonatal cholestasis syndrome in preterm (\leq weeks' gestation) neonates – A prospective cohort study.
5. Nasal mask versus nasal prongs in the delivery of continuous positive airway pressure in preterm infants – an open label randomized controlled trial.
6. Does ultrasound guidance for peripherally inserted central catheter (PICC) insertion reduce the incidence of tip malposition? – A randomized trial.
7. Can point-of-care ultrasonography replace X-Ray for ascertaining the endotracheal tube tip position in neonates?
8. Ambulatory blood pressure monitoring in children with frequently relapsing nephrotic syndrome.
9. Role of FGF-23 in differential diagnosis of refractory rickets in children.
10. Prevalence of vitamin D insufficiency and efficacy of cholecalciferol supplementation in children with steroid resistant nephrotic syndrome.
11. Effect of cholecalciferol supplementation on FGF23 levels in vitamin D deficient children with CKD
12. Prevalence of haemostatic abnormalities in epileptic children on valproate monotherapy: a cross sectional study.
13. Prevalence of electrophysiologically defined peripheral neuropathy in children with chronic kidney disease stage IV and V: a cross sectional study.
14. Estimation of prevalence of sleep problems in Autistic children in comparison to typically developing children
15. Evaluation of multimodal treatment approach for extraocular retinoblastoma: a randomized control trial.
16. Hyperleukocytosis in childhood acute leukemia: Role of hydroxyurea in a randomized control trial.
17. Role of FeNO in identification of uncontrolled asthma in children between 5-15 years age group.
18. A study to compare the oscillometric non-invasive BP and invasive arterial BP measurements in critically ill children.

Collaborative projects

Ongoing

1. Vitamin D supplementation in patients with congenital ichthyosis. [Dermatology].
2. ICMR Young Diabetics registry. [Endocrinology and Metabolism].
3. ICMR Childhood Obesity Task Force. [INCLIN, India, Department of Endocrinology and Metabolism].
4. Clinical application of array-based Comparative Genomic Hybridization (array CGH) in the genetic evaluation of stillbirths DBT 2012-2014 – Approximately 85 Lacs. [Division of Genetics, Department of Pediatrics, MAMC, New Delhi]
5. Functional characterization and genetic basis of anti-complement factor H autoantibodies in hemolytic uremic syndrome. [National Institute of Immunology, New Delhi].
6. Anti-factor H autoantibody associated hemolytic uremic syndrome. [Laboratoire d'Immunologie, Hôpital, Europe en Georges Pompidou, INSERM UMRS 872, Paris, France].
7. Research on nephrotic syndrome. [University of Michigan, USA, University of Bristol, USA].
8. Randomized Controlled Trial of early vs late surgery in childhood intractable epilepsy patients in India. [Department of Neurology].
9. Evaluation of reflexology as an adjunctive therapy in children with spastic cerebral palsy. [Department of Biophysics].
10. To develop and characterize Duchenne Muscular Dystrophy disease specific induced pluripotent stem cells from adult cells. [Stem cell Facility].
11. Evaluation of reflexology as an adjunctive therapy in children with intractable epilepsy including West syndrome. [Department of biophysics].

12. Pharmacokinetic and pharmacodynamic interaction of ayurvedic medication with antiepileptic drugs: an experimental and clinical study. [Department of pharmacology].
13. Botulinum toxin versus single event multilevel surgery (SEMLS) in children with lower limb deformity in spastic cerebral palsy: a randomized comparative trial . [Orthopedics].
14. A study to find out the prevalence of depression in mothers of children with autism spectrum disorders.[College of Nursing].
15. To study the Quality of life in children with Cerebral palsy and their parents. [College of Nursing].
16. Evaluation of frequency of polymorphism affecting lead and mercury toxicity among children with cerebral palsy. [Department of Pharmacology].
17. Health related quality of life in children with epilepsy; child and parental perceptions, knowledge and attitudes. [College of Nursing].
18. Effects of newer antiepileptic drugs in comparison with conventional antiepileptics on the trace element status of epileptic subjects. [Department of Pharmacology].
19. NOTCH1 in childhood acute lymphoblastic leukemia: Mutation profile, Gene expression, role of leukemogenesis and correlation with clinical outcome. [Lab Oncology, Biostatistics].
20. Neuroimaging and cerebral metabolite changes in children undergoing treatment for acute lymphoblastic leukemia: a pilot study. [Radiodiagnosis, NMR].
21. Minimal residual disease in childhood T lineage Acute lymphoblastic leukemia. [Lab oncology].
22. Evaluation of the role of PET CT to predict response to chemotherapy in childhood Hodgkin lymphoma. [Radiodiagnosis, Nuclear medicine].
23. Development of taqman based real timer quantitative polymerase chain reaction assay for detection of pneumocystis carinii/ jervacci pneumonia. [Microbiology].
24. Immunological characterization of HIV 1 infection in children in India. [Biochemistry].
25. A study on alternate antimicrobial agents against typhoidal salmonellae. [Microbiology].
26. Immunopathogenesis of pediatric HIV 1 infection and generation of human monoclonal antibodies against the viral envelop. [Biochemistry].
27. Characterization of genetic diversity and neutralization antibody response in HIV-1 infected Indian Children. [Biochemistry].
28. Evolution of the HIV-1 clade C envelope in chronically infected Indian pediatric patients. [Biochemistry].
29. Immune network in the pathogenesis of pediatric HIV 1 infection. [Biochemistry].

Completed

1. Psychopathology and body shape concerns in overweight and obese children. [Department of Psychiatry].
2. Isolation and genetic chracterization of circulating cell free fetal DNA for non-invasive prenatal diagnosis of hemoglobinopathies and monitoring of pre-eclampsia Indo-Spain Collaborative study funding DST [Department of Chemical Engineering, Universitat Rovira i Virgili, Avinguda Països Catalans, 26, Tarragona 43007 – Spain].
3. Iodine Status of Pregnant Mothers, School Age Children and Neonatal Thyroid Stimulating hormone concentration in three regions of Himachal Pradesh, India. [Human Nutrition Unit].
4. Pathogenesis of idiopathic nephrotic syndrome of childhood: Th1/Th2 polarization of T cells in patients with idiopathic nephrotic syndrome and its relation to disease course. [National Institute of Immunology, New Delhi].
5. Ocular manifestations in children with HIV infection. [Ophthalmology].
6. A randomized controlled trial to compare the effectiveness of deep inhalation over tidal breathing during metered dose inhaler use in pediatric asthmatics. [College of Nursing].
7. A survey of Musculoskeletal and pulmonary function abnormalities after thoracotomy in pediatric patients. [Pediatric Surgery].
8. To study prevalence of uveitis in juvenile rheumatoid arthritis.[Ophthalmology RPC].
9. Pediatric Population: Expediting the diagnosis of intrathoracic tuberculosis and drug resistant tuberculosis.[Microbiology].

PUBLICATIONS

Journals: 131

Abstracts: 11

Chapters in books: 37

Books and monographs: 6

PATIENT CARE

Outpatient services

The department provides general OPD services daily. Over 1 lakh outpatient consultations took place in this year. There are 15 superspeciality clinics run by the department.

Name of Service	New Cases	Old Cases	Total Attendance
Paediatric General OPD	40969	51385	92354
Pediatric Neurology Clinic	637	1763	2400
Paediatric Myopathy Clinic	503	1238	1741
Pediatric Gastroenterology Hepatology and Nutrition	913	2194	3107
Paediatric Well Baby Clinic	518	101	619
Paediatric High Risk Neonatology Clinic	400	1601	2001
Pediatric Nephrology Clinic	1086	4595	5681
Paediatric Chest Clinic	516	6580	7096
Paediatric Tuberculosis Clinic	287	2650	2937
Paediatric Rheumatology Clinic	268	2140	2408
Paediatric Genetics and Birth Defects Clinic	3083	1379	4462
Paediatric Oncology Clinic	339	2648	2987
Pediatric Cancer Survivors' Clinic	233	2300	2533
Pediatric Endocrine and Metabolism Clinic	569	1594	2163
Paediatric Development Clinic	535	426	961
Neurocysticercosis clinic	387	1733	2120
Autism Clinic	94	320	414
Grand Total	51159	83386	134545

In addition, Cystic fibrosis and Paediatric HIV services were provided in Paediatric Chest Clinic.

Physiotherapy Services were provided to the patients in Neurology Clinic, Myopathy clinic Genetics clinics, High risk, Endo, Development clinic, paediatric Chest Clinic, Rheumatology clinic and OPD services. Total physiotherapy sessions provided during 2013-14 were approximately 9953.

Indoor services

- Indoor services include admission facilities in general wards, day care facility, neonatal units (NICUs A and B), Kangaroo Mother Care unit and Pediatric Intensive care facility.
- The department operationalized an 8-bedded high dependency unit in children ward to cater to child patients with life-support and other special needs. A special training program for the nurses of the HDU was held.
- Children requiring short procedures or interventions are admitted for a day in the Day Care Unit situated in the C5 ward.

Total indoor admissions

Long admissions in paediatric wards:	2038	Admission in daycare facility:	10195
Patients admitted in PICU:	176		

Laboratory services

Various laboratories of the department provide over 50 unique diagnostic tests - many of them for rare disorders not readily available in the country.

Central Laboratory

Gastroenterology, Hepatology and Nutrition

Endomysium Antibody [EMA]	1216	Tissue transglutaminase [tTg Elisa]	900
Tissue transglutaminase [Biocard]	404		

<u>Nephrology</u>			
Complement Factor H antigen	173	Anti complement Factor H antibody	498
<u>Micronutrient assay</u>			
Zinc Estimation	150		
<u>Immunodeficiency assay</u>			
Nitro Blue tetrazolium [NBT]	95		
Dietetics			
Total number of outdoor patients referred for Nutrition prescriptions			5945
New cases	4168	Old cases	1777
Undocumented outdoor patients	151		
Grand Total	6096		
Indoor detailed/specialized counseling for patients on specific Medical Nutrition Therapy (C5, D5, AB5, Private wards, consultations from Peripheries)			1962
<u>Endocrinology</u>			
HbA1c	275	Urine Micro albumin	74
Growth Hormone Elisa	505	17-OH Progesterone Elisa	45
<u>Gastroenterology</u>			
Upper gastrointestinal endoscopy	68	Colonoscopy	50
Liver biopsy	5	Anti-endomyseal antibody	1216
<u>Genetics</u>			
Patients managed by child ssychologist			
D.Q./I.Q. assessment	1012	Behavioural problems	270
Attention Deficit Hyperactivity Disorder	35	Autism	200
Pseudo seizures, Conversion reactions	95	Functional problems	370
Learning Disability	67	Ward Consultation	50
<u>Molecular Genetics Laboratory</u>			
<i>Routine tests</i>			
	Mutation/Linkage/Molecular analysis		Prenatal diagnosis
Beta Thalassemia	320 families		112 families
Spinal Muscular atrophy	125 cases		28 families
Albinism	12 cases		–
Duchene Muscular dystrophy	493 families		30 families
Hemophilia A	14 families		2 families
Hemophilia B	5 families		2 families
Cystic fibrosis	126 cases		4 families
Rett syndrome (MECP2)	10 cases		3 families
Fragile X screening	157 families		
Achondroplasia	19 cases		
Hypochondroplasia	6 cases		
Non-syndromic hearing loss (Connexin 26) screening	38 cases		
<i>Tests on research basis</i>			
Ectodermal dysplasia	2 families		
Lamellar Ichthyosis	3 families		1 family
Ichthyosis Vulgaris	4 families		

Glutaric acidemia type 1	8 families	
Methylmalonic acidemia (MMA)	3 families	
Biotinidase deficiency	4 families	
Screening for Intellectual disability	142 cases	3 families
Screening for small micro-deletion syndromes	115 cases	3 families
Megalencephalic leukoencephalopathy	11 cases	3 families
Gaucher syndrome	27 cases	4 families
Congenital adrenal hyperplasia (CAH)	22 families	3 families
Metachromatic leukodystrophy (MLD)	11 families	3 families
Common deletion (31 Kb in GALC gene) for Krabbe disease	2 families	

Biochemical laboratory

Triple Marker	1280	MSAFP alone	19
â hCG alone	03	E-3	0
Dual Marker test	320		
TLC for disorders of amino acid metabolism			
Urine	111	Plasma	2
Serum	1		
Disorder of Mucopolysaccharidosis (Urine Spot test)	34		
Homocystinuria test	53	Reducing substances in urine	174
DNPH	121	FeCl ₃	119
Urine porphyria	30	Oligosaccharides	38
Blood Ammonia	760		

Enzyme assays for Inborn of Metabolism

Total patients	529		
Single enzyme assays	281	Multiple enzyme assays	248
Arylsulfate A metachromatic-leukodystrophy	76		
β glucosidase Gaucher disease	55		
α-Iduronidase Hurler syndrome (MPSI)	36		
Iduronate Sulfate Hunter Syndrome (MPSII)	26		
Galactose-6- Morquio A sulphate sulphatase (MPS IVA)			16
β-galactosidase GM1 gangliosidosis and Morquio B (MPSIV B)			56
Arylsulfatase B Maroteaux- Lamy syndrome (MPS VI)			11
â-Glucuronidase MPS VII	13		
Hexosaminidase A Tay-Sachs	50		
GALT	48	Biotinidase assay	52
Plasma-Hexosaminidase A	2	Plasma – ASA	6
Chitotriosidase (Plasma)	66	â-Galacrocerebrosidase (Krabbes)	21
Palmiloyl-protein-thioesterase (INCL)	16	CVS (NIH)	6
CVS (ASA)	3	CVS (GM1)	1
CVS (MPS-IVA)	2	CVS (Hex-A)	3
CVS (KRB)	1		

Cytogenetics laboratory

Peripheral blood cultures	606	Cord blood cultures+KBT	34
Amniotic fluid cultures	358	Chorionic villi cultures	32
Prenatal diagnosis for ataxia telangiectasia	1 family	QF-PCR for aneuploidies	212

Neonatology

Admission: NICU-A & B 857

Lab Investigation: BERA Screen 304

Paediatrics Nephrology

Complement factor 'H'	121	Anti-CFH Antibody	351
Hemodialysis	1362		
Acute peritoneal dialysis (including automated)	145		
Continuous ambulatory peritoneal dialysis	32	Plasmapheresis sessions	529
Temporary hemodialysis catheter placement (internal jugular, femoral)			196
Renal biopsies	131	Renal transplantation	12
ELISA for antibodies to complement factor H351		ELISA for complement factor H	121

Oncology

Immunophenotype characterization and minimal residual disease estimation of acute lymphoblastic leukemia

Critical Care Lab – Hemogram (Coulter), Coagulation profile, WBC counter

Peripheral Smear, FNAC, Biopsy, Bone marrow (Aspiration, biopsy, touch), CSF examination, Pleural tap, Skin biopsy, Flowcytometry, Cytogenetics, Molecular studies for acute leukemias (ALL & AML), Urine VMA, Infection work up (various cultures, galactomanan, Procalcitonin, etc)

Many services are provided with the assistance of departments of lab oncology, radiodiagnosis, pathology(including cytopathology)

Day care facilities

Chemotherapy, procedures, blood component therapy, antimicrobial administration,

<u>Neurology</u>	<u>New cases</u>	<u>Old cases</u>	
Neurocysticercosis clinic	387	1733	
Development clinic	535	426	
Paediatric Neurology clinic	637	1763	
Neuromuscle clinic	143	1236	
Autism clinic	94	320	
Laboratory tests:			
EPS Lab: NCV	443	EMG	138
RNST	20		
EEG			
Routine EEG	2104	Ambulatory EEG	107
Video EEG	283		
Muscle biopsies	156	Skin biopsies	16
Nerve biopsies	6	Arterial lactate	319
CSF lactate	183	Forearm ischaemic test	8
Neostigmine challenge test	4		

Pulmonology and Intensive Care

Bronchoscopies	212	Sweat test	522
Spirometry	3251	Impulse oscilometry	986
Infant PFTs	300	NP aspirate viral isolation	321
Serum IgE estimation	360	Cytokine estimation	290
FENO	830		

Medical Social Services

Information & guidance given	3600	Counselling and Psychotherapy	1900
Issuing Railway concessions	1200		
Helping with accommodation	250		
Exemption of charges for various investigations	2700		
Mobilization of financial assistance for poor patients			700
Rehabilitation of unknown babies of unwed mothers			7
Supervision of social work trainees			4
Miscellaneous (e.g. arranging cremation, sending bodies to native places)			6

Others (social service etc)

Ms Anuja Agarwala

Interviews by electronic media for education & mass awareness

1. 'Taiyar va dibba-bandh bhojan yaani fast va junk food ka bachcho ke swastha par asar' Live interview by All India Radio (family welfare section) on 25th March 2013.
2. 'Health risks of Fast food' – phonic interview by AIR FM GOLD 106.4 FM, broadcasted in program Parikrama on 29th November 2013.
3. 'Dietician Speaks' interview by Dr Sripriya (Editor-in-chief & Group Head: Nutraceuticals, Bioquest solutions) for the Digest Series of Clinical Nutrition, Applied Dietetics and Career development 'The Nutritionist' published by BioQuest Solutions Pvt. Ltd., Nestle Nutrition Institute, Bangalore on 1st Feb 2014.
4. 'Bachcho ke swastha par vitamin ki awakshakta va asar' - Live chat with Dr Harish (Consultant at kalawati Saran Children's Hospital) at All India Radio (family welfare section) on 4th Feb 2014.
5. 'Importance of grains and seeds in our diet' - phonic interview by AIR FM GOLD 106.4 FM, broadcasted in program Parikrama on 6th Feb 2014.
6. 'Screening of the Sam children in the community' In: module developed for Capacity building Workshop for Nutrition Service Providers for management of children with Severe Acute Malnutrition (SAM): Developing Competency in technical and Managerial aspects published by Indian Institute of Public Health – Delhi, for workshops held from 5 – 9 August, 2013 and from October 28 – November 1, 2013.
7. Anuja Agarwala, 'Principles of management of a child with SAM – Dietetic protocol for Stabilization Phase' In: module developed for Capacity building Workshop for Nutrition Service Providers for management of children with Severe Acute Malnutrition (SAM): Developing Competency in technical and Managerial aspects published by Indian Institute of Public Health – Delhi for workshops held, 5–9 August 2013 and October 28– November 1, 2013.
8. MEDIA - ARTICLES PUBLISHED IN NEWSPAPERS
'Dietician Speaks' In: 'The Nutritionist – Digest series of Clinical Nutrition, Applied Dietetics and Career development'; published by BioQuest Solutions Pvt. Ltd., Bangalore; Vol-1 No.1; Jan – March 2014; Pg 15- 16.

Neonatology

1. Standard treatment Protocol books on management of sick newborns in small hospital with support from WHO-SEARO, 1st Ed, 2013, M/s. Papyri prints, New Delhi.
2. Developed three new Webinars on Sick Newborn Care & 14 video films on 'Neonatal procedures' for WHO-SEARO freely available on www.newbornwhocc.org
3. Assisted GOI in developing National Guidelines: i) Use of Antenatal corticosteroids in preterm Labour. ii) Operational guidelines injection vitamin K prophylaxis at birth (in facilities).
4. Developed standard treatment protocols for health professionals working at small hospitals in SEARO region for WHO, these are being used in SE Asia region.

Neurology

Learning resource material

1. Expert for the resource material of RBSK Child Health Screening and Early Intervention Services, National Rural Health Mission October 2013.

2. Patient education leaflets on Epilepsy: A Guide for parents in English & Hindi.
3. Patient education leaflets on febrile seizures: A Guide for parents in English & Hindi.
4. Patient education leaflets: All you need to know about Neurocysticercosis: A guide for parents in English & Hindi
5. Patient education leaflets: Dietary therapies in epilepsy: Brief version
6. Patient Guide: Dietary therapies in epilepsy: including various recipes
7. Patient education leaflets: All you need to know about Cerebral Palsy: A guide for parents in English & Hindi
8. Patient education leaflets: All you need to know about SMA: A guide for parents in English & Hindi
9. Patient education leaflets: All you need to know about DMD: A guide for parents in English & Hindi
10. Patient education leaflets: Autism: A guide for parents in English & Hindi
11. Conceptualised and developed: Typical Development of Infant and Child training module along with DVD containing slides and videos and two checklists of milestones and red flags and a Developmental assessment kit
12. Sapra S, Seth R, Gulati S. Prayas: A Book on Autism.
13. Patient education DVD with slides and videos on Autism
14. Seizure Diary (bilingual)
15. Headache diary (bilingual)
16. Seizure card (bilingual)

AWARD, HONOURS AND SIGNIFICANT EVENTS

Aparna C, Sankar J, Agarwal R. Evaluation of perfusion index in preterm neonates with patent ductus arteriosus. Dr S.S. Manchanda Award for research in Neonatology at PEDICON 2014.

Professor V.K. Paul was awarded the highest ICMR award, namely, the Dr B. R. Ambedkar Centenary Award for Excellence in Biomedical Research; Chairman, Standing Selection Committee of the All India Institute of Medical Sciences, Raipur; the Technical Resource Group on Child Health, MoHFW, Committee on Child Health Strategy, Govt. of Punjab; ICMR Project Review Committee on preterm birth research; and Selection Committee for CDSA, THSTI (DBT), the DSMB of the DBT-WHO study on Severe Acute Malnutrition (India) and the WHO-BMGF study on emollients in neonatal health (India); the Ethics Committee, Futures Group. Co-Chair, Neonatal Service Action Group, MoHFW; Member of: the Institute Body and Chairman, Standing Selection Committee of the All India Institute of Medical Sciences, Raipur; the Board of Management, Baba Farid University of Health Sciences, Faridkot (Punjab); Academic Committee, Pondicherry University, Puducherry: Specialty Advisory Board (SAB) for Public Health, NBE; WHO Technical Advisor at headquarters in Geneva for global initiatives on: i. Preterm care guidelines, ii. Serious infections in young infants, iii. LiST Module of the One Health tool; Member, Scientific Advisory Group, Harvard-WHO BetterBirth program study; the Indo-US Joint Working Group on research on maternal and child health (GoI-ICMR/NIH); the International Data Safety Monitoring Board, Neonatal vitamin A study in Africa and Asia; and the Editorial Board, BioMed Central, Maternal Health, Neonatology and Perinatology; Member, Steering Committee, Global Every Newborn Action Plan; Expert at the Regional Consultative meeting on Global Every Newborn Action Plan, Kathmandu, Nepal; Member of: the Committee on Codex of WCD, the Task Force on Health, Punjab Governance Reforms Commission, Govt of Punjab; the Central Supervisory Board (PC&PNDT Act, MoHFW; the New Drug Advisory Committee (NDAC) on vaccines, CDSCO, DCGI; the National Technical Advisory Group on Immunization (NTAGI), MoHFW; the Technical Advisory Group, DBT- Gates Foundation Grand Challenges Initiative, Ministry of Science and Technology; Member of: the High Powered Committee on Independent Evaluation of Performance of ICMR; the ICMR Steering Committee of the ICMR Pneumonia etiology study; the DBT Expert Group on Developmental and Disease Biology; the DBT Committee on women and health, hygiene nutrition programs; and the ICMR Technical Advisory Group on Surveillance of Neonatal Infection. Partner, Inter-institutional Research Program on Preterm Birth (DBT); Visiting Faculty, Public Health Foundation of India (PHFI); Appeared on multiple shows on health on Lok Sabha TV, DD National, DD News and NDTV

Professor A.K. Deorari was Guest of Honor during Srilankan College of Physicians Annual Conference at Colombo on 4th August 2013 and lead the procession for Fellows of Srilankan College of Physicians; Delivered Keynote Address on the theme 'Innovative technology in nursing education' for the Annual Conference of IANN of Indian Association of Neonatal Nurses (IANN), Ambala, Haryana, on 9th February 2014; Member Technical Advisory

Group, Bill & Melinda Gates Foundation for clinical trials at Texas Children's Hospital, Houston, 2014-16; National ROP task force under the Ministry of Health & Family Welfare 2014-2018; Member Technical Advisory Group Queen Elizabeth Diamond Jubilee Trust (QEDJT, UK) for ROP.

Professor A. Bagga was President, XII Asian Congress of Pediatric Nephrology, to be held in New Delhi on 4-6 December 2014; Chair, Scientific Committee of XVII Congress of the International Pediatric Nephrology Association being held at Iguazu, Brazil 2016; Managing Editor of Indian Pediatrics; Member, Editorial Board of Indian Journal of Pediatrics, Current Pediatrics, World J Pediatrics, Pediatric Research; Member, Pediatric Review Group, Indian Council of Medical Research; Organizing Secretary, XII Asian Congress of Pediatric Nephrology, to be held in New Delhi on 4-6 December 2014; Chairperson, Indian Society of Pediatric Nephrology

Professor Madhulika Kabra was appointed as Co-Chairperson for the RBSK Birth Defects committee; Organized 8th Asia Pacific Regional Meeting of the International society of Neonatal Screening from 27th-29th September 2013

Professor Pankaj Hari was Organizing Secretary, XII Asian Congress of Pediatric Nephrology, to be held in New Delhi on 4-6 December 2014; Chairperson, Indian Society of Pediatric Nephrology.

Professor Sheffali Gulati was Selected for Sheila Wallace Award in June 2013 by International Child Neurology Association; Member of National Expert Group of Autism of National trust; Core member, Independent Expert of Technical Resource Group (TRG), Developmental delays including Disabilities of the Rashtriya Bal Swasthya Karyakram. Ministry of Health and Family Welfare; Member of Staff Council, AIIMS; Technical Expert for Faculty Recruitment, Bhubaneswar AIIMS; Subject expert group committee for National Formulary of India, 5th edition; Member of Committee for Strengthening of Emergency services at AIIMS; Member of Expert Group of Non-Polio AFP ICMR; MD and DCH Practical Examiner of Gujarat University 12th October 2013 and theory DCH Feb 2014; PhD examiner for JNU; MD and DM thesis evaluation: Delhi University, JNU; Took active part in development of Website for National Trust on Autism; Took active part in implementation of Rashtriya Bal Swasthya Karyakram as an Expert for Group of developmental delay and disabilities; expert for the resource material of RBSK Child Health Screening and Early Intervention Services, National Rural Health Mission October 2013; collaborating with INCLEN in development of DEIC and supervising training of personnel in Palwal

Dr Vandana Jain was AIIMS representative and Chairperson of the NOC committee of Central Adoption Resource Agency (CARA), an autonomous body under the Ministry of Women & Child Development, Government of India; The Undergraduate team of AIIMS won 1st place in Delhi Zone in the National Quiz organized by Indian Academy of Pediatrics ; First place in poster presentation at 3rd Biennial Meeting of Indian Society for Pediatric and Adolescent Endocrinology, Nov 2013, Bengaluru; First place in oral presentation at 9th Annual Conference of All India Association for Advancing Research in Obesity (AIAAROCON), Kolkata, Dec 2013; Media release and appreciation for oral presentation 'NAFLD in Indian Overweight Adolescents' at Kuala Lumpur at the prestigious International Congress on Obesity; Member, Editorial Board for Pediatric Endocrinology for the international journal Frontiers in Endocrinology and Pediatrics (Swiss, Gold open-access academic publisher)

Dr Rachna Seth was Nominated advisor at the Indian Cancer Congress Nov 21-24, 2013; Organized the workshop on psychosocial issues in childhood cancer, 2013 as part of preconference workshop (IAP) PHOCON, an annual event; Role of Hydroxyurea in management of Hyperleukocytosis in childhood acute leukemia: a randomized control trial

Award prize of Rs 10000 by Indian Society of Medical & Pediatric Oncology at free paper award session at Indian Cancer Congress: ISMPO ICC Free Paper award

Dr Rakesh Lodha was Associate Editor of Indian Pediatrics, the official journal of the Indian Academy of Pediatrics; Section Editor, Indian Journal of Pediatrics; Member of the Technical Resource Group on Pediatric HIV Care of National AIDS Control Organization- NACO (Govt of India); Chairperson, Ethics Committee, Translational Health Sciences and Technology Institute (Department of Biotechnology, Govt. of India).

Ms Anuja Agarwal was re-elected for 2012-2015: Member of Scientific Panel on 'Functional Foods, Nutraceuticals, Dietetic products and other similar products' by Food Safety and Standards Authority of India, Statutory regulatory Authority set up under the Food Safety and Standard Act, 2006 (Ministry of Health and Family Welfare); Doctoral Committee Member of Ph.D students Ms. Tanu Bathla, Ph.D student in the Department of Psychiatry (July 2010 – June 2015) Ph.D thesis titled 'Neurocognitive and psychosocial Aspects of childhood obesity'; Member of Project

scrutiny Committee and Consultancy Evaluation Committee of Food Safety and Standard Authority of India (FSSAI); 9 Feb 2011–15 Jan 2015: Member of the Panel constituted under Specialized Products Sectional Committee, FAD 24/ Panel IV of FSSAI to study the suitability of adoption of the following documents as Indian standards and provide it's 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'

Dr Savita Sapra was appointed as National trainer for RBSK

VISITING SCIENTISTS

Five WHO fellows visited the Neonatology division while there was one visitor to the Genetics division.

9.28 Paediatric Surgery

Professor and Head

V. Bhatnagar

Professor

D.K. Gupta (On Lien as Vice Chancellor at KGMU, Lucknow)

Professors

M. Bajpai

S. Agarwala

M. Srinivas

Assistant Professor

Shilpa Sharma (Trauma Center)

HIGHLIGHTS

The department offers State-of-the-art patient care, not only in general paediatric surgery, but also in the field of neonatal surgery, urology including intersex disorders, thoracic surgery, oncology, gastrointestinal surgery and neurosurgery in children up to 14 years of age.

The department faculty is also actively involved in various intramural and extramural research projects pertaining to congenital malformations and cancer in the field of molecular biology and the stem cell research. The department being on the forefront in patient care, research, teaching and training, receives a large number of requests from India and overseas to visit the department and seek training in paediatric surgery and its sub-specialties.

The department faculty has been regularly receiving national and international recognitions, awards, honors and medals for their academic excellence and scientific contributions most notably of these has recently been Professor D.K. Gupta being elected as the President of the World Federation of Association of Pediatric Surgeons representing 134 countries for three years (2014-2016). This is a unique and rare honour for AIIMS, India and Asia.

EDUCATION

The department has 14 MCh candidates (Five 3 year and Nine 6 year) undergoing training. Students of MSc (2) and BSc (8) nursing are routinely posted in the department and take part in patient care. The faculty also takes their lectures and classes as per a fixed schedule. Department also provides training to DM (neonatology), MCh (Neurosurgery) and MS (Surgery) candidates who are posted on rotation. Lectures and seminars are held for undergraduate students on topics related to paediatric surgery.

Short term training was imparted to 3 trainees from Indira Gandhi Institute of Child Health, Bangalore.

CME/Workshops/Symposium/National/International Conferences

1. International workshop cum Symposium on Pediatric Urology and Annual Conference of Delhi Chapter of IAPS and Pediatric Urology Chapter of IAPS 29-31 August, 2013
2. Public Lecture: Public Awareness Program on Hernia in Children, 7th September 2013 AIIMS, New Delhi
3. Organized a Pediatric Surgery Awareness Campaign from 5th to 11th September, 2013 educating the masses about surgery in children

Lectures delivered

D.K. Gupta (as VC, KGMU; on lien from AIIMS): 10

V. Bhatnagar: 6

S. Agarwala: 8

M. Srinivas: 2

Shilpa Sharma: 12

Oral papers/posters presented: 63

RESEARCH

Funded projects

Ongoing

1. GDNF and GFR – A 1 in children with Hirschsprung's disease. Srinivas M. AIIMS Institute Research Grant. 1 year, 2013–2014. Rs. 500,000

Departmental projects (including thesis/dissertations)

Ongoing

1. Evaluation of gastro esophageal reflux disease in children after surgery for esophageal atresia using multi channel impedance pH metry
2. Evaluation of intralesional sodium tetra decyl sulphate (STS) injection sclerotherapy in vascular malformations.
3. Long term functional outcome and quality of life in operated cases of Hirschprung's disease
4. Prospective study of treatment of children with hepatoblastoma on treatment with Monotherapy and PLADO regime.
5. Prospective study on five drug regimen for the management of clear cell sarcoma of the kidney
6. Randomized controlled trial comparing DJ stent and trans-anastomotic feeding tube plus a nephrostomy following pyeloplasty in children
7. Results with the use of platinum based regimes in the treatment of pediatric malignant germ cell tumors.
8. To estimate the levels of NRG1 in peripheral blood leukocytes and aganglionic segment in cases of Hirschprung's disease
9. To study the clinical profile of patients during the first year after undergoing surgery for esophageal atresia-tracheoesophageal fistula
10. To study the clinical profile of patients during the first year after undergoing surgery for Esophageal atresia-tracheoesophageal fistula

Completed

1. Effect of associated anomalies on outcomes in esophageal atresia.
2. Long term follow up of patients operated for primary vesicoureteric reflux
3. Long term functional outcomes and Quality of life in patients of anorectal malformations

Collaborative projects

Ongoing

1. A comparative correlation of serological markers of autoimmune inflammation with the immunohistochemistry of the liver in biliary atresia (Pathology, Biochemistry)
2. Analysis of bile in various hepatobiliary disease states: A Pilot Study (Laboratory Medicine, Gastroenterology).
3. Biological implications of exploring epigenomics in Wilms tumor [Hematology IRCH]
4. Comparison of Caudal epidural block with single shot paravertebral block for renal surgeries in Pediatric patients [Anesthesiology]
5. Defining role of T-regulatory cells and cytokines in tumor micro-environment in wilms tumor [Biochemistry, Pathology]
6. Detection of beta catenin gene mutations in hepatoblastoma [Pathology, Hematology IRCH]
7. Effect of clonidine as an adjuvant to Ropivacine in ultrasound guided transverses abdominis plane (TAP) block in children – A randomized controlled trial [Anaesthesiology]
8. Evaluation of cardiotoxicity related to administration of adriamycin in children with solid tumors [Nuclear Medicine]
9. Evaluation of role of DNA Ploidy in predicting prognosis in hépatoblastoma patients (Pathology).
10. Gene deletions and mutations in Wilms tumor: Correlation with histopathology and Outcome [Pathology].
11. Genomic and proteomic analysis of SCF/C-Kit gene in a pediatric neoplasm, Neuroblastoma [Pathology, Biochemistry]
12. Outcome of treatment with ICE (Ifosphamide, carboplatin and etoposide) salvage regime in children with relapsed/ recurrent solid tumors [Medical Oncology, Radiotherapy and Radiology]
13. Primary definitive procedure versus conventional three-staged procedure for management of low anorectal malformations in females : A randomized controlled trial (Biostatistics).
14. Prospective study of treatment of children with rhabdomyosarcoma on treatment with IRS-5 regimen [Medical Oncology, Radiotherapy and Radiology]

15. Prospective study of treatment of children with Wilms' tumor on treatment with modified NWTS-5 regimen [Medical Oncology, Radiotherapy and Radiology]
16. Randomized controlled trial comparing long term DJ stent and short term external ureteric trans-anastamotic stent and a nephrostomy in children undergoing pyeloplasty for pelviureteric junction obstruction (PUJO) (Radiodiagnosis, Nuclear Medicine).
17. Renal reserve in different grades of vesicoureteric reflux (Nuclear Medicine).
18. Role of 68GA labelled Octreotide whole body positron emission tomography-computed tomography (PET-CT) in initial staging and restaging of paraganglionoma and comparison with 131I MIBG SPECT CT [Dept Nuclear Medicine, Endocrinology, Surgery]
19. Role of Bone marrow mononuclear cells and Renal Stem cells in renal preservation in Obstructive Renopathy – An Experimental study in mice. [Stem Cell Facility, Pathology, Microbiology, Transplant Immunology].
20. Role of ICE therapy in the treatment of recurrent wilms tumors [Medical Oncology, Radiotherapy and Radiology]
21. Role of MIBG therapy for advanced non-responsive and recurrent neuroblastoma [Nuclear Medicine]
22. Safety and feasibility of transecting hollow viscus using energy sources in rats [Anatomy]
23. Study of prognostic factors in thoracic PNET [Medical Oncology, Radiology, Radiotherapy]
24. Study of prognostic factors in pelvic PNET [Medical Oncology, Radiology, Radiotherapy]
25. To correlate hepatic duplex sonography in patients of biliary atresia with portal pressure, serum nitric oxide levels and liver histopathology (Radiodiagnosis, Biochemistry, Pathology).
26. 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).
27. 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).
28. 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).
29. To study hyperglycaemic response in neonates after surgery with and without infiltration of local anaesthesia (Endocrinology, Anesthesiology).

Completed

1. A prospective randomized controlled trial to study the success rate of first attempt venipuncture using vein illuminating device [College of Nursing]
2. A study to assess the effectiveness of video assisted teaching program on knowledge and practices of caregivers of children having colostomy in pediatric surgery department [College of Nursing]
3. A study to assess the level of maternal stress and cytokines in breast milk of mothers with babies and mothers whose babies are separated [College of Nursing]
4. A survey of musculoskeletal & pulmonary function abnormalities after thoracotomy in pediatric patients (Radiodiagnosis, Orthopedics, Pediatrics).
5. Assessment of fine needle aspiration cytology for molecular genetic analysis in neuroblastoma [Pathology and Anatomy]
6. Changes in enteric nervous system and interstitial cells of Cajal in distal loop of colon after diversion colostomy [Anatomy]
7. Comparison of three different dextrose containing intra-operative fluid regimens on glucose homeostasis and electrolyte balance in neonates [Anesthesiology]
8. Evaluation of growth & nutritional status with particular reference to vitamin D & trace elements in patients of biliary atresia (Pediatrics, Endocrinology, Pathology).
9. Expression of angiogenic phenotypes (VEGF and Microvessels Density) in Ewing Sarcoma Family of Tumor in Children [Pathology, Medical Oncology, Radiology IRCH]
10. GDNF and GFR alpha 1 in children with Hirschsprung's disease. [Anatomy]
11. Histological evaluation of rat testis following neonatal phototherapy using conventional method and Biliblanket [Anatomy]

12. Long term functional outcome and quality of life in patients of anorectal malformation (Radiodiagnosis).
13. Outcome after various orchidopexy techniques and its effect on testicular histology and antisperm antibody [Anatomy]
14. Presentation and Outcome of Ewing sarcoma family of tumors. CD33, MVD, Angiogenesis [Pathology, Radiology IRCH, Medical Oncology]
15. Study of human Cytomegalovirus DNA in liver tissue of patients with extrahepatic biliary cholestasis (Microbiology, Pathology).
16. To study the changes in liver histology after surgery for choledochal cyst (Radiodiagnosis, Pathology).
17. Umbilical Cord blood stem cells for Bulbar Motor Neuron Disease- Single Case Trial [Stem cell facility, Transplant Immunology, Neurology, Neuroanaesthesia, General Surgery].

PUBLICATIONS

Journals: 25

Abstracts: 8

Chapters in books: 32

Books and monographs: 1

PATIENT CARE

Attendance in OPD and Speciality Clinics

	New cases	Old cases	Total
General OPD	6428	12345	18773
Hydrocephalus clinic	18	136	154
Craniosynostosis clinic	-	-	-
Pediatric Urology clinic	427	3080	3517
Inter sex clinic	0	4	4
Pediatric solid tumor clinic (IRCH)	148	1641	1789
CRHSP Ballabgarh OPD	1628		

Admissions

AB5 Ward 1638

AB5 ICU 186

Surgical procedures

Major Procedures	1494	Minor procedures in OPD	606
Biopsies	101	CRHSP Ballabgarh	268

Special investigations

Urodynamic evaluation/Cystometry	378	Uroflowmetry	623
Oesophageal manometry	2	Anorectal manometry	117

AWARDS, HONORS AND SIGNIFICANT EVENTS

The following papers of the department were awarded

1. Best GI Surgery Poster award 2013. Total midgut duplication : a clicking time bomb. V.Khanna, M.Srinivas, V.Bhatnagar, H.D.Singh, M.Jana. 39th Annual Conference of Indian Association of Pediatric Surgeons, Bhubaneswar, 8 November, 2013.
2. Best Head-Neck-Thorax Paper award 2013. Surgical correction of pectus excavatum by use of a rib graft strut following excision of costal cartilages. V.Bhatnagar, N.Sharma, M.Jana. 39th Annual Conference of Indian Association of Pediatric Surgeons, Bhubaneswar, 10 November, 2013.
3. Best Hepatobiliary Paper award 2013. The liver in choledochal cyst – histological changes and response to surgery : the overlooked aspect ? N.Sugandhi, S.Agarwala, V.Bhatnagar, M.K.Singh, R.Sharma. 39th Annual Conference of Indian Association of Pediatric Surgeons, Bhubaneswar, 8 November, 2013.
4. Dr.K.K.Sharma Memorial award 2013. Correlation between functional outcomes in operated patients of anorectal malformations and postoperative pelvic MRI. V.Shankar Raman, S. Agarwala, V.Bhatnagar, A.K.Gupta. 39th Annual Conference of Indian Association of Pediatric Surgeons, Bhubaneswar, 8 November, 2013.
5. Malignant Histiocytosis in a child presenting as a clinicopathological dichotomy: Six year survivor. 39th Annual

conference of the Indian Association of Pediatric Surgeons, 6th to 9th October, 2013, Bhubaneswar, Orissa, India.

6. Pune Gastroenterology award. Nitric oxide in portal hypertension: its utility in management of extra-hepatic portal venous obstruction, diagnostic differentiation of neonatal hepatitis vs extra-hepatic biliary atresia and prediction of liver damage in neonatal cholestasis: a composite study. P.Goel, V.Bhatnagar, N.Das, M.K.Singh. 59th Annual Conference of International College of Surgeons: Indian Section, ICSISCON-2013, Lucknow, November 08-10, 2013.
7. U.C.Chakravarty award 2013. Correlation of intracystic pressure with cyst volume, length of common channel, biochemical changes in bile and histopathological changes in the liver in choledochal cyst. N.Sharma, M.Srinivas, S.Agarwala, V.Bhatnagar, M.K.Singh, R.Sharma. 39th Annual Conference of Indian Association of Pediatric Surgeons, Bhubaneswar, 9 November, 2013.

Professor D.K. Gupta was Vice Chancellor (on Lien from AIIMS), King George's Medical University (KGMU), Lucknow (UP) from April 11, 2011 to April 10, 2014; Nominated by the UP Govt. as the Honorary Professor, Center for Molecular Biological Research (CBMR), SGPGI campus, Lucknow; Appointed by the Govt. of UP, as Director with the additional charge, to the two major Superspecialty Hospitals – in Noida and Greater NOIDA (Govt. of UP); Honorary Secretary cum Treasurer, of the International Society for Hypospadias and Intersex Disorders for four years, 2013-17; Received WHO and UNICEF Award (best among 7 nations) for the KGMU team for developing healthy practices and establishing the Biomedical Waste Management Facility in the University, 2013; Invited to Children Hospital, University of Vienna, Austria to conduct Live Operative Workshop on Feminizing Genitoplasty, October 2013; Organized the Vice Chancellor's Conclave of all the Vice Chancellors and Directors of Medical Universities/ various Institutions in India to prepare the Consensus Document on Reforms in Medical education, September 2013; Member: Medical Council of India, Unanimously Elected By University Executive Council, 2013; Governing Council, Biotechnology Park, Lucknow; CBMR Advisory Council, SGPGI Campus, Lucknow; Governing Body, Dr RML Research Institute, Lucknow; Governing Body, Hindi Sansthan, Lucknow.

Professor V. Bhatnagar was Member Board of Studies for the newly created Department of Pediatric Surgery, Sanjay Gandhi Post-Graduate Institute of Medical Sciences, Lucknow since February 2011; Governing Council Member, Chacha Nehru Bal Chikitsalaya, New Delhi since 2012; Selection Committee Member for Pediatric Surgery, Pt BD Sharma University, Rohtak, 2013 and Sanjay Gandhi Post-Graduate Institute of Medical Sciences, Lucknow 2013.

Professor S. Agarwala was Awarded Honorary Fellowship of the Royal College of Physicians and Surgeons, Glasgow, UK; Nominated as Executive Board Member for the Asian Association of Pediatric Surgeons; Nominated as Executive Board Member of the International Society of pediatric Surgical Oncology (IPSO); Section Editor for the Indian Journal of Pediatrics; Vice Chairman of the Resource Challenged Nations study group of SIOPEL; Course Instructor for Masterclass in Pediatric Surgical Oncology, Conducted by International Society of Pediatric Surgical Oncology (IPSO), and the European Board of Examination, and European society of pediatric Surgery.

Dr Shilpa Sharma has been nominated as Executive Council member of the International Society of Hypospadias and DSD 2013-2015; Secretary, Delhi State Chapter, IAPS, 2011-2014; Secretary, Research Section, IAPS since 2011-2013 and 2013-2015; Received WOFAPS scholarship by the World Federation of Association of Pediatric Surgeons

VISITING SCIENTIST

The department has active international exchange programmes with the faculty and fellows from US, UK, Italy, Japan, Germany, Romania, UAE, Egypt, Pakistan, Afghanistan, Bangladesh, Nepal and other countries.

9.29 Pathology

Professor & Head

Subrat K. Panda

Professors

Chitra Sarkar
Rajni Safaya
A.K. Dinda

Manoj K. Singh
Ruma Ray
M.C. Sharma

S. Datta Gupta
A.K. Karak
Venkateswaran K. Iyer

Additional Professors

Sandeep R. Mathur

Vaishali Suri

Assistant Professors

Sudheer Arava
Deepali Jain

Geetika Singh

Asit Ranjan Mridha
Prasenjit Das

Group A Officers

Bharat Bhushan Khurana

Himender Singh Tomar

HIGHLIGHTS

Several facilities were introduced such as Next-Gen sequencing based transcriptomics, Digital PCR based mutation detection system, Virtual microscopy. In research we have faculty members working on Virtual Education and skill development, Molecular Virology of Hepatitis, Intestinal inflammatory diseases, Nano technology, Lung cancers, Lymphomas, Gliomas and their molecular characterization and metabolic syndromes. Four new faculty members joined the Department and upgradation of surgical pathology, cytopathology and teaching methodology was initiated.

EDUCATION

MD students: 19

Senior Residents: 17

PhD students: 12

15 Trainees from various organization underwent short term & long term training.

CME/Workshops/Symposia/National and International Conferences organized by the department

1. Annual Conference of Indian Society of Renal and Transplantation Pathology & International CME in Renal Pathology, 12–14 September 2013 (Dr A K Dinda)

Lectures delivered

S.K. Panda: 2

Manoj K. Singh: 4

S. Datta Gupta: 8

A.K. Dinda: 12

Geetika Singh: 1

Deepali Jain: 3

Prasenjit Das: 2

Oral papers/posters presented

S. Datta Gupta: 14

Geetika Singh: 4

Asit Ranjan Mridha: 3

Deepali Jain: 12

Prasenjit Das: 8

RESEARCH

Funded projects

Ongoing

1. Hepatitis E virus (HEV) superinfection on chronic hepatitis B associated liver disease: Patho-biological study, S.K. Panda, DST, 3 years, 2011-14, Rs 87,84,921
2. Analysis of the intergenic cis acting elements in Hepatitis E virus responsible for the formation of sub-genomic RNA, S.K. Panda, DBT, 3 years, 2012-15, Rs 78,84,926
3. Development of an in vitro System to Study the Pathophysiology of Non-alcoholic Fatty Liver Disease (NAFLD) and Non-alcoholic Steatohepatitis (NASH), S.K. Panda, ICMR, 3 years, 2012-15, Rs 48,33,840
4. Cell Sheet Engineering for assembling Human Corneal Construct, A.K. Dinda, IIT, Delhi, 5 years, 2011-15, Rs 1,00,00,000

5. Development of Cost Effective Nanoparticle based Drug Delivery System of Amphotericin B for treatment against Visceral Leishmaniasis, A.K. Dinda, DBT, 4 years, 2012-15, Rs 89,00,000
6. A study of miRNA de-regulation and IL-10 expression as prognostic marker in breast cancer, A.K. Dinda, CSIR, 4 years, 2012-15, Rs 25,00,000
7. Human pharmacology and toxicology profiling of INMAS biomedical products, A.K. Dinda, DRDO, 4 years, 2012-15, Rs 19,00,000
8. Nanoparticle based siRNA delivery for in vivo silencing of oxidized-LDL receptor (LOX-1) on monocyte/macrophage cells by specific siRNA and its impact on the plasma level of proinflammatory cytokines—a study in animal model, A.K. Dinda, DBT, 4 years, 2013-16, Rs 35,66,136
9. Development of novel nanoparticle based hepatitis B (HBV) vaccine with enhanced antigen presentation and prolonged immunity, A.K. Dinda, DBT, 4 years, 2013-16, Rs 91,36,000
10. Expression of matrix metalloproteinase-2, matrix metalloproteinase-9, tissue inhibitor metalloproteinase-1, tissue inhibitor metalloproteinase-2, collagen I and IV expression in thoracic aortic aneurysms, Sudheer Kumar A, AIIMS, 2 years, 2013-15, Rs 10,00,000
11. Association of BK Polyoma virus and Urothelial carcinoma: A study in the Indian population, Geetika Singh, AIIMS, 2 years, 2012-14, Rs 4,98,000
12. Immunohistochemical analysis of CXCR4, SDF-1, CXCR7 expression, its correlation with p53 mutation and Ki67 Labeling Index (LI) in Ewing sarcoma and its prognostic implication, Asit Ranjan Mridha, AIIMS, 1 year, 2013, Rs 5,00,000
13. EGFR mutation analysis in non small cell lung cancer using immunohistochemistry and in-situ hybridization techniques, Deepali Jain, AIIMS, 2 years, 2012-14, Rs 10,00,000
14. Hepatic Cytokine expression, hepatocyte proliferation, progenitor cell activation in chronic Hepatitis, Siddharth Datta Gupta, Intramural Funds of AIIMS
15. Study of hepatic Regeneration in Acute Liver Failure, funded by CSIR (Pool Officer Project).

Completed

1. Non structural polyprotein (pORF1) processing of Hepatitis E virus (HEV), S.K. Panda, DBT, 5 years, 2008–13, Rs 66,39,000
2. 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, ICMR, 3 years, 2011-13, Rs 30,00,000

Departmental projects

Ongoing

1. Study of endocytosis and fate of calcium phosphate based and gold nanoparticle
2. Nanoparticle mediated antigen presentation and modulation of antigen processing by macrophage
3. Study of radioenhancing capability of gold nanoparticle
4. Pathological evaluation of dilated cardiomyopathy with special reference to histological and morphometric analysis of fibrosis, capillary density, arteriolar density and pattern of collagen IV distribution—a study on endomyocardial biopsies and explanted native hearts
5. The virtual medical skills in teaching medicine and science (funded by CDAC, NOIDA).
6. Immunohistochemical expression of jak-p, stat-3 and bcl-2 in oral squamous cell carcinoma with and without lymph node metastasis and verrucous carcinoma
7. Immunohistochemical study of e-Cadherin, β -catenin and vimentin in oral squamous cell carcinoma, verrucous carcinoma in comparison with that of a metastatic squamous cell carcinoma in a cervical lymph node
8. A clinico morphological study of cutaneous tuberculosis with special emphasis on immunohistochemistry.
9. Histopathological evaluation of aortic aneurysms in patients with bicuspid aortic valve
10. Characteristics of thrombus aspirated in patients undergoing primary PCI for acute myocardial infarction and its prognostic significance
11. Spectrum of cardiovascular and pulmonary histology in sudden cardiac death: An autopsy study

12. Study on Metformin in Bleomycin-induced Pulmonary Toxicity in rats
13. Oral carcinoma: marker to predict course and Prognosis
14. Evaluation of short term treatment outcomes after systemic therapy versus cryosurgery in management of oral leukoplakia: A Randomized Clinical trial
15. Assessment of histopathological features of maculopapular viral Exanthema and drug induced exanthem

Completed

1. Development of metal nanoparticle for cancer targeting

Collaborative projects

Ongoing

1. Effect of blocking of HIF1 α gene expression on macrophage endocytosis and generation of ROS (with JNU, Delhi)
2. To study the efficacy of nanoformulation of antiepileptic drugs in various animal models of seizure (with Pharmacology)
3. Role of Bone marrow mononuclear cells and Renal stem cells in renal preservation in Obstructive Renopathy – An experimental study in mice (with Pediatric Surgery, Trauma centre)
4. Prediction of tumor neo-angiogenesis and grade by imaging based biomarkers using diffusion weighted MRI and dual energy perfusion CT in advanced renal cell carcinoma (with Radiology and ICMR)
5. Effect of Indian almond and sweet almond in Diabetes induced nephropathy and cataract in rats (with Pharmacology, VP Chest Institute, Ministry of Health and Family welfare, AYUSH)
6. Concurrent versus sequential neoadjuvant chemoradiotherapy followed by surgery in patients with locally advanced, resectable carcinoma gallbladder: A pilot study (GI Surgery, Medical Oncology, Radiation Oncology, Pathology)
7. Identification of unique morphologically identifiable preneoplastic lesions in colon mucosa during colorectal carcinogenesis (Pathology, GI Surgery, Surgery)
8. Detection of altered protein expression in microscopic preneoplastic mucosal lesions of the colon (Pathology, GI Surgery, Surgery)
9. Validation of low cost methods for detection of KRAS mutations in colorectal cancer (Pathology)
10. A study on the role of miRNAs modulating signal transduction in pancreatic Cancer (Gastroenterology & HNU, Biochemistry, Pathology)
11. Association of various genotypes of M Tuberculosis with clinical, pathological manifestation and disease outcome of Post- Primary Tuberculosis (Laboratory Medicine, Medicine, Pathology and LRS Institute of TB & Respiratory Diseases)
12. Biomarker for assessment of villous abnormalities in patients with celiac disease and other enteropathies (Gastroenterology & HNU, Pathology)
13. Understanding the pathophysiology of endometriosis by protein profiling and correlation with stress (Physiology, Obstetrics & Gynecology, Reproductive Biology, Biostatistics, Pathology)
14. Exploration of origins of Juvenile Nasal Angiofibroma (JNA) by histological evaluation of fetal development of “Pterygo-palatine fossa-Pterygoid canal complex” and assessment of first branchial arch remnant vidian artery in cases with JNA (ENT, Anatomy Radiodiagnosis, Pathology, Obstetrics & Gynecology)
15. The ratio of preoperative and postoperative serum bilirubin and alkaline phosphatase as simple markers to predict early outcome Post-Kasai portoenterostomy (Pediatric Surgery, Pathology)
16. Study of Clinical and Histopathological Features of Acute on Chronic Hepatitis (Gastroenterology & HNU, Pathology)
17. Comparison of Histological and Fibroscan scoring of liver fibrosis (Gastroenterology & HNU, Pathology)
18. Histopathology of Non-cirrhotic Portal Fibrosis (NCPF) and Extrahepatic Portal Venous Obstruction (EHPVO) (Pathology, Gastroenterology & HNU, GI Surgery)
19. Histopathology of Celiac disease in symptomatic and asymptomatic cases and family members (Gastroenterology & HNU and Pathology)

PUBLICATIONS

Journals: 77

Abstracts: 14

AWARDS, HONOURS AND SIGNIFICANT ACHIEVEMENTS

Professor S.K. Panda was Chairman for the committee to screen clinical research projects for sanction of Institute Research Grant; Chairman of the Expert Committee for selection of Pool Officers at CSIR, New Delhi; Assisted the Commission in the Departmental Assessment Board, Union Public Service Commission; Member, Expert Committee for Commonwealth Academic Staff Fellowship at UGC, New Delhi; Member, Expert Committee for Commonwealth Academic Staff Fellowship at UGC, New Delhi, 2013; Member, Pre-selection of candidates under DST-INSPIRE faculty scheme in the Department of Microbiology, MEIGRIHMS, Jawahar Lal Nehru University, New Delhi, 2013; Attended Technical Committee Meeting for framing of Technical Specifications of various equipments for new six AIIMS Institutions at Noida, UP, 2013; Member, Expert Committee for selection of Senior Research Associates in Medical Sciences at CSIR Complex, New Delhi, 2014; Assisted the Commission in the Departmental Assessment Board at UPSC, Dholpur House, New Delhi, 2014; Mentor for mentoring INSPIRE internship Programme, DST, Govt. of India for XI standard science students of KIIT School of Biotechnology, KIIT University, Bhubaneswar from 30th Jan to 3rd Feb 2014.

Professor Manoj K. Singh was Member, Board of Governors of the Medical Council of India for a period of six months from 15.05.2013; Assessed the physical and other teaching facilities at Bangalore Medical College and Research Institute, Bangalore, May 2013; Assessed the physical and other teaching facilities at Coimbatore Medical College, Apr, 2013; Expert to give technical advice for setting up quality diagnostic centres in Bihar, Patna, 24 March 2014; Elected President, Indian Association of Pathologists & Microbiologists (IAPM)

Professor S. Datta Gupta was appointed Professor-in-Charge, Examination Section in November 2013; was elected Vice-President of the Indian Association of Pathologists and Microbiologists for the year 2014; was a member of the APAGE Focus Group Meeting on Celiac Disease, April 20-21, 2013, New Delhi under the aegis of the World Gastroenterology Organization & Asia Pacific Association of Gastroenterology Working Party on Celiac Disease and presented the Pathology of Celiac Disease; Moderator of the Gaya Prasad Symposium on “Malabsorption Syndrome” at the 62nd Annual Conference of the Indian Association of Pathologists and Microbiologists (APCON 2013) held at Aurangabad from 13-15 December 2013; Prof K.C. Basu Mallick Award for the best oral presentation awarded to Yadav R, Das P, Sahni P, Shalimar, Singh L, Kinra P, Pal S, Sreenivas V, Acharya SK, Panda SK, Datta Gupta S. Hepatic Venous Outflow Tract Obstruction: Liver Biopsy as an important diagnostic adjunct to non-invasive techniques at the 62nd Annual Conference of the Indian Association of Pathologists and Microbiologists (APCON 2013) held at Aurangabad from 13-15 December 2013; invited to attend the meeting for the finalization of Undergraduate Medical Curriculum of the Medical Council of India on 7-8 October 2013; continues as Associate Editor of the Indian Journal of Pathology and Microbiology; continues as a Member of the Editorial Board of the Indian Journal of Laboratory Physicians; Represented the Indian Journal of Pathology and Microbiology at the Annual Conference of the Indian association of Medical Journal Editors (IAMJE) held from 15-17 November 2013 and attended the Seminar on Publication Ethics in India: Inspiring Excellence conducted by the internationally renowned Committee on Publication Ethics [COPE]

Professor A.K. Dinda was Nominated as President of Indian Society of Renal & Transplant Pathology (ISRTP) 2013-16; Nominated as a member of Task Force on Nano-Biotechnology, Department of Biotechnology (DBT), Govt. of India; Nominated as member of Academic Council of Center for Molecular Medicine and Center for Nanosciences, Jawahar Lal University, Delhi; Nominated as a expert member of Project Evaluation Committee on Nanomedicine by Indian Council of Medical Research, Delhi; Filed **Patent:** Coated Polymeric Nanoparticulate System For Multi-Drug Delivery And Development Of The Same, India Provisional Patent Application No.: 1141/Del/2014.

Dr Sudheer Arava was Member, Pulmonary Pathology Society of India; Reviewer for Indian Journal of Dermatology and Diagnostic Pathology; Conducted pre-conference workshop of IAPM WBCON 2013 in Dermatopathology organized by North Bengal Medical College, Siliguri, West Bengal in association with Dermatopathology Society of India on 06.09.2013

Dr Geetika Singh successfully completed ISN – ANIO Clinical Nephropathology Certificate Program

Dr Deepali Jain was awarded the Best oral paper in the field of Oncology by Indian Society of Oncology for ‘Immunostaining with EGFR mutation specific antibodies in lung adenocarcinomas: First study from India’, 1st Indian cancer congress 21-24 Nov 2013, Delhi, India; Member International Academy of Cytologists (MIAC); Member International Pulmonary Pathology Society.

9.30 Pharmacology

Professor and Head

Y.K. Gupta

Professors

V.L. Kumar
N.R. Biswas

Kamal Kishore
S.K. Maulik

Additional Professors

D.S. Arya
Surender Singh

Jatinder Katyal
Kh Reeta

Jagriti Bhatia

Scientists

Sharda S. Peshin
Amita Srivastava

Thomas Kaleekal
Madhuri Gupta

Sunder Singh Samuel

EDUCATION

The department is engaged in the teaching programme of MBBS (3rd, 4th and 5th semesters), BSc Nursing (Hons), MSc Pharmacology, MD, PhD and DM (Clinical Pharmacology) courses. The department also imparted training to nine short-term trainees from different parts of the country under INSA and NAMS programmes.

CMEs/Workshops/Symposia/National and International conferences organized by department

1. AIIMS Capacity Building Workshop on Pharmacovigilance in Clinical Trials, 16 July 2013, AIIMS, New Delhi.
2. Mini symposium on 'Patient Safety in Clinical Research,' 18 March 2014, AIIMS, New Delhi.
3. Mini symposium on 'Pharmacovigilance and Medicine Safety,' 19 March 2014, AIIMS, New Delhi.
4. Mini symposium on 'Current Regulatory Frame Work in Clinical Trials,' 25 April 2014, AIIMS, New Delhi.
5. Webinar on 'Capacity Building for Changing Regulatory Scenario of Pharmacovigilance Activities in Clinical Trials,' 7 January 2014, AIIMS, New Delhi.
6. Webinar on 'Causality Assessment in Clinical Trials,' 11 February 2014, AIIMS, New Delhi.

Lectures delivered: 15

RESEARCH

Funded projects

Ongoing

1. Establishment of Clinical Research Centre for Pharmacovigilance. Y.K. Gupta. Funded by: Program for Appropriate Technology in Health for 16 months (2013-14). Rs. 60 lakhs.
2. Pre-Clinical Studies of UNIM-004 and UNIM-005. Y.K. Gupta. CCRUM, AYUSH for 3 years (2011-14). Rs. 18 lakhs.
3. Pharmacological Evaluation of Herbomineral Ayurvedic Formulations used in the Prophylaxis of Migraine. Y.K. Gupta. IPCA Laboratories, 50 months, (2010-14). Rs. 30 lakhs.
4. Validation of claims of traditional healer practicing folklore medicine by evaluation the efficacy of his herbal formulation in relevant animal model. Surender Singh. ICMR, 2 years (2013-15). Rs. 26.5 lakhs.
5. Studies on the efficacy of artesunate in experimental models of colorectal cancer. Surender Singh. AIIMS, 1 year (2013-14). Rs. 10 lakhs.
6. Fibrosis in Heart Failure. S.K. Maulik. UK India Education and Research Initiative Programme, 2 years (2013-15). Rs. 20 lakhs.
7. Evaluation of Arjuna and Tulsi in Experimental Pulmonary Artery Hypertension in Rats. S.K. Maulik. AYUSH, 3 years (2013-16). Rs. 29 lakhs.
8. Effect of Bioactive Phytoconstituents in Experimental Metabolic Syndrome. KH Reeta. ICMR (2010-13), 3 years. Rs. 29 lakhs.

9. Evaluation of the Potential of Edaravone, Taurine and their Combination in Sporadic Model of Alzheimer's disease in Rats. KH Reeta. DST, 3 years (2012-15). Rs. 29 lakhs.
10. Evaluation of the Renoprotective Effect of Epicatechin Gallate, Nobiletin and Hesperidin in Cisplatin Induced Nephrotoxicity in Rats. J. Bhatia. DBT, 3 years (2012-15). Rs. 38 lakhs.
11. Evaluation of Nephroprotective Effect of Enalapril, Galangin and their Combination in Cisplatin Induced Nephrotoxicity in Rats. Jagriti Bhatia. DST, 3 years (2013-16). Rs. 21 lakhs.

Completed

1. Scientific Study to Determine the Quality of Medicines being sold at Jan Aushadhi Drug Stores. Y.K. Gupta. Ministry of Chemical & Fertilizers for 36 months (2010-13). Rs. 13.64 lakhs.
2. Evaluation of the Frequency of Polymorphisms Affecting Lead & Mercury Toxicity among Children with Cerebral Palsy. Y.K. Gupta. DRDE, Ministry of Defense, 21 months (2011-13), Rs. 9 lakhs.
3. Preliminary Pharmacological Studies of Homeopathic Drugs. Y.K. Gupta. Central Council for Research in Homeopathy, 15 months (2012-13). Rs. 8 lakhs.
4. Herb-drug Interaction Studies of Selected Herbs and Allopathic Drugs Used in Treatment of Type 2 Diabetes, Rheumatoid Arthritis and Epilepsy. Y.K. Gupta. ICMR, 24 months (2012-14). Rs. 18 lakhs.
5. A Preliminary Study on the Antiobesity Property of a Unani Formulation in Experimental Model in Rats. Y.K. Gupta. CCRUM, 36 months (2009-13). Rs. 7 lakhs.
6. Quantitative Detection of Heavy Metals and Phthalates in Toys. Y.K. Gupta. ICMR, 24 months (2012-14). Rs. 49 lakhs.
7. Preliminary pharmacological and safety studies of homeopathic drugs. Surender Singh. Central Council for Research in Homeopathy, Department of AYUSH, 2 years (ended 2013). Rs.19.3 lakhs.
8. Double Blind, Randomized Placebo Controlled Clinical Trial to Study the Add-On Efficacy of Standardized Preparation of the Water Extract of Terminalia Arjuna in Patients with Left Ventricular Dysfunction, already receiving Standard Drug Regimen. S.K. Maulik. DBT, 3 years (2010-13). Rs.46.06 lakhs.
9. Evaluation of the effect of curcumin on the expression of metalloproteinase-9, Rho kinase (ROCK II), glycogen synthase kinase-3 β and mTOR in pentylenetetrazole-induced kindling in rats. KH Reeta. AIIMS Institute Research Grant, 1 year (2012-13). Rs. 4 lakhs.

Departmental projects

Ongoing

1. Expression profile of microRNAs in chronic myeloid leukemia patients and their correlation with Imatinib treatment response.
2. Does the pharmacokinetics of metformin alter after sleeve gastrectomy: a quasi-experimental study.
3. Evaluation of interaction profiles of selected medicinal plants with conventional antiepileptic and oral hypoglycemic agent.
4. Neuroprotective potential of lercanidipine and citalopram, having anti-oxidant, anti-inflammatory and calcium channel blocking activity in experimental model of stroke in rats.
5. Pharmacokinetics and pharmacodynamic interaction of an ayurvedic medicine with antiepileptic drug: an experimental and clinical study.
6. Optimization of traditional herbal ingredients for developing a formulation for Alzheimer's disease: in-vitro and in-vivo study.
7. In vitro studies on genotoxicity of commonly used organophosphate pesticides and evaluation of therapeutic potential of antioxidant vitamins.

Completed

1. Treatment response to Imatinib in chronic myeloid leukaemia: role of p-glycoprotein.
2. Evaluation of clitoria ternatea and evolvulus alsinoides extracts for cognitive impairment in rats.
3. Evaluation of anti-epileptic property of selected Indian medicinal plants and their mechanism of action.
4. Study of immunosuppressive agents (mycophenolate mofetil and rapamycin) on transient focal cerebral ischemia in rats.

5. Effect of traditionally used ayurvedic rasa aushadhies on renal & hepatic functions: clinical & experimental study.
6. Effect of antiepileptic therapy on trace element status in Indian population in a tertiary care hospital from northern India.
7. Leaching of metal ions from orthodontic wires in different soft drinks.
8. Evaluation of silymarin on middle cerebral artery occlusion model of focal cerebral ischemia in rats.
9. To study the pharmacokinetic and pharmacodynamic interaction of an ayurvedic medicine Panchagavya Ghrita with antiepileptic drugs in rats.

Collaborative projects

1. Comparison of the profile of DNA damage in lymphocytes of neonates with hyperbilirubinemia receiving high versus low irradiance using light emitting diode phototherapy (with Department of Pediatrics)
2. Efficacy and safety of concomitant use of nevirapine and rifampicin in patients co-infected with HIV and tuberculosis in India (with Department of Medicine)
3. Development of nanoparticulate anti-TB drug delivery system for macrophage receptor specific targeting through oral and respiratory route: phase 1 (with Department of Pathology).
4. Development of multifunctional metallic nanoparticles for cancer targeting (with Department of Pathology).
5. Development of targeted nanoparticles based drug delivery system for treatment of kala-azar (with Department of Pathology).
6. Effect of rifampicin as a part of antitubercular therapy on antihypertensive drug requirement in patient of renal disease (with Department of Nephrology).

PUBLICATIONS

Journals: 30

Abstracts: 9

Chapters in books: 1

Scientific Series/Book: 1

PATIENT CARE

The department is involved in the estimation of a number of metals like heavy metals (Pb, Cd, Hg, As), trace metals and micronutrient levels in biological samples (blood, urine, semen, serum) by spectrophotometry at ppb levels. Lead and mercury levels were estimated in children affected with autism or cerebral palsy. The levels of micronutrients like chromium and cobalt were also estimated in pregnant women. The leaching of metals from various prosthetic implants was also estimated.

Therapeutic Drug Monitoring facility

The Therapeutic Drug Monitoring (TDM) Facility in the department is involved in estimating drug levels of antiepileptic drugs (phenytoin, phenobarbitone, carbamazepine and sodium valproate), anti-cancer/anti-rheumatic drug (methotrexate) and immunosuppressants (mycophenolic acid) etc. in patient samples. The TDM facility helps in optimizing drug dosing regimen for the above drugs for the patients and this is useful in minimizing drug toxicity and maximizing treatment benefit. The TDM facility is also engaged in collaborative projects with various other departments of AIIMS like Pediatrics, Nephrology and Neurology.

Adverse Drug Reaction Monitoring

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 834. As part of the pharmacovigilance training activity, webinars and symposiums on pharmacovigilance were also organized.

National Poison Information Centre

The National Poisons Information Centre (NPIC) in the Department of Pharmacology, provides information on management of various poisonings all over the country. The NPIC provides round-the-clock (365 days) updated information on management of poisoning to medical professionals, healthcare personnel and instructions on first-aid to general public. Queries from various government and non-government organizations on different aspects of toxins are also answered. The NPIC has the backup 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.

Poisoning Calls received by National Poisons Information Centre

Item	Number	Percentage (%)
Total number of calls	2644	
Poisoning Calls	2523	95.5
General Information Calls related to NPIC	121	4.5
Sex of poisoned patients Male Female	1611 912	6436
Categories of poisoning calls received		
Household products	1163	46
Industrial chemicals	185	7.3
Agricultural pesticides	381	15
Drugs	579	23
Bites and stings	82	2
Plants	53	3.2
Miscellaneous (i.e. poisons that do not categorically fall in above categories)	45	2
Unknown (the type of poison consumed by patient is not known)	34	1.5

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Kamal Kishore delivered a plenary talk on 'Water Borne Diseases' in the 25th IDC National Conference on Clean Water and Health (New Delhi, 5-6 April, 2014). He is a member of the Editorial Board of Asian Journal of Cognitive Neurology (Neuropharmacology section).

Professor S.K. Maulik is a member of the Scientific Advisory Committee, Central Council for Research in Ayurvedic Sciences, Department of AYUSH; Chaired a session for judging the posters at the 11th Annual Conference of International Society of Heart Research (Indian Section, Mohali, Punjab, February 2014).

Dr Surender Singh received the ICMR Award for Biomedical Research (2013) and became the Fellow of Royal Society of Chemistry (FRSC), United Kingdom and Fellow of International Medical Science Academy (FIMSA), India, in 2013. He is the Associate Editor of the Indian Journal of Physiology and Pharmacology; Certified GLP Inspector of the National GLP Compliance Monitoring Authority (NGCMA), DST, GOI; member of National Essential Medicine List of India, MoH&FW; and the Pharmacopoeia Committee (Unani), Special Committee for Drugs Standardization of CCRH, Project Evaluation Committee of CCRAS, CCRUM and CCRH, and Task Force, Standardization of Homeopathic Drugs, CCRH and Ethics Committee, CCRH of the Department of AYUSH, MoH&FW; member of National Board of Accreditation (NBA), Steering Committee (GPAT), GPAT Validation Committee, of AICTE, Ministry of HRD, Govt. of India; member, Inspection Committee, Pharmacy Council of India; member, Institutional Review Board, Jamia Hamdard, New Delhi; member, Ethics Committee, Dr. RML Hospital & PGIMER, New Delhi; member, Animal Ethics Committee, Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi; member, Programme Expert Committee, IGNOU, New Delhi; member, Board of Research Studies, GGS Indraprastha University, New Delhi, Hamdard University, New Delhi, Uttar Pradesh Technical University (UPTU), Lucknow and Kumaon University, Uttarakhand, and MD University, Rohtak. He is on the panel of reviewer for EMR projects of DBT and ICMR, New Delhi. He is the Chairman, Ethics Committee, Central Research Institute of Homeopathy (CRIH), Department of AYUSH, MoH&FW.

Dr KH Reeta was awarded the Shakuntala Amir Chand Prize (2013) of Indian Council of Medical Research. She was the coordinator of the 7th Project Advisory Committee Meeting in Health Sciences, DST; and served as an Advisory Committee Member and Judge for the postgraduate symposium on "Frontiers in Neuroscience Research" (Brain Awareness Week celebrations sponsored by National Brain Research Center, New Delhi, September 2013).

9.31 Physical Medicine and Rehabilitation

Professor and Head

U. Singh

Professors

Sanjay Wadhwa

S.L. Yadav

Additional Professor

Gita Handa

Supervising MSSO

KiranBala Singh

Chief Physiotherapist

Avinash Dhargave

Senior Physiotherapist

O.P. Yadav

Senior Occupational Therapist

Raman Kumar Singh

Lily Farhat Parveen

Senior Technical Officer

Ajay Babbar

HIGHLIGHTS

The department has been engaged in teaching undergraduate and postgraduate students in the medical, nursing and engineering fields besides training the doctors and others in the subject. The faculty, officers and resident doctors have participated in various scientific programs of the country and abroad to give invited talks and presented scientific papers in the conferences. One chapter in the book and 9 publications have been done in journals. Laurels have been received by the faculty representing AIIMS at various forums and national bodies. The number of patients has been gradually increasing over the years and the number of procedures done on the patients is also on the increase.

EDUCATION

UG Teaching

Set of 8 lectures/seminars were taken. Clinical demonstration in the department to the medical and nursing students was provided.

PG Training

MD (PMR): A total of 9 students were there during the period of training. Four appeared in the MD (PMR) examinations during this year and all of them passed.

MD (Community Medicine, Paediatrics, Medicine, Geriatrics), MS (Orthopaedics), DM (Neurology and Pediatric Neurology), MHA students, and postgraduate Nursing students have been posted in our department from time to time and received training and also participated in the research activities of the department.

One Long Term Trainee (2 years) from Army Medical Corps underwent training at the department.

CMEs/Workshops/Symposia/National and International conferences

Organized by the department.

1. The department organized Annual Conference of the Indraprastha Association of Rehabilitation Medicine, from March 1-2, 2014 at AIIMS, New Delhi.

Lectures delivered

U. Singh: 7

Sanjay Wadhwa: 4

Gita Handa: 1

RESEARCH

Departmental projects

Ongoing

1. Prolotherapy Versus Corticosteroid Injections for the treatment of Plantar fasciitis: A Randomized Controlled Trial.
2. Relationship between stump length, gait parameter and dynamic balance in unilateral transtibial amputee
3. Prolotherapy Versus Corticosteroid Injections for the treatment of Lateral Epicondylitis: A Randomized Controlled Trial.
4. A study of the upper gastrointestinal disorders in patients with spinal cord injury under rehabilitation care
5. Study of comparison of various disability scales in conservatively treated patients of acute prolapsed intervertebral disc.
6. Effect of motivational video on QOL in patients with Lower Limb Impairments.
7. Effect of Magnetic field on Osteoporosis induced by spinal cord injury in rat.
8. Human Factor & Industrial Design approach for Biomechanical Gait Analysis studies on Load Carriage.

Completed

1. Cross sectional study for assessment of autonomic dysfunctions in patients with spinal cord injury.
2. Prevalence of 'Work-related Neck Pain' in Desk Job Worker at AIIMS.

Collaborative projects

Ongoing

1. Role of vitamin D supplementation in vitamin D deficient COPD patients: a double blind, randomized controlled trial (with Pulmonary Medicine, Endocrinology, Biostatistics, Endocrinology)
2. Design of smart functional electrical stimulator for physically challenged persons (with Department of Biomedical Engineering, CRUST Murthal, Sonapat).

Completed

1. Skeletal muscle strength including its energy metabolism, bone mineral homeostasis and Th1/Th2 cytokines expression in Asian Indians with chronic hypo-vitaminosis D before and after oral cholecalciferol supplementation (with Endocrinology and Metabolism, AIIMS).

PUBLICATIONS

Journals: 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.

Facilities available in the department

Cases	Patient Care Area	No. of patients
New Cases	OPD	17304
	Prosthetic & Orthotic	5149
	Ballabgarh PMR OPD	7618
	Total New Cases	30071
Old Cases	OPD	17095
	OPD Visits PT Section	18740
	OPD Visits OT Section	23591
	OPD Visits MSW	13169
	Disability Evaluation Clinic	256
	Railway Concession Certificates	381
	Prosthetic & Orthotic	19076
	Minor OT Procedures	3777
	Total Old Cases	96085

Community Services/Camps

Faculty and Residents of the department participated in a series of camps for rehabilitation of persons with disability, Mathura & Agra.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

1. Best Platform Paper Presentation Award: Sharma SK, Yadav SL, Singh U, Wadhwa S. Comparative study of co-activation of quadriceps and Hamstrings muscles around knee joint before and after muscle strengthening exercises in primary osteoarthritis knee patients. IAPMR Annual National CME 2013, Organized by Mumbai Association of Physical Medicine and Rehabilitation, Mumbai, Sep 20-22, 2013.
2. Delegation from the University of Sydney, Australia visited the department to discuss collaborative research avenues with AIIMS, November 2013.

Professor U. Singh was member of the Sub-Committee on Locomotor, Leprosy Cured etc. Rehabilitation Council of India, Ministry of Social Justice and Empowerment; Research Committee, Guru Nanak Dev University, Amritsar; Academic Committee, National Institute for the Orthopaedically Handicapped, Kolkata; Chairman, Academic Committee, Indian Association of Physical Medicine and Rehabilitation; Emeritus Editor, Indian Journal of Physical Medicine and Rehabilitation, w.e.f. June 2011; Consulting Editor and Reviewer, Journal of Rehabilitation Council of India Locomotor and Associated Disabilities; Reviewer, Annals of Indian Academy of Neurology, Indian Journal of Neuro-surgery, Journal of American Academy of Physical Medicine and Rehabilitation; Editorial Board Member, Indian Journal of Physiotherapy and Occupations Therapy; Honorary member of the editorial board for the International Journal of BioSciences and Technology (IJBST); Advisory Board Member: St John's Handbook of Physical Medicine and Rehabilitation, Bengaluru, August 2013; Editorial Board Member: Sapient, Multispecialty Journal by National Board of Examinations, New Delhi, from December 2013; Chairman, Scientific Session 1: Neural and Rehabilitation Engineering. 2nd National Conference on Medical Engineering and Technologies: Issues, Challenges and Benefits (Meditech 13). Organized by Department of Biomedical Engineering, DCR University of Science and Technology, Murthal, April 4-5, 2013; Chairman, Scientific Session 1: Pharmacological and Surgical Management of Spasticity. Organized by IPARM, New Delhi, August 3, 2013; Chairman, Scientific Session 2: Emerging Trends in Neuro-Rehabilitation-II, IAPMR Annual National CME 2013, Organized by Mumbai Association of Physical Medicine and Rehabilitation, Mumbai, Sep 20-22, 2013; Chairman, Scientific Session 2: Nursing Care in SCI Rehabilitation. National Conference on Rehabilitation of Persons with Spinal Cord Injury Rebuilding Lives, Promoting Independence. Organized by National Institute for the Orthopaedically Handicapped, Kolkata, November 25, 2013; Chairman, CME Session 3. Osteoporosis and Autism. Delhi PMRCON 2014, March 2, 2014; Organizing Chairperson, Delhi PMRCON 2014, 8th Annual Conference of Indraprastha Association of Rehabilitation Medicine, March 1-2, 2014; Invited Expert during the phone-in live TV program on "Brain Stroke" in Total Health, DD News, telecast on July 21, 2013.

Professor Sanjay Wadhwa was Conferred Fellowship by the Geriatric Society of India; Prepared a document on Competency-Based DNB Training Programme in PMR; Nominated as Chairman, MHD 09- group on Artificial Limbs, Aids & Appliances, Bureau of Indian Standards, India; Participated as an Expert in the 'National Consultation for Rehabilitation of People affected by Leprosy' organized at India Habitat Centre, Lodi Road, New Delhi on 18-19 February 2014, moderated a Session, and Chaired a Working Group formed for recommendations; Conducted the Annual Convocation during NAMSCON2013 at AIIMS, Jodhpur in October 2013; Continued as Editor, Annals of NAMS (India); Continued as Honorary Secretary, NAMS (India) for the fifth year in a row; Served as Secretary of various Standing Committees of NAMS (India), namely Academic Committee, Academic Council, Publication Advisory Committee, Disciplinary Committee, Standing Committee on Management of NAMS, Committee for Prevention, Prohibition and Redressal of Sexual Harassment of Women at Workplace etc.; Nominated as a Member (Subject Expert), Selection Committee for selection of Faculty Members in PMR at AIIMS, Rishikesh; Nominated as a Member (Subject Expert), Selection Committee for selection of Faculty Members in PMR at Dr RML Institute of Medical Sciences, Lucknow; Member, Specialty Advisory Board (PMR), National Board of Examinations, India; Member, Committee of Experts for Drafting Competency-Based Curriculum for undergraduate Medical Students, constituted by Medical Council of India; Inspector, on behalf of MCI for assessment of infrastructure for PG training in PMR in a department in a large Hospital; Inspector, on behalf of NBE for assessment of infrastructure for PG training in PMR in a department in a large Hospital; Examiner for final Practical Examination for MD (PMR), Rajasthan University of Health Sciences, Jaipur; Examiner in PMR for DNB Examination conducted by NBE; Inspector, on behalf of Baba Farid University of Health Sciences, Faridkot for assessment of infrastructure

for PG training in Physiotherapy in an Institution; Member, Programme Advisory & Monitoring Committee for the programme Technology Interventions for the Disabled and Elderly (TIDE) under Ministry of Science & Technology, GOI; Participated as an Expert during a live Total Health programme on Arthritis on the National Channel of Doordarshan, New Delhi in October, 2013.

Dr Gita Handa was Visiting Faculty for the Indigenous Fellowship Programme in Biodesign; Guest Lecturer and Visiting Faculty for National Brain Research Center Organising Secretary – Delhi PMRCON 2014 (Annual conference of Delhi chapter of PMR-IPARM); Organising Secretary and Faculty for Pre-conference workshop on Musculoskeletal Ultrasound held at AIIMS, March 1, 2014; Chaired a session at the IAPMRCON 2013, NIMHANS Convention Centre Bangalore, Jan 31-Feb 3, 2014; Chaired and Judged the best papers selection during 42nd IAPMR national conference during 23-26th January 2013 at Chennai; Member of Institute Group for developing Indo-US research collaboration with University of Michigan in the area of Brain Injury Rehabilitation; Hosted a team from University of Sydney, NSW, Australia, for exploration of areas of collaborative work in Musculoskeletal & Pain Rehabilitation. The team interacted with the Dean and Director and initiated the dialogue for signing of MOU between University of Sydney and AIIMS; Facilitation of visiting fellows/students from Stanford University via Stanford India Biodesign Program for developing low cost innovative medical technology; Member for Consultative meeting for Rehabilitation of People affected by Leprosy organized by Min. of Social Justice and empowerment; Elected as Executive Committee Member for Indian Association of Physical Medicine & Rehabilitation in 2013.

Officers/Resident Doctors and Others

1. Mr Avinash Dhargave, Chief Physiotherapist was chairman of the 2nd International Conference of Physical Therapy, AIIMS, Dec 12-17, 2013.
2. Dr Nimish Mittal, Senior Resident: Acknowledgement in the research article of MIT, USA titled “Stakeholder-Driven Design Evolution of the Leveraged Freedom Chair Developing World Wheelchair” by Winter et al at American Society of Mechanical Engineers Congress and Exposition, Houston, USA ISBN: 978-0-7918-4521-9
3. Dr Nimish Mittal, Senior Resident: Featured in TED talks video titled “The cheap all terrain wheelchair” by Amos G winter in November 2012
4. Senior Residents (Dr Sumalatha, Dr Nimish Mittal): Participated in the teaching program of the Group D employees of the AIIMS on the topic of “Biomechanics” in a series of lectures during the year.
5. Nimish Mittal; Mrinal Joshi. Anthropometric indices as predictors of obesity in acute spinal cord injury. USA annual scientific meeting, Nashville, USA, 27 Feb 2014.

9.32 Physiology

Professor and Head

Rashmi Mathur

Professor

Kishore Kumar Deepak
Kanwal Preet Kochhar

Hrudananda Mallick
Ratna Sharma

Debabrata Ghosh
Nalin Mehta

Additional Professor

Suman Jain
Raj Kumar Yadav

Ashok Kumar Jaryal
Anjana Talwar

Assistant Professor

Asmita Patil

Renu Bhatia

Simran Kaur (w.e.f 12 June 2014)

HIGHLIGHTS

The department has been involved in undergraduate and postgraduate teaching in addition to the doctoral program. The faculty also trained manpower for undergraduate and postgraduate teaching and research techniques by holding workshops and symposia at AIIMS and other Institutions. The faculty has undertaken 16 extra-mural and intra-mural research studies in neurophysiology including autonomic nervous system; nutrition; vascular system; reproductive system; respiratory system and Yoga. The research outcomes were presented in national and international scientific fora and were published 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 autonomic and vascular function assessments, pain management, intra-operative monitoring during orthopedic corrective surgery, and yogic intervention. Several awards and honours have been received by the faculty members and students of the department, in appreciation of their innovative contributions to research in physiology and medical education.

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 also conducted MD and MSc courses in Physiology and PhD program. Four students completed PhD, 4 completed MD and 1 completed the MSc course.

Short-term and long-term training

- Autonomic Function Lab provided short term training for 6 days (24-29 March 2013) to 3 MD students from University College of Medical Sciences (University of Delhi) & Guru Teg Bahadur Hospital, Dilshad Garden, Delhi
- Reproductive Physiology Lab provided short term training for 7 days (1-7 December 2013) to 1 MSc student from the Department of Zoology, Banaras Hindu University, Varanasi.

CMEs/Workshops/Symposia/National and International Conferences

Organized by the department

1. Workshop on Ethical Authorship (Resource Faculty and co-convenor: KK Deepak), 25th Annual Conference of the Physiological Society of India. Narketpally, Andhra Pradesh; 9 - 11 December 2013.
2. Workshop on Comprehensive Multiparametric Evaluation of Autonomic Functions (Convenors: KK Deepak , Ashok Jaryal). 59th Annual Conference of Association of Physiologists and Pharmacologists of India , Bangalore; 26 – 30 November 2013.
3. Workshop on Assessment of Arterial Stiffness and Assessment of Cerebral Autoregulation (Convenors: KK Deepak, Ashok Jaryal). 59th Annual Conference of Association of Physiologists and Pharmacologists of India , Bangalore; 26 – 30 November 2013
4. Symposium on Gastro-Intestinal Physiology: Research Opportunities: Indian Scenario (Convenor: KK Deepak). 59th Annual Conference of Association of Physiologists and Pharmacologists of India 2013, Bangalore; 26 – 30 November 2013.

5. **Second Sleep Technician Workshop (Convenor: HN Mallick), Chennai, 14 December 2013.**
6. National Sleep Medicine Course (Course Director: HN Mallick) Balaji Medical College, Chennai; 15 -16 December 2013.
7. ICMR National Workshops for Advancement of Physiological Sciences (ICAPS) on Inspiring the Next Generation, Enhancing National Capabilities in Biomedical Research, and Recognizing Excellence in Biomedical Research (Convenor: Dr D Ghosh). 3rd Indian Council of Medical Research (ICMR) National Workshop, AIIMS, New Delhi; 22 - 23 December 2013.
8. Seminar on Droplet Digital PCR is Enabling the Development of Next Generation Digital Analysis of Biological Systems: from Clinical Applications like Viral Load Testing and Cancer Detection, to the NGS Library Quantification anywhere Precision Measurements of Individual Molecules are Required (Convenor: D Ghosh). Department of Physiology, AIIMS, New Delhi; 29 November 2013.
9. Workshop on Technology Training Platform: Advance Module (Part – II) on Genome-Wide Analysis of Expression Arrays (Convenor: D Ghosh). Department of Physiology & Research Section, AIIMS, New Delhi; 3-5 June 2013.
10. Events as part of National Brain Research Centre sponsored Brain Awareness Week, AIIMS, New Delhi; 21-28 September 2013.
 - Neuroscience Quiz, 21 September 2013.
 - Symposium on Frontiers in Neuroscience, 28 September 2013.

Lectures delivered

Rashmi Mathur: 6	K.K. Deepak: 21	D. Ghosh: 1	Nalin Mehta: 19
Suman Jain: 4	Ashok Jaryal: 1	R.K. Yadav: 6	

RESEARCH

Funded projects

Ongoing

1. Role of magnetic fields in the spinal cord injury induced osteoporosis. Mentor: R. Mathur, PI: Kaushiki Mukherjee. Department of Science and Technology, 3 years, 2012-15, Rs 25,10,000.
2. A study of cardiac and vascular autonomic mechanisms underlying the pranayam practices. K.K. Deepak, CCRYN, 2 years, 2014-16, Rs 17,64,138.
3. Role of dietary glutamate on thermogenesis and sleep in rats. H.N. Mallick, Ajinomoto Co, Inc. Japan, 3 years, 2011-14, Rs17,92,023.30 (US \$ 30,000).
4. Role of preoptic area thermo-transient receptor potential vanilloid (TRPV) channels in thermoregulation in rats. H.N. Mallick. ICMR, 3 years, 2013-16, Rs 2,63,102 for first six months.
5. Cellular and molecular basis of action of cationic alpha-helical antimicrobial peptide on human placental cytotrophoblast cells, Debabrata Ghosh, ICMR, 3 years, 2012-15, Rs 41,58,457.
6. Understanding endometriosis using high throughput proteomics strategy. Debabrata Ghosh, DST, 3 years, 2010-13, Rs 35,00,000.
7. A study of quantitative EEG changes, cognitive function and stress in mild cognitive impairment and Alzheimer's disease. Ratna Sharma, DST, 6 years, 2010-16, Rs 820,000.
8. Quantitative EEG correlates of cognitive deficits in Parkinson disease. Ratna Sharma, DBT, 3 years, 2011-14. Rs 22,00,000.
9. Functional development of the visual cortex following prenatal repetitive auditory stimulation in chicks (*Gallus domesticus*): role of noradrenaline. Suman Jain, DST, 3 years, 2011-14, Rs 23,12,000.
10. Prospective study to evaluate the impact of bariatric surgery on glucose metabolism using biomarkers in obese patients. Raj Kumar Yadav, ICMR, 3 years, 2012-15, Rs 29,00,000.
11. Adipokine mediated inflammation, angiogenesis and proteomic approach in pathophysiology of pelvic endometriosis. Raj Kumar Yadav, AIIMS Research Scheme, 1 years, 2012–13, Rs 5,00,000.
12. Genome-wide gene profiling using array based comparative genomic hybridization and global gene transcript profiling of respiratory tract macrophages in stable COPD patients. Anjana Talwar, DST, 3 years, 2013-16, Rs. 50,00,000.

13. Multi-analyte profiling of plasma biomarkers in patients with stable COPD and their correlation with clinical parameters: A pranayama based study, Anjana Talwar, CSIR, 3 years, 2013-16, Rs 23,60,000.

Completed

1. Endometrial receptivity for blastocyst implantation in the primate: Systems biology approach, Debabrata Ghosh, DST, 4 years, 2009-13, Rs 34,10,000.
2. Motor and cognitive behaviour in 6-hydroxydopamine (6-OHDA) adult rat model of Parkinson's disease following magnetic field exposure and implantation of ferromagnetic nanoparticles. Suman Jain, DST, 3 years, 2009-2012, Rs 26,18,920.
3. Non-invasive assessment of airway inflammation and remodeling in COPD and Asthma. Anjana Talwar, AIIMS Research Grant, 1 year, 2012-13, Rs 4,00,000.

Departmental projects

Ongoing

1. A study of transcriptomic landscape of ovarian endometriosis.
2. A study to elucidate the genomic basis & chronic obstructive pulmonary disease.
3. A transcriptomic study to elucidate the pathophysiology of chronic obstructive pulmonary disease.
4. Assessment of vascular function in patients of Metabolic Syndrome with and without Coronary Artery Disease.
5. Characterization of photoplethysmographic peripheral pulse waveform changes during Valsalva manoeuvre.
6. Cognitive Control of saccadic eye movements in Normal subjects and Parkinson's disease: A Behavioral, Event related Potential and Functional Magnetic Resonance Imaging Study.
7. Cognitive control of saccadic eye movements in normal subjects and Parkinson disease patients: A behavioural, event related potentials and functional imaging study.
8. Effect of extremely low frequency magnetic field on osteoporosis induced by surgical transection spinal cord in rats.
9. Effect of Levodopa medication and magnetic field on oxidative stress in 6-OHDA (6-hydroxydopamine) rat model of Parkinson's disease.
10. Effect of magnetic field on behavioral, electrophysiological and neurochemical correlates of pain in rats exposed to 3G frequency band.
11. Effect of magnetic field on microglia induced secondary injury of spinal cord in rats.
12. Effect of meditation on sleep architecture.
13. Effect of nano particle implantation and magnetic field on oxidative stress in 6-OHDA (6-hydroxydopamine) rat model of Parkinson's disease.
14. Effect of Preload reduction on the cardiovascular responses to Valsalva maneuver.
15. Effect of transcranial magnetic stimulation on pain modulation status in fibromyalgia patients.
16. Effect of vitamin D supplementation on pancreatic beta cell functions in obese Indian subjects: A randomized controlled trial
17. Effect of working memory load on visuospatial task performance as assessed by quantitative EEG.
18. Efficacy of yoga based lifestyle intervention as compared to dietary intervention on metabolic syndrome: A randomized controlled trial.
19. Electrophysiological characterization of 'yoga nidra' and its role in primary insomnia patients.
20. Evaluation of autonomic functions in patients of spinocerebellar ataxia types 1, 2 and 3 and comparison with morphological changes in brain.
21. Evaluation of vascular functions, baroreflex sensitivity and biochemical factors to investigate preeclampsia.
22. Influence of complete spinal cord injury on ventromedial hypothalamic function: Role of magnetic field.
23. Interrelationship between, body, muscle and brain temperature during sleep.
24. In-vitro action of cationic antimicrobial peptide on cytokine profiles of early placental cytotrophoblast.
25. Molecular basis of estrogenism in endometriosis.
26. Molecular basis of cationic anti-microbial peptide Action on human placental cytotrophoblast cells.

27. Molecular basis of estrogenism in endometriosis.
28. Quantitative EEG correlates of Cognitive deficits in Parkinson Disease.
29. Quantitative EEG correlates of cognitive performance in Mild Cognitive Impairment and Alzheimer's Disease.
30. Quantitative EEG correlates of emotion-induced changes in cognitive performance in healthy volunteers.
31. Quantitative EEG correlates of perceptual reversal of emotional stimuli during binocular rivalry.
32. Quantitative EEG correlates of positive, negative and neutral affect on cognitive functions and associated psychological stress response.
33. Role of meditation on Sleep quality in short term and long term meditators.
34. Role of the preoptic area thermo TRPV channels in thermoregulation of rat.
35. *Sensorimotor assessment in spinalised rats following electro-magnetic stimulation and bone marrow stromal cells transplantation.*
36. The mechanism of thermogenesis induced by glutamate in the gut and in the preoptic area.
37. Understanding the pathophysiology of endometriosis by protein profiling and its correlation with stress.

Completed

1. Leptin and ghrelin in peritoneal fluid of patients with endometriosis: correlation with VEGF and IL 6
2. Physiological basis of paracrine effect of human chorionic gonadotropin on human endometrium.

Collaborative projects

Ongoing

1. A pilot study on micro RNA expression pattern in Wilms' tumor samples & peripheral blood: Relation to histopathology classification & stage (Pathology)
2. Assessment of vascular function in patients of Metabolic Syndrome with and without Coronary Artery Disease (Cardiology)
3. Effect of exercise intervention on bone mineral density I Cystic Fibrosis patients aged 6-18 yrs (Pediatrics)
4. Effect of yoga based lifestyle intervention on biomarkers of cellular aging in patients with depression (Anatomy)
5. Evaluation of autonomic functions in patients of spinocerebellar ataxia types 1, 2 and 3 and comparison with morphological changes in brain (Neurology)
6. Evaluation of vascular functions, baroreflex sensitivity and biochemical factors to investigate preeclampsia (Obstetrics and Gynaecology)
7. Expression analysis of potential micro RNAs in tuberculosis (Medicine)
8. Genome-wide gene profiling using array based comparative genomic hybridization and global gene transcript filing of respiratory tract macrophages in stable COPD patients (Medicine)
9. Impact of local endometrial injury (LEI) on the outcome of IVF cycle with previous failed implantation: Exploring the Genome wide transcriptomic basis (Obstetrics & Gynaecology)
10. Impact of nutritional and lifestyle modification in subjects with BMI 25-29.9kg/m² vs 30-34.9 kg/m² and to assess the effect of bariatric surgery in BMI \geq 35kg/m² (Surgical Disciplines)
11. Impact of short term meditation based intervention on quality of life of glaucoma patients. (Dr. R. P. Centre for Ophthalmic Sciences)
12. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and insulin resistance in adult Indian obese patients (Surgical Disciplines)
13. In-vitro action of cationic antimicrobial peptide on Cytokine profiles of early placental cytotrophoblast (Obstetrics & Gynaecology)
14. Isolation & molecular characterization of colorectal cancer stem cells (Biochemistry)
15. Isolation & molecular characterization of human bone marrow derived mesenchymal stem cells (Biochemistry)
16. Multi-analyte profiling of plasma biomarkers in patient with stable COPD and their correlation with clinical parameters: Pranayama based study (Medicine)
17. Postural variation of diffusing capacity in Type 2 Diabetes mellitus: marker of lung microangiopathy (Endocrinology)

18. Prenatal auditory sound stimulation: effect on spatial memory and expression of synaptic proteins in chick hippocampus (Anatomy)
19. Prenatal Auditory Sound (Anatomy)
20. Role of cytokine levels in recurrent pregnancy loss and effect of progesterone on cytokine levels (Obstetrics & Gynaecology)
21. 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 (Department of Neurosurgery, JPNA Trauma Center)
22. Role of Yoga based intervention as an adjunct in improving quality of life of glaucoma patients (Dr. R. P. Centre for Ophthalmic Sciences)
23. To study the impact of laproscopic sleeve gastrectomy on type 2 diabetes mellitus in patients with BMI < 35 kg/m² (Surgical disciplines)

Completed

1. A comparative study of the cardiovascular responses to orthostasis in Parkinson's disease and Multiple System Atrophy of Parkinsonian type (MSA-P) (Neurology)
2. Assessment of endothelial function in overlap syndrome of chronic obstructive pulmonary disease and obstructive sleep apnea (Neurology)
3. Assessment of systemic vascular autonomic tone, structural and functional outcome in central serous chorioretinopathy (Dr. R. P. Centre for Ophthalmic Sciences).
4. Comparison of exercise testing parameters between patients who undergone TCPC (Total cavo pulmonary connection) and /or superior cavopulmonary anastomosis with open antegrade flow (CTVS)
5. Exhaled Breath Temperature as a marker of Airway Inflammation in Cystic Fibrosis patients aged 6-18 yrs (Department of Pediatrics)
6. Psychoneuroimmune effects of meditation: an evaluation by PET and biochemical markers (Nuclear Medicine & PET)
7. Requirement of isoflurane and vecuronium in diabetic patients with and without autonomic neuropathy undergoing elective surgery; as determined by entropy and neuromuscular monitor respectively (Anesthesiology)
8. To study effect of Rhythmic breathing (Sudarshan kriya yoga and pranayam) on Glycemic control, quality of life and cardiac autonomic functions in patients of diabetes (Endocrinology & Metabolism)

PUBLICATIONS

Journals: 23

Abstracts: 16

PATIENT CARE

Neurophysiology Research Laboratory offered objective assessment of pain and pain modulation status by a battery of electro physiological and biochemical tests for 25 select, referred patients of chronic pain. 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 835 individuals including 789 patients were tested in the laboratory.

The intra-operative neuromonitoring support was provided to the Department of Orthopedics during deformity correction surgeries throughout the year (~ 70 surgeries). The Department of Physiology provided multimodal intraoperative monitoring of spinal cord function (somatomotor responses) for 47 patients under corrective surgery of spine.

Integral Health Clinic (IHC) is an outpatient facility for mind, medicine & meditation integration that serves health promotional activities, therapeutic purposes as well as development of health consciousness. It also serves to de-stress AIIMS employees including faculty, students, residents and staff. A total of 332 subjects were benefited at IHC during the year. This includes patients of chronic diseases (like diabetes, obesity, chronic depression, etc) referred from various departments of AIIMS.

The Department also provides central facilities for:

- (i) Biochemical analysis
- (ii) Confocal microscopy
- (iii) Molecular biology

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Rashmi Mathur was elected member, Commission K of Indian National Committee for International Union of Radio Science; member, Board of Studies in Physiology, Banaras Hindu University, Varanasi; expert, Postgraduate Board of Studies in Physiology, Pt. B.D. Sharma University of Health Sciences, Rohtak; member, Committee for the Ethical Consideration involved in Research on Human Subjects, Indian Institute of Technology, New Delhi; subject expert for the XII FYP Programme, and expert member for Peer Review of XII FYP Programme on Facilitating Performance in Military Environment: Systems Biology Approach for Defence Institute of Physiology and Allied Sciences, Delhi (2 April 2013); expert member for 25th Specialist Panel meeting on Environmental Physiology & Behaviour (EP&B) of Life Sciences Research Board; member, International Organization /Committee Members for the symposium Controversies on Electromagnetic Field in Medicine and Biology, Samsun, Turkey (17 June 2013). She also delivered a keynote address at the St. Wilfred's PG College, Jaipur (25-26 October, 2013); and the Silver Jubilee lecture at the 25th Annual Conference of the Physiological Society of India (Narketpally, Andhra Pradesh; 9-11 December 2013).

Professor K.K. Deepak served as Leader of delegation, for Indian scientist and INSA representative to and as a judge for the poster session at the 37th International Congress of the International Union of Physiological Sciences, Birmingham, UK (21-26 July 2013); member of Research Advisory Committee (RAC) of S-VYASA (Swami Vivekananda Yoga Anusandhana Samsthana) University, Bangalore, India; Nodal Officer in the National Knowledge Network (NKN), Government of India; Executive Editor of Indian Journal of Physiology and Pharmacology (IJPP); member of Editorial/Advisory Boards of journals (International Journal of Yoga, India, Health Renaissance; Al-Amin Journal of Medical Sciences); reviewer for Indian Journal of Medical Research, Indian Journal of Physiology and Pharmacology, Journal of Postgraduate Medicine, International journal of Yoga; member, Advisory Board of the Physiological Society of Nepal; member Advisory Board for International Conference on Biomedical Engineering and Assistive Technologies (Jalandhar, 6-7 December 2013); member, Scientific Committee and chairperson for 4 sessions at APPICON 2013 (Bangalore, 26-30 November 2013); expert member, for selection of faculty posts at Department of Physiology in Government Medical College of Amritsar and at SIHFW Mohali, Punjab; member, Committee for Grievances regarding Scheme and Syllabus of BSc Yoga Programme, GGSIP University, Delhi; expert member, Inspection of MD Physiology at Shri Guru Ram Rai Institute of Medical and Health Sciences, Dehradun, Uttarakhand; member of Advisory Committee of All India Pre-Medical/Pre-Dental entrance Test 2014, CBSE, New Delhi; member of committee for Finalization of Recruitment Rules for various posts for BSc (Yoga Science) course of Morarjee Desai National Institute of Yoga (MDNIY), Department of AYUSH; chief organizer for AIIMS Day Exhibition on Infection and Public Health (25-27 September 2013); Professor In-Charge, for Faculty Development of Basic Sciences; Expert Member, Research Council on Futuristic R&D Programmes, Defence Institute of Physiology and Allied Sciences (DIPAS); external examiner of the first professional BDS at Maulana Azad Medical College, New Delhi; expert member, Walk-in-Interview for appointment of Senior Resident at Maulana Azad Medical College, New Delhi; external examiner for first professional MBBS examination at AIIMS, Jodhpur; Convener, Medical Teachers as per minimum qualification for teacher in medical institution regulation, MCI; member, Sub-committee on Minimum Standards Requirements (MSR), MCI Headquarters, Delhi; chairperson for the Keynote address by Prof GK Pal on Defining the role of Physiologists in Post-Genomic Era (9 December 2013); and chair, session on Interaction with College Teachers and Students held during Seminar on Integration of Teaching And Research in Biophysics at Graduate and Postgraduate Level (AIIMS, New Delhi; 11 February 2014).

Professor H.N. Mallick was elected President for Asian Sleep Research Society (2013-16); President for Indian Society for Sleep Research, and Finance Secretary for the Association of Physiologists and Pharmacologists of India. He was also awarded the best poster award in Sleep Conference (2013).

Professor D. Ghosh was core committee member and mentor for ICMR Workshops on Advancement of Physiological Sciences (ICAPS) and chairperson for Third ICMR National Workshop for Advancement of Physiological Sciences in India (ICAPS) in Department of Physiology, AIIMS, on 22nd & 23rd December 2013; External expert for assessment of the physical and the other teaching facilities for MBBS at Medical College, Kozhikode and Calicut; and for MD (Physiology) at Hind Institute of Medical Sciences, Barabaki and Government Medical College,

Haldwani; Chair, National Workshop on ‘Pluripotent Stem Cells (VSELs) in Adult Mammalian Gonads’ Mumbai (6 to 7 September 2013).

Professor K.P. Kochhar organized a Hindi play on ‘Importance of physiology and nutrition for public health’ and ‘Prevention of infectious diseases in daily lifestyle,’ a poster presentation and a skit as part of AIIMS Institute Day celebrations (September 2013).

Professor Nalin Mehta was member, Board of Studies and PhD admission committee, University School of Medicine and Paramedical Health Sciences, Guru Gobind Singh Indraprastha University, New Delhi; External Expert Member, Board of studies, Amity Institute of Physiology and Allied Sciences, Amity University, Noida UP; Member, Institutional Ethics Committee for Research on Human Subjects, Dr. Ram Manohar Lohia Hospital & PGIMER, New Delhi; Member, Independent Ethics committee, International Clinical Epidemiology Network (INCLIN), New Delhi; Member, Institutional ethical committee of Pratham Education Foundation -Annual Status of Education Report (PEF-ASER) Centre, New Delhi; Resource person for International Council for Control of Iodine Deficiency Disorders (ICCIDD) - training technicians of Micronutrient Initiative Salt Iodization Estimation Laboratories for quality control; Chaired sessions on Spotlight on Ethics Committee Role for Protection of Research Participants at the conference on Human Research Protection Program 2013 (Medanta Gurgaon, Haryana; 29-30 June 2013), Compensation for Adverse Drugs Reactions during Clinical Trials at a Seminar on Strengthening Ethical Review, Conduct and Monitoring Clinical Trials (King George Medical University, Lucknow, 18 October 2013), and Streamlining Informed Consent Process at the ICMR-WHO India National Consultation Workshop on Ethical Aspects of Biomedical Research on Human Participants – The Present Context (Indian Council of Medical Research, New Delhi; 28-29 October 2013).

Dr Suman Jain was awarded as favoured author by the International Journal of Nanomedicine; peer reviewer for journals published by Dove Medical press (International Journal of Nanomedicine, Degenerative Neurological and Neuromuscular Disease, Nanobiosensors in Disease Diagnosis, Nanotechnology, Science and Applications), as well as other international and national journals (Journal of Medicinal Plant Research, Physiology and Behavior, Nanotech Insights, Indian Journal of Physiology and Pharmacology); reviewer for evaluation of Ph.D. thesis for Jain Vishwa Bharati University, Ladnun, Rajasthan; and National Institute of Mental Health and Neurosciences, Bangalore; external examiners for 1st Professional MBBS examination; co-author for best poster presentation award at the International Conference on Basic and Applied Physiology (2013).

Dr Ashok Kumar Jaryal was co-author for a paper that was awarded the Dev Raj Bajaj Research Prize for the best paper for the development of newer Techniques/Instrumentation in Physiology/ Pharmacology/Allied Sciences by the Association of Physiologists and Pharmacologists of India 2013 and the Prof. R.C. Shukla oration Award for the best paper in Cardiovascular Physiology by Association of Physiologists and Pharmacologists of India (2013); and the Best oral presentation award at the 59th Annual Conference of APPICON 2013.

Dr R.K. Yadav chaired a scientific session on translational research at Society of Young Scientists Conference - 2013 (Indian National Science Academy, New Delhi; 23 August, 2013) and Symposium on Frontiers in Neuroscience Research, as part of NBRC’s Brain Awareness Week (2nd September 2013); also served as an Advisory Committee Member for the same; co-authored papers that won best paper prizes at AIIMS-NBRC PG Symposium Frontiers in Neuroscience Research (AIIMS, New Delhi, 28 September, 2013) and U.S. National Institutes of health (NIH) Trainee awarded (39th Annual Meeting of American Society of Andrology, Atlanta, Georgia, 4-8 April, 2014; served as Project Evaluator for CCRYN/AYUSH, Ministry of Health & Family Welfare, Govt of India; and as Inspector for Medical council of India (MCI) for assessment towards recognition of new medical colleges.

VISITING SCIENTISTS

1. Dr Benedito H Machado, Professor of Physiology, School of Medicine of Ribeirão Preto, University of São Paulo, Brazil delivered a talk on Hypoxia and Central Coupling of the Sympathetic and Respiratory Activities on 6 December 2013.
2. Professor Ceon Ramon, Department of Electrical Engineering, University of Washington, Seattle, WA 98195, USA, and Institute of Bioengineering and Neural Engineering, Reykjavik University, Reykjavik, Iceland delivered a lecture on Increased Phase Synchronization in Epileptogenic Areas Measured with 256-Channel EEG on 29th January 2014.

9.33 Psychiatry

Professor and Head

Rajat Ray (1.4.2013 to 30.9.2013)

S.K. Khandelwal (1.10.2013-31.3.2014)

Professors

Manju Mehta
Pratap Sharan

R.K. Chadda
Rajesh Sagar

Additional Professors

Nand Kumar

Mamta Sood

Assistant Professor

Sujata Satapathy

HIGHLIGHTS

The Department has been in the forefront of providing mental health services in a general hospital setting. The Department is providing multidisciplinary services in the field of general adult psychiatry, child and adolescent psychiatry, neuro-psychiatry, consultation liaison psychiatry and community services. The Department runs a daily walk-in-clinic, weekly child and adolescent psychiatry clinic, psychosomatic clinic, common mental disorders clinic, severe mental disorders clinic, and dual diagnosis clinic, and provides round the clock emergency services. The Department also provides community outreach services 6 days a week at CRHSP, Ballabgarh, including one day each at the Primary Health Centre at Dayalpur and Chhainsa. The Department runs a weekly clinic at AIIMS Campus at Jhajjar. The Department provides a wide range of therapeutic services, which include both pharmacological and non-pharmacological treatments. A multidisciplinary team consisting of psychiatrists, clinical psychologists, social worker and psychiatric nurses conducts therapies. Psychological treatments like supportive psychotherapy, psycho-education, cognitive behaviour therapy and behaviour therapy are used. Consultation liaison services are provided to inpatients of other disciplines needing psychiatric care. The Department is also equipped with state of the art repetitive Transcranial Magnetic Stimulation (rTMS) service with a neuronavigation facility.

Professor Rajat Ray, Head, Department of Psychiatry and Chief, National Drug Dependence Treatment Centre, retired on 30 September 2013 after serving the Institute for 26 years. A symposium entitled 'Control of Alcohol and Drug Abuse—Public Health Perspective' was organized on 29 September 2013 as a part of the farewell function. The symposium was attended by more than 100 delegates, which included the Department faculty, ex-faculty, residents, research staff and alumni. Professor S.K. Khandelwal took over as Head, Department of Psychiatry and Chief, National Drug Dependence Treatment Centre from 1 October 2013.

EDUCATION

Undergraduate teaching

MBBS

Orientation and lectures

3rd Semester: 24 hours

6th Semester: 14 hours

8th Semester: 6 hours

Clinical posting

4th–5th Semester: 20 days

6th–8th Semester: 40 days

CRHSP Ballabgarh

7th Semester: 10 hours (Community Psychiatry)

BSc Nursing : 38 hours in 2 semesters

Postgraduate (MD, Psychiatry) and PhD teaching

- Journal discussion once a week
- Thesis protocol, midterm presentation once a week
- Tutorial twice a week
- Seminar once a week

- Case Conference once a week
- Psychotherapy supervision for postgraduate psychiatry and doctoral level clinical psychology students
- Supervision of Consultation-Liaison training for junior residents in psychiatry.
- Faculty/Staff presentation once every week besides CCR and CGR in every semester.

CMEs/Workshops/Symposia/National and International Conferences

Organized by the department

- Symposium entitled ‘Control of alcohol and drug abuse—public health perspective’, AIIMS, New Delhi, 29 September 2013.
- Symposium on ‘Psychiatric problems in old age’ for college students on the occasion of the World Mental Health Day, AIIMS, New Delhi, 10 October 2013.
- Workgroup meeting to plan Indo-German study on comparative usefulness of the faith healing practices in depression, 3–4 October 2013.

Lectures delivered

S.K. Khandelwal: 10

Manju Mehta: 4

R.K. Chadda: 8

Pratap Sharan: 12

Rajesh Sagar: 13

Nand Kumar: 2

Mamta Sood: 4

Sujata Satapathy: 4

Oral/posters presented by residents: 1

RESEARCH

Funded projects

Ongoing

1. Field testing of ICD-11 proposals for sexual disorder and sexual health in India. Pratap Sharan, World Health Organization, 2013–15, Rs 12 lakhs.
2. Testing the Performance of Depression Identification Instrument for SEARO in Primary Care Population. Pratap Sharan, World Health Organization – South East Asia Regional Office, 2013–15, Rs 10 lakhs.
3. Effect of duloxetine 30/60 mg Once Daily versus Placebo in Adolescents with Juvenile Primary Fibromyalgia Syndrome (Protocol F1J-MC-HMGW). Pratap Sharan. Funded by: Eli Lilly and Company (India) Pvt. Limited, 2011–14, Rs 20 lakhs.
4. Neuro-cognitive study and use of functional magnetic resonance imaging (fMRI) in patients having major depressive disorder and mania. Rajesh Sagar, Department of Science and Technology (DST), 2010–14, Rs 38 lakhs.
5. Assessment of cognitive functions and serum brain-derived neurotrophic factor in bipolar disorder: A one-year naturalistic follow-up study. Rajesh Sagar, Department of Science and Technology (DST), 2012–15, Rs 24 lakhs.
6. Evaluation of a novel neuroplasticity-based training programme to remediate cognitive control deficits in attention-deficit/hyperactivity disorder (ADHD). Rajesh Sagar, Brain Plasticity Institute San Francisco, 2012–16, Rs 5 lakhs.
7. Specific learning disorder: Indian Scenario. Rajesh Sagar, Department of Science and Technology (DST), 2012–14, Rs 5 lakhs.
8. Development of a Psychosis Identification Instrument. Rajesh Sagar, WHO – SEARO, 2012–14, Rs 5 lakhs.
9. A study of the clinical correlates of quantitative electro-encephalographic spectral analysis in first episode psychosis. Mamta Sood, AIIMS Research Scheme, 2013–14, Rs 1 lakh.

Completed

1. Cross-cultural Development of a Depression Identification Instrument for SEARO. Pratap Sharan, World Health Organization – South East Asia Regional Office, 2010–13, Rs 9 lakhs.

Collaborative

1. Intra-genic variation of Candidate genes in Depression and Suicide ideation: Association Study in Indian Population. RK Chadda (with University of Delhi), Department of Science and Technology, 2013–15, Rs 15.85 lakhs.

2. Proteomics of CSF for the identification of protein signatures in the dopamine dictated states of schizophrenia and Parkinson's disease. RK Chadda (with University of Delhi), Department of Science and Technology, 2014–17, Rs 20 lakhs.

Departmental projects

Ongoing

1. A descriptive study of common physical comorbidity in patients with schizophrenia
2. A randomized trial of add on effect of repetitive transcranial magnetic stimulation (RTMS) in the non responding obsessive compulsive disorder patients
3. Disability and caregiver burden in patients with somatic symptoms disorder
4. Phenomenology of panic disorder in North Western Indian setting
5. Comparative study of Diffusion Tensor Imaging in OCD patients, relatives of OCD patients and healthy controls
6. Self-stigma in bipolar affective disorder
7. Comparative study of H1-MRS in drug-free OCD patients following treatment with escitalopram
8. Effect of repetitive transcranial magnetic stimulation on cognitive functioning in moderate traumatic brain injury
9. A study of fMRI in children and adolescents with Specific Learning Disorders (Dyslexia)

Completed

1. A prospective study for utility of SPECT in administration of repetitive transcranial magnetic stimulation (RTMS) in treatment resistant major depressive disorder
2. Quality of married life and coping strategies in patients with depression
3. Comparative study of H1-MRS in OCD patients, relatives of OCD patients and healthy controls
4. Phenomenology of Dhat syndrome
5. Impact of JPMR and breathing exercise on reducing anxiety, psychological distress and improving quality of sleep among older adults (with College of Nursing)
6. To assess the efficacy of Repetitive Transcranial Magnetic Stimulation (rTMS) over OFC area as an add on treatment in the non responding obsessive compulsive disorder patients
7. To study audio-vestibular effects of transcranial magnetic stimulation (TMS).

Collaborative projects

Ongoing

1. Malignancy in the elderly – development of a screening tool & protein biomarkers (with Geriatric Medicine)
2. Association of menstruation with completed suicide – a hospital based case control study (with Forensic Medicine)
3. Students' suicide: a prospective study from South Delhi (with Forensic Medicine)
4. Is rTMS (repetitive Transcranial Magnetic Stimulation) better than physiotherapy regime in acute stroke recovery? (with Neurology)
5. Effect of rTMS in chronic stroke recovery in comparison to physiotherapy (with Neurology)
6. To develop a bio-feedback rehabilitation technique using residual EMG triggered TMS for spastic patients (with Centre for Biomedical Engineering, IIT Delhi)
7. A study of fMRI in children and adolescents with Specific Learning Disorders (Dyslexia)
8. Multi-centric project on pharmacogenetics of schizophrenia (with Neurochemistry)
9. Neuro-developmental disability in children (with Indian National Trust/Ministry of Social Justice and Empowerment and International Clinical Epidemiology Network [INCLIN])
10. 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 (with Physiology)
11. The role of neurotrophin, cytokines, and genetic polymorphisms in clinical manifestation of depression in adolescents (with Laboratory Medicine)
12. A randomized controlled trial comparing chronic groin pain and quality of life in light weight vs heavyweight mesh in laparoscopic inguinal hernia repair (with Surgery)

13. Technical expert/consultant for the multi-centric study on epidemiology of mental disorders in Nepal (with Psychiatry, BPKIHS, Dharan, Nepal)
14. Study of genetic polymorphisms, neurotrophic factors and nutrient biomarkers in post natal depression and their correlation with maternal depression severity (with Lab Medicine)
15. Depressive and anxiety disorders in the postpartum period: prevalence, psycho-social correlates and effect on mother-infant bonding (with Obstetrics and Gynecology)
16. Identification of associations between genetic variants in neuronal migration pathway and behavioural correlates of dyslexia – linking genes and behavior using familial and sporadic cases (with National Brain Research Centre, Manesar)
17. Collaborative care for depression and diabetes in India (with National Institute of Mental Health [NIMH], National Institutes of Health, USA and Endocrinology)

Completed

1. Initial tryout of Passively Received Experience Scale (PRE) on Hindi speaking population (with International Center of Mental Health Policy and Economics, Milano, Italy)
2. Effect of yoga on serum interleukin levels in adolescents with depression (with Laboratory Medicine)
3. The role of neurotrophins, cytokines and genetic polymorphisms in clinical manifestation of adolescents in depression (with Laboratory Medicine)

PUBLICATIONS

Journals: 55

Chapters in books: 5

Books: 3

PATIENT CARE

OPD and Specialty Clinics Attendance (Psychiatry)	New cases	Old cases	Total
General OPD			
Walk in Clinic	15097	35851	50947
Detailed assessment	2312	12243	14555
Specialty Clinic			
Child guidance	479	564	1043
De-Addiction	62	1299	1361
Total	17950	49957	67906

Total admission: **290**

Total discharges: **240**

Laboratory Investigations for Patient Care: Total Serum Lithium levels: 281

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor S.K. Khandelwal is President-Elect of Indian Association for Social Psychiatry, member of the editorial boards of the Journal of Mental Health and Human Behaviour, and Indian Journal of Social Psychiatry; Chairperson, Indian Psychiatric Society Task Force on Public Interest Litigation; Member, Project Review Committee of ICMR, MCI Curriculum Committee to revise the UG curriculum on psychiatry, National Drug Abuse Survey Working group (Ministry of Social Justice and Empowerment and NSSO), Advisory committee/Stakeholder group for Punjab Opioid Dependence Survey (Department of Health, Government of Punjab); Executive Committee, Institute of Human Behaviour and Allied Sciences; Advisory Committee on Draft Minimum Standard of Clinical Establishment Act (DGHS, MoHFW) and Monitoring Committee for Mental Health Units (Department of Women and Child Development, Government of NCT of Delhi).

Professor Manju Mehta organized the National Seminar on Empowering Adolescents through Psychological Interventions: Current Developments (20–21 January, 2014); and served as an external examiner for MPhil and viva-voce examination of PhD in clinical psychology at various universities. Board member, Selection Committee, Institute of Human Behaviour and Allied Sciences. Her student was awarded the Luke Clack Award for the Best Paper at 7th Congress of Asian Society for Child and Adolescent Psychiatry and Allied Professions and 12th Biennial Conference of Indian Association for Child and Adolescent Mental Health (New Delhi, September 2013). She delivered the Presidential Address at the Annual Conference of Indian Association of Clinical Psychology (Chennai, February 2014).

Professor R.K. Chadda received DLN Murthy Rao Oration Award, Indian Psychiatric Society (2013); BB Sethi Award for best poster at National Conference, Indian Association for Social Psychiatry (2013); President, Indian Association for Social Psychiatry (2011–13); Chairperson, Scientific Committee, 38th Annual Conference, Indian Psychiatric Society, North Zone (September 2013). Member, Editorial Board, International Psychiatry; Member, Curriculum Committee of MCI; Member, Project review committee of ICMR and DST, and Board of Research Studies of PGIMS, Rohtak; Delivered presidential address at XX National Conference, Indian Association for Social Psychiatry (Kolkata, November 2013) and DLN Murthy Rao Oration, 66th Annual National Conference, Indian Psychiatric Society (Pune, January 2014).

Professor Pratap Sharan is Professor-in-Charge, Student Welfare, AIIMS; Advisor, WHO International Advisory Group for Revision of ICD-10 Mental and Behavioural Disorders (2009 onwards); Member, WHO Working group on Eating Disorders for Revision of ICD-10 Mental and Behavioural Disorders (2012 onwards); President, Indian Association of Child and Adolescent Psychiatry (IACAM) (2011–13); Member, Awards Committee, IACAM (2013); Delivered Presidential Address, ‘Culture, classification and childhood mental disorders’, 7th Congress of Asian Society for Child and Adolescent Psychiatry & Allied Professions and 12th National Biennial Conference of Indian Association for Child and Adolescent Mental Health (New Delhi, 25–28 September 2013); Chairperson, Taskforce on Research of the Indian Association for Social Psychiatry (201220–2114); Working Committee Member, The National Medical Journal of India; Member, Editorial Board of the following journals: Journal for Eating Disorders, Indian Journal of Psychiatry, Indian Journal of Social Psychiatry, Journal of Mental Health and Human Behaviour; Peer Reviewer for following journals: PLoS Medicine, WHO Bulletin, Comprehensive Psychiatry, BMC Public Health, BMC Psychiatry, Journal of Affective Disorder, Indian Journal of Medical Research, National Medical Journal of India (Indexed), Indian Journal of Psychiatry (Indexed), Indian Journal of Palliative Care, Journal of Mental Health and Human Behavior. Moderator, Symposium on ‘Natural and manmade disasters’, 21st World Congress on Social Psychiatry (Lisbon, Portugal, 29 June – 3 July); *chaired the* Marfatia Awards Session and the Symposium entitled ‘Child is the Father of Man’ at 7th Congress of Asian Society for Child and Adolescent Psychiatry and Allied Professions and 12th National Biennial Conference of Indian Association for Child and Adolescent Mental Health (New Delhi, 25–28 September 2013) Session on Depression and OCD. National Seminar on Empowering Adolescents through Psychological Interventions: Current Developments. AIIMS, New Delhi, 20–21 January 2014; the CME Symposium on ‘Suicide in the New Millennium’, 20th National Conference of Indian Association for Social Psychiatry (Kolkata, 8–10 November 2013); and session on ‘Journal indexing’ at the Annual Conference of the Indian Association of Medical Journal Editors (New Delhi, 16–17 November 2013).

Professor Rajesh Sagar is Secretary, Central Mental Health Authority; Editor, Journal of Mental Health and Human Behaviour; Member, Committee for Central Adoption Regulatory Authority (Ministry of Women and Child), Ethics Committee of Central Council of Homeopathy Research (Ministry of AYUSH), Ethics Committee of National Brain Research Centre, Delhi Commission of Protection of Child Rights Committee to develop guidelines for prevention of child abuse, MoH&FW Committee titled Indian Initiative of Obstructive Sleep Apnea, MoH&FW Consultation for Technical Review of National Training Modules on Adolescent Friendly Health Services, Expert Committee for evaluation of Post Doctoral Fellowship and research proposals under Cognitive Science Research Initiative of the DST, Steering Committee of the proposed Central India Unit of the UNESCO Chair in Bioethics, MoH&FW Technical Advisory Group (TAG) on National Mental Health Program (NMHP), Working Group member under NMHP for development of Training module for GPs/MOs, Dementia Science Project under Department of Biotechnology, Interdepartmental coordination meeting on implementation of Chuppi-Todo Programme and release of IEC material on prevention of child sexual abuse by DCPCR and Advisory Committee for the Centre for Psychotherapy and Clinical Research, Ambedkar University, Delhi; Convener, Specialty Advisory Board in Psychiatry, National Board of Examination and the Parliamentary Committee of Indian Psychiatry Society, and the advisor for a SLD Project of the Department of Science and Technology and for mental health to the Directorate General of Health Services (MoH&FW); Chairman, Technical Committee on Community Mental Health Development Project for DGHS; Member, AIIMS Dean’s committee.

Dr Mamta Sood is Executive Member, Indian Association for Social Psychiatry.

Dr Sujata Satapathy is Member, Centre for Development of Advance Computing Committee for the development and pilot testing of e-learning course on psychosocial support in emergencies in India; Member, Editorial board, Journal of Organizational Culture, Communications and Conflict (JOCCC); Member, Selection committee for the appointment of junior consultants (human behaviour) at NIDM (Ministry of Home Affairs), the core group for the National Guidelines for Minimum Standards of Disaster Medical Relief (NDMA), and the national team for need assessment and providing initial psychosocial first aid to cyclone Philin affected people in Odisha and Andhra Pradesh.

9.34 Pulmonary Medicine and Sleep Disorders

Professor and Head

Randeep Guleria

Professor

G.C. Khilnani

Additional Professor

Anant Mohan

Assistant Professors

Vijay Hadda

Karan Madan

HIGHLIGHTS

The department of Pulmonary Medicine and Sleep Disorders was created in May 2011. Since then, the department has grown in all aspects of patient care, teaching and research. The outpatient attendance of the general Pulmonary OPD, Lung cancer and Sleep clinic has increased two-fold since the previous year. Indoor facilities include an eight-bedded fully equipped Respiratory ICU and nine bedded ward. State-of-the art interventional bronchoscopic facilities have been established with the availability of endobronchial ultrasound, pleuroscopy, rigid bronchoscopy, cryotherapy and electrocautery. Two sleep laboratories perform more than 200 polysomnography procedures annually. A fully functional respiratory lab has facilities for spirometry, plethysmography and diffusion. Cardiopulmonary exercise testing and pulmonary rehabilitation Unit is shortly due to start for patients.

The department runs a comprehensive DM program and has four DM students per year. They are trained through a structured academic schedule comprising seminars, journal clubs, bedside teaching, and practical training, in addition to dissertation.

The department is highly active in research and has several extramurally funded projects by ICMR, DST, DBT on Lung cancer, COPD, TB and other areas. It has also been organizing an annual International Conference, 'AIIMS PULMOCRIT' regularly since 2012 in association with the American College of Chest Physicians (ACCP).

EDUCATION

The department runs a comprehensive DM program and enrolls four DM students per year. They are trained through a structured academic schedule comprising seminars, journal clubs, bedside teaching, and practical training, in addition to dissertation.

CMEs/Workshops/Conferences

The department has been organizing an annual International Conference since 2012. The previous edition, 'AIIMS PULMOCRIT 2014–Update in Pulmonary, Critical care and Sleep Medicine and AIIMS–ACCP Workshop on Mechanical Ventilation' was held in Feb 2014. This was attended by over 300 participants and 100 faculty across India and from USA.

Lectures delivered

Randeep Guleria: 16

Oral papers/posters presented: 1

RESEARCH

Funded projects

Ongoing

1. 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.
2. Double blind randomized placebo controlled trial of herbal compound MA-364 in patients with mild to moderate bronchial asthma. Randeep Guleria, Maharishi Ayurveda
3. Dietary intake of micronutrients and their serum/plasma levels in association with severe asthma. Randeep Guleria, ICMR.

4. 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.
5. Clinical trial of herbal compound MA 305 in patients with mild to moderate hypertension: A pilot study, Randeep Guleria, Maharishi Ayurveda.
6. Genetic Association study of Polymorphisms related to Chronic Obstructive Pulmonary Disease and its Measures, in North Indian Population: COPD Genetic Consortium. Randeep Guleria.
7. Detection of aberrant promoter methylation of tumor suppression genes and onco genes in tumor and serum of lung cancer patients. Randeep Guleria, November 2014.
8. Role of acute lung injury biomarker gene polymorphisms in obstructive sleep apnea. Randeep Guleria, ICMR.

Departmental projects

Ongoing

1. Nutritional status in Lung cancer
2. Lactate dehydrogenase and alkaline phosphates levels in Bronchoalveolar Lavage fluid of patients with sarcoidosis
3. Assessment of quality of life in COPD
4. Smoking habits among medical students
5. Nutritional status of stable COPD patients and assessment of quality of life
6. Assessment of quality of life in Asthma patients
7. Smoking habits in urban slums of Delhi
8. Diagnostic Yield of Semi-rigid Thoracoscopy in Undiagnosed Pleural Effusion.
9. Prevalence of Obstructive Sleep Apnea (OSA) in patients with COPD (Overlap Syndrome and its effect on Health Related Quality of Life.
10. Diagnostic yield of EBUS- TBNA in undiagnosed mediastinal lymphadenopathy.
11. Prevalence of aspergillus fumigates hypersensitivity in patients with bronchial asthma.
12. Pulmonary complications after hematopoietic stem cell transplantation: an observational study.
13. Fractional exhaled nitric oxide levels in patients of obstructive sleep apnea.
14. Diagnostic utility of EBUS-TBNA versus conventional TBNA with rapid on site evaluation in the diagnosis of sarcoidosis: a randomized study.
15. Serial assessment of diaphragmatic thickness and its effect on clinical outcome in patients on mechanical ventilation.

Completed

1. Assessment of quality of life in patients with lung cancer
2. Predictors of mortality and morbidity in patients admitted with acute exacerbation of COPD

PUBLICATIONS

Journals: 16

PATIENT CARE

Pulmonary Medicine OPD

New Cases	9048	Old Cases	18530
Chemotherapy procedures	853		

Lung Cancer Clinic

New Cases	212	Old Cases	728
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Sleep Disorder Clinic

New Cases	216	Old Cases	200
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LABORATORIES

Respiratory laboratory			
Spirometry procedures	10842	Diffusion capacity estimation	1848
Body Box (Plethysmography) measurements	610		
Bronchoscopy Laboratory			
Fiberoptic bronchoscopy procedures	1733	Endobronchial Ultrasound	146
Thoracoscopy	38	Cryotherapy	12
Stenting	8		
Sleep laboratory			
Polysomnography studies	477		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Randeep Guleria was awarded Dr. Reddy's Chest Oration for the year 2013 by the National College of Chest Physicians at NAPCON in 2013; nominated a Member of the Institute Body of AIIMS, Patna; appointed a member of the Project Assessment Committee in Health Sciences, under SERB, of the Department of Science and Technology to evaluate the projects submitted for financial support to the DST; appointed External Examiner for MD (TB & Respiratory Diseases, Banaras Hindu University on 27 April 2013; appointed as external examiner for MD (Pulmonary Medicine) of King Georg's Medical University, Lucknow, UP; appointed as External Expert for the Standing Selection Committee to interview for the post of Assistant Professor in the department of TB & Chest Diseases of the Indira Gandhi Institute of Medical Sciences, Patna, Bihar; appointed as Expert for the inspection to oversee the infrastructure, faculty members, library and other requirements for starting of DM (Pulmonary Medicine) course at MAMC as per MCI regulations; appointed member of the Joint Monitoring Group to review matters related to outbreaks of new disease including Pandemic Influenza by the Ministry of Health & Family Welfare, Govt. of India; appointed as External Expert for the Standing Selection Committee to interview for the post of Faculty at KGMC, University, Lucknow.

9.35 Radiodiagnosis

Professor and Head

Arun Kumar Gupta

Professors

Deep N. Srivastava
Sanjay Sharma (RPC)

Raju Sharma

Sanjay Thulkar (IRCH)
Ashu Seith Bhalla

Additional Professor

Smriti Hari

Shivanand Gamanagatti (Trauma Centre)

Atin Kumar (Trauma Centre)

Assistant Professor

Chandan J. Das
Manisha Jana
(IRCH)

Madhusudan K.S.
Chandrashekhara SH
(IRCH)

Surbhi Vyas
Devasenathipathy Kandasamy
(IRCH)

Scientist IV

Shashi Paul

Chief Technical Officer (Group A)

Kavita Taneja

HIGHLIGHTS

The departmental faculty was actively engaged in patient care, education and research. A high end state-of-the-art Digital Subtraction Angiography machine was installed which will help in reducing waiting period for patients. Two new ultrasonography machines were installed in Jhajjar outreach OPD. The RIS-PACS, needed for electronic reporting and archiving, was upgraded with new licenses and enhanced features. We organized two CMEs and the faculty delivered about 50 lectures in various CME. The faculty also delivered over 25 lectures in various national and international conferences. About 27 posters and oral papers were accepted for presentation in various conferences all over the world. We were involved in a multi-center project funded by National Knowledge Network and two intramural funded research projects. Besides, we were involved in over 100 completed and ongoing departmental and collaborative projects as well. Our faculty was actively involved in research and published more than 65 papers in various indexed national and international journals.

EDUCATION

Undergraduate

The department faculty was actively involved in teaching of undergraduate students. There were a total of 60 lectures taken by the faculty for them in this period.

Postgraduate

MD: There were a total of 30 junior residents.

Academic activities for postgraduate students included around 35 seminars, 35 journal clubs, 70 case discussions, 70 interesting film sessions and 80 lecture classes.

The department provided short term training to a total of 3 radiologists from all over the country during this period and to four radiology technicians from Korea.

BSc (Hons) Medical technology in Radiography (MTR)

A batch of 9 students was admitted to this course of 3 years duration. The total number of students over three years is 27.

CMEs/Workshops/Symposia/National and International conferences

CME organized

1. 11th National conference of Indian Association of Radiological Technologists with the theme 'New Trends in Radiological Imaging', JLN Auditorium, AIIMS, New Delhi, 22-24 November 2013.
2. Symposium on Breast Cancer Screening, Board Room, AIIMS, New Delhi, 27 January 2014.

Lectures delivered

Deep N. Srivastava: 2

Raju Sharma: 18

Sanjay Sharma: 6

Ashu Seith Bhalla: 17

Smriti Hari: 6

Chandan J Das: 2

Madhusudhan K.S.: 3

Surabhi Vyas: 2

Shashi B. Paul: 2

Oral papers/posters presented: 35

RESEARCH

Funded projects

Ongoing

1. Preoperative prediction of tumor angiogenesis by DW MRI and perfusion CT in renal cell carcinoma and using these biomarkers to predict tumor grade in advanced renal cell carcinoma (2013-0219). Chandan J Das, ICMR, Rs. 12 Lakhs.
2. Role of CE-MRI of breast and MR guided breast biopsy for preoperative evaluation of patients diagnosed with breast cancer and selected for breast conservation surgery. Smriti Hari. AIIMS fund, Rs. 10 Lakhs.
3. Network enabled Medical Diagnosis and Education in skeletal imaging using X Rays. Arun Kumar Gupta, NIC, Rs. 325 lakhs.

Completed

1. Correlation of CT findings with Clinical symptoms and Pulmonary Functions in patients with sequelae of Pulmonary Tuberculosis. Ashu Seith, AIIMS Intramural, Rs 5 Lakhs, 2012-14.

Departmental projects (including thesis/dissertations)

Ongoing

1. Role of contrast enhanced ultrasound in the diagnosis of hepatocellular carcinoma in patients of cirrhosis.
2. To ascertain the role of Shear Wave Elastography as an adjunct to B-mode ultrasonography in the characterization of Breast masses
3. Role of MRI in imaging of retinoblastoma
4. Role of digital breast tomosynthesis as an adjunct to full field digital mammography (FFDM) in the diagnosis of breast lesions.
5. Role of Split Bolus Dual Energy Single Acquisition CT in Evaluation of Urological Diseases of the Upper Urinary Tract.
6. The accuracy of high b value diffusion weighted MR imaging in predicting tumour stage and grade in carcinoma of the urinary bladder: A prospective study on 3 Tesla MR system
7. Role of ultrasound and MRI in Rheumatoid Arthritis
8. MRI evaluation of chronic elbow pain.
9. Role of CE-MRI of breast and MR guided breast biopsy for preoperative evaluation of patients diagnosed with breast cancer and selected for breast conservation surgery.
10. Comparison of MRI and PET- CT in detection of residual disease after lumpectomy in women with breast cancer
11. Role of diffusion weighted MR imaging in predicting the tumour stage and grade in carcinoma of urinary bladder: a prospective study on 3T MR system.
12. Liver and spleen stiffness in patients with extrahepatic portal vein obstruction: Evaluation by ultrasound elastography.
13. MRI evaluation of chronic ankle pain.
14. Role of MRI with diffusion weighted imaging in the evaluation of response to chemo-radiotherapy gall bladder carcinoma.
15. Imaging and interventions in arteriovenous fistulas for hemodialysis.
16. Role of MRI in the evaluation of non-alcoholic fatty liver disease.
17. To ascertain the role of Shear Wave Elastography as an adjunct to B-mode ultrasonography in characterization of breast masses.

18. Comparison of CECT and PET-CT at baseline, interim and post treatment in Pediatric Hodgkin lymphoma.
19. Role of Perfusion CT in pancreatic pathology.
20. Role of MRI with DWI in response assessment to chemoradiotherapy in carcinoma gall bladder.
21. Role of Perfusion-CT in evaluation of Non-Small Cell Lung Carcinoma in Patients undergoing Chemotherapy.
22. Dynamic MRI in evaluation of upper airway in obstructive sleep apnoea.
23. MRI evaluation of chronic hip pain
24. MR evaluation of upper limb peripheral neuropathies

Completed

1. Contrast enhanced ultrasound for the assessment of therapeutic response following locoregional therapy in patients of hepatocellular carcinoma
2. Role of Digital Breast Tomosynthesis as an adjunct to Full Field Digital Mammography (FFDM) in the evaluation of breast lesions.
3. Role of Dual Energy CT in assessment of Gout.
4. Role of Dual Energy CT in assessment of urinary tract calculi.
5. Evaluation of neck masses using diffusion weighted MR imaging and ultrasound elastography.

Collaborative projects

Ongoing

1. Assessment of liver fibrosis in patients with Chronic liver disease using Transient elastography, Shear wave elastography and serum biochemical markers (Gastroenterology).
2. Randomized controlled trial of N-Acetylcysteine in prevention of renal failure in hepatocellular carcinoma patients undergoing transarterial chemotherapy and transarterial chemoembolisation (Gastroenterology).
3. Role of C-Reactive protein in predicting response to locoregional therapy for Hepatocellular carcinoma (Gastroenterology).
4. Use of Indocyanine green test for the estimation of liver function in patients undergoing trans-arterial chemoembolisation. Co-guide for DM Gastroenterology dissertation of Candidate (Gastroenterology).
5. Randomized controlled trial of Radiofrequency ablation versus percutaneous acetic acid therapy for the treatment of small hepatocellular carcinoma (HCC), ICMR, (Gastroenterology).
6. Randomized controlled trial of trans-arterial chemoembolization (TACE) versus TACE plus oral chemotherapy in the treatment of unresectable HCC (Gastroenterology, Funded by ICMR 2012-14).
7. Randomized controlled trial of trans-arterial chemotherapy (TAC) versus oral chemotherapy in the treatment of unresectable HCC (Gastroenterology, Funded by ICMR 2012-14).
8. Randomized controlled trial of oral chemotherapy versus supportive therapy in the treatment of unresectable patients of HCC (Gastroenterology (Funded by ICMR 2012-14).
9. Role of MR spectroscopy in CNS involvement in HIV in Indian population (Department of Medicine).
10. Study pattern of HIV Drug resistant mutations in HIV patients co-infected with active tuberculosis (Medicine).
11. Optimization of the of the PET/CT protocol to decrease the total radiation dose to pediatric population without compromising the diagnostic quality of fused PET/CT (Nuclear Medicine).
12. Study of the utility of FDG-PET/CT Vs CECT for the evaluation of fever of more than 4 weeks duration in HIV/AIDS (AIDS associated PUO) (Medicine).
13. Gallium-68 (Ga-68) -labeled PSMA PET/CT in the evaluation of prostate cancer patients (Nuclear medicine).
14. Role of CECT abdomen in decision making in elderly patients presenting to the emergency department with acute nonspecific pain abdomen (Emergency Medicine).
15. Pathogenetic markers in severe dengue fever (Medicine).
16. Does thumb opposition recover following surgery for severe carpal tunnel syndrome: A clinical, radiological and electrophysiological pilot study (Orthopedics).
17. Incidence of DVT in major GI surgery: a prospective observational study (GIS).
18. To study widening of socket and healing of hamstring tendon graft in all inside arthroscopic ACL reconstruction using MRI (Orthopedics).

19. Role of CT esophagography in the evaluation of carcinoma of esophagus (Gastrointestinal Surgery).
20. Evaluation of remnant pancreatic volume after Whipple's procedure and correlation with new onset diabetes mellitus (Gastrointestinal Surgery).
21. Follow up of patients with Percutaneous Transhepatic Biliary Drainage in patients with Obstructive Jaundice (Gastrointestinal Surgery).
22. Gemcitabine and oxaliplatin vs Gemcitabine and capecitabine in unresectable carcinoma gall bladder with obstructive jaundice post PTBD/Stenting: A Randomized Controlled Study (Gastrointestinal Surgery).
23. Prospective evaluation of PET-CT in preoperative staging of carcinoma of esophagus (Gastrointestinal Surgery).
24. Non-alcoholic fatty liver disease and metabolic syndrome in chronic kidney disease (Medicine).
25. Evaluation of clinical, sonographic and histological findings in patients with indeterminate cervical or axillary adenopathy (Medicine).
26. Correlation of epicardial fat, fatty liver and abdominal fat using MRI with ECHO and body-mass index in patients with metabolic syndrome (Medicine).
27. Evaluation of hypersplenism in patients of extrahepatic portal vein obstruction (Gastrointestinal Surgery).
28. Safety and efficacy of unilateral versus bilateral percutaneous transhepatic biliary drainage in the management of patients with malignant obstruction of the biliary hilum: A randomized controlled study (Gastrointestinal Surgery).
29. Portal vein embolization in hepatobiliary malignancies (Gastrointestinal Surgery).
30. Multiparametric approach to the study of cancer and its correlation with molecular markers.
31. A Clinical, Imaging, Endoscopic and Laboratory evaluation of Female Genital Tuberculosis.
32. Effect of initiation of complementary foods at 16 weeks compared to 24 weeks of corrected age on growth of preterm infants less than 34 weeks of gestation – A randomized trial (Pediatrics).
33. ICMR Advanced Centre for Newborn Health Research, (Department of Paediatrics, AIIMS).
34. Rotavirus Vaccine 116E against Severe Rotavirus Gastroenteritis in children — under Department of Biotechnology, M/O Science & Technology, Govt of India.
35. Randomized Double blind placebo controlled trial to compare the efficacy of 3 month vs 6 month therapy with prednisolone for the first episode of idiopathic nephrotic syndrome in children, ICMR, (Department of Paediatrics, AIIMS).
36. Evaluation of Ultrasound Cranium with MRI brain in detecting PVL in very low birth weight preterm neonates at term age (ICMR, Department of Paediatrics, and DM thesis, Paediatrics).
37. Influence of genetic polymorphisms, clinical and biochemical parameters in determining susceptibility to NAFLD in Indian overweight adolescents, ICMR, (Department of Paediatrics).
38. Myocardial involvement in chronic constructive pericarditis: role of imaging in the diagnosis and prognosticating outcomes (Radiodiagnosis).
39. Importance of Angiosome targeted vessel bed identification by DSA & MR techniques in patients with critical limb ischaemia (Radiodiagnosis).
40. Evaluation of the properties of renal stone (PhD Medical Physics).
41. National Knowledge Network model project on Network Enabled medical diagnosis & education in skeletal imaging using x-rays.
42. Pre-operative embolization of Bone Tumors US & MR evaluation of Upper limb neuropathy
43. MRI of Brachial Plexus Injuries
44. Assessment of lower segment caesarian scar using transvaginal ultrasound and MRI.
45. Early & Mid-term urological and sexual dysfunction following surgery for rectal cancer: a prospective & observational study
46. Dermatological manifestations of chronic reactive arthritis
47. Perfusion studies in lung cancer
48. Role of MRI in Chemotherapy Response Assessment in Ewing's Sarcoma Family of Tumors
49. Role of MRI in the diagnosis & follow-up of NAFLD.
50. Evaluation of newer markers of atherosclerosis in patients with type 2 diabetes (Medicine).

51. Study on genotype -phenotype correlation in Asian Indian subjects with childhood onset of growth hormone deficiency.(Anatomy- Member Doctoral Committee Member).
52. Association of Non-alcoholic Fatty Liver Disease (NAFLD) with Obstructive sleep apnea (OSA) in Asian Indians (Pulmonary Medicine).
53. Clinical, investigative and therapeutic profile of patients presenting with haemoptysis (Medicine).
54. Comparative study of human and non-human long bones by anatomical and radiological methods (Forensic).
55. Effect of IJV ligation during comprehensive neck dissection on intracranial pressure. (ENT).
56. Bone height measurement of postcanine maxilla from alveolar ridge to sinus floor using CT scans. (Anatomy).
57. Evaluation of properties of renal stones(PhD Medical Physics).
58. Evaluation of Vidian artery in Juvenile nasopharyngeal angiofibroma.

Completed

1. Measurement of depth of terminal ductolobular unit preoperatively by breast ultrasound and by histological assessment postoperatively.
2. Evaluation of PET Scan in preoperative assessment of cases of endometrial carcinoma.
3. Correlation of stage and imaging of endometriosis with fertility outcome.
4. Evaluation of serum VEGF and Diffusion Weighted MRI in locally advanced cervical carcinoma treated with neoadjuvant chemotherapy followed by chemoradiation.
5. A study on clinical, biochemical and radiological markers to describe the outcomes in preterm infants less than 35 weeks gestation born with abnormal antenatal umbilical artery Doppler flow(A/REDF).
6. Assessment of dry weight by monitoring changes in blood volume and inferior vena cava diameter during hemodialysis.
7. Role of volumetric analysis and dynamic imaging in the assessment of aortic aneurysms and Type B dissection with gated CT (Radiodiagnosis).
8. Comparison of CT angiography and catheter directed angiocardiology in the preoperative evaluation of patients with TOF (Radiodiagnosis).
9. To study the clinical and neurodevelopment profile in children with Tuberous sclerosis (Paediatrics)
10. Development of multifunctional metallic nanoparticles for cancer targeting (Pathology)
11. Long term follow up of patients undergoing esophageal replacement by reversed gastric tube (Paediatric Surgery).
12. A study on profibrotic cytokines TGF-beta, TNF-alpha and IL-6 in urine for monitoring therapy in posterior urethral valves (Paediatric Surgery).
13. Risk factors and Biochemical markers of Metabolic bone disease in preterm very low birth weight infants and role of Vitamin D deficiency – A prospective observational study (Paediatrics).
14. Adiponectin, Leptin and lipid profile in small for gestational age babies : a cross sectional study” (Paediatrics).
15. Study the genetic polymorphisms and correlation with cytokine and hormone levels of Macrophage migration inhibitory factor (MIF). Peroxisome Proliferator-Activated Receptor-r (PPARr), Interleukin-6 (IL-6), C-reactive protein (CRP), Insulin receptor substrate (IRS)-1 and Leptin receptor genes in Obstructive sleep apnea syndrome (OSAS) and non alcoholic fatty liver disease (NAFLD) subjects (DST project with Department of Medicine).
17. Long term functional outcome and quality of life in patients of anorectal malformation (Paediatric Surgery).
18. Early postnatal growth in term low birth weight infants (Paediatrics).
19. Study of association of adipocyte size with anthropometric and biochemical parameters (Medicine).
20. Role of Image guided navigation in Endoscopic surgery of Paranasal sinuses: A Comparative study (ENT).
21. Ultrasound guided localization of internal jugular vein with reference to carotid artery in infants, children and adolescents (Anaesthesia).
22. Diagnosis and differential diagnosis of patients with Cushing’s syndrome (Endocrinology).
23. Association of nonalcoholic fatty liver disease with bone mineral density and adiposity (Medicine).
24. Pre-post intervention study of quantitative and qualitative evaluation of bone formed in sinus augmentation with the use of bioactive synthetic bone graft putty (CDER).

PUBLICATIONS

Journals: 34

Abstracts: 3

Chapters in books: 5

PATIENT CARE

The department is equipped with all state of art facilities for imaging. We currently have nine digital radiography units, ten digital portal radiography units, four conventional portable radiography units, three digital fluoroscopy units, two conventional fluoroscopy units, two flat panel DSA labs, thirteen ultrasound scanners with color Doppler, four portable ultrasound units, three CT scanners of which one is a dual energy scanner, one 1.5 Tesla MR scanner, one full field digital mammography unit with tomosynthesis, and a DEXA unit for bone densitometry. The department performs a vast multitude of diagnostic and interventional radiology procedures and caters to all clinical departments in the main hospital. It provides 24 hour coverage for emergency diagnostic and interventional procedures. More than twenty four clinico-radiological conferences are held during the week where all imaging investigations are discussed with clinical colleagues. We are making a concerted effort to switch to electronic reporting and archiving to increase efficiency and reduce the turn-around time.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Raju Sharma received the academic Promotion Award for Exemplary Contribution in Promoting Academic Activities in Delhi State Branch of Indian Radiology & Imaging Association - March 2014, and President Appreciation Award for distinguished contribution to Radiology & Indian Radiology & Imaging Association April 2013.

Dr Smriti Hari is a founder member of the Indian Breast Cancer Resource, a collective initiative between several academic cancer centers, to collect and make publicly available, all clinical and epidemiological research on breast cancer in India; Elected as the first General Secretary of Breast Imaging Society of India in August 2013.

Dr Surabhi Vyas is a member of National Academy of Medical Sciences and ICRI- Indian College of Radiology and Imaging.

Dr Chandan J. Das is member of Editorial Board, World Journal of Radiology and Indian College of Radiology and Imaging (ICRI).

Dr Madhusudhan K.S. is member of expert committee of Radiology for Biotechnology Industry Research Assistance Council (BIRAC) - Under Ministry of Science & Technology, Govt of India; Reviewer of American Journal of Roentgenology.

Dr Shashi B. Paul is a reviewer for the Journal of European Radiology and Tropical Gastroenterology; Member of the Task force of Indian National Association for the study of Liver (INASL) on Hepatocellular Carcinoma in India, 2013. In this capacity, formulated and published the consensus guidelines on Prevention, Diagnosis and Management of Hepatocellular carcinoma in India.

VISITING SCIENTISTS

1. Dr. Vikram Anik Sahni, Brigham and Women's hospital, Harvard University, Boston, USA
2. Dr. Harmeet Kaur, MD Anderson Cancer Center, Houston, Texas, USA

9.36 Reproductive Biology

Professor and Head

Anand Kumar

Professors

Ashutosh Halder

Additional Professors

Pradeep Kumar Chaturvedi

HIGHLIGHTS

The department is involved in teaching, training, research and publication related work besides diagnostic services and guiding/advising/counseling referral cases from various parts of India. Training and teaching was provided to our own PhD students and various trainees of the department. The department also provides various FISH related services as well as reproductive counseling/opinion, directly or on request from paediatrics, cardiology or clinical haematology as well as from and outside Delhi referral cases on request. Most of the clinical counseling was self-referral following web search (cases with reproductive disorders, malformation, cancer, etc). Faculty members of the department were invited by several national academics for different activities (NII ethics committee, NABL expert committee meeting, Ministry of Agriculture expert meeting, ICMR APS selection committee, etc). The main areas of activity of the department include diagnostic services, reproductive genetics, dysmorphology (lethal malformations) and disorders of sex development. These involve infertility, malformation, prenatal diagnosis, postnatal diagnosis, preimplantation genetics diagnosis, molecular cytogenetics, etc. The department conducts a national workshop on molecular cytogenetics annually since 2006 to generate human resources. The molecular cytogenetics laboratory of the department is now reputed as a national resource for teaching and training manpower, characterizing results and confirming diagnosis for research, patient care and research publication. The department is also working to develop biobanking/tissue repository for research and service (semen/gonad/gamete banking/cancer survivors).

EDUCATION

Six PhD students (2 awarded PhD in 2013-2014)

Two trainee students are working as SRF & JRF

Weekly seminars/journal club

Day to day case wise/laboratory work discussion

Post Doctoral : One MD student

Postgraduate : MD Laboratory Medicine and MD Biochemistry students

CMEs/Workshops/Symposia/National and International conferences

The department organized national symposium on 'Reproductive Effects of Endocrine Disruptors' on 20th July 2013 at AIIMS, New Delhi.

Lectures delivered

Dr Ashutosh Halder: 5

Oral papers/posters presented by the residents and staff: 7

RESEARCH

Funded projects

Ongoing

1. An investigation for sub-microscopic chromosomal imbalances and uniparental disomy by array comparative genomic hybridization (aCGH) in FISH negative clinically suspected 22q11.2 microdeletion syndromes. Ashutosh Halder. ICMR, 3 years, 15 September 2011 to 14 September 2014. Rs. 39 lakhs
2. Testicular Germ cell arrest (maturation arrest): An Investigation of Phenotype-Genotype Correlation. Ashutosh Halder. AIIMS, 2-3 years, from Dec 2012, Rs. 10-14 lakhs

3. Quality control for hCG kits procured by HLL Lifecare Limited, Gurgaon. P.K. Chaturvedi, HLL Lifecare, Rs. 4.20 lakhs/year.
4. Potential effect of gene-environment interaction between CYP450A1, GSTT1, GSTM1 and environmental pollutants on semen quality, DST 2 June 2011 to 1 June 2014, Rs. 23,76,000, DST Women Scientist Programme.

Departmental projects (including thesis/dissertations)

Ongoing

1. Analysis of differential expression of proteins in motile and non motile spermatozoa.
2. Understanding dynamics of sex ratio.
3. Role of 3,5,3'-L-triiodothyronine (T3) in the regulation of VEGF production in Leydig cell.
4. Testicular germ cell arrest (maturation arrest): An investigation of phenotype-genotype correlation.
5. Premature ovarian failure: an investigation to find out underlying etiopathology.
6. Prolactin: Role in reproductive physiology and pathology
7. Analysis of differential expression of proteins in motile and non motile spermatozoa.

Completed

1. Dynamics of Sex Ratio

Collaborative projects

Ongoing

1. A prospective, double blind, randomized control trial to determine the effect of vitamin D supplementation on the development of active tuberculosis and pneumonia in HIV infected individual (with Department of Medicine).
2. A prospective randomized comparison of testicular function, sexual function and quality of life following laparoscopic tep and tap inguinal hernia repair (Department of Surgery, AIIMS).
3. Randomized clinical trial to assess the efficacy of myoinositol with metformin on clinical, metabolic and hormonal parameters of polycystic ovary syndrome (Department of Obstetrics and Gynecology, AIIMS)
4. Effect of continuous positive airway pressure therapy on neurocognitive impairment in patients with moderate to severe obstructive sleep apnea (Department of Medicine, AIIMS).
5. Evaluation of C MET gene expression in gastric adenocarcinoma & co-relation with conventional clinic-pathological parameters-a descriptive study (Pathology, UCMS/GTB, Delhi University)
6. Effect of non-ionizing electromagnetic field in human health (with Department of Biochemistry, AIIMS).
7. Sperm proteomics differential protein expression in normal and non-motile spermatozoa possible cases and markers (with Department of Biophysics, AIIMS)
8. Role of urinary neutrophil gelatinase associated lipocalin in diagnosing contrast induced nephropathy (Department of Nephrology, AIIMS)

Completed

1. Serum alpha-fetoprotein and albumin level in fanconi anemia (Clinical Hematology, Department of Hematology, AIIMS)

PUBLICATIONS

Journals: 9 Abstracts: 2 Chapters in books: 3

PATIENT CARE

Routine assays for LH, FSH, Prolactin, T3, T4, TSH, Testosterone, Estradiol, Progesterone, alpha Feto-Protein, Prostate Specific Antigen (PSA), Beta hCG, CA-125, cortisol and vitamin D in the blood samples of in and out patients were carried out in the facility.

In CRIA facility Vitamin D has been made available for in house and OPD patients. Permission to start newer test (Anti TPO, Anti tg, free T3, free T4, BNP, Troponin I, CKMB, Homocystein, SHBG, CEA, CA 19.9, CA 15.3, Free PSA, Pro Grp, HE4, Active B12, Ferritin, Folate, PTH, C-peptide, Hba1c and anti ccp, DHT, 17 Hydroxyprogesterone, ACTH, GH) has been given and will be available soon.

Name of Assays	Number	Name of Assays	Number
FSH	5269	LH	4707
Prolactin	4140	DHEAS	189
T3	11215	T4	13497
TSH	23698	Testosterone	1481
Estradiol	997	Progesterone	177
AFP	5278	PSA	2404
Beta hCG	1262	CA-125	2086
Cortisol	571	Vitamin D	411
TOTAL	77382		

Number of tests performed has been increased from 68,819 last year to 77,382 this year

Andrology Lab: Semen analysis 93, fructose: 93

Patient care in outpatient service: not part of standard outpatient service

~150 cases were referred to Dr. Halder, mainly from other hospitals of Delhi or self referral for Counseling/Planning of Management/Advice and related to Reproductive Genetics in particular Male Primary Hypogonadism, Recurrent Abortion, Recurrent IVF failure, Genetic Disorders and Malformation Syndromes.

Workload in the form of laboratory service

1. Permission obtained for several (over 25 more parameters) newer tests (hormones, vitamins, tumor markers, etc; tender is in process will be starting soon) for CRIA facility of the department
2. Started additional molecular cytogenetic technique (in addition to ongoing fluorescent in situ hybridization services) using STR/microsatellite markers

AWARDS, HONORS AND SIGNIFICANT EVENTS

Professor Anand Kumar is a Member Editorial Board, The Open Andrology Journal (Bentham); Served as Referee to the prestigious Journal of Fertility and Sterility; Reviewer for International Journal of Andrology and of Indian Journal of Medical and Pediatric Oncology; Member of Advisory Committee of the UGC-SAP programme in Zoology of M.L. Sukhadia University, Udaipur; Expert in Faculty Selection Committee meeting of Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow; Examiner Vidyasagar University, West Bengal; Member of the Institutional Review Board (IRB) of NIHFW; Member Ethics Committee, AIIMS; Life Member of the Society for Reproductive Biology and Comparative Endocrinology.

Professor Ashutosh Halder is Board Member for Clinical Diagnostics of Scientific Research Publishing, JBR JCDR, Global journal of Genetics & Gene Therapy, Journal of the Association of Physicians of India (Genetics section), Innovare Journal of Medical Science, *Clinical Research and Development*, and Asian journal of pharmaceutical and clinical research; Journal Reviewer for Indian Journal of Medical Research, Indian Journal of Pediatrics, Indian Pediatrics, 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, etc), Journal of Clinical Diagnosis & Research, Oman Medical Journal, Asian Journal of Water, Environment and Pollution, International Journal of General Medicine, International Journal of Genetics and Molecular Biology, African Journal of Microbiology Research, and Indian J of Physiology & Pharmacology; Expert Member for the Committee of Endocrine disruptors of Ministry of Agriculture, Govt. of India, National Accreditation Board for Testing & Calibration Laboratories (Genetics), Institutional Committee for Stem Cell Research and Therapy (IC-SCRT) at National Institute of Immunology, Delhi; Assessment Board for promotion of ICMR scientists; Scientific Advisory Committee member, ICMR Genetic Research Center, Mumbai and Task Force Member of MCI (Medical Genetics); Life Member of Indian Academy of Medical Genetics. Conducted (organizing secretary) national symposium on 'Reproductive Effects of Endocrine Disruptors', AIIMS, July 2013 and Examiner for PhD Viva voice and DM Medical Genetics.

Dr Pradeep K Chaturvedi is reviewer for Journal of Andrologia; Conducted (organizing secretary) national symposium on 'Reproductive Effects of Endocrine Disruptors' at AIIMS on July 2013; Project reviewer ICMR and DBT; Purchase committee member of NIHFW; Awarded the Best poster award for Relationship between seminal lead and cadmium concentration and semen quality in the National symposium on changing environment & lifestyle: Impact on reproductive health, AIIMS, New Delhi, 19-20th Nov 2013.

9.37 Surgical Disciplines

Director
M.C. Misra

Professor and Head
Anurag Srivastava

Professor

Sunil Chumber
Vathulru Seenu

Rajinder Parshad
Sandeep Aggarwal

Additional Professor

Virinder Kumar Bansal
Sushma Sagar (TC)
Amit Gupta (TC)
Biplab Mishra (TC)

Anita Dhar
Subodh Kumar (TC)
Maneesh Singhal (TC)

Assistant Professors

Rehan Nabi Khan (Contract)

Hemanga Bhattacharjee

EDUCATION

The following training courses were organised in the Minimally Invasive Surgery Training Centre of the Department: Basic and Advanced Laproscopic Training Course (10); Laparoscopic Hernia Surgery (7); Laparoscopic Colorectal Surgery (2) and Laparoscopic Suturing (2). The Academic activities of the department include:

1. Symposium on Surgical Education on 21st March, 2014 in collaboration with Professor Vijay Mittal, Program Director Surgery from Providence Hospital, U.S.A.
2. Women's Cancer Awareness Day celebrated on October 24, 2013.
3. Breast Reconstruction Workshop with Professor Hilton Becker from Florida, USA.
4. Joint CME in collaboration with Maulana Azad Medical College and PGI, Chandigarh on 20th March, 2014.
5. Development of guidelines for screening of population for Cancer Breast and Cervix on a nationwide scale by the Ministry of Health & Family Welfare (Maternal & Child Health).

CMEs/Workshops/Symposia/National and International conferences

Organized by Department

1. Eight AIIMS Surgical Week, International Minimal Access Surgery Conference CME cum Live Workshop, ENDOSURG- 2014, March, 2014, New Delhi
2. Celebration of Women's Day, 8th March 2014, AIIMS, New Delhi.
3. CME in Surgery, 2014, 22nd February 2014, AIIMS, New Delhi.
4. One day in Operative Surgery, 23rd February, 2014, AIIMS, New Delhi
5. Monthly Meeting of Delhi State Chapter of Association of Surgeons of India, 15th February 2014, AIIMS, New Delhi
6. One day in Operative Surgery, September 2013, AIIMS, New Delhi.
7. 14 courses in "Operative Laparoscopy- Basic and Advanced"
8. 2 courses in "Laparoscopic Suturing Skills"
9. 2 courses in "Laparoscopic Colorectal Surgery"
10. 6 courses in "Laparoscopic Hernia Surgery"

Lectures delivered

Rajinder Parshad: 7

Sandeep Aggarwal: 14

V.K. Bansal: 13

Papers/posters presented: 29

RESEARCH

Funded projects

Ongoing

1. Impact of Use Of Bio-Absorbable Staple Line Reinforcement on Operative Time and post-operative bleeding in Super-Obese Patients (BMI > 50 Kg/m²) Undergoing Laparoscopic Sleeve Gastrectomy, Sandeep Aggarwal, AIIMS, 1year, 5 lakhs.
2. A prospective randomized controlled trial of laparoscopic vs endoscopic drainage of pseudocyst of pancreas. Dr Virinder Kumar Bansal, ICMR, Rs. 15 lakhs

Completed

1. A prospective study of correlation of effect of tacrolimus blood levels on graft function and its impact on overall quality of life in post renal transplant patients. Virinder Kumar Bansal, AIIMS, Rs 2.5 lakhs, January 2013-March 2014.

Departmental projects

Ongoing

1. Impact Of Laparoscopic Sleeve Gastrectomy On Type 2 Diabetes Mellitus In Patients With Body Mass Index (BMI) 27.5 - 35 Kg/M²
2. Impact of Laparoscopic Sleeve Gastrectomy (Bariatric Surgery) on Non Alcoholic Fatty Liver Disease (NAFLD) in morbid obesity
3. Prospective Study to Evaluate the Impact of Bariatric Surgery on Obstructive Sleep Apnea
4. Impact of nutritional and lifestyle modification in subjects with BMI 25- 30kg/m²vs 30-35kg/m² and to assess the effect of bariatric surgery in BMI>35kg/m²
5. Long term clinical outcome of achalasia cardia in patients undergoing laparoscopic Heller's cardiomyotomy with angle of his accentuation v/s laparoscopic Heller's cardiomyotomy with Dor's fundoplication
6. Surgical outcome and disease remission following VATS thymectomy in myasthenia gravis patients
7. Urinary and sexual dysfunction after surgery for benign and malignant colorectal diseases
8. Impact of supervised diet and lifestyle modifications on weight loss, body fat distribution and insulin resistance in adult Indian obese patients.
9. Prevalence and clinical significance of occult contralateral inguinal hernia in patients undergoing unilataeral hernia repair
10. Surgical audit of breast cancer
11. Evaluation of awareness and cosmetic satisfaction following breast oncoplasty among breast cancer patients.
12. Comparison feasibility and outcome of intra-operative ultrasound in breast conservation surgery compared with conventional palpatory method- A randomized control trial
13. Quality of life and arm morbidity following breast conservation surgery & sentinel lymph node biopsy (SLNB) and mastectomy with SLNB in operable breast cancer.
14. Emergency general surgical admission-prospective institutional experience in non traumatic surgical acute abdomen (NTSAAS).

Completed

1. A study of impact of renal transplantation on the Quality of life of donor and recipient in spousal renal transplant group
2. Evaluation of Micronutrient Deficiency and Bone Health in Morbidly Obese Patients Undergoing Laparoscopic Sleeve Gastrectomy
3. Evaluation Of Symptoms Of Gastroesophageal Reflux Before And After Laparoscopic Sleeve Gastrectomy
4. Role of 18F FDG PET-CT in predicting early response to neo adjuvant chemotherapy in breast cancer
5. Role of antireflux procedures in laparoscopic Heller's cardiomyotomy
6. Role of digital breast tomosynthesis as an adjunct to full field digital mammography (FFDM) in the evaluation of breast lesions

7. Study to evaluate the effect of training program involving animal models/tissues on operative room performance of general surgery residents
8. Retrospective & prospective analysis of magnitude severity in outcome of pelvic fracture at level 1 trauma centre.

Collaborative projects

Ongoing

1. Induction of therapeutic angiogenesis in limb ischemia by intra-arterial delivery of autologous bone marrow derived stem cells (Cardiac-Radiology, Cardiology)
2. Dosimetric Study in children and young adults with Differentiated Thyroid Cancer undergoing Radioiodine (¹³¹I- Na) therapy (Nuclear Medicine)
3. A prospective, randomized, placebo-controlled, open labeled comparison of two analgesic techniques -Intrathecal morphine (ITM) and Transverse Abdominis Plane (TAP) block, for live laparoscopic donor nephrectomy (Anaesthesiology and Intensive care).
4. Does perioperative administration of 5% dextrose effective in reducing the incidence of PONV in patients undergoing laparoscopic cholecystectomy: A prospective, double blind, randomized controlled study (Anesthesia)
5. To Study The Outcome Of AV Fistula Creation In CKD Patients In A Tertiary Care Hospital In North India: An Observational Prospective Cohort Study (Department of Nephrology).
6. A Comparative Study of Laparoscopic Donor Nephrectomy vs Open Donor Nephrectomy in live related renal transplantation
7. RCT of Quality of life outcomes after single stage vs two stage treatment of patients with concomitant gall stones and CBD stones
8. Retrospective and prospective study to evaluate the role of Laparoscopy in patients with abdominal trauma at level I trauma center
9. To study the quality of life in patients undergoing splenectomy for hematologic disorders
10. To study the complications of splenectomy in patients undergoing early splenic artery ligation
11. Evaluation of family members in patients with endocrine disorders
12. A study of impact of renal transplantation on the quality of life of donor and recipient in spousal renal transplant group
13. A Prospective Randomized Comparison of Testicular Function, Sexual Function and QOL following Laparoscopic TEP and TAPP Inguinal hernia repair
14. Clinical Relevance of Immune Associated Molecules in Live Related Donor Renal Transplantation (Transplant Immunology)
15. ATLAS Trial: Adjuvant Tamoxifen longer against shorter. An international multicentre randomized trial to define the optimal duration of tamoxifen in an adjuvant setting. Recruitment of patients completed. Follow up in progress.
16. Multiparametric approach to the study of breast cancer and its correlation with molecular markers (NMR, Radio-diagnosis, Radiotherapy, Biotechnology).
17. Studies on synuclein in various pathological conditions (Biophysics, Biotechnology & Ocular Pharmacology Dr RP Centre)

Completed

1. Study to evaluate the effect of training program involving animal models/tissues on operative room performance of general surgery residents.
2. Retrospective and Prospective Evaluation of Magnitude, severity and outcome of complicated soft tissue injury in a level 1 trauma centre
3. 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
4. Comparison of chronic groin pain and quality of life after laparoscopic inguinal hernia repair- TEP vs TAPP (Anaesthesia and Psychiatry).
5. Retrospective and Prospective analysis of magnitude, severity and outcome of hepato-biliary and pancreatic trauma at a Level I trauma center (Gastroenterology)

6. A Prospective Randomized Controlled Trial of Laparoscopic vs Endoscopic Drainage of Pseudocyst of Pancreas (Radiology and Gastroenterology)
7. Retrospective and Prospective analysis of magnitude, severity and outcome of chest trauma at a Level I trauma center
8. A Prospective Study To Compare The Outcomes After Primary Laparoscopic Exploration Of Common Bile Duct And Laparoscopic Exploration Following Failed Endoscopic Stone Extraction In Patients With Concomitant Gall Stones And Common Bile Duct Stones (Community Medicine, Radiology and Gastroenterology)

PUBLICATIONS

Journals: 22

Abstracts: 2

PATIENT CARE

The department is providing regular services in multiple fields including multimodality treatment for breast cancer patients, minimally invasive surgery, renal transplantation, Hepato-biliary and pancreatic surgery, thoracic and thoracoscopic surgery, plastic & reconstructive surgery, endocrine surgery, metabolic and bariatric surgery, vascular surgery including surgery for vascular access in end stage renal disease patients and cancer surgery. The department runs the following special clinic besides regular OPD:

1. Breast Cancer Clinic
2. Renal Clinic for Transplant related patients
3. Bariatric Clinic

AWARDS, HONOURS AND SIGNIFICANT ACHIEVEMENTS

Professor Rajinder Parshad was invited as Expert by Research & Medical Education, Government of Punjab for interviews for the Faculty posts in department of Surgery, Government Medical Colleges of Amritsar and Patiala; Nominated faculty in Medicine Experts Panel of commission by Deptt. of Surgery, AIIMS, New Delhi for providing opinion on adequacy of medical treatment given to prisoners/arrested accused; Member of Medical Board for medical examination of team members of 33rd Indian Scientific Expedition;

Professor Sandeep Aggarwal was Awarded Fellowship of American College of Surgeons (FACS) and was Member of Expert Group for Inspection for Registration of Liver and Pancreatic Islet Cell Transplant Facility at PGIMER, Chandigarh in October 2013; Member of Expert Group for formulation of Indian Initiative on Obstructive Sleep Apnea Guidelines (INOSA) under the auspices of Department of Health research, Ministry of Health & Family Welfare, Government of India; Member of Expert group on formulation of Guidelines for Bariatric Surgery for CGHS – Ministry of Health a& Family Welfare, Government of India.

Dr V.K. Bansal was appointed Sub Dean (Academics), AIIMS, New Delhi, November 2013; was awarded EAES Travel fellowship at Vienna, June 2013; awarded Go Global Research Award for best International Abstracts at SAGES 2013, Annual Conference of Society of American Gastrointestinal Endoscopic Surgeons (SAGES).

9.38 Transplant Immunology and Immunogenetics

Professor and Head

N.K. Mehra

Professor

D.K. Mitra

Scientists

Uma Kanga
Sunil Kumar

Gurvinder Kaur
Sanjeev Goswami

HIGHLIGHTS

The department continued its activities in teaching, research and hospital services related to a range of laboratory investigations for patients requiring organ and hematopoietic stem cell transplantation (HSCT) as well as those needing HLA test for disease diagnostic purposes. Several sensitive assays such as the Luminex based HLA testing and antibody screening system have been well established and are in routine use. The solid phase assays provide crucial information on donor specific antibodies (DSA) and virtual cross match for patients referred to the Department from AIIMS and other centres in India. To that extent, the AIIMS laboratory continue to serve as the 'national referral centre' for HLA testing SPA based DSA determination and post transplant antibody monitoring. Further, a national level Quality Control and Quality Assurance (QC/QA) service is offered to nearly 15 centres engaged in HLA testing all over India. Services are also offered for the detection of non-HLA antibodies, particularly those directed to MHC class I related Antigen (MICA) system on case to case basis. Similarly SNP based genetic polymorphism analysis in cytokines and chemokine genes as well as chimerism analysis for HSCT patients is done. The department has been designated as 'Centre of Excellence in Molecular Medicine' by the Indian Council of Medical Research.

The research activities of the department span several key areas of translational value. These include (i) immunobiology of renal transplantation with specific focus on determining the clinical relevance of HLA and non-HLA specific antibodies, (ii) genetic architecture of autoimmune diseases with particular focus on type 1 diabetes and celiac disease and evaluation of HLA linked biomarkers, (iii) immunogenetic basis of susceptibility to HIV infections and disease progression to AIDS, (iv) immune predictors of early graft rejection, both in HSCT as well as organ transplantation; the focus is to evaluate the relevance of MICA antibodies as well as soluble MICA levels as predictors of graft outcome, (v) immunological mechanisms underlying infectious diseases with particular focus on Leishmaniasis and tuberculosis, (vi) immunophenotyping of patients with various types of leukemia and evaluation of novel immunological tools, (vii) clinical significance of HLA-G molecule in hematopoietic stem cell transplantation, (viii) HSCT monitoring and follow up using in-house STR kits for Chimerism analysis, (ix) expansion of the Asian Indian Donor Marrow Registry, and (x) immunogenetic basis of nasopharyngeal carcinoma.

During the year, two specific international programmes were established:

1. Indo-US scientific collaboration on 'Identification of immunogenetic factors that regulate risk of HIV/AIDS: A comparative study of Indian and American populations' with the National Cancer Institute (NCI) of the NIH, USA.
2. Indo-French scientific collaboration with INSERM Paris on 'Functional characterization of HLA class I restricted CD8+T cells in type 1 Diabetes'

EDUCATION

1. Modules for laboratory training in Immunology and Immunogenetics:

Short term training: During the year, 18 young scientists and clinicians from various universities and institutions in India received short term training for laboratory techniques in HLA testing, antibody determination, flow cytometry, chimerism analysis and other immunological investigations.

Training to MD/DM students: The department continued to provide short term exposure in laboratory tools and technologies and their clinical significance to MD/MS students various departments of the institute. These include students from Pathology (8), Medical Oncology (2), Laboratory Medicine (7) and Haematology (3). Similarly, 4 doctors from the Department of Nephrology, Maulana Azad Medical College, Delhi undertook

training and learnt techniques in HLA testing and other immunological investigations. The department continued to provide training to undergraduate and postgraduates students, both from within the institute and to those coming from other universities and research centres.

CMEs/Workshops/Symposia/National and International conferences:

Organized by the Department

1. Third Annual Conference of the Indian Society of Histocompatibility and Immunogenetics (ISHI-2013) – Oct. 7-9, 2013.
2. Seminar series on ‘Translational aspects of Immunology, Genetics, Stem Cells and vaccine development’ on 12th Nov. 2013

Lectures delivered

N.K. Mehra: 25

D.K. Mitra: 4

Uma Kanga: 3

Gurvinder Kaur: 1

Sanjeev Goswami: 1

RESEARCH

Funded projects

Ongoing

1. Establishment of a centre for excellence in Molecular Medicine- Advanced Program in Basic and Applied Immunogenetics N.K. Mehra, ICMR, 2012-2017.
2. A Comprehensive Understanding of the Nasopharyngeal Carcinoma (NPC) in the North-Eastern Region of India. N.K. Mehra, DBT, 2011-14, Rs. 64.0 lacs.
3. Role of FoxP3+ regulatory T cells in polarized immunity in leprosy patients. D.K. Mitra ,ICMR, 2010-2013, Rs. 75.20 Lacs).
4. CD 26 Mediated Chemokine Activation: Role in suppression of immunity among visceral Leishmaniasis patients. D.K. Mitra, DBT, 2010-2013, Rs. 92.78 lacs.
5. Impact of FoxP3+ Treg cells on the host immune response among HIV-TB co-infected patients: relevance in multidrug resistance tuberculosis (MDR-TB). D.K. Mitra, ICMR, 2011-2013, Rs. 49.40 lacs.
6. Representation, trafficking and functional interaction of effector and regulatory T cells: Impact on the local immune response in rheumatoid arthritis. D.K. Mitra, DST, 2012-2015, Rs. 49.98 lacs
7. Impact of transcriptional gene silencing of HIV1C on ecto-enzymes and negative co-stimulatory molecules expressed by T cell subsets: relevance to chronic immune activation in HIV infection. D.K. Mitra, DBT, 2013-2016, Rs. 75.24 lacs
8. Cytokine profile of polyfunctional T cells in Latent and Active Tuberculosis patients: Impact of regulatory T cells. D.K. Mitra, ICMR, 2014-2017, Rs. 97.58 Lacs.
9. Impact of HLA-G on host immune response in human tuberculosis. Uma Kanga, ICMR, 2012-2014, Rs. 44 lacs.
10. Impact of HLA-G on acute rejection following renal transplantation. Uma Kanga, AIIMS, 2012-2014, Rs. 10 lacs.

Completed

1. Clinical Significance of HLA-G in hematopoietic Stem cell Transplantation. Uma Kanga, AIIMS, 2011-2013, Rs. 10 lacs.

Departmental projects (including thesis/dissertations)

Ongoing

1. Clinical relevance of HLA, MICA and NKG2D receptor molecules in renal transplantation
2. Polarized Immunity in Human Leprosy: Role of effector and Regulatory T cell subsets in shaping host immune response
3. Genomic diversity of HLA genes in Indian population
4. Clinical significance of HLA-G in Hematopoietic Stem Cell Transplantation
5. Analysis of the antiviral response of Type 1 interferon system against HIV-1 infection

6. Study of T cell response among older patients with TB
7. Studies on Immunoregulatory mechanisms for host T cell response in human tuberculosis
8. Studies of distinct T cell subsets in the pathogenesis of rheumatoid arthritis
9. Phenotypic and functional characterization of various T cell subsets in sarcoidosis
10. Clinical Relevance of Immune associated molecules in Live related Donor Renal Transplantation
11. Immunogenetic Analysis of Nasopharyngeal Carcinoma in the North-Eastern Indian population
12. Clinical relevance of non-classical HLA, MICA and NKG2 receptors in hematopoietic stem cell transplantation
13. Assessing the role of minor-histocompatibility antigens' disparities impact HSCT outcomes in the Asian Indians.

Collaborative projects

1. Indo-German project- Implications of the interferon system and immunogenetic basis of resistance to HIV-1 infection and disease progression.
2. ICMR project-Genetic diversity of HLA in the two tribal groups of north Madhya Pradesh: association with Pulmonary Tuberculosis.
3. Indo US project- Identification of Immunogenetic factors that regulate the risk of HIV/AIDS: A comparative study of Indian and American Population.
4. Role of FoxP3+ regulatory T cells in polarized immunity in leprosy patients. (Dermatology & Venereal diseases, AIIMS & Central JALMA Institute for Leprosy & other Mycobacterial Diseases, Taj Ganj, Agra).
5. CD26 mediated chemokine activation: role in suppression of immunity among visceral Leishmaniasis patients. (Balaji Utthan Sansthan Fraser Road, Patna-Bihar)
6. Impact of FoxP3+ Treg cells on the host immune response among HIV-TB co-infected patients: relevance in multidrug resistance tuberculosis (MDR-TB). (Dr. B C Roy Post-graduate Institute of Basic Medical Sciences, IPGME & R, Kolkata)
7. Impact of Regulatory T cells on host Immunity among older pulmonary tuberculosis patients. (Department of Medicine, AIIMS)
8. Representation, trafficking and functional interaction of effector and regulatory T cells: Impact on the local immune response in rheumatoid arthritis. (Department of Medicine, AIIMS)
9. Impact of transcriptional gene silencing of HIV1C on ecto-enzymes and negative co-stimulatory molecules expressed by T cell subsets: relevance to chronic immune activation in HIV infection (Department of Microbiology, Assam Medical College, Dibrugarh and Christian Institute of Health Sciences & Research, Dimapur)
10. Cytokine profile of poly functional T cells in Latent and Active Tuberculosis patients: Impact of regulatory T cells. (Department of Microbiology, Assam Medical College, Dibrugarh)

PUBLICATIONS

Journals: 14

PATIENT CARE

Facilities available in the Department: (i) HLA matching, (ii) Antibody determination, (iii) Virtual cross match assays, (iv) Flow Cytometry, (v) Tissue Culture, (vi) ELISA, (vii) Chimerism assays, (viii) Sequencing, (ix) RT-PCR, (x) SNP analysis. Free of cost service provided for Leukemia phenotyping and phenotyping for Primary Immunodeficiency diseases

TRANSPLANTATION

HLA matching

	Recipients	Donors	Total
Renal Transplantation	309	252	561
<u>Hematopoietic Stem Cell Transplantation</u>			
Aplastic anemia	120	331	451
Acute Myeloid Leukemia	104	214	318

Acute Lymphocytic Leukemia	50	139	189
Chronic Myeloid Leukemia	7	14	21
Thalassemia	42	98	140
Others	47	110	157
Total	370	986	1356

Cadaver Donor Organ Transplantation

Cadaver donor	10	10	20
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Cross Match test

Serology	515	Flowcytometry	132
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Panel reactive Antibody Screening

Luminex PRA (screening)	183	Luminex PRA (class I and II)	225
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DIAGNOSTICS

Spondyloarthropathies – HLA-B27 screening	481
Other diseases (Behcets' Disease/Narcolepsy/Celiac Disease)	75
Chimerism testing	160
Leukocyte adhesion deficiency/chronic granulomatous disease	230
NK/Treg/T/B/Monocyte frequency	275
Unrelated Donor search for BMT	206

During the year, 206 requests for search of unrelated HLA matched donor from the 'Asian Indian Donor Marrow Registry' for bone marrow transplantation (BMT) were received. These include 81 from USA, 49 from Europe, 54 from various Asian countries and 22 from India.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor N.K. Mehra was appointed Dean (Research) in October 2013; elected **Fellow** of 'The World Academy of Sciences', for the *advancement of science in developing countries* (FTWAS), continues to serve as the Superintendent of Hostels of AIIMS, was elected as Council Member of International Union of Immunological Societies (IUIS) – a record 4th term, was a Member of the international jury for the highly prestigious Else Kroner Fresenius International Immunology Award. He served as **Chairman** of the following committees of i) Institutional Committee for Stem Cell Research and Therapy (IC-SCRT) of the National Institute of Pathology, Delhi; ii) DBT-NER Committee on Twinning Research Projects; iii) ICMR Expert Group for Research projects of National Institute of Research in Environmental Health (NIREH), Bhopal; iv) ICMR Expert Group for Establishment of Rural Centres of Genome Research to provide comprehensive diagnostic services; v) Jodhpur Scientific Conclave held at Desert Medical Research Centre, Jodhpur; vi) ICMR Committee for providing infrastructure and equipment at NIREH, Bhopal; vii) ICMR Expert Group for developing Centres of Excellence on Primary Immunodeficiency diseases in India; viii) ICMR Negotiation Committee for high-end equipments for various institutes; ix) Selection Committee of National AIDS Research Institute, Pune; ix) Scientific Advisory Committee of the National Institute of Immunohaematology, Mumbai; x) Scientific Advisory Committee of the Desert Medical Research Centre, Jodhpur, xi) Chairman to look after the affairs of the Department of Laboratory Medicine, AIIMS, xii) Chairman for committee on 'Infrastructure Development and Equipment, Bhopal Medical Hospital and Research Centre, Bhopal; Co-Chairman, ICMR Technical Committee; Member, Selection Committee of ICMR for Scientist posts. He also acted as **member** of the following committees: Screening Committee – Faculty, AIIMS, ii) Engineering Advisory Committee, AIIMS, iii) AIIMS Jhajjar Project, iv) Special Screening Committee at Hamdard Institute of Medical Sciences and Research, New Delhi, v) Selection Committee, PGI, Chandigarh, vi) Expert Group, Drug Controller, Govt. of India to examine 'Specifications and criteria for acceptance for tests performed on Blood glucose test strips and analyzer based glucose reagents', vii) several committees of ICMR and its allied institutes, viii) Department of Science and Technology (DST), Department of Biotechnology (DBT), Govt. of India, ix) Member of Program Advisory Committee (PAC) in Life Sciences & Medical Biology of DST, Member, x) DBT Committee to review the setting up of 'Centre for infectious disease Biology' at CMC Vellore, xi) Member, Committee for the creation of 'Institute of Contemporary and innovative science' Babasaheb Bhimrao Ambedkar Univ, Lucknow, xii) Member,

Selection Committee of ICPO for Scientist posts, xiii) Expert group for establishment of Medical Research Units (MRUs) of ICMR/DHR in North East Region, xiv) Scientific Program Committee, 6th FIMSA Congress of Immunology, Singapore, xv) Advisory Committee on 'Organ and tissue transplantation', DGHS, xvi) Ethics Committee, Dr B.L. Kapoor Hospital, New Delhi, xvii), Chair, Mini Symposium on 'Patient Safety in Clinical Research', organized by CREATE; **Member**, Editorial Board of 'Current Trends in Genomic Medicine, UK', ii) Guest Editor, Indian Journal of Medical Research for Translational Immunology in Health & Disease, iii) Guest Editor of Annals of New York Acad. Sciences.

Dr Uma Kanga is a Councillor for the Asia Pacific Histocompatibility and Immunogenetics Association (APHIA); Member of the DBT Task Force on 'Chronic Disease Biology'. She continues as secretary for Indian Society for Histocompatibility and Immunogenetics (ISHI).

VISITING SCIENTISTS

1. Dr Malini Raghavan, University of Michigan visited the department with her team and delivered a symposium on 'Translational aspects of Immunology, Genetics, Stem Cells and vaccine development' on 12th Nov. 2013
2. Dr Vijay Kuchroo, Professor of Neurology, Center for Neurologic Diseases, Brigham and Women's Hospital, Boston, USA visited our department and delivered a lecture on 'Th17 cells for initiation of autoimmune disorders' on 2nd Jan. 2014.
3. A Dutch delegation from Erasmus University, Rotterdam visited our department to explore possibilities of developing scientific collaboration.
4. Professor Steven Reed from Infectious Disease Research Institute (IDRI), Seattle, Washington visited our department for a collaborative study.
5. Professor Robert J. Moots from University of Liverpool, Liverpool, United Kingdom visited our department for a collaborative study.
6. Professor Reinhard Gluek, Chief Scientific Officer, Zydus Cadila, Ahmedabad visited our department for a collaborative study.

9.39 Urology

Professor and Head

Prem N. Dogra

Professor

Amlesh Seth

Additional Professor

Rajeev Kumar

Assistant Professors

Prabhjot Singh
Rishi Nayyar

Ashish Kumar Saini

B. Nayak
Uday Pratap Singh

EDUCATION

The faculty of the department participated in and delivered lectures in continuing medical education programmes, symposia, national and International conferences during the year.

The Department imparted lectures for the undergraduates and nursing students. The department trains 11 postgraduates for the degree of MCh in Urology over a 3 year period.

The department had observers, fellows and visiting faculty from various Indian/ Foreign Medical Universities to observe and learn Robotics, Endourology, Laparoscopy, Open surgery and Microsurgery in Urology.

The faculty of the department continues to be examiners for NBE and M.Ch. Urology in various universities and Inspector for the Medical Council of India and National Board for recognition of standard of teaching and training and facilities for Urology postgraduate courses.

The faculty of the department took active part in restructuring and reframing the curriculum for M.Ch. and DNB training courses in Urology.

Lectures delivered

Prem N. Dogra: 6

Amlesh Seth: 10

Rajeev Kumar: 23

Prabhjot Singh: 6

Ashish Kumar Saini: 2

Papers/posters presented: 29

RESEARCH

Funded projects

Ongoing

1. Evaluation of the potential of two monoclonal antibodies to treat androgen independent prostate carcinoma. Amlesh Seth, DBT, 3 years, Started in 2011.
2. Role of SPINK1 in Cancer Progression: Regulatory Mechanisms and Therapeutic Target Potential, AIIMS, New Delhi, Amlesh Seth, DBT/Wellcome Trust Alliance, 3 years, Started in 2013.
3. Targeted antimicrobial prophylaxis using rectal swab cultures in men undergoing TRUS guided prostate biopsy: Analysis of incidence of infectious complications and prevalence of fluoroquinolone resistant E. coli. Prabhjot Singh. AIIMS, 1 year, 2012-13, Rs. 4.5 lacs

Departmental projects

1. Complications of laparoscopic nephrectomy on the Clavien Dindo Scale in a contemporary cohort
2. Role of screening for tuberculosis in infertile men
3. Peri-operative management of pheochromocytoma and its effect on post operative outcomes
4. Fever and systemic inflammatory response syndrome (SIRS) following percutaneous nephrolithotomy: Assessment of risk factors and their impact on patient outcomes
5. Comparison of perioperative outcomes following open versus robot assisted laparoscopic radical cystectomy
6. Health related Quality of life and bone health in patients receiving androgen deprivation therapy for metastatic prostate cancer

7. Role of narrow band imaging in diagnosis and treatment of non muscle invasive bladder cancer in comparison to standard white light cystoscopy
8. Role of screening and treatment for tuberculosis in infertile azoospermic men with obstructive azoospermia
9. Etiopathogenesis, Demographic profile, Erectile function, Socioeconomic Impact and Quality of life patients with pelvic fracture urethral distraction defects
10. Outcome evaluation of various types of surgeries in management of stricture of anterior urethral stricture.
11. Long term outcomes of holmium laser core through in pelvic fracture urethral distraction defects
12. ESWL in management of Pediatric nephrolithiasis
13. Outcome analysis of robotic radical prostatectomy
14. Outcome analysis of robotic pyeloplasty: long term follow-up
15. Stone analysis in patients undergoing PCNL, URS and ESWL
16. Outcome analysis of intravesical BCG in NMIBC

Collaborative projects

Ongoing

1. Evaluation of the significance of positive semen PCR for tuberculosis in asymptomatic men undergoing infertility evaluation
2. Validation of in-vivo MRS studies in small renal masses
3. Oxidative stress as a cause of male infertility
4. Role of Split Bolus Dual Energy Single Acquisition CT in Evaluation of Urological Diseases of the Upper Urinary Tract
5. Comparison Of Whole Body Diffusion Weighted Magnetic Resonance Imaging With Whole Body 18F-NaF PET-CT Imaging In Prostate Cancer
6. Telomere status and DNA repair mechanisms in idiopathic male infertility.
7. Mitochondrial genes and Y chromosome deletions in male infertility
8. 3 dimensional Chemical shift imaging and Diffusion weighted imaging using Proton MRS in the diagnosis of carcinoma prostate
9. Study of sperm molecular factors in idiopathic recurrent spontaneous abortions
10. Hemodynamic changes during steep Trendelenburg position in robotic procedures
11. To evaluate the efficacy of obturator nerve block in controlling adductor muscle spasm during transurethral resection of bladder tumors involving lateral wall- Nerve stimulator guided Vs Ultrasound guided approach.
12. Association of BK Polyoma virus and urothelial carcinoma in the Indian population (Pathology, AIIMS).

PUBLICATIONS

Journals: 25

Abstract: 19

Chapters in books: 4

PATIENT CARE

Main OT surgical procedures 1892

Open surgery: **375**

Major: **250**

Radical cystectomy	21	Augmentation cystoplasty	3
Radical cystectomy with nephroureterectomy	8	Continent catheterisable pouch-	2
Partial Cystectomy	1	Adrenalectomy	6
Radical nephrectomy	35	Boari flap	0
Simple nephrectomy	36	Ureteric reimplantation	1
Partial nephrectomy	14	Radical nephroureterectomy	12
E-E urethroplasty	20	VVF repair	12
Graft urethroplasty	15	Total penectomy	4

Anterior lay open	7	Orchiopexy	0
Second stage closure	9	Prostatectomy	1
Transpubic urethroplasty	3	AUS implantation	2
Pyeloplasty	20	Bladder neck reconstruction	0
Cystolithotomy	1	Hypospadias repair	10
Ilioinguinal LN dissection	5	Penile prosthesis	1
Others	30		

Minor: **95**

Endourology: **1231**

Upper tract – 355

Transpubic urethroplasty	3	AUS implantation	2
PCNL	170	DJR	78
URS	138	CPE+OIU	20
RIRS	47	CPE (LA+ GA)	105
Lower tract	876	Endodilatation	31
TURP	91	TUR fulguration	30
TURBT	217	Clot evacuation-	11
PVP	20	Ureterocele incision	3
CLT	19	Laser welding	5
HoLAP	0	Endoscopic evaluation	20
HoLCT	8	PUV fulguration	11
DJ stenting	209	Others	9

Laparoscopic surgery: 136

Radical nephrectomy	27
Partial nephrectomy	4
Simple nephrectomy	68
Adrenalectomy	14
Pyeloplasty	9
Radical cystectomy	1
Diagnostic lap	9
Pyelolithotomy	2
Others-	2

Robotic surgery: 106

Radical prostatectomy	22	Partial nephrectomy	5
Radical cystectomy	5	Ureteric reimplantation	2
Pyeloplasty	61	Pyelolithotomy	0
Ureterolithotomy	6	Adrenalectomy	
VVF repair	0	Radical nephroureterectomy	0
Radical nephrectomy	1	Others	1
Simple nephrectomy	2		

Microsurgery – 44

VEA-15	15
VVA	2
MVL	9
Scrotal exploration	18

Minor OT

Cystoscopy, DJ Stent Removal, OIU	2238
Open cases (Orchidectomy, Circumcision)	61
Minor cases (Catheter change etc)	4047
Urodynamic study	282
Uroflowmetry	4329
Extracorporeal shock wave lithotripsy (ESWL)	a. New cases 406 b. Re-do cases —786
Stone analysis	347

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor P.N. Dogra was Awarded honorary Doctorate of Science by University of Calcutta; Special honors conferred by Urological Society of India, in their 23rd Annual Conference held at PGIME&R, Chandigarh; Bengal Urological Society of India conferred special honours on the occasion of Bengal URO Master Class and BUSCON Gold.

Dr Rajeev Kumar was Appointed Chief Editor of the Indian Journal of Urology for a 5-year term; Appointed Member of International Editorial Committee of the Journal of Urology; Appointed Co-chair of the International Consultation on Urological Diseases: Male infertility and sexual health; Appointed Member of the International Consultation on Urological Diseases: Minimally invasive nephrectomy.

Dr Prabhjot Singh was Selected as an Editorial committee member of Indian journal of Urology and Selected by Urology Association of Asia (UAA) to attend 3rd International forum on frontiers in Urology (IFFU).

Dr Ashish Kumar Saini was Member of Organizing Committee of Trauma 2013, 23-24 Nov 2013, AIIMS, New Delhi; Member of Organizing Committee of 47th Annual Conference of Urological Society of India (USICON 2014) from 29th Jan to 2nd Feb at New Delhi.

10.1 Cardiothoracic Sciences Centre

Chief

Balram Airan

Cardio-Thoracic and Vascular Surgery

Professor and Head

Balram Airan

Professors

U.K. Chowdhury

S.K. Choudhary

A.K. Bisoi

Additional Professors

Milind Hote

Sachin Talwar

V. Devagourou

Assistant Professors

P. Rajashekhar

Manoj Sahu

Cardiology

Professor and Head

V.K. Bahl

Professors

Anita Saxena

S.S. Kothari

Balram Bhargava

K.C. Goswami

R. Juneja

R. Narang

S. Seth

S. Mishra

Rakesh Yadav

N. Naik

Additional Professors

G. Karthikeyan

Gautam Sharma

S. Singh

Ambuj Roy

S. Ramakrishnan

Assistant Professors

Saurabh K. Gupta

Sunil K. Verma

Neeraj Prakash

Cardiac Anaesthesia

Professor and Head

Usha Kiran

Professors

Sandeep Chauhan

Neeti Makhija

Poonam Malhotra Kapoor

Additional Professor

Minati Choudhury

Shambhu Nath Das

Parag Gharde

Vishwas Malik

Assistant Professor

Suruchi Hazija

Arindam Choudhury

Cardiac Radiology

Professor and Head

Sanjiv Sharma

Additional Professor

Gurpreet Singh Gulati

Priya Jagia

Nuclear Medicine
Additional Professor
Chetan D. Patel

Centre of Excellence for Stem Cell Research
Additional Professor
Sujata Mohanty

Cardiac Biochemistry
Professor
R. Lakshmy

Organ Retrieval Banking Organisation (ORBO)
Professor
Aarti Vij

Hospital Administration (CTC)
Professor
Aarti Vij

Blood Transfusion Services
Chief Medical Officer
Anjali Hazarika

CARDIO-THORACIC AND VASCULAR SURGERY

HIGHLIGHTS

The Department of Cardiothoracic & Vascular Surgery was in the forefront in the field of patient care, teaching and research. 44791 patients were seen in the Out Patient Department and 4043 surgeries of all types of cardiovascular ailments across of all age groups were performed with excellent results. The department has been the tertiary referral centre for most of the common and complex cardiac and aortic cases in whole of the northern half of India. For some facilities like ECMO, hybrid vascular surgeries, robotic cardiac surgery, valve bank facility and the transplant program, this department at AIIMS is still the only Government hospital offering these services. In the field of research, the faculty of the department published more than 50 research papers in national and international journals of repute and presented more than 50 invited lectures and oral papers in national and international conferences. There are 15 national and international research projects under way in the department. A number of surgical innovations and techniques were devised by the departmental faculty and published in prestigious journals. The department successfully organized live operative workshops on Mitral Valve Repair and Wet Lab session on Bentall Procedure, besides a workshop on Aortic Dissection. These benefitted a large number of surgeons and medical and para- medical staff from all over the country.

In addition, to cope up with the tremendous patient-load, and to conduct India-centric research in field of cardiovascular sciences, the Cardiothoracic Centre has proposed 800 bedded National Cardiovascular Centre in Jhajjar Campus of AIIMS which has been approved in principle by the Ministry of Health & Family Welfare.

EDUCATION

MCh: The department of CTVS runs one the largest training program in the country for training MCh students. At any point of time there were 21 students in various phases of training. Last year 8 students were graduated as fully fledged cardiothoracic and vascular surgeons.

MSc (perfusion technology) program is run by the department for imparting a degree course in extracorporeal technology.

BSc and MSc nursing students are regularly trained at the department.

MS (general Surgery) residents regularly rotate in the department to learn the basics of cardiovascular surgery.

MBBS students are given didactic lectures as part of the undergraduate teaching curriculum.

Observerships: The department also gets cardiothoracic surgeons in training from Sher-i-Kashmi institute, Srinagar and from Medical College Sher-i-Kashmir, Srinagar to provide them with exposure in wide areas of cardiovascular surgery.

International visiting fellowships: A large number of visitors come to the department for a wide exposure to broad and/or specific areas from abroad.

The following cardiac surgeons, Para-medical staff, underwent Short Term Training in CTVS Department.

1. Dr. Nasir-U-Din Wani, Sher-i-Kashmir, Srinagar
2. Dr. ShadabNabiWani, Sher-i-Kashmir, Srinagar
3. Dr. Nadeem-ul-Naseer, Sher-i-Kashmir, Srinagar
4. Dr. Syed AbirHussain, Sher-i-Kashmir, Srinagar
5. Dr. Durga Prasad Rath, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry
6. Dr. Sadanand S.P. SST from Government Medical College, Trivandrum.
7. Dr. Ashraf Usman & Dr. Sadanandan Patwari from Govt. Medical College Trivandrum
8. Doctors of CTVS Department, VMMC, Safdarjung Hospital, New Delhi participated in the classes and teaching activities in CTVS Department of AIIMS
9. Dr. N. Sai Mani Kandan, from Cardiovascular & Thoracic Surgery Medical College, Thiruvananthapuram
10. Dr. Joseph Tomas K. Department of Cardiothoracic and Vascular Surgery, Kottayam, Kerala
11. Ms. Aminath Shanaaz & Fathimath Shooraa one week elective training
12. Ms. Nitya Vokendren from Germany elective training from 17/3/14–31/3/14.
13. Ms. Narmata Kaushal & Ms. Neha Sharma SST in Stem Cell Facility from Jamia Hamdard University for five months w.e.f. 16/12/13 to 30/04/2014.

CMEs

1. Department of CTVS conducted workshop on Bentall Procedure on 18th August 2013 at AIIMS.
2. Department of CTVS conducted CME on 'Mitral Valve Repair' on 11-12th January 2014 at AIIMS.
3. Department of CTVS conducted educational CME 'Valves Substitutes' on 10-20th October 2013, at AIIMS
4. Department of CTVS conducted workshop on 'Aortic Dissection' on 16th-17th November 2013, at AIIMS.

EDUCATION

Lectures delivered

Balram Airan: 1

S.K. Choudhary: 22

Sachin Talwar: 10

V. Devgarou: 3

Oral papers/posters presented: 17

RESEARCH

Funded projects

Ongoing

1. DBT Centre of Excellence: Basic and Translational (Phase I) Project, Balram Airan, DBT, 7 years, 2008-14, Rs 5 crores.
2. To study the association of cardiac specific genes towards generation of functionally active cardiomyocytes, derived from human bone marrow mesenchymal stem cells. Sujatha Mohanty, ICMR, 4 years, 2012-15, Rs 49.5 lakhs
3. Comparison between Ringer's Lactate and balanced crystalloid solution containing acetate and malate (stereofundin) as a Priming solution in Paediatric patient undergoing Cardiopulmonary bypass, V. Devagourou, AIIMS, 2014-2015
4. Comparison of del Nido Cardioplegia and HTK Cardioplegia (custodial) in paediatric patients undergoing Cardiopulmonary bypass, V. Devagourou, AIIMS, 2013-2015
5. Comparison of del Nido Cardioplegia and St Thomas Cardioplegia in adult patients undergoing Cardiopulmonary Bypass, V. Devagourou, AIIMS, 2013-2015

Completed

1. Study of the clinical and pathophysiological profile of atrial fibrillation in patients with RHD during open valvular heart surgery, V. Devagourou, AIIMS, 2 years, 2012-2014

2. Incidence and predictors of new onset Atrial Fibrillation in RHD patients undergoing valve surgery, V. Devagourou, 2 years, 2012-2014

Departmental projects (including thesis/dissertations)

Ongoing

1. A comparison of three different techniques of bidirectional cavopulmonary anastomosis (BD GLENN) on cardiopulmonary bypass in patients undergoing surgery for univentricular physiology
2. Analysis of arrhythmias after pediatric cardiac surgery
3. Aorto pulmonary window: morphology, technique and long term results
4. Arterial switch operation in patients with physiologically uncorrected complete TGA with L Posed aorta
5. Comparison of blood crystalloid with blood colloid for priming in children with cyanotic congenital heart disease undergoing intracardiac repair on CPB
6. Comparison of leukocyte filters versus normal intravenous set when used to add blood in the prime in pediatric open heart surgery.
7. Del-Nido versus cold blood cardioplegia for myocardial protection.
8. Effect of pre-operative administration of allopurinol on postoperative outcome in patients undergoing intracardiac repair of Tetralogy of Fallot.
9. Factors determining outcomes in adults patients operated for congenital heart diseases
10. Histopathological study of extent of degenerative change in ascending aorta of patients with bicuspid aortic valve
11. Long term follow up of the total trans atrial correction for tetralogy of Fallot
12. Long-term outcome of patients undergoing the Glenn shunt with preservation of ante grade flow.
13. Mid-term outcomes of patients undergoing adjustable pulmonary artery banding
14. Myobacterial Aortopathy: An institutional review of its presentation and management
15. Neurological outcome after aortic arch replacement surgeries without hypothermic circulatory arrest
16. Oral thyroxin supplementation in pediatric patients undergoing open-heart surgery.
17. Pericardial patch versus PTFE patch for RVOT reconstruction
18. Retrospective analysis of patients who underwent ventral aorta repair for the last 15 years (Jan 1995-Sept 2013)
19. Retrospective analysis of patients with bicuspid aortic valve who underwent aortic valve, aortic root, ascending aorta and arch replacement procedures
20. Surgical audit and outcome of patients who underwent Bentall procedure with Hemiarch replacement in comparison with patients who underwent only Bentall procedure-retrospective analysis
21. To determine prevalence of immediate and early post operative sequel of off-pump total cavopulmonary connection
22. Vasoactive inotropic score and outcome assessment in cyanotic infants after cardiovascular surgery

Completed

1. Anomalous branch pulmonary artery from the aorta and Tetralogy of Fallot: morphology, surgical techniques and results
2. Arterial Switch operation for Transposition of Great Arteries with anomalies of cardiac situs and aortic position
3. Coarctation of aorta in adults; morphology, surgical techniques and outcomes.
4. Extent of Degenerative Changes in Ascending Aorta of Patients with Bicuspid Aortic Valve (BAV)
5. Heart Rate Variability in Patients Undergoing Univentricular Heart Repair – A Follow up study
6. Hemodynamic after valved patch for closure of VSD
7. Is routine computerized tomographic angiography justified in patients undergoing Aortic Valve Replacement for Bicuspid Aortic Valve Disease?
8. Kawashima procedure and its results
9. Off pump TCPC versus TCPC on cardiopulmonary bypass
10. Pericardiectomy in children <15 years of age.

11. Repair of Anomalous Left Coronary Artery from Pulmonary Artery (ALCAPA) beyond infancy
12. Repair of Tetralogy of Fallot in or beyond the fourth decade of life
13. Surgical audit of Ebstein Anomaly & significance of MRI correlation.

Collaborative projects

Ongoing

1. A study to assess the effectiveness of cold application during chest tube removal on pain among post cardiac surgery patients (with College of Nursing, AIIMS)
2. Expression of Matrix Metalloproteinase-2, Matrix Metalloproteinase-9, Tissue Inhibitor Metalloproteinase-1, Tissue Inhibitor Metalloproteinase-2, Collagen I and IV Expression in Thoracic Aortic Aneurysms (with Cardiology, AIIMS)
3. Genetic markers for thoracic aortic aneurysm and dissections (with Cardiac Radiology, AIIMS)
4. Importance of angiosome targeted vessel bed identification using DSA and MR techniques for endovascular treatment in patients with critical limb ischemia (with Cardiac Radiology, AIIMS)
5. Modeling of the univentricular pathway (with Indian Institute of Technology, Mumbai)
6. Morphometric analysis of thoracic aortic aneurysms (with Cardiac Radiology, AIIMS)
7. Non-Invasive detection of sub-clinical disease activity in patients with established Rheumatic Valvular disease (with Cardiology, AIIMS)
8. Prevalence and predictors of post-operative new onset Atrial Fibrillation in Rheumatic Heart Disease patients undergoing valve surgery (with Cardiology, AIIMS)
9. Role of Volumetric Analysis and dynamic imaging in the assessment of aortic aneurysms & Type B aortic dissections with gated CT. (with Cardiac Radiology, AIIMS)
10. Steroids in Cardiac Surgery trial. (SIRS trial) (with Hamilton University, Canada)
11. Vitamin D3 and Pediatric cardiac Surgery (with Endocrinology, AIIMS)

PUBLICATIONS

Journals: 35

Abstracts: 9

Chapters in books: 3

PATIENT CARE

44791 patients have attended the Cardiothoracic and Vascular Surgery out-patient department.

Total operations performed in 2013-14

Open heart surgery	2976	Closed heart surgery	1067
Total	4043		

The operations included: Adult cardiac surgery (CABG, valvular heart surgery), congenital cardiac surgery (complex cardiac malformations), Aortic surgery, emergency cardiothoracic trauma services, minimally invasive and Robotic cardiac surgery, hybrid endovascular surgery/procedures, ECMO services, heart transplantation, anti-arrhythmia surgery, stem cell and valve bank services.

Operating Rooms (OR)

There are eight advanced state of the art operating rooms. One of these is a hybrid suite for complex interventions and surgery. Every day 16-18 surgeries are being performed in these ORs.

Beds

The department currently has 68 General ward beds (CT4=40, CT5=28, CT-6 = 12), 16 beds in CTVS ICU A, 18 beds in CTVS ICU B, 10 beds in neonatal ICU and 12 beds in CT-5 ICU. Besides these there are 32 beds in private/paying ward that are shared with the department of cardiology.

VVIP care

The department is the key department for VVIP care and has separate facilities for the same.

Valve bank

The department has a fully functional state of the art valve bank for preservation of homografts.

Transplant program

The department has an active heart transplantation program for patients with end stage heart disease.

Organ retrieval and Banking organization (ORBO) and stem cell facility

The department actively maintains and assists this facility for state-of the art facilities related to stem cells and ORBO networks with other hospitals in the country for procurement and equitable distribution of human organs.

Specialty clinics

The departments runs various specialty clinics in collaboration with ancillary departments to deliver state of the art care to patients suffering from such ailments under one roof at the same time. These clinics are (i) aortic clinic, (ii) congestive heart failure clinic, and (iii) prosthetic valve clinic.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Balram Airan was Conferred Fellowship of National Academy of Medical Sciences (FNAMS); Appointed Chairman of the Sub-committee to review the existing guidelines for institution of Award/ Book prize/ Oration/ Travel Grant/ Fellowship etc. at AIIMS, New Delhi; Appointed as an Expert of Selection Committee for faculty posts - Govt. of Punjab, 4 Dec, 2013; Invited by Delhi Doordarshan to attend LiveRecording of 'Swasth Bharat' - Cardiac Surgery, 14 Sept, 2013; Inspected facilities for Heart Lung Transplant at PGI, Chandigarh, on 27th April, 2013; Attended the meeting of Experts for setting up CTVS department at Bhopal Medical Hospital & Res Centre, Bhopal, 6th April, 2013; Appointed Examiner to conduct M.Ch. Exam at Kathmandu, Nepal.

Professor S.K. Choudhary was Appointed as Section Editor, Aorta and vascular, IACTS, New Delhi; conducted workshops on 'Bentall Procedure' on 18.8.2013 at AIIMS, New Delhi; Wet-lab on Bentall's Procedure in 'Workshop on Bentall's Procedure' on 18th August, 2013, AIIMS, New Delhi; Educational CME and a Workshop on 'Valves Substitutes' on 19th-20th October 2013 at AIIMS, New Delhi; Conducted Educational CME and a Workshop on 'Aortic Dissection' on 16th-17th November 2013 at AIIMS, New Delhi; Conducted CME on 'Mitral Valve Repair' on 11-12th January 2014 at AIIMS, New Delhi; Appointed as an External Examiner for M.Ch (CTVS) on 9th -10th May 2013 at PGIMER, Chandigarh; Appointed as an Expert in faculty selection committee meeting on 13th July 2013 at RIMS, Ranchi; Appointed as an Assessor on behalf of National Board of Examinations for physical assessment and verification of infrastructure and facilities of a hospital on 21st July 2013 at Hyderabad; Appointed as an External Examiner for MCh (Cardiothoracic Vascular Surgery) at Tribhuvan University, Institute of Medicine, Kathmandu, Nepal on 21st September 2013; Appointed as an External Examiner for MCh (CTVS) at PGIMER, Chandigarh on 30th November 2013; Appointed as an expert for faculty selection at BMHRC Bhopal on 27th February 2014; Conducted the appraisal of DNB (CTVS) on 22nd September 2013 at National Heart Institute, New Delhi; Member of committee for procurement of Open Heart Surgery instruments, Department of CTVS, Safdarjung Hospital, New Delhi; member, CTVS Department for Screening Committee for screening of the applications for various faculty posts at the AIIMS; Member in the field of Cardiothoracic Surgery by Ministry of Health & Family Welfare, for Statement of Need (SON) & Exceptional Need Certificate (ENC); member to finalize Technical Specifications by Directorate General of Health Services, for procurement of Air Purification Unit for SJH, New Delhi; member of Technical Committee for evaluation of technical bids for procurement of high end CT scanner for Cardiac Radiology, AIIMS; Member of the Technical Committee for CTVS, Govt of Delhi, member to finalize CGHS rates for cardiac procedures by Directorate General of Health Services, New Delhi.

Dr Sachin Talwar was Invited as Chief Guest Faculty to Workshop on Pediatric Cardiac Surgery on Nov 30-Dec 1, 2013 at U.N. Mehta Institute of Cardiology & Research Centre, Ahmadabad; Guest faculty at 60th Annual IACTS meeting, Feb 20-23, Kovalam Kerala; Guest Faculty to the Annual conference of the Indian Academy of Pediatrics at Barmer, Rajasthan, October 18-19, 2013; Was part of organizing committee for 5th Congress of the Asia Pacific Pediatric Cardiac Society, March 6-9, New Delhi; Member procurement of Open Heart Surgery instruments for the Department of CTVS Safdarjung Hospital, New Delhi; Member procurement of Open Heart Surgery instruments for Ministry of Health and Family welfare, New Delhi; Invited to World Congress of Cardiothoracic Surgeons to present and demonstrate the technique of Off pump Fontan at Split, Croatia, Sept 12-15, 2013; Assisted the UP public service commission, Allahabad as an external expert for selection of Assistant Prof of CTVS.

Dr V. Devagourou was invited International Faculty for Advanced Mitral Valve Repair, H C M C, Vietnam; Member of National Rheumatic Heart Disease Consortium; Invited Faculty SJM Valve repair course, India; Conducted Workshop on 'Bentall Procedure' on 18.8.2013 at AIIMS, New Delhi; Conducted Wet-lab on Bentall's procedure in

'Workshop on Bentall's Procedure' on 18 August, 2013, AIIMS, New Delhi; Conducted Educational CME and a Workshop on 'Valve Substitutes' on 19th-20th October 2013 at AIIMS, New Delhi; Conducted Educational CME and a Workshop on 'Aortic Dissection' on 16th-17th November 2013 at AIIMS, New Delhi; Conducted CME and Live Workshop on 'Mitral Valve Repair' on 11th-12th January 2014 at AIIMS, New Delhi.

VISITING SCIENTISTS

1. Dr. Yakub Hazari from Malaysia demonstrated techniques of 'Mitral Valve Repair' 11-12th January 2014.
2. Dr. Vivek Rao from Toronto General Hospital Canada delivered a lecture on 'Regenerative Therapy in Valvular Heart Diseases' on 25th February 2014.
3. Dr. Drissi Boumzebra, Professor of Cardiac Surgery from Morocco visited CTVS Department, AIIMS New Delhi.

CARDIOLOGY

HIGHLIGHTS

In 2013-14, the department catered to nearly 1,10,000 outpatient visits. Over 35,000 patients underwent echocardiography and about 3600 diagnostic cardiac catheterizations were performed. 2000 patients underwent interventional procedures. During this period, the department participated in several research projects studying patients across a wide spectrum of cardiac disease. Important publications relating to rheumatic heart disease, coronary artery disease, gender bias in cardiac surgery and treatment of patients with valve thrombosis were published in high-impact scientific journals. Overall, the research work done in the department resulted in nearly 70 publications in various national and international peer-reviewed journals. The residents and faculty have won important research awards during conferences. Importantly, 2 of our faculty have been awarded the prestigious Padma Shri.

In addition to patient-care, research and teaching, the department was involved in a major way in furthering the academic discourse in cardiology in the country. Faculty members from the department have been elected to executive positions in national and regional cardiology bodies and have helped re-focus on the academic agenda.

EDUCATION

Department of cardiology is involved in the education and training of undergraduate, postgraduates. The daily academic activities include journal club, mortality meeting, cath conferences, short and long seminars, debates, clinical case discussion and spotters by faculty.

National and International Conferences Organized

1. Heart and Stroke organized on November, 2013.
2. APPCS 2014 (Asia Pacific Pediatric Cardiac Society 2014) meeting held in New Delhi March 2014

Lectures delivered

Rajiv Narang: 4

Rakesh Yadav: 10

G. Karthikeyan: 3

S. Ramakrishnan: 9

Sandeep Singh: 6

Neeraj Parakh: 2

Saurabh Gupta: 3

Oral papers/posters presented: 9

RESEARCH

Funded projects

Ongoing

1. Assessment of myocardial perfusion in the territory of the left anterior descending artery proximal to left internal mammary graft insertion, AIIMS, 2 years, 2013-2014, INR 500,000
2. Coronary CTA-VISION study, CIHR, 4 years, 2010-2013, CAD 45,000 (India only)
3. Effects of non-ionizing electromagnetic field (EMF) on human health- cardiovascular effects, ICMR (Indian council of medical research), 2012 ongoing, Rs. 50 lakhs
4. Efficacy of the presence of right ventricular apical pacing induced ventricular dyssynchrony as a guiding parameter for biventricular pacing in patients with bradycardia and normal ejection fraction. (ENHANCE), S Jude India Pvt Ltd, 4 years, 2012-15, Rs. 10 lakhs
5. Endothelial function assessment in acute rheumatic fever, S. Ramakrishnan, ICMR, 2 years, 2014

6. Evaluation of novel markers of acute coronary syndrome in young adults, Sunil Kumar Verma, AIIMS, 2 years, 2013-2015, Rs. 10 lakhs
7. Global Registry of Rheumatic Heart Disease, Canadian Network for Clinical Trials Internationally (CANNeCTIN), 5 years, 2010-2014, CAD 150,000
8. Impact of femoral access site closure after percutaneous coronary intervention, Sandeep Singh, AIIMS, 1 year, 2013-14
9. Intravascular Ultrasound for severe pulmonary artery hypertension in congenital heart diseases, R Juneja, DST
10. Ivabradine for the prevention of perioperative myocardial ischemia - a multicenter randomized controlled trial, DBT, 2 years, 2012-2013, Rs. 2,200,000
11. Manual thrombus aspiration with fractional flow reserve guided stenting during primary angioplasty, Neeraj Parakh, AIIMS, 1 year, 2014 onwards, Rs. 5,00,000 per year
12. Rest-stress MIBI-SPECT compared to Coronary CT Angiography in the Assessment of Patients at Intermediate Risk of Coronary Events - A Pilot Randomized Controlled Trial, International Atomic Energy Agency (IAEA), 5 years, 2010-2014, €24,000 (India only)
13. Rheumatic heart disease in children- AIIMS Prospective Registry, Anita Saxena, ICMR, 2012 to 2015, Rs. 28 Lakhs.
14. Risk factors in young patients with MI, AIIMS
15. South Asian Systolic Heart Failure Registry (SASHFR), Rakesh Yadav, India Medtronic Ltd, 7 years, 2009-15, Rs. 3 lakhs
16. Steroids in Cardiac Surgery (SIRS) trial, CIHR, 5 years, 2010-2014, CAD 60,000 (India only)
17. TEXTMEDS- TEXT messages to improve MEDication adherence & Secondary prevention-An international randomized trial, National Health and Medical Research Council (NHMRC), Australia, 3 years, 2014-2016, AUD 30,000 (India only)
18. Thrombectomy in patients presenting late after MI, AIIMS
19. Vascular closure devices compared to manual compression following PCI, AIIMS

Completed

1. Zesca trial (Zyban as an effective smoking cessation aid for patients following an acute coronary syndrome), Rakesh Yadav, McGill University Collaborators: Canadian Institutes of Health Research (CIHR) Heart and Stroke Foundation of Ontario, 4 years, 2007-2010, Rs. 3 lakhs
2. Prospective evaluation of outcome of Indian patients who meet MADIT II (multicenter automatic defibrillator implantation trial) criteria for ICD implantation: is it appropriate for Indian patients?, Rakesh Yadav, ICMR, 5 years, 2010-2014, Rs. 50 lakhs
3. A comparison of platelet inhibition following a prasugrel 60 mg or prasugrel 30 mg loading dose with or without pretreatment with a clopidogrel loading dose in acute coronary syndrome subjects who are to undergo percutaneous coronary intervention, Rakesh Yadav, Eli Lilly and Company, 3 years, 2010-12, Rs. 3 lakhs
4. Evaluation of ventricular intrinsic preference plus ventricular auto capture features in dual chamber pacemaker patients. Rakesh Yadav, S Jude India private Ltd, 4 years, 2010-2013, Rs. 6 lakhs
5. Indian Rhythm society (IHRS) registry of atrial fibrillation: patient characteristic management practices, Indian heart rhythm society, 3 years, 2011-2013, Rs 50,000

Departmental projects

Ongoing

1. 2D versus 3D echo in predicting acute outcome of PTMC
2. 3D echo predictors of success of AVBD
3. A study of effort limitation in Eisenmenger syndrome
4. Aorto-ostial atherosclerotic coronary artery disease-Risk factor profiles, demographic & angiographic features and understanding of etiology
5. Characteristics of thrombus aspirated in patients undergoing primary PCI for acute myocardial infarction and its prognostic significance

6. Chronic low grade inflammation and risk of AF in rheumatic MS
7. Clinical and angiographic profile and six months outcomes of smoker's patients of ST elevation myocardial infarction patients undergoing primary PCI.
8. Correlation of pacing site in right ventricle with QRS duration
9. CT angiography findings during an episode of hemoptysis in Eisenmenger syndrome
10. Effect of tobacco chewing on coronary microvasculature and hemodynamic
11. Holter monitoring during tobacco chewing
12. Incidence of new onset AF in post rheumatic heart valve surgery patients
13. Incidence of stroke and systemic embolism in patients of rheumatic MS in sinus rhythm
14. Indication and efficacy of vascular plug in congenital heart disease interventions
15. Primary percutaneous intervention for acute ST elevation myocardial infarction; Outcomes and determinants of outcomes
16. Prospective evaluation of children with NSAA
17. Rhythm control in patients with rheumatic MS with atrial fibrillation following PTMC
18. Thiamine levels in heart failure patients on high dose diuretics

Completed

1. CT angiography findings during an episode of hemoptysis in Eisenmenger syndrome
2. 3D echo predictors of success of AVBD
3. A study of effort limitation in Eisenmenger syndrome
4. Pacemaker lead placement in RVOT versus RV apex – a validation by CT
5. Indication and efficacy of vascular plug in congenital heart disease interventions
6. Effect of tobacco chewing on coronary microvasculature and hemodynamic
7. Anti-streptococcal antibodies as predictors of successful thrombolysis for prosthetic heart valve thrombosis (PHVT)
8. Strategies for management of atrial fibrillation in patients with rheumatic mitral stenosis after PTMC

Collaborative projects

Ongoing

1. Steroids in Cardiac Surgery (SIRS) trial (funded by the Canadian Institutes of Health Research)
2. Remote Ischemic Preconditioning pilot trial (Remote IMPACT) (funded by the Canadian Institutes of Health Research)
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. 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)
5. Stem cells in occluded artery trial (COAT) (DBT)
6. Cardiovascular effect of Non-ionizing Electro Magnetic Field (EMF) on human health (ICMR)
7. South Asian Systolic Heart Failure Registry (SASHFR) (Medtronic Corporation)
8. International Study of Comparative Health Effectiveness with Medical and Invasive Approaches- 'ISCHEMIA' (National Heart, Lung and Blood Institute of the US National Institute of Health)
9. INTER-CHF Registry (Population Health Research Institution [PHRI], Hamilton, Canada)
10. Yoga-CaRe
11. Cell therapy in occluded artery trial (COAT) (ICMR)
12. Prevalence of Silent Stroke in patients with mitral stenosis (ICMR)

Completed

1. SYMPPLICITY Hypertension-India Study

2. Role of Dual Energy, Dual Source Computed Tomography (DEDSCT) in the comprehensive cardiac assessment of patients at intermediate risk for coronary artery disease (CAD) (Department of Cardiac Radiology, AIIMS, New Delhi)

PUBLICATIONS

Journals: 65

Chapters in Books: 5

PATIENT CARE

Total numbers

New OPD cases 31, 676 Old Cardiology Cases 81, 841

Patient Services

TMT	2,180	Holter	2,536
Echocardiography	34,730	Fetal Echocardiography	275
ECG (Indoor)	24340	ECG (OPD)	36905
Ambulatory BP	45	Event Recorder	20
Head up tilt test	130		

Cath Lab Services

Diagnostic: Coronary angio & Cath 2251 + 1387

Interventions

Coronary Interventions	1183	Mitral Valve Dilatations	414
Device Closures	138	Pacemakers	272
ICD/BiV/Combo	127	EPS/RFA	190
Other Interventions	270		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor V.K. Bahl was Associate Editor of Asian Heart Journal, a publication of BMJ group

Professor Anita Saxena was President APPCS (Asia Pacific Pediatric Society of India) and Visiting professor of Pediatric Cardiology, Variety Children's heart centre, Winnipeg

Professor S.S. Kothari was Editor of Annals of Pediatric Cardiology

Professor Balram Bhargava was Awarded Padmashree; Welcome Trust DBT initiative on R and D for Affordable Health Care for India; was Editor, BMJ Innovations

Professor K.C. Goswami was Secretary of Cardiological Society of India, Delhi branch

Professor Rajeev Narang was reviewer for Indian Journal of Medical Research and Heart Asia (by BMJ group)

Professor Rakesh Yadav was Executive member, Cardiology society of India; Secretary, Cardiology Society of India, Delhi branch; Joint Secretary, International Society for Heart Research (Indian section); Joint secretary, Heart Failure Society of India

Professor Mishra was Elected Member Executive Committee, Cardiological Society of India

Professor Nitish Naik was Awarded Padmashree.

Dr G. Karthikeyan was invited as Visiting Professor to the Department of Cardiology at the Groote Schuur Hospital, University of Cape Town; Member, Rheumatic Heart Disease (RHD) Expert Group of the Global Burden of Disease Study 2013; Member, IAEA Expert Committee on the International Nuclear Cardiology Protocol Survey (INCAPS)

Dr Sandeep Singh was nominated as Associate Editor for the BMJ Innovations Journal for a period of 5 years; 'Tata-Innovation Award' of the Department of Biotechnology, Government of India for the year 2013-14 in recognition of outstanding contribution in translational research and inventing new technologies; International Award of 'Excellence in Cardiology' during the VIII World Congress on Clinical, Preventive Cardiology and Imaging- 2013.

Dr S. Ramakrishnan was Joint secretary, Cardiological Society of India (CSI); Assistant editor of Annals of pediatric cardiology; Secretary of Pediatric cardiac society of India; awarded Best imaging paper during APPCS 2014; Organized APPCS 2014 (Asia Pacific Pediatric Cardiac Society 2014) meeting held in New Delhi March 2014 as Joint Secretary; Founding member, treasurer of national rheumatic heart consortium (NRHC); Awarded FACC – Fellow of American College of Cardiology; Member, Editorial board, Indian Heart Journal; won the Best

paper of APPCS and Young investigator award of APPCS 2014 and best poster award AEPC (Association of European Pediatric Society) London 2013; Organized the 2nd annual NRHC meeting; Awarded 'International Excellence in cardiology' award during WCCPCI 2013 (World Congress of Clinical and Preventive Cardiology), Mysore Sep 2013; Won the Quiz for faculty in Cardiology jeopardy show during the CSI 2013, Bangalore

Dr Sourabh K. Gupta was awarded Best paper of APPCS and Young investigator award APPCS 2014; Best abstract of APPCS 2014 AWARD: Causes of Hemoptysis in Eisenmenger syndrome - a CT angiographic study, 5th Congress of Asia Pacific Pediatric Cardiac Society, New Delhi; Young Investigator award: Sildenafil therapy in Eisenmenger syndrome patients ameliorates exertional breathlessness by reducing J receptor output, 5th Congress of Asia Pacific Pediatric Cardiac Society; Organizer of CARDIOLOGY, 5th Congress of Asia Pacific Pediatric Cardiac Society, New Delhi, 06/03/2014; CARDIOLOGY, Cardiac imaging workshop during 5th Congress of Asia Pacific Pediatric Cardiac Society, New Delhi, 06/03/2014.

CARDIAC ANAESTHESIA

HIGHLIGHTS

The faculty and residents were awarded three best paper awards in various national and SARC conference. Dr Usha Kiran continues to be the Vice-President of PRAN 'Parkinson, Related Awareness Network' and Editorial board member of various journals. Dr Sandeep Chauhan was conferred Fellowship of IACTA. Dr Neeti Makhija was elected as executive member of IACTA and Teacher of IACTA and is a member editorial board of various Journals. Dr Poonam Malhotra was awarded international award of Excellence in Cardiology and Renominated as 'Fellow' by International Society of Cardiovascular Ultrasound. Dr Minati Choudhury received Sashidharan Award at Sri Lanka. She is also an editorial board member of various Journals. She is enrolled as PhD candidate. Dr S.N. Das received award of best faculty of Indian Society of Anaesthesiologist at Gauhati.

EDUCATION

8 DM candidates including 2 sponsored from Army and 12 Junior resident doctors from main anaesthesia department underwent superspeciality training in Cardiac Anaesthesia. 10 MD candidates from Lady Harding Medical College were imparted short term training in the speciality of Cardiac Anesthesia. A total of 40 seminars, 20 Journal presentation and 20 case presentations/discussions were presented by DM and non-DM senior residents of the department moderated by faculty. Short term training was imparted to 2 DM candidates from Shree Chitra Tirunal Institute. Three candidates including 2 faculty and one perfusionist were enrolled for PhD.

CMEs and National and International conferences

Organized by the department

1. Workshop on Pediatric & ECMO, 24.5.2013 at AIIMS, New Delhi
2. Workshop on TEE, 9-10.11.2013 at AIIMS. New Delhi

Lectures delivered

Usha Kiran: 11

Neeti Makheja: 3

Minati Choudhury: 7

Sambhunath Das: 5

Suruchi Hasija: 4

Oral papers/posters presented: 25

RESEARCH

Funded projects

Ongoing

1. Clinical efficacy and safety of Perioperative Dexmedetomidine therapy in patients undergoing valvular heart surgeries– A randomized control trial. Sambhunath Das

Completed

1. Osteopontin, a mediator of systemic inflammatory response in high risk cardiac surgical patients. Minati Choudhury, AIIMS, 2009-1013, Rs. 3 lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. A comparison of changes in cerebral oxygenation by NIRS and cerebral oximetry catheter in cyanotic congenital heart disease

2. A comparison of volulyte and tetraspan on biochemical markers during its use as a prime in adult cardiac surgical patients
3. Clinical outcome of BT shunt surgery in neonates, infants and children
4. Comparison of clinical efficacy and renal safety of different doses of aminocaproic acid in patients undergoing arterial switch operation.
5. Comparison of thermodilution, pulse contour and electrovelcimyetry derived cardiac output monitoring in patients undergoing Coronary Artery Bypass Graft Surgery on Cardiopulmonary Bypass.
6. Effect of diuretic therapy on thoracic fluid content and in hospital outcome in patients undergoing valve surgery
7. Effect of reinstition of ACE inhibitor early in the postoperative period in patients undergoing CABG
8. Parasternal block, Ropivacaine vs. Bupivacaine in congenital cardiac surgery
9. Pre emptive analgesia (parasternal block) with two doses of Ropivacaine in patients undergoing coronary artery bypass grafting
10. Prevention of junctional ectopic tachycardia in children undergoing congenital heart surgery by using dexmedetomidine.
11. RV function and tetralogy of fallots' a correlation of tissue Doppler imaging and serum osteopontin level with that of clinical outcome
12. Sonoclot analysis in infants with dextro-transposition of great arteries undergoing arterial switch operation.
13. Thoracic fluid content in autologous blood donation during cardiac surgery.
14. Utility of factor VII in adult cardiac surgery
15. Utility of factor VII in congenital cardiac surgery
16. Utility of tissue Doppler imaging as an direct assessment tool for clinical outcome in patients undergoing teytralogy of fallot
17. Validation of Electrovelocitometeres for non-invasive cardiac output monitoring

Completed

1. Dexmedetomidine by intranasal route for cardiac catheterization of TOF patients.
2. Comparison of induction with etomidate and ketamine on adrencortical suppression in patients undergoing Tetralogy of Fallot.

Collaborative projects

Ongoing

1. Comparison of off pump versus on pump fontan operation –Anaesthetic concerns. [CTVS].
2. Comparison of various techniques of Bidirectional Glenn surgery on clinical outcome. [CTVS]

Completed

1. A study to assess the effectiveness of earplugs and eye masks on perceived quality of sleep during night among patients in intensive care units of AIIMS
2. ReMote ImpaCT CoRonaRy Trial (Multicentric trial) [Cardiology]

PUBLICATIONS

Journals: 29

Abstracts: 2

Chapters in Books: 13

PATIENT CARE

Faculty & Residents of the department are involved in providing anesthesia care in 8 operation theatre, 5 catheterization labs, CT angiography and MRI Cardiac-Anesthesia department is also involved in resuscitation & ventilatory care in CTVS-ICU-A & B, ICCU, all the general wards and C.N. Tower. The Stress Management Clinic is looked after by the department for Cardio-Neuro patients, caregivers and various groups of employees of AIIMS including staff and nurses.

AWARDS, HONORS AND SIGNIFICANT EVENTS

Professor Usha Kiran was Vice president 'PRAN'

Professor Neeti Makhija's paper Makhija N, Singh SP, Narula J, Choudhury A, Kiran U. 'Transesophageal

Echocardiography (TEE) in a child with Transposition of Great Arteries and regressed ventricle' presented by Dr Jitin Narula (DM student) was **awarded first prize** in competitive echocardiography presentation session of 8th Annual Perioperative and Critical Care TEE Workshop of The Society of Transesophageal Echocardiography from 1st to 3rd March, 2014 at PGI, Chandigarh; Elected Member, Executive council, Indian association of cardiovascular and thoracic anaesthesiologists (IACTA) for second time; Teacher IACTA; Member Editorial of J of Perioperative Echocardiography (Official J of Society of Transesophageal Echocardiography); Member editorial board of World Journal of Anesthesiology; Member Editorial Board of 'Open Journal of Anesthesiology; Member Reviewer Board in Heart, Lungs & Vessels; Member Reviewer Board in J Anaesthesiology Clinical Pharmacology. She is advisory member of Webmed central open access biomedical publication.

Dr Minati Choudhury was awarded Dr Sashidharan Award by Srilanka Society of Anesthesiologist, in Feb 2014, Colombo; Member, Editorial boards of indexed international journals/Review Committees of Annals of Cardiac Anesthesia, J of Clinical Monitor, J Clin Anesthesia, Egyptian J of Cardiovascular Anesthesia, Indian Journal of Anaesthesia, J of Anesthesiology and Clinical Pharmacology.

Dr Sambunath Das won Award for best faculty in the category of Cardiac Anaesthesia by ISA Head Quarter, India. At 61st National conference of ISA 26th-29th Dec, 2013 Gauhati, Assam

Dr Suruchi Hasija was awarded the Dr V.A. Punnoose Best Young Scientist award 2014. 5th Annual Conference of The Society of Cardiac Anaesthesiologists-Delhi and NCR branch.31st August, 2014

CARDIAC RADIOLOGY

HIGHLIGHTS

Workshops conducted: 2 Ongoing research projects: 5

Ongoing thesis: 3

Faculty members are **members of editorial boards and reviewers** for numerous scientific journals. In clinical care, the department continues to provide cardiovascular imaging and vascular interventional treatment services to patients referred from various specialty departments in the hospital. Hosted an observer (senior radiologist) from Nigeria, for training in cardiovascular imaging and interventions

EDUCATION

Teaching

Extra-departmental

1. Undergraduates: lectures on basics of cardiovascular imaging and vascular interventions
2. Postgraduates: Cardiac Radiology quiz, moderating seminars in departments of allied specialties viz. Medicine, Surgery, Gastroenterology, Cardiology and Cardiothoracic Surgery
3. Clinico-radiology meetings with Department of Cardiology
4. Participation in Clinical Combined Rounds and Clinical Grand Rounds with Allied specialties

Intra-departmental

1. Daily case presentations
2. Weekly journal clubs and seminars

Training: Junior and senior residents in techniques of cardiovascular imaging and vascular interventions

CMEs/Workshops/Symposia/National and International Conferences

Lectures delivered: 22

Oral papers/posters presented: 2

RESEARCH

Funded projects

Ongoing

1. To evaluate the feasibility, safety and therapeutic efficacy of intra-arterial delivery of stem cells derived from autologous bone marrow in patients with Spinal injury, Priya Jagia, AIIMS
2. Induction Of Therapeutic Angiogenesis In Critical Limb Ischemia By Intra-Arterial Delivery Of Autologous Bone-Marrow Derived Stem Cells, Department of Biotechnology, Ministry of Science and Technology, Government of India

Collaborative projects

Ongoing

1. Role of MRI in diagnosis of silent brain infarcts in patients with RHD
2. Importance of Angiosome targeted vessel bed identification using DSA and MR techniques and its relevance in endovascular treatment in patients with critical limb ischemia
3. Effect of continuous positive airway pressure (CPAP) on neurocognitive functions in patients with obstructive sleep apnea syndrome
4. Medtronic CapSureFix® Novus Model 5076 MRI Lead Study
5. Multicentre, prospective observational study: 'Coronary CT angiography to predict vascular events in non-cardiac surgery patients cohort evaluation study (with Department of Cardiology)
6. Role of CT angiography in the evaluation of coronaries and in functional assessment of Aortic Stenosis (AS) (with Department of Cardiology)

Completed

1. Role of Cardiac MRI for acute rheumatic carditis (with Department of Cardiology).

PUBLICATIONS

Journals: 10

Abstracts: 1

Chapters in Books: 4

PATIENT CARE

Facility	Number of procedures	Facility	Number of procedures
MRI	380	CT	3000
DSA	1000	Doppler and Ultrasound	3800
Catheter angiographies	6500		

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Gurpreet S.Gulati was nominated Editor, Newsletter of the Indian Association of Cardiac Imaging; nominated Vice-President, Indian Association of Cardiac Imaging; Section Editor (Imaging), Indian Heart Journal; Member, Editorial Board, Journal of Cardiovascular Magnetic Resonance; Member, Editorial board, Indian Journal of Radiology and Imaging; Reviewer for 10 journals

Dr Priya Jagia was Reviewer for Pediatric radiology, Indian Journal of radiology and imaging, Clinical Radiology, Eastern Journal of Medicine, Annals of Pediatric cardiology. Invited as MD Radiology external examiner for Saurashtra University

VISITING SCIENTISTS

Dr Sadisu Mohammed Ma aji. From department of radiology, Usmanu Danfodiyo University and teaching hospital, Nigeria. Posted as observer for tenure of 1 year (January 2014 onwards)

NUCLEAR MEDICINE

The department is equipped with a dual head SPECT-CT Gamma Camera. The nuclear cardiology unit caters to patients referred for cardiac studies from CN center and other departments of the hospital. The department also performs MUGA studies for assessment of left ventricular function in CAD patients referred from the centre and from IRCH for cardiac evaluation in patients receiving chemotherapy and evaluation of patients on pacemaker. We also perform cardiac PET imaging with N-13 NH₃ perfusion and F-18 FDG glucose metabolic studies for assessment of myocardial viability.

Lectures delivered

Chetan Patel: 3

RESEARCH

Funded projects

Ongoing

1. Value of intraventricular synchronism assessment by Gated SPECT myocardial perfusion imaging (MPI) in the management of heart failure patients submitted to cardiac resynchronization therapy, Chetan D. Patel, International Atomic Energy Agency, Austria, 3 years, 2013-16, Euros 6000

Departmental projects (including thesis/dissertations)

Ongoing

1. Optimization of image acquisition and reconstruction parameters of I-131 MIBG SPECT/CT using SIMIND Monte Carlo simulation software
2. Assessment of cardiac dyssynchrony in patients with non-ischemic dilated cardiomyopathy undergoing Cardiac Resynchronization therapy using Tc-99m MIBI myocardial perfusion imaging. Comparison with Radionuclide ventriculography
3. Relationship between left ventricular dyssynchrony, myocardial perfusion abnormalities and systolic function assessed on Tc99m-MIBI myocardial perfusion SPECT in comparison with quality of life and functional status of heart failure patients
4. Comparison of Myocardial perfusion abnormalities detected by stress adenosine Tc99m MIBI Myocardial Perfusion SPECT and Coronary Flow Reserve on adenosine stress echocardiography for the screening of patients after Arterial Switch Operation

PUBLICATIONS

Journals: 1

Abstracts: 2

AWARDS, HONOURS AND SIGNIFICANT EVENTS

AIIMS Excellence Award 2013 for research paper titled 'Diuretic 18F-FDG PET/CT imaging for detection and loco-regional staging of urinary bladder cancer: prospective evaluation of a novel technique. Published in Eur J Nucl Med Mol Imaging. 2013;40:386-93.

PATIENT CARE

Radionuclide Investigation and Therapy

Myocardial Perfusion Infection (MPI)	1533	MUGA	841
Cardiac PET	25	Misc. (VQ)	31

CENTRE OF EXCELLENCE FOR STEM CELL RESEARCH

EDUCATION

Lectures delivered: 10

Oral papers/posters presented: 6

RESEARCH

Funded projects

Ongoing

1. Association of cardiac specific genes towards generation of functionally active cardiomyocytes, derived from human bone marrow Mesenchymal stem cell, ICMR, Rs. 49.9 lakhs
2. Transplantation of Mesenchymal Stem Cell in animal models of Myocardial Infarction and Parkinson's disorder, DBT, 6 years, 2008-13, Rs. 45 lakhs
3. Role of mouse embryonic fibroblasts & human foreskin fibroblast feeder cells in maintaining self renewal of embryonic stem cells: Role of TGF alpha & IGF-II, ICMR, 2 years, 2013-15, Rs. 4.5 lakhs
4. 3D Expansion and differentiation of mesenchymal stem cell into osteoblast for bone tissue engineering on biocomposite scaffold, ICMR, 3 years, 2010-13, Rs. 24.82 lakhs
5. To compare the differentiation potential of mesenchymal stem cells derived from different sources (bone marrow, adipose tissue & dental pulp) into cardiomyocytes using 5-azacytidine and TGF β 1 as inducers, Research section, AIIMS, 1 year, 2014, Rs. 4 lakhs

Completed

1. Designing a biobank for biological samples collected from a mega study of acute coronary events in India, ICMR, 1 year, 2012, Rs. 5.35 lakhs
2. To optimize the differentiation potential of BM-MSC into cardiomyocytes using A Novel Inducer-TGF- β 1, Research section, AIIMS, Rs. 4 lakhs

Departmental projects (including thesis/dissertations)

Ongoing

1. To explore differentiation potential of bone marrow derived mesenchymal stem cells into functional cardiomyocytes
2. Study of functional dopaminergic neurons from human mesenchymal stem cells
3. To develop and characterize DMD-disease specific induced pluripotent Stem Cells from Adult Cells
4. Study of Epidermal Stem Cells with respect to its isolation, characterization and in vitro differentiation

Completed

1. Comparative analysis of expansion and differentiation potential of MSC derived from Dental pulp and Bone marrow
2. Expression status of HLA molecules on undifferentiated and differentiated Mesenchymal stem cells (MSC): An *in vitro* study
3. Establishment of Melanocyte Culture in a serum free system for transplantation in vitiligo patients
4. To optimize the differentiation potential of BMSC into cardiomyocytes using a novel inducer
5. Differentiation of Mesenchymal Stem Cell into Osteoblast for Bone Tissue Engineering on Biocomposite Scaffold

Collaborative projects

Ongoing

1. DBT Centre of Excellence for Stem Cell Research: Basic and Transplantation (with Department of CTVS)
2. Induction of therapeutic angiogenesis in critical limb ischemia by intra-arterial delivery of autologous bone marrow derived stem cells (with Department of Cardiac Radiology)
3. Cancer Stem Cell Markers in Retinoblastoma and Clinical Correlation (with Dr R.P. Centre for Ophthalmic Research)
4. Isolation and characterization of Mesenchymal Stem Cells from Amniotic fluid and Umbilical Cord (with Department of Gynaecology)
5. Aplastic Anaemia and Telomerase Complex (with Department of Hematology)
6. Role of Bone marrow mononuclear cells and Renal Stem cells in renal preservation in Obstructive Renopathy– An Experimental study in mice (with Department of Pediatric Surgery)

Completed

1. Use of autologous bone marrow stem cells for myocardium regeneration (with Department of CTVS)
2. Efficacy of Stem Cell in improvement of left ventricular function in patients with acute myocardial infarction (with Department of Cardiology)
3. Culture of limbal stem cell for ocular surface reconstruction in stem cell deficiency disorder (with Dr R.P. Centre for Ophthalmic Research)
4. Use of Autologous Bone Marrow Derived Stem cells For Rehabilitation of patients with Dry Age Related Macular Degeneration and Retinitis Pigmentosa: A Phase-I Clinical Trial (with Dr R.P. Centre for Ophthalmic Research)
5. Safety and Efficacy of Autologous Stem Cell in prevention of amputation in patients with chronic critical limb ischemia (with Department of Surgery)
6. MRI from in- vivo tracking of iron oxide labeled Mesenchymal stem cells in a rat model of heart failure (with Department of Cardiac Radiology)
7. Development of a potential biopolymer to serve as an alternative substrate of human amniotic membrane for ex – vivo expansion of corneal epithelial cell (with Dr R.P. Centre for Ophthalmic Research)
8. Exploring the role of MHC and co-stimulatory molecules in the immune evasion mechanism of glioma stem cells (with Department of Neurobiochemistry)

PUBLICATIONS

Journals: 8

CLINICAL PROCEDURES

Bone Marrow Mononuclear cells separation and their application in following diseases.

S. No.	Diseases	Number
1.	Peripheral vascular diseases	26
2.	Stroke	3
3.	Coronary artery disease	11
4.	Polio	5
5.	Asherman's disease	2
6.	Diabetes mellitus	6
7.	Avascular necrosis	5
8.	Anterior wall myocardial infarction	7
	Total	65

Clinical Services provided to other departments

S. No.	Clinical service	Number
1.	Limbal stem cell transplant	6
2.	Oral mucosal stem cell transplant	9
3.	CD34+ enumeration	65
	Cryo-preservation of stem cell	
4.	Aphaeresis Peripheral blood sample	9
5.	Umbilical Cord Blood	7
6.	Amniotic Membrane Batches	4

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Dr Sujata Mohanty received the ICMR International Travel Award, 2014 and Bharat Jyoti Award from India International Friendship Society, 2013; was Member of Institute Committee for Stem Cell Research at Medanta, The Medicity, Gurgaon; National Institute of Immunology, New Delhi; Institute of Liver & Billiary Sciences, New Delhi; DBT Representation at Apollo Hospital; Chairperson, DSMB- Medanta, The Medicity, Gurgaon; Sri Ganga Ram Hospital, New Delhi; Member, DBT- Biotechnology Career Advancement and Reorientation Program for Women Scientists (BioCARE); BIRAC; High Powered Committee by Central Drug Standard Control Organization, Govt. of India; Member, Research Grant Review Committee, Department of Biotechnology, New Delhi; Indian Council of Medical Research, New Delhi; Department of Science and Technology, New Delhi; Council of Scientific and Industrial Research, New Delhi; Member, Journal Review Committee, World Journal of Stem Cells, Life Science, Journal of Biosciences, CEINCIA publishing group; Associate Editor, Current Trends in Stem cells and Regenerative Medicine (CTSR); Member, International Society for Cellular Therapy (ISCT), Society for Stem Cell Research (ISSCR), International Society of Biological Chemists (ISBC), Immunological Society of India; Successfully established Centre of Excellence for Stem Cell research for Basic & Animal Research; Initiated first of its kind facility with current Good Manufacturing Practices (cGMP) in AIIMS for Stem Cell Clinical Research.

CARDIAC PATHOLOGY

PATIENT CARE

Specimens:	Routine	294	Research	87
Slides coated:	APES	31827		
Others:	Immunohistochemistry	543	H & E slides	116
	Unstained	750	Frozen sections	2
	Post cardiac transplant biopsies (manual)	4		

CARDIAC BIOCHEMISTRY

EDUCATION

Lectures delivered: 2

RESEARCH

Funded projects

Ongoing

1. Relationship of birth size, infant and childhood growth on telomere length and telomerase activity in adulthood, R. Lakshmy, DBT, 2012-2015, August 2012, Rs. 70,87,250
2. Central Reference laboratory for the study 'Childhood obesity in India: A multicenter study on its measurement and determinants, R. Lakshmy (Biochemical investigator), ICMR, 2012-2014, March 2012, Rs. 4 lakhs (For lab quality assurance)

Departmental projects (including thesis/dissertations)

Ongoing

1. Relationship of birth size, infant and childhood catch-up growth on telomere length and oxidative stress markers in adulthood

Collaborative projects

Ongoing

1. Genetic determinants of birth weight and growth trajectory and influence of parental genotype on these anthropometric indicators (Endocrinology)
2. Childhood Obesity in India: A Multi-center Study on its measurement and determinants (Endocrinology)
3. Role of chronic inflammation as a risk factor for atrial fibrillation in rheumatic mitral stenosis: can inflammatory biomarkers predict AF occurrence? (Cardiology)
4. Re-establishment of Normal reference range of radioiodine uptake values (RAIU) in the era of universal salt iodination (Nuclear Medicine)
5. Assessment of Nutritional Status, diet related morbidity and utilization of health care facilities in the elderly population aged 60 years and above (Human Nutrition Unit)
6. Assessment of prevalence of Vitamin D deficiency and associated factors amongst children in the age group of 6-18 yrs. from three high altitude regions (1000 meters and above) of Himachal Pradesh, India (Human Nutrition Unit)
7. Neuroendocrine stress response in robotic urological strategy: Dexmedetomidine based versus fentanyl based total intravenous anesthesia (Anesthesia)
8. Effect of antioxidant supplementation on pancreatic function and markers of fibrosis in chronic pancreatitis: A randomized controlled double blind trial (Gastroenterology)
9. Prevalence of silent stroke in patients with mitral stenosis (Cardiology)

Completed

1. Association of Vitamin D deficiency with risk of acute myocardial infarction in Indians (Cardiology)
2. Nutritional status in pediatric acute leukemia patients on follow up. (IRCH)
3. A case control study of global and MTHFR gene specific methylation vis a vis pregnancy complications in North Indian population (Delhi University)

PUBLICATIONS

Journals: 13

Chapters in Books: 1

PATIENT CARE

The tests being done 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, Fibrinogen.

- Cardiac Markers: CK, CK-MB, LDH, Troponin I and BNP.
- Lipids: Cholesterol-total, Cholesterol-HDL, Cholesterol-LDL, Cholesterol-VLDL, Triglycerides, Lipoprotein (a), Apo(a), Apo(b)
- Drugs: Digoxin, cyclosporine
- Thyroid hormones-T-3, T4, TSH
- ASLO
- CRP
- Homocysteine.
- Vitamin B12 and Folate
- RA factor
- Catecholamine (plasma and urine), VMA
- Glycosylated hemoglobin.
- Insulin

AWARDS, HONOURS AND SIGNIFICANT EVENTS

In the project review committee of ICMR in the area of Obesity and Metabolic syndrome; and Gastroenterology

ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)

HIGHLIGHTS

- Initiated Registration of AIIMS for Lungs and Heart-Lung Transplantation.
- Contributed in framing Transplantation of Human Organs Rules 2012.
- Designed and Updated real time and vibrant ORBO Website (www.orbo.org.in) with a facility to download the organ donor form.
- 15 whole bodies were also donated through ORBO to facilitate medical education in last one year.
- Collaboration with various NGOs to promote the noble cause of organ & tissue donation.
- 224 organs and tissues were procured for transplantation.
- Donor Registry: 3938 persons pledged for organ donation on motivation of ORBO. Total number of Registry till dated is more than 22000.

Community Services/Camps: 83

- IEC Activity at Senior Citizen Welfare Society, Ashok Vihar, New Delhi – 05.08.2013
- Awareness Activity at CRPF, New Delhi. 1200 Soldier pledged – 06.08.2013
- Awareness Activity at Resident Welfare Association – 09.08.2013
- Awareness Activity at Vishwa Jagriti Mission, Pitam Pura, Delhi – 10.08.2013
- Awareness Activity at District Rotaract Organization – 24.08.2013
- Lecture/IEC Activity at Rotary Club, Sainik Farms, New Delhi – 24.08.2013
- Presentation on Organ Donation – Help Desk on Organ Donation at Delhi College of Technology and Management – 05.09.2013
- Lecture on HCRP by Eye Bank Staff organized by Nurses, CNC – 06.09.2013
- Lecture on Organ Donation for Group ‘D’ Employees of AIIMS organized by CMET – 06.09.2013
- Organ Donation Poster at Seminar in Arocotech Biochem Ltd. Faridabad – 10.09.2013
- Organ Donation Pledging Camp at Emerican Express Gurgaon, Haryana – 26.07.2013
- Organ Donation Pledging Camp at Bal Bharti Public School, Brij Vihar, Ghaziabad – 20.07.2013
- Organ Donation Pledging Camp at Bal Bharti Public School, Brij Vihar, Ghaziabad – 31.08.2013
- Lecture / IEC Activity at Text 100 PR, Jasola, Delhi – 18.09.2013
- Orientation about ORBO at St. Stephen College, University of Delhi – 18.09.2013
- Orientation about ORBO and IEC Activity at One India, NGO, Delhi – 18.09.2013
- Orientation about ORBO and IEC Activity at Vishwas, NGO, Patna, Bihar – 18.09.2013

- Paint & Enact at Pulse 2013 – Eutopia, AIIMS – 17.09.2013
- Slogan Writing Competition at Pulse 2013, AIIMS – 18.09.2013
- Lecture on Organ Donation and IEC Activity at Art of Living Retreat Centre, Sector – 48, NOIDA. UP
- IEC Activity at Senior Citizens Society, Freedom Fighter Enclave, New Delhi in September 2013
- Awareness Activity at Genpact (CSR) New Delhi – 11.09.2013
- Awareness Activity at Indian Red Cross Society, Fatehabad, Haryana – 07.09.2013
- Awareness Activity at Britannia Industries Limited, Britannia Chowk, New Delhi – 10.09.2013
- Awareness Activity at Auru Charitable Trust, New Delhi – 05.09.2013
- Awareness Activity at Netra Jyoti Ek Prayas, Palwal, Haryana – 05.09.2013
- Organ Donation Pledging Camp at Temple of Knowledge, Art of Living, NOIDA, UP – 29.09.2013
- Orientation about ORBO and IEC Activity at Help 24 Krishna Nagar, Delhi – 24.09.2013
- Orientation about ORBO and IEC Activity at Deloitte Consulting India Pvt. Ltd. New Delhi – 23.08.2013
- Orientation about ORBO and IEC Activity at Accenture IDC, Gurgaon, Haryana – 14.08.2013
- Orientation about ORBO and IEC Activity at Outline India, New Delhi – 19.09.2013
- Orientation about ORBO and IEC Activity at Organ India Organization, Chennai – 20.09.2013
- Lecture on ORBO (Two Session) at Training of AIIMS Group ‘D’ Staff (140 Staff) – 13.09.2013
- Organ Donation Pledge Camp at Lake View Co-Operative Housing Society Ltd. Paschim Vihar, New Delhi – 10.08.2013
- Awareness Stall at 58th Institute Day Exhibition AIIMS, New Delhi (25-27.09.2013).
- Orientation about ORBO and IEC Activity at Mahavir International, New Delhi – September 2013
- Orientation about ORBO and IEC Activity at DPS R.K. Puram, New Delhi – 26.09.2013
- Orientation about ORBO and IEC Activity at Bal Bharti Public School, NOIDA, UP – 26.09.2013
- Orientation about ORBO and IEC Activity at Delhi College of Engineering (DCE) Rohini, New Delhi – 27.09.2013
- Orientation about ORBO and IEC Activity at Alumni of Sarasati Bal Mandir, Hari Nagar, New Delhi – 27.09.2013
- Orientation about ORBO at Rotary Ghaziabad Central, Ghaziabad UP – 27.09.2013
- Organ Donation Pledge Camp at Smile for All, NGO Air Force Naval Officers Enclave, Plot 11, Sector 7 Dwarka, New Delhi – 29.09.2013
- Organ Donation Pledge Camp at Art of Living, Temple of Knowledge, Sector 48, NOIDA UP – 29.09.2013
- Lecture and IEC Activity at Senior Citizens Society, Freedom Fighter Enclave – 30.09.2013
- Awareness Walk & IEC Activity at RWA, Dwarka, New Delhi – 02.10.2013
- Guest Lecture and Help Desk on Organ Donation at Indigo Airlines, Gurgaon – 04.10.2013
- Presentation and IEC Activity at ISHI – 2013 – 08.10.2013
- Invited talk on Organ Donation and IEC Activity at NPL Farmer Scientists Forum, New Delhi – 10.10.2013
- IEC Activity in CRPF Mela from 18th – 20th Oct’2013 at CRPF Lodhi Colony New Delhi – 18.10.2013
- IEC Activity on Organ Donation at UN Foundation Delhi – 18.10.2013
- IEC Activity on Organ Donation at Ekas Mission, Delhi – 18.10.2013
- Guest Lecture and IEC Activity on Organ Donation at Collective Growth Reality Pvt. Ltd. NOIDA – 19.10.2013
- IEC Activity at DEARS – 23.10.2013
- Awareness Camp on Organ Donation at Modern School Barakhamba Road, New Delhi – 26.10.2013
- Awareness Camp on Organ Donation & IEC Activity at Maharishi Dadhichi Manav Seva Sansthan, Delhi – 07.11.2013
- IEC Activity and Orientation about Organ Donation at DEARS – 28.10.2013
- ORBO Session at Organ Donation Symposium Trauma 2013 – 10.11.2013
- IEC Activity at Organ Donation Camp in Sparsh – 2013 organized by IMA Ghaziabad – 17.11.2013
- Awareness Stall on Organ Donation and Pledges at DPS, Vasant Kunj Inter DPS Science Fair – 2013 – 23.11.2013
- IEC Activity at Maharishi Dadhichi Manav Seva Sansthan, Jahangirpuri, Delhi – 10.11.2013

- Invited Talk on Organ Donation and IEC Activity at Retired Person Association, Rajouri Garden, New Delhi – 19.11.2013
- IEC Activity on Organ Donation at Leela Bai Trust, New Delhi – 15.12.2013
- Invited Talk on Role of Organ Transplant Coordinator – CME Cadaver Organ Donation at RML Hospital, New Delhi – 17.12.2013
- Invited talk on Organ Donation and IEC Material at Deputy Commissioner Indian Red Cross Society, Fatehbad, Haryana – 18.12.2013
- Invited talk on Approaching Family in BSD – Obtaining Consent and Coordinating Multi Organ Retrieval in Symposium on Brain Death at G.B. Hospital, New Delhi – 26.12.2013
- Ramanand Rai Volunteer (100 Donor Forms & Card) – 08.01.2014
- Orientation about ORBO & IEC Activity at Vatika Apartments, Mayapuri, New Delhi – 09.01.2014
- Orientation about ORBO & IEC Activity at Ekas Mission Delhi – 09.01.2014
- IEC & Orientation about Organ Donation at Kashti, NGO, New Delhi – 09.01.2014
- Induction Training & Orientation about ORBO to MHA, AIIMS PG Batch – 04.01.2014
- IEC Activity and Invited Talk on Organ Donation at IIT Delhi at Sajal Foundation – 18.01.2014
- IEC / Orientation about Organ Donation at Roji Roti Sahyog NGO, New Delhi – 27.01.2014
- Orientation about ORBO and IEC Activity at Faridabad Malyalee Society, Haryana – 28.01.2014
- IEC Activity and Invited talk on Organ Donation at Sun Life Financials, Gurgaon – 29.01.2014
- Chaired a session on Care of Brain Dead Patients, Role & Importance of ORBO at DNACON – 2014 – 02.02.2014
- IEC Activity and invited talk on organ donation at Sun life Financials – IDSKS – 06.02.2014.
- Delivered talk on overview of organ donation in India at Dadhichi Deh Dan Samithi, Delhi – 08.02.2014
- IEC Activity on Organ Donation at Radha Soami Satsang Byas (RSSB) – 07.02.2014
- Invited talk on organ donation at Jesus & Mary College, Delhi – 12.02.2014
- Delivered talk on overview of Organ Donation in India at Dadhichi Deh Dan Samithi, New Delhi – 09.03.2014
- IEC Activity at RWA Mayur Vihar, Delhi – 08-09.03.2014
- Delivered Talk on Role of Transplant Coordinator at DODACON – 2014 at RML Hospital, New Delhi – 23.03.2014
- Headed Group of MSc. Nursing Students to participate in Role Playing and Poster Competition on Organ & Tissue Donation ‘Won 1st Prize’ at NOTTO, Safdarjung Hospital, New Delhi – 26.03.2014

HOSPITAL ADMINISTRATION (CTC)

Work of Additional Medical Superintendent

- Management and Administration of Cardio Thoracic & Neuro Sciences Centre – 411 Bedded Super Specialty Centre. Having 15 Operation Theatres including Intra-op MRI Facility, 107 ICU beds, 7 Cath Labs along with state-of-the art Gamma Knife facility.
- Human Resource Management, Integration and co-ordination of patient care, clinical, diagnostic and support services.
- Supervision of nursing, sanitation, security, administration, stores and other support staff for blood bank, labs, manifold, reception, laundry, CSSD etc.
- Patient grievances and redressal.
- Hospital supplies and procurement.
- Various patient care areas were renovated. (NS-5 Neurology Ward, CT-3 Cardiology Ward, Pediatrics Cardiology Ward, ORBO, Intra-operative MRI, Neurosurgery Operation Theatre).
- Renovated and Upgraded Cafeteria of C.N. Centre.
- Implemented Prepaid Cash Card Systems in CN Centre First Time in any Government Hospital
- Implemented CCTV Surveillances and monitoring system as well as MIS for CN Centre.
- Pediatric Cardiology Ward received the award for Best Maintained Ward in AIIMS
- Computerization of Blood Bank, OPD and Stores of CN Centre was done.

- LED System for patient call in CN Centre OPD was installed
- Co-ordination for VVIP care at C.N. Centre.
- Member of various committees in C.N. Centre & AIIMS

BLOOD TRANSFUSION SERVICES

Blood units collected

Replacement donors	9117	Voluntary donors	224
Voluntary donor through blood mobiles	80	Family voluntary donors	10727
Blood received from IRCS	216	Blood received from AIIMS	260
Blood received from other hospital	580		
Total	21204		

Blood units issued

Blood units issued to CTVS/NS	26731	Blood units to AIIMS Blood Bank	309
Blood units issued to JPNATC	21	Blood units issued to IRCS	50
Blood units issued to other hospital	1016		
HIV/HBV/HCV/VDRL reactive units discarded	754		
Total	28881		

Laboratory procedures

Total no. of blood grouping ABO	86055	Total no. of blood grouping Rh	76095
Total no. of blood cross matching done	105651		

Laboratory procedure, Serology

HIV testing	25243	HBV Testing	26145
HCV testing	25241	VDRL testing	23500
MP testing	23500	CMV testing	304
Total	123629		

Units of blood components prepared

Fresh Frozen Plasma	17399	Platelet Concentrate	15930
Recovered Plasma	1260	Cryoprecipitate	1503
Packed Red cells	18587		
Total	54679		
Single donor platelet pheresis	6		

DIETETICS

The data of dietetics services in C.T. Centre & Tower, Private wards.

Diets in General and Private Wards

Normal diets	52920	Khichdi diet/Semisolid diet	3504
Feeds	3240		

Therapeutic Diets in General and Private Wards

Diabetic diets	3960	Renal diets	720
High protein diets	37080	Bland diets	720
High carbohydrate diet	2880		
Total	45360		

Therapeutic Feeds

Modified feeds	1080	Diabetic feeds	720
Moong daal/Hepatic feeds	480	Diabetic Renal feeds	960
Total	3240		

No. of diet counseling given to indoor & outdoor patients

S. No.	Month	No. of Patients
1	April	281
2	May	268
3	June	166
4	July	309
5	August	578
6	September	395
7	October	382
8	November	280
9	December	296
10	January	280
11	February	320
12	March	313
	Total	3868

Nutritional Supplements

Department of Dietetic started nutritional supplements in ICU's as nutritional support for enterally fed patients and lactose intolerant patients.

- Fresubin (Plain)- As a meal replacement
- Pentasure (DM)-for diabetic patients
- Pentasure High Protein-as high protein supplement
- Nephro high protein-for renal patients
- Hepatic-for liver dysfunction
- Peptamen-as a semi-elemental formula

Indoor Diet counseling (Afternoon)

- A) Group Diet Counseling- for P/CABG, valve replacement patients
- B) Individual Diet Counseling
 - For Cardiac Pediatric Patients and weaning charts of neonates, for mothers.
 - NICU – Specialized Diets Planning for LBW, Diarrhea and lactose intolerant neonates.

Running Specialized cardiac clinics for Diet counseling

- A) Cardiology (Monday, Wednesday, Friday) – Afternoon
- B) Hypertension clinic (Thursday)- Morning
- C) Prosthetic Heart Valve clinic (Thursday)
- D) Heart Failure clinic
- E) Pediatric cardiology clinic

10.2 Centre for Dental Education and Research

Professor and Head

Naseem Shah

Professors

O.P. Kharbanda
Ajoy Roychoudhury

Ritu Duggal
Veena Jain

Additional Professors

Ongkila Bhutia

Vijay Prakash Mathur

Ajay Logani

Assistant Professor

Dalim Kumar Baidya

Devalina Goswami

EDUCATION

Undergraduate

The Centre conducted the teaching programme of MBBS undergraduate students during their clinical posting in VIIth Semester.

Postgraduate

At present the centre is conducting postgraduate programmes in Orthodontics, Prosthodontics, Conservative Dentistry-cum-Endodontics and Oral and Maxillofacial Surgery and PhD programme in Orthodontics, Oral and Maxillofacial Surgery and Conservative Dentistry and Endodontics.

Short Term Training

Two sponsored candidates from Armed forces from Jammu and Kashmir have undergone short term training for 3 months in Dental Surgery and Oral Health Education Programme.

CMEs/Workshops/Symposias/National and International Conferences

Organized by department

1. 'Case Diagnosis–Treatment, Planning and Biomechanics', 1-day CME, Organized by Department of Orthodontics in collaboration with Orthodontic Study Group of Delhi, State Chapter of Indian Orthodontic Society, 31st May 2013.
2. A CDE 'Friday Paathshala' organized by Department of Orthodontics in collaboration with Orthodontic Study of Delhi State Chapter of Indian Orthodontic Society, 26th July 2013, CDER, AIIMS.
3. A hands-on course on 'Lingual Orthodontics', organized by Department of Orthodontics, In collaboration with Orthodontic Study Group of Delhi State Chapter, Indian Orthodontic Society, 29th to 30th August 2013, AIIMS.
4. '1st Lingual Orthodontics' conference, organized by Department of Orthodontics in collaboration with Orthodontic Study Group of Delhi State Chapter of Indian Orthodontic Society, 31st August to 1st September 2013, Manekshaw Auditorium, Delhi Cantt. and Post conference, 2nd to 3rd September 2013, AIIMS.
5. 'Interdisciplinary Orthodontics' lecture, Department of Orthodontics, 2nd January 2014, CDER, New Delhi. Prof. Mithran Goonaverdine, Chair, Department of Orthodontics, Dental School, University of Western Australia, Perth was the speaker.

Lectures delivered

O.P. Kharbanda: 18

Ritu Duggal: 1

Veena Jain: 3

Ongkila Bhutia: 4

Vijay Prakash Mathur: 3

Ajay Logani: 7

Oral papers and posters presented: 22

RESEARCH

Funded projects

Ongoing

1. Cleft Lip and Palate anomaly in India: Clinical Profile, Risk factors and current status of Treatment – A Hospital based study, Task force project (pilot phase). ICMR. O.P. Kharbanda Rs 26,78,819.
2. Network Enabled Medical Diagnosis and Education in Skeletal Imaging Using X-rays in collaboration with National Informatics Centre (NIC), New Delhi, Central Scientific Instruments Organisation, Chandigarh, Indian

Institute of Technology, Mumbai, Dept. of Radio-diagnosis, All India Institute of Medical Sciences, New Delhi. National Knowledge Network. O.P. Kharbanda, Rs. 76,58,000

3. A study to evaluate correlation between markers for hypercoagulability and development of temporomandibularankylosis in mandibular condylar fracture patients. Ajoy R. Choudhary, AIIMS Research Section, 2013.
4. Ocular surface reconstruction with alternative autografts of non ocular surface origin. Ajoy R. Choudhary, Department of Science & Technology Project.
5. Translating Head and Neck Cancer markers into Diagnostic assays. Ajoy R. Choudhary, Department of Biotechnology & International Science and Technology Partnership Canada funded project.
6. 'Bone Resorption Assessment in Cases of Mandibular and Maxillary Implant Supported Overdentures with Different Attachment Systems'. DST. Veena Jain, 70,00,000 Lakh
7. 'Effect of Bisphosphonate therapy on density of jaw bones in patients having skeletal metastasis- A Pilot study'. ICMR. Veena Jain, Rs 10,93,860 lakh.
8. To develop an indigenous bite force measuring sensor to measure the bite force absorbed by the soft liner in complete denture patients. AIIMS, New Delhi. Veena Jain, Rs 4 lakhs.
9. Age estimation in living adults based on aspartic acid racemization from tooth biopsy specimen. DBT. Ajay Logani Approx. 19 lac

Completed

1. Fellowship awarded to Dr Sushma Chaurasia on 'Interleukin – 1B levels in crevicular fluid obtained from mini-implant site and distal to canine during enmasse retraction'.
2. '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. Rs 30,00,000 Lakh

Departmental projects (Thesis/dissertations)

1. The effect of soft liners on the Mandibular ridge resorption in completely edentulous patients- A clinical study
2. A comparative evaluation of MMP-8 level around titanium and Zirconia abutments (a pilot study).
3. Comparative evaluation of change in crestal bone height around titanium implants with titanium and zirconia abutments.
4. A comparative evaluation of natural tooth wear opposing polished and glazed Zirconia.
5. Comparative evaluation of hard and soft occlusal splint on electromyographic activity in patients with moderate to severe occlusal wear.
6. A comparative evaluation of change in stability and crestal bone height around immediately placed dental implants with L- PRF and allograft to fill the periimplant gap.
7. Effect of soft liner on masticatory efficiency and bite force in complete denture patients.
8. Treatment satisfaction in maxillectomy patients after prosthodontics rehabilitation and its association with their socioeconomic status- a preliminary study.
9. Cadaveric study of anatomical distance of terminal facial nerve branches associated with TMJ in Indian population.
10. Prospective evaluation of auto transplantation of third molar for replacement of grossly decayed / malformed first or second permanent molars.
11. Co-relation of a cracked tooth with facial morphology: A surface electromyography study (SMEG)
12. Co-relation of the radiographic size of a periapicallesionwith the degree of invasion and penetrationdepth of bacteriainto apical dentinal tubules of teethwithasymptomatic apical periodontitis

Collaborative projects

1. Study on the Genotype-Phenotype Correlation in Asian Indian subjects with childhood onset of growth Hormone Deficiency (with the department of Anatomy).

PUBLICATIONS

Journals: 26

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor O.P. Kharbanda: The division of orthodontics has provided quality orthodontic care to patients with malocclusion, dentofacial deformities and cleft lip and palate. The division has provided leadership in the field at

national and international level. Dr Kharbanda was invited by the University of Western Australia Perth, University of Sydney to lecture postgraduates; at World Implant Orthodontic Conference at Phuket, Thailand; Australian Orthodontic Society and all over India. The division is actively involved in research projects of national importance funded by the National Knowledge Network and ICMR. In addition, professional and academic expertise was also extended to various government/research organizations such as ICMR, Ministry of Health and Family Welfare and Department of Biotechnology. Dr Kharbanda gave major inputs to important international journals in the field of orthodontics in his capacity as member of the International Editorial Board or as a peer reviewer; Delivered prestigious 'Prof. H.S. Sheikh Oration' of the Indian Orthodontic Society during 18th IOS PG Convention; Conferred with prestigious Dr S.S. Sidhu Award during '53rd Annual Conference of National Academy of Medical Sciences (NAMS); Received 'Continuing Research in Indian Dentistry' award conferred by BITEIN-the Premier Indian Dental Portal; Honorary title of FDS RCS Edinburgh by the Royal College of Surgeons of Edinburgh, U.K.; Nominated member of the 'International Task Force on Cleft Lip and Palate' of the International Confederation of Cleft Lip Palate and Related Craniofacial Anomalies; Nominated President Elect, Indian Society for Dental Research/International Association of Dental Research – India Division; Nominated International Editor for the Indexed journal 'Orthodontic Journal of Nepal' (OJN).

Professor Ritu Duggal was appointed by the Dental Council Inspector for approval of M.D.S courses at various Dental colleges; Expert by the P.G. Board of Studies Dental College, Rohtak; Chairperson for the ethical committee of SGT University.

Professor Ajoy R. Choudhary was nominated International and Asia Pacific faculty for the 'Arbeitsgemeinschaft fur Osteosynthesefragen'; Dental Council Inspector to verify the teaching, infrastructure facility of various dental college in India providing Post graduate education.

Dr Ongkila Bhutia was awarded member of AO Craniomaxillofacial (CMF) Forum-Switzerland; nominated expert for faculty recruitment in Dentistry at AIIMS, Bhubaneswar Jan. 2014

Dr Vijay Prakash Mathur was Selected for Commonwealth Academic Fellowship for the year 2014; Elected as Executive member of Indian Society for Dental Research; Member of National formulary of India, constituted by Drug Controller General of India (DCGI); Member, National advisory committee for preparation of guidelines on Nitrous Oxide inhalation sedation in pediatric dentistry by ISPPD.

PATIENT CARE

The division of Oral & Maxillofacial started new facility of operation theatre and inpatient ward at the CDER. State of art Oral & Maxillofacial services are provided in the center. The facilities available: (i) Exodontia; (ii) Craniofacial Trauma; (iii) Facial Esthetic Surgery; (iv) Maxillofacial Pathology treatment; (v) Cleft Lip & palate repair; (vi) Distraction Osseogenesis for esthetics and function such as Sleep apnea; (vii) Temporomandibular Joint Surgery; (viii) Implantology; and (ix) Trigeminal Neuralgia.

Research is ongoing for the temporomandibular joint ankylosis etiology and treatment of difficult recurrent cases. The division performed the first Alloplastic total TMJ replacement in India and is the only center in India providing comprehensive care about difficult TM joints diseases.

S. No.	Clinic	New	Old	Total
1.	Trigeminal Neuralgia	61	210	271
2	Combine Cleft Palate	64	397	461
3	Oral Prophylaxis	9820	5017	14837
4	Orthodontics	1838	14095	15933
5	Prosthodontics	4132	8763	12895
6	Restorative-cum-Endodontic	5118	21015	26133
7	Oral and Maxillofacial Surgery	12363	13672	26035
8	Pedodontics and Preventive Dentistry	2953	8295	11248
9	Periodontics Surgery	6928	3552	10480
10	OPD Patients	31740	3736	35476
11	Operation	<u>Major:407</u>	<u>Minor: 9883</u>	<u>Total: 10290</u>

10.3 Dr B.R. Ambedkar Institute Rotary Cancer Hospital

Professor and Chief

G.K. Rath
(Radiation Oncology)

Professors

P.K. Julka
(Radiation Oncology)

Rajive Kumar
(Laboratory Oncology)

S.V.S. Deo
(Surgical Oncology)

Atul Sharma
(Medical Oncology)
(on long leave)

N.K. Shukla
(Surgical Oncology)

Lalit Kumar
(Medical Oncology)

Sanjay Thulkar
(Radiodiagnosis)

Subhash Chander
(Radiation Oncology)

Sidhartha Sathpathy
(Hospital Administration)

Sushma Bhatnagar
(Anaesthesiology)

Sameer Bakhshi
(Medical Oncology)

Additional Professors

Seema Mishra
(Anaesthesiology)
Suman Bhaskar
(Radiation Oncology)

Pratik Kumar
(Medical Physics)
Ritu Gupta
(Laboratory Oncology)

D. N. Sharma
(Radiation Oncology)
Sushmita Pathy
(Radiation Oncology)

Assistant Professors

Haresh K.P.
(Radiation Oncology)
Chandrashekhara S.H.
(Radiodiagnosis)

Pranay Tanwar
(Laboratory Oncology)

Sunil Kumar
(Surgical Oncology)

Sachidanand Jee Bharti
(Anaesthesiology)

Nishkarsh Gupta
(Anaesthesiology)

Prabhat Singh Malik
(Medical Oncology)

Manisha Jana
(Radiodiagnosis)
Anita Chopra
(Laboratory Oncology)

Sanjeev Kumar Gupta
(Laboratory Oncology)

M.D. Ray
(Surgical Oncology)

Vinod Kumar
(Anaesthesiology)

Ajay Kumar Gogia
(Medical Oncology)

Devesenathipathy K
(Radiodiagnosis)

Subhash Gupta
(Radiation Oncology)

Amar Ranjan Singh
(Laboratory Oncology)

Durgatosh Pandey
(Surgical Oncology)

Rakesh Garg
(Anaesthesiology)

Ranjit Kumar Sahoo
(Medical Oncology)

Scientist-I

N. Manoharan

Sunil Kumar Verma

Medical Physicist

Kumari Seema Sharma

Rajendran M.

Ashish Binjola

Chief Technical Officer

Shri Gopal

HIGHLIGHTS

Delhi Cancer Registry

The Delhi Cancer Registry is a Population Based Cancer Registry that collects cancer patient's data from more than 169 government or private hospitals/centers and 250 nursing homes and vital statistics division of MCD and NDMC and reports the incidence of various cancers among Delhi Urban residents. When the registry was established in

1988 it has registered 5854 new cancer cases and over the years the new cancer incidence has been increasing and in 2009 the registered incidence was 15244 cases. The age standardized incidence rates of cancer among males and females are 130.6 and 121.3 per 100,000 populations respectively. The leading sites of cancer as per age-standardized rates among Delhi males are lung (13.9), prostate (11.2), tongue (8.8), larynx (7.9) and urinary bladder (7.5) while in females it was breast (32.9), cervix (14.1), gallbladder (8.4), ovary (8.1), and corpus uteri (4.6). The reports on cancer incidence and mortality prepared by registry are being widely used by researchers, government organizations, etc.

Laboratory Oncology

The advanced diagnostic work-up of leukaemia that this laboratory provides for IRCH as well as several departments of AIIMS main hospital is undergoing expansion.

Medical Oncology

The department in the past year treated 1756 patients as in-patients and 28481 patients were admitted and treated in the day care facility. A total of 5115 medical procedures (e.g. bone marrow aspirations/ biopsies, ascetic fluid aspirations, lumbar punctures and intra-thecal chemotherapy) were performed on outpatient basis and 23,160 patients received chemotherapy and IV antibiotics from OPD. A new multi-disciplinary lung cancer clinic (held twice a week) and a regular weekly bone marrow transplant meeting were started. Our stem cell transplant program is the most cost effective in the country; 82 patients underwent stem cell transplant during this period (24 allogeneic and 58 autologous). More than 53 papers were published in various international and national medical journals, and more than 30 invited lectures were delivered in various international and national meetings. The faculty was invited by a number of Universities in India as examiner for DM. Three 'in house' symposia and one national level symposium (on Life style and Cancer) were conducted. The department has 18 research projects funded by various international, national, Govt and non Govt agencies. There is a regular lab service for patients care, these include cytogenetics and PCR facilities for CML patients, CD 34 enumeration and cryopreservation facilities for stem cell recipients.

Medical Physics

The department has been looking after radiation safety, radiation dose measurement, radiation dose optimization, quality assessment of radiological equipment, medical images, imaging procedures and radiation education. Its service encompass Dr BRA IRCH, C.N. Center, Dental Center, Dr R.P. Center for Ophthalmic Sciences, Departments of Radiology, Orthopaedics, Urology, Anesthesia, Trauma centre and Neurosurgery. In total, we carried out 3234 measurements, tests, experiments, exposures and blood bag irradiation during 2013-14. We initiated the process of electronic registration of all x-ray emitting units like radiography, angiography, fluoroscopy, CT scanner and C-arm installed at various departments of AIIMS with AERB, Mumbai which is a statutory requirement.

Radiodiagnosis

The various interventional procedures such as image guided biopsies, percutaneous catheter drainages, percutaneous nephrostomy, biliary stenting, RF ablation have increased significantly in the past year. Round the clock X-ray service, including portable X-rays, was started.

Surgical Oncology

All faculty members of the department participated in undergraduate and postgraduate teaching and structured training of 12 Senior Residents. Till now 10 MCh students have joined the course and the departmental faculty is involved in their teaching and training. The faculty acted as co-guide in thesis work of various department including Radiation Oncology, Medical Oncology, Biochemistry and Biotechnology Geriatric medicine etc. They participated in 9 CME programs by giving lectures, participating in panel discussions and presenting educational videos. 20 lectures were given in international and national conferences by the faculty. The faculty and residents presented 13 research papers in international and 5 in national conferences. The department is involved in 7 research projects and 16 collaborative research projects. Three collaborative research projects were completed during the year. 14 research papers were published in various national and international medical journals. The faculty and residents are participating in special cancer clinics for breast cancer, gastrointestinal cancer, head and neck cancer, gynecological cancer, bone and soft tissue tumors, thoracic cancer, hepatobiliary pancreatic cancer and genitourinary cancer. The department is providing major and minor operation facilities to patients of cancer. 1190 complex major operations and 6477 minor operation and various diagnostic and therapeutic endoscopy procedures were performed during the year. Faculty participated in community services by giving advice to ostomates, giving public lectures and presentation

in media like All India Radio and Doordarhan. The faculty members were involved as members of editorial boards, reviewer of research papers and members of national and international bodies. The faculty members were examiners for MCh Surgical Oncology and MS Surgery examinations of various medical colleges and institutions.

EDUCATION

Anesthesiology

IRCH Seminar: Every Monday and Thursday

Unit Seminar: Every Monday

Unit Journal Club: Every Saturday

Unit Radiology Conference: Every Saturday

Laboratory Oncology

Laboratory Oncology provides morphology, myeloma and flow cytometry training to residents from pathology, and lab medicine. In addition, residents from medical oncology, pediatrics are trained. Short-term training is provided to MSc students from various colleges all over India.

Medical Oncology

DM program: Medical Oncology is running a DM program under which there are 13 regular students.

PhD: Four Ph.D. students are pursuing their work in various aspects of Medical Oncology.

Medical Physics

The unit of Medical Physics imparted training and education regarding physics of medical imaging, radiation protection, radiation dosimetry physics and quality assurance tests in medical imaging to the students of MD Radiology, MBBS, BSc (Hons) Nursing and BSc (Hons) Radiography. The unit also had 4 PhD students, one of whom was awarded PhD during the year.

Radiodiagnosis

The department held various academic activities including postgraduate teaching sessions, radio-conferences, clinical combined rounds and other interdepartmental team meetings, where junior and senior residents enthusiastically participated.

Surgical Oncology

The faculty was involved in undergraduate and postgraduate teaching. 12 surgical oncology senior residents, 10 MCh surgical oncology students, DM medical oncology residents and MD radiotherapy junior residents are exposed to departmental teaching. The faculty was also involved in teaching BSc nursing students.

One long term trainee received training in surgical oncology from 01.02.13 to 28.02.14.

CMEs/Workshops/Symposia/National and International conferences

Anesthesiology

1. Organized 13th Foundation Course on Palliative Care in Feb. 2014 for Medical Practitioners and Nursing Staff treating Cancer patients in & around Delhi.
2. IAPC certificate course in Palliative Care in the month of July and Nov, 2013.
3. CME: Difficult Airway Update: Meet the Experts on Feb 5th, 2013

Lectures delivered

Anaesthesiology

Sushma Bhatnagar: 7

Rakesh Garg: 19

Nishkarsh Gupta: 9

Vinod Kumar: 4

Laboratory Oncology

Rajive Kumar: 3

Ritu Gupta: 7

Amar Ranjan: 3

Anita Chopra: 2

Pranay Tanwar: 2

Sanjeev Gupta: 1

Medical Oncology

Lalit Kumar: 15

Sameer Bakshi: 24

Medical Physics

Pratik Kumar: 9

Radiodiagnosis**Sanjay Thulkar: 4****Devasenathipathy: 3****Radiotherapy****G.K. Rath: 10****Subhash Chander: 2****D.N. Sharma: 5****Sushmita Pathy: 4****V. Subramani: 3****Surgical Oncology****N.K. Shukla: 3****S.V.S. Deo: 21****Sunil Kumar: 2****Durgatosh Pandey: 10****M.D. Ray: 2****Oral Papers/Posters presented****Laboratory Oncology: 9****Medical Oncology: 13****Medical Physics: 6****Radiotherapy: 4****Surgical Oncology: 11****RESEARCH****Funded projects****Anesthesiology****Ongoing**

1. Comparative evaluation of forced air warming and infusion of Amino Acid enriched solution on intraoperative hypothermia in patients undergoing head and neck cancer surgeries: A prospective randomized study. Nishkarsh Gupta, Intramural grant, AIIMS, 4 lakhs.
2. The Impact of Hospital Based Care for Palliative Care patients, JivDaya Foundation, 2014-17, 23 Lacs, Sushma Bhatnagar, G.K.Rath
3. Development of a Comprehensive Protocol to assess Cancer pain and its implementation in Phase-1 at Dr BRAIRCH,AIIMS, ICMR, 2012-14, 24 Lacs, Sushma Bhatnagar, G.K.Rath, Seema Mishra
4. Molecular Determinants of response to opioids in cancer patients: Indian Scenario, ICMR, Department of Hematology, 28, 14,000, Sushma Bhatnagar
5. Nature and frequency of spiritual problems and concerns faced by patients of the pain clinic, IRCH, AIIMS., Department of Theology, University of Ghent, Belgium, Sushma Bhatnagar

Completed

1. Evaluation of the effect of Rhythmic breathing process-Sudarshan Kriya and Pranayam (SKP) on pain perception among advance stage cancer patients having pain.

Laboratory Oncology**Ongoing**

1. Prognostic Relevance of DNA methylation in chronic lymphocytic leukemia, Ritu Gupta, DBT, 3 years, Rs. 50,41,000
2. Th17 cells in pathobiology of multiple myeloma, Ritu Gupta, DST, 2 years, Rs. 20,23,200
3. Natural Killer & T-lymphocyte Subset Analysis in Multiple Myeloma, Ritu Gupta, ICMR, 3 years, Rs. 10,00,000
4. Towards a comprehensive molecular score in CLL, Ritu Gupta, AIIMS, New Delhi, 2 years.
5. Detection of minimal residual disease in T-lineage acute lymphoblastic leukemia by a low-cost PCR analysis of clonal T-cell receptor gene rearrangement. Anita Chopra, AIIMS, 2012-2014, Rs. 9,85,400.
6. IKZF1 (Ikaros) mutations in B cell acute lymphoblastic leukemia, AIIMS, New Delhi, Rs 9 lakhs
7. Evaluation of expression of FGFR1, FGFR2, Cyclin D1 & PIK3CA and PIK3CA mutations in of Hormone Receptor (Estrogen & Progesterone) positive and HER2 receptor negative cases of primary breast cancer, Pranay Tanwar, Young Scientist-DST, 3 years, Rs. 25 lakhs.
8. A prospective study to evaluate Wilm's tumor 1 (WT1) mutation in de novo cases of Acute Myeloid Leukemia and correlating their outcome with treatment response, Pranay Tanwar, AIIMS, 2 years, Rs. 2 lakhs

Completed

1. Molecular & immunological basis of biological heterogeneity in CLL, DBT, 3 Years, Rs.19,46,400

Medical Physics

Ongoing

1. Evaluation of coronary artery plaque. Pratik Kumar. ICMR, 2011-14, Rs. 25,58,783

Completed

1. Development of sensitive thermo-luminescent materials for radiation dose determination and their dosimetric applications in radiological medical imaging. Pratik Kumar. ICMR 2009-13. Rs. 12,10,416

Radiodiagnosis

Ongoing

1. Pediatric lymphoma: Whole body MRI versus 18F FDG-PET/CT for staging and post-treatment evaluation
2. Pilot implementation of Collaborative Digital Diagnosis System (CollabDDS) Using Medical Imaging – NKN funded project
3. Effect of postnatal steroid therapy on appearance of external genitalia in girls with congenital adrenal hyperplasia
4. Role of perfusion CT in pancreatic pathology
5. Role of Perfusion-CT in evaluation of Non-Small Cell Lung Carcinoma in Patients undergoing Chemotherapy
6. Impact of supervised weight loss secondary to Bariatric surgery (LSG) and/or lifestyle modifications on fat distribution of Indian adult obese patients.
7. Comparison of CT and MRI with Diffusion weighted Imaging in evaluation of response to chemo-radiotherapy in Gall Bladder Carcinoma
8. Imaging and Intervention in Arteriovenous fistulas for Hemodialysis
9. Vascular Calcification in patients with idiopathic hypoparathyroidism
10. Role of CT Perfusion in Cervical cancer
11. Role of MRI in Chemotherapy Response Assessment in Ewing's Sarcoma Family of Tumors
12. Pediatric lymphoma: Whole body MRI versus 18F FDG-PET/CT for staging and post-treatment evaluation, AIIMS

Radiotherapy

Ongoing

1. A comparative study of surgery and post operative radiotherapy versus surgery and postoperative chemo-radiotherapy as the treatment modality for Squamous cell carcinoma of oral cavity.
2. A multicentric open label phase III study to evaluate the safety and efficacy of Rituximab (Zenotech) in non-Hodgkin's lymphoma, February 2010-August 2015, Rs 4,68,000, Ranbaxy Foundation, Gurgaon.
3. A Phase III, Open Label, Randomized Multicentre Trial of Ofatumumab-Chlorambucil combination Vs. Chlorambucil monotherapy in previously untreated patients with Chronic Lymphocytic Leukemia. Sameer Bakhshi, GSK, Ongoing 2012 onwards, Rs. 13 Lakhs.
4. A Phase III, Open Label, Randomized Trial Ofatumumab added to Fludarabine-Cyclophosphamide Vs. Fludarabine-Cyclophosphamide Combination in subjects with Relapsed Chronic Lymphocytic Leukemia, Sameer Bakhshi, GSK, Ongoing 2012 onwards, Rs. 9 Lakhs.
5. 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. G.K. Rath, Central Council for research in Ayurveda & Siddha, Ministry of Health & Family Welfare, Govt. of India. 5 years, Rs. 51,45,777.
6. A pilot study to evaluate the tumoricidal effect of antiviral agents and herbal formulations in addition to radiotherapy in HPV positive carcinoma cervix cell lines, Haresh KP, AIIMS, 1 Year, 5 lakhs.
7. A prospective study to evaluate the effect of UPLAT in the management of chemotherapy-induced thrombocytopenia. Haresh KP, Sanat Pharmaceuticals, 2 years.
8. A randomized phase III study of Imatinib dose optimization compared with Nilotinib in patients with Chronic Myelogenous Leukemia and suboptimal response to standard-dose Imatinib, October 2011–December 2016, Rs. 15,00,000, Novartis India Ltd.
9. 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, 7 years, Rs. 9,00,000
10. 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, August 2010 to August 2014, Rs. 10,00,000, Morphotek. Inc, USA.
 11. A study to evaluate the Anti-emetic effect of Aprepitant versus placebo as an add-on therapy in children and adolescents receiving chemotherapy: A randomized double blinded controlled trial. Sameer Bakhshi, Dr. Reddy's Laboratories Ltd., Ongoing 2011 onwards, Rs. 7 lakhs.
 12. Angiography guided transarterial Chemotherapy with concurrent radiotherapy in Cervical Cancer- Randomised trial. AIIMS intramural grant, 5 lacs
 13. Assessment of expression of Vascular Endothelial Growth Factor in Non Hodgkins lymphoma in children ≤ 18 years: A Prospective study. Sameer Bakhshi, AIIMS, 2012-2014, Rs. 5 Lakhs.
 14. BCIRG 006 - A Multicentric Phase III randomized trial comparing doxorubicin and Cyclophosphamide followed by Docetaxel (ACT) with Doxorubicin and Cyclophosphamide followed by Docetaxel and Trastuzumab (Herceptin) (ACàTH) 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, 10 years, Rs. 1,62,313
 15. Clinical impact of PET scan in patients with pelvic recurrence from cervical cancer following radiation therapy. AIIMS, 5 years, Rs. 1,00,000
 16. Efficacy of imaging assessment of neoangiogenesis and permeability to differentiate treatment- related changes from tumor recurrence in high-grade glioma
 17. Global Study to assess the addition of Bevacizumab to carboplatin & paclitaxel as first line treatment of epithelial ovarian cancer, fallopian tube carcinoma or primary peritoneal carcinoma, November 2011-October 2014, Rs. 5,40,000, Roche Products
 18. Lenalidomide plus low dose Dexamethasone Versus Thalidomide plus low dose dexamethasone for multiple myeloma: A randomized Phase III study, August 2008 onwards, Rs. 12,00,000, Dr. Reddy's Laboratories Pvt Ltd.
 19. Pharmacokinetic and Toxicity profile of High Dose Methotrexate: relationship with Serum Creatinine and MTHFR Polymorphisms in Indian Children. Sameer Bakhshi, JIV DAYA Foundation, Ongoing since October 2008. Rs. 25 Lakhs
 20. Prognostic significance of circulating tumor cells in locally advanced breast cancer patients, PK Julka, DST, 4 years, Rs. 23,00,000
 21. Risk of cancer in mobile phone users: a prospective study under ICMR task force entitled "Effect of Non-ionizing Electromagnetic Field on Human Health", March 2012–October 2015), Rs. 11,74,458, ICMR.
 22. Serial assessment of T regulatory cells and T helper 17 cells in pediatric Non Hodgkin's Lymphoma – A Prospective study, Sameer Bakhshi, AIIMS, 2012-2014, Rs. 5 Lakhs.
 23. Standardization of response assessment in Chronic Myeloid Leukemia (CML), Sameer Bakhshi, DBT, Ongoing 2011 onwards, Rs. 69 lakhs.
 24. To study clinical and biological significance of mutations in mitochondrial DNA regulatory region in Acute Myeloid Leukemia, Sameer Bakhshi, DBT, Ongoing 2013 onwards, Rs. 45 Lakhs
 25. Treatment and characterization of Acute Lymphoblastic Leukemia in Children, Adolescents and Young Adults. Sameer Bakhshi, Network of Cancer Treatment and Research & Sir Ratan Tata Trust; Ongoing since 2005, Rs. 30 Lakhs
 26. Urinary diversion of hydronephrosis in locally advanced cervical cancer- randomized trial. AIIMS intramural grant, 1 year, 5 lakhs
 27. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian cancer: A phase 3 randomized study (October 2010-October 2014), Rs. 17,95,000, DBT.

Completed

1. CML Registry: An Observational study. December 2008–January 2014, Rs. 2 lakhs, Novartis India Ltd.
2. 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, 6 yrs, Rs. 15,00,000

3. Adjuvant Tamoxifen Long Against Short (ATLAS) – Multi center international trial, Oxford, UK. (Surgical Oncology, Medical Oncology & Radiation Oncology) (P.K. Julka).
4. Randomized study of Preoperative short course radiotherapy (25 Gy) vs. preoperative Concurrent radiotherapy (45Gy) and chemotherapy followed by Surgery in rectal cancer (P.K. Julka).
5. National Retinoblastoma Registry-Delhi site, a collaborative study under ICMR, New Delhi, India (P.K. Julka).
6. 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).
7. A phase 2 study of Sequential Neoadjuvant Gemcitabine plus Doxorubicin and Gemcitabine plus Cisplatin in large T2 ($\geq 3\text{cm}$) and Locally Advanced (T3, T4 or N2) operable Breast Cancer (P.K. Julka).
8. An Open Label Randomized Multicentric Phase III study of Transtuzumab in combination with a Fluoropyrimidine and Cisplatin versus chemotherapy alone as first-line therapy in patients with HER2 Positive Advanced Gastric Cancer (Lancet: Dr. P.K. Julka).
9. A randomized Phase 3 Study of Pemetrexed in Combination with Cisplatin Versus Cisplatin Monotherapy in Patients with Recurrent or Metastatic Head & Neck Cancer Carcinoma.
10. A randomized phase study of Enzastaurin versus Lomustine in the treatment of recurrent, Intracranial GBM (P.K. Julka).
11. Protocol 1839IL/0706: A Phase II Randomized, Double Blind, Placebo Controlled, Multicentre Comparative Study of ZD1839 250 mg or 500 mg (IressaTM) given either continuously or concomitantly with Cisplatin plus Radiotherapy for the treatment of patients with previously untreated unresected Late Stage III/IV Non-metastatic Head & Neck Squamous Cell Carcinoma (P.K. Julka).
12. Nutritional status in pediatric Acute Leukemia patients on follow-up. Sameer Bakhshi, ICMR; 3 years, start from 2011.

Departmental projects

Anesthesiology

Ongoing

1. To study the impact of nutritional intervention in delaying the progression of cachexia to refractory cachexia in female cancer patients: A study based in India.
2. Nature and frequency of spiritual problems and concerns faced by patients of the pain clinic, IRCH, AIIMS.
3. An Exploratory Cross Sectional study to identify the social contents of pain in cancer patients.
4. Development of tool to assess total pain in cancer patients.
5. Molecular Determinates of Response to opioids in cancer patients: Indian Scenario.

Laboratory Oncology

Ongoing

1. An assessment of minimal residual disease (MRD) outcome in transplant setting in multiple myeloma
2. Assessment of kinetics of Regulatory T cells (CD4+ CD25+ FoxP3+) and T helper 17 cells (CD161, CD196) in patients of pediatric Non Hodgkin's lymphoma
3. Assessment of VEGF expression in Non Hodgkin lymphoma of children
4. Analysis of VEGF expression in soft tissue sarcoma patients
5. Role of bone marrow microenvironment in multiple myeloma
6. Analysis of Wnt signaling pathway molecules & their association with gene mutation in Acute Myeloid Leukemia
7. Detection of MRD in AML by multicolor flowcytometry & its prognostic significance: a pilot study
8. Detection of β -catenin mutations in hepatoblastoma in India
9. Role of flow cytometric assessment of myeloid nuclear differentiation antigen in MDS
10. Clinical biological significance of mutations in mitochondrial DNA

Completed

1. Evaluation of serum level of cystatin-C & IL-6 in patient of multiple myeloma with light chain induced renal failure
2. Prognostic significance of T regulatory cells in patients with Carcinoma Ovary

Medical Physics

Ongoing

1. Development of protocol for quality assurance of medical image laser printer
2. Development of new luminescence material for dosimetry purpose
3. Calibration and use of optically stimulated luminescence dosimeter
4. Characterization of kidney stone using dual energy CT scanner

Completed

1. Measurement of radiation dose in interventional fluoroscopy.

Radiodiagnosis

Ongoing

1. Role of MRI in Assessing Response to Neo-adjuvant Chemotherapy in Ewing Sarcoma Family of Tumors.
2. Magnetic Resonance Image Guided Brachytherapy in Cervical Cancer: Reporting Vaginal, Urethral and Uninvolved Uterus Dose and Clinical Correlation
3. Role of perfusion CT in predicting the response to chemoradiation in carcinoma cervix

Radiotherapy

Ongoing

1. A clinicoepidemiological study of women with cervical cancer and their quality of life following treatment in a tertiary care institute of Delhi
2. A randomized study of brachytherapy vs. chemobrachytherapy in locally advanced ca cervix.
3. A Randomized study of hypo-fractionated vs. conventional radiotherapy in elderly Glioblastoma multiforme.
4. A Study of Dosimetric Effect of ITV (Internal Target Volume) In External Beam Radiotherapy
5. Assessment of quality of life in patients with carcinoma larynx and carcinoma hypopharynx treated by surgery followed by post operative radiotherapy, post operative chemoradiation and concurrent chemoradiation
6. Comparative study of treatment outcome with concurrent chemoradiotherapy in glioblastoma with temozolomide post chemoradiotherapy 6 cycles vs 12 cycles and molecular basis of resistance based on EGFR (epidermal growth factor receptor), MIB 1 (MINDBOMB HOMOLOGUE 1) and p53.
7. High-dose-rate versus pulsed-dose-rate Brachytherapy in Carcinoma Cervix.
8. Identification of prognostic markers in patients of multiple Myeloma with light chain induced renal failure. 2013-2015, Rs. 2,04,750, ICMR.
9. Percutaneous Radiofrequency Ablation in painful bone lesions
10. PET-CT Guided Interstitial Brachytherapy in the Management of Locally Advanced Cervical Carcinoma
11. Phase II randomized controlled trial of accelerated fractionation radiotherapy (6 fractions per week) versus concurrent chemoradiotherapy in Locally Advanced Head and Neck Squamous Cell Carcinoma.
12. Randomized control trial of combined external beam radiotherapy plus HDR brachytherapy boost vs external beam radiotherapy alone with intensity modulated radiotherapy in intermediate and high risk prostate cancer.
13. Study of bone marrow microenvironment in Multiple myeloma. 2012-2014, Rs. 5,00,000, AIIMS, New Delhi.
14. An experimental study to assess effect of fluconazole as prophylaxis on oral candidiasis and mucositis over a control group in patients with locally advanced squamous cell carcinoma of head and neck undergoing chemoradiotherapy.
15. A comparative study of surgery and post operative radiotherapy versus surgery and postoperative chemoradiotherapy as the treatment modality for Squamous cell carcinoma of oral cavity.

Completed

1. 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, 2012–2013, Rs. 75,000, ICMR.
2. Clinical Impact of PET scan in patients with pelvic recurrence from cervical cancer following radiation therapy

Collaborative projects

Anesthesiology

Ongoing

1. Awareness of the ultrasound guided regional anaesthesia in residents in developing country -A questionnaire based study (with JPNA Trauma Centre).

Completed

1. Sonographic assessment of predictors of variation in depth of corner pocket for ultrasound guided Supraclavicular brachial plexus block: A volunteer based cross sectional observational study (with JPNA Trauma Centre).
2. Perioperative outcomes of Pelvi-acetabular fracture surgeries in the Apex Trauma Centre of a developing country - a retrospective analysis (With JPNA Trauma Centre).

Laboratory Oncology

Ongoing

1. Molecular determinants of response to opioids in cancer patients
2. Prognostic significance of Tregs in patients with advanced disease stage carcinoma ovary
3. Study of bone marrow microenvironment in Myeloma
4. Serial assessment of T-regulatory cells in pediatric NHL

Medical Physics

Ongoing

1. In vitro studies to explore strategies for extended utilization of donor corneal tissues (Medical Physics Unit & RPC of Ophthalmology)

Radiodiagnosis

Ongoing

1. Pediatric lymphoma: Whole body MRI versus 18F FDG-PET/CT for staging and post-treatment evaluation.

PUBLICATIONS

Journals: 118

Abstracts: 23

Chapters in books: 4

PATIENT CARE

1. **Total bed strength** **182**
Medical Oncology 78 Radiation Oncology 37
Surgical Oncology 61 Palliative Care Unit 6
2. **Total OPD attendance** **106261**
New patients 10084 Revisits 96177
3. **Details of various OPDs/Clinics**

S. No.	Name of the OPD/Clinic	New patients			Revisits		
		Male	Female	Total	Male	Female	Total
1.	Adult Medical Oncology	381	401	782	13149	16031	29180
2.	Adult Lymphoma Leukaemia	–	–	–	2197	1067	3264
3.	AML/HL	35	24	59	782	407	1189
4.	ALL/CML	185	107	292	1458	799	2257

5.	Breast Cancer	26	501	527	159	7004	7163
6.	Bone and Soft (Tissue)	130	90	220	412	242	654
7.	Chemotherapy Evaluation	–	–	–	19	05	24
8.	Familial Cancer	–	02	02	–	01	01
9.	Gastrointestinal	419	326	745	675	611	1286
10.	Gynaecology - A	–	125	125	–	547	547
11.	Gynaecology - B	–	347	347	–	1633	1633
12.	Gynaecology - C	–	200	200	–	492	492
13.	Genitourinary and Gynae	34	56	90	121	196	317
14.	Head and Neck (Surgery) - A	278	74	352	1461	282	1743
15.	Head and Neck (ENT) - B	894	154	1048	3610	666	4276
16.	Hepatobiliary and Pancreatic	179	122	301	434	308	742
17.	Lung Cancer	376	98	474	2555	763	3318
18.	NHL/MM/CLL	214	92	306	1231	487	1718
19.	Neuro-Oncology	213	96	309	225	100	325
20.	Ophthalmic Tumour	06	08	14	102	46	148
21.	Paediatric Medical Oncology	279	136	415	7016	2927	9943
22.	Paediatric Lymphoma Leukemia	101	44	145	2534	747	3281
23.	Paediatric (Surgery)	97	55	152	1508	720	2228
24.	Pain Relief	236	192	428	3598	3118	6716
25.	Pain & Palliative Care (Rt-Ii)	–	–	–	04	02	06
26.	Paediatric Palliative Care	–	–	–	09	–	09
27.	Radiotherapy	724	792	1516	3530	4088	7618
28.	Rehabilitation	01	04	05	06	15	21
29.	Surgical Oncology	241	214	455	1056	1057	2113
30.	Thoracic Oncology	267	172	439	754	420	1174
31.	Transplant	20	18	38	525	139	664
32.	Urology Malignancy	273	25	298	2007	120	2127
	TOTAL	5609	4475	10084	51137	45040	96177

Total Admissions	34969		
Regular	6258	Short/Day-Care	28711
Total Discharge	34193		
Regular	5873	Short/Day-Care	28320
Total Deaths	284		
Operation Theatre services	7667		
Major	1190	Minor	6477
Electrocardiogram (ECG)	3081	OPD procedures	5115
OPD chemotherapy services	13104		
Male	9066	Female	3689
Male child	42	Female child	107

Geographical Distribution according to State of residence (n=10035)

State	Total	State	Total
Andhra Pradesh	7	Assam	34
Arunachal Pradesh	3	Bihar	1454
Chandigarh	4	Chhattisgarh	13
Delhi	3037	Daman and Diu (UT)	3
Dadra & Nagar Haveli	1	Gujarat	3
Haryana	1066	Himachal Pradesh	35
Jammu and Kashmir	110	Jharkhand	136
Kerala	10	Karnataka	2
Madhya Pradesh	126	Maharashtra	8
Meghalaya	2	Manipur	32
Mizoram	4	Nagaland	7
Orissa	63	Punjab	59
Rajasthan	204	Sikkim	29
Tripura	9	Tamil Naidu	5
Uttar Pradesh	3066	Uttaranchal	413
West Bengal	90		

Other Countries

1.	Afghanistan	06
2.	Bangladesh	02
3.	Comoros	01
4.	Iran	01
5.	Nepal	39
	TOTAL	49

Laboratory Oncology services

1.	Haemogram: Hb, TLC, Platelets	54469
2.	Peripheral Blood Smear	7425
3.	Bone Marrow Aspiration	3637
4.	Cyto-Chemistry	828
5.	Serum Protein Electrophoresis	3415
6.	Immunofixation	168
7.	Urine Electrophoresis	811
8.	APAAP	49
9.	Flow	20605
10.	Fnac (Lymph Node)	14
11.	Cyto-Spin	577
12.	ESR	888

13.	Serum Free Light	406
14.	Molecular Biology	610
	TOTAL	93849

Apheresis

1.	Single Donor Platelets	1972
2.	Peripheral Blood Stem Cell – Harvest	149
3.	Hemogram	15115
4.	Granulocyte	16
5.	Plasma Exchange	12
6.	Stem Cell Harvest	15
	TOTAL	17279

Medical Oncology Laboratory Services

1.	Cytogenetics for detection of Philadelphia chromosome	460
2.	Cytogenetics for chimerism	–
3.	RT-PCR for detection of P210 and P190 translocation in CML (Qualitative)	376
4.	RQ-PCR for detection of P210 and P190 translocation in CML (Quantitative)	98
5.	CD 34 counts by flowcytometry	159
6.	CD 3 counts by flowcytometry	21
7.	Immunophenotyping for leukaemia	–
8.	MNC counts	162
9.	Cryopreservation of stem cells –80°C	62
10.	Storage of stem cells at 4°C	101
11.	Bone marrow transplant	03
12.	Infusion of stem cells	134
13.	Viability of stem cell	134
14.	ELISA for aspergillosis detection	226
15.	Screening of FLT-3 mutations in AML	65
	TOTAL	2001

Medical Physics services

1.	No. Of Blood Bags Irradiated	590
2.	Quality Assurance Test Done on X-Ray machines	1909
3.	Quality Assurance Test Done on Film Processor at Dr BRAIRCH, AIIMS	108
4.	Quality Assurance Test Done on Film Processor At Radiology (Main)	108
5.	Radiation Output Measurements In X-Ray Unites	396
6.	Quality Assurance Test Done On Film Processor At Aiims	108
7.	Radiation Protection Survey Measurements	09
8.	Advise In Inadvertent Exposure To Pregnancy	06
	TOTAL	3234

Radiotherapy services

1.	Total Cases On Radiotherapy	42490
2.	Total Field On Radiotherapy	119300
3.	Cases On Bracheytherapy	675
4.	Treatment Planning And Simulations	4109
5.	Two And Three Dimensional Dose Distributions	531
6.	Compensators	340
7.	Shielding Blocks Immobilization Devices And Orifits	1934
8.	Radiation Review Clinic	2059
	TOTAL	171438

Radiodiagnosis services

1.	C.T. Scan	5462
2.	Doppler	267
3.	Intervention (UA)	1052
4.	Mammography	1502
5.	Special Investigation (Ba, I)	394
6.	Ultrasound	6522
7.	X-rays (Routine)	16810
8.	Intervention (Ma)	02
	TOTAL	32011

Anesthesiology

Facilities available in the Department

1. ICU facilities for post operative patients.
2. Pre Anaesthetic Checkup Pain & Palliative Care Clinic is run four times in a week in addition to the anaesthesiology and critical care work.
3. Home support to patients with advanced malignancies by NGOs and keeping monthly meeting with them to know follow up reports
4. Providing critical care to patients of 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, Radiofrequency ablation for liver, lung, and breast carcinoma.
8. Scrambler Therapy.

Surgical Oncology

(A) Facilities available in department

- 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 & Therapeutic):**
Diagnostic Endoscopy: Video and 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 & Neck, GI tract, Breast, Bone and Soft tissue , Gynaecological malignancies, Hepato-Biliary-Pancreatic malignancies and Thoracic tumors. Advanced reconstructive surgical procedures are undertaken to reconstruct the defects after resection.

In addition advanced state of art technologies like LASERS, CUSA, Harmonic Scalpel, Surgibone, Vesalius, Thoracoscopy and Intra Operative Radiotherapy are also available.

Total no. of Minor Operations & Endoscopic procedures performed : 6477

Total no. of Major Cancer Operations performed : 1190

(B) Community services

1. Dr. S.V.S. Deo participated in Doordarshan Health program on Head & Neck cancers.
2. Dr. S.V.S. Deo participated in cancer Sahyogs Annual function for cancer survivors.
3. Dr. Sunil Kumar started a charitable Non Governmental Organization (NGO), “Chandrakanti Devi Cancer Foundation” working for underprivileged cancer patients in Bihar & Jharkhand.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor G.K. Rath was the Chief Representative of Ministry of Health and Family Welfare, Govt of India to IARC Governing council, Lyon, France; Chairman, Selection Committee, AIIMS, Bhopal; Appointed as Head of National cancer institute at Jhajjar; Awarded the World Health Initiative for peace (WHIP) award in July 2013 by National Institute of Clinical Research at the Clinical Research Summit 2013; Awarded the Lifetime achievement award by the NZAROICON 28-29 September 2013 at Dehradun; Guest of Honor for the inaugural function of “Mid term CUE on advances in renal cell carcinoma management” at JLN Auditorium, AIIMS, New Delhi on 23rd June 2013; Chairman of the 1st Indian Cancer Congress 20-24/11/2013 at Delhi; Member of the Academic committee of AIIMS, Bhopal and Chairman, Organizing committee of the IBSCON (Indian Brachytherapy Society annual conference) 2014 at AIIMS; Chairman of the selection committee for the post of Scientist C (Medical) at NCDIR, ICMR, Bangalore on 29 June 2013; Chairman, Scientific Advisory Committee (SAC) of National Centre for Disease Informatics and Research (NCDIR), Indian Council of Medical Research, Bangalore; Chairman, the PRSG of the DIT for the projects entitled (a) Development of computer aided detection system for mammograms (CAD for mammograms) submitted by CDAC & RCC, Thiruvananthapuram. (b) Full automated computer aided diagnosis (CAD) System for human breast cancer using digital mammograms submitted by West Bengal University of Technology (WBUT), Kolkata; Chairman, the ICMR Task force Project on “Breast Cancer and Malignant Brain Tumors”; Chairman, the Steering Committee of NCRP (National Cancer Registry Program), ICMR; Chairman, the ICMR task force on “Cancer Management Guidelines”; Chairman, the Ethics Committee, Institute of Cytology and Preventive Oncology (ICPO), ICMR; Chairman, the Expert Committee constituted by the Ministry of Health and Family Welfare, Government of India for the establishment of a National Cancer Institute (NCI) under AIIMS at Jhajjar, Haryana and was Member, Atomic Energy Regulatory Board (AERB), Govt of India; Expert for the selection committee to the selection of Assistant professor in Radiation oncology at the Dr Ram Manohar Lohia Institute of Medical Sciences, (RML) Lucknow; Member Scientific Advisory Committee ICON; Member, Technical Resource Group (Advisory group) on NPCDCS, Ministry of Health & Family Welfare, Govt of India; Member, Scientific committee of Regional cancer center, Thiruvananthapuram; Member Carcinogenesis Foundation of India; Member of committee to examine the R&D proposal to generate radioisotope (M099) for medical applications using high energy electron accelerator; Expert for the Technical bid for purchase a linear accelerator at Cancer Hospital and Research Institute, Gwalior; Member, PRSG meeting for transfer of technology for 6 MV Medical linac and review of following linac related projects: establishment of facility for batch fabrication of linac tube and linear accelerator machine; design and development of dual photon energy and multiple electron energy; development and deployment of 6 MV medical linac for cancer treatment (phase II) being implemented at SAMEER, Mumbai; Member of Scientific Advisory Committee of the Regional Medical Research Center (RMRC), Dibrugarh; Member of the Project Review Committee of North East (PRC-NE) of ICMR; External examiner for MD (Radiotherapy) at Tata Memorial Hospital, Mumbai; Governing Bodies of four Regional Cancer Centers (Acharya Tulsi Regional Cancer Center, Bikaner, Kamla Nehru Memorial cancer center, Allahabad, Acharya Harihara Regional Cancer Center, Cuttack and Regional Cancer Center, Agartala); Institute Body of AIIMS, Bhopal; Governing Body of Delhi State

Cancer Institute (DSCI), Govt of NCT, New Delhi; Governing Body of the Bhagwan Mahavir Cancer Center, Patna; Safety Review Committee for Application of Radiation (SARCAR), Atomic Energy Regulatory Board (AERB), Anushakti Nagar, Mumbai, Govt. of India; Academic Senate of the Manipal University, Manipal; President of the Cancer Research Foundation of India; Member, Indian Cancer Winner's Association; Member, Project Review Committee, Oncology (PRC Oncology), Indian Council of Medical Research, New Delhi; Member, Standing Committee on Radiotherapy Development Program, DteGHS, Ministry of Health and Family Welfare, Govt. of India; Member, SAG (Scientific Advisory Group), ICMR; Member, Indo American Cancer Association; Member, Forum for Breast Protection; Member, Anti Cancer trust; Member, The sub group of Ministry of Information and Technology, Govt. of India to review the progress of the Jai Vigyan project, Ministry of Communication and Information Technology, Govt. of India on the development & deployment of 6 MV Medical Linear Accelerator; Member, Cancer foundation, Delhi; Project Review Committee on Working Group of Medical Electronics, Ministry of Information Technology, Govt. of India; Scientific Advisory Committee of three Institutes (a) Gujarat Cancer and Research Institute, Ahmedabad, (b) Institute of Pathology, ICMR and (c) Institute of Cytology and Preventive Oncology, ICMR. He is Advisory Editor of Journal Academy of Hospital Administration and Member of Editorial Board of (Indian Journal of Chest Diseases and Allied Sciences, Indian Journal of Cancer, International Journal of Biosciences and Technology, Journal of Contemporary Brachytherapy, South Asian Journal of Cancer and Consulting Editor of Journal of Cancer Research and Therapeutics.

Professor P.K. Julka was Felicitated as Fellow (FAMS) of the National Academy of Medical Sciences, 2013; Appointed as Dean (Academics), AIIMS, New Delhi; Chairman, Imaging and Radiotherapy, Bureau of Indian Standards (BIS); Nominated Member of Academic Council of Guru Gobind Singh IP University (GGSIPU); Chairperson GGSIPU Medical Admission Committee; Head, Delhi Cancer Registry, 2010 onwards; Member, PhD Doctoral Committee; Member, ICMR High Powered Committee on Cancer Projects for XII Plan; Member, ICMR Task Force for Cancer Research Projects in the Country; Chairman, M.D. Radiotherapy Examination at AIIMS, New Delhi, 13th December 2013; Member, Staff Council Meeting, AIIMS, New Delhi, 13th December 2013; External Expert for Selection of Asst. Prof., Radiotherapy at MAMC, New Delhi, 26th August 2013; Member, Tender Specification Meeting of Linear Accelerator and Brachytherapy at ILBS, New Delhi, 30th May 2013; Chairman, M.D. Radiotherapy Examination at AIIMS, New Delhi, 9th-10th May 2013; Member, Affiliation Committee Meeting for Equated Teaching Designations for RML and Safdarjung Hospital Doctors, New Delhi, 1st April 2013.

Professor Lalit Kumar was awarded by Padma Shri by the President of India on 26 January 2014; Elected as Vice President of the Indian Association of Cancer Research Executive for the Session 2014- 2016; Member of the nominating committee – Asia/ Australia/ Oceania by the International Gynecological Cancer Society (IGCS) (2014-2016); Council member, Asian Clinical Oncology Society (2013- 2014); Member, Editorial Board 2014, Oncology- an International Journal: Karger Publications; Section Editor – Oncology for the API Text book of Medicine- 10th edition; Delivered Prof. R.N Chugh oration on 20 December 2013 during the 24th Annual CME of Associations of Physician of India, Delhi State Chapter; Delivered K.L Gupta Memorial Oration 5 December 2013 during the 40th annual Conference of Clinical Biochemist India (ACBI), Delhi; Invited as member Expert for faculty selection in Medical Oncology on 8.6.2013 at Sher –Kashmir Institute of Medical Sciences, Kashmir; Invited as Member Expert to participate in DBT task force meeting on Cancer 11.7.2013; Invited as Member Expert during Task Force meeting on Nano – Technology Platform organized by Department of Biotechnology at Teri Retreat Gurgaon on 21.9.2013; Invited as member to attend DBT task force on Cancer meeting on Cancer on 29.10.2013 at Cancer Institute, Adyar Chennai; invited as Member of the Scientific Advisory Group for the center for predesign and diagnostic TSHTI, Gurgaon on 26.11.2013; Invited as Member Expert for Common Wealth Scholarship Interview by the Minsitry of Human Resources Development on 28.11.2013; External Examiner for DM Medical Oncology Examination at Tata Memorial Hospital, Mumbai in December 2013.

Professor Sushma Bhatnagar was Chief Editor of Indian Journal of Palliative Care from 2009 till date; Won Susan Raj Pain Physician of the year 2012-2013 Award in World Institute of Pain conference, Nov 2013, Kolkata; won Leadership and excellence award amongst SARCC countries in 21st International Conference on Indian Association of Palliative Care, Feb 2014. He is the Member of Organizing committee in 2nd International Conference on Opioids at Boston, USA; Member of Development of Implementing Framework for Palliative Care Across India, Ministry of Health and Family Welfare, Govt. of India; Faculty for Training-of-Trainers in Palliative Care Programme in Asia Pacific Hospice Palliative Care Network 2013; Editorial Board Member of World Journal of

Anaesthesiology from 2012 to 2015; Editorial Board Member of Annals of Palliative Medicine from 2012 to 2015; Honorary faculty of certificate course of Indian Association of Palliative Care; Course coordinator of certificate course of Indian Association of Palliative Care; Regular reviewer of International Journals British Journal of Anaesthesiology, Clinical Journal of Anaesthesiology, Journal of Medicine and Medical Sciences, American Journal of Hospice and Palliative Care; Member of International Association of Hospice and Palliative care; Member of International Association of Study of Pain; member of American Society of Regional Anaesthesia and Pain Medicine; Member of American Society of Clinical Oncology; Life Member of Indian Society of Anaesthesiology, Indian Association of Palliative Care, Research Society of Anaesthesiology and Clinical Pharmacology, Indian Society of Oncology and Indian Society of Critical care.

Professor Sameer Bakhshi won AIIMS Excellence Award -2013 for outstanding published research work during the year 2012-2013.

Dr D.N. Sharma was Awarded visiting professorship by the University of Maryland, Baltimore, USA and Elected as the Joint Secretary of Indian Brachytherapy Society for the year 2013-14.

Dr Pratik Kumar was invited to joint ICTP-IAEA training in radiation protection of patients, Trieste, International Centre for Theoretical Physics (ICTP), Italy; External expert at Defense Research & Development Organization, Delhi for assessment of scientists; External expert, European Federation of Organization of Medical Physics (EFOMP) Working Group on Mammography (WG Mammo), Vienna, Austria; Question setter for Diploma in Radiological Physics, GGS Indraprastha University, New Delhi; Question setter BSc Medical Imaging Examination 2014, IGNOU; Question setter MD Radiodiagnosis and P.G. Diploma Medical Radiodiagnosis 2014, Annamalai University, Tamilnadu; Nominated as International Corresponding Member of the Radiation Protection Special Interest Group (RPSIG), Institute of Physics and Engineering in Medicine (IPEM), U.K.; Appeared on India TV as expert in May 2013 on recall of radioactive metal studded belt by the Britain's largest online fashion retailer after its alleged manufacturing at Kanpur, India; Referee for journal "Radiation Effects and Defects in Solids", Taylor & Francis Group, Mexico; Resource Person, B.P. Koirala Institute of Health Sciences (BPKIHS), Dharan, Nepal for the Workshop for curriculum development for BSc, MSc in Medical Imaging Technology & Radiology Fellowship; External examiner for practical and viva examination for BSc MIT course at BPKIHS, Dharan, Nepal; Expert reviewer for the proposals received under Contract Research & Services (CRS) scheme Biotechnology Industry Research Assistance Council (BIRAC), DBT, Govt. of India; Examiner for College of Medical Physics of India (CMPI) (www.cmpi.org.in) for CMPI Part II oral examination held at Medical College, Kolkata; Maharashtra Medical Council granted approval as Accredited Specialty Speaker for Diagnostic Medical Physics; Referee for a manuscript by Journal of Cancer Research and Therapeutics, Association of Radiation Oncologists of India (AORI); Panelist in panel discussion on the topic "Medical Physics Education and professional status: A way forward", Annual conference of Northern Chapter of Association of Medical Physicists of India (AMPI-NC), Feb 2014, KGMU, Lucknow; Panelist for "Interaction with College Teachers and Students" at One Day Seminar on Integration of Teaching and Research in Biophysics at Graduate & Postgraduate Level, 11th Feb 2014, AIIMS, New Delhi; Panelist for "Safety and Security of Radiation Sources Deliberations on Threat Reduction Security Initiatives", at National Symposium on Recent Advances in Radiation Oncology Medical Physics & Radiation Dosimetry, RST Regional Cancer Hospital & Research Centre & AMPI-WC, Nagpur, 8-9 March, 2014; Editor, Medical Physics Chronicle; Member, Editorial Board, Journal of Medical Physics; Member, Electro-medical Equipment Sectional committee, BIS, New Delhi; Referee for Journal of Medical Physics; Member, Executive Committee, Association of Medical Physicists of India (AMPI).

Dr Anita Chopra was awarded as *Dr. N. C. Nayak award for talented young pathologist -2014*, for the presentation of best research paper "Immunophenotypic analysis of T-acute lymphoblastic leukemia. A CD5-based ETP-ALL perspective of non-ETP T-ALL." 29th Delhi Chapter IAPM, Army R & R hospital, New Delhi and won first prize in *4th Annual Conference of Delhi Society of Hematology*, Maulana Azad Medical College, New Delhi, September 21, 2013.

Dr Haresh KP was Awarded the AROI Fellowship 2013.

Dr Durgatosh Pandey attended the Annual conference of oncologist of North East India Guwahati 2nd March 2014 and chaired the session of free papers; attended the Annual conference of oncologist of North East India Guwahati, 2nd March 2014 and acted as a Judge for award posters; Panelist for the session on "Management of

colorectal cancers” in the Annual Conference of Oncologists of North East India (AONEI), Guwahati, 02 March 2014; “Complications of liver surgery” in the Annual Conference of Indian Chapter of IHPBA (International Hepato-Pancreatico-Biliary Association), 09 January 2014; “Approach to the patient with advanced unresectable pancreatic cancer” in the Indian Cancer Congress 2013, 21 November 2013; “Soft tissue sarcoma” in the Indian Cancer Congress 2013, 24 November 2013; “Breast cancer” in the Best of ASCO 2013, Mumbai, 29 June 2013; “Is there a role of mediastinoscopy in the era of PET scan in non-small cell lung cancer” in 28th ICON: Controversy to Consensus, Mumbai, 06 April 2013.

Dr Sunil Kumar attended Indian Cancer Congress November 2013, New Delhi and chaired a session.

Dr Nishkarsh Gupta has published paper in SGRH journal awarded best paper by SGRH hospital in April 2013

Dr Rakesh Garg was Appointed as Associate Editor of Journal of Medical Case Reports; Continued as Associate Editor of Journal of Anesthesiology and Clinical Pharmacology; Appointed as editorial board members in the Global Journal of Respiratory Care; Renewal Appointment as a Editorial Board member to the Open Journal of Anesthesiology (OJAnes), BMJ Case Reports, Indian Journal of Anaesthesia, AANA Journal, Journal of Anesthesia, Analgesia & Analgesics, World Journal of Clinical Cases; Memberships of American Society of Anesthesiologists, The Association of Anaesthetists of Great Britain and Ireland (AAGBI), International Anesthesia Research Society; Participated as Expert for the working group of Paediatric Anaesthesiologists of the German society of Anaesthesiology and Intensive care medicine (now in cooperation with the European Society of Pediatric Anesthesia and the European society of anaesthesiology) for a project called “Orphan Anesthesia”. The aim of the project “Orphan Anesthesia” is the publication of guidelines for the anesthesiological management of patients suffering from rare diseases thus increasing patients’ safety. Invited as an expert as a specialist for this type of disease (macrophage activation syndrome) and Live telecasted at All India Radio on Chronic pain on 9th April 2013 from 7 AM to 8AM; The Science Advisory Board Member, world’s original professional network of life scientists.

Dr Sanjeev Kumar Gupta won Second position in ‘Hematology Quiz’, 54th Annual conference of Indian Society of Haematology & Blood Transfusion, 7th-10th November 2013, Mumbai.

10.4 Dr R.P. Centre for Ophthalmic Sciences

Chief and Professor

Rajvardhan Azad (upto 21 March 2014)

Y.R. Sharma (w.e.f 22 March 2014)

Professors

Atul Kumar
Gita Satpathy
(Ocular Microbiology)

Pradeep Sharma
J.S. Titiyal
Shakti Kumar Gupta
(Medical Superintendent)

Ramanjit Sihota
Radhika Tandon

S.K. Khokhar
Dilip R. Shende
(Ocular Anaesthesia)

Mandeep Singh Bajaj

Mahesh Chandra
Raj Pal

Niranjan Nayak
(Ocular Microbiology)

Additional Professors

Seema Sen
(Ocular Pathology)
Namrata Sharma
Neelam Pushker

Sanjay Sharma
(Radio-Diagnosis)
Tanuj Dada
T. Velpandian
(Ocular Pharmacology)

Seema Kashyap
(Ocular Pathology)
Pradeep Venkatesh
Praveen Vashist
(Community Ophthalmology)

Jasbir Kaur
(Ocular Biochemistry)

Rohit Saxena

Vinay Gupta

Renu Sinha
(Ocular Anesthesia)

Tushar Agarwal

M.Vanathi

Rajesh Sinha

Bhavna Chawla

Parijat Chandra

Assistant Professors

Senjam Suraj Singh

Sumit Malhotra

Alok Kumar Ravi

Nabanita Halder

EDUCATION

30 students are enrolled for MD (Ophthalmology), 20 for PhD course and 36 for BSc (H) Ophthalmic Techniques

Conferences/Seminars/Workshops

1. Round table meeting on formulating an action plan for awareness of diabetes and diabetic retinopathy in India with the support of AIOS & Vision 2020. Department of Community Ophthalmology, 06.03.2014.
2. Orientation programme for NPCB guidelines for School Vision Screening for optometrists posted under Delhi School Health Scheme, 29.3.2014.
3. Symposium on Infections and Eye diseases in Asia ARVO International Conference, 29.10.2013, New Delhi.
4. Dr Ananthanarayan Memorial Microbiology Symposium on Advances in Genomics altering the Bacterial Nomenclature, 62nd Annual Conference of Indian Association of Pathologists and Microbiologists, 13.12.2013. Aurangabad, Maharashtra.
5. Annual Conference of Delhi Ophthalmological Society, April 2013.
6. Delhi Ophthalmological Society Glaucoma subspecialty program, September 2013.
7. Workshop on ocular lipidomics as Live from Lab as a part of ASIA ARVO conference, New Delhi, 30 Oct 2013.
8. Hands on demonstration of working principle of Mass Spectrometry conducted in the Preconference workshop on Techniques in Neurochemistry and Molecular Neurobiology, 27th Annual Meeting of Society for Neurochemistry, 14–20 Feb 2013, AIIMS, New Delhi.

Lectures delivered

Atul Kumar: 16

Sanjay Sharma: 6

Rohit Saxena: 9

Parijat Chandra: 7

Radhika Tandon: 4

Pradeep Venkatesh: 8

Renu Sinha: 4

Senjam Suraj Singh: 9

S. Khokhar: 2

Praveen Vashist: 12

M. Vanathi: 15

Oral papers/posters presented: 35

RESEARCH

Funded projects

Completed

1. 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.
2. A 3-Year, Phase-3, Multicenter, Masked Randomized, Sham Controlled Trial to assess the Safety and Efficacy of 700 µg Dexamethasone Posterior Segment Drug Delivery System (DEX PS DDS) Applicator System in the Treatment of Patients with Diabetic Macular Edema.
3. A Multicenter, Patient-Masked, Safety Extension Study to Evaluate the Biodegradation of the Brimonidine Tartrate Posterior Segment Drug Delivery System.
4. Assessment of Magnitude and Progression of myopia in School going children in Delhi, Rohit Saxena, DST, Feb 2009 –Aug 2013
5. Brimo (Allergan): Evaluate safety and efficacy of two doses (200µg-400µg) Brimonidine tartrate PS-DDS in patients with successfully reattached retinal detachment.
6. Circulating Stem cells in preterm infants: correlation with the development of ROP, Jasbir Kaur, AIIMS, 3 years, 2012-2013, Rs. 5 lakhs
7. Comparative randomized evaluation of Ozurdex implant vs Ozurdex implant plus Laser in patients of BRVO with Macular Edema.
8. Conventional (532nm) laser versus sequential laser (posterior subtenon triamcinolone followed by laser) in macular edema secondary to branch retinal vein occlusion”.
9. Developing quality control parameters and dispensing MK Media for corneal transplant preservation for Indian eye banks.
10. Development and Preclinical Studies of a Novel Topical Formulation of Isoflavones for the Treatment of postmenopausal dry eye.
11. 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.
12. Eye Care Services in Urban Slums in West Delhi funded by Operation Eyesight Universal for 2009-2013. Funds of Rs.15,80,986/-
13. Factors associated with severity at presentation of juvenile onset primary open angle glaucoma.
14. Feasibility Study for Developing the Pharmaceutical and Bio-analytical Methods for the Development of Newer Anticancer Agents for Retinoblastoma.
15. Morphology of Cataract Following 23G Vitreoretinal Surgery and Surgical Difficulties & Complications in Phacoemulsification.
16. National Trachoma Survey in Andaman & Nicobar Island funded by NPCB, GOI for 2013-14. Funds of Rs. 1,10,000/-
17. Ocular surface evaluation in eyes with chronic glaucoma on longterm medical therapy, M. Vanathi, AIIMS, Rs 80,000, 2012-13, 1 year
18. Perioperative concerns and anaesthetic management of the children with Struge-weber syndrome for ophthalmic surgery under general anesthesia – a retrospective study
19. Posurdex (Allergan): Evaluate safety and efficacy of two doses (350µg/700µg) of dexamethasone in diabetic macular edema.

20. Role of Autologous Bone marrow derived stem cells in retinitis Pigmentosa and Age Related Macular Degeneration.
21. Role of microRNA-200 family in ocular malignancies.
22. Situational analysis, Evaluation of existing programmes for screening and Treatment for Diabetic Retinopathy sponsored through funded by PHFI-Queen Elizabeth Diamond Jubilee Trust Project for 2013-14. Funds of Rs. 4,00,000/-
23. Variation in LMA cuff pressure and ventilatory parameters in paediatric patients: effect of air and O₂ – air mixture used for LMA cuff inflation

Ongoing

1. A multicenter randomized study of the efficacy and safety of NVC – 422 Ophthalmic solution for the treatment of adenoviral conjunctivitis for assistance / collaboration with NovaBay Pharmaceutical, USA. IEC-NP-75/2013-ICMR, Radhika Tandon, NovaBay Pharmaceutical, USA, 18 mths, 1 Feb 2013- 14 Aug 2014
2. A phase III, Multinational, Multicenter, Randomized, Double-Masked, Study Assessing the Safety and Efficacy of Intravitreal Injections of DE-109 (Three Dose) for the Treatment of active, Non-infectious Uveitis of the Posterior Segment of the eye.
3. A Pilot study on Health education intervention for modifiable factors affecting Myopia among school children in Delhi funded by DST for 2013-15 Funds of Rs.19,92,000/-.
4. A prospective comprehensive study of atypical conjunctivitis occurring in Delhi and development of a multiplex PCR assay for rapid diagnosis of viral conjunctivitis.
5. Autologous bone marrow derived stem cells for rehabilitation of patients with dry age related macular degeneration – comprehensive study.
6. Cell sheet engineering for assembling human corneal construct, Radhika Tandon, IIT, Delhi, Rs 27.53 Lakhs, 5 years, 2011-16
7. Conjunctival auto fluorescence as a marker of ultraviolet radiation exposure in pterygium, IESC/T-40, 04.01.2013 to 4.3.2013
8. Detection of HSV-I etiology in primary keratoplasty and failed grafts in suspected viral keratitis cases: A prospective clinicopathological and molecular study.
9. Development and Preclinical Studies of a Novel Topical Formulation of Natamycin (Natasol) for the Treatment of Corneal Ulcer.
10. Differential expression of genes in retinopathy of prematurity. Jasbir Kaur. ICMR. 2 years, 2013-15.
11. Epidemiology, pathogenomics and system biology of A. itab infections in India – an integrative approach.
12. Evaluation of clinical and histopathological factors associated with success of MMC augmented trabeculectomy among primary glaucomas in India.
13. Evaluation of efficacy of cultivated oral mucosal epithelial cells transplantation in patients with acute ocular burns as compared to amniotic membrane transplantation, Radhika Tandon, DBT, Rs 11.61 Lakhs, 3 years, 2010-13
14. Evaluation of factors associated with success of mitomycin augmented trabeculectomy among primary adult and juvenile glaucomas in India.
15. Evaluation of minimum alveolar concentration (MAC) of sevoflurane and bispectral index (BIS) for maintenance of central eye position during short ophthalmic procedure in spontaneous breathing children under general anaesthesia and correlation of MAC of sevoflurane with BIS. AIIMS, Renu Sinha, Rs 1.5 lakhs
16. Evaluation of autologous bone marrow derived stem cells in dry age related macular degeneration-A Comprehensive study. Atul Kumar, ICMR, 2014–17, Rs. 48 Lakhs
17. Expression profile of genes involved in pathogenesis of diabetic retinopathy. Jasbir Kaur. AIIMS. 2 years, 2013-15.
18. Gene expression profile of human retinoblastoma.
19. Genetic polymorphisms of cytochrome P450 and glutathione S-transferase and the risk of primary open angle glaucoma and primary angle closure glaucoma in North Indian population.
20. Genotype determination of *Acanthamoeba spp.* from amoebic keratitis and CNS infections and evaluation of PCR assay *vis. a vis.* conventional methods for rapid diagnosis

21. Innovation fund project on developing a cost-effective model for community based screening of Diabetic Retinopathy in urban slums of Delhi funded by Sightsavers for 2012-14. Rs. 66,51,141/-
22. Isolation, Culture and characterization corneal endothelial cells, AIIMS, 2012-13
23. LUMINOUS: Study to observe the effectiveness and safety of LUCENTIS through individualized patient treatment and associated outcomes.
24. Multi-centric Collaborative Study on the impact of Global warming and Ultra Violet Radiation (UVR) exposure on ocular health in India, ICMR, 2009–14
25. National Surveillance Unit for the Sentinel Surveillance Unit project funded by NPCB, GOI since 2010 onwards, Rs.300,000/- p.a.
26. National Surveillance Unit MOH, Apr.2011 to Till date
27. Ocular adnexal lymphomas and chlamydia: An immunophenotypic and molecular study.
28. Ocular bioavailability of oral Rebamipide in patients with gastro-intestinal disorders, ICMR, 2009 to date
29. Phase II – Delhi Centralized Hospital Cornea Recovery Project (DCHCRP), SIGHTLIFE, May 2012 to Dec 2014
30. Phenotype genotype correlation in Juvenile onset open angle glaucoma.
31. Prediction of tumour neoangiogenesis and grade by imaging based biomarkers using diffusion weighted MRI and dual energy CT in advanced renal cell carcinoma (ID2013-0219).
32. Prevalence of Dry Eye and its subtypes in hospital-based population in North India.
33. Role of HMG proteins in intraocular malignant childhood tumors.
34. Role of Stratifin in ocular squamous cell neoplasia and its correlation with other tumour suppressors.
35. RPC National ROP Project - ROP capacity building at 8 centers in India. Dr Y.R. Sharma. Funded by Sightsavers. 3 Yrs (2012-2015).
36. Sakura study: To evaluate the safety and efficacy of a new IND (sirolimus) in the management of non-infectious posterior and intermediate uveitis
37. Sentinel surveillance Unit Project, Delhi, R.P, Centre funded by NPCB, GOI since 2001 onwards for Rs.300,000/-p.a
38. Strengthening of ROP Services in India – Phase - II.
39. Study of sense of coherence and spectacle compliance among secondary school in Delhi, Intramural, AIIMS for 2013-15 (PI) 2 Lakh.
40. Study on awareness and health-seeking practices about common blinding eye diseases in urban slums of Delhi, DST, 2013-15, Rs. 19,52,000.
41. Tears evaluation in chronic ocular GVHD, M. Vanathi, AIIMS, 2 years, 2013-15, Rs 10 lakhs.
42. To determine the influence of pre-operative counseling of cataract patients on IOL choice among patients at a tertiary level government aided eye hospital.
43. Trachoma Prevalence Survey-9 districts (Annexure A)” under the NPCB National Trachoma Survey In India project supported by NPCB Govt.of India funded by NPCB GoI for 2014-15, Rs. 81,24,640/-
44. Trachoma Rapid Assessment (Annexure B)” under the NPCB National Trachoma Survey in India funded by NPCB Govt.of India for 2014-15, Rs. 70,30,500/-
45. Vascular endothelial growth factor and insulin-like growth factor-1 levels in the preterm infants: correlation with retinopathy of prematurity.
46. Vision Delhi project on Refractive Error- a community eye care Initiative funded by Sightsavers for 2012-15, Rs. 1,79,12,240/-

Departmental projects

Completed

4. A Randomized controlled trial to evaluate the role of postoperative strict prone positioning for one day versus three days in anatomical closure of idiopathic full thickness macular hole: A preliminary Study.
5. Anatomical and visual outcomes of posterior segment trauma requiring vitreoretinal surgery
6. Anatomical and visual outcomes with relaxing retinotomy/ectomies in ocular trauma requiring VR surgery.

7. Angiogenesis factors in cord blood as predictor for development of retinopathy of prematurity.
8. Anti-angiogenic effect of marine isolates and thalidomide in mouse model of retinopathy of prematurity.
9. Assessment of systemic vascular autonomic tone, structural and functional outcome in idiopathic central serous chorio-retinopathy.
10. Characterization and clinical implications of staphylococcus epidermidis biofilms in device related infections.
11. Community based epidemiological study on corneal opacities.
12. Comparative evaluation of endovenous LASER and radiofrequency ablation versus surgery in the treatment of symptomatic lower limb varicosities.
13. Comparative evaluation of outcome of conservative management with interventional radiological management of discogenic low back pain
14. Conventional (532nm) laser versus sequential laser (posterior subtenon triamcinolone followed by laser) in macular edema secondary to branch retinal vein occlusion.
15. Correlating clinical features at baseline and after control of IOP in glaucomatous eyes
16. Correlation of Baseline IOP with histopathology of trabecular meshwork.
17. Determinants of anatomical and visual outcomes in diabetic vitrectomy using 25G surgery and causes of inoperability in diabetic eyes.
18. Evaluation of Intraocular penetration of meropenem and ertapenem after administration in non-inflamed eyes.
19. Isolation and evaluation of bioactive compounds from marine origin with special reference to antiangiogenic property
20. Morphology of Cataract Following 23G Vitreoretinal Surgery and Surgical Difficulties & Complications in Phacoemulsification.
21. MR evaluation of chronic hip pain.
22. Ocular surface evaluation in ocular GVHD
23. Prediction of ocular toxicity using OMR paradigms in gold fish.
24. Perioperative concerns and anaesthetic management of the children with Struge-weber syndrome for ophthalmic surgery under general anesthesia – a retrospective study
25. Role of Autologous Bone marrow derived stem cells in Retinitis Pigmentosa and Age Related Macular Degeneration.
26. Role of Magnetic Resonance Imaging and spectroscopic methods in the evaluation of early prostate cancer.
27. Role of MRI in characterization of sonographically indeterminate adenexal masses.
28. Role of posterior barrage laser in treatment of advancing Retinopathy Of Prematurity.
29. The causes and anatomical-visual outcomes of vitreo-retinal surgery in paediatric Retinal Detachment.
30. To compare the safety and efficacy of laser alone versus posterior subtenon injection followed by laser in patients with branch vein occlusion.
31. To compare video angiography with digital fundus photo angiography as a diagnostic tool in macular lesions.
32. To determine the prevalence of uveitis in children with juvenile rheumatoid arthritis.
33. To evaluate the results of investigations for tuberculosis in patients with serpigenuous choroidopathy.
34. Vitreomacular traction surgery outcomes.
35. Variation in LMA cuff pressure and ventilatory parameters in paediatric patients: effect of air and O2 – air mixture used for LMA cuff inflation

Ongoing

1. A randomized controlled trial to evaluate the role of postoperative strict prone positioning for one day versus three days in anatomical closure of idiopathic full thickness macular hole.
2. Analysis of the expression of mucins and antiangiogenesis markers in human oral mucosal epithelial cells (OMECS) on using mycophenolate mofetil (MMF) and bevacizumab (BVCZ) in vitro.
3. Assessment of systemic vascular tone, structural and functional outcome in central serous chorioretinopathy.
4. Chemoreduction failure in retinoblastoma – A clinical and histopathological risk factor.
5. Clinical, Histopathological and genetic characterization of Endothelial dystrophies

6. Clinical profile and management outcomes of endophthalmitis at a tertiary care center.
7. Clinicoepidemiological profile of patients with Periorbital and/or Orbital trauma admitted to a Tertiary Care Centre.
8. Community Based epidemiological study on corneal disorder
9. Comparative evaluation of 23 Gauge and 25 Gauge MIVS in the management of rhegmatogenous retinal detachment
10. Comparative evaluation of Low Macular Index Macular Holes a controlled perspective study.
11. Comparative evaluation of Ranibizumab Vs. Dexametasone Implant in patient in BRVO with Macular Oedema.
12. Comparison of PASCAL PRP with conventional PRP in PDR patients with respect to changes in RNFL and ONH using optical coherence tomography.
13. Comparison of safety and bio-compatibility between amniotic membrane and bio-polymer in healing of epithelial defects in an experimental model.
14. Conjunctival Auto fluorescence as a member of Ultraviolet Radiation exposure in pterygium. IESC/T-40/04.01.2013
15. Corelation of visual acuity with integrity of foveal photoreceptor layer using SD-OCT and multifocal ERG in patients of Diabetic macular edema.
16. Correlation of histopathology of angle structures with long term prognosis in congenital glaucoma.
17. Determinants of Optic disc morphometry among JOAG patients
18. Determine changes in choroidal layer (on EDI-OCT) following vitreoretinal surgery in patients with proliferative diabetic retinopathy.
19. Determine optic nerve head and nerve fibre layer changes (on SD-OCT) following panretinal photocoagulation in patients with proliferative diabetic retinopathy.
20. Developing of small interfering RNAs (siRNAs) against Cocksackie virus A24 causing eye infections
21. Development of novel method for the microwave assisted synthesis of A2E and LC-MS/MS method for its quantification from cadaveric eyes.
22. Development of topical estrogen or androgen receptor modulator for postmenopausal dry eye using Computer Aided Drug Design.
23. Efficacy of confluent laser techniques (large spot vs. standard spot) in the treatment of Retinopathy Of Prematurity – a randomized trial.
24. Epithelial- Mesenchymal Transition (EMT) in Sebaceous Carcinoma of the Eyelid – An Immunohistochemical and Molecular Study.
25. Estimation of rate of progression and projected life time risk of blindness among JOAG patients
26. Evaluation of autonomic tone, structural and functional outcome in CSR patients.
27. Evaluation of iontophoretic method for the trans-scleral delivery of anti-cancer agents in experimental animal.
28. Evaluation of multimodal treatment approach for extraocular retinoblastoma: A randomized study.
29. Evaluation of polyherbal formulation for ocular neovascular conditions.
30. Evaluation of the degradation pathways of PG F2 alpha analogs in Indian Market.
31. Expression of cell cycle regulatory proteins in Ocular Surface Squamous Neoplasia.
32. Expression of stem cell markers in RB and their clinicopathological correlation.
33. Gene expression profile of human uveal melanoma.
34. Gene expression profiling in retinopathy of prematurity.
35. Genomic alterations in juvenile open angle glaucoma.
36. In vitro studies to explore strategies for extended utilization of donor corneal tissues by harnessing their full clinical potential
37. Microbiological and clinical profile of Metastatic Endophthalmitis.
38. Modulation of organic cationic transporters for the intraocular penetration of drugs.
39. Molecular analysis of mitochondrial genes associated with tumorigenesis in Retinoblastoma.
40. Molecular characterization of Steven Johnson Syndrome Ocular Sequelae.
41. Morphometric evaluation of the disc in BRVO eyes using confocal scanning laser ophthalmoscope.

42. Outcomes of minimally invasive vitreous surgery in diabetic vitreomacular traction.
43. Preoperative and Postoperative Assessment of Change in Multifocal Electroretinogram in patients with Iron intraocular Foreign Body.
44. Profile and outcomes in Endophthalmitis.
45. Retinotopic correlation of optic nerve head and automated perimetry
46. Role of diffusion weighted MRI in RB.
47. Role of digital breast tomosynthesis as an adjunct to full field digital mammography (FFDM) in the diagnosis of breast lesions.
48. Role of MRI in imaging of retinoblastoma
49. Role of Posterior Laser BNarrage in treatment of Retinopathy of Prematurity.
50. Role of split bolus dual energy single acquisition CT in evaluation of urological diseases of the upper urinary tract.
51. Scleral Fixated IOL's, sutured Vs Glued A Randomized comparative study
52. Simple limbal epithelial transplantation
53. Skin Grafting in Cicatricial Ectropion: Sutures versus Fibrin Glue.
54. Studies on characterization of types of *Acanthamoeba* causing eye infections
55. Study of corneal changes in mechanically ventilated trauma patients
56. Study of Morphological and Vascular Changes of Choroid in Diabetic Macular Oedema Using SD-OCT.
57. Study of oral rebamipide in management of dry eye.
58. Study on awareness and health seeking practices about common eye conditions in urban slums of Delhi.
59. The accuracy of high b value diffusion weighted MR imaging in predicting tumour stage and grade in carcinoma of the urinary bladder: A prospective study on 3 Tesla MR system
60. To ascertain the role of sheer wave elastography as an adjunct to B-mode ultrasonography in characterization of breast masses.
61. To compare Video- angiography with digital fundus photo angiography as a diagnostic tool in macular lesions.
62. To evaluate the safety and efficacy of bone marrow derived stem cells in the management of patients with ischemic CVO.
63. To study fundus autofluorescence patterns in patients with age related macular degeneration
64. To study safety and efficacy of pulse immunotherapy in vision threatening, non-infective posterior uveitis.
65. To study SD-OCT patterns of diabetic macular edema and correlate with systemic and ocular risk factors.
66. To study the effect of Intravitreal Injection of Anti – VEGF Agents and Steroid on Foveal Ganglion cell Layers and Vitreoretinal Interface.
67. Understanding the functional importance of nucleoside transporters across blood ocular barriers.

Collaborative projects

Completed

1. Culture of limbal stem cells for ocular surface reconstruction in stem cell deficiency diseases.
2. Epidemiology, pathogenomics and system biology of A. itab infections in India - an integrative approach.
3. Estimation of nevirapine and ATT drugs in patients co-infected with tuberculosis and undergoing anti-HIV therapy (Medicine)
4. Evaluation of cortical brain activation and visual pathway in cases of acute optic neuritis by functional MRI and DTI. Neuro-Ophthalmology/ RPC
5. Evaluation of multimodal treatment approach for extra-ocular retinoblastoma: A randomized study. Occuloplasty/ RPC
6. Evaluation of rhythmic process of Surdershan Kriya Pranayam on cancer patients for pain management.
7. Pilot study to evaluate chemotherapy in stage 3 RB as per the IRSS.
8. Role of Ultrasound Elastography in Breast cancer. Surgical Disciplines.
9. Study of duration of anticoagulation in patients with deep venous thrombosis based on compression ultrasound. Haematology

10. Neurocognitive changes associated with perception, spatial orientation and co-ordination in visually challenged subjects using functional Magnetic Resonance Imaging. NMR
11. Effect of IJV ligation during comprehensive neck dissection on intracranial pressure. ENT
12. A randomised comparison of lidocaine 2% gel and proparacaine 0.5% eye drops in paediatric squint surgery. Anaesthesia
13. Growth and neuro-cognitive outcomes of babies at AIIMS. Pediatrics

Ongoing

1. Analysis of the expression of mucins and angiogenesis markers in human oral mucosal epithelial cells (OMEC) on using mycophenolate mofetil (MMF) and bevacizumab (BVCZ) in vitro.
2. Bone marrow derived stem cell therapy and the trabecular meshwork: An experimental study.
3. Compositional study of coronary artery atherosclerotic plaque.
4. Conjunctival autofluorescence as a marker of ultraviolet radiation exposure in pterygium.
5. Corneal changes in Parkinsonism patients on amantidine therapy: “ Dr R P Centre & CN centre”
6. Detection of HSV-I etiology in primary keratoplasty and failed grafts in suspected viral keratitis cases: A prospective clinicopathological and molecular study.
7. Development of the method for the quantification of neurotransmitters from brain microdialysate in rats.
8. Effect of addition of magnesium to local anaesthetic for peribulbar block – a prospective randomized double blind study
9. Effect of addition of magnesium to ropivacaine for peribulbar block – a prospective randomized double blind study
10. Evaluation of Epidemiology, risk factors and role of Neuroimaging in Diagnosis and Prognosis of Traumatic Optic Neuropathy. [Neuro-Ophthalmology/ RPC]
11. Evaluation of minimum dose of neuromuscular blocking agent in paediatric cataract surgery-a randomized controlled trial
12. 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.
13. Evaluation of role of Injection Bupivacaine in Strabismus. Neuro-Ophthalmology/ RPC
14. Evaluation of Tear Film Lipidomics in Selected Ocular Surface Disorders.
15. Evaluation of the expression of P-glycoprotein in retinoblastoma using surrogate markers.
16. Evaluation of the expression of transporters in an experimental model of diabetes.
17. Hepatic left lobe liver volume as an indicator of adiposity and related metabolic abnormality in patients with NAFLD.
18. Iris detection in forensic applications: [“Dr R P Centre, AIIMS & Dept of Delhi University”]
19. Molecular characterization of Steven Johnson Syndrome Ocular Sequelae.
20. Multi-centric Collaborative Study on the impact of Global Warming and Ultra Violet Radiation [UVR] exposure on ocular health in India [RIO, Gauwahati, National Physical Laboratory, Delhi & IIPH, Hyderabad- Funds Rs. 2,97,94,293/-]
21. Quantification of A2E from the cadaveric eyes.
22. Quantification of plasma antitubercular drug levels in pediatric population.
23. Strategies for extending utilization of donor corneal tissues for corneal transplantation by harnessing their full clinical potential.
24. The development of a potential bio-polymer to serve as an alternative substrate of human amniotic membrane for ex-vivo expansion of corneal epithelial stem cells.
25. The study of Autonomic functions in NAFLD. Medicine
26. Virtual screening of Flavanoid library to target PPAR- α and its evaluation in the experimental model of diabetes.
27. Voriconazole in the treatment of fungal orbital infections.

PUBLICATIONS**Journals: 139****Abstracts: 7****Chapter in Books: 25****Books: 7****PATIENT CARE**

	New Cases	Old Cases	Total
1. General O.P.D.	136052	87580	223632
2. Emergency	9587	-	9587
Total Cases	145639	87580	233219

Specialty clinics

1. Cornea	5695	12596	18291
2. Lens	808	1948	2756
3. Uvea	945	4070	5015
4. Contact Lens	1213	2517	3730
5. Glaucoma	3071	8942	12013
6. Ophthalmoplasty	3039	2016	5055
7. Paed. Ophthalmology	331	141	472
8. Retina	2336	5259	7595
9. Neuro-Ophthalmology	2217	1952	4169
10. Vitreo Retinal	1908	1145	3053
11. Retinoblatoma	320	692	1012
12. Orthoptic	2947	14406	17353
13. Squint	4941	16828	21769
14. Refraction	-	36909	36909
Total Cases	29771	109421	139192
Grand Total of Cases	175410	197001	372411

Indoor

	No. of cases
1. General Admissions	16715
2. Casualty Admissions	2533
3. Private Admissions	1129
4. Short Admissions	7498
5. Day Care Admissions	9281
Total	37156

Operations

1. Major	18279
2. Day care	8999
Total major	27278
Minor	9802
Grand total	37080
Deaths	02

Other Annual figures

1. Average Bed occupancy Rate	79%
2. Average length of stay	10 days
3. Average OPD Attendance per working day	1258
4. Average No. of Indoor Admission per working day	102
5. Average No. of Surgeries per working day	102

Investigative Laboratories

GVF + HVF	1884+4744+1694
Color Vision	1839
Auto Refraction	157+4968
P.O.G.	174
Refraction	195
Contrast Sensitivity	782
Axial length	12423
Keratometry	11693
P.O.G.	4516
Ultrasonography	21340
Visual evoked rresponse	3867
Electro-retino gram	519
Electro-occulo gram	29
Laser interometry	5179
VKG	1893
IOL master	2327
AL	1652
Refraction	670
LUAs	240
NCT	1810
Specular Microscopy	241
AS-OT	1217
CP	3853
UBM	80
Auto refractometry	990
I-Trace	381
PK-Old	1586
Contact lenses new	276
Contact lenses old	703
AL	11487
KM	10953
AR	4371
IOL Master	6571
CP	203
Posst Seg	3005
YAG	2336
OCT	14304
FFA	3753
CP	1568

Ocular Microbiology**Specimens processed**

Bacterial culture & sensitivity	12789
Fungal culture	4107
Speciments processed for cytology	772
Specimens processed for viral Ag detection & PCR	20
Specimens processed for Chlamydia Ag detection	398
Culture for Acanthamoeba	124

Specimens processed for acanthamoeba PCR	44
Specimens processed for conjunctivitis	12
Specimens processed for microsporidia	05
Specimens processed for mycobacteria	10
Grand Total	18281

Ocular Pathology

i) Blood: Total Leucocyte Count (TLC), Differential Leucocyte Count (DLC), Peripheral Blood Smear (PBS), Erythrocyte Sedimentation Rate (ESR), Bleeding Time (BT) / Clotting Time (CT)	34328
ii) Urine	10195
iii) Histopathology, Cytopathology & Research	20681

Ocular Biochemistry

Total number of samples (apart from research)	10320
Indoor	8703
Outdoor	1617

Ocular Pharmacology and Pharmacy

Free drugs (vials) supplied through ocular pharmacy including media	166909
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Community Ophthalmology

Community Services:

a. Eye Care Services in Slums

Primary Eye care Clinics: **20**

Attendees at PEC Centres in Slums Cluster: **50115**

Refraction carried out in PEC Centres in slums Cluster: **22724**

Patients referred to R.P. Centre: **6447**

Subsidized Spectacles issued in Slums: **7346**

b. Eye Care Volunteers training events:

Volunteers Training Programmes organized: 37

Volunteers Trained: 471

c. Eye Health Education Events:

Eye Health Education Event conducted: 167

Participants in the Health Education events: 5584

d. Reach-in-Programme for cataract surgery in Rural and remote areas:

Adult screening camps organized: **11**

People examined: **4584**

Patients referred at R.P. Centre: **678**

Follow-up camps organized: **43**

Patients examined in Follow-up camps: **1373**

e. School Eye Screening Programme

School covered under SES Programme: **81**

Teachers trained under School Vision Screening programme: **98**

Children screened: **35067**

Children prescribed spectacles: **2169**

Children issued Spectacles: **616**

f. Diabetic Retinopathy Screening Camps

Total number of DR screening camps organized: 204

Diabetic patients screened in camps: 8357

Total DR Patients identified and referred to R.P.Centre:977

g. Patient Reported for treatment at Dr. R.P.Centre under Community Ophthalmology

Total Patient Reported under community ophthalmology: **2527**

Total Patient Operated for cataract & other surgeries under community ophthalmology: **2026**

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Yog Raj Sharma was appointed as Chief, Dr. R.P. Centre for Ophthalmic Sciences, AIIMS, New Delhi w.e.f. 24 March, 2014; Director, World Health Organization Centre, New Delhi, w.e.f. March, 2014; President, Ophthalmic Research Association, Dr R.P. Centre; Chairman: Definition of Low Vision Aid Committee set up by Ministry of Social Justice & Empowerment, Government of India, 2014; Chairman, The National Diabetic Retinopathy Task Force, 2014; Member, Vigilance Inquiry, November, 2011-14; Chairman, Stores management, 2011-14; Chairman, Computer Facility, Audio Visual RPC & Website telemedicine, Nov 2011-2014; Member, Vision Documents-AIIMS, November, 2011-14; Chairman, Vigilance and enquiry, 2011-2014; Member, Ethics committee-AIIMS, 2011-14; Member, Committee to review and frame the Rules & Regulation under the AIIMS Act 1956, April, 2014; Scientific reviewer, Ophthalmology (AAO), since 2006; American Journal of Ophthalmology since 2007; Indian Journal of Ophthalmology since 1990; Expert, Department of Bio-Technology, Government of India (Biotech Consortium India Limited (BCIL), Management Agency (SMA) of the Scheme); Biographical profile: Biographical profile in the First Edition of Who's Who in Asia: MARQUIS WHO'S WHO 2006-2013; Scientific Reviewer, Department of Biotechnology, Government of India, 2013; Expert, Department of biotechnology (DBT), Government of India (Biotech Consortium India Limited (BCIL) is the Management Agency (SMA) of the DBT scheme.) 2013; Vice-president: Scientific Programme (Local Organizing Committee) Asia-ARVO, New Delhi, 2013; Scientific Reviewer: Hindawi Publishing Corp. 2009; Scientific reviewer: Sanamed Journal, 2013; Member: Scientific committee of the Asia-ARVO, 2013; Scientific reviewer: Indian Journal of medical research-2013; Advisory board: DOS Times, 2013; Editorial Advisory Member: Delhi journal of Ophthalmology, 2013; Book Reviewer: Wiley Blackwell, India, 2013; Editor: Advances in Ophthalmology and Visual Sciences, 2014.

Professor Atul Kumar was Awarded the Dr AD Grover Memorial Oration by Chandigarh Ophthalmic Society; Member, Editorial Board, National Advisory Committee Member, Journal of Clinical Ophthalmology and Research 2013; Received Modernites Conclave & Excellence Award, 8 March, 2014; Awarded Dr SN Mitter Oration at Annual DOS Meeting 11–13 April, 2014; Appointed on NAMS Advisory Panel as Expert Member Ophthalmology, 2014.

Professor Jeevan S. Titiyal: Awarded Gold Medal by Bombay Ophthalmologist's Association (BAO) Mumbai, Aug. 2013; Appreciation for outstanding contribution in the field of Cataract and Refractive surgery. Haryana Ophthalmological Haryana Ophthalmological Aug. 2013; 28th National Eye Donation Fortnight donor recognition and public awareness campaign, R.P. Centre, AIIMS New Delhi, Sept 2013; External Expert for Professors Interview at KGMU, Lucknow UP June 2013; Padamshree, President of India, 31st March 2014.

Professor Radhika Tandon was Member-Expert Group for constitution of Expert Committee to examine the scope of Transplantation of Human Organ Act, 2010 in respect to corneal removal and its transplantation; Judge for the session Free paper – Cornea (Dr T P Agarwal Trophy); Chairperson, Scientific Programme –RPC Update 2013. Limbal Stem Cell: Current Perspective; Co-Chairperson- Topic – Corneal Diagnostics & Medical Management; Selected among top 100 educators – 2013 – medal & World Who's Who of Women; Member, ASIA ARVO 2013; Member (Expert) –Project Review Committee, Research Methodology Cell, ICMR, New Delhi; Team Leader - AIOS PG Refresher Course in Ophthalmology; Reviewer: Cornea, BJO, AJO, IJO, Archives of Ophthalmology, Eye and Contact Lens, IJO, NMJI

Dr Sanjay Sharma was Member of the Editorial Board of *World J Radiology* (No. 02679622) for 3 years; Member National Advisory Committee of *Journal ClinOphthalmol and Researc*; Member scientific advisory Committee in the prestigious ASIA-ARVO (Association of Research in Vision and Ophthalmology) conference held in New Delhi in collaboration of Dr R P Centre): Oct 2013 and Member GOI (Min. of Health & FW) expert committee for purchase of Radiology equipment.

Dr Tanuj Dada: Appointed as Secretary International society Glaucoma Surgery; Appointed as member Associate Advisory Board World Glaucoma Association; Editor in Chief – Journal of Current Glaucoma Practice; Chairman,

Symposium: Glaucoma surgery Rescue Operations; World Glaucoma congress, Vancouver, Canada, July 17-20, 2013.

Dr Pradeep Venkatesh was Reviewer for the following Journals- Archives of Ophthalmology (JAMA ophthalmology), Seminars in Ophthalmology, Ophthalmic research, Biomed Central (Ophthalmology), Paediatric ophthalmology and strabismus, Journal of Photomedicine and Laser Surgery, Case reports in Ophthalmological Medicine, Indian Journal of Medical Research, Indian Journal of Ophthalmology, Saudi Journal of Ophthalmology, Middle East Journal of Ophthalmology, Journal of Clinical and Experimental Ophthalmology (OMICS group); Editorial Board of following Journals- World J of Ophthalmology, Case reports in Ophthalmological Medicine, Journal of Clinical and Experimental Ophthalmology (OMICS group), Scientific and Academic Publishing, Columbia International Publishing; CME credits from JAMA ophthalmology (for manuscript review); Development of software for management of data following intravitreal injections (in collaboration with computer facility, AIIMS)

Dr Praveen Vashist: Appointed as chairperson for Association of community ophthalmologist in India ACOIN Academic and Research Committee; Identified member of the CBSE Vocational Cell- Committee Vision Science Course; Nominated member of working committee on “low vision” and “Glaucoma” by vision 2020 Right to sight, India; Nominated member of the diabetic retinopathy awareness committee by AIOS.

Dr T. Velpandian: invited to become an Honorary Board Member of External Pharma Experts at the INMAS, Defence Research & Development Organization (DRDO) under the Ministry of Defence (GOI) for the period of two years; Member of the Expert committee on Promotion and Popularization of Biotechnology (2012) by Department of Biotechnology under the Ministry of Science and Technology.

Dr Jasbir Kaur: Expert Member, Brainstorming Session on Development of Road Map for Promotion of Innovations in Health Sector of Punjab State Innovation Council, 2014; Expert Member, Brainstorming Session on Exploration of Potential of Ayurvedic Ophthalmology and Identification of Priorities for Collaborative Research, Department of AYUSH, Ministry of Health & Family Welfare, Govt. of India, 2013; Member, Institutional Ethical Committee, ACRI, New Delhi, 2014; Member Advisory Committee, Chairperson of a Technical Session, BIOTECHON-2014; Member Scientific Committee (Genetics) and Moderator in the Symposium on Genomics, Asia-ARVO 2013; Member, Expert Board, International Journal of Ophthalmology 2013-14; Reviewer: International Journal of Ophthalmology; Indian Journal of Medical Research; Indian Journal of Ophthalmology. One of the paper awarded ‘AIOS-IJO Platinum Award’ 2013 (co-author in the paper).

Dr Rohit Saxena was Awarded AIOS-IJO Platinum Award 2013 for Best Research paper by Indian Journal of Ophthalmology; Awarded Best Research paper presentation at Asia ARVO conference Oct 2013; Awarded “APAO-AIOS Achievement Award” for the year 2013 from the Asia Pacific Academy of Ophthalmology; Awarded Best Presentation at Confluence Premier League 2013; Awarded Best Team at Confluence Premier League 2013; Awarded Certificate of “Esteemed Resource Teacher” by the Delhi Ophthalmology Society; Awarded the Certificate of Appreciation from the Delhi Ophthalmology Society; Co author and Thesis Guide of Best Free Paper DOS Annual Conference April 2014; NIDA Clinical Trials Network. Completed Certificate Course on Good Clinical Practices; Completed training on Good Clinical Practices and Clinical Trials Regulations organized by Cytospace. Dec 23rd 2013.

Dr M.Vanathi was Awarded “Gold Medal for excellence, 2013” by Ophthalmology by Intraocular Implant and Refractive Society of India and was Editor, Delhi Journal of Ophthalmology (official scientific journal of Delhi Ophthalmological Society)

Dr. Bhavna Chawla: Awarded Best paper award by AIOS Annual Conference for the paper “Clinicopathologic profile of orbital histiocytic lesions”, 2014.

Dr Parijat Chandra was Reviewer: Journal of Postgraduate Medicine (Indexed) (2004-); Indian Journal of Ophthalmology (Indexed) (2005-); Eye (Indexed) (2009-); Journal of Clinical Ophthalmology and Research (2012-); Indian Journal of Pediatrics (2014 – till date); Editorial Board Member; Delhi Journal of Ophthalmology (2013-till date); Judge, E-Poster Session – Annual conference of Delhi Ophthalmic Society (13-14 Apr 2013); Co-Convener Controversies in Vitreoretina: DME and ROP. Annual conference of Delhi Ophthalmic Society. (13-14 Apr 2013); Moderator, Free Papers–Retinal Cell Biology. Asia ARVO 2013 Conference. (28-31 Oct 2013); Moderator, Symposium on Retinopathy of Prematurity. Asia ARVO 2013 Conference. (28-31 Oct 2013); Co-Chairman. Retina Session. RPC Update. Delhi (9 March 2014); Organizing Secretary, National ROP Summit, supported by Queen

Elizabeth Diamond Jubilee Trust, UK. (4-5 Oct 2013); Member, National ROP Task Force. Under the National Program for Control of Blindness, MOHFW, GOI.

Dr Senjam Suraj Singh received merit award in poster competition at ASIA-ARVO 2003 which was held in Asoka Hotel New Delhi October 2013.

VISITING SCIENTISTS

1. Prof. Paul Sieving & Prof.Gyan “John” Prakash from National Eye Institute, USA visited on 26th October 2013
2. Mr.Mavco Ervin, NJ Medical School, Rutgers University visited on 30.10.2013
3. Prof.Clare Gillbert from International Centre for Eye Health, London visited on 22.03.2014 for meeting on Queens Elizabeth Diamond Jubilee Trust project for Diabetic retinopathy.
4. Ms. Caroline Harper CEO Sightsavers & Mr.R.N.Mohanty CEO Sightsavers India visited on 25.03.2014.

10.5 Jai Prakash Narayan Apex Trauma Centre

Chief

M. C. Misra

Additional Medical Superintendent

Sanjeev K. Bhoi

Additional Professors

Sanjeev K. Bhoi (Emergency Medicine)	Sanjeev Lalwani (Forensic Medicine)	Adarsh Kumar (Forensic Medicine)	Babita Gupta (Anaesthesiology)
Vivek Trikha (Orthopaedics)	Kamran Farooque (Orthopaedics)	Buddhadev Chowdhury (Orthopaedics)	Vijay Sharma (Orthopaedics)
S. Arulsevi (Laboratory Medicine)	Purva Mathur (Laboratory Medicine)	Atin Kumar (Radiodiagnosis)	Shivanand Gamangatti (Radiodiagnosis)
Sushma Sagar (Trauma Surgery)	Subodh Kumar (Trauma Surgery)	Maneesh Singhal (Trauma Surgery)	Amit Gupta (Trauma Surgery)
Deepak Agrawal (Neurosurgery)	Deepak Kr Gupta (Neurosurgery)	Sumit Sinha (Neurosurgery)	

Associate Professors

Chhavi Sawhney (Anaesthesiology)	Biplab Mishra (Trauma Surgery)
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Assistant Professors

Neeraj Parakh (Cardiology)	Shilpa Sharma (Pediatric Surgery)	Pankaj K Singh (Neurosurgery)	Ashish Bindra (Neuroanaesthesiology)
Gyaninder Pal Singh (Neuroanaesthesiology)	Niraj Kumar (Neuroanaesthesiology)	Garima Kachhawa (Obstetrics & Gynaecology)	Ashish Kumar Saini (Urology)
Kapil Dev Soni (Critical & Intensive Care)	Richa Aggarwal (Critical & Intensive Care)	Keshav Goyal (Critical & Intensive Care)	Navdeep Sokhal (Critical & Intensive Care)
Naveen Yadav (Anaesthesiology)			

HIGHLIGHTS

Jai Prakash Narayan Apex Trauma Centre, AIIMS continued to be leader in providing quality patient care services, research, teaching and training. All the faculty and staff members are working actively in providing quality care to the victims of trauma. A Total no of 59964 patients visited casualty in year 2013-2014. Among these 5408 patients were admitted. A total of 30616 patients attended follow up OPD. A total number of 5656 patients were operated upon.

Beside involvement in the undergraduate and postgraduate teaching at AIIMS, the faculty members are actively involved in providing short term and long term training to the medical and paramedical staff of various hospitals and agencies of the country. These are also given training on newer methodology for management of trauma patients including ATLS Protocols, BECC, AUTLS etc. To update the knowledge interactive seminars, CME's, Symposium, Conferences have been organized.

Over 130 research papers have been published in national and international journals. 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's related to patient care, addition of facility of dialysis, HDU, PAC clinic are the other highlights of functioning of JPNATC.

EDUCATION

Faculty members of JPNATC were regularly involved in teaching and training programmes organized for undergraduate students, postgraduate students, senior residents, nurses, paramedical staff, and OT technicians.

CMEs/Workshops/Symposia/National and International conferences Organized

1. Dr MC Misra, Convener, Combined Grand Round titled “Challenges in the Management of Maxillofacial Trauma” at AIIMS on 1st October 2013 at AIIMS.
2. Dr MC Misra, Convener, Combined Clinical Round entitled “All Is Not Well That Ends Well- Recurrent Leiomyosarcoma Following Myomectomy for Uterine Fibroid” at AIIMS on 1st October 2013 at AIIMS.
3. Dr MC Misra, Organizing Chairman, 3rd International Summit & Workshop on Cost – Effective and Meaningful Use of Technology In Emergency Healthcare (CEUTECH – 2013), 5 – 9 September 2013, organized by the Department of Information Technology and Emergency Department, JPNATC, AIIMS held at AIIMS.
4. Dr MC Misra, Organizing Chairman “Eighth AIIMS Surgical Week-Endosurg 2014 at AIIMS from 21st to 23rd March, 2014.
5. Dr MC Misra, Organizing Chairman, International Conference and Live Operative Workshop on Minimally Invasive Surgery “VII AIIMS SURGICAL WEEK, ENDOSURG 2013”, 15 – 17 March 2013 held at AIIMS, New Delhi. Live demonstration of operative procedures: a) Modified Radical Mastectomy, b) Breast conservation surgery, c) Sentinel lymphnode biopsy, d) Total thyroidectomy (2), e) Sub-Total Thyroidectomy, f) Parathyroidectomy, g) Laparoscopic adrenalectomy for Cushing’s adenoma and angiomyelolipoma, h) Laparoscopic TEP repairs (5, 3–Bilateral), i) Laparoscopic TAPP – 2, j) Laparoscopic Incisional Hernia repairs (4), k) Laparoscopic cholecystectomy, l) Laparoscopic cholecystectomy and CBD Exploration – 2, m) Laparoscopic cystogastrostomy, n) Laparoscopic cardiomyotomy for achalasia cardia, o) Laparoscopic assisted abdomino-perineal resection, p) Laparoscopic anterior resection, q) Robotic – assisted laparoscopic prostatectomy (Prof.P. N Dogra), r) Laparoscopic Nissen Fundoplication
6. Combined Clinical Round entitled “Uncontrolled Hypertension in a 12 year Girl Child: Role Minimally Invasive Surgery” at AIIMS on 12 March 2013 at AIIMS.
7. **Course Director for**, 14 courses in “Operative Laparoscopy- Basic and Advanced” , 2 courses in “Laparoscopic Suturing Skills”, 2 courses in “Laparoscopic Colorectal Surgery” , 6 courses in “Laparoscopic Hernia Surgery” (Dr MC Misra)
8. Update on MRI and DTI in mild traumatic brain injury, Annual Neurotrauma conference, 2013, 31st Aug-1st Sep 2013, JPNATC, AIIMS, New Delhi.
9. Interventional Radiology in Trauma. Current Trends and Perspectives in Interventional Radiology 16th Foundation day of ISVIR, 7th November 2013, AIIMS, New Delhi.
10. Angioembolisation in trauma Trauma 2013: International congress, CME cum live workshop and 6th annual conference of ISTAC, 7-10 November 2013, AIIMS, New Delhi.
11. Lung Scan AIIMS ultrasound guided regional anaesthesia workshop, 18th January 2014, JPNATC, AIIMS, New Delhi.
12. First Forensic Nursing Course, March 2014, AIIMS, New Delhi.
13. AIIMS Cadaver Arthroplasty Course, in collaboration with Department of Orthopedics, March 2014, AIIMS, New Delhi.
14. Facilitated Cadaveric Temporal Bone Dissection Workshop, 17-19 January 2014, AIIMS, New Delhi.
15. TRAUMA-2013, 6-8 Nov 2013, JPNATC, AIIMS, New Delhi.
16. International conference on Cost Effective use of Technology in Emergency Healthcare, September 4-7, 2014, AIIMS, New Delhi
17. AIIMS live workshop for surgery for spasticity and pain, JPNATC, AIIMS, March 20-21, 2014
18. Management of Complex Spinal Trauma-4th Live Operative Workshop & Symposium, JPNATC, AIIMS, May 10-12, 2014
19. AIIMS TLS course and held courses in various parts of India during 2013-2014
20. AIIMS BECC course and held in various parts of India during 2013-2014 in partnership with NHRM (national rural health mission)

21. AIIMS-KISS (Keep it Simple Sonography) for Neurosurgeons workshop conducted as preconference workshop of NSI-2013, Mumbai, 10th December 2013
22. AIIMS-KISS (Keep it Simple Sonography) for Neurosurgeons workshop conducted as preconference workshop of NSSI-2014, Rishikesh, 28th Feb 2014
23. PDCP (Personality development & Communication & Presentation) Workshop conducted 6 times during 2013-2014 at JPNATC, AIIMS
24. AIIMS-REAP (Research Ethics & Publication) workshop conducted 4 times in 2013-2014 at JPNATC, AIIMS
25. Cadaver training workshop on brachial plexus surgery at 2nd Annual meeting of Neurological surgeons society of India form 1-3rd March, 2013, Jaipur.
26. Cadaver training workshop on brachial plexus surgery SMS Hospital Jaipur, NSSI Instructional course for postgraduates, 27-28th July 2013
27. Cadaver training workshop on brachial plexus surgery AIIMS Bhubaneswar for Brachial Plexus cadaveric workshop on 11th August 2013
28. Cadaver training workshop on brachial plexus surgery at KEM Hospital Mumbai in Annual conference of Association of plastic surgeons of India on 23rd November 2013.

Lectures delivered

Atin Kumar: 12	Shivanand G: 10	Babita Gupta: 10	Keshav Goyal: 8
Purva Mathur: 4	Gyaninder Singh: 6	Kapil Dev Soni: 25	Sumit Sinha: 18
Niraj Kumar: 3	Vivek Trikha: 22	Biplab Mishra: 8	Sushma Sagar: 12
Deepak Agarwal: 14	S. Arulselvi: 2	Sanjeev Lalwani: 16	Adarsh Kumar: 9
Richa Agarwal: 4	Ashish Bindra: 12	Navdeep Sokhal: 2	Naveen Yadav: 3

Oral papers/posters presented:

Anaesthesiology: 6	Critical and Intensive Care: 11	Forensic Medicine: 18
Laboratory Medicine: 30	Neuroanaesthesiology: 6	Neurosurgery: 4
Orthopaedics: 3	Radiodiagnosis: 18	Trauma Surgery: 24

RESEARCH

Funded projects

Ongoing

1. A prospective randomized controlled trial of laparoscopic vs endoscopic drainage of pseudocyst of pancreas. Chief Investigator Dr Virinder Kumar Bansal, Co-investigators Dr MC Misra, Dr Pramod Garg, Dr Atin Kumar. Indian Council of Medical Research grant of Rs 15, 00,000/= from January 2012 onwards.
2. Development and Implementation of an Automated Electronic Surveillance System for Hospital Acquired Infections at a Tertiary Care Hospital of India. Purva Mathur, ICMR, 2011–15, Rs. 15,26,906.
3. Molecular and Epidemiological study of Beta-Lactamase producing Gram Negative Nosocomial Pathogens in India. Purva Mathur, ICMR, 3 years, 2012–15, Rs. 35,11,343.
4. Assessment of post-trauma cytokine producing potential of monocytes for early diagnosis of organ dysfunction and sepsis. Purva Mathur, DBT, 2012–15, Rs. 36,96,000.
5. Molecular Epidemiology of Carbapenemases at a level 1 Trauma Center of India. Purva Mathur, DST, 2013–16, Rs. 23,58,000.
6. Identification of circulating procoagulant markers in traumatic brain injury patients and their involvement in development of Early Trauma Induced Acute Coagulopathy (ETIC). S. Arulselvi, ICMR, 2014–16, Rs. 22,53,916.
7. Monitoring cognition of healthcare workers in emergency and intensive care setting and its relation to medical errors. Deepak Agarwal, DST, Rs. 59,86,400
8. Automated assessment of hand hygiene compliance in healthcare settings using Kinect Camera. Deepak Agarwal, DBT, Rs. 24,00,000
9. Study of Quantitative Determination of Aluminium and Zinc levels as a tool in fatal phosphide poisoning. Adarsh Kumar, AIIMS, 2013–15, Rs. 2,67,000.
10. Matrix Metalloproteinase (MMPS) (MMPS) as biomarkers for fusion following spinal instrumentation, Deepak Agarwal, AOSPINE, 5500 CHF.

11. Determination of the reference range for the elevated PT/INR with normal coagulation factor level and its association with plasma transfusion therapy in head injury patients. Deepak Agarwal, ICMR, Rs. 20,65,594
12. Economic and Social burden of Managing Traumatic brain injuries (TBI) in adult aged 18-50 years in India. Deepak Agarwal, ICMR, Rs. 33,35,624.
13. Comparative Analysis of Outcome Following Severe Traumatic Brain in Two Major Neurotrauma Centers in India. Deepak Agarwal, ICMR, Rs. 54,26,736.
14. Early versus Delayed Decompression for Traumatic high Cervical Spinal Cord Injury in Acute Spinal Cord Injury Study. Deepak Agarwal, DST, Rs. 24,52,800.
15. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laparotomy in the trauma patients: A feasibility and pilot study. Kapil Dev Soni, AIIMS, 2014, Rs 5 lakhs.
16. To study the cerebroprotective effects of Dexmedetomidine in patients undergoing epilepsy surgery - A biomarker guided study. Ashish Bindra, AIIMS, 2013, Rs 3 lakhs.
17. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit: a preliminary randomised controlled trial. Richa Aggarwal, AIIMS, 2013–15, Rs. 83,000.
18. Evaluation of Plasma and Urine Neutrophil Gelatinase-associated Lipocalin (NGAL) as an early diagnostic marker of Acute Kidney Injury (AKI) in trauma patients in surgical intensive care unit. Babita Gupta, ICMR, Rs 18 lakhs.
19. A study of the role of lymphangiogenesis in breast cancer. Biplab Mishra, AIIMS Rs. 5 lakhs
20. Design and development of clinical prototype electronic spirometer. Biplab Mishra, DST.
21. Temporal Expression of growth factor TGF- B1 and VEGF after intramedullary nailing of the femoral shaft fractures. Vivek Trikha, Intramural project, 2012-14, Rs. 10 lakhs.

Completed

1. 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. Chief Investigator Dr Virinder Kumar Bansal, Co-investigators- Dr Sanjay Aggarwal, Dr MC Misra, Dr Rajesh Sagar, Dr T Velanpandian. Institute Research Grant Rs 2,50,000/= from January 2013- March 2014. In collaboration with Department of Nephrology, Psychiatry, Pharmacology
2. Molecular and epidemiological study of Streptococcus pyogenes at a tertiary care hospital of north India, Purva Mathur, Indian Council of Medical Research, 3 years, 2009–12, Rs.17,06,949.
3. Efficacy of a short course of prophylactic antibiotic treatment for prevention of post- operative infections in open reduction and internal fixation of closed fractures. Purva Mathur, Indian Council of Medical Research, 2 years, 2009–11, Rs.7,92,111.
4. 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, 3 years, Rs 6,32,796.
5. Study of coagulation and inflammatory changes in patients with post-traumatic fracture shaft femur undergoing intramedullary nailing. S. Arulselvi, AIIMS, 2012-14, Rs. 9,25,000.
6. Thromboelastometry (TEG): Utility and Cost-effectiveness in diagnosing of infection in Neurosurgery Intensive care unit (ICU) as compared to established biomarkers. Deepak Agarwal, AIIMS, Rs. 10,00,000.
7. Acute thalamic involvement in severe head injury-An autopsy study with histopathological correlation. Deepak Agarwal, AIIMS, Rs. 1,00,000.
8. A multicentric efficacy and safety study of Fibroheal® (Centella Asiatica herbal wound healing sheet) in split-thickness skin graft donor site treatment and partial thickness wounds caused by trauma/burns. Sushma Sagar, DST, 2013-2014, Rs. 1 lakh.

Departmental projects

Ongoing

Anaesthesia

1. Diaphragmatic paralysis in USG interscalene block –medial vs. lateral in plane approach.

2. Comparison of efficacy and safety of thoracic epidural analgesia with bupivacaine and opioid in two different concentrations in thoracic trauma.

Critical & Intensive Care

1. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laparotomy: Feasibility and pilot study.
2. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial.
3. Intraoperative use of dexmedetomidine in large vascular Meningiomas.
4. Cardiovascular complications after traumatic spinal cord injury.
5. Effects of dexmedetomidine for ICU sedation in head injury patients.
6. Does real time ultrasound confer any benefit during bronchoscopy guided tracheostomy; a preliminary randomised controlled trial.
7. Electrolyte abnormalities in patients with head injury during ICU stay: a prospective observational study.
8. Use of Dexmedetomidine in Head Injury.
9. Evaluation of Non neurological complications in patients of severe head injury.

Forensic medicine

1. Study of microbiological and histopathological changes in organs among trauma patients dying of septicemia.
2. Myocarditis Prevalence in autopsy subject at AIIMS.

Laboratory medicine

1. Establishing reference ranges and utility for newer Hematology and Coagulation parameters in QC for blood products.
2. Study of traumatic brain injury induced secondary gastrointestinal changes.
3. Enumeration of Hematopoietic Progenitor Cells at the time of admission in trauma patients and study of its correlation with outcome – A Retrospective Study.

Neuroanaesthesiology

1. An evaluation of diaphragmatic movement by M-mode sonography as a predictor of successful extubation during routine surgical procedures.
2. Electrolyte abnormality in patient with severe head injury.
3. To study the risk factors and causes of extubation failure in head injury patients.
4. Non-Neurological Complications In Traumatic Neurosurgical Patients In Neuro ICU: A Prospective Observational Study.
5. Anaesthetic management of paediatric patients with traumatic brain injury in a tertiary level trauma centre – A retrospective study.
6. Prognostic value of serially estimated pro-calcitonin in traumatic patients with and without head injury.
7. Predictors of outcome in patients of chest trauma suffering from COPD.

Neurosurgery

1. Plasma- Derived miRNA As Potential Biomarkers for Cognitive Deficits in Mild Traumatic Brain Injury

Radiodiagnosis

1. Magnetic Resonance Imaging evaluation of adult traumatic brachial plexus injury.
2. Dynamic MRI in evaluating upper airway in Obstructive Sleep Apnoea Syndrome.
3. Role of perfusion CT in evaluation of non-small cell lung carcinoma in patients undergoing chemotherapy.
4. MR evaluation of brachial plexus injuries
5. Vascular mapping in arteriovenous fistula creation in CRF Patients
6. Role of MRI in the diagnosis and follow up of NAFLD (Non-Alcoholic Fatty liver Disease)
7. Role of CT cisternography and MR cisternography in patients with traumatic CSF rhinorrhoea

Trauma surgery

1. Study to evaluate the effect of training program involving animal models/tissues on operative room performance of general surgery residents.
2. Retrospective and Prospective Evaluation of Magnitude, severity and Outcome of Complicated Soft Tissue Injury In a Level 1 Trauma Centre .
3. 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.
4. Comparison of chronic groin pain and quality of life after laparoscopic inguinal hernia repair- TEP vs TAPP'. In collaboration with Department of Anaesthesia and Psychiatry.
5. Retrospective and Prospective analysis of magnitude, severity and outcome of hepato-biliary and pancreatic trauma at a Level I trauma center.
6. A Prospective Randomized Controlled Trial of Laparoscopic vs Endoscopic Drainage of Pseudocyst of Pancreas (Radiology and Gastroenterology).
7. Retrospective and Prospective analysis of magnitude, severity and outcome of chest trauma at a Level I trauma center.
8. 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 (with Department of Community Medicine, Radiology and Gastroenterology).
9. Clinical types, hormonal profile and surgical outcome in patients with Gynaecomastia.
10. Retrospective and prospective analysis of magnitude and severity and outcome of pelvic fracture at a level 1 trauma center
11. To study the magnitude, severity and outcomes of peripheral vascular injuries at Apex Trauma Center.
12. Sexual and urinary complication following rectal cancer surgery.
13. Multidetector CT scan evaluation of retroperitoneal solid organ injury with limited MRI correlation.

Completed

Anaesthesia

1. Perioperative outcomes of Pelvi-acetabular fracture surgeries in the Apex Trauma Centre of a developing country.
2. Sonographic assessment of predictors of depth of corner pocket for ultrasound guided supraclavicular brachial plexus block: A Volunteer based cross sectional observational study.
3. Awareness of the ultrasound guided regional anesthesia in residents in developing country -A questionnaire based study.

Critical & Intensive Care

1. Evaluation of Non neurological complications in patients of severe head injury.

Forensic Medicine

1. Mortality Profile of patients with Pelvic Injuries at level 1 trauma care centre in India.

Laboratory Medicine

1. Evaluation of serum procalcitonin levels for diagnosis of sepsis in trauma patients admitted to intensive care units.
2. Evaluation of peripheral blood Polymerase chain reaction for diagnosis and prognosis of visceral leishmaniasis.
3. Establishing a normal reference range for Thromboelastography in North Indian healthy volunteers.
4. Evaluation of the utility of thromboelastography (TEG) among trauma patients.
5. Evaluation of laboratory markers to assess post platelet transfusion response in thrombocytopenic traumatic brain injury patients.

Neurosurgery

1. Serum IL-6 As Potential Biomarkers for Intracranial Pressure elevation in isolated head injury patients

Radiodiagnosis

1. Role of MDCT in Evaluation of Traumatic Liver Injuries
2. Evaluation of neck masses using diffusion weighted MR imaging and ultrasound elastography.
3. MDCT evaluation of retroperitoneal solid organ injuries with limited MR correlation
4. Pre-operative embolisation in bone tumors
5. MDCT evaluation of hepatic trauma
6. MR evaluation of Peripheral Neuropathies of upper extremity
7. CT perfusion in Pancreatic pathologies.

Trauma surgery

1. To study the role of thromboelastography in predicting mortality in trauma patients and in guiding transfusion of blood components.
2. To study the safety and efficacy of low-cost Centella Asiatica (fibroheal) herbal wound healing sheet in split-thickness skin graft donor site treatment and partial thickness wounds caused by trauma / burns. Intramural project submitted for approval.
3. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit: a preliminary, randomized controlled trial.
4. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laparotomy in trauma patients A feasibility and pilot study.
5. Relevance of multi-drug resistant pathogens in a trauma care ICU.
6. Prospective randomised controlled trial of early versus late tracheostomy in critically ill trauma patients
7. 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
8. Emergency General Surgical Admissions: Prospective Institutional experience in Non- Traumatic Surgical Acute Abdomen (NTSAA)
9. Long term clinical outcome of achalasia cardia in patients undergoing heller's cardiomyotomy with angle of His accentuation versus heller's cardiomyotomy with Dor's fundoplication.
10. Evaluation of awareness and cosmetic satisfaction following breast oncoplasty among breast cancer patients.
11. Quality of life and arm morbidity following SLNB/ALND along with WLE/mastectomy.
12. Surgical audit of breast cancer patients.
13. Prevalence and clinical significance of contralateral inguinal hernia during unilateral hernia repair.

Collaborative projects

Ongoing

Forensic Medicine

1. DBT- Collaborative Indo-German Program for Bilateral Workshops, Seminars and Tele-education in Training Microsurgical and Endoscopic Techniques in Neurosurgery (PI-Dr Ashish Suri) Rs. 74 Lakhs (2008-2012) (Department of Neurosurgery)
2. ICMR- IIT Delhi - Evaluation of development of neurosurgery skills by hands - on skills training and interactive virtual training modules (web based, tele-education and real time simulation). PI-Dr Ashish Suri ICMR Indian Council of Medical Research, Ministry of Health, India 143 Lacs (Department of Neurosurgery)
3. Department of Neurosurgery Expansion of DST + DBT Sponsored Neurosurgery Skills Training Facility and Development of Stereoscopic (3 Dimensional - 3D) Virtual Training Modules for Neurosurgery Skills Training PI- Dr Ashish Suri. Department of Health and Research, Ministry of Health , Govt of India 148 Lacs. (Department of Neurosurgery)
4. Establishment of cadaver based surgical skills training facility (PI Dr Sumit Sinha) (5 Crores) (Department of Neurosurgery)
5. Abdomen / Thorax model building / validation. With IIT Delhi (Orthopaedics and IIT Delhi)
6. Development and validation of finite element model (FEA) of Cranio-vertebral Junction: A biomechanical study in Indian Population. (PhD Thesis) (Orthopaedics and IIT Delhi)

7. Pathological Evaluation of dilated cardiomyopathy with special reference to histological and morphometric analysis of fibrosis, capillary density, arteriolar density and pattern of collagen IV distribution- A study on endomyocardial biopsies and explanted native hearts. (Dr Ruma Ray)

Laboratory Medicine

1. A novel loop mediated isothermal amplification assay (LAMP) for rapid detection and differentiation of *M. tuberculosis*, *M. avium* complex and NTM from clinical samples
2. Molecular detection of multidrug resistance in *M. tuberculosis* from slides and filter paper in middle and low income countries
3. Cloning, Expression, Purification and evaluation of a recombinant antigen for diagnosis, prognosis and prediction of MDR/XDR tuberculosis
4. Animal studies of chimeric DNA vaccine for prophylaxis of Leishmaniasis and tuberculosis
5. Alu PCR for detection and differentiation of VL & PKDL strains of Leishmania
6. To develop a single step PCR (RT-PCR) for the detection of A-G hepatitis viral infections in patients blood
7. Comparative whole genome sequence analysis of Miltefosine resistant and sensitive strains of *L. donovani*
8. Proposal for the establishment of a cadaveric dissection facility at the Jai Prakash Narain Apex Trauma Center, All India Institute of Medical Sciences, New Delhi, India.
9. Role of Bone marrow mononuclear cells and Renal Stem cells in renal preservation in Obstructive Renopathy – An Experimental study in mice.
10. Identification of circulating procoagulant markers in traumatic brain injury patients and their involvement in development of Early Trauma Induced Acute Coagulopathy (ETIC) (Hematology, AIIMS and Neurosurgery, JPNATC, AIIMS)
11. Histopathological evaluation of Traumatic brain injury (TBI) induced gastro intestinal injury. (Forensic department and Neurosurgery, JPNATC, AIIMS)
12. Establishing reference ranges and utility for newer Hematology and Coagulation parameters in QC for blood products (Blood Bank and Hematology, AIIMS)

Neuroanaesthesiaology

1. European Society of Intensive Care Medicine trial of therapeutic hypothermia (32-35°C) after traumatic brain injury (EUROTHERM 3235). Ongoing Multicentric Trial funded by the National Institute of Health Research's Health Technology Assessment Programme. Trial Sponsor: University of Edinburgh and NHS Lothian (UK).
2. Role of ischemia biomarkers and hyperglycemia for predicting outcome in severe traumatic brain injury: a microdialysis study. (AIIMS, Intramural funding)
3. Coagulation abnormalities during excision of large intracranial tumors- A Prospective Study (AIIMS, Intramural funding)

Radiodiagnosis

1. Retrospective and prospective study to evaluate the role of Laparoscopy in patients with abdominal trauma at level I trauma center
2. A prospective study comparing outcomes and quality of life after laparoscopic donor nephrectomy versus open donor nephrectomy
3. Comparison of quality of life after single stage vs two stage management of patients with concomitant gallstones and CBD stones : a randomized controlled trial
4. A study of ultrasonogram skeletal muscle in the assessment of hypotonic children
5. Mutational spectrum of tuberous sclerosis in Indian patients
6. To study the mutation spectrum, and its correlation with histopathology, neuroimaging and biochemical metabolites in Indian patients with mitochondrial disorders
7. Comparison of virtual and conventional autopsy in phenotypic characterization in stillbirths.
8. Randomized control trial of Transarterial chemoembolisation (TACE) versus TACE plus oral chemotherapy in the treatment of Unresectable Hepatocellular carcinoma (Gastroenterology)

9. Randomized control trial of Transarterial chemotherapy (TAC) versus Oral chemotherapy in the treatment of Unresectable Hepatocellular carcinoma. (Gastroenterology)
10. Randomized Control Trial of N-Acetylcysteine in Prevention of Renal Failure in Hepatocellular Carcinoma patients undergoing Transarterial Chemotherapy and Transarterial Chemoembolisation. (Gastroenterology)
11. Randomized control trial of Oral chemotherapy versus supportive therapy in the treatment of Unresectable Hepatocellular carcinoma. (Gastroenterology)
12. Role of contrast enhanced ultrasound in the diagnosis and assessment of the therapeutic response in patients of hepatocellular carcinoma. (Gastroenterology)
13. Assessment of response of hepatocellular carcinoma to transarterial chemoembolisation by using magnetic resonance imaging. (Gastroenterology)
14. 3D CT scan evaluation of the anterior cruciate ligament footprint on femur and the position of femoral tunnel of single bundle anatomical ACL graft.(orthopedics)
15. Arthroscopy of hip in children with Leg-calve Perthes disease and its correlation with imaging (orthopedics)

Trauma surgery

1. A prospective, randomized, placebo-controlled, open labeled comparison of two analgesic techniques -Intrathecal morphine (ITM) and Transverse Abdominis Plane (TAP) block, for live laparoscopic donor nephrectomy. Sathianarayanan S, JR Anaesthesia and Prof. Rajeshwari S, Department of Anaesthesiology and Intensive care.
2. Does perioperative administration of 5% dextrose effective in reducing the incidence of PONV in patients undergoing laparoscopic cholecystectomy: A prospective, double blind, randomized controlled study.
3. To Study The Outcome of AV Fistula Creation In CKD Patients In A Tertiary Care Hospital In North India: An Observational Prospective Cohort Study (Nephrology).
4. A Comparative Study of Laparoscopic Donor Nephrectomy vs Open Donor Nephrectomy in live related renal transplantation.
5. RCT of Quality of life outcomes after single stage vs two stage treatment of patients with concomitant gall stones and CBD stones
6. Retrospective and prospective study to evaluate the role of Laparoscopy in patients with abdominal trauma at level I trauma center JUNE 2015
7. To study the quality of life in patients undergoing splenectomy for hematologic disorders .
8. To study the complications of splenectomy in patients undergoing early splenic artery ligation .
9. Evaluation of family members in patients with endocrine disorders - Surya - June 2016.
10. A study of impact of renal transplantation on the quality of life of donor and recipient in spousal renal transplant group.
11. A Prospective Randomized Comparison of Testicular Function, Sexual Function and QOL following Laparoscopic TEP and TAPP Inguinal hernia repair.
12. Clinical Relevance of Immune Associated Molecules in Live Related Donor Renal Transplantation (Transplant Immunology).
13. Sericin based value added Pressure garments. (In collaboration with IIT Delhi)

Completed

Forensic Medicine

1. Study of Death to Preservation time and its impact on utilization of donor corneas.
2. Morphometric changes in cadaveric heart valves (Anatomy).
3. A cadaveric micro-anatomic study of intra-fascicular topography of brachial plexus.

Laboratory Medicine

1. Establishing a normal reference range for Thromboelastography in North Indian healthy volunteers. (Hematology and Biostatistics)
2. Evaluation of utility of thromboelastography (TEG) among trauma patients. (Hematology and Biostatistics)

Radiodiagnosis

1. Comparison of single stage versus two stage treatment of patients with common bile duct stones and gall stones – a randomized controlled study.
2. The effect of CPAP on endothelial dysfunction in moderate to severe obstructive sleep apnoea.
3. MDCT in Acetabular Fractures (Orthopedics).
4. CT morphometry of lumbar spine (Anatomy).

PUBLICATIONS

Journals: 132 Abstracts: 18 Chapters in books: 9

PATIENT CARE

Laboratory Medicine

Tests done

Haematology

Haemoglobin:	41983	TLC:	41983
Differential count:	26652	HCT:	41983
RBC:	41983	MCH:	41983
MCHC:	41983	MCV:	41983
RDW:	41983	Platelet Count:	41983
Retic Count:	10052	ESR:	6531
RBC Morphology:	3496	Blood parasite:	4535
Total	4,29,113		

Coagulation

PT:	27266	APTT:	27266
TT:	360	Fibrinogen:	627
D-dimer:	506	Thromboelastography:	1859
Total	57,884		

Clinical pathology

Urine routine and microscopy:	4211	Urine Myoglobin:	1538
CSF microscopy:	2431	Fat globules:	280
Total	8460		

Total tests conducted in haematology section 4,95,457

Biochemistry

Sugar:	9743	Urea:	38457
Creatinine:	38588	Calcium:	23174
Phosphorous:	23104	Uric Acid:	20797
Sodium:	39129	Potassium:	40129
TBIL:	23154	DBIL:	23154
Total protein:	21676	Albumin:	21676
SGOT:	19869	SGPT:	19869
ALP:	18633	Cholesterol:	5336
Amylase:	4855	HDL:	1239
LDL:	1239	TG:	1239
VLDL:	1239	CK:	1179
Mg:	793	Lipase:	156
CK-MB:	90		
CSF Sugar:	1991	CSF Protein:	1991
Peritoneal fluid sugar:	158	Peritoneal fluid protein:	153

Urine sugar:	153	Urine protein:	153
Urinary Sodium:	111	Urinary Potassium:	81
Urinary calcium:	10	Urinary creatinine:	128
Urinary uric acid:	10		

ABG

PO2:	9450	PCO2:	9450
PH:	9450	H+:	9450
Potassium (K):	9450	Sodium (Na):	9450
Calcium (Ca):	9450	Chloride:	9450

Total tests conducted in biochemistry section **8,83,278**

Microbiology

Culture:	14983	Bacterial identification:	3778
Antibodies sensitivity:	3778	HIV serology:	783
Hepatitis B serology:	783	Hepatitis C serology:	390
Hospital infection surveillance culture:	6047	PCT:	413

Total tests conducted in microbiology section **30955**

Histopathology

Specimens processed:	667	No. of blocks:	1150
Total No. of slides:	1479		

Radiodiagnosis

Investigation	Number
1. Plain X ray emergency	68878
2. Portable X ray	22794
2. OPD + ward X ray	11042
3. CT	17551
4. Ultrasound including Doppler and guided interventions	19897
5. Digital subtraction angiography including interventional procedures	105
6. MRI	1057
7. Fluoroscopy guided procedures	240
Total	141564

Forensic medicine

Medicolegal postmortems done: 855

Casualty services: The department provided round the clock cover to the casualty for complicated medicolegal cases.

Court attendance by the faculty/residents of the department as expert witness

Clinical Forensic Medicine: Involved in cases referred by honourable courts, CBI and other investigating agencies.

Medical Toxicology: In the process of developing toxicology laboratory facilities.

Complete statistical data

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	59964	Average per day	164
Medicolegal cases	28894	Non-medicolegal cases	31070

Males	45032	Females	14932
Total admissions	5408	Average admissions per day	15
Average length of stay	11 days		
III Total follow-up OPD cases	30616		
New	12182	Males	24053
<i>Specialty-wise break-up</i>			
Orthopaedics	17354	Neurosurgery	6276
IV Total admissions	5408		
<i>Specialty-wise break-up</i>			
Orthopaedics	1563	Neurosurgery	1966
Emergency Medicine	12	Anaesthesia	3
V Total operations performed	5656	Major	5336
<i>Specialty-wise break-up</i>			
Orthopaedics	2070	Neurosurgery	1398
VI Total deaths	885	Brought Dead Cases	261
Deaths under 48 hours	335	Gross death rate	12%
Bed occupancy rate	83%	Average length of stay	11 days
Bed turnover rate	29 patients/bed		

Blood Bank

Faculty in-charge

Dr S. Arulselvi

Senior Medical officers

Dr Vedanand Arya

Dr Sulekha Karjee

Blood donation data

Month	Donors screened	Donors bled	Replacement donors			Voluntary donors			Indoor voluntary donor	Out door camp Voluntary donor
			Women	Men	Total	Women	Men	Total		
Apr 13	784	651	5	550	555	7	88	95	95	nil
May 13	971	813	3	558	561	37	215	252	103	149 (2)
June 13	801	701	3	573	576	2	123	125	101	24 (1)
July 13	816	710	0	620	620	3	85	88	88	nil
Aug 13	1006	869	5	686	691	4	174	178	116	62
Sep 13	932	836	7	667	674	4	158	162	119	43
Oct 13	1052	861	2	616	618	23	220	243	91	152 (2)
Nov 13	881	769	2	668	670	1	98	99	99	nil
Dec 13	837	708	1	520	521	9	178	187	132	55
Jan 14	952	790	4	660	664	9	117	126	97	29
Feb 14	982	795	1	616	617	23	155	178	81	97
Mar 14	872	747	7	615	622	0	125	125	125	nil
Total	10886	9250	40	7349	7389	122	1736	1858	1247	611

No. of voluntary blood donation camps **10**

Component Separation Laboratory Data

Month	Packed RBC prepared	Fresh frozen plasma prepared	Platelets prepared	Cryoprecipitate prepared	Quality control of blood and components
Apr 13	651	597	569	41	1% of all units
May 13	813	705	600	119	
June 13	701	612	565	67	
July 13	710	601	566	72	
Aug 13	869	694	589	120	
Sep 13	836	703	636	110	
Oct 13	861	835	744	nil	
Nov 13	769	631	600	129	
Dec 13	708	574	474	83	
Jan 14	790	729	587	63	
Feb 14	795	666	524	139	
Mar 14	747	635	596	59	
Total	9250	7982	7050	1002	

Infectious marker laboratory and donor counseling data

Month	HIV		HBsAg		HCV		VDRL		MP	
	Done	Reactive	Done	Reactive	Done	Reactive	Done	Reactive	Done	Reactive
April 13	674	nil	676	17	664	2	676	3	636	nil
May 13	862	1	865	14	866	5	896	3	841	nil
June 13	717	1	717	11	714	2	738	1	699	nil
July 13	738	1	736	13	750	9	758	2	712	1
Aug 13	895	2	899	22	897	5	918	2	875	nil
Sep 13	835	2	839	17	835	7	858	2	817	1
Oct 13	913	4	927	22	912	5	943	4	887	1
Nov 13	786	2	790	14	785	7	814	1	772	nil
Dec 13	735	1	790	15	738	8	751	1	715	nil
Jan 14	825	0	852	9	821	3	840	1	798	nil
Feb 14	773	1	795	16	776	5	798	2	754	nil
March 14	786	2	811	11	789	5	808	1	762	nil
Total	9539	17	9697	181	9547	63	9798	23	9268	3

Grouping laboratory data

Month	Donor grouping	Patient grouping	Total
April 13	651	872	1523
May 13	813	895	1708
June 13	701	842	1543
July 13	710	879	1695
Aug 13	869	1023	2029
Sep 13	836	1079	2011
Oct 13	861	1118	2170
Nov 13	769	983	1864

Dec 13	708	902	1739
Jan 14	790	897	1687
Feb 14	795	868	1663
March 14	747	913	1660
Total	9250	11271	20521

Emergency Issue Counter Data

Month	No. of cross-match done	No. of packed RBC issued	FFP Issued	PRC Issued	Cryo Issued
Apr 13	2048	715	399	493	59
May 13	2184	749	455	599	112
Jun 13	2013	629	401	417	71
Jul 13	2262	696	403	440	96
Aug 13	2663	818	523	451	92
Sep 13	2607	855	480	544	52
Oct 13	2562	868	668	657	83
Nov 13	2330	819	593	549	197
Dec 13	2209	656	401	320	24
Jan 14	2286	742	541	459	114
Feb 14	2184	681	410	300	69
Mar 14	2253	771	516	489	140
Total	27601	8999	5790	5718	1109

Blood and Components issued to other hospital blood banks

(MAIN AIIMS, CN Centre, GB Pant, LNH, ESI, Dr Hedgewar)

Month	Blood		FFP		Platelet	
	Issued	Recieved	Issued	Recieved	Issued	Recieved
April 13	19	40+ (2 SDP)	nil	nil	nil	53
May 13	41	nil	nil	nil	nil	60
June 13	4	Nil	nil	nil	nil	30
July 13	9	1	35	nil	8	10
Aug 13	19	18	100	nil	nil	68
Sep 13	9	13	100	nil	38	4
Oct 13	10	25	20	nil	62	nil
Nov 13	13	51	nil	nil	10	nil
Dec 13	12	nil	100	nil	nil	nil
Jan 14	54	nil	55	nil	4	nil
Feb 14	9	nil	110	nil	nil	nil
March 14	1	20	40	nil	nil	nil
Total	200	168	560	nil	122	225

Academic achievements of blood bank

Preparation of a 'Blood Bank Manual for use of clinicians' that contains all the information and instructions of how to use the services provided by the JPNATC blood bank in the best possible manner with special mention on

‘Maximum surgical blood ordering schedule (msbos) for orthopaedics, surgery and neurosurgery of trauma centre. This manual has been circulated to all the wards and departments in the centre.

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor M.C. Misra was awarded ‘GAURAV SHREE’ Award by Alumni Association of AGRA University (AAAU), 8 March 2014; ‘Shri Raghunath Rai Shroff Memorial Award’ for outstanding contribution in the field of Medicine instituted by Rajasthan Ratnakar (Regd.) for 2013; delivered ‘TJ Aggrawal Oration’, Management of Surgical Hypertension—Laparoscopic Management of Adrenal Diseases’, SURGICON 2013, Annual Conference of Delhi State Chapter, Association of Surgeons of India, 29 November 2013; delivered prestigious ‘Col. Sangham Lal Oration’ of the National Academy of Medical Sciences, New Delhi for the year 2011-12 on Trauma: An Epidemic of the 21st Century: Capacity building to improve trauma care in India: Changing trends in the management of blunt Abdominal Trauma, 13 October 2013, NAMSCON 2012, The Tamil Nadu Dr MGR Medical University, Chennai; Chief Guest to Flag off ‘Elderly Walkathon’ on 30 March 2014, CDER, AIIMS, organised by Department of Geriatric Medicine, AIIMS, New Delhi; Chief Guest during Inaugural Ceremony of ‘ELBOWCON 2014’, 29 March 2014, organised by Department of Orthopaedics, AIIMS, New Delhi; Chief Guest, 5th Graduation Day Convocation, MVJ Medical College & Research Hospital, Hoskote, Bangalore, 25 March 2014; Chief Guest, Awareness Seminar, World TB Day, 24 March 2014, organised by Department of Medicine, AIIMS; Chief Guest, Awareness Program, Building a Human Chain by School Children, World TB Day, 24 March 2014, organised by Division of Microbiology, Department of Laboratory Medicine, AIIMS, New Delhi; Guest of Honour, Seminar, World TB Day, 24 March 2014, organised by Department of Microbiology, AIIMS, New Delhi; Guest of Honour, Inaugural Function on Organ Donation & Cancer Awareness Program, Delhi Odiya Doctors Association (DODACON 2014), 23 March 2014; Inaugural Ceremony, 7 TESLA MRI for Animal Experiments, Department of NMR, AIIMS, 22 March 2014; Guest of Honour, Inaugural Function, ENDOSURG 2014, International Conference, Workshop and Live Surgery, organised by Department of Surgical Disciplines, AIIMS, 21 March 2014; Guest of Honour, AIIMS Live Workshop for Surgery for Spasticity and Pain, Department of Neurosurgery, AIIMS, 20 March 2014; Chief Guest, Workshop on Forensic Nursing Program, Department of Forensic Medicine, Trauma Centre, AIIMS, 20 March 2014; Inaugurated AIIMS–PGI–MAMC CME, Department of Surgical Disciplines, 20 March 2014; Inaugural Function, 4th Annual Conference of Indian Association of Brachytherapy, 14–16 March 2014, Department of Radiotherapy, AIIMS, 14 March 2014; Speaker, Concluding Session, Symposium on Health Professional Education for a New Century, 12 March 2014, National Board of Examinations and Public Health Foundation of India; Guest of Honour, Inaugural Function, CME, RPC UPDATE 2014, AIIMS, New Delhi, 9 March 2014.

Member, Group to Assess Internal Review, Department of Biochemical Engineering and Biotechnology (DBEB), Centre for Biomedical Engineering (CBME) & Kusuma School of Biological Sciences (KSBS), IIT Delhi, 7 March 2014; Demonstration of Virtual Teaching Modules, National Knowledge Network (NKN), CDAC, 8 March 2014, AIIMS; Cabinet Secretariat for Presentation of Information Technology Implementation at JPN Apex Trauma Centre, AIIMS for Consideration of Prime Minister’s Excellence Award, 8 March 2014; Concluding ceremony, 6th World Music Therapy Conference, AIIMS, New Delhi, 7 March 2014; Guest of Honour, International Women’s Day Celebrations, Department of Orthopaedics, AIIMS, 7 March 2014; Member, Expert Group, Approval Committee of Grant-in-Aid scheme, Department of Health Research, ICMR, 7 March 2014; Guest of Honour, Inaugural Function, 5th International Conference of Asia Pacific Paediatric Cardiology Society, Hotel Le Meridien, New Delhi, 6 March 2014; Talk on All India Radio FM Gold on program Country Wide, State of Healthcare in India and its future, 6 March 2014; Member, Group to present Four White Papers to President of India, Rashtrapati Bhawan, 4 March 2014; Chaired 4th Meeting of Expert Advisory Committee on IT Infrastructure for Inter Institute Networking & on Health Management Information System (HMIS) of Institutes of National Importance, New Delhi, 3 March 2014; Member, Senate during Healthcare Alliance, Apollo Group, 3 March 2014; Inaugural Function, Free Generic Pharmacy and Convergence Block, AIIMS by Minister of Health and Family Welfare and President AIIMS, 2 March 2014; Member, Expert Group, Governing Body of SGPGI, Lucknow to advise about Establishment of Apex Trauma Centre at SGPGIMS, Lucknow; International Guest Faculty, 1st International Conference of Surgery & Surgical Education (Surgery 2014), 22–23 February 2014, Department of Surgery, Monash University, Johor Bahru, Malaysia. Delivered talks on (i) Current Status of Laparoscopic Groin hernia Repair and (ii) Postgraduate Surgical Education and Training in India; Chief Guest, Inaugural Function, Live Operative Workshop and Demonstration of a new Surgical Technique for ‘Urge and Stress Incontinence in Women’, 16 February 2014, Department of Urology, Safdarjung Hospital, New Delhi; Chief Guest to Flag off Children suffering from Cancer, 13 International Cancer Day for Paediatric cancer on 15 February 2014, Organized by NGO CanKid, AIIMS, New Delhi; Speaker during

Graduation Ceremony of the First ATLS Provider Course at JIPMER, 11-13 February 2014 and Inaugural Function at the International Summit on Emergency Medicine & Trauma 2014 (ISEMT 2014); Addressed Interns during Orientation Program for Interns, CMET, 11 February 2014; Prof. Rajeswari's (Department of Biophysics) Book Release Ceremony, 11 February 2014; Invited by the Institute of Cytology and Preventive Oncology (ICPO), ICMR on World Cancer Day, 4th February 2014; Chief Guest, Inaugural Function, 14 Annual Conference Delhi Neurological Association (DNAICON 2014), 1 February 2014, AIIMS, New Delhi; Chief Guest, Inaugural Function of PULMOCRITICON 2014, 2nd International Conference on Pulmonary Medicine, Critical care and Sleep Disorders, 1 February 2014, Department of Pulmonary Medicine, Critical care and Sleep Disorders, AIIMS and American College of Chest Physicians, USA.

Welcome Address, Launch of Cohort Study, by Minister of Health and Sport, Netherlands and Minister of Science and Technology, Govt. of India in collaboration between AIIMS and Erasmus University, Netherlands, funded by DBT, 30 January 2014; Chief Guest, 1st Convocation of the Shree Gurugobind Singh Tricentenary (SGT) University, Gurgaon, Haryana, gave BDS degrees, Students of Dental College, 28 January 2014; Chair, Mini Symposium, Screening Mammography Organised by Breast Imaging Society of India and Department of Radiodiagnosis, AIIMS, 27 January 2014; Welcome Address, during Dr Harold Varmus's (Nobel Laureate) Visit, on the establishment of National Cancer Institute, AIIMS, New Delhi, 23 January 2014; Inaugural Address, during Training of Nurses in the Care of Elderly, National Program for Health Care of the Elderly, Department of Geriatric Medicine, Nursing-in-service Education Unit, AIIMS, New Delhi, 23 January 2014; Guest of Honour, Release of Souvenir and Address to Undergraduate Students and Faculty, Hamdard Institute of Medical Sciences and Research Centre, New Delhi; Member, Selection Committee, Executive Director, NHSRC, Ministry of Health, 21 January 2014; Speaker, 2nd Alumni Meet, Department of Radiodiagnosis, AIIMS, New Delhi, 21 January 2014; Meeting, Academic Council, Medical Council of India, New Delhi, 20 January 2014; Addressed Faculty Workshop, Research Methodology for a Group of Faculty, CMET, AIIMS, New Delhi, 20 January 2014; Guest of Honour, Inauguration, Workshop on Empowerment of Adolescents, Department of Psychiatry, AIIMS, New Delhi, 20 January 2014; Chairman, Round Table Meeting, organised jointly by Multi-Regional Trial Centre (MRTC), Harvard University, Apollo Hospital Research Centre and AIIMS, New Delhi on Clinical Research and Clinical trials in India, 20 January 2014; Inauguration of the Operation Theatre for Minor Surgical Procedures in Dermatology OPD, AIIMS, New Delhi, 18 January 2014; Chief Guest, Inaugural Ceremony, Workshop on Ultrasound Guided Nerve Block for Pain Relief, Department of Anaesthesia, Trauma Centre, AIIMS, New Delhi, 18 January 2014; Expert, Program 'Healthy India', Lok Sabha TV, 300th Episode of Healthy India, Challenges in Health Care in 2020, 17 January 2014; Chief Guest, Liver Transplant Felicitation Programme, Centre For Liver and Biliary Sciences, Indraprastha Apollo Hospital, New Delhi, 16 January 2014; Speaker, Inaugural Function, Indian First Aid Materials (IFAM) Expert Panel, 16 January 2014, Indian Red Cross Society, New Delhi;

Inaugurated Gamma Knife facility and MRI Machine, Departments of Neurosurgery and Neuro-radiology, Neurosciences Centre, AIIMS, New Delhi, 16 January 2014; Speaker, Seminar on Road Accidents in Delhi – Analysis & Solutions, 15 January 2014, India Habitat Centre, Delhi Traffic Police; Doordarshan News, Expert, Program titled 'Ek Mulaqat', 5 January 2014; Guest Speaker, VEGICON- 2014, 6th All India Doctors' Convention on Integrating Vegetarianism and Healthy Life Style, 5 January 2014, Talk on Cancer Gallbladder and Vegetarian Diet; Guest Lecture, Technical Expert, Doordarshan National, Swasth Bharat LIVE SHOW, TRAUMA CARE India, 2nd January 2014; Chief Guest, ICMR National Workshop For Advancement in Physiological Sciences (ICAPS), 22-23 December 2013, Department of Physiology, AIIMS, New Delhi, 22 December 2013; Chief Guest, Inaugural Function, AIIMS Arthroplasty Update-2013, Department of Orthopaedics, AIIMS, 22 December 2013; Chief Guest, Award Ceremony, Healthcare Excellence Awards-2013, Worldwide Achievers Healthcare Excellence Awards 2013, 19 December 2013, New Delhi; Speaker, Plenary Session, Trust with Patients– Bridging the Deficit, 18 December 2013, CII's 10th India Health Summit titled A transparent and Integrated Health System for the Next Decade, New Delhi; Speaker, 18 December 2013, NIHFWS, Conclave on Community and Family Medicine in Institutes of National Importance, Guest of Honour, Inaugural Function, 2nd International Conference of Physical Therapy, AIIMS, New Delhi, 14 December 2013; Chair Live Operative Workshop on Minimal Invasive Surgery, 14 December 2013, Dharamshila Hospital & Research Centre, Delhi; DRDO Oration, Awareness and Management of Trauma, Defence Science Forum (DSF), Delhi, 12 November 2013; Chief Guest, 4th National Conference of Society of Cardiac Anaesthesiology–Delhi and NCR Branch (SCACON 2013), 8 December 2013, AIIMS, New Delhi; Chief Guest, Stanford–India BioDesign, 7th Annual Indian Medtech Summit Organized, 6–7 December 2013, New Delhi; Faculty during MRCS OSCE preparatory course, Organized by Royal College of Surgeons, Edinburgh, 6–7 December

2013, New Delhi; Chief Guest, South Delhi Branch, Indian Medical Association, CME, 1 December 2013, New Delhi, Delivered Speech on Patient Safety, Litigation and Communication skills; Chief Guest, 4th Knights of the Blind Award Function, 1 December 2013 gave away awards and delivered award speech, Organized by Lions' Club Delhi – NCR; National Guest Faculty, International Symposium on Endocrine Anaesthesia, Talk on Laparoscopic Management of Pheochromocytoma, 1 December 2013, Department of Anaesthesia, AIIMS, New Delhi.

Chief Guest, Inaugural Function and delivered keynote address, Modern concepts in the Management of Trauma, CME, 30 November 2013, Department of Surgery, Government Medical College, Jammu; Chief Guest, Inaugural Ceremony, 38th Annual Conference, CME and Live Operative Workshop, UP Chapter Association of Surgeons of India, UPASICON 2013, 22-24 November 2013, Department of Surgery, Santosh Medical College and Hospital, Ghaziabad, UP; Guest of honour, Valedictory Function, 20 November 2013, National Symposium on Changing Environment & Lifestyle: Impact on Reproductive Health (NSCEL-2013), AIIMS, New Delhi, in association with Indian Society for the Study of Reproduction & Fertility, Department of Biophysics, AIIMS, New Delhi; National faculty, Chair Video Session, Preconference workshop, Indian Cancer Congress 2013, 20 November 2013, Laparoscopic GI Surgery; Flagged off Paracycling (From Kashmir to Kanyakumari) by an Amputee Aditya J Mehta, 17 November 2013; Witness the MOU Signing Function between The Alfred Health, NTRI, Victoria and DGHS, Ministry of Health & Family Welfare, Govt. of India, at the Australian Consulate in Mumbai, 15 November 2013; Convenor, Joint Meeting for Research Collaboration between AIIMS and University of Michigan, Ann Arbor, USA, 11–14 November 2013, AIIMS, New Delhi; Chief Guest, Inaugural Session, International Seminar, SAMBHAV 2013, International Event by Physically and Mentally Challenged Artists, 9 November 2013, New Delhi; Chief Guest, Inaugural Function of 6th Conference of the World Society for Endoscopic, Navigated and Minimal Invasive Spine Surgery, 8–10 November 2013, WENMISS 2013, New Delhi; Inaugural Function, Conference on “Heart and Stroke”, 8 November 2013, New Delhi, Departments of Cardiology and Neurology, AIIMS, New Delhi; Chief Guest and Invited National Guest Faculty, 6th National Conference Cum CME & Live Operative Workshop of Indian Hernia Society, 26 & 27 October 2013; Guest of Honour, Inaugural Ceremony, 3rd AIIMS Annual Spine Workshop, Department of Neurosurgery, AIIMS, New Delhi, 24–26 October 2013; DD National, Aaj Savere Program, 21 October 2013; Chief Guest, PINK OCTOBER Event, 20th October 2013, Cancer Patients' Aid Association (CPAA)–A Support Group for Breast Cancer Survivors/patients for creating Awareness about Early detection Breast Cancer; Lok Sabha TV for Chat Show Amne Samne, 19 October 2013; Invited by Dean (Student Affairs), IIT Delhi as Chief Guest during Cultural Evening, Rendevouz 2013, 19 October 2013; Guest of Honour, Inaugural Function, AIIMS Neuroanaesthesia Update 2013, 20 October 2013, Department of Neurianaesthesiology and Critical Care, Neurosciences Centre, AIIMS; Panelist during Panel Discussion ‘Health Leaders Speak: Future Vision for the Country’, 2nd International Conference on Emergency Medical Service Systems & Innovation and Entrepreneurship in Health Care, Department of Hospital Administration, AIIMS, New Delhi, 19 October 2013; Guest of Honour, Grand Mela, CRPF Wives' Welfare Association, New Delhi, 19 October 2013, Received a Donation Cheque for Rs. 100,000.00 for the Cancer Treatment Support; Chief Guest, Delhi Medical Association, CME on Treatment of Acute Myocardial Infarction, 18 October 2013, Delhi; Member, Institute Body, AIIMS, Rishikesh; National Faculty and Key Resource Person to speak on Planning and Organisation of a Trauma Centre, 7 October 2013, Trauma Update 2013, Department of Surgery, JLN Medical College, Aligarh, 7–9 October 2013; Faculty for Masterclass Video Presentation on Laparoscopic Inguinal Hernia for Postgraduate Students (DNB) at BL Kapur Hospital, 6 October 2013; Public Recognition in Appreciation for Support and Cooperation to the Volunteers of Cancer Sahyog in their Endeavour to help Cancer Patients, by Indian Cancer Society, 6 October 2013, New Delhi; Guest Faculty, Annual National Conference and Live Workshop of the Society of Endoscopic and Laparoscopic Surgeons of India (SELSI), SELSICON 2013, Srinagar, 19 – 21 September 2013; Panelist during a panel discussion on ‘Laparoscopic Groin Hernia Repair and Laparoscopic Common Bile Duct Exploration’, 21 September 2013; Talk on Tacker Vs Suture Fixation of mesh during the repair of Incisional/Ventral Hernia, Symposium on Laparoscopic ventral hernia Repair, 8 International Congress of Association of Minimal Access Surgeons of India, 22-25 August 2013, Indore.

Faculty Speaker, Hospital Advanced symposium on Trauma and Burns, ISCCM Jaipur Chapter, Jaipur Medical Association Hall, Jaipur, 18 August 2013; Guest Lecture, Damage Control Surgery, 5th Advanced Critical Care Conference, Departments of Critical Care and Emergency Medicine, Apollo Hospital Chennai, 3 August 2013; Keynote Lecture, Injury Epidemic, Workshop on Road Safety, Sardar Patel University of Police, Security and Criminal Justice, Jodhpur, Rajasthan, 3 July 2013; Awarded ‘Vishisht Chikitsa Ratna Puraskar’, Outstanding Contribution in the field of Medicine and Society, Delhi Medical Association, on Doctors' Day, 30th June 2013; Nominated Member, Technical Resource Group for National Trauma Scheme, DGHS, MoHFW; Chair, Scientific

Session and Speaker, New Areas in Minimal Access Surgery, 26–27 April 2013, Indraprastha Apollo Hospital, New Delhi; Chair Scientific Session and talk on ‘What Happened to NOTES?’, 27 April 2013; Chair, Scientific Session, CME on Present trends in surgical treatment of Inflammatory Bowel Disease, Indraprastha Apollo Hospital, New Delhi, 21 April 2013; Chief Guest, Meeting of Dadhichi Deh Daan Samiti, Pledging bodies for donation after death for Educational Purpose and honour those families who donated Body and also Organ donation, Vivekanand Centre, Chanakyapuri, New Delhi, 2 February 2014; Doordarshan News, Expert, Live Telecast, 2nd February 2014, Total Health–Cancer; Guest Lecture, Gallbladder Cancer and Vegetarian Diet, 6th All India Doctor’s Convention on Integrating Vegetarianism & Healthy Life style (VEGICON 2014), 5th January 2014; Doordarshan News, Expert for programme 5th January 2014; Technical Expert, Doordarshan National, Swasth Bharat Live Show, TRAUMA CARE India, 2nd January 2014; Doordarshan News, Expert, 29 December 2013, Celebrations & Risk of Accidents, Live Phone in program Total Health; Doordarshan News, Expert, 6 October 2013, 500th episode of Total Health, Current Status of Healthcare in India; DD News, Amne Samne, Program on ‘Drug Trials’, 31 October 2013; DD News, Tete ‘a’ Tete, 27 October 2013, on taking over as AIIMS Director; Technical Expert, Doordarshan National, Good Evening India Live Show, on Teachers Day, about Teacher–Student Relationship, 5 September 2013; DD News, Guest Expert, Charcha Main, New Delhi, 1 July 2013, Doctors; Day, Commercialization of Health care Sector and Patient-Doctor Relationship; Expert for Live discussion, Swasth Bharat (Healthy India), Patient Transport Services, Doordarshan National, New Delhi, 23 May 2013; Expert for Live discussion, Swasth Bharat (Healthy India), Stone Diseases, Doordarshan National, New Delhi, 13 April 2013.

Dr Atin Kumar was selected as International Scholar 2014 and given grant to attend Annual Meeting of Society of Interventional Radiology At San Diego, USA ; was selected for VP Lakhanpal Gold Medal for best academic performance in the country for the year 2013 by Indian Radiological and Imaging Association; was given ‘President Appreciation Award’ for 2013-14 by Delhi Chapter of Indian Radiological and Imaging Association and was elected as Executive Council Member of Delhi Chapter of Indian Radiological and Imaging Association.

Dr Shivanand Gamanagatti is involved in “Treatment protocol” preparation for the newly built 6 AIIMS as member of expert advisor committee under ministry of health and Family welfare.

Dr Sanjeev Lalwani has been recommended for Commonwealth Fellowship by University Grant Commission; Faculty-Neurosurgery Education and Training school (Indo-German Collaboration); Member, Committee on Undergraduate curriculum at Medical Council of India; Member, Committee on Minimum Standard Required for a Medical College (MCI); won the Second best Post Paper Award- Co-author at NBRC (National Brain Research Center) Postgraduate Symposium on Frontiers in Neuroscience Research on the 28th September 2013; Member expert–Selection committee for Assistant Professor UP Public Service Commission, Allahabad; Reviewer of Indian Journal of Paediatrics and National Medical Journal of India.

Dr Adarsh Kumar was nominated as Board Member representing Asia in “International Association of Personal Injury” for period 2012-14 under presidency of Dr Haluk Ince, Turkey; elected as Vice President, NACPFMT (Noble Action Consortium for Progressive Forensic Medicine & Toxicology); is the Chief Coordinator for whole process of judging including final panel of 3 Judges for awarding Scottish Travel Grant at University of Dundee, Scotland UK to best Podium presentation amongst postgraduate students from India through Indian Academy of Forensic Medicine; is Chairman, Scientific Committee in “5th International conference on Medical Negligence & Litigation in Medical Practice- IAMLE-2014” held on 25-27 Feb. 2014 at Goa organized under auspices of Indian Association of Medicolegal Experts; has been given the responsibility to Chair the session on Forensic Anthropology considering my special area of expertise in addition to Chair the session on Medical Ethics; is the Member of Editorial Board at the Romanian Journal of Legal Medicine, and Associate Editor-Medicolegal Update, Journal of Research in Medical Education and Ethics, and Member Editorial Board- Journal of Indian Society of Toxicology, Journal of Punjab Academy of Forensic Medicine & Toxicology, Journal of South India Medicolegal Association.

Dr Purva Mathur is Member of National Academy of Medical Sciences; Fellow of International Medical Sciences academy; Associate Editor of J Lab. Physician; Asst. Editor of Indian J Medical Microbiology; Chairperson of Plenary session IV in Trauma 2013; Member of the expert panel for formulation of National antimicrobial treatment guidelines (ICMR); Member, Dean’s Research Committee, AIIMS.

Dr S. Arulsevi is the Assistant Editor and Reviewer to Journal of Laboratory Physicians (JLP), Reviewer for Indian Journal of Orthopedics, and Editorial Board Member for Global Journal of hematology and blood transfusion (GJHBT); Life Member of Indian association of Pathology and Microbiology, Indian association of hematology and blood transfusion, Indian association of laboratory Physicians, and Indian society for Trauma and acute care;

Member of Store purchase committee, Blood Transfusion Committee, Standing Core Committee on computerization/HIS of Jai Prakash Narayan Apex Trauma Centre, AIIMS; Reviewer for DBT / ICMR projects; Taken part in the selection committee of AIIMS (All India Institute of medical sciences) lab technician's recruitment, RIMS (Ranchi Institute of Medical sciences, Ranchi) faculty recruitment; Done exam invigilation duty (AIIMS MBBS entrance exam in Orissa, Delhi).

Dr Deepak Agarwal was awarded the prestigious 'Tata Innovation Fellowship' by DBT for a 3 year period wef 2013 of Rs 22.5 lakhs; Awarded the Golden Peacock Innovative Product/Service Award - 2014 for Computerisation of AIIMS, New Delhi by the Golden Peacock Awards Secretariat on 23rd May 2014; Declared winner for Maharashtra Healthcare Leadership 2014 in the category "Innovative & extremely cost-effective use of ICT for Hospital" on 11 July 2014 at Pune; 1st prize in poster presentation for co-authoring the study 'Assessing the stress level of nurses in emergency department' at NSI-2013, Mumbai 11-15 Dec 2013; 3rd prize in poster presentation for co-authoring the study 'The effectiveness of WHO checklist in neurosurgery OT with CCTV surveillance' at NSI-2013, Mumbai 11-15 Dec 2013; 3rd prize in oral paper presentation for co-authoring study 'A prospective randomized study to assess effectiveness of ultrasound for peripheral vascular access in pediatric patients' at NSI-2013, Mumbai 11-15 Dec 2013; 3rd prize in oral paper presentation for co-authoring study 'nurses role in ASIA scoring' at NSI-2013, Mumbai 11-15 Dec 2013.

Dr Sumit Sinha received the NTSI-Alfred Trauma Research Development Award at the Annual conference of Neurotrauma Society of India at Guwahati for the paper entitled- 'Traumatic brachial plexopathies- analysis of postsurgical functional and psychosocial outcome'; Best Poster award for the poster entitled- 'A cadaveric micro-anatomic study of the intrafascicular microanatomy of the brachial Plexus' at AIIMS Annual neurotrauma conference held at New Delhi, on 31st August -1st September 2013; Best Paper award for the paper entitled- 'Cognitive, functional and psychosocial outcome after severe traumatic brain injury: A cross sectional study at a tertiary trauma care center' at AIIMS Annual neurotrauma conference held at New Delhi, on 31st August -1st September 2013; AANS International travel scholarship conferred for the abstract selected as the best abstract at the 82nd Annual meeting of Neurological surgeons society held at San Francisco in April 2014. He is the Associate Editor- Indian Journal of Neurosurgery; is Member of the Technical resource group for the national trauma programme of Indian Council of Medical research.

Dr Niraj Kumar attended the ATLS refresher course (Awarded with instructor potential), New Delhi, AIIMS, 30th Nov 2013; Life member, Indian society of Critical Care Medicine (ISCCM) and Indian Society of Neuroanesthesiology and Critical Care.

Dr Keshav Goyal successfully passed and achieved the faculty/instructor status in advanced trauma life support course (ATLS), held at JPNATC from 12-13 August 2013 and was a Team Leader of the team appointed by JPNATC under EMR division of Ministry of Health to look after medical aid following cyclone LEHER.

Dr Navdeep Sokhal developed SOP for intensive care of patients with traumatic head and spine injury. His patent application entitled "A breath sample line for effective ventilation monitoring" has been accepted for commercialization by the Research And Marketing Committee of NRDC.

Dr Sushma Sagar is the Co-editor Journal of Society of Wound Care and Research; Faculty Incharge and Member Secretary Cafeteria AIIMS; Faculty Incharge Physiotherapy Unit at JPNATC, AIIMS; Faculty Incharge Laundry and CSSD, JPNATC; Member Women Grievance cell committee, AIIMS; Scientific Chair Trauma 2013 International CME and conference of Trauma and Acute care; Scientific chair Endosurgg 2014, held at AIIMS; Core faculty member National Institute of Disaster Management, India; Appeared on Doordarshan for Public awareness and Issues in Plastic Surgery; Internal examiner for AIIMS MBBS Final Professionals; Discovery channel UK filmed me and the case I operated (oropharyngeal toothbrush injury in a child); The Gender Community with support from the UNDP-AusAid Climate Change Adaptation Project is organizing an on-field learning exercise with a follow up Dissemination Workshop in Puri/Odisha, on 7-10 August 2013; Member Post Graduate Counselling committee for allocation of MD/MS Seats.

Dr Biplab Mishra is a Fellow of American College of Surgeons (FACS)

Dr Vivek Trikha is a Member of National Academy of Medical Sciences (MAMS); Fellow of International Medical Science Academy (FIMSA); Associate Editor of Indian Journal of Orthopaedics (Pubmed Indexed Journal) for 2014-17.

10.6 National Drug Dependence Treatment Centre

Professor and Chief

Rajat Ray (superannuated September 2013)
S.K. Khandelwal (w.e.f. September 2013)

Professors

Raka Jain Rakesh Lal Anju Dhawan

Additional Professors

Sonali Jhanjee Atul Ambekar

Assistant Professors

N. Kaw Yatan Pal Singh Balhara
Gauri Shanker Kaloiya Ravindra Rao
Raman Deep Pattanayak Ashwani K Mishra
Prabhu Dayal Jai Singh Yadav

Rachna Bhargav

Group A officers

Anita Chopra (Scientist) Hem Sethi (Scientist)
Rizwana Quraishi (Biochemist) Braham Prakash (MSSO)
Deepak Yadav (MSSO) Ratnesh Kumar (MSSO)

HIGHLIGHTS

Professor Rajat Ray superannuated on 30th September 2013 and Professor S.K. Khandelwal took over as Chief, NDDTC. NDDTC continues as a WHO Collaborating Centre on Substance Use (2012-16). During this period the Centre has progressed with regard to treatment, training and research in the area of drug abuse. The NDDTC laboratory can detect 13 types of addictive substances. The faculty of the centre acted as resource persons to various training programmes conducted by organizations like National AIDS Control Organisation (NACO) and The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), India etc. Currently, the centre is conducting 11 research projects funded by international and national agencies, and 30 non-funded departmental research projects. The web portal 'Alcohol Web India' launched by NDDTC, AIIMS provides useful information to general public, professionals and policy makers.

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. NDDTC also offers PhD in Addiction Psychiatry.

PhD and Postgraduate teaching

- *Journal discussion-Weekly
- *Seminar- Weekly
- *Case Conference- Weekly
- *Faculty/Staff presentation- Weekly
- *CCR and CGR two in every semester
- Seminars- Weekly (at NDDTC)

**Joint activities of the Department of Psychiatry and the Centre*

CMEs/Workshops/Symposia/National and International conferences

Organized by the NDDTC

- Annual Day Symposium on "Capacity Building for Health Professionals for Management of Substance Use Disorder," NDDTC, AIIMS, 15 April 2013.

- Symposium on “Public Health Aspects of Substance Use Disorders – Role of NDDTC,” AIIMS, New Delhi, 29 September 2013.
- “National Capacity Building of Medical Professionals on Treatment of Substance Use Disorders,” National Fund for Control of Drug Abuse (NFCDA), Ministry of Finance & NDDTC, AIIMS
 - NIMHANS, Bangalore (17-30 July 2013)
 - CMC, Chandigarh (26 August- 4 September 2013)
 - NDDTC, AIIMS (16-28 September 2013)
 - RIMS, Imphal (16-28 September 2013)
 - CIP, Ranchi (17 September – 1 October 2013)
 - CMC, Chandigarh (11-20 November 2013)
 - RIMS, Imphal (18-30 November 2013)
 - NDDTC, AIIMS (17 February- 1 March 2014)
- Dissemination meeting of findings of project “Methadone Maintenance Treatment (MMT),” NDDTC and UNODC (ROSA), New Delhi, 7 November 2013.
- Symposium on ‘Methadone Maintenance: A Long Awaited Treatment in India - Early Insights’ 66th Annual National Conference of Indian Psychiatric Society, Pune, 16-19 January 2014 (Coordinator: Anju Dhawan).
- 14 training courses for medical doctors and nurses, programme managers, counsellors, data managers, and NGO staff to support capacity building of medical staff as well as those providing Opioid Substitution Treatment (OST), GFATM project & NDDTC, AIIMS. One of these training courses was dedicated to Quality Assurance of OST and directed at mentors of OST.

Lectures delivered

Raka Jain: 3

Rakesh Lal: 7

Sonali Jhanjee: 5

Atul Ambekar: 13

Yatan Pal Singh Balhara: 25

Gauri Shanker Kaloiya: 7

Ravindra Rao: 9

Prabhu Dayal: 6

Ashwani Kumar Mishra: 10

Jai Singh Yadav: 10

Rachna Bhargava: 8

Residents and Staff: 7

RESEARCH

Funded projects

Ongoing

1. Effect of nalbuphine on opiate withdrawal in rats: behavioural, biochemical and molecular study. Raka Jain. Funded by ICMR for 3 years (2012-15). Rs. 46 lakhs.
2. Post marketing surveillance of methadone in India. Atul Ambekar. Funded by Rusan Pharmaceuticals for two years (2012-2014). Rs. 15 lakhs.
3. Community based brief intervention vs. simple advice for women tobacco users. PI: Sonali Jhanjee. Funded by ICMR for one year (2013-2014). Funds: Rs 10 lakhs.
4. A comparative study of prevalence of metabolic syndrome among patients with opioid and alcohol dependence syndrome. PI: Yatan Pal Singh Balhara, Funded by AIIMS Research Scheme for 1 year (2013-2014). Funds: Rs 3.6 lakhs.

Completed

1. Feasibility of transporting urine samples of drug users on filter paper for screening drugs of abuse: A pilot exploratory study. Raka Jain. Funded by ICMR for 2 years (2012-14). Rs. 12.5 lakhs.

Departmental projects

Ongoing

1. Effect of nalbuphine on opiate withdrawal in rats: behavioural, biochemical and molecular study
2. Assessment of biochemical measures in adolescent inhalant users
3. Effect of apomorphine on nicotine withdrawals in nicotine dependent rats: behavioral, biochemical and molecular study

4. Assessment of effect of sweet tastants on cue related craving among recently detoxified alcohol dependent subjects
5. Effectiveness of screening and brief intervention for moderate/high risk alcohol use among patients on buprenorphine maintenance: a clinical and alcohol-biomarker study
6. Assessment of biochemical and haematological profile of opioid dependent patients receiving buprenorphine/buprenorphine - naloxone combination
7. Evaluation of compliance in patients receiving naltrexone for long term management of opioid dependence.
8. Estimation of nicotine in urine samples spotted on filter paper in substance users.
9. A comparative study of pathways to care among alcohol and opioid dependent individuals seeking help at a tertiary care centre and a community clinic.
10. A cross sectional epidemiological assessment of treatment seekers at de-addiction centres across the country through drug abuse monitoring system (DAMS)
11. A study of experience related to crime and imprisonment among opioid dependent service recipients in community drug treatment clinic
12. A urinalysis based evaluation of cannabis use among opioid dependent subjects maintained on buprenorphine: A retrospective study
13. Combined therapy for depressive disorders: an exploratory study
14. Course and long-term outcome of opioid dependent patients maintained on opioid agonist medications in a community drug treatment clinic – A chart review
15. Effectiveness of smoking cessation intervention in opioid dependent subjects on agonist maintenance treatment
16. Effectiveness of screening and brief intervention for moderate/high risk alcohol use among patients on buprenorphine maintenance: a clinical and alcohol-biomarker study
17. Assessment of effect of sweet tastants on cue related craving in recently detoxified alcohol dependent subjects
18. Cue induced craving in heroin dependent men
19. Pattern of drinking and its relationship with consequences in subjects with harmful/hazardous alcohol use
20. Outcome of opioid dependent patients maintained on buprenorphine naloxone combination: a chart review
21. Translation, adaptation and validation of entire Alcohol Use disorders Identification test (AUDIT) manual (including questionnaire) in Hindi language
22. Outcome of opioid dependent patients maintained on buprenorphine-naloxone combination – a chart review

Completed

1. Assessment of abuse liability of tramadol in opioid dependent subjects
2. A retrospective cohort study of assessment of risk factors associated with drop-out from and re-entry into in-patient and out-patient treatment at a tertiary care substance abuse
3. A retrospective cohort study of predictors of outcome among opioid dependents on naltrexone treatment at a tertiary care substance use disorder treatment centre

Collaborative projects

Completed

1. Efficacy of varenicline for smokeless tobacco use. PI: Raka Jain, Sonali Jhanjee, Veena Jain, R Schnoll (University of Pennsylvania). Funded by: National Institute on Drug Abuse (NIDA), NIH, for 3 years (2011-14). Funds: Rs. 69 lakhs.
2. Drug Use Pattern Assessment among IDUs in Bihar, Haryana and Uttarakhand (with India HIV/AIDS Alliance, New Delhi).

PUBLICATIONS

Journals: 44

Abstracts: 9

Chapters in books: 6

Books and monographs: 4

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 Clinic Mobile Clinic Sundar Nagri and Methadone Clinic Sundar Nagri Delhi)	:	62016
5. Admission (Day Care & In-patients)	:	966
6. Discharges	:	916
7. Average % of Bed Occupancy	:	77%
8. Admission Charges Exempted	:	239

OPD and Specialty Clinics Attendance (NDDTC)		New cases	Old cases	Total
General OPD		4299	27385	31684
Specialty Clinics				
Tobacco Use Cessation Clinic		23	530	553
Adolescent Clinic		45	150	195
Dual Diagnosis Clinic		79	370	449
A.	Total	4446	28435	32881
B.	Trilokpuri Community Clinic	117	16805	16922
C.	Mobile Clinic Sunder Nagri, Delhi	675	11313	11988
D.	Methadone Clinic Sundar Nagri, Delhi	75	150	225
Grand Total: A+B+C+D		5313	56603	62016

Biochemistry Laboratory

• Biochemistry tests	:	29442
• Hematological	:	7162
• HIV Investigations	:	228

Drugs	Number
Morphine	3314
Codeine	2690
Buprenorphine	3279
Proxymon	3153
Avil	2690
Naltrexone	13
Pentazocine	44
Diazepam	3313
Nitrazepam	3313
Chlordiazepoxide	3313
Cannabis	679
Cotinine	554
Inhalants	110
Total number	26462

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Raka Jain judged a poster session at the 11th Indo Pacific Association of Law, Medicine and Science Congress 2013 (Malaysia, Kuala Lumpur, 5-10 October 2013) and is a peer reviewer for the Indian Journal of Medical Research. She also served as an expert member for the Guidelines Development Group of the World Health Organization for “Management of Opioid Overdose” (Geneva, Switzerland, 19- 20 February, 2014).

Professor Rakesh Lal attended the 2nd Meeting of Global Network of WHO National Counterparts for Implementation of Global Strategy to Reduce Harmful Use of Alcohol (Geneva, May 2014), and was involved in the development of the MoH&FW National Intersectoral Action Plan for Prevention and Control of Non Communicable Diseases and the Colombo Plan Focal Points Meeting on Drug Demand Reduction (Chiang Mai, Thailand, 2-7 September), and development of the strategy to reduce harmful use of alcohol for South East Asia Region of WHO.

Dr Sonali Jhanjee was awarded scholarship for attending and completing the Global Tobacco Control Certificate Program from Johns Hopkins Bloomberg School of Public Health (JHSPH), Baltimore, USA in 2013; and was elected member of ICMR-funded task force project on epidemiology of substance abuse in the state of Punjab (ESASP) (2013-14).

Dr Atul Ambekar is a member of the Strategic Advisory Group to United Nations on HIV and Injecting Drug Use, the Technical Advisory Group on Alcohol Control, MoH&FW, the Governing Body for National Fund for Control of Drug Abuse (NFCDA), Ministry of Finance, and the National Task force on Drug Demand Reduction, MoSJ&E.

Dr Yatan Pal Singh Balhara was awarded the Tilak Venkoba Rao Award by Indian Council of Medical Research (ICMR) for the year 2009 (awarded in the year 2013) and the Indian Journal of Endocrinology and Metabolism award sponsored for the second best review article for the year 2013. He is a member of the Editorial Board for Journal of Psychiatric and Mental Health Nursing (JPMHN), Education Core Committee of World Psychiatric Association (WPA) Section on Education in Psychiatry, Education Committee of the International Society for Bipolar Disorders (ISBD), Gulbenkian Global Mental Health Platform (Calouste Gulbenkian Foundation-Department of Mental Health, Faculty of Medical Sciences, University of Lisbon-World Health Organization), Accreditation Committee for OST centres of National Accreditation Board of Hospitals and Healthcare Providers (NABH); Board of Councillors of International Society for Bipolar Disorders (ISBD). He serves on editorial board and as a peer reviewer for various international and national academic journals.

Dr Ravindra Rao is a member of the Accreditation Committee for OST centres of National Accreditation Board of Hospitals and Healthcare Providers (NABH).

Dr Prabhu Dayal served as a resource person for innovation project of Delhi University; and was involved in ‘Basics of Good Clinical Practice’ held at ICGEB, DBT, New Delhi.

Dr Ashwani Kumar Mishra is a reviewer for Journal of Mathematics and Statistics, Indian Journal of Medical Research, and Current Science; and a member of the International Statistical Institute (ISI) and International Association for Statistical Association (IASE). He served as member of the selection committees in institutes of national importance; and was awarded a certificate of accomplishment with distinction for the course ‘Mathematical Biostatistics Boot Camp,’ by John Hopkins University, USA.

Dr Rachna Bhargava is a council member of Indian Association for Child & Adolescent Mental Health. She chaired a session in the National Annual Conference of Indian Association of Social Psychiatry (Kolkata, 8-10 November 2013), and is a peer reviewer for national and international journals.

10.7 Neurosciences Centre

Neuro Anaesthesia

Professor and Head

Parmod K. Bithal

Professor

Arvind Chaturvedi

Additional Professors

Rajendra Singh Chouhan

Mihir Prakash Pandia

Associate Professors

Girija Prasad Rath

Hemanshu Prabhakar

Assistant Professors (JPNATC)

Gyaninder Pal Singh

Ashish Bindra

Niraj Kumar

Keshav Goyal

Kapil Dev Soni

Richa Aggarwal

Navdeep Sokhal

HIGHLIGHTS

Anaesthetic management for 4273 (2973 at the Neurosciences Centre and 1300 at the JPNATC) neurosurgical procedures was performed. Of these 2856 were elective (2181 at the Neurosciences Centre and 675 at the JPNATC) and 1417 were emergency (792 at the Neurosciences Centre and 625 at the JPNATC). In addition anaesthetic management for 416 neuroradiological procedures (246 diagnostic; 170 therapeutic) was also performed. Intensive care management of 5353 patients (3100-NSC; 1558 -TC3 and 695-TC2, JPNATC) was performed. A total of 2217 patients (1607 new and 610 old) were seen in Pre-Anaesthesia Check-up (PAC) clinic OPD at NSC. A total of 815 patients (181 new and 634 old) were seen in pain clinic OPD, NSC (298 were treated with nerve blocks).

Three candidates were awarded D.M. (Neuroanaesthesiology) degree. One new candidate joined D.M. course. Eighteen (08-AIIMS and 10-LHMC) postgraduate students and 12 senior residents from other departments received neuro-anaesthesia training.

Seven research projects (1 funded, 6 departmental) were completed while 36 research projects (6 funded, 30 departmental) are going on. In addition 8 collaborative research projects are going on.

The department successfully organized First Annual AIIMS Neuroanaesthesia Update. Sixteen conferences (2 international, 14 national), 2 symposia and 24 other CMEs were attended, 78 lectures delivered and 32 papers were presented by faculty members and senior residents. Ten workshops were conducted by the department faculty. Faculty and residents published 68 articles (27 in international, 41 in national) scientific journals. Eleven abstracts (8 in international and 3 in national) were published in scientific journals. Two chapters in books were written by faculty. Two scientists one each from USA, and Australia visited the department and delivered lectures. Every month two visiting anaesthesiologists from other parts of the country visited the department.

Two faculty members continued to be general secretary and treasurer of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC) respectively. One faculty was nominated member of education committee of an international scientific body. One faculty was nominated chief editor and 02 faculty members were nominated executive editors of a national journal.

Two awards (2 for presentations in conference; 1 each in an international and a national conference) were won.

Two faculty from abroad visited the department and delivered lectures.

EDUCATION

Postgraduate Teaching

1. MD-Anaesthesiology students 8 from Anaesthesiology Department, AIIMS and 10 from LHMC received neuroanaesthesiology training in the department, as an integral part of their curriculum.
2. Twelve Senior Residents (8 from Department of Anaesthesiology, AIIMS and 4 from Department of Anaesthesiology Dr BRAIRCH) received training in Neuroanaesthesiology for variable periods as a part of interdepartmental rotation on mutual exchange basis.

3. Thrice a week (Mondays, Tuesdays, Saturdays) Seminars, Journal club and case presentations (For one hour at a time) were organized as a part of departmental teaching programme.

Short Term Training

Two anaesthesiologists one, Obaid Siddiqui from Aligarh Muslim University and the other Jyoti Prakash from NTPC, Badarpur, and many from other parts of the country came to the department as observers for one month each.

CME

The department successfully organized First Annual AIIMS Neuroanaesthesia Update.

Lectures delivered

Parmod K. Bithal: 6

M.P. Pandia: 4

G. P. Rath: 4

H. Prabhakar: 6

G.P. Singh: 6

A. Bindra: 3

K. Goyal: 8

N. Sokhal: 2

K. D. Soni: 25

R. Agrawal: 14

Papers and posters presented: 32

RESEARCH

Funded projects

1. Coagulation abnormalities during excision of large intracranial tumours: a prospective study, M.P. Pandia, AIIMS, 2013–14, Rs 3 lakhs.
2. Comparison of Pleth Variability Index and Stroke Volume Variation as Predictors of Fluid Responsiveness in Prone Position. G.P. Rath, ICMR, 1 year, Rs 5.35 lakhs.
3. To study the cerebroprotective effects of Dexmedetomidine in patients undergoing epilepsy surgery - A biomarker guided study. H. Prabhakar, AIIMS, January 2013. Rs 3 lakhs.
4. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laparotomy in the trauma patients, A feasibility and pilot study. Kapil Dev Soni, AIIMS, 2013–14.

Departmental projects

Ongoing

1. Effect of tranexamic acid on intraoperative blood loss and transfusion requirements in patients undergoing elective craniotomy for intracranial meningiomas.
2. Incidence of postoperative pulmonary complications in adult patients undergoing craniotomy for posterior fossa tumours.
3. Effect of stellate ganglion block on intraoperative propofol and fentanyl consumption in patients with crps - 2 undergoing surgical repair of brachial plexus injury.
4. Effect of intraoperative blood loss on perioperative complications and neurological outcome in adult patients undergoing brain tumour surgery.
5. Perioperative complications in elderly patients undergoing intracranial surgery – a prospective observational study; Retrospective study of postoperative complications in patients with cervical spine/spinal cord pathology in elderly population.
6. Bacteriology and antibiotic sensitivity pattern of pulmonary infection in patients in the neurosurgery intensive care.
7. A comparison of the effectiveness of dexmedetomidine versus propofol infusion for sedation during awake Craniotomy.
8. Comparison between sevoflurane and desflurane on emergence and recovery characteristics of children undergoing spinal surgery.
9. Sitting position in paediatric neurosurgical patients – a retrospective study.
10. Effect of dexmedetomidine on cerebral autoregulation and CO₂ reactivity during sevoflurane anaesthesia.
11. Intracranial pressure monitoring in patients with severe traumatic brain injury: a retrospective study.
12. Factors predicting outcome of acromegaly patients undergoing pituitary surgery – a retrospective study.

13. Effect of temporary clipping during intracranial aneurysm surgery on outcome at discharge – a retrospective analysis.
14. Alleviating stress response to tracheal extubation in neurosurgical patients: a comparative study of two infusion doses of dexmedetomidine.
15. Comparison of desflurane versus sevoflurane in paediatric neurosurgical patients undergoing spine surgery.
16. Postoperative complications in pediatric patients operated in sitting position.
17. Craniopharyngioma surgery and various perioperative factors influencing outcome – a prospective observational study.
18. A comparative study between intraoperative low dose ketamine and dexmedetomidine as anesthetic adjuvant in lumbar spine instrumentation surgery for postoperative analgesic requirement.
19. ICP monitoring in head injured paediatric patients – retrospective study.
20. Effect of dexmedetomidine on cerebral blood flow velocity – a TCD based study.
21. Anaesthetic management of paediatric patients with traumatic brain injury in a tertiary level trauma centre – A retrospective study.
22. Prognostic value of serially estimated pro-calcitonin in traumatic patients with and without head injury.
23. Predictors of outcome in patients of chest trauma suffering from COPD.
24. An evaluation of diaphragmatic movement by M-mode sonography as a predictor of successful extubation during routine surgical procedures.
25. Effects of Dexmedetomidine for ICU sedation in head injury patients.
26. To study the risk factors and causes of extubation failure in head injury patients.
27. Cardiovascular complications after traumatic spinal cord injury.
28. An evaluation of diaphragmatic movement by M-mode sonography as a predictor of successful extubation during routine surgical procedures.
29. Electrolyte abnormality in patient with severe head injury.
30. Effects of dexmedetomidine for ICU sedation in head injury patients.
31. To study the risk factors and causes of extubation failure in head injury patients.
32. Non-Neurological Complications in Traumatic Neurosurgical Patients in Neuro ICU: A Prospective Observational Study.
33. Prognostic value of serially estimated serum procalcitonin in multiple trauma victims with and without head injury.
34. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial.
35. Intraoperative use of dexmedetomidine in large vascular Meningiomas.
36. Cardiovascular complications after traumatic spinal cord injury.
37. To study the risk factors and causes of extubation failure in head injury patients.
38. Effects of dexmedetomidine for ICU sedation in head injury patients.
39. Electrolyte abnormalities in patients with head injury during ICU stay: a prospective observational study.
40. Cardiovascular complication after traumatic spinal cord injury.
41. Does real time ultrasound confer any benefit during bronchoscopy guided tracheostomy: A preliminary randomized controlled trial.
42. Use of Dexmedetomidine in Head Injury.
43. Does real time ultrasonography during bronchoscopy guided percutaneous tracheostomy confer any benefit; a preliminary randomised controlled trial.
44. Role of post trauma lymphocyte monocyte response and programmed death – levels in early diagnosis of sepsis and prognosticating outcome in trauma patients.

Completed

1. Comparison of intraoperative brain condition, hemodynamics and postoperative recovery in patient undergoing supratentorial tumor surgery using Desflurane and Sevoflurane.

2. Retrospective study of postoperative pulmonary complication (PPC) in post surgical patients with cervical spine/spinal cord pathology.
3. Effect of intraoperative dexmedetomidine on postoperative pain and recovery after pediatric spinal surgery.
4. Clinical evaluation of C-MAC videolaryngoscope with or without use of stylet for endotracheal intubation in patients with cervical spine immobilization.
5. Dexmedetomidine versus Propofol sedation for cerebral angiography – a comparison of two techniques.
6. Evaluation of Non neurological complications in patients of severe head injury.

Collaborative projects

Ongoing

1. A survey of perioperative complications in patients undergoing craniotomy under general anaesthesia (with Neuroanaesthesia, NIMHANS, Bangalore and PGIMER, Chandigarh).
2. European Society of Intensive Care Medicine trial of therapeutic hypothermia (32–35°C) after traumatic brain injury (EUROTHERM 3235). Ongoing Multi-centric Trial, National Institute of Health Research's Health Technology Assessment Programme. **Trial Sponsor:** University of Edinburgh and NHS Lothian (UK).
3. Role of ischemia biomarkers and hyperglycemia for predicting outcome in severe traumatic brain injury: a microdialysis study
4. Coagulation abnormalities during excision of large intracranial tumors – A Prospective study.
5. Effect of Lidocaine infusion on hemodynamics and recovery in patients undergoing endoscopic pituitary surgery: A multicentre, randomized control trial (with Anaesthesiology, Health Sciences Centre, University of Manitoba, Winnipeg, Canada).
6. Electrolyte abnormalities in patients with head injury during ICU stay: A prospective observational study (with Lab Medicine, JPNATC).
7. Role of CD14^{high} CD16⁺ blood monocytes in regulation of anti-inflammatory cytokines in post-traumatic patients (with Microbiology, Surgery).
8. Role of microdialysis derived metabolic parameters in predicting postoperative complications following laparotomy in the trauma patients. A feasibility and pilot study (with Surgery, Neurosurgery).

PUBLICATIONS

Journals: 58

Chapters in books: 2

PATIENT CARE

Anaesthetic management

Total	4273		
Neurosciences centre	2973		
Elective	2181	Emergency	792
JPNATC	1300		
Elective	675	Emergency	625
Neuro-radiological procedures	416		
Diagnostic	246	Therapeutic	170
Intensive care management	5353		
NSC	3100	TC	2253
PAC			
New	1607	Old	610
Pain clinic OPD			
New	181	Old	634
Treated with nerve blocks	298		

AWARDS, HONOURS AND SIGNIFICANT ACHIEVEMENTS

The department successfully organized AIIMS NEUROANAESTHESIA UPDATE, on 20 October 2013 at AIIMS, New Delhi. Dr Parmod K. Bithal was the chairman of the organizing committee and Dr M. P. Pandia was the organizing secretary.

Professor Parmod K. Bithal was nominated member of education committee of Asian Society of Neuroanaesthesiology; nominated Chief editor of Journal of Neuroanaesthesiology and Critical Care.

Dr G. P Rath and **Dr H. Prabhakar** continued to be the treasurer and general secretary, respectively, of the Indian Society of Neuroanaesthesiology and Critical Care. They were also nominated Executive Editors of the Journal of Neuroanaesthesiology and Critical Care.

Dr K. Goyal successfully passed and achieved the faculty/instructor status in advanced trauma life support course (ATLS), JPNATC, 12–13 August 2013. He was also appointed Team Leader by JPNATC under EMR division of Ministry of Health to look after medical aid following cyclone LEHER.

Dr N. Sokhal's patent application titled 'A breath sample line for effective ventilation monitoring' was accepted for commercialization by the Research and Marketing Committee of NRDC.

VISITING FACULTY

Dr Shaheen Shaikh, Assistant Professor, Anesthesiology, University of Massachusetts, USA

Dr Gajender Singh Oberoi, Consultant in Pain Medicine

Both delivered a lecture.

Neurology		
Professor and Head		
Kameshwar Prasad		
Professors		
Madhuri Behari		M.V. Padma Srivastava
Manjari Tripathi		Vinay Goyal
Achal Kumar Srivastava		Garima Shukla
Additional Professors		
Rohit Bhatia		Mamta Bhushan Singh
Assistant Professors		
Deepti Vibha		Deepa Dash (contract)

HIGHLIGHTS

The department continues to excel in patient care, education and research. The department and the Erasmus University Medical Center, Netherlands, jointly launched the AIIMS–Erasmus cohort study on stroke and dementia. This study has been funded by Department of Biotechnology, Government of India. The department organized the first International conference on Heart and Stroke and IAN postgraduate teaching course. It continues to provide outstanding clinical training and education to DM and MD residents, PhD and nursing students. The department has published extensively in various international and national journals of repute.

EDUCATION

- 1. Undergraduate and postgraduate teaching:** Regular classes and symposias as per the defined curriculum are undertaken by the faculty of neurology.
- 2. DM Neurology:** Currently, the neurology department has 16 senior residents doing DM training.
- 3. PhD:** Currently there are 27 students doing PhD in Neurology.
- 4. Nursing students:** There is a dedicated Neurology nursing programme and faculty members take regular teaching classes as well as demonstration and bedside classes for the students.

CMEs/Conferences organized by department

1. Heart and Stroke 2013. International Conference. Organized by Department of Neurology and Cardiology, AIIMS. 8–10 November 2013.
2. IAN postgraduate neurology summer school. June 2013.
3. Workshop on Designing Medical Research and Thesis-2014 (DMRT-2014), 7–8 September 2013.
4. World MS day, May 2013. Public awareness programme.

Lectures delivered

Kameshwar Prasad: 9

Madhuri Behari: 2

M.V. Padma Srivastava: 20

Manjari Tripathi: 44

Achal Kumar Srivastava: 6

Garima Shukla: 10

Mamta Bhushan Singh: 4

Deepti Vibha: 6

Deepa Dash: 1

Papers and posters presented in conferences

Achal Srivastava: 6

Garima Shukla: 2

Rohit Bhatia: 3

Mamta Bhushan Singh: 2

Deepti Vibha: 1

RESEARCH

Funded projects

Ongoing

1. A Population Based Prospective Cohort Study to Unravel the Causes of Stroke and Cognitive Decline: A cross-cultural perspective. DBT, Govt. of India. Kameshwar Prasad, Start year 2014. Rs 31 crores.
2. Identification of genetic contribution to ischemic stroke by screening of single Nucleotide polymorphisms of Apolipoprotein E (APOE), MTHFR, ENOS, Factor V Leiden, Cytochrome P450, 4F2 (CYP4F2), and b-fibrinogen gene in North Indian Stroke patients by using a case control study design. ICMR, Govt. of India, Kameshwar Prasad, Start year 2014. Rs 47 lakhs.
3. Towards a sustainable resource in stroke genetics from the four corners of India: the 4i study. UK India Education Research Initiative (UKIERI), Kameshwar Prasad, Start year 2013. Rs 2.7 lakhs
4. Effect of administration of human bone marrow derived mesenchymal stem cell on the expression level and promoter methylation pattern of stroke related genes on middle cerebral artery occlusion model of rats. DBT, Govt. of India, Kameshwar Prasad, Start year 2014. Rs 28.97 lakhs.
5. Double blind placebo and an active comparator study of BG12, RRMS. Biogen Idec, Madhuri Behari, Rs 28 lakhs.
6. Double blind placebo study of NT201 in upper limb post stroke spasticity, Merz Pharmaceutical, Madhuri Behari, Rs 26 lakhs.
7. Indo-US Collaborative Consortium of Parkinson Disease, DBT-NIH, Madhuri Behari, Rs 64 lakhs.
8. PDSHoe: Step Synchronized Vibrators to Improve Walking of Patients with Parkinson Disease, Indo-US Science and technology forum of DBT, Madhuri Behari, Rs 20 lakhs.
9. Neuromapping of speech and emotions in Parkinson's disease (PD), DST, Madhuri Behari, Rs 36 lakhs.
10. Autologous hemopoietic stem transplantation in advanced PD. Reliance Life Sciences, Madhuri Behari, Rs 12 lakhs.
11. Study on role of intensive physiotherapy and TMS on growth factors as biomarker for stroke recovery. ICMR. M.V. Padma Srivastava, Rs 38,56,078.
12. Predicting functional outcome after acute stroke: evaluation of a module of clinic-radiological parameters and growth factors in Asian Indians. DST. M.V. Padma Srivastava, Rs 37,57,374.
13. Knowledge, attitude and practices about epilepsy and stroke in Ladakh: training and dissemination of information to community and paramedical staff. DST. M.V. Padma Srivastava, Rs 27,25,800.
14. Indo-US collaborative stroke registry and infrastructure development. DBT. M.V. Padma Srivastava, Rs 16,15,600.
15. Effects of non-ionizing electro magnetic field (EMF) on human health. ICMR. M.V. Padma Srivastava, Rs 32,67,354.
16. Study on role of pathogens and inflammatory biomarkers in cerebrovascular diseases in young. ICMR. M.V. Padma Srivastava, Rs 14,82,309.
17. Comparison of Constrained Induced Movement Therapy (CIMT) and Electrical Stimulation (ES) for patients with chronic stroke measured on disability outcome scales and functional imaging. ICMR. M.V. Padma Srivastava, Rs 18,00,000 (approx).
18. Comparative trials of constrained induced movement therapy (CIMT) and CIMT with transcranial magnetic stimulation (TMS) for patients with stroke measured on disability outcome scales and functional imaging. DST. M.V. Padma Srivastava, Rs 42,74,890.
19. An international pilot study of an internet based platform to run epilepsy trials. (EPINET) University of Auckland,

New Zealand, Manjari Tripathi.

20. 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). Principal Investigator/Save trial/5years.Monash University, Australia, Manjari Tripathi.
21. A Multicenter, Randomized, Double-Blind, Parallel-Group, Placebo-Controlled Study to evaluate the Efficacy and Safety of PEGylated Interferon Beta-1a (BIIB017) in subjects with relapsing Multiple Sclerosis, Manjari Tripathi.
22. Validation of a rapid diagnostic method for the detection of HLA allele and its association with cutaneous drug reactions in persons with epilepsy. DBT.
23. Association of associated antibodies in the serum of epilepsy patients. AIIMS, Intramural Project, Manjari Tripathi.
24. Development and validation of a comprehensive clinical and neuropsychological test battery for use in Indian context for patients with vascular cognitive impairment (VCI)-ICMR, Manjari Tripathi.
25. Randomized controlled clinical trial to evaluate prophylactic properties of Ayurvedic Treatment Protocol in refractory and chronic migraine patients, Ipca Laboratories Limited, Manjari Tripathi.
26. Clinical and Molecular Characterization of Early Onset Recessive Cerebellar Ataxia (EOCA). Achal Kumar Srivastava, ICMR. Rs 44 lakhs.
27. Elucidation of molecular pathogenesis in SCAs using IPS cell model and next gen sequencing. Achal Kumar Srivastava, CSIR. Rs 4 crores.
28. Prediction of motor recovery in upper limb through parameters obtained from clinical assessment, diffusion tensor imaging (DTI) and transcranial magnetic stimulation (TMS) in patients with acute ischemic middle cerebral artery (MCA) territory stroke. Achal Kumar Srivastava, ICMR. Rs 36 lakhs.
29. Quantitative Analysis of Neurodegenerative Phenotype in Spinocerebellar Ataxia Disorder: an Integrative approach to search for Monomorphic to complex phenotype by Neurological, Radioimaging, Neuropsychiatric and Kinematic Assessment of Ataxia. Achal Kumar Srivastava, CSIR. Rs 7 lakhs.
30. Obstructive Sleep Apnea in patients with first ever stroke versus those with refractory hypertension – search for common pathogenic mechanisms’. ICMR. Garima Shukla, Rs 42.54 lakhs.
31. ‘Sleep quality and circadian sleep rhythm abnormalities among children suffering from autism spectrum disorders: a case-control study.’ ICMR. Garima Shukla, Rs 77 lakhs.
32. Infrastructure development project for ‘Central Polysomnographic Monitoring facility, Department of Neurology, AIIMS’. DST. Garima Shukla, Rs 21 lakhs.
33. Prevalence of symptomatic and asymptomatic CAD in patients with stroke, TIA’s. Rohit Bhatia, ICMR. Starting 2014. Rs 32 lakhs.
34. Effect of an Antiepileptic drug (AED) holiday in the Epilepsy monitoring unit (EMU) on subsequent seizure frequency after reinstating the drugs in medically refractory epilepsy patients - a Prospective Observational Controlled Study. Mamta Bhushan Singh, AIIMS, Rs 5 lakhs.
35. Intramural research project To determine and search the role of persistent viral infection in patients of monomelic amyotrophy (MMA). Rs 5 lakhs, Deepti Vibha.

Completed

1. Beta adrenergic receptor and angiotensin converting enzyme in coding gene polymorphism as a risk factor for stroke: A case control study. ICMR, Govt. of India, Kameshwar Prasad, Rs 14 lakhs.
2. Comparison of effects of administration of bone marrow mononuclear cells in combination with melatonin vs. BMMNCS alone in middle cerebral occlusion model of stroke in rats. Dept of Biotechnology, Govt. of India, Kameshwar Prasad, Rs 25 lakhs.
3. Capacity Building for Stroke Research. Dept of Biotechnology, Govt. of India. Kameshwar Prasad, Rs 26.18 lakhs.
4. Central Data Management Facility. Dept of Biotechnology, Govt. of India. Kameshwar Prasad, Rs 47.7 lakhs.
5. Double blind placebo trial of BG 12 in RRMS without active comparator, Biogen Idec, Madhuri Behari, Rs 30

lakhs.

6. Generating knowledge for assessment of emerging technologies - The effects of Continuous positive airway pressure therapy for prevention of new vascular events in patients with sleeps disordered breathing and stroke: A randomized controlled study.' Garima Shukla, DST, 2009–13, Rs 69 lakhs.

Departmental projects (Thesis/dissertations)

Ongoing

1. Updating stroke registry at AIIMS and comparison with other published registry for India and abroad.
2. Critical care pathways in stroke management: a comparative cohort study.
3. Serum alkaline phosphatase as a prognostic marker for stroke outcome.
4. Burden of Parkinson's disease (to patient and society)
5. Olfactory function in Parkinsonism
6. Randomized trial of rTMS in PD patients, to determine efficacy and best stimulation site
7. Screening for PD among healthy asymptomatic elderly
8. Hindi translation of MDS-UPDRS and its validation in Indian Hindi speaking patients
9. Olfactory evoked response in PD, its correlate on fMRI
10. Voxel based morphometry in parkinsonism
11. Registered in Global Audit of Treatment of Refractory Status Epilepticus. UK-Italy, Non Funded, Registry.
12. Evoked responses in Hereditary Ataxias
13. Study of prevalence and nature of peripheral neuropathy in patients of Spinocerebellar ataxia
14. Genotype-Phenotype correlation in hereditary ataxias: molecular and clinical analysis of SCA12
15. To study the molecular pathophysiology of Neurodegenerative disease Spinocerebellar ataxia type-12
16. Deconvolution of Autosomal recessive Cerebellar ataxias in India. A clinic-genetic approach and phenotypic-genotypic correlation
17. Predictors of stroke in patients with Rheumatic Heart Disease.
18. Is telephonic follow-up a feasible, effective and acceptable option for epilepsy patients in India? A randomized controlled trial.
19. Predictors of poor visual outcome at six months in patients with Idiopathic Intracranial hypertension

Completed

1. Study of trigger factors for occurrence of stroke
2. Complementary and alternative treatment in PD
3. Development of instrument of quality of life assessment in Hindi speaking Indian PD patients
4. Seasonal and circadian variation in stroke occurrence and stroke subtypes
5. To study the clinical, demographic and treatment profile of patients with multiple sclerosis.

Collaborative projects

Ongoing

1. A Population based Prospective Cohort Study to Unravel the Causes of Stroke and Cognitive Decline: A cross-cultural perspective. Erasmus University, Rotterdam, The Netherlands. Start year 2014.
2. Towards a sustainable resource in stroke genetics from the four corners of India: the 4i study. Imperial College, London, UK. Start year 2013.
3. ENOS: Efficacy of Nitric Oxide in Stroke. Nottingham University. Start year 2007
4. Effect of multitasking In progression of MCI to AD-CSI-DST.
5. Assessment of mutations in GABRG2 gene from microelectrocorticographically defined areas of hippocampus and amygdala in patients with MTLE with intractable epilepsy. DBT.
6. A study of quantitative EEG changes, cognitive functions and stress in mild cognitive impairment and Alzheimer's disease, conducted in AIIMS.
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. A study of quantitative EEG changes, cognitive functions and stress in mild cognitive impairment and Alzheimer's disease, Department of Physiology.
9. Impact of distraction osteogenesis of the mandible on sleep quality among patients with temporomandibular joint (TMJ) ankylosis suffering from obstructive sleep apnea (OSA): a prospective cohort study. ICMR. Rs 39.64 lakhs.
10. Knowledge and understanding of anticoagulation in patients on oral anticoagulation therapy. Ms Annu Alphonso College of Nursing, AIIMS.
11. Optical coherence tomography in patients with Multiple Sclerosis. Ganesh Ophthalmology, RPC, AIIMS.
12. SNP's in patients with amyotrophic lateral sclerosis. AIIMS Site. Rohit Bhatia, James Gomes, IIT Delhi. School of Biological Sciences.
13. To study the difference in knowledge in patients with stroke and those at high risk for stroke. Ms Sapna, College of Nursing, AIIMS.
14. Electrophysiological Abnormalities and acquired neuromuscular weakness in severe sepsis and its impact on outcome: A prospective study. With Dept of medicine, AIIMS.
15. A comparative study to assess the reproductive health of women with epilepsy with that of non-epileptic women with a view to develop guidelines for nurses on counseling of women with epilepsy. College of Nursing.
16. A study to assess the effectiveness of follow up done by a nurse of patients with epilepsy attending the neurology OPD at AIIMS. College of Nursing.
17. A study to assess the bone health and knowledge of osteoprotective measures in persons with epilepsy attending the Neurology OPD of AIIMS. College of Nursing.
18. Bone health in patients of Juvenile Myoclonic Epilepsy on Valproic acid monotherapy – A case controlled study. Dept of Endocrinology, AIIMS.
19. Quality of life and glycemic control in diabetes mellitus with rhythmic breathing (Sudarshan Kriya Yoga and Pranayam) in addition to standard treatment of diabetes. Dept of Endocrinology, AIIMS.

Completed

1. Genetic basis of ischemic stroke in an Indian population. Imperial College, London, UK.
2. Effect of low field magnetic stimulation in spinal injury rat model

PUBLICATIONS

Journals: 71

Abstracts: 20

Chapters in books: 16

Books: 4

AWARDS, HONOURS AND SIGNIFICANT EVENTS

Professor Kameshwar Prasad continues as Member, Royal College of Physicians, Edinburgh, Member of the World Stroke Organization, Member of the World Federation of Neurology, Member, International Advisory Committee, Asia Pacific forum for quality improvement in healthcare, Member of the Infectious Diseases and ARI Review Group of the International Cochrane Collaboration, Member of the International Clinical Epidemiology Network, Member of the New York Academy of Sciences, Member of the American Academy of Neurology, Member, Cochrane Epilepsy Review Group, Member, Cochrane Neurological Network, Member of the Task Force on Chronic Disease Biology of the Department of Biotechnology, Govt. of India, Member of the Executive Council of Assam University, Silchar (2010--13), Member of the Technical Advisory Group to India. CLEN Health Research Capacity Building Initiative, Director, Clinical Epidemiology Unit, AIIMS, New Delhi, Chairman, Neurosciences Centre OPD Committee of AIIMS, New Delhi, Member of the Executive Council of Pandit Bhagwat Dayal Sharma University of Medical Sciences, Rohtak, Editor, Edinburgh-based Cochrane Stroke Group and Amsterdam-based Cochrane ARI Group, Editorial Board Member – British Medical Journal, Practical Neurology, Cochrane ARI Review Group, Australia; Neurology India, Annals of Indian Academy of Neurology; Reviewer for the medical journals – British Medical Journal, Stroke, Canadian Medical Association Journal, Journal of Epidemiology and Community Health, Journal of Antimicrobials and Chemotherapy, CNS Drugs, Cochrane Stroke, Neurology India, Annals of Indian Academy of Neurology, Journal of Association of Physicians of India, National Medical Journal of India; Reviewer for the 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; Life member of professional societies – Neurological Society of India, Indian Academy of Neurology, Indian Society of Medical Statistics, Indian Immunological Society, Indian Epilepsy

Association, Indian Stroke Association, Indian Epilepsy Society; Invited be a member of the WSO (World Stroke Organization) Global Quality Working Group; Conducted the first superspeciality OPD in Neurology at Central Coalfields, Ranchi; Invited Chief Guest at the National Conference of the Snehi International.

Professor Madhuri Behari was Chairperson of Education Committee of Asian Oceanian section of Movement disorders Society, Member of Executive committee of Asian Oceanian section of Movement disorders Society, Member Education committee of Movement Disorders Society, Member Subject Expert committee (Neurology and Psychiatry) of Central Drug Standard Controller Organization of Directorate General of Health services, Member of board to determine magnitude of compensation for SAE (death) in drug trial (DGHS), Member of education committee of Parkinson disease and Related disorders (PRD), Member of Membership Committee of Movement Disorders Society

Professor M.V. Padma Srivastava was Fellow of National Academy of Medical Sciences (FAMS), Fellow of the National Academy of Sciences, Allahabad, (F.N.A.Sc), Neurological Society of India (NSI), Indian Epilepsy Association (IEA), Indian Epilepsy Society (IES), Indian Academy of Neurology (IAN), Member of World Stroke Organization (WSO), Indian Stroke Association – President for the year 2013–14, Invited Member of the Geriatric Society of India, Delhi Neurological Association, Member of the Publication Committee of NAMS, Member of the Speciality Advisory Board for Neurology by the NBE, Govt. of India, Member Task Force Neurosciences in DBT, Govt. of India; Member of the Standing Committee for the CME Programme Committee for NAMS; Member of the Standing Committee for the Publication Advisory Committee for NAMS; Member Task Force for Neurosciences for ICMR, Govt. of India; Member, Building Committee, NAMS, Govt. of India; Member, FIST committee, DST, Govt. Of India; Member, Dean Committee, AIIMS; Member, Staff Council, AIIMS; Member, Drug Selection Committee, AIIMS; Member Task Force for Translational Neurosciences, for ICMR, Govt. Of India; Member Scientific Advisory Board for Thrombosis Research Institute Bangalore; Member – Expert Advisory Panel, for Regenerative medicine and Toxicology for Fellowship to NAMS; Member of Institute Body of SCTIMS; Mentor for the Neurology departments of Indira Gandhi Medical College Shimla and R.P. G Medical College Tanda, Govt. of Himachal Pradesh; Member, Academic Committee, NIMHANS, Bangalore; Member, Selection Committee, NIMHANS, Bangalore; Awarded Fellowship to the National Academy of Sciences, India, 2013.

Professor Manjari Tripathi was Invited to submit a proposal for a National epilepsy programme by the Ministry of health which has now moved to the planning commission; Started a rural outreach program (iREAP: Indian Rural Epilepsy Awareness Programme) to be modeled as a pilot study to start a National Programme for epilepsy which has completed 2 years of existence; Developed GEMIND; Guidelines for Epilepsy Management in India (Indian Epilepsy Society) as a core founding member this are practice guidelines for physicians; The ETP- Epilepsy teaching program with the mission of teaching and reducing education gap in epilepsy among PHC and GPs; Volunteer network for families with dementia for support of caregivers by the ARDSI, Delhi; 3rd prize for outstanding faculty in Research, awarded on the Institute Day on the 25 September 2013, AIIMS, New Delhi; Faculty branding awards 2013 Certificate of Excellence by EET CRS Research wing for Excellence in Professional Education and Industry.

Professor Garima Shukla was Appointed ‘Member, International Scientific Committee, World Association of Sleep Medicine Congress, Seoul, South Korea, 2015; Nominated Member, Editorial Board of the prestigious journal, Sleep Medicine; Invited as External Examiner, for the DM (Neurology) examinations, at the Nizam’s Institute of Medical Sciences, Hyderabad, December 2013; 2013 – Publication in ‘Sleep Medicine’ awarded the very prestigious Elio Lugaresi WASM Award for Sleep Medicine, presented at the 5th World Congress on Sleep Medicine, Valencia, Spain. (Zanzmera P, Shukla G, et al. Effect of successful epilepsy surgery on subjective and objective sleep parameters – a prospective study. Sleep Med. 2013 Apr;14(4):333–8).

Dr Rohit Bhatia was Appointed member of the institute ethics committee for postgraduate research at AIIMS; Published a textbook on Multiple Sclerosis; Organized the first International Conference *Heart and Stroke 2013* with renowned International and National faculty from across the globe; Member DOTS committee at AIIMS; Member Dean Research committee at AIIMS; Executive committee member Indian Stroke Association; Board member Multiple Sclerosis International Federation; Best Poster prizes for co-authored paper in three conferences; Continues to be the reviewer for many prestigious neurology journals and member of many professional bodies.

Dr Mamta Bhushan Singh. This is the fifth year running that Mamta Singh has continued to conduct outreach epilepsy clinics in different parts of rural India on the mobile train hospital, the Lifeline Express. In the period from March 2013–April 2014, 2–3 day clinics over weekends were held at the following locations: Anuppur, Chattisgarh (May 2013), Jhansi, Uttar Pradesh (September 2013), Wadi, Karnataka (October 2013), Karad, Maharashtra (December 2013), Dalmau, Uttar Pradesh (February 2014). At each of these locations, 150–200, generally treatment naïve,

epilepsy patients were clinically evaluated and started on antiepileptic drugs. As part of this project, patient and caregiver education and epilepsy awareness sessions were also organized. For making epilepsy care sustainable, local physicians at each location are being trained in 'Managing epilepsy in the community'. Invited to be Faculty for the 2014 Donald M. Palatucci Advocacy Leadership Forum of the American Academy of Neurology, San Diego, CA, 30 January 30–2 February 2014.

PATIENT CARE

Total number of patients attended in OPD:

New patients: 26,631

Follow up patients: 56,026

Total number of inpatient admissions: 3682

<p style="text-align: center;">Neuropathology Professor and Head Chitra Sarkar Professor M.C. Sharma Additional Professor Vaishali Suri</p>

EDUCATION

Lectures delivered

Chitra Sarkar: 6

M.C. Sharma: 4

Vaishali Suri: 5

Papers and posters: 20

RESEARCH

Funded projects

Ongoing

1. A Clinicopathological and Molecular Genetic Study of Polycomb Repressive Complexes in Gliomas. Chitra Sarkar, ICMR. Rs. 50 lakhs.
2. Genomic and functional approaches to decipher the role of a large imprinted miRNA cluster in glioblastoma multiforme. Chitra Sarkar, DBT. RTs. 50 lakhs.
3. Centre for Research in Epilepsy with special reference to "Difficult to treat Epilepsy". Chitra Sarkar, DBT. Rs. 3486.58 lakhs.
4. Hypoxia and Notch signaling in Glioblastoma: Implications for an adverse phenotype . Chitra Sarkar, DBT. Rs. 48 lakhs.
5. Molecular Mechanisms of Hypoxia Resistance in Glioblastoma: Role of MicroRNAs. Chitra Sarkar, DBT. Rs. 65 lakhs.
6. Clinical application of array based comparative genomic hybridization (array CGH) in the genetic evaluation of stillbirths. Chitra Sarkar, DBT. Rs. 85 lakhs.
7. Study of epithelial to mesenchymal transition in Ependymomas. MC Sharma, AIIMS, New Delhi. Rs. 10 lakhs.
8. A study of clinicopathological features and molecular genetic alterations in adult versus pediatric meningiomas. Vaishali Suri, AIIMS. Rs 10 lakhs.

Completed

1. Glioblastomas in children and adults: A comparative study with special reference to molecular pathways and MGMT methylation status. Vaishali Suri. ICMR. Rs. 24 lakhs.
2. Hypoxia and p53-HIC1 axis in stemness of glial tumors and cell lines. Chitra Sarkar, Rs. 50.5 lakhs.

Departmental projects

Ongoing

1. Expression of histone markers in gliomas (Dr Chitra Sarkar)
2. ATRX gene expression in gliomas (Dr Chitra Sarkar)

3. miRNA profiling in oligodendrogliomas (Dr Chitra Sarkar)
4. BRAF and EGFR alterations in adult pilocytic astrocytomas (Dr Chitra Sarkar)
5. miRNA profiling in pediatric glioblastomas (Dr Chitra Sarkar)
6. Clinicopathological and molecular subtyping of medulloblastomas (Dr Chitra Sarkar)
7. Characterization of pediatric posterior fossa ependymomas based on FISH 1q gain and expression of LAMA2 and NELL2 proteins (Dr MC Sharma)
8. Craniopharyngiomas – BRAF v600E and Beta-catenin expression (Dr MC Sharma)
9. Study of mTOR pathway in subependymal giant cell astrocytomas (SEGAS) (Dr MC Sharma)
10. Recurrent meningiomas – Genetic alterations (Dr Vaishali Suri)

Completed

1. MGMT methylation in hemangiopericytomas (Dr. Chitra Sarkar)
2. MGMT methylation in gliosarcoma (Dr Chitra Sarkar)
3. Correlation of CDKN2A/p16 alterations with EZH2 expression (Dr Chitra Sarkar)
4. Methylation profiling in pediatric GBMs (Dr Chitra Sarkar)
5. H3F3A mutation in pediatric GBMs and correlation with histone profiling (Dr Chitra Sarkar)
6. Clinicopathological study of AT/RT (Dr Chitra Sarkar)
7. Study of Limb Girdle Muscular Dystrophy (LGMD) Patients in Indian Population Using Calpain-3, Dysferlin and Sarcoglycan Protein Analysis. (Dr MC Sharma)
8. Mutational analysis of Indian patients of Limb Girdle Muscular Dystrophy (LGMD). (Dr MC Sharma)
9. Study of Tuberous Sclerosis Complex and Upregulation of WNT pathway in Subependymal Giant Cell Astrocytomas and Cortical Dysplasia. (Dr MC Sharma)
10. Study of stem cell markers in ependymomas (Dr MC Sharma)
11. Study of Notch pathway in subependymal giant cell astrocytomas (SEGAS) (Dr MC Sharma)
12. Expression of apoptotic proteins in LGMD (Dr. MC Sharma)

Collaborative projects

Ongoing

1. Chip sequencing in gliomas – with IGIB, Delhi (Dr Chitra Sarkar)

PUBLICATIONS

Journals: 28

AWARDS, HONOURS AND SIGNIFICANT ACHIEVEMENTS

Professor Chitra Sarkar delivered the PN Tandon Oration, 62nd Annual Conference of Neurological Society of India, Mumbai, 12–15 December 2013; Chairperson, AIIMS Intramural research committee (Basic Sciences); Member, Council of the Indian Academy of Sciences, Bangalore, for the triennium 2013–2015; Member, Review committee of the journal “Current Science” (2013–15); Member, Governing Body and Scientific Advisory Committee of National Brain Research Centre, Manesar; Member, Scientific Advisory Committee of Institute of Pathology, New Delhi; Member, RNAi committee of Department of Biotechnology, Govt. of India; Participated in the documentary on “Indian Women Scientists” by the CSIR-NISCAIR in collaboration with Vigyan Prasar, Govt. of India.

PATIENT CARE

1. Neuropathology Surgical Specimens:	3011		
2. Frozen Sections:	304		
3. Total muscle biopsies received	421		
Muscle enzyme histochemistry	1039	Muscle immunohistochemistry	2706
4. Immunohistochemistry	7555		
5. Diagnostic fluorescent in situ hybridization	203		
6. Immunoblot	178		
7. Electron Microscopy			
Specimen received	1257	Specimen processed	993

Neuropsychology

Associate Professor

Ashima Nehra

HIGHLIGHTS

Cognitive Disorders and Memory Clinic ('CD' and 'M' Clinic) a separate specialized clinic has formally begun in the last year, on every Wednesday morning by the Departments of Neurology and Clinical Neuropsychology.

EDUCATION

- Under graduate teaching
- Psychology course syllabi of BSc (Hons) First year MBBS teaching
- BSc (Hons/Post Certificate) Nursing
- Post Graduate teaching
- MD, MCh, MSc (Nursing) thesis: AIIMS
- PhD Thesis: AIIMS
- (GFSU): Nomination as faculty for Institute of Behavioural Sciences
- Short Term Training (Clinical Neuro Psychology): AIIMS
- Prepared Course Curriculum for PhD Clinical Neuro Psychology

CMEs/Conference organized by department

1. International Conference on Multidisciplinary Healthcare, 11– 12 January 2014, AIIMS, New Delhi. (Handled the Psychology Core).

Lectures delivered

Ashima Nehra: 12

Papers and posters (presented by residents and research staff): 8

RESEARCH

Funded projects

1. To Study the Effectiveness of Neuropsychological Rehabilitation in Acquired Brain Injury on Computerized Neuropsychological Evaluation and Imaging Technique (fMRI): A Randomized Controlled Clinical Trials. AIIMS, 2014.
2. Preclinical Predictors of progression of cognitive decline in MCI and AD using a Multitasking Paradigm. Ashima Nehra Wadhawan, DST, 2012–15, Rs 40 lakhs.
3. Plasma-derived miRNAs as potential biomarkers for Cognitive Deficits in mild traumatic brain injury, DST, February 2013.
4. Development of Neuropsychological Battery for Vascular Cognitive Impairment in the Indian context. An initiative by Nizam's Institute of Medical Sciences, Hyderabad, 2012 (National-Multicentric Project), ICMR
5. Unraveling the Cause of Stroke and Cognitive Decline in the General Population. A Cross Cultural Perspective Study. DBT, April 2013.
6. Study of the changes in sleep architecture, melatonin levels and metabolic abnormalities on F-18 Fluorodeoxyglucose Positron Emission Tomography (FDG-PET) in persons with Mild Cognitive Impairment (MCI) progressing to Alzheimer's type dementia (AD). CSI, May 2013.
7. Alzheimer Disease Neuroimaging Initiative – A Longitudinal Multi-Centre Study. (ADNI-INDIA PROJECT). DBT-Cognitive Science Initiative, Clinical Neuropsychology Project. AIIMS and NBRC Project, May 2013.
8. Plasma-derived miRNAs as potential biomarkers for Cognitive Deficits in mild traumatic brain injury, DST, February 2013.
9. Study of Sense of Coherence and Spectacles Compliance Among Secondary School Students In Delhi, Intramural, 2013.

Departmental projects

1. Assessment of Cognitive functioning in Pre-diabetes, diabetes and healthy controls

2. A Study to Assess the Effect of Complications and Prevailing Care Practices on Quality of Life of Operated Patients with Traumatic Spinal Cord Injury with a View to Develop a Teaching Module
3. Quantitative EEG correlates of emotion induced changes in cognitive performance
4. To study the extent of cognitive impairment in patient with chronic vestibular disorder and effectiveness of brain gym exercises on their cognitive impairment.
5. A Comparison of Three Different Techniques of Bidirectional Cavopulmonary Anastomosis (BD GLENN) on Cardiopulmonary Bypass in Patients Undergoing Surgery for Univentricular Physiology
6. A Comparative Study of Cognitive Functions, Depression and Anxiety in Neuromyelitis Optica and Multiple Sclerosis with Normal Controls
7. To Study the Effectiveness of Comprehensive Neuropsychological Rehabilitation, as an Adjunct to Standard Pharmacological Treatment for Improving Language and Quality of Life in Patients with Post Stroke Aphasia: A Randomized Controlled Clinical Trial.
8. Development and Effectiveness of Holistic and Integrated Neuropsychological Rehabilitation, for improving Cognitive and Psychological Functioning in Patients with Mild and Moderate Traumatic Brain Injury using a Randomized Controlled Clinical Trial
9. To Study the Effectiveness of Cognitive Rehabilitation on Memory, Language, Attention and Quality of Life in Patients With Mild Alzheimer Disease as Compared to Standard Pharmacological Treatment: A Randomized Controlled Clinical Trial.

Collaborative projects

1. A randomized Study to Assess the Safety, Tolerability and Preliminary Estimate of efficacy of Intracerebroventricular (ICV) Delivery of Valproate in Subjects with Focal Seizures, With or Without Secondary Generalization (with Neurology, Neurosurgery).
2. To study the variation in lateralizing features in the history of patients with epilepsy versus the findings of lateralization on investigation and monitoring (with Neurology).
3. To study the social stigma associated with epilepsy in patients admitted for monitoring (with Neurology).
4. Rose Trial: Radiosurgery Vs Lobectomy for Temporal Lobe Surgery. A multi-centric International Trial. (with Neurology, Neurosurgery).
5. Indian adaptation and validation of a recently developed executive functions test – Jansari Assessment of Executive Functions (JEF) test for adult, chronic neurological populations, that includes Epilepsy, Traumatic Brain Injury (TBI), Mild Cognitive Impairment (MCI), Dementia and Stroke populations (with Neurology).
6. Oxidative DNA damage and total Oxidant Status in Mild Traumatic Brain Injury (with Neurosurgery).
7. Plasma-derived miRNAs as potential biomarkers for Cognitive Deficits in mild traumatic brain injury (with Neurosurgery).
8. Development of Neuropsychological Battery for Vascular Cognitive Impairment in the Indian context. An initiative by Nizam's Institute of Medical sciences, Hyderabad, 2012 (with Neurology and Neuropsychology).
9. Unraveling the Cause of Stroke and Cognitive Decline in the General Population. A cross-Cultural Perspective Study (with Neurology).
10. Study of the changes in sleep architecture, melatonin levels and metabolic abnormalities on F-18 Fluorodeoxyglucose Positron Emission Tomography (FDG-PET) in persons with Mild Cognitive Impairment (MCI) progressing to Alzheimer's type dementia (AD) (with Neurology, Nuclear Medicine).
11. Alzheimer Disease Neuroimaging Initiative – A Longitudinal Multi-Centre Study. ADNI-India Project) (with Neurology, Nuclear Medicine, AIIMS and NBRC).
12. Plasma-derived miRNAs as potential biomarkers for Cognitive Deficits in mild traumatic brain injury (with Neurosurgery).
13. Study of Sense of Coherence and Spectacles Compliance among Secondary School Students In Delhi (with Community Ophthalmology).
14. Safety and efficacy of Ventral Capsular/Ventral Gamma Capsulotomy for Refractory Obsessive Compulsive Disorder: A Pilot Study (with Neurosurgery and Psychiatry).
15. Postoperative Cognitive Dysfunction In Children (POCD) Undergoing Scoliosis Surgery with Neuroanaesthesia).
16. To study the cerebroprotective effects of Dexmedetomidine in patients undergoing epilepsy surgery – A biomarker guided study (with Neuroanaesthesia).

17. Eloquent cortex mapping in chronic intractable epilepsy using Nexstim Navigated brain stimulation system (NBS), functional MRI and MEG: A comparative study (with Neurology, Neurosurgeyr and NMR).
18. Cognitive activation studies of language and memory as a preoperative evaluation in patients with intractable epilepsy – A novel non-invasive method for investigation (with Neurology, Neurosurgeyr and NMR).
19. A Population Based Prospective Cohort study to Unravel the Causes of Stroke and Cognitive Decline: A cross-cultural perspective, AIIMS-ERASMUS COHORT STUDY (with Neurology)

PUBLICATIONS

Journals: 4

Chapters in books: 2

AWARDS, HONOURS AND SIGNIFICANT ACHIEVEMENTS

Dr Ashima Nehra was Editorial Board Member, Neuropsychology section, Asian Journal of Cognitive Neurology, 2013; Scientific Advisory Committee (Psychology), International Conference on Multidisciplinary Healthcare (ICMH), AIIMS 2014; Co-Chairperson (Scientific Committee), 17th Asia-Pacific Conference of Alzheimer Disease International 2014, 7 to 9 November 2014, India Habitat Centre, New Delhi; Award for Significant Contribution in the field of Psychology at the International Conference on Multidisciplinary Healthcare (ICMH), AIIMS, 2014; Elected Vice President of Indian Association of Clinical Psychologists (IACP), Delhi Chapter, 2014; Selection Committee of Central Council for Research in Homoeopathy, for the recruitment of Clinical Psychologists, Meeting, CIP, 3 February 2014, Ranchi; Member Faculty, Institute of Behavioural Science, Gujarat Forensic Sciences University, Gujarat, India; Chairperson, Scientific Paper and Poster session (Psychology) at the International Conference on Multidisciplinary Healthcare, ICMH-2014, AIIMS, New Delhi, 2014; Started Specialized Clinic Registry in: Neuropsychological Rehabilitation (NR), Neurosciences Centre, AIIMS, New Delhi, India, 2013.

PATIENT CARE

Neuropsychological assessment, interpretation and therapy of various Neurosurgical and Neurological patients. It included patients of Head injury, Stroke, Parkinson's, Dementia, Epilepsy, Referrals being received now from 20 departments. Work also included practical neuropsychological assessment / evaluation including clinical diagnosis, comprehensive interview; behavioral 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.

New

- OPD: 4/week.
- Clinical Neuropsychology (CNP):
 - Specialized Clinics
 - Neuropsychological Rehabilitation (NR)
 - Cognitive Disorders and Memory Clinic (CD and M)

	<u>Number of New patients</u>	<u>Time taken/patient/sitting</u>
Consultations	709	45 mins to 4 hours/patient/session
Ward patients	105	45 mins to 4 hours/patient/session
OPD patients	563	45 mins to 4 hours/patient/session
Counseling of patients/relatives	557	About 45 minutes/person/session
Cognitive Retraining/Therapy (NR Registrations)		23 patients X 12-20 sessions each 45 minutes to 1 hour /session/patient
Cognitive Disorders and Memory clinic	42	Up to 4 hours/patient/session
Research cases/ consultations	41	45 mins to 3.5 hours /patient
Evaluation for Issuance of Disability Certificate for Neurological Disorders	09	45 minutes to 2 hours/patient

Neuroradiology

Professor and Head

N. K. Mishra

Professor

Shailesh B Gaikwad

Additional Professor

Ajay Garg

Assistant Professor

Leve Joseph

HIGHLIGHTS

1. Latest state-of-art Biplane flat panel DSA system was installed in the department and made fully functional in the month of October 2013. These systems along with the existing Biplane DSA suite are capable of all advanced neurovascular applications including intra-operative CT facility. Department of Neuroradiology, AIIMS is the first to have two state-of-art Biplane DSA suites to meet the heavy demand for neuro-intervention.
2. Latest state-of-art 1.5T MRI installed adjacent to GK facility was made fully operational to enhance diagnostic and GK knife planning facility for neurosciences centre patients. This system will soon be made silent to enhance patient comfort and compliance

EDUCATION

Undergraduate Teaching: The faculty of the department undertakes undergraduate teaching in conducting seminars and didactic lectures throughout the year.

DM Neuroradiology course started in July 2001. Four candidates are registered for this course.

Short-Term Training: Six candidates visited our department for short-term training during the year.

Lectures delivered

N.K. Mishra: 3

Shailesh B. Gaikwad: 4

Ajay Garg: 11

RESEARCH

Funded projects

1. Efficacy of Imaging Assessment of Neoangiogenesis and Permeability to Pre-operatively Grade Cerebral Glioma. Ajay Garg. Intramural. Rs. 4.8 lakhs.

Departmental projects

1. Intracranial posterior circulation dissecting aneurysms: A retrospective study.
2. Retrospective study of Endovascular treatment in acute ischemic stroke
3. Vein of Galen aneurysmal malformations – A retrospective study
4. Spinal cord AV shunts – Retrospective study

Collaborative projects

1. Diffusion Tensor Imaging (DTI) tractography for prediction of facial nerve position in vestibular schwannoma and its intra-operative correlation
2. Randomized Two Arm Parallel Group Clinical trial to evaluate efficacy of trans-sphenoidal microscopic/ endoscopic surgery using high field intra-operative magnetic resonance imaging guided resection as compared to two dimensional fluoroscopic guidance in extent of tumor resection in Non-functioning Pituitary macro-adenoma
3. fMRI for memory evaluation in patients with Obstructive Sleep Apnea.
4. Predictors of poor visual outcome at six months in patients with Idiopathic Intracranial hypertension

PUBLICATIONS

Journals: 14

Chapters in books: 1

PATIENT CARE

Procedures

	<u>Number of investigations</u>
Digital Subtraction Angiography	757
Interventional Procedures	198
Chemical angioplasty	37
MRI	2598
CT Head	16090
Chest	307
Abdomen	173
Spine	929
HR CT	21
PNS	1386
Mobile CT	1604
Image guided/CT guided study	366
Emergency CT	9820
Ultrasound	1693
Plain X-rays OPD/indoor	23352
Pvt. Case reporting	4535
Intra Op MR	407
Total	64273

AWARDS, HONOURS AND SIGNIFICANT ACHIEVEMENTS

Dr S.B. Gaikwad was nominated as an external expert for Board of Studies for starting of DM Neuroradiology, at SGPGI Lucknow, July, 2013; nominated as an external technical expert for purchase of DSA system, portable CT and Cyclotron, NIMHANS, Bangalore, 8–9 November 2013.

Neurosurgery		
Professor and Head		
B.S. Sharma		
Emeritus Professors		
P.N. Tandon		A.K. Banerjee
Professors		
A.K. Mahapatra (on deputation)		S.S. Kale
P. Sarat Chandra		Ashish Suri
Additional Professors		
Rajinder Kumar		Man Mohan Singh
Deepak Agrawal [Trauma centre]		Deepak Kumar Gupta [Trauma centre]
Sumit Sinha [Trauma centre]		
Associate Professor		
G. D. Satyarthee [Trauma centre]		
Assistant Professors		
Pankaj Kumar Singh	Vivek Tandon	Sachin A. Borker
Hitesh Kumar Gujjar	Aman Jagdewan	Shashwat Mishra
Rajeev Sharma		Shweta Kedia

HIGHLIGHTS

In 2013–14, the focus was on teaching and learning recent advances in neurosurgery. We acquired endoscopic equipment. Workshops and CMEs were organized on endoscopy, functional neurosurgery and advanced spinal surgeries.

1. Prof B.S. Sharma was invited for prestigious Surveer Singh Oration, Rajasthan and Sher – E- Kashmir Sheikh Mohd. Abdulla Oration, Jaipur.
2. Prof B.S. Sharma was also elected as President elect of Neurological society of India and also as president elect of cerebrovascular society of India, his services to our specialty were given due recognition.
3. Prof P. Sarat Chandra was instrumental in starting the centre for epilepsy, which became fully functional. This centre includes facilities for single cell recordings, MEG (NBRC), and other advanced molecular and genetic facilities.
4. Prof Ashish Suri's work in the field of neurosurgical training using simulation won accolades across the world and he was also selected as Adjunct Professor of ANSK School of IT, Indian Institute of Technology, Delhi.
5. Dr Sumit Sinha was awarded AANS international travel scholarship for the best paper at 82nd Annual Meeting of Neurological Surgeons Society, held at San Francisco.
6. Dr Deepak Gupta was awarded Prof Ming-Chien Kao's Award for Best paper on Craniopharyngiomas in World Federation of Neurological Surgeons' Conference, WFNS 2013.
7. Dr Deepak Agrawal contributed immensely in the computerization of AIIMS. He was made faculty in charge for computer facility. He was awarded the prestigious 'Tata Innovation Fellowship' by DBT, he received the Golden Peacock Innovative Product/Service Award 2014, for Computerisation of AIIMS facilities, and was also declared winner for Maharashtra Healthcare Leadership 2014 in the category 'Innovative and Extremely Cost-effective use of ICT for Hospital'.

EDUCATION

Undergraduate

1. Brain Death class for V semester students: Vivek Tandon
2. Brachial Plexus Class for V semester students: Sachin Borkar
3. Case presentations in Histopathology and clinical sciences for VI semester: Vivek Tandon

Nursing

Our faculty members took more than 20 lectures in College of Nursing to teach nursing students. Apart from that, ward and clinical teaching of these students was facilitated by MCh students and faculty.

Postgraduate

On weekly basis, seminar/journal club/case presentation/mortality presentations were organized for MCh residents.

Innovative training programmes

The department organizes regular skills training programme for all its residents in DHR+DST+ DBT Neurosurgery Skills Training Facility at the Central Animal Facility for development of complex neurosurgical skills training. Dr Ashish Suri has been instrumental in organizing these sessions. Apart from this, two other training programmes were organized at the facility.

1. ICMR Neurosurgery Skills Training Short Term 2/4 weeks Programme: Attended by 17 trainees.
2. ICMR Neurosurgery Skills Training Post-MCh Fellowship (6 to 12 months): Attended by 2 fellows.

CMEs/Conferences organized by the department

1. Annual AIIMS Microneurosurgery workshop organized in February 2014. Attended by 200 delegates. Focus was on Endoscopic Surgery. Visiting Faculty were famous endoscopic surgeons, Prof. Henry Schroeder (Germany), Prof Y.R. Yadav (Jabalpur)
2. ICMR Neurosurgery skills training workshop organized quarterly. Various national and international faculty from Germany (Prof. Martin Bettag) imparted hands on training to delegates.
 - a. 26–28 April 2013: 14 delegates
 - b. 23–25 August 2013: 16 delegates
 - c. 29 November–1 December 2013: 19 delegates.
3. Neurotrauma Conference August 2013
ICP monitoring and cerebral microdialysis in traumatic brain injury.

Visiting Faculty

Peter Andrews (U.K), Mathew Joseph (Vellore), Namas Chandra (USA), Subodh Raju (Hyderabad), Paritosh Pandey (NIMHANS), Col. H.S. Bhatoe (Chandigarh)

4. Annual AIIMS Spinal surgery Workshop (October). Prof. Daniel Kim (Houston USA), demonstrated minimal access spinal surgery.
5. AIIMS live workshop for surgery for spasticity and pain was held at JPNATC, AIIMS, 20–21 March 2014. Prof Takaomi Taira, MD, Ph.D. Director of Stereotactic and Functional Neurosurgery, Department of Neurosurgery, Tokyo Women's Medical University, Japan was the visiting faculty who demonstrated live surgeries.
6. Sarveshwari Memorial Oration: Prof. Henry Schroder (Germany)
7. Management of Complex Spinal Trauma – 4th Live Operative Workshop and Symposium, JPNATC, AIIMS, 10–12 May 2014. Dr Vincent Traynelis, MD, Director, Neurosurgery Spine Service, Vice chairperson and professor, Rush Univ Med Center, Chicago, USA. Demonstrated complex surgical procedures in the workshop.
8. Annual Conference of Indian Society of Peripheral Nerve Surgery (March). Visiting faculties were luminaries in the field of peripheral nerve surgery, namely – Prof. Debora G. (Italy), Dr Tim Hems (U.K), Dr Mukund (Mumbai), Dr Rakesh Khazanchi (New Delhi)
9. Lecture on cervical spinal surgeries by Prof. Praveen Mummaneni: Prof Praveen Mummaneni MD: Professor and Vice Chair of Neurological Surgery Director of Minimally Invasive and Cervical Spine Surgery Director, Minimally Invasive and Complex Spine Fellowship Programme. Co-director, Spinal Surgery and UCSF Spine Center, USA. He spoke on cervical neurosurgical procedures and interacted with faculty and residents.

Lectures delivered

P. Sarat Chandra: 9

Ashish Suri: 14

Deepak Gupta: 9

Pankaj Kumar Singh: 1

Sachin Anil Borkar: 1

Vivek Tandon: 4

Papers and posters (presented by residents and research staff): 7

RESEARCH

Funded projects

Ongoing

1. Evaluation of development of neurosurgery skills by hands on skills training and interactive virtual training modules (web based, tele-education and virtual evaluation). Ashish Suri, AIIMS+CSE- IIT-D. Indian Council of Medical Research (ICMR), Ministry of Health and Family Welfare, 3 years, Rs. 144 lakhs.
2. Development of Low-Cost Versatile Endoscopic Equipment System for Neurosurgery Ashish Suri, AIIMS+CBME–IIT-D. DST-Instrumentation Development Programme (DST- IDP), India, 3 years. Rs. 86 lakhs.
3. Neurosurgery Skills Training Facility (Cadaver Dissection Stations) and 3D Surgical Endoscopic 3D Microscopic Central Repository Server for Archival and Streaming. Ashish Suri, AIIMS+ CSE–IIT-D. DST–FIST Level II: Ministry of Science and Technology. 5 years. Rs.650 lakhs.
4. Foundation of Trusted and Scalable: Last Mile Healthcare, Indo-US joint R and D PROJECT BY IIT-Delhi, All India Institute of Medical Sciences (AIIMS–Delhi), C-DAC, Chennai, Dartmouth College and Rice University, USA. AIIMS+CSE–IIT-D. Rs 130 lakhs.
5. CHIRAG: Indo US Collaborative Head injury study in Acute severe head injuries (NIH–DBT funded), Deepak Gupta.
6. EUROTHERM3235: Hypothermia in Acute severe Traumatic brain injury for control of Intractable intracranial hypertension (NHS funded), Deepak Gupta.
7. International Infantile hydrocephalus study: A multi-centre, prospective, randomized study under the aegis of International Study Group for Neuroendoscopy (ISGNE) and International Society for Paediatric Neurosurgery (ISPN), Deepak Gupta.
8. To see usefulness of cerebral microdialysis in ischemia vs mitochondrial dysfunction in severe traumatic brain injuries. Intramural, Deepak Gupta.
9. Diffusion Tensor Imaging (DTI) tractography for prediction of facial nerve position in vestibular schwannoma and its intra-operative correlation. Intramural, AIIMS, Sachin Anil Borkar.
10. Cervical rotation before and after hinge-door cervical laminoplasty for cervical spondylotic myelopathy and its relation to post-operative axial neck symptoms. AO Spine India, Sachin Anil Borkar.
11. Randomized Two Arm Parallel Group Clinical trial to evaluate efficacy of trans-sphenoidal microscopic/ endoscopic surgery using high field intra-operative magnetic resonance imaging guided resection as compared to two dimensional fluoroscopic guidance in extent of tumor resection in Pituitary macro-adenoma. Intramural project, Vivek Tandon, Rs. 2.5 lakhs.

Completed

1. Expansion of DST + DBT Sponsored Neurosurgery Skills Training Facility and Development of Stereoscopic (3 Dimensional - 3D) Virtual Training Modules for Neurosurgery Skills Training AIIMS+ CSE- IIT-D

Departmental projects

Ongoing

1. Anterior trans-petrosal approach to middle skull base lesions
2. Surgical treatment of Cushing's disease
3. Giant pituitary adenoma
4. Intramedullary tumors: A retrospective analysis

Completed

1. Stem cells in regeneration of sciatic nerve in rats

PUBLICATIONS

Journals: 30

AWARD, HONOURS AND SIGNIFICANT ACHIEVEMENTS

Professor P Sarat Chandra was Elected President of Asian Epilepsy Surgery Congress; Elected, Member, sub commission for Pediatric Epilepsy Surgery, International League Against Epilepsy; Elected as officer and Treasurer of Neurological Society of India; Won the AIIMS prize for excellence; The center of excellence for epilepsy under Prof P Sarat Chandra, has successfully completed 3rd year. The advanced neurobiology lab has started single neuron recordings for performing advanced research on patients undergoing epilepsy surgery. The magneto encephalography at NBRC has successfully completed recordings in over 140 patients.

Professor Ashish Suri was Selected as Adjunct Professor in the ANSK School of IT, Computer Science and Engineering, IIT Delhi; member of Brainstorming Team on Science and Technology Perspective for changing India for Ministry of Science and Technology, TIFAC, New Delhi, India; Expert for technical evaluation of Medical Equipment for Technology Development Board; Expert for Research Advisory Council, Datta Meghe Institute of Medical Sciences, Nagpur; Expert DST Advisory Group on Medical and Healthcare Instrumentation; Co-Chairman Academic Committee and Executive Member NSSI – Neurological Surgeons Society of India, 2012 till date

Dr Deepak Gupta was awarded the Prof. Ming-Chien Kao's Award for Best paper on Craniopharyngiomas in World Federation of Neurological Surgeons Conference, WFNS 2013. 13–17 September 2013, Seoul, South Korea (for work on Craniopharyngiomas).

Dr Vivek Tandon was assistant editor for Indian Journal of Neurosurgery; Represented AIIMS in high power committee of Department of telecommunications on Electromagnetic field radiation and its effect on humans.

PATIENT CARE

Department of Neurosurgery has two units with general neurosurgical ward under each unit (35X2 beds). There are two ICUs with 23 beds. There are now 7 elective operation theatres and one exclusive operation theatre in trauma centre. We offer world class neurosurgical facilities in all neurosurgical sub-specialties, which include: vascular surgery, epilepsy surgery, minimally invasive cranial and spinal neurosurgery, pediatric neurosurgery, functional neurosurgery, neuro-oncosurgery, skull base and complex spinal surgeries. Following number of patients were treated by us during the year 2013–14.

OPD cases

New cases	12377	Old cases	31389
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Total cases 43766

Paediatric cases

New cases	1719	Old cases	6273
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Total cases 7992

Gamma knife treatment 375

Number of elective surgeries 3514

Surgeries in Intraoperative MRI (CNC) 234	Number of surgeries in trauma centre	1397
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Total number of surgeries 4911

11.1 B.B. Dikshit Library

Professor In-charge/Library Committee

S. Rajeshwari

Chief Librarian

S. Siva Chidambaram

HIGHLIGHTS

The Dr B.B. Dikshit Library has over 150,000 books and other documents such as bound journals, pamphlets, etc. Even though this library is an academic cum research library for all healthcare personnel, recently it has developed a collection of around 2000 Hindi books also. It is also equipped with modern facilities to support medical education and research. The library subscribes/receives and maintains about 857 periodicals/journals including online journals and databases. In addition, the library also subscribes to *Up-to-date systematic review database* and 64 e-Books. These online databases and journals/periodicals can be accessed through IP enabled access in the campus. Very few society-based journals may be accessed through username and password. The necessary information is circulated from time to time in the Library and is also available on the AIIMS website: <http://www.aiims.edu/aiims/library/library.htm>

The library committee is an advisory body for management of the B.B. Dikshit Library. It advises the Chief Librarian regarding procurements of books and subscription of journals/periodicals and databases. The present committee consists of Professor In-charge as the Chairperson, and four Professors, three Additional Professors and two Assistant Professors from various departments as members and the Chief Librarian as a Co-ordinator.

The Library has an in-house computer system consisting of a server and 46 computers. The library automation software system supports data entry and retrieval in Hindi as well. The Library also has CD-ROM databases on medical literature. All documentation/bibliographic services as well as certain library operations have been computerized, using integrated library management software 'LIBSYS'. Information on all books and other documents received in the library are available online through intranet within the campus and it is being updated regularly. Library provides *Current Awareness Service* and *Bibliographical and Reference Services*. Recently, the library started *AIIMS Institutional Repository Bulletin* and readers can search the bibliographic details of papers/articles published by faculty members and research scholars in different national and international journals.

In spite of space and staff shortage, the library is being kept open round the clock (24 hours) on all days of the week including Sundays and holidays. It provides services to and fulfills the need of around 3000 regular members. An average of 300 readers visit the library every day. The library has been providing services like web-based Open Access Public Catalogue (Web OPAC), Internet searching facility with Wi-Fi, reprography and print out of academic literature, and book bank for undergraduate students.

PARTICIPATION IN EVENTS

1. Dr S. Siva Chidambaram participated in the Training cum Awareness Programme on 'IndMED and MedIND', 19th Feb 2014 at NIC HQ, New Delhi.
2. Dr S. Siva Chidambaram chaired a session on Library and Information Professionals Summit (LIPS) 2014 on from Brick to Click: Transforming Libraries into Social Spaces, 7-8 February 2014, New Delhi, India. Jointly Organized by Society for Library Professionals (SLP) & University of Delhi South Campus
3. Dr S. Siva Chidambaram participated in stakeholders meeting on International Conference on Digital Libraries (ICDL) 2013, 13 March 2014 at TERI, New Delhi
4. Mr M.K. Vishwakarma attended a National Conference of UNESCO on 'Opening up by Closing the Circle: Strengthening Open Access in India', 21st October 2013 at JNU, New Delhi.
5. Mr M.K. Vishwakarma attended a National Seminar on Publisher-Library Partnership 'E-Content 2013' organized by Informatics (India) Limited, Le Meridian Hotel, New Delhi, 23rd October 2013.
6. Mr Jahangir Khan, M.K. Vishwakarma and Rakesh Rawat presented a paper titled 'Wi-Fi network technology and its uses for healthcare professionals: a case study', National Convention of Medical Library Association of India (MLAI) 2013, Sarojini Naidu Medical college, Agra, UP, 22-24 January 2014.

7. Mr Prashant Shrivastava attended Taylor & Francis interactive library event 'Unraveling the new age library', New Delhi, 22nd Nov 2013.
8. Mr Prashant Shrivastava and Mr Umesh Kumar attended the 16th National convention on 'Knowledge, Library and Information Networking' (NACLIN 2013) at Jaipur on 10-12 December 2013.
9. Mr Prashant Shrivastava and Mr Umesh Kumar attended Library and Information Professionals Summit (LIPS 2014) at South campus Delhi University on 7-8 February 2014.
10. Mr Ajay Kumar Saroha, attended Taylor & Francis interactive library event 'Unraveling the new age library' in New Delhi on 22nd Nov. 2013 and won the prize of 100 ebooks.

11.2 Cafeteria

Chairperson

R.S. Shukla (Deputy Director, Administration) up to 8 January 2014
O.P. Kharbanda (w.e.f. 9 January 2014)

Member Secretary

O.P. Kharbanda (up to 8 January 2014)
Sushma Sagar (w.e.f. 9 January 2014)

Accounts Officer

A.K. Sharma

General Manager

S.K. Kaushik

Deputy General Manager

K.K. Sharma

AIMS AND OBJECTIVES

The cafeteria was established in 1972 to provide wholesome food, prepared in healthy hygienic conditions at reasonable prices to the employees of the Institute. It is being run on 'No Profit No Loss' basis, without any financial assistance from the Institute for equipment, furniture, utensils and other basic requirements of the Café.

MANAGEMENT COMMITTEE

A Management Committee is constituted by Director, AIIMS for policy decisions pertaining to the Cafeteria. The following are the members.

Dr O.P. Kharbanda	Chairperson
Dr Neena Malhotra	Member
Dr Binod Kumar Khaitan	Member
Dr Vanlalnghka Darlong	Member
Dr Rajesh Khadgawat	Member
Dr Sumit Sinha	Member
Representative of FAIMS	Member
Representative of RDA	Member
Representative of Officers Association	Member
Representative of Nurses Union	Member
Representative of Karamchari Union	Member
Dr Sushma Sagar	Member-secretary
Shri S.K. Kaushik, General Manager, Cafe	Coordinator

SERVICE FACILITIES

The cafeteria runs 8 units for services to about 10,000 employees of the Institute.

1. Main cafeteria (24-hour service) situated near Jawahar Lal Nehru Auditorium.
2. Main operation theatre cafeteria situated on 9th floor of main hospital.
3. CN Centre cafeteria situated on 2nd floor of the Centre.
4. Dr R.P. Centre operation theatre cafeteria situated on 5th floor of the Centre.
5. Centre for Dental Education and Research
6. Dr B.R. Ambedkar Institute–Rotary Cancer Hospital (IRCH)
7. Faculty room cafeteria situated near Main Cafeteria
8. Outreach OPD, Village Badsa Jhajjar, Haryana

In addition, cafeteria provides hospitality services to all higher officers and faculty members for their day to day requirements, as well as all special requirements for important official meetings, workshops, symposia, etc.

STAFF STRENGTH

Ninety-five employees are appointed in the cafeteria on regular as well as ad-hoc /temporary status/contractual basis.

ANNUAL TURN OVER

The total turnover of the Cafeteria is approximately 3 crores 37 lakhs.

DEVELOPMENT ACTIVITIES

Several changes were made in the Cafeteria during the past financial year. These included an establishment of an independent in-house OPD canteen to cater to the needs of patients and their relatives. The canteen works round the clock and provides hygienic food with a good ambience.

FUTURE PLANS

There is a proposal for construction of multi-story cafeteria well equipped with latest technology to provide healthy food under hygienic conditions to cater to the needs of all the employees of the Institute.

11.3 Central Animal Facility

Professor in-Charge

D.N. Rao

Senior Veterinary Officer

P.K. Yadav

Veterinary Officer

Vijender Singh

During 2013--14, rodents and non-human primates (monkeys) were maintained in the facility. The various activities of this unit are categorized as follows.

Small animals (rodents)

The following rodents (average/month) have been maintained throughout the year.

1. Rats (Wistar)	736
2. Rats (Sprague Dawley)	212
3. Mice (Swiss)	434
4. Rabbits (New Zealand)	070
5. Guinea Pigs (Dunkin Hartley)	065

A total of 3,423 small animals (rats, mice, rabbits and guinea pigs) were supplied to various departments and a number of animals were also sold to sister Institutions in Delhi and outside Delhi including 45 rats, 100 mice, 9 rabbits and 85 guinea pigs.

Non-human primates (Monkeys)

Census report

Total number of monkeys on 1 April 2013	10
Rehabilitation	Nil
Deaths	Nil
Total number of monkeys on 31 March 2014	10

Breeding programme

All monkeys were carried out in open run. Non-human primates have five indoor runs which are utilized to provide exercises to all the monkeys and housed in the monkeys runs.

Rehabilitation facility

A programme for rehabilitation of monkeys was started in the year 2000. All monkeys which were used for a period of three to five years of experiments, and old monkeys were also put in open run. Most of these monkeys were permanently rehabilitated (after experiments) to animal welfare organization as per the instructions of the CPCSEA.

Non-human primates (monkey) have five indoor runs and are used for physical exercises to 10 monkeys.

Clinical procedures done

Blood samples collected	20
Physical examination, TB Test and weight	20
Hematology & biochemistry	20
X-ray	10

Experimental surgery

Twenty-five surgical procedures were done by various departments on animals in the facility. These departments include Surgery, Biomedical Engineering Unit, Neurosurgery, Paediatric surgery, Laboratory medicine, Biotechnology, Stem Cell facility and Pathology.

Institutional Animal Ethics Committee

The Institutional Animal Ethics Committee (IAEC) cleared 46 projects on small animals (Rodents) of various investigators of Institute during 2013–14.

Services provided

A departmental wing has been operational for maintaining the animals belonging to the Department of Microbiology, Biomedical Engineering Unit, Biochemistry, Biotechnology, Reproductive Biology, Anatomy, Psychiatry, Pathology, Laboratory Medicine, Stem Cell Facility, Neurology and Neurosurgery. This facility housed the following animals: Sprague Dawley Rats 30, Rats 95, Mice 330, Rabbits 33, Guinea Pigs 3 belonging to the above departments.

The Central Animal Facility provided laboratory facilities to various investigators, viz., vacuum drying of sera and storage of serum samples, haematology, clinical biochemistry, microscopic investigation and X-ray facility.

Educational programme

1. Dr D.N. Rao, Officer-In-Charge and Dr P.K. Yadav, Senior Veterinary Officer have been invited as guest lecturers by the National Institute of Animal Welfare under the Ministry of Environment and Forest. The ministry conducts one week and two week training programmes on animal welfare.
2. Dr P.K. Yadav, Senior Veterinary Officer, Mr Jasbir, Laboratory Attendant and Mr Dhananjay Kumar, Animal House attendant routinely helped in the 'Animals in Minimally Invasive Surgery Training Centre, Department of Surgical Disciplines, AIIMS'.

11.4 Central Workshop

Faculty Coordinator

Shashi Kant (up to 9 January 2014)
Ganga Prasad (w.e.f 10 January 2014)

Chief Technical Officer

Adarsh Kumar Sharma

Senior Technical Officer

Kalu Ram

The strength of Group B and C staff in the central workshop is as under:

Technical officer	7		
Technician (Grade I)	5	Technician (Grade II)	10
Workshop Assistant	2	Khalasi	6
Store Clerk (UDC)	1	Assistant (NS)	1

HIGHLIGHTS

The central workshop plays an important role in aiding smooth and complete patient care activities. It is engaged in the repair and maintenance of various equipment used for medical education, scientific research and hospital services and ensures quality functioning of all categories of equipments in multiple specialties of the hospital. It also modifies instruments according to the needs of the departments as well as undertakes new fabrication jobs.

There are various sections in the central workshop catering to the above mentioned services. Each section is headed by a technical officer with supporting staff. These are:

Electronic section	Electrical section
Refrigerating section	Mechanical section – I and II
Fine Instrument Section	Painting ,Upholstery, and Carpentry section

LOCATION AND WORKING HOURS

The central workshop is located in the basement, ground floor and first floor in a building adjacent to the laundry and near the post-mortem house. It also has one minor repair centre on the seventh floor of the main hospital building (opposite lift number 10). The Department is staffed Monday through Friday from 9.30 am to 5.15 pm and on Saturday from 9.30 am to 1.15 pm.

MAJOR FUNCTIONS

Repair and maintenance

The Central Workshop is responsible for preventive and corrective maintenance of diagnostic and therapeutic equipment and provides evaluation of new technology, conducts device incident investigations and ensures that equipment is in proper and safe operating conditions.

A skilled team of technicians and officers is available to provide the above stated facilities. The team provides efficient support in maintaining various equipment in the hospital in good working condition. The list of such equipment includes but is not limited to blood pressure instruments, infusion pumps, multi-parameter monitors, defibrillators, patient warmers, operating theatre tables, refrigerators, deep freezers, microwave ovens, spectrophotometer, electronic weighing machines, operating theatre lights, microscopes, needle destroyers, water bath, X-ray view boxes, operating theatre machines, suction machines, wall suction regulators, oxygen regulators, flowmeters, servo stabilizers, boilers, hot plates, table top centrifuges, stainless steel drums and surgical instruments.

The central workshop also does repair and painting jobs of all hospital furniture such as patient beds, trolleys and lockers, instrument and loading trolleys, bed-side lockers, push carts, and many more.

During 2013–14, the central workshop attended to a total of 4845 repair jobs.

Fabrication and guidance

In spite of gradually increasing load of repair and maintenance activities, the central workshop has been able to help in the research activities of the Institute with design and fabrication of useful gadgets as per specifications provided by the departments.

Twenty-three different jobs (total of 209 items) were fabricated by the central workshop during 2013–14 and included tracheostomy tube, stilette, hammer cap, handle for surgical instruments, Perspex box, battery stand, gel casting tray, head and hand protector, bend cutter, task box stand, iron rack, rectal probe, Soda lamp stand, MLS stand, valve nut, acrylic bench, sample tray, suction bottle lid, trolley tray, L piece, anesthesia circuit holder piece, etc.

Short-term training

The central 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 Kasturba Polytechnic for Women (Delhi) were provided short-term training during 2013–14.

11.5 Computer Facility

Professor in-charge

P. P. Kotwal

Systems Analysts

S.N. Ragu Kumar

Satish Prasad

Sushil Kumar Meher

Senior Programmers

Sanjay Gupta

S.P. Singh

Vinay Pande

Hari Shankar

Programmers

Tripta Sharma

Sanjeev Kumar

Shyamal Barua

Ankita Saini

EDUCATION

Postgraduate

Computer programming classes covering both theory and practical aspects were conducted for postgraduate students of the Department of Biotechnology and College of Nursing. Training was also provided 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).

SERVICES

Hospital Computerization

The following software designs, development, implementation and support activities were done

Dr B.R. Ambedkar Institute Rotary Cancer Hospital

Continuous maintenance and enhancement of modules for IRCH Centre was done and some of the functionalities/modules included: New Case Registration, Old Case Registration, In-patient Registration, Day Care Appointment System, Drug authorization software for in-patient and day care, Billing, Cheque Printing Facility, Lab Request/Collection software tool, Lab reporting, Discharge summary, Radiotherapy, Medical Oncology, Day Care discharge, Pain Clinic discharge, and Medical Oncology department.

Main Hospital and Centers

Software developed by NIC under the supervision of computer facility providing a common platform for the whole AIIMS computerization process is being implemented. New & Revisit, Clinic Registration and appointment of the Rajkumari Amrit Kaur OPD, CN Centre OPD, RP Centre OPD and Centre for Dental Education and Research OPD.

Cash & Billing

Billing has been implemented on a number of locations including Main Cash counter, New Private Ward building (Ground floor), Rajkumari Amrit Kaur OPD (Ground floor), RP Centre, Center for Dental Education and Research, and CN Centre.

IPD Registration

In-patient is now registered with the new software developed by NIC. It covers short-term and long-term admission of patients with related face sheet generation in Main Hospital, CN Centre and RP Centre.

Laboratory Information System

The three laboratories of Laboratory Medicine (Clinical chemistry, Haematology and Clinical microbiology) is computerized and includes Laboratory appointment, Sample registration, Bar code generation, Sample received (acceptance), Result generation and authorization. Hitachi Auto analyzer was interfaced with eHospital for auto result generation for Laboratory medicine. All reporting is being done at respective locations (Wards, ICUs, OTs, etc.).

Admission, Transfer & Discharge (ADT) in wards

This has been implemented in Main Hospital, CN Centre and RP Centre.

Store and Sub-Stores (Inventory Management System)

Sub-stores are maintained at ward level in Main hospital, CN Centre, IRCH and RP Centre.

Dietary

The dieticians make dietary chart online from wards and send it electronically to the dietetics department for patients admitted in wards. A complete diet list is provided in the module. A complete MIS is maintained and is available for dietary department. This module is developed for Main Hospital, CN Centre, RP Centre and Dietetics Department.

EHS Implementation Status

Registration and room allocation, Diagnosis of EHS patient in EHS Wing, and Medicine Distribution (EHS Pharmacy) is functional. The prescribed medicines are reflected at the pharmacy counter and displayed in pharmacy till 4 days of prescribed date to facilitate patients. There are 8 online counters for patients, 6 in the morning and 2 in the evening. Pharmacy store (EHS Pharmacy): Maintains their stock and transfers medicines to all 8 counters on their demand (raising indent) and stock gets automatically updated in counters as well as store. When pharmacy store requires stock they take it from main store and enter the stock for their needs.

CN Centre Blood Bank

A complete online process is provided for users ease and consists of donor's registration, bag preparation, screening, component preparation, etc. The whole process is computerized in both online as well as offline mode and is working. It covers the activities of Donor profile entry, Donor medical history, Donor blood group identification, Blood bag preparation, TTI screening, Component preparation, Aphaeresis, Requisition, Cross match details, Issue details, Blood transfer, Bulk receive, MIS.

Online OT scheduling is now implemented successfully. It enables creation of OT list & scheduling easily and with fewer errors as compared to the manual method. The OT scheduling software helps in keeping complete and accurate record along with immediate data availability of all operated patients. This will be a boon for research as searching according to diagnosis and/or surgeon for each specialty is now available. Online OT scheduling is introduced in all departments of AIIMS for both routine and emergency cases. NIS (Nurse Informatics specialists) posted in respective areas are giving intensive training to all resident doctors regarding online OT scheduling.

Emergency Department

Computerization of the emergency department started with implementation of the lab modules and was a boon for both residents and patients. Later on training for other modules such as eHospital, online store management was given to the staff nurses and ward in-charges. Training for PACS was given to all staff and residents, ending the long wait of patients for their X-rays and CT reports in emergency. Installation of Wi-Fi access point in the emergency has made patient data access much easier for the residents. Filling of printed registration slip by the residents was made mandatory for getting the casualty paper made.

A Patient Display System, showing all the details of the patients was put up in all the emergency areas with a view to convey the treatment status of each patient in emergency, therefore establishing transparency in hospital care service, in turn leading to efficient patient care and management. A system-based registry included in PDS is of great help in data collection. The advantages are:

1. Provides easy access to patient information
2. Helps in data collection
3. Helps in resource allocation. Ensures transparency of hospital care system
4. Helps in solving queries of patients' relatives.
5. Tells the status of each patient in real time

Wi-Fi in Hospital area

More than 200 wireless hotspots have been set up across all centers and the main hospital. Through Wi-Fi one can seamlessly roam across AIIMS campus on single network automatically. The wireless network is based on the latest technology and is POE (power over Ethernet) to ensure high availability. The procedure:

1. For INTRANET access (PACS, e-Hospital, Library resources) select Access point AIIMS-INTRANET (once only) and you are connected to all above services. No need for any Wi-Fi password, etc.
2. For INTERNET access (Email etc). This facility is made available only for AIIMS faculty. MAC address of each device which needs to be connected to internet needs to be given in prescribed format. Once bound at CF, AIIMS, user can access internet on device on same network.

RICHO Network Printer

In AIIMS 100 RICOH network printers have been installed in the Main hospital, Dr BR Ambedkar IRCH, RP Centre and Cardio Neuro Centre. All printers are functional and have proved a boon for the computerization of AIIMS. These printers will increase efficiency of in-hospital operations to expand the print and document services and its cheaper cost of service will offer greater value to organization.

Appointment system

All departments in main hospital have been introduced in the Out Patient Area. Appointments for new patients can be obtained from the main OPD counter, Medicine, Pediatrics, PM & R and Pulmonary Medicine OPD registration counters. The OPD registration limits have also been changed so that 75% are for appointments and remaining, i.e. 25% plus vacant slots of appointments are for walk-in patients. Patients with appointments directly come to registration counter for OPD card without standing in queue.

KIOSKS

These are vandal proof computers with touch and type input placed in public areas of AIIMS for use by doctors and nurses to view PACS images, lab reports, enter notes on CPRS and patient vitals by nurses. As ubiquitous access to computers was the biggest hurdle to entry of patient vitals and patient notes, we hope to overcome this handicap with these kiosks. These are also connected to network printers so that printout can be taken from a central location.

Electronic Patient Record System

Clinical note entry (Admission note, round note, discharge note, operation note etc) in CPRS. Viewing of all labs in CPRS, Vital entry for all In-patients (At least once in each shift), Nursing transfer notes, E-Roster across main AIIMS.

PACS

Open PACS (Oviyam) implementation all over Main AIIMS is in progress.

E-Hospital Application Software Implementation Status at AIIMS, Jhajjar (Haryana)

On an average, 300 patients are registered in the OPD. Online prescription of medicine by doctors and issue of medicine free of cost to patients is computerized.

Rajgarhia Vishram Sadan (Three Vishram Sadans)

This module was developed and provided continuous support to the end user for smooth functioning of room reservation and billing.

Faculty management system

This is an interface for faculty members of AIIMS where they can find any details related to them including leaves applied, OPD and IPD patients diagnosed, OT details, publications, ACR and annual report. The advantages are:

1. Faculty members do not need to go to the administration for any query regarding leaves, national/ international conferences. Faculty dashboard will provide this detail in a single screen.
2. Annual report which is currently running will enable faculty members to provide details regarding CME's, publications, books published, projects details, etc.

Administration

- Computer Facility along with NIC was involved in coordinating and implementing eOffice in all sections of administration/Finance/ Engineering/Stores including Centers.
- Maintaining the Finance Server (Novell)/Administrative Server (Windows) for financial applications and web based administrative applications.

IT infrastructure and Networking, Internet and Intranet management activities

1. Facility Management for Wireless Networking: Continued implementation of support systems and call centers for student support.
2. Continued management of webmail system.
3. Continued management of Unified Threat Management (UTM) and installation done for security of computer networks and application for management at gateway level antivirus, anti-spam, IPS, load balancing and content filtering.
4. Continued management of successful implementation of wireless networking zones at around 18 hostel locations, creating Wi-Fi zones for internet, information and online journals access to students and resident doctors. So far 2500 students have availed this facility. Currently 1200 users are registered for this facility.
5. Continued management of online access to journals subscribed by B.B. Dixit Library is enabled through VPN tunnel based access outside the Institute.
6. Continued management of ICU Neuro patient monitoring online to view the status of ICU patients anywhere outside the ICU.
7. Continued management of CT-6 ICU patient monitoring online to view the status of ICU patients anywhere outside the ICU.
8. Bilingual website creation process continued. So far 46 departments/centers have been translated into Hindi and hosted on the website.
9. Continued management of Wi-Fi zone at B.B. Dikshit Library for internet and online journal access for students.
10. The website of *www.aiims.edu*, *www.aiims.ac.in* is being maintained in-house by the Computer Facility.
11. Internet facility for faculty and students was maintained 24x7x365 days on the AIIMS network at around 3900 nodes (including 881 e-Hospital nodes).
12. National Knowledge Network (NKN) lease line of 1 Gbps with capacity to extend up to 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.
13. Creation and maintenance of 990 email user accounts on aiims.ac.in domain.
14. The total number of visitors to AIIMS website was approx. 36 lakh during 2013–14.
15. Maintenance of Web server, Proxy server and Mail Server 24x7x365 days.
16. 350 new internet connections have been provided to faculty and officers staff of AIIMS.
17. Facility management and call maintenance for internet and network user's complaints and resolution.
18. Continued management of technical coordination for online journal access and provision of journal access using internet and computers at Duty rooms and common rooms for scholars and senior/junior residents.
19. Continued VPN tunnel management between AIIMS and FSS Chennai for CN Centre OPD cash card payment gateway.
20. Taken over e-Hospital (Main Hospital) & Outreach OPD Jhajjar networking by network unit of Computer Facility, AIIMS.
21. Committee was constituted for considering project MOU between AIIMS, New Delhi & ERNET for wi-fi networking.
22. VPN based access mechanism for e-Hospital module access from outside AIIMS configured particularly for Ballabgarh, AIIMS centers.
23. Email server licenses renewed for one more year.
24. Proposal submitted for internet lease line connection for outreach OPD Jhajjar.
25. Networking and configuration through NKN done for connecting Centre for excellence, Epilepsy and brain center's remote location
26. Total no. of pages updated, created and uploaded on AIIMS website: Approximately 1700

Other facilities

The following facilities were maintained during the year:

1. Email and FTP facility

2. BBDL OPAC Services
3. Consultancy for Software, Hardware and Networking

PUBLICATIONS: 3

SIGNIFICANT EVENTS

Mr S.N. Ragu Kumar and Hari Shanker conducted Orientation program for MBBS students and Resident Doctor's AIIMS.

Mr Satish Prasad was the Database administrator of the Administrative LAN (Novel Netware server), which caters to the Administration and Finance and administrator of eOffice (NIC). Continued maintaining software for AIIMS Finance Division. Coordinated the implementation and training of eOffice Project (NIC) in various departments/sections at AIIMS. Course Coordinator and teaching faculty of MSc, BSc and Post-certificate Information Technology classes of College of Nursing; Took classes on Windows OS, applications software used in IT of 'Disaster Management course' for Indian Red Cross Society (Master's course affiliated to IP University).

Mr S.K. Meher was course coordinator for course of Computer Application, for MSc Biotech, Biomedicine, MSc (Nursing) and Post-certificate of Information Technology for Nursing. He is training two defense doctors in the field of Medical Informatics posted in AIIMS for two years, Conducted computer orientation program for MBBS students of AIIMS; implemented eHospital and networking in AIIMS and centers of AIIMS, Supervising eHospital implementation in CHC Jhajjar, Member of technical committee of CF and drafted technical specifications for the computer software and hardware, Supervised CNC Networking (Cable and Wi-Fi) installation, Member of inspection committee for Computers, and IT hardware purchased by CF; Reviewer for Journal of Biomedical Informatics (JBI), American Association of Medical Informatics, 9th World Conference of Gerontechnology (ISG 2014) and Journal of Computer Methods and Programs in Biomedicine (Elsevier); Member, Medical electronic and Health Informatics working group for project evaluation: Department of Electronics and Information Technology, Government of India; Elected President of Indian Association of Medical Informatics for 2014-2015; presented paper in World congress in Health and Medical Informatics in Copenhagen, Denmark; Co-investigator of DST project: oldagesolutions.org

Mr Vinay Pande, Officer in Charge eHospital store and Computer Facility Store, managed and deployed/issued various computer/peripherals/consumables and other assets pertaining to eHospital project and other computerization projects; Involved in Computerisation of these two stores; Took MSc, BSc Inf. Technology and Medical Informatics classes of Nursing College, AIIMS; took classes of IT in Disaster Management and Cyber Terrorism for Indian Red Cross Society (Masters course affiliated to I.P. University).

11.6 Electron Microscope Facility

Professor and Officer in-charge

Taposh K. Das

Additional Professor

T.C. Nag

Technical Officer

Sandeep Arya

EDUCATION

1. 12 M.Biotech students of the Department of Biotechnology, AIIMS, received a two week training from 23 August to 5 September 2013 (as part of their first Semester Cell Biology Practicals).
2. Twenty-one B.Sc. (Hons) second year students along with two faculties from APC Roy College, Siliguri (West Bengal) visited EM lab on 20 November 2013, as a part of their curriculum.
3. Twenty-two M.Sc. second year students along with two faculty members from Department of Zoology, University of North Bengal, West Bengal visited EM lab on 28 November 2014, as a part of their curriculum.
4. Four M.Sc. second year students along with one faculty member from Department of Physiology, University of Calcutta, visited EM lab on 8 January 2014, as a part of their curriculum.
5. Forty-three MBBS first year students along with one faculty from NDMC Medical College, Delhi, visited EM lab on 17 January 2014, as a part of their curriculum.

CME

1. The 29th National Training Programme in Electron Microscopy for scientific investigators was held from 17 to 31 October 2013. Eighteen candidates from different parts of the country participated in this training programme. In all, 13 lectures were delivered by former Professor Shashi Wadhwa, Professor Taposh K. Das and Dr T.C. Nag to the participants.
2. The summer training course in Electron Microscopy for technical persons was held from 16 May to 25 June 2013. Four candidates were trained in sample processing, ultra-microtomy, CPD, sputter coating, TEM and SEM viewing and routine maintenance of microscopes.

RESEARCH

Funded projects

Ongoing

1. Morphological and biochemical changes in neonatal chick retina following exposure to variable photoperiods. Dr T.C. Nag, SERB, 3 years, 2013–16, '33.6 lakhs.

Completed

1. Structural and biochemical changes in the vascular network of ageing human retina. T.C. Nag, AIIMS, 2 years, 2011–13, '5 lakhs.
2. Endemic fluorosis: Role of oxidative stress as a causative factor for skeletal fluorosis. Taposh K. Das, Ministry of Environment and Forests, 3 years, 2010–13, '23 lakhs.

Departmental projects

Ongoing

1. Correlation between autophagy and apoptosis in ischaemia-reperfusion injury model by middle cerebral artery occlusion in rat brain.
2. Light-induced retinal degeneration in neonatal chicks.
3. Ultra-structural changes of the human choroidal vessels with ageing.
4. Status of histone acetyl-transferase and SIRT1 in a rat model of light-induced retinal degeneration.

Collaborative projects

Ongoing

1. A study to establish the role of T-helper 17 (Th-17) cells in the Asian Indian Arthritis patients (with Orthopaedics).
2. Role of fluoride toxicity on renal pathogenesis in childhood Nephrotic Syndrome: An ultrastructure, biochemical, protein profiling study (with Paediatrics).

Completed

1. Phenotypic, molecular and ultra-structural studies of coagulase-negative Staphylococcus sp. and their biofilm in device-related infections (with Dr R.P. Centre).
2. Cardio-protective mechanism of telmisartan in experimental model of myocardial infarction in streptozotocin-induced diabetic rats (with Pharmacology).

PUBLICATIONS

1. Kumar Gupta S, Kumar B, Srinivasan BP, Nag TC, Srivastava S, Saxena R, et al. Retinoprotective effects of *Moringa oleifera* via antioxidant, anti-inflammatory, and anti-angiogenic mechanisms in streptozotocin-induced diabetic rats. *J Ocul Pharmacol Ther* 2013;29:419–26.
2. Kumar B, Gupta SK, Srinivasan BP, Nag TC, Srivastava S, Saxena R, et al. Hesperetin rescues retinal oxidative stress, neuroinflammation and apoptosis in diabetic rats. *Microvasc Res* 2013;87:65–74.
3. Sanyal T, Palanisamy P, Nag TC, Roy TS, Wadhwa S. Effect of prenatal loud music and noise on total number of neurons and glia, neuronal nuclear area and volume of chick brainstem auditory nuclei, field L and hippocampus: A stereological investigation. *Int J Dev Neurosci* 2013;31:234–44.
4. Roy S, Nag TC, Upadhyay AD, Mathur R, Jain S. Repetitive auditory stimulation at a critical prenatal period modulates the postnatal functional development of the auditory as well as visual system in chicks (*Gallus domesticus*). *Dev Neurobiol* 2013;73:688–701.
5. Pal A, Singh A, Nag TC, Chattopadhyay P, Mathur R, Jain S. Iron oxide nanoparticles and magnetic field exposure promote functional recovery by attenuating free radical-induced damage in rats with spinal cord transection. *Int J Nanomedicine* 2013;8:2259–72.

PATIENT CARE

Special laboratory facilities

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

S. No.	Facilities	User number		Specimens analysed	
		External	Internal	External	Internal
1.	Transmission electron microscope	360	150	837	361
2.	Scanning electron microscope	45	9	422	84
3.	Immuno-electron microscopy	15	36	27	22

AWARDS AND HONOURS AND SIGNIFICANT EVENTS

Professor T.K. Das was invited to deliver a talk at the XXXIV Annual Meeting of the EMSI on ‘Immunoelectron microscopy’, Kolkata, 3–5 July 2013.

Dr T.C. Nag was invited to deliver a talk at Department of Anatomy, IMS, BHU on 26 April 2013; XXXIV Annual Meeting of the EMSI on ‘Retinal vascular changes in normal aging’, Kolkata, 3–5 July 2013; DRDO, DIPAS, Delhi, 20 January 2014, ‘An overview of human brain anatomy’; MM (PG) College, Modi Nagar, 1 March 2014, International Conference on Recent Trends in Inter-disciplinary Sciences: Opportunities and Challenges. He reviewed manuscripts from *Cell Biology International*, *Experimental Eye Research*, *Indian Journal of Ophthalmology*, *Indian Journal of Medical Research* and *International Journal of Experimental Pathology*.

11.7 Hostel Section

Superintendent

N.K. Mehra

Deputy Superintendent

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

Senior Administrative Officer

Keshav K. Giridhari

Accounts Officer

Sunil Jain

Stores Officer

Narender

The AIIMS has several hostels for residents with a capacity of over 1200 single/double rooms, about 200 married accommodations and 388 accommodations for nursing students/staff nurses. These are spread over different hostels and residences in the AIIMS Main Campus, Masjid Moth, A.V. Nagar, Transit Accommodation and the JPNATC Hostel (Raj Nagar). The details are as follows.

RESIDENCES

S.No.	Hostel	Location	Single room	Double/Three/ Four/Five seater	Guest rooms (with 2 beds)	Total
<u>Gents Hostel</u>						
1.	I (Charak)	Main Campus	62	3×2=6	–	68
2.	II (Jivak)	Main Campus	55	2×2=4	1	60
3.	III (Sushruta)	Main Campus	70	6×2=12	1	83
4.	IV (Madhava)	Main Campus	53	7×2=14	–	67
5.	V (Nagarjuna)	Main Campus	52	5×2=10	–	62
6.	VI (Vagbhatta)	Main Campus	69	7×2=14	–	83
7.	VII (Ashwini)	Main Campus	108	4×2=8	1	117
8.	VIII (Bharadwaj)	Main Campus	108	1×2=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				<u>943</u>
<u>Quarters for the married</u>						
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	29			29
5.	JPNATC	Raj Nagar	6			6
		Total				<u>174</u>

Ladies Hostels

1.	IX (Saraswati)	Main Campus	62	16/1/1/0	1	102
2.	X (Parvati)	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						<u>280</u>

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						<u>388</u>
Grand Total						<u>1,785</u>

The AIIMS follows a policy of zero tolerance towards ragging in the hostels. For this purpose, an anti-ragging cell has been created and the wardens and security personnel are ready to guide and support any student with a complaint or inconvenience.

INFRASTRUCTURE ADDED

- New hostels.** Because of acute shortage of rooms for students/residents, the hostel Committee organized several meetings with the administration and the Engineering section to expedite the construction of the New Hostel block in the Masjid Moth area. Presently, 3 towers are under construction with a total of 350 rooms. Another block is under active consideration. One of the new hostel blocks is expected to be ready by the end of August 2014 and two blocks are expected to be ready by the end of 2014.
- Upgradation of the existing rooms.** Superintendent of Hostels, Professor N.K. Mehra has been concerned with the facilities provided to residents/students in various hostels. Accordingly, it was decided to renovate all existing rooms in a phased manner. To begin with a model room has been prepared in Hostel No. VII with in-built cupboards, wash basin, new electrical fitting and new flooring. All the rooms in Hostel No. I to XI will be renovated fully as per the model room renovated in Hostel No. VII. This will be done in a phased manner beginning with the postgraduate hostels. This will significantly upgrade the living standards of the residents and provide a more congenial environment for their studies.
- Additional rooms for students (Ladies hostel).** During the past few years, the number of girls students entering the MBBS, B.Sc. and M.Sc. courses have more than doubled. To meet their demand, additional 16 rooms (Porta cabin) have been added to the Ladies Hostel.
- The main entry road of the Gents Hostel has been widened with tiled flooring on both sides with adjoining lawns. The postgraduate hostel has been aesthetically landscaped with stone cuts and new floor tiles. A barricade has been put up in front of Hostel No. VII to restrict entry of vehicles. A dedicated parking zone has been earmarked for vehicles with separate sign boards for two wheelers and cars. The hostel messes have been planned for upgradation and T.V. rooms in hostels have been renovated and provided with L.E.D. TVs and Godrej sofas.
- Hostel Office.** The most important work undertaken during the year has been the construction of a new hostel office in Hostel No. VII, complete with all facilities. It has separate cabins/cubicles for the wardens and a dedicated cashier room. The office of the Superintendent of hostels is attached to the Hostel Section office for better coordination. The new hostel office was inaugurated on 18 November 2013 by the Director.
- A visitor room with an attached bathroom has been added on the ground floor in Hostel No. VII for convenience of visiting parents/guardians.
- Safety and security measures.** All Gents Hostels have been provided with appropriate gates for better security. Round the clock security guards have been posted in all hostels for safety of the residents. The Institute has provided cab facility for female residents on late evening duties who stay in a radius of 5 km around the AIIMS campus. A Grievance Cell (email ID: aiimshostelgrievance@gmail.com) has been in operation in room No. 13 in Gents Hostel complex. Faculty from the Department of Psychiatry is on duty from 5.30 pm to 6.30 pm [Monday to Fridays] to address the grievances of students.
- Messes.** Café No. 5 in Gents Hostel has been renovated with modern kitchen facilities and beautification of the lawn in the outer area. The café is open from 8 am to 12.30 pm on all days.

FUTURE PLANS

1. **Infrastructure.** Since the strength of nursing students has increased appreciably over the past few years, additional rooms have been planned in the New Nurses Hostel block in Masjid Moth area.
2. **Hostel rule book.** The Hostel Committee has undertaken the task of revising the Hostel Rule Book with complete information on duties and responsibilities of the students and residents and allotment rules.

11.8 Institution Ethics Committee

- **The meetings of Institute Ethics Committee were as follows:**
 - Institute Ethics Committee : 12
 - Institute Ethics Committee for post graduate Research for Basic & Clinical Science : 12
- **The projects reviewed by the institute ethics committee were as follows:**
 - New Project Proposal : 573
 - Old Projects : 139
- **The projects reviewed by the Institute Ethics Committee for postgraduate research for basic and clinical science were as follows:**
 - New Thesis : 383
 - Review Thesis : 344

In addition, the Institute Ethics Committee continued to receive notifications of serious adverse reactions, serious adverse events, six monthly progress report and completion report, etc.

The Institute Ethics Committee's standard operating procedures (SOP's) were modified and were made available on the AIIMS website.

SIGNIFICANT EVENTS

The Institute Ethics Committee and Institute Ethics Committee for Post Graduate research for Basic & Clinical Science were registered with DCGI and FWA.

11.9 K.L. Wig Centre for Medical Education and Technology

Chief

O.P. Kharbanda (w.e.f. 22 January 2014)

Professor in-charge

K.K. Deepak (1 April 2013 to 21 January 2014)

K.K. Deepak (Faculty Development of Basic Sciences; w.e.f. 22 January 2014)

Rita Sood (Faculty Development of Clinical faculty of Medicine and allied disciplines; w.e.f. 22 January 2014)

Anurag Srivastava (For Faculty Development of Surgical disciplines; w.e.f. 22 January 2014)

Co-ordinator (Medical Sciences)

Rakesh Yadav (up to 21 January 2014)

Co-ordinator (Dental Sciences)

O.P. Kharbanda (up to 21 January 2014)

Education Media Generalist

Yogesh Kumar

Manager (HRD)

Sourav Sarkar

Lecturer, English and Communication Skills

Saraswati (w.e.f. 2 September 2014)

HIGHLIGHTS

Being a Central Facility for Medical Education and Technology, the CMET contributed in enhancing various skills of faculty, staff and students. Scientific writing workshops were organized for the faculty, junior and senior resident doctors, pool officers and Ph.D. students to help them in publishing their research. To sharpen the skills of staff, workshops were organized for office superintendents/assistants, LDC/UDC/secretarial staff and for temporary status staff. To enhance the computer skills a series of hands-on workshops were organized for the senior/junior residents, pool officers, Ph.D. students on topics like information retrieval in health sciences, bibliography management, tools for scientific writing in MS Word, effective presentations, medical photography and how to conduct a workshop. Orientation programmes were also organized for residents and interns.

EDUCATION

CME/Workshops/Symposia/National and International conferences

A total of 71 workshops were held during 2013–14 (Table I). Orientation workshops were held for 53 newly inducted residents. An orientation programme was also held for 46 new joined interns. CMET also conducted 10 workshops for the M.Sc. Nursing students (Table I).

A ten-day residential workshop was organized by AIIMS for the fresh MBBS batch of 2013 in collaboration with Centre for Research in Education for Social Transformation (CREST) in which CMET provided the venue, technical assistance and logistics. This workshop was followed by a two-day sensitization workshop for the mentoring faculty belonging to basic science disciplines. Two workshops were organized for the senior faculty of AIIMS on Leadership and Management of Procurement.

As a part of English teaching and communication skills programme, CMET organized 104 lectures for MBBS, B.Sc. Nursing (Hons.), B.Sc. Nursing, Post Certificate, B.Sc. (Hons.) in Medical Technology Ophthalmic Techniques, B.Sc. (Hons.) in Radiography. Sessions were also conducted on communication skills in Skill Enhancement workshops for secretarial cadre (175 candidates).

Table I. In-house workshops organized

S. No.	Topic of Workshop	Target Group	Number of participants	Date
1.	Writing a research paper	Jr. residents, Sr. residents, Ph.D. students, Pool officers	27	8–9 April 2013
2.	Working in a team	OS/Assistants(Morning Batch)	30	21 May 2013
3.	Working in a team	OS/Assistants(Evening Batch)	25	21 May 2013
4.	Stress management	OS/Assistants(Morning Batch)	30	23 May 2013
5.	Stress management	OS/Assistant(Evening Batch)	21	23 May 2013
6.	Effective communication in organization	OS/Assistants(Morning Batch)	25	28 May 2013
7.	Effective communication in organization	OS/Assistants(Evening Batch)	18	28 May 2013
8.	Application of MS word	OS/Assistants	20	6 June 2013
9.	Application of MS word	OS/Assistants	19	7 June 2013
10.	Interactive lecture series in Medical Education (10 sessions of three hours each (total 30 hours course)*	SR/JR from Centre of Community Medicine	15	22 May to 27 June 2013
11.	Self enrichment programme for MBBS students by CREST	New MBBS students		18–27 July 2013
12.	Teacher mentor programme	Faculty		29–30 July 2013
13.	Orientation programme for resident doctors of AIIMS	Residents	56	21 August 2013
14.	Group D Training #	Group D (TS) staff	35	2–6 September 2013
15.	Group D Training (Two batches)	Group D (TS) staff	77	9–13 September 2013
16.	Noting and drafting	LDC/UDC	21	3 October 2013
17.	Noting and drafting	LDC/UDC	29	7 October 2013
18.	Noting and drafting	LDC/UDC	27	14 October 2013
19.	Noting and drafting	LDC/UDC	27	17 October 2013
20.	Noting and drafting	LDC/UDC	31	21 October 2013
21.	Noting and drafting	LDC/UDC	31	28 October 2013
22.	Noting and drafting	LDC/UDC	34	8 November 2013
23.	Noting and drafting	LDC/UDC	32	13 November 2013
24.	Media in medical education	M.Sc. Nursing students	24	15 October 2013
25.	Designing effective presentation	M.Sc.Nursing students	24	22 October 2013
26.	Presentation skills	M.Sc. Nursing students	24	25 October 2013
27.	Animation in power-point	M.Sc. Nursing students	24	29 October 2013
28.	Tool for scientific writing in health sciences	M.Sc. Nursing students	24	31 October 2013

29.	Information retrieval in health sciences	M.Sc. Nursing students	24	7 November 2013
30.	Designing pamphlet and poster	M.Sc. Nursing students	24	12 November 2013
31.	Creativity	M.Sc. Nursing students	24	15 November 2013
32.	Workshop on workshop	M.Sc. Nursing students	24	21 November 2013
33.	Microteaching	M.Sc. Nursing students	24	3 December 2013
34.	Information retrieval in health sciences using internet	JR/SR, Ph.D. Students/ Pool Officers	31	7 January 2014
35.	Information retrieval in health sciences using internet	JR/SR, Ph.D. Students/ Pool Officers	31	9 January 2014
36.	Bibliography management	JR/SR, Ph.D. Students/ Pool Officers	21	15 January 2014
37.	Bibliography management	JR/SR, Ph.D. Students/ Pool Officers	27	17 January 2014
38.	Tools for scientific writing in MS word	JR/SR, Ph.D. Students/ Pool Officers	40	21 January 2014
39.	Tools for scientific writing in MS word	JR/SR, Ph.D. Students/ Pool Officers	30	22 January 2014
40.	Bibliography management	JR/SR, Ph.D. Students/ Pool Officers	24	28 January 2014
41.	Designing effective presentation	JR/SR, Ph.D. Students/ Pool Officers	26	29 January 2014
42.	Designing effective presentation	JR/SR, Ph.D. Students/ Pool Officers	29	31 January 2014
43.	Designing posters and pamphlets	JR/SR, Ph.D. Students/ Pool Officers	25	5 February 2014
44.	Animation in power-point	JR/SR, Ph.D. Students/ Pool Officers	22	11 February 2014
45.	Introduction to medical photography	JR/SR, Ph.D. Students/ Pool Officers	13	18 February 2014
46.	Animation in power-point	JR/SR, Ph.D. Students/ Pool Officers	14	20 February 2014
47.	How to organize a workshop	JR/SR, Ph.D. Students/ Pool Officers	14	25 February 2014
48.	Scientific writing	Faculty	27	20–21 January 2014
49.	Team building	Secretarial staff(Batch 1)	24	27 January 2014
50.	Communication skills	Secretarial staff	24	30 January 2014
51.	Stress management	Secretarial staff	24	6 February 2014
52.	Application of MS word	Secretarial staff	24	12 February 2014
53.	Team building	Secretarial staff (Batch 2)	25	7 February 2014
54.	Communication skills	Secretarial staff	25	10 February 2014
55.	Stress management	Secretarial staff	25	14 February 2014
56.	Application of MS word	Secretarial staff	25	19 February 2014

57.	Team building	Secretarial staff (Batch 3)	28	20 February 2014
58.	Communication skills	Secretarial staff	28	24 February 2014
59.	Stress management	Secretarial staff	28	28 February 2014
60.	Application of MS word	Secretarial staff	28	3 March 2014
61.	Team building	Secretarial staff (Batch 4)	29	21 February 2014
62.	Communication skills	Secretarial staff	29	26 February 2014
63.	Stress management	Secretarial staff	29	4 March 2014
64.	Application of MS word	Secretarial staff	29	6 March 2014
65.	Team building	Secretarial staff (Batch 5)	32	5 March 2014
66.	Communication skills	Secretarial staff	32	7 March 2014
67.	Stress management	Secretarial staff	32	11 March 2014
68.	Application of MS word	Secretarial staff	32	14 March 2014
69.	Orientation program for interns	Interns, AIIMS	46	11 February 2014
70.	Orientation program for residents	Residents, AIIMS	54	17 February 2014
71.	Scientific writing	JR/SR, Ph.D.Students/ Pool Officers	38	31 March 14 to 1 April 2014

*These 10 sessions of three hours each, total 30 hours course were designed for resident doctors of Centre for Community Medicine. This series covered important topics like Group dynamics, Adult learning principles, Lesson plan and objectives, Curriculum/large group teaching, Structured assessment, MCQ, OSPE/OSCE, Ethics and professionalism, Quality assurance in medical education and Microteaching.

#CMET organized a capacity building training programme for Group D employees (TS) of AIIMS belonging to eight categories: Hospital attendants, Office attendants, Laundry attendants, Beldars, Khalasi, Mali, Kitchen staff, Bearers, and Cleaners. 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 programme was rolled out in September 2013 in 3 batches.

FACILITIES EXTENDED

CMET extended logistic support to various departments of AIIMS to organize 36 workshops. It provided the venue, technical support including audio-visual and computer facilities. It also provided facilities for practical sessions (10 days) for College of Nursing, AIIMS.

EXHIBITIONS ORGANIZED

CMET played a key role in organizing the 58th Institute Day Exhibition from 25–27 September 2013. The theme of the exhibition was 'Infection and Public Health'. The exhibition included hundreds of posters, and video/live demonstrations besides skits and role plays. The exhibition was inaugurated by the Hon'ble Union Health Minister and was attended by a large number of general public.

Details of Media Production for 2013–14

Particulars	Total number
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

* Indicates total number of photographs or scans

VISITING SCIENTISTS

1. Dr Karen Trollope-Kumar, Co-chair, Professional Competencies, Michael De Groote School of Medicine, McMaster University, Canada, delivered a lecture on ‘Teaching Ethics and Medico-legal aspects of Medicine’, Ramalingawami Board Room, 21 November 2013.
2. Dr Animesh Mishra, Chairman, Medical Education Unit, Professor, Department of Cardiology, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, (NEIGRIHMS), Shillong, August 2013.
3. Dr Mohd. Yunus Rizvi, Coordinator, Medical Education Unit (MEU), Additional Professor, Department of Urology, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, (NEIGRIHMS), Shillong, August 2013.
4. Dr Vijay Mittal, Professor of Surgery, Wynaes State University, School of Medicine, Detroit, Michigan, USA, delivered a lecture on ‘CLEAR-Clinical Learning Environment by Teaching Institutions’, 9 March 2014.
5. Dr Molly Cooke, President, American College of Physicians (ACP) delivered a lecture on ‘Digital Pedagogy, Flipped classrooms and MOOCs—What they mean for Health Professions Education?’, 14 March 2014.

12. Publications

1. Abraham RA, Bahl VK, Parshad R, Seenu V, Roy A, Golandaz S, Dorairaj P, Ramakrishnan L. Content of trans fatty acids in human cheek epithelium: comparison with serum and adipose tissue. *Biomed Res Int*. 2013;2013:276174. Epub 2013 Oct 8.
2. Affandi JS, Kumar M, Agarwal U, Singh S, Price P. The search for a genetic factor associating with immune restoration disease in HIV patients co-infected with *Mycobacterium tuberculosis*. *Dis Markers*. 2013;34(6): 445-9.
3. Agarwal KK, Karunanithi S, Jain S, Kumar R. Ovarian carcinoma producing parathyroid hormone-related protein causing hypercalcemia and metastatic calcification detected on (18)F-FDG PET-CT. *Indian J Nucl Med*. 2013 Oct;28(4):237-9.
4. Agarwal M, Purohit AH, Mahapatra M, Kumar R, Mishra P, Seth T, Saxena R. Pleural effusion as an unusual initial presentation of acute myeloid leukemia. *Indian J Hematol Blood Transfus* 2014; 30 (3): 195-6.
5. Agarwal N, Arulselvi S, Pandey RM, Karjee S, Arya V. An audit of fresh frozen plasma usage in a tertiary trauma care center in north India. *Indian J Hematol Blood Transfusion* 2013; DOI 10.1007/s12288-013-0265-0.
6. Agarwal N, Singh S, Kriplani A, Bhatla N, Singh N. Evaluation of gabapentin in management of hot flushes in postmenopausal women. *Post Reprod Health* 2014; 20(1):36-38.
7. Agarwal R, Chakrabarti A, Shah A, Gupta D, Guleria R, Moss R, Denning DW et al; Allergic bronchopulmonary aspergilliosis, review of literature and proposal of new diagnostic and classification criteria, ABPA complicating asthma ISHAM working group. *Clin Exp Allergy* 2013; 43 (8): 350-73.
8. Agarwal R, Virmani D, Jaipal M, Gupta S, Sankar MJ, Bhatia S, Deorari AK, et al. Investigators of LBW Micronutrient Study Group. Iron stores in low and normal birth weight infants at birth and in early infancy. *Indian J Pediatr* 2014;81:279-82
9. Agarwal R, Virmani D, Jaipal M, Gupta S, Sankar MJ, Bhatia S, Sreenivas.V et al. Poor zinc status in early infancy among both low and normal birth weight infants and their mothers in Delhi. *Neonatology*, 2013, 103 (1), 54-59.
10. Agarwal R, Virmani D, Jaipal M, Gupta S, Toteja GS; Investigators of LBW Micronutrient Study Group. Vitamin A status of low and normal birth weight infants at birth and in early infancy. *Indian Pediatr*. 2013 Oct;50(10):951-3.
11. Agarwal S, Gupta S, Ojha A, Sinha R. Childhood vitiligo: clinicoepidemiologic profile of 268 children from the Kumaun region of Uttarakhand, India. *Pediatr Dermatol*. 2013;30(3):348-53.
12. Agarwal S, Sharma MC, Jha P, Pathak P, Suri V, Sarkar C, Chosdol K, et al. Comparative study of IDH1 mutations in gliomas by immunohistochemistry and DNA sequencing. *Neuro Oncol*. 2013; 15(6): 718-26.
13. Agarwal SK, HCV infection during renal replacement therapy: What we have learnt in two decade?, *Indian Journal of Transplantation* (2014), <http://dx.doi.org/10.1016/j.ijt.2014.01.003>
14. Agarwal SK, Sethi S, Dinda AK. Basics of kidney biopsy: A nephrologist's perspective. *Indian J Nephrol*. 2013 Jul;23(4):243-52.
15. Agarwal T, Jhanji V, Singh D, Khokhar S. Two-step technique for posterior optic button holing of intraocular lens. *Optom Vis Sci*. 2014 [Epub ahead of print].
16. Agarwala S, Jindal B, M Jana, V Bhatnagar, AK Gupta, VK Iyer. Malignant rhabdoid tumor of liver. *J Ind Assoc Pediatr Surg* 2014;19:38-40
17. Aggarwal K, Bhatia R, Sharma G, Patel C, Padma MV, Prasad K, et al. Prevalence of symptomatic and asymptomatic coronary artery disease in patients with stroke. *Natl Med J India* 2013;26:279-81.
18. Aggarwal K, Khandpur S, Khanna N, Sharma VK, Pandav CS. Comparison of clinical and cost-effectiveness of psoralen+ultraviolet A versus psoralen+sunlight in the treatment of chronic plaque psoriasis in a developing economy. *Int J Dermatol* 2013; 52: 478-85

19. Aggarwal S, Bansal A. Laparoscopic management of renal hydatid cyst. *JLS* 2014;18(2): 361-6
20. Aggarwal S, Kailash S, Sagar R, Tripathi M, Sreenivas V, Sharma R, et al. Neuropsychological dysfunction in idiopathic hypoparathyroidism and its relationship with intracranial calcification and serum total calcium. *Eur J Endocrinol* 2013;168:895–903.
21. Aggarwal S, Modi S, Jose T. Laparoscopic Sleeve Gastrectomy leads to reduction in thyroxine requirement in morbidly obese patients with hypothyroidism, *World J Surg* 2014; Epub ahead of print]
22. Aggarwal S, Sharma AP, Kumar R, Anand S. Totally Robotic Roux-en-Y Gastric Bypass: Technique. *Indian J Surg*. 2013; Epub: DoI 10.1007/s12262-013-0948-7
23. Aggarwal S, Sharma AP, Ramaswamy N. Outcome of Laparoscopic Sleeve Gastrectomy With and Without Staple Line Oversewing in Morbidly Obese Patients: A Randomized Study. *J Laparoendosc Adv Surg Tech A* 2013; 23(11): 895-899
24. Aggarwal S, Yadav K, Sharma A. Laparoscopic Bilateral Trans-peritoneal Adrenalectomy for Cushing Syndrome- Surgical Challenges and Lessons Learnt *Surg Laparosc Endosc Percutan Tech* 2013; 23(3): 324-328
25. Agrawal D, Joshua SP. Large pontine tubercular abscess treated surgically (Author response). *Br J Neurosurg*. 2013 Oct;27(5):707.
26. Ahmad F, Budde U, Jan R, Oyen F, Kannan M, Saxena R, Schneppenheim R. Phenotypic and molecular characterisation of type 3 von Willebrand disease in a cohort of Indian patients. *Thromb Haemost* 2013; 109 (4): 652-60
27. Ahmad F, Jan R, Kannan M, Obser T, Hassan MI, Oyen F, Budde U, Saxena R, Schneppenheim R. Characterisation of mutations and molecular studies of type 2 von Willebrand disease. *Thromb Haemost* 2013; 109 (1): 39-46
28. Ahmad F, Oyen F, Jan R, Budde U, Schneppenheim R, Saxena R. Germline de novo mutations and linkage markers vs. DNA sequencing for carrier detection in von Willebrand disease. *Haemophilia* 2014 Jul; 20 (4): e311-7.
29. Ahmed A, Bhatnagar S, Rana SP, Ahmad SM, Joshi S, Mishra S. Prevalence of phantom breast pain and sensation among postmastectomy patients suffering from breast cancer: a prospective study. *Pain Pract*. 2014 Feb; 14(2): E17-28
30. Ahmed I, Krishnamurthy S, Kakkar A, Julka PK, Rath GK. Primary anaplastic astrocytoma of the brain after prophylactic cranial irradiation in a case of acute lymphoblastic leukemia: Case report and review of the literature. *Indian J Med Paediatr Oncol*. 2014; 35: 86-8
31. Ahmed S, Pahwa S, Das CJ, Mir FA, Nisar S, Jehangir M, et al. Comparative evaluation of sonographic ovarian morphology of Indian women with polycystic ovary syndrome versus those of normal women. *Indian J Endocrinol Metab* 2014; 18(2): 180-4.
32. Ahmed Z, Goyal A, Das CJ, Deka D, Sharma R. Herlyn-Werner-Wunderlich syndrome presenting with infertility: Role of MRI in diagnosis. *Indian J Radiol Imaging*. 2013;23(3):243-6.
33. Ahmedani BK, Kubiak SP, Kessler RC, de Graaf R, Sagar R, Anthony JC et al. Embarrassment when illness strikes a close relative: a World Mental Health Survey Consortium Multi-Site Study. *Psychol Med* 2013; 43: 2191-202.
34. Ahuja A, Gupta R, Sharma A, Bagga A, Bhowmik DM, Agarwal SK, et al. Idiopathic collapsing glomerulopathy: A clinicopathologic analysis of 30 cases. *Indian J Nephrol* 2014;239:242.
35. Akhtar N, Anand V, Verma KK, Sharma A. Augmented telomerase activity and reduced telomere length in parthenium-induced contact dermatitis. *J Eur Acad Dermatol Venereol*. 2013, 27: 1222-27.
36. Akhter MS, Biswas A, Rashid H, Devi L, Behari M, Saxena R. Screening of the NOS3 gene identifies the variants 894G/T, 1998C/G and 2479G/A to be associate with acute onset ischemic stroke in young Asian Indians. *J Neurol Sci* 2014; 20: S0022—5
37. Akizu N, Silhavy JL, Rosti RO, Scott E, Fenstermaker AG, Schroth J, . . . , Gupta N, Kabra M, et al. Mutations in CSPP1 lead to classical Joubert syndrome. *Am J Hum Genet* 2014;94(1):80-6

38. Al-Adawi S, Bax B, Bryant-Waugh R, Claudino AM, Hay P, Monteleone P, (Sharan P), et al. Revision of ICD – status update on feeding and eating disorders. *Adv Eating Disord: Theory Res Practice* 2013;1:1-10.
39. Alam R, Tripathi M, Mansoori N, Parveen S, Luthra K, Lakshmy R, ... Mukhopadhyay AK. Synergistic Epistasis of Paraoxojase I (rs662 and rs85460) and Apolipoprotein E4 Genes in Pathogenesis of Alzheimer's Disease and Vascular Dementia. *Am J Alzheimer's Dis Other Dementias* 2014; 1-8 DOI: 10.1177/1533317514539541
40. Ali M, Afzal M, Bhattacharya SM, Ahmad FJ, Dinda AK. Nanopharmaceuticals to target antifilarials: a comprehensive review. *Expert Opin Drug Deliv.* 2013 . May;10(5):665-78.
41. Ali M, Afzal M, Kaushik U, Bhattacharya SM, Ahmad FJ, Dinda AK. Perceptive solutions to anti-filarial chemotherapy of lymphatic filariasis from the plethora of nanomedical sciences. *J Drug Target.* 2014 Jan;22(1):1-13.
42. Ali M, Afzal M, Verma M, Bhattacharya SM, Ahmad FJ, Samim M, et al, Therapeutic efficacy of poly (lactic-co-glycolic acid) nanoparticles encapsulated ivermectin (nano-ivermectin) against brugian filariasis in experimental rodent model. *Parasitol Res.* 2014 Feb;113(2):681-91
43. Ali M, Afzal M, Verma M, Misra-Bhattacharya S, Ahmad FJ, Dinda AK. Improved antifilarial activity of ivermectin in chitosan-alginate nanoparticles against human lymphatic filarial parasite, *Brugia malayi*. *Parasitol Res.* 2013Aug;112(8):2933-43.
44. Ali N, Jyotsna VP, Kumar N, Mani K. Prevalence of depression among type 2 diabetes compared to healthy non-diabetic controls. *J Assoc Physicians India* 2013; 61: 619-21
45. Ali R, Kumar S, Naqvi RA, Rao DN. Multiple Antigen Peptide consisting of B- and T-cell epitopes of F1 antigen of *Y. pestis* showed enhanced humoral and mucosal immune response in different strains of mice. *Int. immunopharmacology*, 15, 97-105; 2013.
46. Ali R, Kumar S, Rao DN. B and T cell epitopes mapping and study the humoral and cell mediated immune response to B–T constructs of YscF antigen of *Yersinia pestis.*, *Comparative Immunology Microbiol and Infectious Disease*, 36(4), 365-378; 2013.
47. Ali R, Naqvi RA, Azaj AB, Rao DN. Cell mediated immune response of palmitoyl multiple antigen peptide containing immunodominant epitopes of F1 antigen of *Yersinia pestis* in murine model. *Scand J Immunol*, 77 (5), 361-377; 2013.
48. Ali Z, Prabhakar H, Wani N. Pontine infarct during deep brain stimulation surgery as the cause of postoperative hemiparesis. *J Neuroanaesthesiol Crit Care*, 2014; 1: 61
49. Alyusuf RH, Prasad K, Abdel Satir AM, Abalkhail AA, Arora RK. Development and validation of a tool to evaluate the quality of medical education websites in pathology. *J Pathol Inform.* 2013;4:29
50. Ambekar A, Rao R, Agrawal A. India's National Narcotic Drugs and Psychotropic Substances Policy 2012: A 20th Century Document in 21st Century." *Int J Drug Pol* 2013; 24:374-5.
51. Ambekar A, Rao R, Pun A, Kumar S, Kishore K. The trajectory of methadone maintenance treatment in Nepal. *Int J Drug Policy* 2013;24:e57-e60.
52. Ammini AC, Tandon N, Gupta N, Bhalla AS, Devasenaspathy K, Kumar G, et al. Etiology and clinical profile of patients with Cushing's syndrome: A single center experience. *Indian J Endocrinol Metab* 2014; 18 (1): 99 – 105.
53. Amudhan S, Mani K, Rai SK, Pandav CS, Krishnan A. Effectiveness of demand and supply side interventions in promoting institutional deliveries—a quasi-experimental trial from rural north India. *Int J Epidemiol* 2013; 42 (3): 769-80.
54. Anand D, Kumar U, Kanjilal M, Kaur S, Das N. Leukocyte complement receptor 1 (CR1/CD35) transcript and its correlation with the clinical disease activity in rheumatoid arthritis patients. *Clin Exp Immunol* 2014 Jan 17. doi: 10.1111/cei.12274. [Epub ahead of print].
55. Anand S, Sharma AP, Aggarwal S. Intra-peritoneal ascariasis: Importance of diagnostic laparoscopy. *J Minim Access Surg* 2014; 10 (3): 157-8

56. Anandaiah A, Sinha S, Bole M, Sharma SK, Kumar N, Luthra K, et al. Vitamin D rescues impaired Mycobacterium tuberculosis-mediated TNF release in HIV+ macrophages through enhanced TLR signaling pathway in vitro. *Infect. Immun.* January 2013 81:2-10.
57. Andermann A, Wu AW, Lashoher A, Norton P, Arora NK, Bates DW, Larizgoitia I. Patient Safety Research Training and Education Expert Working Group of WHO Patient Safety. Case studies of patient safety research classics to build research capacity in low- and middle-income countries. *Jt Comm J Qual Patient Saf* 2013;39:553-60
58. Andrabi R, Williams C, Wang X-H, Li L, Choudhary AK, Wig N, et al. Cross-neutralizing activity of human anti-V3 monoclonal antibodies derived from non-B clade HIV-1 infected individuals: *Virology.* 2013 May 10; 439(2): 81–88.
59. Andrade LH, Alonso J, Mneimneh Z, Wells JE, Sagar R, et al. Barriers to mental health treatment: results from the WHO World Mental Health (WMH) Surveys. *Psychol Med* 2013;9:1-15.
60. Angmo D, Agarwal T, Khokhar S. Single pass, single suture technique for repair of traumatic mydriasis. *Eur J Ophthalmol.* 2013;23(4):590-2.
61. Anil S, Sharma SK, Sreenivas V, Sinha S. Correlation of plasma antituberculosis drug levels with subsequent development of hepatotoxicity. *Int J Tuberculosis Lung Di.* 2013;18(2):188–95.
62. Ankolekar S, Renton C, Bereczki D, Sprigg N, Payne T, Gommans J, Berge E, Prasad K et al; ENOS Trial Investigators. Effect of the neutral CLOTS 1 trial on the use of graduated compression stockings in the Efficacy of Nitric Oxide Stroke (ENOS) trial. *J Neurol Neurosurg Psychiatry.* 2013;84:342-7.
63. Ansari MA, Irshad M, Agarwal SK and Chosdol K. Expression of the full-length HCV core subgenome from HCV genotype-1a and genotype-3a and evaluation of the antigenicity of translational products *Eur J Gastroenterol Hepatol* 2013; 25: 806–13.
64. Ansari MT, Kotwal PP, Rijal L. Trans-scaphoid dislocation of the proximal row: a case report. *Pan Afr Med J* 2013; 8:15-16.
65. Ansari MT, Prakash PK, Machhindra MV. Wrist preserving surgery for multifocal giant cell tumor of carpal bones in a skeletally immature patient: a case report. *Orthop Surg.* 2014;6:322-5.
66. Ansari MT, Rastogi S, Khan SA, Yadav C, Rijal L. Giant schwannoma of the first metatarsal: a rare entity. *J Foot Ankle Surg.* 2014;53:335-9.
67. Arezzo A, Zornig C, Mofid H, Fuchs KH, Breithaupt W, Noguera J,... Bhattacharjee HK et al. The EURO-NOTES clinical registry for natural orifice transluminal endoscopic surgery: A 2-year activity report. *Surg Endosc* 2013; 27: 3073-84
68. Arora A, Seith AB, Jana M, Sharma R. Overview of airway involvement in tuberculosis. *J Med Imaging Radiat Oncol* 2013;57(5):576-81.
69. Arora A, Sharma S, Seth A. Unusual retrovesical cystic mass in a male patient. *Urology.* 2013 Mar;81(3):e23-4.
70. Arora A, Srivastava D, Gupta H, Kumar V, Kotwal PP. Sonographic diagnosis of subungual intosseous epidermoid cyst. *J Clin Ultrasound* 2013 Nov-Dec; 41 Suppl 1: 35-7.
71. Arora A, Tripathi M. Status epilepticus: having treatment paradigms in place in neurosurgical settings. *Indian Journal Of neurosurgery* 2014;3:1
72. Arora D, Anand S, Sharma A. Visible Spectrum Role in Bacterial Inactivation through Continuous and pulse wavelength. *Int J Scientific Engineering Res* 2013; 4(6): 2390-3.
73. Arora MK, Baidya DK. ICU Manual. *Natl Med J India* 2013;26:112.
74. Arora MK, Baidya DK. WHO guidelines on pharmacological treatment of persisting pain in children with medical illness. *Indian J Med Res* 2013;138:570.
75. Arora NK, Pillai RN, Maheshwari M, Arya S, Das Gupta R, ..., Kiran Goswami et al. Bio-medical waste management: situational analysis & predictors of performances in 25 districts across 20 Indian States. *Indian J Med Res* 2014; 139: 141-153

76. Arora S, Singh PM, Trikha A. Ventilatory strategies in trauma patients. *J Emerg Trauma Shock* 2014;7:25–31.
77. Arora V, Sharma MC, Dwivedi R. Comparative evaluation of retentive properties of acid etched resin bonded fixed partial dentures. *Med J Armed Forces India*. 70:53-7; 2014.
78. Arulselvi S, Albert V, Agarwal D, Saxena R, Pandey RM. Evaluation of the utility of thromboelastography (TEG) in a tertiary trauma care centre. *ISRN hematology* 2014 [http/ dx.doi.org/10.1155/2014/849626](http://dx.doi.org/10.1155/2014/849626).
79. Arulselvi S, Albert V, Saxena R, Agrawal D, Pandey RM. Establishing a normal reference range for thromboelastography in north Indian healthy volunteers. *Indian J Pathol Microbiol* 2014; 53: 43-50.
80. Arulselvi S, Sukheja D, Trikha V, Albert V, Pandey AK, Pandey RM. Evaluation of serum creatinine kinase (CK) and urinary myoglobin as markers in detecting development of acute renal failure in severely injured trauma patients. *ISRN Emerg Med* doi: 10.1155/2013/241036; 2013.
81. Arun P, Chavan BS, Bhargava R, Sharma A, Kaur J. Prevalence of specific developmental disorder of scholastic skill in school students in Chandigarh, India. *Indian J Med Res* 2013;138:89-98.
82. Aslam M, Dayal R, Javed K, Samim M, Yadav D, Zaidi SMA, et al. 8-dehydroxy chrysophenol isolated from extract of *rheum emodi* enhance gentamicin induced nephrotoxicity in rats model. *World J Pharmacy Pharmaceutical Sci* 2014;3:833-49.
83. Asokan M, Lone IN, Mukthey AB, Mehra NK, Kundu TK, Satish KS, Ranga U. et al. Evident stabilization of the clinical profile in HIV/AIDS as evaluated in an open label clinical trial using a polyherbal formulation. *Indian J Med Res*. 2013 Jun;137(6):1128-44.
84. Athmaram TN, Saraswat S, Misra P, Das TK, Srinivasan A. A Two Step Purification Strategy for Chikungunya Virions Purification using Sucrose Buoyant Density Gradient Separation. *J Virol Res* 2013; 2: 18-21
85. Ayub A, Balakrishnan I, Lalwani P, Rath GP. Index of consciousness monitoring is possible with placement of electrodes in the occipital region. *J Neuroanaesthesiol Crit Care* 2014; 1(2): 153-154
86. Azad R, Arora T, Sihota R, Chandra P, Mahajan D, Sain S, Sharma Y. Retcam fluorescein gonioangiography: a new modality for early detection of angle neovascularization in diabetic retinopathy. *Retina*. 2013;33(9): 1902-7.
87. Azad RV, Chandra P, Chandra A, Gupta A, Gupta V, Sihota R. Comparative evaluation of RetCam vs. gonioscopy images in congenital glaucoma. *Indian J Ophthalmol*. 2014;62(2):163-6.
88. Bagga A, Sinha A, Dragon-Durey MA. Therapy for patients with antibodies to complement factor H associated HUS. *Pediatr Nephrol* 2014;29:939-40
89. Bagga A. The journal grows Dr. OP Ghai as editor from 1973-75. *Indian Pediatr* 2013;50:367-9
90. Baghmar S, Kumar S, Datta Gupta S, Raina V. Follicular dendritic cell sarcoma with paraneoplastic pemphigus: Rare case and a brief review of literature. *Indian J Med Paediatr Oncol*. 2013;34:317-9.
91. Bahadur A, Kriplani A, Kulshrestha V, Kachhawa G, Mahey R, Agarwal N, et al. A randomised controlled trial on the role of antitubercular treatment for positive DNA PCR in endometrial aspirates on the reproductive outcome in infertile patients in Indian setting. *Br J Obstet Gynecol* 2014;121:S2-76, FC6-06.
92. Bahadur A, Malhotra N, Singh N, Gurunath S, Mittal S. Comparative study on the role of diagnostic hysteroscopy in evaluation of the uterine cavity prior to in vitro fertilization in a developing country. *Arch Gynecol Obstet* 2013.288(5):1137-43.
93. Bahl S, Lochab SP, Pandey A, Kumar V, Aleynikov VE, Molokanov AG, Kumar P. Characterization and luminescence studies of Eu doped Barite nanophosphor. *J Luminescence* 2014; 149:176–84.
94. Baidya DK, Khanna P, Maitra S. Analgesic efficacy and safety of thoracic paravertebral and epidural analgesia for thoracic surgery: a systematic review and meta-analysis. *Interactive Cardiovasc Thorac Surg* 2014;18:626-35.
95. Bajpai M, Chaturvedi PK, Bal CS, Sharma MC, Kalaivani M. Posterior urethral valves: Persistent renin angiotensin system activation after valve ablation and role of pre-emptive therapy with angiotensin converting enzyme-inhibitors on renal recovery. *J Indian Assoc Pediatr Surg* 18:74-8; 2013.

96. Bal CS, Sahoo MK, Damle N. Lincoln's sign: where should we expect on 99mTc-MDP bone scintigraphy? *Clin Nucl Med*. 2013 Oct;38(10):e390-1.
97. Bala M, Kakran M, Singh V, Sood S, V Ramesh and Members of the WHO GASP SEAR Network. Monitoring antimicrobial resistance in *Neisseria gonorrhoeae* in selected countries of the WHO South-East Asia Region between 2009 and 2012: a retrospective analysis. *Sex Transm Infect* 2013; 89.
98. Balagurunathan Y, Gu Y, Wang H, Kumar V, Grove O, Hawkins S, et al. Reproducibility and Prognosis of Quantitative Features Extracted from CT Images. *Translational Oncol* 2014; 7:72-87.
99. Balaji V, Sharma A, Ranjan P, Kapil A. Revised ciprofloxacin breakpoints for *Salmonella Typhi*: Its implications in India. *Indian J Med Microbiol*. 2014; 32:161-3.
100. Balakrishnan IM, Yadav N, Singh GP, Prabhakar H. Anaesthetic considerations in patients with transverse myelitis. *South Afr J Anaesth Analg* 2013; 19: 323-4.
101. Balamurugan E, Aggarwal M, Lamba A, Dang N, Tripathi M. Perceived trigger factors of seizures in persons with epilepsy. *Seizure*.2013;22(9)743-7.
102. Balhara YP, Deb KS. Impact of alcohol use on thyroid function. *Indian J Endocrinol Metab* 2013;17:580-7.
103. Balhara YP, Jain R. A receiver operated curve-based evaluation of change in sensitivity and specificity of cotinine urinalysis for detecting active tobacco use. *J Cancer Res Ther* 2013; 9:84-9.
104. Balhara YP, Mathur S. A comparative study of attitudes toward psychiatry among nursing students across successive training years. *Indian J Psychol Med* 2013;35:159-66.
105. Balhara YP, Mishra A, Sethi H, Ray R. A retrospective chart review of treatment seeking middle aged individuals at a tertiary care substance use disorder treatment centre in North Part of India over five successive years: findings from drug abuse monitoring system. *Scientific World J* 2013; 316372 (doi: 10.1155/2013/316372. e Collection 2013).
106. Balhara YP, Verma R, Deshpande SN. A study of profile of disability certificate seeking patients with schizophrenia over a 5 year period. *Indian J Psychol Med* 2013;35: 127-34.
107. Balhara YP, Verma R. A review of web based interventions for managing tobacco use. *Indian J Psychol Med* 2014; 36:226-35.
108. Balhara YP. A chart review based comparative study of retention rates for two dispensing regimens for buprenorphine for subjects with opioid dependence at a tertiary care substance use disorder treatment center. *J Opioid Manag* 2014;10:200-6.
109. Balhara YP. A curious case of the World Health Organization's (WHO) approach on alcohol use disorders-inferences from the WHO list of essential drugs. *Addiction* 2013;108:20-30.
110. Balhara YP. Dextropropoxyphene ban in India: Is there a case for reconsideration? *J Pharmacol Pharmacother* 2014;5:8-11.
111. Balhara YP. Prevention of schizophrenia: a review. *Turk Psikiyatri Derg* 2013;24:130-9.
112. Balhara YP. Time to include buprenorphine-naloxone combination in the WHO Model List of Essential Medicines. *J Opioid Manag* 2013;9:237.
113. Baliyan V, Das CJ, Sharma S, Gupta AK. Diffusion-weighted imaging in urinary tract lesions. *Clin Radiol*. 2014; Aug; 69(8):773-82.
114. Bandopadhyay D, Rewari Y, Sharma A. Genetic analysis in a true hermaphrodite: A case report. *Int J Biomed Adv Res* 2013;4 (12):933-6.
115. Bandopadhyay D, Sharma A, Birla S, Sharma A. Y Cell Line In A Turner Mosaic: A Case Report. *Int J Sci Res* 2013;12:2277-79.
116. Banerjee J, Tripathi M, Chandra PS. Understanding complexities of synaptic transmission in medically intractable seizures. A paradigm of epilepsy research. *Indian J Neurosurg* 2013; 2:71-6
117. Banik S, Bindra A, Bhutia M, Kumar N, Sokhal N, Tandon V, et al. An unusual cause of respiratory distress in the neurosurgical intensive care unit. *Anaesth Intensive Care* 2013; 41(2): 265-6.

118. Banik S, Chaturvedi A, Bindra A, Bala R. Transient asystole after mandibular nerve block - a case report. *Indian J Pain* 2013; 27: 108-10.
119. Bano S, Javed K, Ahmad S, Rathish IG, Singh S, Chaitanya M, et al. Synthesis of some novel chalcones, flavanones and flavones and evaluation of their anti-inflammatory activity. *Eur J Med Chem* 2013;65:51-9.
120. Bansal AK, Semwal MK, Arora D, Sharma DN, Julka PK, Rath GK. A phantom study on bladder and rectum dose measurements in brachytherapy of cervix cancer using FBX aqueous chemical dosimeter. *Phys Med.* 2013 Jun;29(4):368-73.
121. Bansal AK, Vishnubhatla S, Kumar U, Bakhshi S. Baseline Low IgA Predicts Inferior Disease Free Survival in Pediatric AML and Serial Evaluation Suggests Role of IgA in Leukemogenesis. *Leuk Lymphoma* 2014;55:1132-1138.
122. Bansal M, Sharma KK, Bakhshi S, Vatsa M. Perception of Indian parents of health-related quality of life of children during maintenance therapy of acute lymphoblastic leukemia: A comparison with siblings and healthy children. *J Pediatr Hematol Oncol* 2014; 36: 30–6.
123. Bansal S, Suri A, Singh M, Kale SS, Agarwal D, Sharma MS, et al. Cavernous sinus hemangioma: a fourteen year single institution experience. *J Clin Neurosci.* 2014;21:968-74.
124. Bansal VK, Krishna A, Misra MC, Prakash P, Kumar S, Rajan K, et al. Factors affecting short term and long term outcomes after bilio enteric reconstruction for post cholecystectomy bile duct injury: experience at a tertiary care centre. *Indian J Surg* 2013. 10.1007/s12262-013-0880-x
125. Bansal VK, Misra MC, Babu D, Victor J, Kumar S, Sagar R, et al. A prospective, randomized comparison of long-term outcomes: chronic groin pain and quality of life following totally extraperitoneal (TEP) and transabdominal preperitoneal (TAPP) laparoscopic inguinal hernia repair. *Surg Endosc.* 2013;27:2373-82. doi: 10.1007/s00464-013-2797-7.
126. Bansal VK, Misra MC, Rajan K, Kilambi R, Kumar S, Krishna A, et al. Single-stage laparoscopic common bile duct exploration and cholecystectomy versus two-stage endoscopic stone extraction followed by laparoscopic cholecystectomy for patients with concomitant gallbladder stones and common bile duct stones: a randomized controlled trial. *Surg Endosc* 2014; 28 (3): 875-85
127. Bansal VK, Raveendran R, Bhattacharjee H, Rajan K, Krishna A, Kumar P, et al. A prospective randomized controlled blinded study to evaluate the effect of short-term focused training program in laparoscopy on operating room performance of surgery residents. *J Surg Educ.* 2014; 71: 52-60.
128. Barde PB, Narang R Deepak KK. Case report of life threatening EKG artefacts due to electrical interference between monitoring equipments. *Int J Biomed & Adv Res* 2013;04;62.
129. Barwad P, Ramakrishnan S, Kothari SS, Saxena A, Gupta SK, Juneja R, et al. Amplatzer vascular plugs in congenital cardiovascular malformations. *Ann Pediatr Cardiol* 2013;6:132-40.
130. Barwad PW, Gulati GS, Gupta SK, Saxena A, Airan B, Ramakrishnan S. Transvenous closure of large aortopulmonary collateral. *Ann Pediatr Cardiol* 2014;7:34-36.
131. Bashyam MD, Chaudhary AK, Kiran M, Nagarajaram HA, Devi RR, Ranganath P, ... Gupta N, Kabra M, et al. Splice, insertion-deletion and nonsense mutations that perturb the phenylalanine hydroxylase transcript cause phenylketonuria in India. *J Cell Biochem* 2014;115(3):566-74
132. Basir R, Javed K, Yaseen S, Ovais S, Rathore P, Hamid H, et al. (Singh S). 6-Chloro-7-Methyl-3', 4'-Dimethoxyflavone - a potent selective COX-2 inhibitor. *Med Chem* 2013;9:617-23.
133. Bassi KK, Srivastava A, Seenu V, Kumar R, Parshad R, Chumber S, et al. The first and second echelon sentinel lymph node evaluation in oral cancer. *Indian J Surg.* 2013 Oct;75(5):377-82.
134. Batra S, Garg B, Arora S. Large soft tissue osteochondroma of the heel: a case report and literature review. *Musculoskelet Surg.* 2013;97:255-8.
135. Behera B, Mathur P, Bhardwaj N, Jain N, Misra MC, Kapil A, et al. Antibiotic susceptibilities, streptococcal pyrogenic exotoxin gene profiles among clinical isolates of group C or G *Streptococcus dysgalactiae* subsp. *equisimilis* & of group G *S. anginosus* group at a tertiary care centre. *Indian J Med Res* 2014; 139(3): 438-45.

136. Behera C, Karthik K, Singh H, Deepak P, Jhamad AR, Bhardwaj DN. Suicide pact by drowning with bound wrists: a case of medico-legal importance. *Med Leg J* 2014; 82 (1): 29-31
137. Behera C, Krishna K, Murty OP. Planned overkill of paramour with cycle spokes by a physically challenged: A case report. *Indian Internet J Forensic Med Toxicol* 2013; 11 (2): 47-9
138. Behera C, Krishna K, Singh HR. Antitubercular drug-induced violent suicide of a hospitalized patient. *BMJ Case Rep* 2014 Jan 6
139. Behera C, Krishna K, Singh S, Lalwani S. Fatal hemothorax due to homicidal blunt trauma to carotid artery in the neck. *Med Sci Law* 2013; 54 (3): 174-6
140. Behera C, Millo T, Jaiswal AK, Accidental carbon monoxide poisoning during yagya for faith healing-a case report, *Journal of the Indian Medical association*, 2013; 111: 196-197.
141. Behera C, Naagar S, Krishna K, Taraporewalla DR, Garudadhri GV, Prasad K. Sudden death due to ruptured Pseudoaneurysm of femoral artery in injected drug abusers - report of four cases at autopsy and review of literature. *J Forensic Leg Med* 2014; 22: 107-111
142. Behera C, Rautji R, Krishna K, Kumar A, Gupta S. Suicide note on the palm: Three case reports and discussion of medico-legal aspects. *Med Sci Law* 2014; 54 (2): 84-7.
143. Behera C, Rautji R, Sikary AK, Kumar R, Vidua RK, Millo T et al., Triple hanging in filicide-suicide: An unusual case report. *Med Sci Law* 2014 March 18
144. Benjamin J, Singla V, Arora I, Sood S, Joshi YK. Intestinal permeability and complications in liver cirrhosis: A prospective cohort study. *Hepatology Research* 2013; 43:200-07.
145. Bhad R, Sagar R. Childhood catatonia. *Indian Pediatr* 2013;50:614.
146. Bhageria A, Nayak B, Seth A, Dogra PN, Kumar R. Paediatric percutaneous nephrolithotomy: Single-centre 10-year experience. *J Pediatr Urol* 2013;9:472-5
147. Bhalla AS, Gupta P, Mukund A, Kabra SK, Kumar A. Pulmonary Artery Narrowing: A Less Known Cause for Massive Hemoptysis. *Oman Medical Journal* 2013;28;No 2
148. Bharati SJ, Chowdhury T, Gupta N, Schaller B, Cappellani RB, Maguire D. Anaesthesia in underdeveloped world: Present scenario and future challenges. *Niger Med J.* 2014; 55: 1-8
149. Bharati SJ, Chowdhury T. Airway management for oral surgery in a patient with repaired cleft palate. *Saudi J Anaesthesia.* 2013; 7 (4): 11
150. Bharati SJ, Chowdhury T. Anaesthesia for feeding jejunostomy in a case of difficult airway: a novel approach. *Saudi J Anaesthesia* 2013; 7 (4): 146
151. Bharati SJ, Chowdhury T. Role of Dexmedetomidine for radiofrequency ablation in patient with celiac disease: first description. *BJA (out of Blue Letter).* 2013; April 2013.
152. Bharati SJ, Chowdhury T. Single transducer technique: a novel and cost effective approach. *Nigerian Med J* 2013; 54 (3): 285
153. Bhardwaj P, Yadav RK. Chronic pancreatitis: role of oxidative stress and antioxidants. *Free Radic Res* 2013;47:941-9.
154. Bhargava R, Kaushik S, Arun P. Neurocognitive functions in Schizophrenia. *Indian J Psychol* 2014;1:10-6.
155. Bharti V, Mohanti BK, Das SN. Functional genetic variants of *CTLA-4* and risk of tobacco-related oral carcinoma in high-risk North Indian population. *Hum Immunol.* 2013, 74: 348-352
156. Bhartiya S, Bali SJ, James M, Panda A, Dada T. Test retest variability of TonoPen AVIA. *Indian J Ophthalmol.* 2013;61:129-31.
157. Bhasin A, Padma Srivastava MV, Bhatia R, Kumaran S, Mohanty S. Stem cells in Neurological Diseases: Indian perspective. *J Stem Cell Res Ther* 2014, 4:175.
158. Bhasin A, Padma Srivastava MV, Kumaran SS, Bhatia R, Mohanty S. Neural interface of mirror therapy in chronic stroke patients: a functional magnetic resonance imaging study. *Neurol India.* 2012 Nov-Dec;60(6):570-6.

159. Bhasin A, Padma Srivastava MV, Mohanty S, Bhatia R, Kumaran SS, Bose S. Stem cell therapy: A clinical trial of stroke. *Clin Neurol Neurosurg* 2013;115:1003-8
160. Bhaskar A, Gupta R, Sreenivas V, Rani L, Kumar L, Sharma A, Sharma OD, Sharma MC, Thakur SC. Synergistic effect of vascular endothelial growth factor and angiopoietin-2 on progression free survival in multiple myeloma. *Leuk Res* 2013; 37 (4): 410-5.
161. Bhat A, Bhowmik DM, Vibha D, Dogra M, Agarwal SK. Tranexamic acid overdosage-induced generalized seizure in renal failure. *Saudi J Kidney Dis Transpl.* 2014 Jan;25(1):130-2.
162. Bhat SP, Guleria R, Kabra SK. Obstructive Sleep Apnea Syndrome in children. *Int J Medicine Medical Sciences* 2014;1:14-20.
163. Bhatia R, Singh H, Singh S, Padma MV, Prasad K, Tripathi M, et al. A prospective study of in-hospital mortality and discharge outcome in spontaneous intracerebral hemorrhage. *Neurol India.* 2013;61(3):244-8.
164. Bhatnagar S, Banerjee D, Joshi S, Gupta R. Assessing psychosocial distress: a pain audit at IRCH-AIIMS. *Ann Palliat Med* 2013; Apr 22, doi: 10.3978/j.issn: 2224-5820.
165. Bhatnagar S, Goyal A, Sharma A, Joshi S, Ahmed SM. Journey of Patients with Cancer: A Systematic Evaluation at Tertiary Care Center in India. *Am J Hospice Palliative Care* 2013; DOI:1177 / 1049909113494091
166. Bhatnagar S, Joshi S, Rana SPS, Mishra S, Garg R, Ahmed SM. Bedside Ultrasound-Guided Celiac Plexus Neurolysis in Upper Abdominal Cancer Patients: A Randomized, Prospective Study for Comparison of Percutaneous Bilateral Paramedian vs. Unilateral Paramedian Needle-Insertion Technique. *Pain Pract* 2014; 14((2): 63-68
167. Bhatnagar S, Joshi S. Personal reflection. Humanity, The Wonder drug, Which Needs No Prescription and Doses Still Needs to be Defined. 10 Nov , 2013; 16
168. Bhatnagar S. Editorial, Who is really afraid of death? *Indian J Palliative Care* 2013; 19 (2): 81-2
169. Bhatnagar S. To find the story behind the story. *Indian J Palliat Care* 2013; 19 (1): 1.
170. Bhatnagar S. Who is Responsible for this Entire Hustle Bustle: Lets Put on the Blue Hat. *Indian J Palliat Care* 2013; 19 (3): 129–30.
171. Bhatt AP, Gupta A, Vibha D, Sharma A, Mahajan S. Florid diabetic complications in impaired glucose tolerance. *Saudi J Kidney Dis Transpl* 2013 Jan;24(1):86-8.
172. Bhatt K, Roychoudhury A, Balakrishnan P. Temporomandibular joint ankylosis: is hypercoagulable state of blood a predisposing factor? *Med Hypotheses.* 2013 Oct;81(4):561-3.
173. Bhatt SP, Misra A, Sharma M, Guleria R, Pandey RM, Luthra K, et al. Vitamin D insufficiency is associated with abdominal obesity in urban Asian Indians without diabetes in North India, *Diabetes Technol The Epub* 2014 Feb 14doi: 10.1089/dia.2013.0303
174. Bhatt SP, Nigam P, Misra A, Guleria R, Qadar Pasha MA. Independent associations of low 25 hydroxy vitamin D and high parathyroid hormonal levels with nonalcoholic fatty liver disease in Asian Indians residing in North India: *Atherosclerosis* 2013; 230 (1); 157-63.
175. Bhatt SP, Nigam P, Misra A, Guleria R, Pandey RM, Genetic variation in the patatin-like phospholipase domain-containing protein-3 (PNPLA-3), *Metab Syndr Relat Disord,* 2013, 11 (5), 329 – 35.
176. Bhattacharjee M, Chameettachal S, Pahwa S, Ray AR, Ghosh S. Strategies for Replicating Anatomical Cartilaginous Tissue Gradient in Engineered Intervertebral Disc. *ACS Applied Materials Interfaces* 2014; 6: 183-93.
177. Bhattacharjee, M. et al. The role of 3D structure and protein conformation on the innate and adaptive immune responses to silk-based biomaterials. *Biomaterials,* 2013, 34, 8161-8171.
178. Bhethanabhotla S, Thukral A, Sankar MJ, Agarwal R, Paul VK, Deorari AK. Effect of position of infant during phototherapy in management of hyperbilirubinemia in late reterm and term neonates: a randomized controlled trial. *Journal of Perinatol* 2013;33:795-9

179. Bhoi D, Dehnan M, Raghavan S, Baidya DK. Cobra PLA – guided tracheal intubation for airway rescue in a child with large orofacial arteriovenous malformation. *Acta Anaesthesiologica Taiwanica* 2013;51:99-100.
180. Bhoi D, Kashyap L. Perioperative management of a patient with hemophilia A and Crigler- najjar syndrome. *J Anaesthesiol Clin Pharmacol.* 2013; 29(4): 582-4.
181. Bhoi D, Sreekumar EJ, Anand RK, Baidya DK, Chhabra A. Anaesthesia management of caesarean section in a patient with severe factor XI deficiency. *J Obstetr Anaesth Crit Care* 2013; 3: 37-39.
182. Bhowmik D, Singh S. Complicated urinary tract infections. *J Indian Med Assoc* 2013;11:1545-9.
183. Bhutani N, Sureshbabu R, Farooqui AA, Behari M, Goyal V, Murthy A. Queuing of concurrent movement plans by basal ganglia. *J Neurosci.* 2013 Jun 12;33(24):9985-97.
184. Bhutani VK, Zipursky A, Blencowe H, Khanna R, Sgro M, Ebbesen F, et al Neonatal hyperbilirubinemia and Rhesus disease of the newborn: incidence and impairment estimates for 2010 at regional and global levels. *Pediatr Res* 2013;74:86–100
185. Bhutia M, Goyal K, Rai A, Kedia S, Kumar N, Mitra R. High altitude pulmonary edema with a fatal outcome within 24h of its onset: Shall acclimatization be made compulsory? *Saudi J Anesthesia* 2013; 7: 488-99.
186. Bhutia MP, Pandia MP, Rai A. Anaesthetic management of a case of Duchenne muscle dystrophy with Moya- Moya disease. *Indian J Anaesth* 2014;58:219-21.
187. Bhutia O, Kumar L, Jose A, Roychoudhury A, Trikha A. Evaluation of facial nerve following open reduction and internal fixation of subcondylar fracture through retromandibular transparotid approach. *Br J Oral Maxillofac Surg.* 2014; 52(3): 236-40.
188. Bhutia O, Roychoudhury A, Arora A, Mallick S. Management of unicystic ameloblastoma of the mandible in a 5-year old child. *Natl J Maxillofac Surg.* 2013 Jul;4(2):232-4.
189. Bhutia TD, Lodha R, Kabra S. The authors reply. *Pediatr Crit Care Med* 2013;14:558-9
190. Bhutta Z, Giuliani F, Haroon A, Knight H, Albernaz E, Batra M, Bhat B, Paul VK et al. Standardisation of neonatal clinical practice. *Br J Obstet Gynecol* 2013; 120, Suppl s2: 56–63
191. Bindra A, Prabhakar H, Bithal PK, Singh GP, Chowdhury T. Predicting difficult laryngoscopy in acromegalic patients undergoing surgery for excision of pituitary tumors: A comparison of extended Mallampati score with modified Mallampati classification. *J Anaesthesiol Clin Pharmacol* 2013; 29(2): 187-90.
192. Bindu B, Pasupuleti S, Gowd UP, Gorre V, Murthy RR, Bhanu Laxmi M. A double blind, randomised, controlled trial to study the effect of dexmedetomidine on hemodynamic and recovery responses During tracheal extubation. *JOACP* 2013; 29(2): 162-167.
193. Bindu MG, Satapathy BK, Jaggi HS, Ray AR. Size-scale effects of silica on bis-GMA/TEGDMA based nanohybrid dental restorative composites. *Composites Part B-Engineering*, 2013, 53, 92-102,
194. Binita K, Kumar S, Sharma VK, Sharma V, Yadav S. Proteomic identification of *Syzygium cumini* seed extracts by MALDI-TOF/MS. *Appl Biochem Biotechnol* 2014; 172: 2091-105
195. Bisht A, Agrawal D, Singh P, Gupta D, Satyarthee GD, Sinha S, et al. Acute thalamic injury in short term survivors of severe traumatic brain injury: a post-mortem study with histo-pathological correlation. *Neurol India* 2013; 61 (6): 599-605
196. Bisht A, Garg K, Agarwal D, Singh PK, Satyarthee GD, Gupta D et al. Histological changes in thalamus in short term survivors following traumatic brain injury: an autopsy study. *Neurol India.* 2013 Nov-Dec;61(6):599-605.
197. Biswas A, Chaudhari PB, Sharma P, Singh L, Julka PK, Sethuraman G. Bleomycin induced flagellate erythema: Revisiting a unique complication. *J Cancer Res Ther* 2013;9:500-3.
198. Biswas A, Dengue case management, WHO report, August, 2013,14-15.
199. Biswas B, Agarwala S, Rastogi S, Khan SA, Mohanti BK, Sharma DN, Pathy S, Bakhshi S. High Burden of Metastases and Poor Outcome in Pelvic PNET. *Pediatric Blood Cancer* 2013 Sep; 60(9):E97-9

200. Biswas B, Agarwala S, Shukla NK, Deo SVS, Sharma DN, Thulkar S, Vishnubhatla S, Bakhshi S. Evaluation of outcome and prognostic factors in thoracic primitive neuroectodermal tumor: a study of 84 cases. *Ann Thorac Surg* 2013;S0003-4975:01393-3.
201. Bithal PK. Anaesthetic considerations for evoked –potential monitoring. *J Neuroanaesthesiol Crit Care*, 2014; 1: 2
202. Bithal PK. Journey began with small steps (Editorial). *J Neuroanaesthesiol Crit Care*, 2014; 1: 1
203. Bittner R, Bingener-Casey J, Dietz U, Fabian M, Ferzli GS, Fortelny RH, ... Misra MC, Bansal VK, et al. Guidelines for laparoscopic treatment of ventral and incisional abdominal wall hernias (International Endohernia Society (IEHS)-Part 1. *Surg Endosc*. 2014 Jan; 28(1):2-29. doi: 10.1007/s00464-013-3170-6. Epub 2013 Oct 11.
204. Biyani G, Chhabra A, Baidya DK, Anand RK. Adjuvants to local anaesthetics in regional anaesthesia – Should they be used? Part I: Pros. *Trends in Anaesthesia and Critical Care* 2014; 4: 19-24. doi:10.1016/j.tacc.2013.12.002
205. Bjerregaard J, Pandia MP, Jaffe RA. Occurrence of severe hypotension after indocyanin green injection during the intra-operative period. *AandA Case Reports* 2013; 1: 26–30
206. Bodicoat DH, Gray LJ, Henson J, Webb D, Guru A, Misra A, et al. Body Mass Index and Waist Circumference Cut-Points in Multi-Ethnic Populations from the UK and India: The ADDITION-Leicester, Jaipur Heart Watch and New Delhi Cross-Sectional Studies. *PLoS One* 2014 Mar;5;9 (3):e90813.doi: 10.1371/journal.pone.0090813
207. Bodwal J, Behera C. An unusual fatal injury in a locally made plastic recycling machine: a case report. *Anil Aggarwal's Internet J Forensic Med Toxicol* 2013; 14 (2)
208. Bodwal J, Chouhan M, Ghosh M, Behera C. Hooch tragedy in India: A review. *Anil Aggarwal's Internet J Forensic Med Toxicol* 2014; 15 (1)
209. Bodwal J, Chouhan MS, Behera C. Planned overkill of a toddler with a scissor by his mother's juvenile boyfriend: a case report. *Indian Internet J Forensic Med Toxicol* 2013; 11 (2): 47-9.
210. Bodwal J, Chouhan SM, Behera C. Autopsy on embalmed body: A case report and discussion of Medico-legal issues. *Anil Aggarwal's Internet J Forensic Med Toxicol* 2013; 14 (2)
211. Bora H, Tyagi RK, Sharma YD. Defining the erythrocyte binding domains of *Plasmodium vivax* tryptophan rich antigen 33.5. *PLoS One*, 2013, 8, e62829.
212. Borkar SA, Garg, K, Garg M, Sharma BS. Transorbital penetrating cerebral injury caused by a wooden stick: surgical nuances for removal of a foreign body lodged in cavernous sinus. *Childs Nerv Syst*. 2014
213. Borkar SA, Lakshmiprasad G, Sharma BS, Mahapatra AK. Remote site intracranial haemorrhage: a clinical series of five patients with review of literature. *Br J Neurosurg*. 2013 ;27:735-8
214. Borkar SA, Prasad GL, Gupta DK, Sinha S, Mahapatra AK. Compound elevated skull fracture: a clinical series of three patients with a review of the literature. *Turk Neurosurg*. 2013;23:514-7.
215. Borkar SA, Prasad GL, Kiran CS, Sharma MC, Mahapatra AK. Giant cell glioblastoma multiforme in the pediatric age group: Report of two cases. *J Pediatr Neurosci*. 2013 ;8:38-40.
216. Bothra M, Dwivedi SN, Kapil A, Seth R, Bhatnagar S, Xess I. Evaluation of predictors of adverse outcome in febrile neutropenic episodes in pediatric oncology patients. *Indian journal of pediatrics* 2013; 80:297-302.
217. Bothra M, Jain V. Vitamin D intoxication: too much of a good thing! *Indian Pediatr* 2013;50:429-30
218. Bothra M, Selvaperumal P, Kabra M, Joshi P. Disseminated cryptococcosis. *Indian Pediatrics* 2014;51(3): 225-6
219. Bothra M, Seth R, Kapil A, Dwivedi SN, Bhatnagar S, Xess I. Evaluation of predictors of adverse outcome in febrile neutropenic episodes in pediatric oncology patients. *Indian J Pediatr* 2013;80:297-302
220. Broor S, Dawood FS, Pandey BG, Saha S, Gupta V, Rai SK et al . Rates of respiratory virus-associated hospitalization in children aged & lt;5 years in rural northern India. *J Infect*. 2014;68(3):281-9. doi: 10.1016/j.jinf.2013.11.005.

221. Brouwer MC, McIntyre P, Prasad K, van de Beek D. Corticosteroids for acute bacterial meningitis. *Cochrane Database Syst Rev.* 2013 Jun 4;6:CD004405. doi: 10.1002/14651858.CD004405.pub4. Review
222. Butcher K, Shuaib A, Saver J, Donnan G, Davis SM, Norrving B, Wong KS, Bhatia R, et al. Thrombolysis in the developing world: is there a role for streptokinase? *Int J Stroke.* 2013 Oct;8(7):560-5
223. Butts C, Socinski MA, Mitchell PL, Thatcher N, Havel L, Krzakowski M, START trial team. Tecemotide (L BLP25) versus placebo after chemoradiotherapy for stage III non-small-cell lung cancer (START): a randomised, double-blind, phase 3 trial. *Lancet Oncol.* 2014; 15(1): 59-68
224. Chadda RK, Ramshankar P, Deb KS, Sood MS. Metabolic syndrome in schizophrenia: Differences between antipsychotic naive and antipsychotic treated patients. *J Pharmacol Pharmacotherapeutics* 2013;4:174-84.
225. Chadda RK. Challenges for social psychiatry in the contemporary Indian society (Presidential Address). *Indian J Soc Psychiatry* 2013;29:6-14.
226. Chadda RK. Forensic evaluations in psychiatry. *Indian J Psychiatry* 2013;55:393-9.
227. Chadha D, Sumana B, Karthikeyan G, Jayaprasad V, Arun SS. Prevalence of aspirin resistance in Asian-Indian patients with stable coronary artery disease. *Catheter Cardiovasc Interv* 2014 [Epub ahead of print].
228. Chakrabarty B, Dubey R, Gulati S, Yoganathan S, Kumar A, Kumar A. Isolated cerebellar involvement in vitamin B12 deficiency: A case report. *J Child Neurol* 2013 epub ahead of print
229. Chakrabarty B, Kabra SK, Gulati S, Toteja GS, Lodha R, Kabra M et al. Peripheral neuropathy in cystic fibrosis: A prevalence study. *J Cyst Fibros* 2013;12:754-60
230. Chakrabarty B, Sharma MC, Gulati S, Kabra M, Pandey RM, Sarkar C. Skin Biopsy: A New Tool to Diagnose Sarcoglycanopathy. *J Child Neurol* 2013;29:NP5-NP8
231. Chakrabarty B, Sharma MC, Gulati S, Kabra M, Pandey RM, Sarkar C. Dystrophinopathy diagnosis made easy: skin biopsy, an emerging novel tool. *J Child Neurol* 2013(Apr 4)
232. Chakrabarty B, Tripathi M, Gulati S, Yoganathan S, Pandit AK, Sinha A et al . Pediatric Anti-N-Methyl-D-Aspartate (NMDA) Receptor Encephalitis: Experience of a Tertiary Care Teaching Center From North India. *J Child Neurol* 2013(Oct 4)
233. Challa VR, Srivastava A, Dhar A, Parshad R, Bal C, Mohan Reddy Gona R, et al. Role of fluorine-18-labeled 2-fluoro-2-deoxy-D-glucose positron emission tomography-computed tomography in the evaluation of axillary lymph node involvement in operable breast cancer in comparison with sentinel lymph node biopsy. *Indian J Nucl Med.* 2013 Jul;28(3):138-43.
234. Chander S, Kapil U, Jain V, Sareen N Iodine deficiency disorders in school age children in Kullu District, Himachal Pradesh. *Indian Pediatr* 2013;50:883-4
235. Chandra PS, Kumar A, Ansari A, Mishra NK, Sharma BS. Distraction compression extension reduction of basilar invagination and atlanto-axial dislocation: a novel pilot technique. *Neurosurgery* 72 (6); 1040-1053; June 2013.
236. Chandra SP, Bal CS, Jain S, Joshua S P, Gaikwad S, Garg A, et al. Intra-Operative Co-Registration of MRI, PET and electrocorticographic Data for Neocortical Lesional Epilepsies May Improve the Localization of the Epileptogenic Focus: A Pilot Study. *World Neurosurg.* 2014;82 (1-2):110-117.
237. Chandra S, Narang R, Sreenivas V, Bhatia J, Saluja D, Srivastava K. Association of Angiotensin II Type 1 Receptor (A1166C) Gene Polymorphism and Its Increased Expression in Essential Hypertension: A Case-Control Study. *PLoS One* 2014;9:e101502.
238. Chandra SP, Ramdurg SR, Kurwale N, Chauhan A, Ansari A, Garg A, Sarkar C, et al. Extended costotransversectomy to achieve circumferential fusion for pathologies causing thoracic instability. *Spine J.* 2014 Jan 18. pii: S1529-9430(14)00063-1.
249. Chandra SP, Singh A, Goyal N, Laythalling RK, Singh M, Suri A, et al. Analysis of changing paradigms of management in 179 patients with spinal tuberculosis over a 12-year period and proposal of a new management algorithm. *World Neurosurg.* 80(1-2); 190-203, 2013.
240. Chandram R, RK Batra, S. Agarwala, R. Mishra. Selective bronchial blockade with Fogarty catheter in a child with acquired bronchobiliary fistula. *Pediatr Anesthesia* 2013;23:373-375

241. Chandran DS, Ali N, Jaryal AK, Jyotsna VP, Deepak KK. Decreased autonomic modulation of heart rate and altered cardiac sympatho-vagal balance in patients with Cushing's syndrome: role of endogenous hypercortisolism. *Neuroendocrinology* 2013; 97(4): 309-317.
242. Chandrasekaran A, Sankar MJ, Agarwal R, Paul VK. Topical umbilical cord care. *Pediatr Infect Dis J.* 2013 Jul;32(7):801.
243. Charlette SL, Nongkynrih B. Can intermittent preventive treatment for malaria reduce child mortality? *Natl Med J India* 2013; 26(1): 37-8.
244. Charlette SL, Gupta SK. Heavy consumption of alcohol: A risk factor for cancer deaths? *Natl Med J India* 2013; 26 (2): 92-94.
245. Charoo BA, Sofi RA, Nisar S, Shah PA, Taing S, Jeelani H, et al. Universal salt iodization is successful in Kashmiri population as iodine deficiency no longer exists in pregnant mothers and their neonates: Data from a tertiary care hospital in North India. *Indian J Endocrinol Metab* 2013; 17(2): 310-317.
246. Chatterjee B, Sharan P. Tardive dyskinesia in a pregnant woman with low dose, short-duration risperidone: possible role of estrogen-induced dopaminergic hypersensitivity. *J Neuropsychiatry Clin Neurosci* 2014;26:E44-6.
247. Chatterjee T, Gupta N, Choudhry VP, Behari M, Saxena R, Ashraf MZ. Prediction of ischemic stroke in young Indians: is thrombophilia profiling a way out? *Blood Coagul Fibrinolysis* 2013; 24 (4): 449-53
248. Chattopadhyay S, Kaur A, Jain S, Singh H. Sensitive detection of food-borne pathogen Salmonella by modified PAN fibers-immunoassay. *Biosensors Bioelectronics* 2013, 45, 274-280.
249. Chaudhary K, Senthil Kumaran S, Sarat P Chandra, Nehra A, Tripathi M. Mapping of cognitive functions in chronic intractable epilepsy: Role of fMRI. *Indian J Radiological Imaging* 2014;24:51-6.
250. Chaudhary O, Bala M, Singh J, Hazarika A, Kumar R, Luthra K. The DC-SIGNR 7/5 Genotype is Associated with High Dendritic Cell Counts and Their Subsets in Patients Infected with HIV-1. *J Clin Immunol.*;33(4):788-97; 2013.
251. Chaudhary S, Nag TC, Jain S, Wadhwa S. Role of sound stimulation in reprogramming brain connectivity. *J Biosci* 2013;38:1-10.
252. Chaudhry R, Das A, Premlatha MM, Choudhary A, Chaurasia BK, Chandel DS et al. Authors' response. *Indian J Med Res.* 2013; 138:274.
253. Chaudhry R, Das A, Premlatha MM, Choudhary A, Chourasia BK, Chandel DS et al. Serological & molecular approaches for diagnosis of leptospirosis in a tertiary care hospital in north India: a 10-year study. *Indian J Med Res.* 2013 Apr;137(4):785-90.
254. Chaudhry R, Sharma S, Javed S, Passi K, Dey AB, Malhotra P. Molecular detection of *Mycoplasma pneumoniae* by quantitative real-time PCR in patients with community acquired pneumonia. *Indian J Med Res* 2013; 138:244-51.
255. Chaudhury S, Nag TC, Jain S, Wadhwa S. Role of sound stimulation in reprogramming brain connectivity. *J Biosci* 2013;38(3):605–14.
256. Chauhan B, Chauhan S, Bisoi A, Kapoor P, Kiran U, Rajput R. Comparison of a waxy maize and a potato starch-based balanced hydroxyethyl starch for priming in patients undergoing coronary artery bypass grafting. *J Cardiothoracic Vasc Anesthesia* 2014; 28:690–7.
257. Chauhan P, Chauhan S, Jain G, Talwar S, Makhija N, Kiran U. Comparison of cardio protective effects of volatile anesthetics in children undergoing ventricular septal defect closure. *World J Pediatr Congenital Heart Surg* 2013; 4: 24–9
258. Chauhan S, Chauhan S, Malik M, Talwar S, Velayudham D, Kiran U. Congenital heart surgery outcome analysis: Indian experience. *Asian Cardiovasc Thoracic Ann* 2013; 21: 675–2
259. Chauhan S, Chauhan S, Talwar S, Pandey A, Kiran U. Monitoring pulmonary artery pressure in children undergoing the Fontan procedure. *Asian Cardiovasc Thoracic Ann* 2013; 21: 303–5
260. Chawla B, Bhadange Y, Dada R, Kumar M, Sharma S, Bajaj MS, et al. Clinical, radiologic, and genetic

- features in blepharophimosis, ptosis, and epicanthus inversus syndrome in the Indian population. *Invest Ophthalmol Vis Sci* 2013;54(4):2985-91
261. Chawla B, Duraipandi K, Sharma S. MRI in retinoblastoma with orbital cellulitis. *Ophthalmology* 2013; 120(6): 1308-9.
 262. Chawla B, Khurana S, Sen S, Sharma S. Clinical misdiagnosis of retinoblastoma in Indian children. *Br J Ophthalmol.* 2014; 98(4):488-93.
 263. Chawla H, Walia S, Behari M, Noohu MM. Effect of type of secondary task on cued gait on people with idiopathic Parkinson's disease. *J Neurosci Rural Pract.* 2014 Jan;5(1):18-23.
 264. Chawla JM, Pal H, Lal R, Jain R, Schooler N, Balhara YP. Comparison of efficacy between buprenorphine and tramadol in the detoxification of opioid (heroin)-dependent subjects. *J Opioid Manag* 2013;9:35-41.
 265. Chengappa M, Rao R, Kumar MS. The development of methadone maintenance treatment in the Maldives. *Int J Drug Policy* 2013;24:164-5
 266. Chhabra A, Arora MK, Baidya DK, Talawar P, Singh PM, Jayswal A. Perioperative concerns in pediatric patients undergoing different types of scoliosis correction surgery: A retrospective observational study. *J Anaesthesiol Clin Pharmacol* 2013;29:323–7.
 267. Chhabra A. Editorial. *Trends Anaesthesia Crit Care* 2013;3:293-4. doi:10.1016/j.tacc.2013.10.001.
 268. Chhabra G, Sharma S, Subramanian A, Agrawal D, Sinha S, Mukhopadhyay AK. Coagulopathy as prognostic marker in acute traumatic brain injury. *J Emerg Trauma Shock.* 2013 Jul;6(3):180-5.
 269. Chingkheilemba M, Kumar U, Chosdol K, Das N. Lack of role of endothelial nitric oxide synthase gene Glu298Asp polymorphism in rheumatoid arthritis among Asian Indians. *IOSR Journal of Dental and Medical Sciences* 2013;13(4):25-28.
 270. Chittawar S, Bhattacharya S, Sahoo JP, Prakash S, Bhalla AS, Jyotsna VP *et al.* Internal jugular vein: Peripheral vein adreno-corticotrophic hormone ratio in patients with adrenocorticotrophic hormone-dependent Cushing's syndrome: Ratio calculated from one adrenocorticotrophic hormone sample each from right and left internal jugular vein during corticotrophin releasing hormone stimulation test. *Indian J Endocrinol Metab* 2013; 17(1): 128-32.
 271. Chopra A, Bakhshi S, Pramanik SK, Pandey RM, Singh S, Gajendra S, Gogia A, *et al.* Immunophenotypic analysis of T-acute lymphoblastic leukemia. A CD5-based ETP-ALL perspective of non-ETP T-ALL. *Eur J Haematol.* 2014;92:211-8.
 272. Choudhary A, Gulati S, Kabra M, Singh UP, Sankhyan N, Pandey RM *et al.* Efficacy of modified constraint induced movement therapy in improving upper limb function in children with hemiplegic cerebral palsy: A randomized controlled trial. *Brain Dev* 2013;35:870-6
 273. Choudhary A, Gulati S, Sagar R, Kabra M, Sapra S. Behavioral comorbidity in children and adolescents with epilepsy. *J Clin Neurosci* 2014(Feb 8)
 274. Choudhary M, Kumar V, Gupta PK, Singh S. Anti-arthritis activity of *barlaria prionitis* Linn. leaves in acute and chronic models in Sprague Dawley rats. *Bull Faculty Pharmacy Cairo Univ* 2014;52:199-209.
 275. Choudhary M, Kumar V, Singh S. Gastric antisecretory and cytoprotective effects of hydroalcoholic extracts of *plumeria alba* Linn. leaves in rats. *J Integrative Med* 2014;12:42-51.
 276. Choudhary M, Kumar V, Singh S. Gastroprotective activity of methanol leaves extract of *barlaria prionitis* Linn. on ethanol and indomethacin induced ulcer in rats. *Br J Pharmaceutical Res* 2013;3:817-29.
 277. Choudhary M, Kumar V, Singh S. Phytochemical and pharmacological activity of genus *plumeria*: An updated review. *Int J Biomed Adv Res* 2014;5:266-71.
 278. Choudhuri S, Sharma C, Banerjee A, Kumar SK, Kumar L, Singh N. A repertoire of biomarkers helps in detection and assessment of therapeutic response in epithelial ovarian cancer. *Mol Cell Biochem.* 386(1-2): 259-69; 2014.
 279. Choudhury B, Choudhury M, Hote M, Kiran U. Patent ductus arteriosus ligation: Do not take it easy. *J Anaesthesiol Clin Pharmacol* 2013; 29: 564–6

280. Choudhury M. Aerosolized milrinone versus aerosolized nitro-glycerine in pulmonary artery hypertension secondary to cardiac disease. *J Cardithorac Vasc Anesth* Dec 2013.
281. Choudhury M. Anesthesia recommendations for patients suffering from Beckwith–Wiedemann Syndrome. *Orphan Anesthesia*. ICD 10 68037. Jan 2014
282. Chourasia BK, Chaudhry R, Malhotra P. Delineation of immunodominant and cytoadherence segment(s) of mycoplasma pneumoniae p1 gene. *BMC Microbiology* 2014; 14(1):108.
283. Chow VW, Agarwal T, Vajpayee RB, Jhanji V. Update on diagnosis and management of Descemet's membrane detachment. *Curr Opin Ophthalmol*. 2013;24(4):356-61.
284. Chowdhury T, Goyal K, Sapra H. Chronic haemodynamic disturbances in Neurointensive care: First description. *Niger Med J*, 2013; 54(5): 361
285. Chu D, Ren S, Hu S, Wang WG, Subramanian A, Contreras D, ... Sinha S, et al. Systematic Analysis of Enhancer and Critical cis-acting RNA Elements in the Protein Encoding Region of the Hepatitis C Virus Genome. *J Virol*. 2013 13.
286. Chugh S, Anand V, Swaroop L, Sharma M, Seth A, Sharma A. Involvement of Th17 cells in patients of urothelial carcinoma of bladder. *Hum Immunol*. 2013 Oct;74(10):1258-62.
287. Commentary on - Neostigmine Prolongs Postoperative Pain Relief in Pediatric Patients. *Anesthesiology News*. *Pain Medicine* 2013; 39: 10
288. CORONIS Collaborative Group, Abalos E, Addo V, Brocklehurst P, El Sheikh M, Farrell B, Gray S, ... Sharma JB, et al. Caesarean section surgical techniques (CORONIS): a fractional, factorial, unmasked, randomised controlled trial. *Lancet* 2013;382:234-48.
289. CORONIS Collaborative Group, Abalos E, Oyarzun E, Addo V, Sharma JB, Matthews J, Oyieke J, Masood SN, et al. CORONIS - International study of caesarean section surgical techniques: the follow-up study. *BMC Pregnancy Childbirth*. 2013;13:215. doi: 10.1186/1471-2393-13-215.
290. Dabas A, Khadgawat R. Diastrophic dysplasia – variant. *Indian Pediatrics* 2014; 51: 161.
291. Dada T, Aggarwal A, Bali SJ, Wadhvani M, Tinwala S, Sagar R. Caregiver burden assessment in primary congenital glaucoma. *Eur J Ophthalmol*. 2013;23:324-8.
292. Dahiya S, Kapil A, Kumar R, Das BK, Sood S, Chaudhry R et al. Multiple locus sequence typing of Salmonella Typhi, isolated in north India - a preliminary study. *Indian J Med Res*. 2013; 137:957-62.
293. Dalal B, Das SN. Novel technique for immuno-phenotyping of T-cell subsets in ovarian malignancies. *J. Appl. Biochem. Photon*, 2013, 106, 140-144.
294. Dalal K, Devarajan E, Pandey RM, Subbiah V, Tripathi M. Role of Reflexology and Antiepileptic Drugs in Managing Intractable Epilepsy – a Randomized Controlled Trial. *Forsch Komplementmed* 2013; 20: 104-111
295. Dalal K, Elanchezhiyan D, Das R, Dalal D, Pandey RM, Chatterjee S, et al. Noninvasive Characterization of Foot Reflexology Areas by Swept Source-Optical Coherence Tomography in Patients with Low Back Pain. *Evid Based Complement Alternat Med* 2013; 2013: 983769
296. Dalal K, Maran VB, Pandey RM, Tripathi M. Determination of efficacy of reflexology in managing patients with diabetic neuropathy: a randomized controlled clinical trial, *Evid Based Complement Alternat Med*, 2014, 843036
297. Dalal SS, Mishra S, Agarwal R, Deorari AK, Paul VK, Sankar MJ. Feeding behaviour and performance of preterm neonates on Paladai feeding. *Acta Paediatr* 2013;102:e 147-52
298. Damle N, Bal C, Jain S, Mishra A, Jain T. Utility of single photon emission computed tomography/CT hybrid imaging over planar I-131 whole body scans in detection of adrenal metastases in differentiated thyroid cancer. *Indian J Endocrinol Metab* 2013 May;17(3):535-6.
299. Damle NA, Bal C, Bandopadhyaya GP, Kumar L, Kumar P, Malhotra A, et al. The role of 18F-fluoride PET-CT in the detection of bone metastases in patients with breast, lung and prostate carcinoma: a comparison with FDG PET/CT and 99mTc-MDP bone scan. *Jpn J Radiol* 2013;31 (4):262-9.

300. Damle NA, Bal C, Gupta S, Singhal A. Discordance in ⁶⁸Ga-DOTANOC and ¹⁷⁷Lu-DOTATATE uptake in diagnostic and post-therapy scans in patients with medullary thyroid cancer-likely reasons. *J Cancer Res Ther* 2013;9 (4):754-5.
301. Damle NA, Kumar R, Tripathi M, Bal C. Positive Ga-68 DOTANOC PET/CT with negative I-131 metaiodobenzylguanidine scan in a case of glomus jugulare. *Indian J Endocrinol Metab* 2013;17 (4): 765-7.
302. Damle NA, Singhal A, Mukherjee A, Sahoo MK, Tripathi M, Bal CS. Hemimegalencephaly: A rare cause of hemihypoperfusion on ^{99m}Tc-ethyl cysteinate dimer brain perfusion single-photon emission computed tomography. *Indian J Nuclear Med* 2013; 28(2): 93-5.
303. Damor K, Mittal K, Bhalla AS, Sood R, Pandey RM, Guleria R, et al. Effect of progressive resistance exercise training on hepatic fat in Asian Indians with non-alcoholic fatty liver disease *Br J Med Med Res* 2014;4(1)
304. Danaei G, Singh GM, Paciorek CJ, Lin JK, Cowan MJ, Kusuma YS, et al. The global cardiovascular risk transition: associations of four metabolic risk factors with national income, urbanization, and western diet in 1980 and 2008. *Circulation* 2013; 127: 1493-1502
305. Daniel LT, Gupta S, Sagar R. Effect of educational module on knowledge of primary school teachers regarding early symptoms of childhood psychiatric disorders. *Indian J Psychol Med* 2013;35:368-72.
306. Das A, Mehndiratta M, Chattopadhyay P, Ray AR. Enhanced Redifferentiation of Chondrocytes on Microperiodic Silk/Gelatin Scaffolds: Toward Tailor-Made Tissue Engineering. *Biomacromolecules*, 2013, 14, 311-321,
307. Das CK, Mirdha BR, Singh S, Seth R, Bagga A, Lodha R et al Use of Induced Sputum to Determine the Prevalence of *Pneumocystis jirovecii* in Immunocompromised Children with Pneumonia. *J Trop Pediatr*. 2014; 60:216-22.
308. Das M, Tomar N, Sreenivas V, Gupta N, Goswami R. Effect of vitamin D supplementation on cathelicidin, IFN- α , IL-4 and Th1/Th2 transcription factors in young healthy females. *Eur J Clin Nutr* 2014; 68(3): 338-343.
309. Das RR, Gajendra S, Bakhshi S, Seth R, Kumar R. Spontaneous Tumor lysis in childhood T-cell acute lymphoblastic leukemia *Oman Med J* 2013;28:132-134
310. Das RR, Kabra SK, Singh M. Treatment of *Pseudomonas* and *Staphylococcus* Bronchopulmonary Infection in Patients with Cystic Fibrosis. *Scientific World Journal*. 2013; 201:E Collection 2013
311. Das RR, Sankar MJ, Agarwal R, Paul VK. Is 'Bed Sharing' Beneficial and Safe during Infancy? A Systematic Review. *Int J Pediatr*. 2014;2014:468-538
312. Das S, Irpachi K, Devagourou V. Transoesophageal Echocardiography guided ligation of Right pulmonary artery to left atrial fistula. *J Perioperative Echocardiography* 2014; 2(1): 38-39
313. Das S, Rajput RS. Coexistence of Chronic Constrictive Pericarditis can make the Echocardiographic Diagnosis of Atrial Septal Defect Challenging. *J Perioperative Echocardiography* 2013; 1(2): 66-68
314. Das S, Roychowdhury T, Kumar P, Kumar A, Kalra P, Singh J, Prasad HK, et al. Genetic heterogeneity revealed by sequence analysis of *Mycobacterium tuberculosis* isolates from extra-pulmonary tuberculosis patients *BMC Genomics* 2013; 14: 404-18
315. Das U, Kumar N, Gourinath S, Srinivasan A. Preliminary crystallographic analysis of recombinant VapBC-15 toxin antitoxin complex from *Mycobacterium tuberculosis*. *Acta Crystallogr Sect F Struct Biol Cryst Commun* 2013; 69: 1242-5
316. Dasgupta A, Mahapatra M, Saxena R. Flow cytometric immunophenotyping of regulatory T cells in chronic lymphocytic leukemia: comparative assessment of various markers and use of novel antibody panel with CD127 as alternative to transcription factor FoxP3. *Leuk Lymphoma* 2013; 54 (4): 778-89
317. Dasgupta A, Saxena R. Regulatory T cells: a review. *Natl Med J India* 2012; 25 (6): 341-51
318. Dash D, Tripathi M. The extratemporal lobe epilepsies in the epilepsy monitoring unit. *Ann Indian Acad Neurol*. 2014 Mar;17 (Suppl 1): S50-5.

319. Datta Gupta S. Pathology of celiac disease: A brief review. *Trop Gastroenterol* 2013; 34: 207-26
320. Dave A, Bali SJ, Sharma R, Khurana AK, Gupta R, Dada T. Prevalence of diabetes mellitus and hypertension among Indian glaucoma patients and evaluation of systemic therapy. *Int Ophthalmol* 2013;33:527-32.
321. Davies C, Pan H, Godwin J, Gray R, Arriagada R, Raina V, ATLAS Collaborative Group. Long-term effects of continuing adjuvant tamoxifen to 10 years versus stopping at 5 years after diagnosis of oestrogen receptor-positive breast cancer: ATLAS, a randomised trial. *Lancet* 2013; 381 (9869): 805-16
322. Dawar P, Gupta DK, Sharma BS, Jyakumar A, Gamanagatti S. Extensive calvarial tuberculosis presenting as exophytic ulcerated growth on scalp in an infant: an interesting case report with review of literature. *Childs Nerv Syst.* 2013 Apr;29(1):1215-18
323. Dawar P, Kalra A, Agrawal D, Sharma BS. Decompressive craniectomy in term pregnancy with combined cesarean section for traumatic brain injury. *Neurol India.* 2013 Jul-Aug;61:423-5.
324. Dawar P, Phalak M, Sinha S, Sharma BS. Same side double chronic calcified epidural hematoma: case report and review of literature. *Neurol India* 2013; 61(2): 195-7.
325. Dayal M, Gamanagatti S, Kumar A. Imaging in renal trauma. *World J Radiol* 2013; 5(8): 275-84.
326. Dayal M, Sharma R, Jeyaseelan N, Sood R, Mathur S, Chitragar S. Non-traumatic rupture of the spleen. *Trop Gastroenterol* 2013;34(3):191-193
327. Dayal M, Sharma R, Madhusudhan KS, Garg PK. MRI diagnosis of rupture of pancreatic pseudocyst into portal vein: Case report and review of literature. *Ann Gastroenterol* 2014;27(2):173-176.
328. Dayal P, Balhara YP. Catatonia as presenting clinical feature of subacute sclerosing panencephalitis. *J Pediatr Neurosci* 2014;9:57-9.
329. Dayama A, Seth T, Mishra P, Mahapatra M. Antithymocyte globulin induced posterior reversible encephalopathy in aplastic anemia. *Neurol India* 2013; 61 (4): 430-1
330. de Sanjosé S, Alemany L, Ordi J, Tous S, Alejo M, Bigby SM, ... Bhatla N, et al. Worldwide human papillomavirus genotype attribution in over 2000 cases of intraepithelial and invasive lesions of the vulva. *Eur J Cancer* 2013;49:3450-61.
331. Deb KS, Balhara YP. Dhat syndrome: a review of the world literature. *Indian J Psychol Med* 2013; 35:326-31.
332. Deb SK, Sarkar S, Sood M, Khandelwal S. Wires in body - a case of factitious disorder. *Indian J Psychiatry* 2013;35:209-11
333. Deepak KK, Adkoli BV, Kumar Y, Sarkar S. The role of medical education unit in staff development: an experience from AIIMS, New Delhi. *Nat J Integrated Res Med* 2014;5:106-10.
334. Deepak KK, Kumar Y, Adkoli BV. Extending professional education to health workers at grass root level: an experience from All India Institute of Medical Sciences, New Delhi. *Indian J Com Med* 2013;39:38-42.
335. Deepak KK. Yogic intervention for mental disorders. *Indian J Psychiatry* 2013;55:S340-3.
336. Deepti, Sinha S, Sharma SK, Aggarwal P, Biswas A, Sood S, et al. Central venous catheter related Bloodstream Infections in Medical ICU patients in a tertiary referral centre. *Indian Journal of Chest Diseases & Allied Sciences* Jan, 2014.
337. Deka D, Naha M, Dadhwal V, Kabra M, Gupta N. At Least an Infantogram if not Perinatal Autopsy. *J Fetal Med* 2014: March 1.
338. Deka D, Sharma KA, Dadhwal V, Singh A, Kumar G, Vanamail P. Direct fetal intravenous immunoglobulin as an adjunct to intrauterine Fetal Blood transfusion in rhesus-Alloimmunised pregnancies: A pilot study. *Fetal Diagn Ther* 2013; 34:146-51
339. Desai M, Talwar S, Kothari SS, Jagia P, Airan B. Inferior vena cava to left atrium shunt presenting with polycythemia and stroke three decades following closure of atrial septal defect. *Congenit Heart Dis.* 2013; 8:E102-5.
340. Desai PA, Dholariya S, Gupta S, Singh T. Plasma cell leukemia of IgG secreting type: A rare case. *Int J Case Reports Images* 2013; 4 (12):748-9.

341. Desai S, Shukla G, Goyal V, Srivastava A, Srivastava MV, Tripathi M, et al. Changes in psychiatric comorbidity during early postsurgical period in patients operated for medically refractory epilepsy—a MINI-based follow-up study. *Epilepsy Behav.* 2014 Mar;32:29-33.
342. Devasenapathy N, George MS, Ghosh Jerath S, Singh A, Negandhi H, Alagh G, et al. Why women choose to give birth at home: a situational analysis from urban slums of Delhi. *BMJ Open.* 4:e004401.doi: 10.1136/bmjopen-2013-004401; 2014.
343. Devereaux PJ, Mrkobrada M, Sessler DI, Leslie K, Alonso-Coello P, Kurz A, et al.; POISE-2 Investigators. Aspirin in patients undergoing noncardiac surgery. *N Engl J Med* 2014;370:1494-503.
344. Devereaux PJ, Sessler DI, Leslie K, Kurz A, Mrkobrada M, Alonso-Coello P, et al; POISE-2 Investigators. Clonidine in patients undergoing noncardiac surgery. *N Engl J Med* 2014;370:1504-13.
345. Devidutta S, Roy A. St. Vitus dance. *Circulation* 2013;128(19):e380.
346. Devidutta S, Sharma G, Jagia P. Coronary stenting in a patient with single coronary artery and double-vessel disease! *J Invasive Cardiol.* 2013;25:E147-50.
347. Dhull VS, Sharma P, Durgapal P, Karunanithi S, Tripathi M, Kumar R. Asymmetrically increased rib cage uptake on bone scintigraphy: Incidental detection of pleural mesothelioma on single photon emission computed tomography/computed tomography. *Indian J Nucl Med.* 2014 Jan;29(1):43-5.
348. Dhull VS, Sharma P, Khangembam BC, Bal C, Kumar R. Intradiploic epidermoid cyst mimicking skull metastasis in a patient with primitive neuroectodermal tumor: correct diagnosis with 99mTc-MDP hybrid SPECT-CT. *Rev Esp Med Nucl Imagen Mol.* 2014 Mar-Apr;33(2):120-1.
349. Dhull VS, Sharma P, Sharma DN, Maharjan S, Suman Kc S, Patel C, et al. Prospective evaluation of 18F-fluorodeoxyglucose positron emission tomography-computed tomography for response evaluation in recurrent carcinoma cervix: does metabolic response predicts survival? *Int J Gynecol Cancer.* 2014 Feb;24(2):312-20.
350. Dhull VS, Sharma P, Singla S, Khangembam BC, Bal C, Kumar R. Lymphomatous involvement of epididymis: detection and response assessment with (18)F-FDG PET/CT. *Clin Nucl Med.* 2013 Jun;38(6):e271-2.
351. Dhull VS, Sharma P, Singla S, Singhal A, Bal C, Kumar R. 68Ga-DOTANOC PET-CT demonstrating in vivo somatostatin receptor expression in idiopathic gynecomastia. *Clin Nucl Med.* 2013 Aug;38(8):e324-5.
352. Dikshit B, Irshad K, Madan E, Aggarwal N, Chattopadhyay P, Sinha S, et al. FAT1 acts as an upstream regulator of oncogenic and inflammatory pathways, via PDCD4, in glioma cells. *Oncogene.* 15;32(33):3798-808; 2013.
353. Dimopoulou A, Fischer B, Gardeitchik T, Schröter P, Kayserili H, Schlack C, ... Gupta N, Simandlova M, Kabra M, et al.. Genotype-phenotype spectrum of PYCR1-related autosomal recessive cutis laxa. *Mol Genet Metab* 2013;110(3):352-61
354. Doesn't T, Cleland JG, Rouleau JL, She L, Wos S, Airan B, et al STICH Investigators. Influence of crossover on mortality in a randomized study of revascularization in patients with systolic heart failure and coronary artery disease. *Circ Heart Fail* 2013;6:443-6.
355. Dogra PN, Regmi SK, Singh P, Bora G, Saini AK, Aggarwal S. Robot-assisted laparoscopic augmentation ileocystoplasty in a tubercular bladder. *Urol Ann* 2014; 6(2): 152-5
356. Dogra PN, Regmi SK, Singh P, Saini AK, Nayak B. Lower Ureteral Stones Revisited: Expanding the Horizons of Robotics. *Urology* 2013;82:95-9.
357. Dogra PN, Singh P, Saini AK, Nayak BN. Robot assisted laparoscopic retroperitoneal lymph node dissection in testicular tumor. *Urol Ann.* 2013;5:223-6.
358. Dogra PN. Allelic variability in PSA and AR genes. A novel biomarker on the horizon for carcinoma prostate. *IJMR* 139,2014,337-38
359. Downs SM, Gupta V, Ghosh-Jerath S, Lock K, Thow AM, Singh A. Reformulating partially hydrogenated vegetable oils to maximise health gains in India: Is it feasible and will it meet consumer demand? *BMC Public Health.* 2013; 13: 1139.

360. D'Souza Maria M, Jaimini A, Bansal A, Tripathi M, Sharma R, Mondal A, et al. FDG-PET/CT in lymphoma. *Indian J Radiol Imaging* 2013; 23(4): 354-65.
361. Dube D, Sharma S, Singh TP, Kaur P. Pharmacophore mapping, in silico screening and molecular docking to identify selective *Trypanosoma brucei* pteridine reductase inhibitors. *Mol Informatics* 2014; 33: 124-134.
362. Dube SK, Bharati SJ, Rath GP. Reintubation in elective neurosurgical patient. *Saudi J Anaesthesia* 2013; 7 (4): 410-14.
363. Dube SK, Chaturvedi A. A simple technique to avoid difficulty in guide wire insertion during pediatric central venous cannulation. *Saudi Journal of Anaesthesia* 2014; 8 (1).141.
364. Dube SK, Kumar S, Chowdhury T. Intravenous lignocaine for treatment of refractory ileus following spinal cord injury. *Indian J Crit Care Med* 2013; 17 (4): 264
365. Dube SK, Mahajan C, Prabhakar H, Singh GP. Ginko biloba may cause asymptomatic ventricular premature contractions! *Indian J Anaesth*, 2013; 57: 633- 634
366. Dube SK, Panda PS, Kumar P, Kumar S, Goyal K. Ventricular arrhythmia during Valsalva maneuver applied to facilitate resection of fourth ventricular neurocysticercosis cyst. *Saudi J Anaesth*, 2014; 8(1): 138-9
367. Dube SK, Pandia MP, et al. Kinking of a patent flexo-metallic tube due to dislodgement of reinforcing spirals. *J Anaesthesiol Clin Pharmacol*. 2013 ;29:408-9.
368. Dube SK, Rai A, Anandani J, Prabhakar H. Ventricular bigeminy during balloon occlusion of carotid cavernous fistula. *J Neuroanaesthesiol Crit Care*, 2014; 1: 72
369. Dube SK, Rai A, Bhutia MP, Prabhakar H. Use of dexmedetomidine for carotid artery stenting in a patient with multiple co-morbidities. *J Neuroanaesthesiol Crit Care*, 2014; 1: 62
370. Dube SK, Rath GP, Bharti SJ, Bindra A, Vanamoorthy P, Gupta N, et al. Causes of tracheal re-intubation after craniotomy: A prospective study. *Saudi J Anesth* 2013; 7(4): 410-14
371. Dube SK, Sharma VB, Kumar S, Rath GP. Venous Air Embolism during scalp dissection in a case of cerebellar hemangioblastoma. *J Neuroanaesthesiol Crit Care* 2014; 1(1): 61-62
372. Dubey P, Shukla SK, Kumar A. Determination of Ketamine in human brain and liver tissues. *J Indian Soc Toxicol* 2013; 9(2): 1-6
373. Dubey R, Chakrabarty B, Gulati S, Sharma MC, Deopujari S, Baheti N et al. Leukodystrophy presenting as acute-onset polyradiculoneuropathy. *Pediatric Neurorol* 2014(Jan 16)
374. Durgapal P, Mathur SR, Kalamuddin M, Datta Gupta S, Parshad R, Julka PK, Panda SK. Assessment of her-2/neu status using immunocytochemistry and fluorescence in situ hybridization on fine-needle aspiration cytology smears: Experience from a tertiary care centre in India. *Diagn Cytopathol*. 2013 Dec 20.
375. Dutta AK, Sood R, Singh UB, Kapil A, Samantaray JC. Diagnostic application of conventional and newer bone marrow examination techniques in fever of unknown origin *J IACM* 2013;14 (1):23-7.
376. Dutta S, Saxena R. The Expression Pattern of CD33 Antigen Can Differentiate Leukemic from Normal Progenitor Cells in Acute Myeloid Leukemia. *Indian J Hematol Blood Transfus* 2014; 30 (2): 130-4
377. Dwivedi S, Das BK, Kapil A. Antigen sequence typing of outer membrane protein (FetA) gene of *Neisseria meningitidis* serogroup A from Delhi and adjoining areas 2005-2011. Accepted for publication in *Ind J. Medical Research*.
378. Dwivedi S, Das BK, Aneja S, Sharma S, Chaturvedi MK, Kahn G et al Group B Streptococcal Meningitis in Infants Beyond the Neonatal Period. *Indian J Pediatr*. 2014; 81:4-8.
379. Ekka M, Sinha S, Purushothaman R, Naik N, Narang R, Singh L. Ventricular tachycardia - an atypical initial presentation of sarcoidosis: a case report. *J Med Case Rep* 2013;7:196.
380. Farooque K, Kavin, Gupta B. Management of Neglected Traumatic Bilateral Cervical Facet Dislocations without Neurological Deficit. *Trauma Mon*. 2014 October; 19(4): e18385
381. Farsani TT, Kore S, Nadol P, Ramam M, Thierman SJ, Leslie K, et al. Etiology and risk factors associated with a pruritic papular eruption in people living with HIV in India. *J Int AIDS Soc*. 2013; 16 (1): 17325.

382. Faruq M, Narang A, Kumari R, Pandey R, Garg A, Behari M, et al. Novel mutations in typical and atypical genetic loci through exome sequencing in autosomal recessive cerebellar ataxia families. *Clin Genet*. 2013 Sep 16.
383. Gajendra S, Das RR, Chopra A, Singh A, Seth R. Accelerated phase at initial presentation in Chédiak-Higashi syndrome: Is it really uncommon? *Pediatr Hematol Oncol*. 2014;31:382-5.
384. Gajendra S, Gogia A, Tanwar P, Sahoo MK, Bhethanabhotla S, Durgapal P, Gupta R. Synchronous metastatic pulmonary adenocarcinoma with small cell lymphoma. *Leuk Lymphoma*. 2014; 55: 1678-1680
385. Gajendra S, Gupta R, Chandgothia M, Kumar L, Gupta R, Chavan SM. Chronic Neutrophilic Leukemia with V617F JAK2 Mutation. *Indian J Hematol Blood Transfus*. 2014; 30: 139-42
386. Gajendra S, Gupta R, Gupta R, Kumar L. Co-existence of scleroderma with multiple myeloma: a rare association. *BMJ Case Rep*. 2013 Sep 10. doi:pii: bcr2013200639
387. Gamanagatti S, Hiralal, Prasad N. Images in transplantation. *Indian J Transplantation* 2014; 8(1): 36
388. Gandhi AK, Sharma DN, Rath GK, Julka PK, Subramani V, Sharma S, et al. Early clinical outcomes and toxicity of intensity modulated versus conventional pelvic radiation therapy for locally advanced cervix carcinoma: a prospective randomized study. *Int J Radiat Oncol Biol Phys*. 2013; 87(3): 542-8.
389. Gandhi AK, Sharma DN, Rath GK, Julka PK. In regard to Pinn-Bingham et al. *Int J Radiat Oncol Biol Phys*. 2013; 86: 399
390. Gandhi AK, Soumyajit R, Biswas A, Bhasker S, Sharma A, Bakhshi S, et al. Adenoid cystic carcinoma of head and neck: A single institutional analysis of 73 cases treated with multimodality approach. *Euro J Cancer* 2013; 49 (Suppl 2).
391. Ganie MA, Khurana ML, Nisar S, Shah PA, Shah ZA, Kulshrestha B, Gupta N, Zargar MA, Wani TA, Mudasir S, Ahmed F, Taing S. Improved efficacy of low dose spironolactone and metformin combination than either drug alone in the management of women with polycystic ovary syndrome (PCOS): a six month, open label randomized study. *J Clin Endocrinol Metab* 2013.
392. Ganie MA. India Diabetes Mellitus—Tuberculosis Study Group. Screening of patients with diabetes mellitus for tuberculosis in 2013. India. *Trop Med Int Health* 2013; 18(5): 646-54.
393. Gantyal SP, Shekhar H, Vanathi M, Sinha R, Titiyal JS. Interferons in Ophthalmology Current Status and Advancing Trends. *Recent Advances Delhi J Ophthalmol* 2013; 23: 295-7
394. Garg B, Goyal T, Kotwal PP. Triple jeopardy: Transscaphoid, transcapitate, transtriquetral, perilunate fracture dislocation. *J Orthop Traumatol*. 2013;14:223-6
395. Garg B, Jalan D, Kotwal PP. Ewing's Sarcoma of the Sacroiliac joint presenting as Tubercular Sacroilitis : A Diagnostic Dilemma. *Asian Spine J*. 2014; 8:79-83.
396. Garg K, Gurjar HK, Joseph S, Shashikant RC, Sharma BS. Third ventricular tuberculoma: Neurology India; 2014;62(1):73-75
397. Garg K, Singh PK, Sharma BS, Chandra PS, Suri A, Singh M, et al. Pediatric intracranial aneurysms-our experience and review of literature. *Childs Nerv Syst*. 10; 2013
398. Garg K, Sinha S, Kale SS, Chandra PS, Suri A, Singh MM, et al. Role of simvastatin in prevention of vasospasm and improving functional outcome after aneurysmal sub-arachnoid hemorrhage: a prospective, randomized, double-blind, placebo-controlled pilot trial. *Br J Neurosurg* 2013; 27(2): 181-6.
399. Garg K, Sinha S, Kale SS, Kumar R, Sharma BS. A rare case of non-traumatic intradiploic arachnoid cyst. *Neurol India*. 2013; 61(4): 446-7.
400. Garg K, Sinha S, Mahapatra AK, Sharma BS. Microsurgical outcome in posttraumatic brachial plexus injuries in children. *Childs Nerv Syst*. 2013; 30(5): 919-23
401. Garg K, Tandon V, Gupta DK, Sharma BS. Multiple Neural Tube Defect with Split Cord Malformation - A Rare Entity. *Indian J Pediatr* ;81(9):982-3, 2014.
402. Garg K, Tandon V, Kumar R, Sharma BS, Mahapatra AK. Management of adult tethered cord syndrome: our experience and review of literature. *Neurol India*. Mar-Apr;62(2):137-143.

403. Garg MK, Marwaha RK, Khadgawat R, Ramot R, Obroi AK, Mehan N *et al.* Efficacy of vitamin D loading doses on serum 25-hydroxy vitamin D levels in school going adolescents: an open label non-randomized prospective trial. *J Pediatr Endocrinol Metab* 2013; 26: 515-23.
404. Garg MK, Tandon N, Marwaha RK, Menon AS, Mahalle N. The relationship between serum 25-hydroxy vitamin D, parathormone and bone mineral density in Indian population. *Clin Endocrinol (Oxf)* 2014; 80 (1): 41–6.
405. Garg P, Kaur S, Gupta D, Osmond C, Lakshmy R, Sinha S *et al.* Variability of thinness and its relation to cardio-metabolic risk factors using four body mass index references in school children from Delhi, India. *Indian Pediatr* 2013; 50: 1025-32
406. Garg P, Rajasekhar P, Airan B. Giant left ventricular pseudoaneurysm following inferior wall myocardial infarction: case report. *Indian J Thorac Cardiovasc Surg* 2013; 29:131-3.
407. Garg P, Talwar S, Kothari SS, Rajashekar P, Saxena R, Airan B. Role of systemic to pulmonary artery shunt after cavopulmonary anastomosis *J Card Surg.* 2013; 28:599-603.
408. Garg PK, Mouli VP, Sreenivas V. Efficacy of Conservative Treatment, without Necrosectomy, for Infected Pancreatic Necrosis - A Systematic Review and Meta-Analysis. Reply of authors. *Gastroenterology.*, 2013, 144 (7), 1575.
409. Garg R, Bhatnagar A, Bhatnagar S, Mishra S. Incidental finding of organized thrombus in right inferior pulmonary vein extending in left atrium in the patient scheduled for esophagectomy: What should an anesthesiologist look for? *J Anaesthesiol Clin Pharmacol* 2014; 30 (2): 301-2.
410. Garg R, Gupta RC. Oxygen, anaesthesia agent and flow analysis in anaesthesia machines. *Indian J Anaesth* 2013; 57(5): 481-8.
411. Garg R, Kapoor, V, Mittal M, Singh MK, Shukla NK and Das SN. Abnormal expression of PI3K isoforms in patients with tobacco-related oral squamous cell carcinoma. *Clin Chim Acta* 2013; 416 (1): 100-6.
412. Garg R, Kumar R, Kumar S, Misra A, Gupta N. Awareness of cardiopulmonary resuscitation among medicos- an observational study. *Asian Arch Anaesthesiol Resuscitation* 2013; 73 (2): 2114-22.
413. Garg R. Airway management techniques for one lung ventilation in children what else! *Indian J Anaesth.* 2014; 58 (1): 100-101.
414. Garg R. Anesthesiologists, Anesthetics, and Cancer metastasis. *J Anaesthesiol Clin Pharmacol* 2014; 30 (2): 174-6
415. Garg R. Perioperative care in perforation peritonitis: Where do we stand? *J Anaesthesiol Clin Pharmacol* 2013; 29 (4): 454–6.
416. Garg S, Dahiya N, Gupta S. Surgical scar revision: an overview. *J Cutan Aesthet Surg.* 2014; 7 (1): 3-13.
417. Gautam L, Shukla PK, Sinha M, Vikram NK, Kaur P, Sharma S *et al.* NSAID-induced gastropathy: Protection of the gut by the C-lobe of lactoferrin. *Proc Ind Acad Sci* 2013; 79: 195-202.
418. Gautam S, Chou CF, Dinda AK, Potdar PD, Mishra NC. Surface modification of nanofibrous polycaprolactone/gelatin composite scaffold by collagen type I grafting for skin tissue engineering. *Mater Sci Eng C Mater Biol Appl.* 2014 Jan1;34:402-9.
419. Gautam S, Dinda AK, Mishra NC. Fabrication and characterization of PCL/gelatin composite nanofibrous scaffold for tissue engineering applications by electrospinning method. *Mater Sci Eng C Mater Biol Appl.* 2013 Apr 1;33(3):1228-35.
420. Gautam US, Sikri K, Vashist A, Singh V, Tyagi JS. Essentiality of DevR/DosR interaction with SigA for the dormancy survival program in *Mycobacterium tuberculosis*. *J. Bacteriol.* 2014,196:790-799.
421. Gautam, Jhanji V, Satpathy G, Khokhar S, Agarwal T. Microsporidial keratitis after collagen cross-linking. *Ocul Immunol Inflamm.* 2013;21(6):495-7.
422. Geetha TS, Michealraj KA, Kabra M, Kaur G, Juyal RC, Thelma BK, Targeted deep resequencing identifies MID2 mutation for X-linked intellectual disability with varied disease severity in a large kindred from India. *Hum Mutat* 2014;35(1):41-4

423. George J, Jose T, Behari M. Use of Indian smell identification test for evaluating olfaction in idiopathic Parkinson's disease patients in India. *Neurol India*. 2013 Jul-Aug;61(4):365-70.
424. Ghafur A, Mathai D, Muruganathan A, Jayalal JA, Kant R, Chaudhary D, et al. The Chennai declaration: A roadmap to tackle the challenge of antimicrobial resistance. *Indian J of Cancer*. 2013; 50: 71-73.
425. Ghalibafsabbaghi B, Raj D, Lodha R, Kabra SK. Assessment of Bronchodilator Response in Preschool Children by Pulmonary Function Tests: A Pilot Study *Indian Pediatr* 2013;50:957-60.
426. Gharde A, Gharde P, Devagourou V, Chauhan S, Kiran U. The effect of volume loading on systemic oxygenation after bidirectional superior cavopulmonary anastomosis. *Ann Thorac Surg* 2014; 97: 932-7
427. Ghonsikar V, Sharma P, Saxena R, Sachdeva MM. Squint Diagnostics. *DOS Times*. 19(6): 2013; 59-65.
428. Ghose S, Parmar T, Dada T, Vanathi M, Sharma S. A new computer-based Farnsworth Munsell 100-hue test for evaluation of color vision. *Int Ophthalmol*. 2013 Oct 5. [Epub ahead of print]
429. Ghosh A, Rawre J, Khanna N, Dhawan B. Co infections with *Ureaplasma parvum*, *Mycoplasma hominis* and *Chlamydia trachomatis* in a human immunodeficiency virus woman with vaginal discharge. *Indian J Med Microbiol* 2013; 31: 190-92
430. Ghosh D, Sengupta J. Systems biology and reproduction. *Prog Biophys Mol Biol* 2013;113:356-7
431. Ghosh I, Pahwa P, Dinda AK, Raina V, Khanna N. Erythema multiforme associated with metastatic breast cancer. *Indian J Dermatol*. 2013 Nov;58(6):485-6.
432. Ghosh I, Ramam M, Gupta S, Singh MK, Julka PK, Sharma P, et al. Positron emission tomography for staging and response assessment of mycosis fungoides in a child. *Indian J Dermatol*. 2013; 58(2): 147-8
433. Ghosh J, Bikramjit Singh RK, Saxena R, Gupta R, Vivekanandan S, Sreenivas V, Raina V, Sharma A, Kumar L. Prevalence and aetiology of anaemia in lymphoid malignancies. *Natl Med J India* 2013;26:79-81.
434. Ghosh J, Thulkar S, Kumar R, Malhotra A, Kumar A, Kumar L. Role of FDG PETCT in asymptomatic epithelial ovarian cancer with rising serum CA-125: A pilot study. *Natl Med J India* 2013; 26 (6):327-31.
435. Ghosh R, Singh G, Sharma Alok, Mitra DK, Agarwal SK, Dinda AK. Study of C-C Chemokine Receptor 5 (CCR5) in renal allograft rejection. *Indian J Nephrol* 2013;23:196-200.
436. Gill K, Kumar R, Mohanti BK, Dey S. Assessment of p38 γ in peripheral blood mononuclear cells (PBMC): a potential blood protein marker of head and neck squamous cell carcinoma. *Clin Transl Oncol* 2013; 15: 1031
437. Gill K, Singh AK, Kapoor V, Nigam L, Kumar R, Holla Dey S et al. Development of peptide inhibitor as a therapeutic agent against head and neck squamous cell carcinoma (HNSCC) targeting p38 alpha MAP kinase. *Biochim Biophys Acta* 2013; 1830: 2763
438. Gnanavel S, Sharan P, Khandelwal S, Sharma U, Jagannathan NR. Neurochemicals measured by 1H-MR spectroscopy: putative vulnerability biomarkers for obsessive compulsive disorder. *Magan Reson Mat Phys Biol Med (MAGMA)* 2013 Dec 12. PMID: 24338164 [PubMed - as supplied by publisher]
439. Goel S, Kumar A, Gamanagatti S, Gupta A. Spontaneous resolution of post-traumatic pulmonary artery pseudoaneurysm: Report of two cases. *Lung India* 2013; 30 (3): 203-5.
440. Gogia A, Bansal A, Suri V, Bakhshi S. Childhood Orbital Soft Tissue Sarcoma in Xeroderma Pigmentosum with Good Tolerance to Chemotherapy and Radiotherapy. *Pediatr Blood Cancer* 2013;60:2093-2094.
441. Gogia A, Gupta R, Raina V. Disseminated tuberculosis mimicking relapse in Hairy cell leukemia. *Indian J Cancer*. 2013; 50: 321
442. Gogia A, Pushker N, Sen S, Bakhshi S. Avoidance of Exenteration in Orbital Sebaceous Gland Carcinoma with Neoadjuvant Chemotherapy. *Graefes Arch Clin Exp Ophthalmol* 2013; 251: 2479-80.
443. Gogia A, Raina V, Gupta R. Massive ascites as a presenting feature of Plasma Cell Leukemia. *Indian J Cancer*. 2013; 50: 301
444. Gogia A, Raina, V, Gupta R, Gajendra, S, Kumar L, Sharma A, et al. Prognostic and predictive significance of Smudge cell percentage on routine blood smear in chronic lymphocytic leukemia. *Clin Lymphoma Myeloma Leuk*. 2014; Feb 18. Pii: S2152-2650

445. Gogia A, Sharma A, Chopra A, Kumar R. Mediastinal granulocytic sarcoma: poor risk AML? *J Indian Med Assoc* 2013; 111: 562.
446. Gogia A, Sharma A, Raina V, Kumar L, Gupta R, Kumar R. Prevalence of ZAP70 and CD38 in Indian chronic lymphocytic leukemia patients. *Indian J Cancer*. 2013; 50: 333-336
447. Gogia A, Sharma MC, Bakhshi S. Subcutaneous Nodules as Initial Presentation of Burkitt Lymphoma in HIV-negative Child. *J Pediatr Hematol Oncol* 35:e326-8; 2013.
448. Gogia A, Singh L, Karak AK, Thulkar S, Bakhshi S. Primary Tonsillar Ewing Sarcoma in Young Adult: a Rare Tumor at an Uncommon Site. *Indian J Med Paediatr Oncol* 2014;35:122-123.
449. Gogia V, Sharma S, Deka D, Dadhwal V, Venkatesh P. Bilateral retinal detachment: a clue to diagnosis of HELLP syndrome. *Can J Ophthalmol*. 2014;49(1):e5-8.
450. Gopal K, Priya G, Gupta N, Praveen EP, Khadgawat R. A case of autoimmune hypoglycemia outside Japan: Rare, but in the era of expanding drug-list, important to suspect. *Indian J Endocrinology Metabolism* 2013; 17: 1117-19.
451. Gopishankar N, Vivekanandhan S, Rath GK, Laviraj MA, Senthilkumaran S, Kale SS, et al. Indigenously developed multipurpose acrylic head phantom for verification of IMRT using film and gel dosimetry. *J Appl Clin Med Phys*. 2013; 14: 4041
452. Goswami G, Upadhyay A, Gupta NK, Chaudhry R, Chawla D, Sreenivas V. Comparison of Analgesic Effect of Direct Breast Feeding, Oral 25% Dextrose Solution and Placebo during 1st DPT Vaccination in Healthy Term Infants: A Randomized, Placebo Controlled Trial. *Indian Pediatr*. 2013, 50 (7), 649-53.
453. Goswami R, Millo T, Mishra S, Das M, Kapoor M, Tomar N, et al. Expression of osteogenic molecules in the caudate nucleus and gray matter and their potential relevance for Basal Ganglia calcification in hypoparathyroidism. *J Clin Endocrinol Metab* 2014; 99: 1741-1748. Epub 2014 Feb.
454. Goswami R. Endocrine and Metabolic aspects of obstructive sleep apnoea. *Ann Natl Acad Med Sci (India)* 2013; 49(3&4): 122-31.
455. Goswami R. Sleep and Endocrinology: Hypothalamic-pituitary- adrenal axis and growth hormone *Ann Natl Acad Med Sci (India)* 2013; 49(3&4): 177-84.
456. Goyal A, Ahmed SM, Mishra S, Bhatnagar S. Persistent hiccough in cancer patients: Presentation of syndrome of inappropriate Antidiuretic hormones induced hyponatremia. *Indian J Palliat Care* 2013; 19: 110-2
457. Goyal A, Bharti SJ, Rath GP. Embolisation of a large carotid body tumour: anaesthetic implications. *J Neuroanaesthesiol Crit Care* 2014; 1(1): 64-65
458. Goyal A, Bhatnagar S. Editorial, Neuropathic pain in cancer. *Ann Palliat Med*. 2014; 3(1): 1-3
459. Goyal A, Rangarajan K, Singh P, Das CJ. Role of imaging in successful management of malignant ovarian vein thrombosis in RCC. *BMJ Case Rep*. 2014 Feb 7;2014. pii: bcr2013201576.
460. Goyal A, Sharma R, Bhalla AS, Gamanagatti S, Seth A. Authors' reply. *Indian J Radiol Imaging*. 2013 Apr;23(2):186-7.
461. Goyal A, Sharma R, Bhalla AS, Gamanagatti S, Seth A. Diffusion-weighted MRI in assessment of renal dysfunction. *Indian J Radiol Imaging*. 2012 Jul;22(3):155-9.
462. Goyal A, Sharma R, Bhalla AS, Gamanagatti S, Seth A. Pseudotumours in chronic kidney disease: Can diffusion-weighted MRI rule out malignancy. *Eur J Radiol* 2013; 82(11): 1870–6
463. Goyal A, Sharma R, Bhalla AS, Gamanagatti S. Diffusion weighted MRI in detection of renal metastases. *BMJ* 2014.
464. Goyal A, Sharma S. Traumatic carotid-cavernous fistula: excellent demonstration on 3D CT angiography. *BMJ Case Rep*. 2013 ; 2013. doi:10.1136/bcr-2013-201707
465. Goyal A, Singh S, Tandon N, Gupta N, Gupta YK. Effect of atorvastatin on pancreatic beta-cell function and insulin resistance in type 2 diabetes mellitus patients: A randomized pilot study. *Can J Diabetes* 2014;38:466-72.

466. Goyal K, Mitra R, Kedia S. Mechanical ventilation in neurosurgical patients. *Indian J Neurosurg* 2013; 2: 262-6.
467. Goyal M, Roy KK, Sharma JB, Kumar S. Subchorionic haemorrhage in pregnancy with protein S deficiency as a complication of anticoagulant therapy. *J Paed Obstet Gynecol* 2013; 14(10): 356-7.
468. Goyal N, Kakkar A, Singh PK, Sharma MC, Chandra PS, Mahapatra AK, Sharma BS. Intracranial teratomas in children: a clinicopathological study. *Childs Nerv Syst* 29:2035-42; 2013.
469. Goyal R, Mallick SR, Mahanta M, Kedia S, Shalimar, Dhingra R, Sharma H, Das P, Datta Gupta S, Panda SK, Acharya SK. Fibroscan can avoid liver biopsy in Indian patients with chronic hepatitis B. *J Gastroenterol Hepatol.* 2013;28:1738-45.
470. Goyal S, Ambekar A, Ray R. Ketamine dependence in an anesthesiologist: an occupational hazard? *Indian J of Psychol Med* 2014;36:3.
471. Goyal S, Sagar R. Tumefactive multiple sclerosis presenting as mania: A case report. *J Ment Health Human Behav* 2013;18: [http://ipsnz.org/journal_sept13/Journal%20Issue%2018%20\(2\)_Sep%202013.pdf](http://ipsnz.org/journal_sept13/Journal%20Issue%2018%20(2)_Sep%202013.pdf)
472. Gray LC, Peel NM, Costa AP, Burkett E, Dey AB, Jonsson PV et al. Profiles of Older Patients in the Emergency Department: Findings From the interRAI Multinational Emergency Department Study. *Ann Emerg Med* 2013; 62: 467-474
473. Grewal E, Khadgawat R, Gupta N, Desai A, Tandon N. Assessment of iodine nutrition in pregnant north Indian subjects in three trimesters. *Indian J Endocrinol Metab* 2013; 17(3): 508.
474. Grover S, Nebhinani N, Padmavati R, Chadda RK, Tirupati S, Pallava A. Metabolic syndrome in antipsychotic naïve patients with schizophrenia: pooled analysis of data from three Indian studies. *Early Interv Psychiatry* 2014; 20: doi:10.1111/eip.12117
475. Gulati S, Chakrabarty B. Diagnostic and treatment options in autistic spectrum disorders – an overview. *Journal of Special Education and Rehabilitation* 2014;15:43-58
476. Gulati S, Jain P, Sachan D, Chakrabarty B, Kumar A, Pandey RM, et al. Seizure and radiological outcomes in children with solitary cysticercous granulomas with and without albendazole therapy: A retrospective case record analysis. *Epilepsy Res.* 2014; Sep;108(7):1212-20.
477. Gulati S, Misra A, Pandey RM, Bhatt SP, Saluja S. Effects of pistachio nuts on body composition, metabolic, inflammatory and oxidative stress parameters in Asian Indians with metabolic syndrome: a 24-wk, randomized control trial. *Nutrition*, 2014, 30 (2), 192 – 7.
478. Guleria S, Jain S, Dinda AK, Mahajan S, Gupta S, Mehra NK. The short-term impact of protocol biopsies in a live-related renal transplant program using tacrolimus based immunosuppression. *Indian J Nephrol.* 2013 Jul;23(4):253-8.
479. Gupta A, Agarwala S, Tandon N, Srinivas M, Bajpai M, Gupta DK, Gupta AK, Bal C, Kumar R, Bhatnagar V. Pheochromocytoma Management, Outcomes and the Role of Cortical Preservation. *Indian J Pediatr* 2013; 81(8): 780-4.
480. Gupta A, Bhowmik DM, Dogra PM, Mendonca S, Gupta A. Candida lung abscesses in a renal transplant recipient. *Saudi J Kidney Dis Transpl* 2013.24;315-317.
481. Gupta A, Bhutia O, Roychoudhury A. Takayasu's arteritis: Oral Complication and Dental Guidelines. *Oral Surg. Oral Pathol. Oral Radiol*; 2013: 116(5); 352-55.
482. Gupta A, Gupta SK, Baridalyne N. Integrated Child Development Services (ICDS) Scheme: a journey of 37 years. *Indian J Commun Health* 2013; 25 (1): 77-81.
483. Gupta A, Gupta SK, Nongkynrih, B. Morbidity in urban slums of India: the challenge and way forward. *Asian J Med Clin Sci* 2013; 2: 51-2.
484. Gupta A, Jaipuria J, Bagdia A, Kumar S, Sagar S, Misra MC. Motorised two-wheeler crash and helmets: injury patterns, severity, mortality and the consequence of gender bias. *World J Surg* 2014; 38 (1): 215-21.
485. Gupta A, Kapil A, Kabra SK, Lodha R, Sood S, Dhawan B et al. Assessing the impact of an educational intervention on ventilator-associated pneumonia in a pediatric critical care unit. *Am J Infect Control.* 2014; 42:111-5.

486. Gupta A, Kapil A, Kabra SK, Lodha R, Sood S, Dhawan B, Das BK et al. Prospective study estimating healthcare associated infections in a paediatric hemato-oncology unit of a tertiary care hospital in north India. *Indian J Med Res.* 2013; 138:944-9.
487. Gupta A, Kapil A, Lodha R, Sreenivas V. Knowledge, attitude and practice towards infection control among healthcare professionals. *Natl Med J India.* 2013; 26:59-60.
488. Gupta B, Ramchandani S, Balakrishnan I, Kumar A. Transient aphonia, aphagia and facial tingling following intrathecal administration of fentanyl. *Anesth Essays Res* 2014;8:93-5.
489. Gupta B, Suri S, Kohli S. Arthrogyposis multiplex congenital: Airway concerns in an emergency situation. *Acta Anaesthesiologica Taiwanica* 2014; S2: 88-90.
490. Gupta D, Agarwal R, Aggarwal AN, Maturu VN, Dhooria S, Prasad KT, ... Khilnani GC, et al. for the COPD Guidelines Working Group. Guidelines for diagnosis and management of chronic obstructive pulmonary disease: Joint ICS/NCCP (I) recommendations. *Lung India.* 2013 Jul;30(3):228-67.
491. Gupta DK, Sankhwar SN, Goel A. Uroflowmetry nomograms for healthy children 5 to 15 years old. *J Urol.* 2013 Sep;190(3):1008-14. doi: 10.1016/j.juro.2013.03.073. Epub 2013 Mar 26.
492. Gupta DK. Changing facets of Doctor-Patient-Parent relationships. *J Pediatr Surg Specialities, Bucharest, Romania,* 2013.
493. Gupta G, Tak V, Mathur P. Detection of AmpC β Lactamases in Gram-negative Bacteria. *J Lab Physicians* 2014; 6 (1): 1-6.
494. Gupta M, Srivastava DN, Seith A, Sharma S, Thulkar S, Gupta R. Clinical impact of multidetector row computed tomography before bronchial artery embolization in patients with haemoptysis: a prospective study. *Can Assoc Radiol J.* 2013 Feb ; 64(1) : 61-73.
495. Gupta N, Kabra M. Approach to the diagnosis of developmental delay – the changing scenario. *Indian J Med Res* 2014;139(1):4-6
496. Gupta N, Pandia MP, Dash HH. Research Studies that have influenced Practice of Neuroanaesthesiology in Recent Years – A Literature Review. *Indian J Anaesth* 2013;57:117-26
497. Gupta N, Pandia MP, Prabhakar H, Chauhan M. Video laryngoscopy added fiberoptic intubation in a patient with difficult airway. *J Anaesthesiol Clin Pharmacol.* 2013 ;29:283-4.
498. Gupta N, Rath GP, Prabhakar H, Dash HH. Effect of intraoperative dexmedetomidine on postoperative recovery profile of children undergoing surgery for spinal dysraphism. *J Neurosurg Anesthesiol,* 2013 Jul; 25(3): 271-8
499. Gupta N, Rath GP, Prabhakar H. Clinical evaluation of C-MAC videolaryngoscope with or without use of stylet for endotracheal intubation in patients with cervical spine immobilization. *J Anesth* 2013; 27(5): 663-70.
500. Gupta N, Sapra S, Kabra M. Coping strategies of parents of Down syndrome children in India. *Indian J Pediatr* 2013;80(7):534-5
501. Gupta N, Tandon R, Gupta SK, Sreenivas V, Vashist P. Burden of corneal blindness in India. *Indian J Community Med.* 2013 Oct;38(4):198-206.
502. Gupta NK, Upadhyay A, Agarwal A, Goswami G, Kumar J, Sreenivas V. Randomized controlled trial of topical EMLA and breastfeeding for reducing pain during wDPT vaccination. *Eur J Pediatr.,* 2013,172 (11), 1527-33.
503. Gupta P, Bhalla AS, Thulkar S, Kumar A, Mohanti BK, Thakar A, et al. Neoadjuvant intra-arterial chemotherapy in advanced laryngeal and hypopharyngeal cancer. *Asia Pac J Clin Oncol* 2013 Oct 31. doi: 10.1111/ajco.12123. Epub ahead of print.
504. Gupta P, Bhalla AS, Thulkar S, Kumar A, Mohanti BK, Thakar A, et al. Variations in superior thyroid artery: A selective angiographic study. *Indian J Radiol Imaging* 2014; 24(1): 66-71.
505. Gupta P, Kalaivani M, Nongkynrih B, Rai S, Gupta SK. Functional disability among elderly persons in rural area of Ballabgarh, Haryana. *Indian J Public Health.* 2014 Jan-Mar;58(1):11-6..

506. Gupta P, Kumar A, Kumar A, Goel S. Congenital spinal cord anomalies: A pictorial review. *Curr Prob Diag Radiol* 2013; 42(2): 57-66.
507. Gupta P, Kumar R, Pandav CS. Tobacco use and body mass index: do they have synergistic effect on mortality due to tuberculosis? *Natl Med J India* 2013; 26 (2): 91-2
508. Gupta P, Kumari A, Kriplani A, Bhatla N. Sister Mary Joseph's nodule as the first and only sign of recurrence in a case of stage Ia carcinoma ovary. *BMJ Case Rep.* 2014; Jan 7;2014. pii: bcr2013201779. doi: 10.1136/bcr-2013-201779.
509. Gupta P, Mani K, Rai SK, Nongkynrih B, Gupta SK. Functional disability among elderly persons in a rural area of Haryana. *Indian J Public Health* 2014; 58: 11-16.
510. Gupta P, Prasad K, Kumar A, Kumar P, Bhatia R, Tripathi M. Clinical predictors and outcome of patients of acute stroke requiring ventilatory support: a prospective hospital based cohort study. *J Neurol Sci.* 2014;337:14-7.
511. Gupta R, Balhara YP. Antipsychotic induced chronic recurrent oculogyric crisis in a patient with obsessive compulsive disorder. *Psychopharmacol (Berl)* 2014;231:3065-6.
512. Gupta R, Lakshmy R, Abraham RA, Reddy KS, Jeemon P, Prabhakaran D. Content of trans fatty acids in human cheek epithelium: comparison with serum and adipose tissue. *Food Nutrition Sci* 2013; 4: 94-7
513. Gupta R, Mirdha BR, Guleria R, Kumar L, Luthra K, Agarwal SK et al Genetic characterization of UCS region of *Pneumocystis jirovecii* and construction of allelic profiles of Indian isolates based on sequence typing at three regions. *Infect Genet Evol.* 2013; 13:180-6.
514. Gupta R, Singh N. *Morinda citrifolia* (Noni) alters oxidative stress markers and antioxidant activity in cervical cancer cell lines. *Asian Pacific J Cancer Prev.* 14(8):4603-6; 2013.
515. Gupta R, Sinha R, Singh P, Sharma N, Tandon R, Titiyal JS. Rose-K versus Soper Contact Lens in Keratoconus: A Randomized Comparative Trial. *Middle East Afr J Ophthalmol.* 2014 Jan;21(1):50-5.
516. Gupta RK, Sharma MC, Suri V, Kakkar A, Singh M, Sarkar C. Study of chromosome 9q gain, Notch pathway regulators and Tenascin-C in ependymomas. *J Neurooncol.* 2014 Jan;116(2):267-74.
517. Gupta S, Mittal S, Nayak N, Satpathy G, Khokhar S, Agarwal T. In vitro antibiotic susceptibility of *pseudomonas aeruginosa* corneal ulcer isolates. *Ocul Immunol Inflamm* 2014 [Epub ahead of print].
518. Gupta S, Saxena A, Juneja R, Gulati GS. Left main coronary atresia in a child with absent pulmonary valve syndrome: early entrapment of an innocent bystander. *Congenital Heart Disease* 2014; 9(4):E125-8.
519. Gupta S, Sehra S, Gogia V, Khokhar S, Agarwal T. Corneal nerve regeneration after foreign body removal on in vivo confocal microscopy. *Can J Ophthalmol.* 2013;48(5):e125-8.
520. Gupta S, Sihota R, Gupta V, Dada T, Gogia V, Sharma A. Functional pituitary tumors masquerading as primary glaucoma and effect of hypophysectomy on intraocular tension. *J Glaucoma* 2013 [Epub ahead of print].
521. Gupta S. Water in flow and monk on move - stay clean. *J Cutan Aesthet Surg.* 2014 Jan;7(1):1-2.
522. Gupta SK, Anderson RH, Kothari SS. Pulmonary atresia and intact ventricular septum with transposed arterial trunks. *Cardiol Young* 2013;17:1-3.
523. Gupta SK, Dinda AK, Potdar PD, Mishra NC. Fabrication and characterization of scaffold from cadaver goat-lung tissue for skin tissue engineering applications. *Mater Sci Eng C Mater Biol Appl.* 2013 Oct;33(7):4032 -8.
524. Gupta SK, Kothari SS. Prevalence of congenital heart disease. *Indian J Pediatr* 2013;80:337-9.
525. Gupta SK, Kumar B, Srinivasan BP, Nag TC, Srivastava S, Saxena R, et al. Retinoprotective effects of *Moringaoleifera* via antioxidant, anti-inflammatory, and anti-angiogenic mechanisms in streptozotocin-induced diabetic rats. *J Ocul Pharmacol Ther* 2013;29:419-26.
526. Gupta SK, Kumar R, Chharchhodawala T, Kumar L. Secondary pure erythroid leukaemia in relapsed acute lymphoblastic leukaemia: lineage switch or chemotherapy effect? *BMJ Case Rep.* 2014; pii: bcr2013201724. doi: 10.1136/bcr-2013-201724.

527. Gupta SK, Nongkynrih B, Pandav CS. Postgraduate medical education in Community Medicine: The AIIMS model. *The National Medical Journal Of India* 2013;26:287-90.
528. Gupta SK, Ramakrishnan S, Doshi S. Cor triatriatum: an unusual cause of elevated pulmonary capillary wedge pressure in a child with tetralogy of Fallot. *Catheter Cardiovasc Interv* 2013;82:E507-10.
529. Gupta SK, Ramakrishnan S, Kothari SS, Saxena A, Airan B. Hemodynamic of large ventricular septal defect and coexisting chronic constrictive pericarditis masquerading as Eisenmenger's syndrome. *Catheter Cardiovasc Interv* 2014;83:263-9.
530. Gupta SK, Ramakrishnan S, Kothari SS. De novo fenestration of extra-cardiac Fontan Goretex conduit assisted by Inoue balloon. *Catheter Cardiovasc Interv* 2013;82:E893-7.
531. Gupta SK, Saxena A, Juneja R, Gulati GS. Left main coronary atresia in a child with absent pulmonary valve syndrome: early entrapment of an innocent bystander. *Congenit Heart Dis* 2014;9:E125-8.
532. Gupta SK, Saxena A. Cor triatriatum sinister with an atrial septal defect: an unusual cause of Lutembacher physiology. *Pediatr Cardiol* 2013;34:1050-51.
533. Gupta V, Chandra A, Yogi R, Sihota R, Singh D. Prevalence and causes of patient drop out after glaucoma surgery. *Ophthalmic Epidemiology* 2013;20(1): 40-4.
534. Gupta V, Gupta S, Sinha S, Sharma SK, Dinda AK, Agarwal SK, et al, HIV associated renal disease: a pilot study from north India. *Indian J Med Res.* 2013 May;137(5):950-6
535. Gupta V, Seshadri D, Vijay MK, Sahai P, Gupta S. Dermatomyositis and nasopharyngeal carcinoma in an Indian patient. *Indian J Dermatol Venereol Leprol.* 2014 Mar-Apr;80(2):167-8.
536. Gupta V, Singh MK, Singhal V, Xess I, Ramam M. Disseminated histoplasmosis with hypercalcemia. *Journal of the American Academy of Dermatology* 2013; 69:250-1.
537. Gupta V, Singhal V, Singh MK, Xess I, Ramam M. Disseminated histoplasmosis with hypercalcemia. *J Am Acad Dermatol.* 2013; 69 (5): e250-1.
538. Gupta V, Srivastava R, Rao A, Mittal M, Fingert JH. Clinical correlates to the goniodysgenesis among juvenile onset primary open angle glaucoma patients. *Graefes Arch Clin Exp Ophthalmol.* 2013; 251:1571-6.
539. Gupta V, Srivastava RM, Sihota R, Kaur J, Kumar S, Singh D. Determinants of severity at presentation among among young patients with early onset glaucoma. *Ind J Ophthalmol* 2013;61(10):546-51
540. Gupta V, Verma S, Ramakrishnan S, Hote M, Seth S, Bhargava B. Congenital rubella syndrome presenting in adulthood with fatigue. *Circulation* 2013;128:2542-5.
541. Gupta YK, Peshin SS. Snake bite in India: current scenario of an old problem. *J Clin Toxicol* 2014;4:1-9.
542. Hadda V, Khilnani GC, Dubey G, Nallan R, Kumar G, Guleria R. Impact of ventilator associated pneumonia on outcome in patients with chronic obstructive pulmonary disease exacerbation. *Lung India.* 2014 Jan;31(1):4-8.
543. Halder A, Jain M, Chaudhary I, Gupta N, Kabra M. Fluorescence *in-situ* hybridization (FISH) using non-commercial probes in the diagnosis of clinically suspected microdeletion syndromes: an experience with 301 cases. *Indian J Med Res* 2013; 138: 135-42.
544. Halder A, Jain M, Chaudhary I, Kumar G, Das T, Gupta YK. Dark-coloured semen in nonobstructive azoospermia: a report of four cases. *Andrologia* 2014;46:316-21.
545. Halder A, Jain M, Chaudhary I. Rapid Detection of Chromosome X, Y, 13, 18 & 21 Aneuploidies by Primed In Situ Labeling/Synthesis (PRINS) Technique. *Indian J Hum Genet* 2013; 19 (1): 14-17.
546. Halder A, Jain M, Chawdhary I, Kumar G, Das TK, Gupta YK. Dark Colored Semen in Non-obstructive Azoospermia: A Report of 4 Cases, *Andrologia* 2014; 46 (3): 316–321.
547. Halder A. Advances in Cytogenetics. *JBR J Clin Diagn Res* 2013; 16: e101.doi:10.4172/jcdr.1000e101 Volume 1 Issue 1 1000e101. <http://dx.doi.org/10.4172/jcdr.1000e101>
548. Halder A. Cytogenetics to Cytogenomics: transition from Chromosome to DNA sequence. *Global J Hum Genetics Gene Therapy* 2013; 1 (2): 90-104

549. Halder A. Disorder of Sex Development: spectrum of disorder in a referral tertiary care hospital in Northern India. *Global J Hum Genetics Gene Therapy* 2013; 1 (2): 77-89
550. Halder N, Peshin SS, Pandey RM, Gupta YK. Awareness assessment of harmful effects of mercury in health care set-up in India: A survey-based study. *Toxicol Ind Health* 2013, DOI 10.1177/074823371348832237.
551. Hari P, Ramakrishnan L, Gupta R, Kumar R, Bagga A. Cystatin C-based glomerular filtration rate estimating equations in early chronic kidney disease. *Indian Pediatr* 2013;51;273-7
552. Hari P, Sahu J, Sinha A, Pandey RM, Bal CS, Bagga A. Randomized controlled trial of enalapril on decline in glomerular filtration rate and proteinuria in children with chronic kidney disease. *Indian Pediatr* 2013; 50; 923-8
553. Hari P, Sahu J, Sinha A, Pandey RM, Bal CS, Bagga A. Effect of enalapril on glomerular filtration rate and proteinuria in children with chronic kidney disease: a randomized controlled trial. *Indian Pediatr*, 2013, 50 (10), 923 – 8.
554. Hariprasad G, Hariprasad R, Kumar L, Srinivasan A, Kola S, Kaushik A. Apolipoprotein A1 as a potential biomarker in the ascitic fluid for the differentiation of advanced ovarian cancers. *Biomarkers* 2013; 18: 532-41
555. Hariprasad G, Srinivasan A, Singh R. Structural and phylogenetic basis for the classification of group III phospholipase A2. *J Mol Model* 2013; 9: 3779-91
556. Hariprasad R, Hariprasad G. Importance, relevance and ways of differentiating advanced ovarian cancers. *Indian Soc Study Rep Fert* 2014; 14: 32-33
557. Hasan MR, Sharma R, Saraya A, Chattopadhyay TK, Datta Gupta S, Chauhan SS, et al. Slug is a predictor of poor prognosis in esophageal squamous cell carcinoma patients. *PloS One* 8(12): e82846; 2013
558. Hasan MR, Sharma R, Saraya A, Chattopadhyay TK, DattaGupta S, Chauhan SS, et al. Mitogen activated protein kinase kinase kinase 3 (MEKK3) over expression is an early event in esophageal tumorigenesis and is a predictor of poor disease prognosis. *BMC Cancer*. 1471-2407-14-2; 2014.
559. Hasija N, Hazarika AJ, Sokhal N, Kumar S. Tissue necrosis of hand caused by phenytoin extravasation: An unusual occurrence. *Saudi J Anaesth* 2014; 8(2): 309-10.
560. Hasija S, Chauhan S, Makhija N, Singh SP, Kumar S, Choudhury A, Talwar S, Kiran U. Comparison of the haemodynamic effects of the induction agents ketamine, etomidate and sevoflurane using the model of electrical velocimetry based cardiac output monitoring in paediatric cardiac surgical patients. *World J Cardiovasc Surg* 2014; 4: 167-75
561. Herrero LJ, Zakhary A, Gahan ME, Nelson MA, Herring BL, Hapel AJ, Dar L et al. Dengue virus therapeutic intervention strategies based on viral, vector and host factors involved in disease pathogenesis. *Pharmacol Ther*. 2013; 137:266-82.
562. Houweling TA, Tripathy P, Nair N, Rath S, Rath S, Gope R, Sinha R, Looman CW, Costello A, Prost A. The equity impact of participatory women's groups to reduce neonatal mortality in India: secondary analysis of a cluster-randomised trial. *Int J Epidemiol*. 2013;42(2):520-32.
563. Huynh TJ, Demchuk AM, Dowlatshahi D, Gladstone DJ, Krischek O, BhatiaR, Padma V et al. Spot sign number is the most important spot sign characteristic for predicting hematoma expansion using first-pass computed tomography angiography: analysis from the PREDICT study. *Stroke*. 2013 Apr;44(4):972-7.
564. India Diabetes Mellitus—Tuberculosis Study Group. Screening of patients with diabetes mellitus for tuberculosis in India. *Trop Med Int Health*. 2013 May;18(5):646-54.
565. India Tuberculosis-Diabetes Study Group. Screening of patients with tuberculosis for diabetes mellitus in India. *Trop Med Int Health*. 2013 May;18(5):636-45.
566. IndiaClen 2013 Annual Conference Group (ACG), Jyotsna Agarwal, Madhuri Kulkarni, Uday Mohan, Vinita Das, Vinita Singh, Siddharth Das, Pankaj Bhardwaj, Pragna Rao, Sanjay Mehendale, Vimala Venkatesh, Archana Kumar, Nandini Kumar, Nuzhat Hussain, Pankaja Ravi Raghav, Ranabir Pal, Apul Goel, Rashmi Kumar, Farzana Beg, Ashraf Malik, Raj Mohan Pillai, Vinod Paul, Sushil Kumar Kabra, Raj

- Mohan Pandey, L. Jeyseelan, Suresh Ughade, Prathap Tharyan, Jai Veer Singh, Raj Mehrotra, V.N. Tripathi, Neeraj Mohan Srivastava, Priya Tripathi, Akansha, Arpita, Tavishi Srivastava, Jahnavi, Raj Gaurav Singh, Sarika Gupta, Aditya Vidyasagar, S. Chakraborty, Shally Awasthi. IndiaClen recommendations for improving postgraduate medical research & publication *Clinical Epidemiology and Global Health* 2013; <http://dx.doi.org/10.1016/j.cegh.2013.07.001>
567. Irshad A. Parray, Showkat Ali Zargar, Bashir Ahmad Khan, Bilal Ahmad, Riayz-u-saif Andrabi, Atif Kawoosa, Syed Mudasar, Ganie MA. Ultrasonographic Prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD) in Kashmir Valley School Children. *International J Scientific Research* 2013; 2: 229-301.
568. Irshad M, Ansari MA, Khushboo I, Raghavendra L. A novel single step multiplex real time PCR assay for simultaneous quantification of hepatitis virus A, B, C & -E in serum. *J Gastroenterol Hepatol* 2013; 28: 1869–76.
569. Irshad M, Mankotia DS, Khushboo I. An insight into the diagnosis and pathogenesis of hepatitis C virus infection. *World J Gastroenterol* 2013; 19 (44): 7896-909.
570. Israni A, Chakrabarty B, Gulati S, Mohamed A, Kumar A, Sable MN, et al. Giant axonal neuropathy: A clinicoradiopathologic diagnosis. *Neurology* 2014; 82(9): 816-7.
571. Jadhav GR, Shah N, Logani A. Comparative outcome of revascularization in bilateral, non-vital, immature maxillary anterior teeth supplemented with or without platelet rich plasma: A case series. *J Conserv Dent*. 2013 Nov;16(6):568-72
572. Jagannathan NR. Prostate MR: Current Status, Challenges and Future directions. *NMR Biomed* 2014;27:1-2.
573. Jagya N, Varma SP, Thakral D, Joshi P, Durgapal H, Panda SK. RNA-seq based transcriptome analysis of hepatitis E virus (HEV) and hepatitis B virus (HBV) replicon transfected Huh-7 cells. *PLoS One*. 2014; 9(2):e87835.
574. Jaimini A, Tripathi M, D'Souza MM, Panwar P, Sharma R, Mehta S, et al. Utility of intrastriatal ratios of FDOPA to differentiate Idiopathic Parkinson's disease from Atypical Parkinsonian Disorders. *Nucl Med Commun* 2013; 34(5): 426-31.
575. Jain A, Mathur N, Jeevashankar M, Mukhopadhyay A, Agarwal R, Deorari AK, et al. Does mesenchymal stem cell population in umbilical cord blood vary at different gestational periods? *Indian J Pediatr* 2013;80:375-9
576. Jain D, Arava S, Mishra B, Sharma S, Sharma R, Prashad R. Soft tissue Giant Cell Tumor of low Malignant Potential of Mediastinum: A Rare Case Report. *Int J Surg Pathol*. 2014 Jun 25. pii: 1066896914540937.
577. Jain D, Mathur SR, Guleria R, Iyer VK. Utility and pattern of positivity of p40 in the diagnosis of squamous cell carcinoma of the lung by cytology: the first study on fine needle aspiration smears. *Cytopathology*. 2013;Oct 16. doi: 10.1111/cyt.12105. [Epub ahead of print]
578. Jain D. Low papillary structures in lepidic lung adenocarcinoma: any relationship with micropapillary lung adenocarcinoma? *Hum Pathol*. 2013;44(12):2867.
579. Jain D. Sal-like protein 4: an epithelial and germ cell marker. *Hum Pathol*. 2013;44(7):1453.
580. Jain D. Tissue Diagnosis of Hepatocellular Carcinoma. *J Clin Exp Hepatol* 2014;3 (Suppl 3): S1–S7
581. Jain K, Mohapatra T, Das P, Misra MC, Datta Gupta S, Ghosh M, Kabra M, Bansal VK, Kumar S, Sreenivas V, Garg PK. Sequential Occurrence of Preneoplastic Lesions and Accumulation of Loss of Heterozygosity in Patients With Gallbladder Stones Suggest Causal Association With Gallbladder Cancer. *Ann Surg*. 2014 Jan 22. [Epub ahead of print]
582. Jain M, Mohan V, Chaudhary I, Halder A. Sertoli cell only syndrome and glaucoma in a SRY positive XX infertile male. *J Clin Diagn Res* 2013; 7 (7): 1457-9.
583. Jain N, Mathur P, Misra MC. Trend of vancomycin susceptibility of staphylococci at a level 1 trauma centre of India. *Indian J Med Res* 2013; 138(6):1022-4.
584. Jain P, Arya R, Jaryal A, Gulati S. Idiopathic harlequin syndrome. *J Child Neurol* 2013;28:527-30

585. Jain P, Chakrabarty B, Kumar A, Gupta N, Kabra M, Gulati S. Encephalocraniocutaneous lipomatosis with neurocutaneous melanosis. *J Child Neurol* 2013; 29(6): 846-9.
586. Jain P, Dhingra D, Kumar A, Sharma S, Chandra J, Aneja S. Lissencephaly with Subcortical Band Heterotopia in an Indian Family. *Indian J Pediatr* 2014; Epub ahead of print.
587. Jain P, Gulati S, Seth R, Bakhshi S, Toteja GS, Pandey RM. Vincristine induced neuropathy in Childhood ALL (Acute Lymphoblastic Leukemia) survivors - Prevalence and Electrophysiological Characteristics. *J Child Neurol* 2013; 29:932-937.
588. Jain P, Gulati S, Toteja GS, Seth R, Bakhshi S, Pandey RM. Serum alpha-tocopherol, vitamin B12 and folate levels in Childhood ALL (Acute Lymphoblastic Leukemia) survivors with and without neuropathy. *JICNA* 2014;Suppl (1)
589. Jain P, Kannan L, Chakrabarty B, Kumar A, Gupta N, Kabra M, et al. Menkes disease-An important cause of early onset refractory seizures. *J Pediatr Neurosci* 2014; 9(1): 11-16.
590. Jain P, Kannan L, Kumar A, Gulati S. Worcester drought syndrome - a form of bulbar cerebral palsy. *Indian J Pediatr* 2013;80:436-7
591. Jain P, Kannan L, Kumar A, Sigamani E, Suri V, Basheer N, Suri A, Gulati S. Symptomatic Neurocutaneous Melanosis in a Child. *JAMA Neurol* 2013; 70(4): 516.
592. Jain P, Mohamed A, Sigamani E, Suri V, Mahapatra AK, Kumar A, Gulati S. Bilateral thalamic lesions in a child. *Eur Neurol* 2013; 70 (1-2): 33-4.
593. Jain P, Sehgal R, Kannan L, Kumar A, Gulati S. 'Double midbrain' sign in extensive optic pathway glioma in neurofibromatosis-1. *Indian J Pediatr* 2013; 81(6): 631-2.
594. Jain P, Sharma S, Kumar A, Aneja S. Hypomyelination With T2-hypointense Globi Pallidi in a Child With Fucosidosis. *J Child Neurol* 2013; 29(7): 988-9.
595. Jain P, Sharma S, Kumar A, Aneja S. Pontocerebellar hypoplasia type 1 with a milder phenotype in a two-year-old girl. *J Pediatr Neurosci* 2014; 9(1): 70-2.
596. Jain P, Sharma S, Tripathi M. Diagnosis and Management of Epileptic Encephalopathies in Children. *Epilepsy Research and Treatment Volume* 2013;2013:501981.
597. Jain R, Gupta, T, Majumder P. Pharmacological intervention of nicotine dependence. *Biomed Res Int* 2013; doi: 10.1155/2013/278392. Epub 2013 Dec 29.
598. Jain R, Jhanjee S, Jain V, Gupta T, Mittal S, Goelz P, et al. A double-blind placebo-controlled randomized trial of varenicline for smokeless tobacco dependence in India. *Nicotine Tob Res.* 2014 (16)50-7.
599. Jain S, Chattopadhyay S, Jackeray R, Zainul Abid CKV, Singh H. Novel functionalized fluorescent polymeric nanoparticles for immobilization of biomolecules. *Nanoscale* 2013, 7;5(15):6883-92.
600. Jain S, Chowdhury V, Juneja M, Kabra M, Pandey S, Singh A, Bhattacharya M, Kapoor S. Intellectual disability in Indian children: experience with a stratified approach for etiological diagnosis. *Indian Pediatr* 2013;50(12):1125-30
601. Jain S, Kishore K, Sharma YR. Intravitreal anti-VEGF monotherapy for thick submacular hemorrhage of less than 1 week duration secondary to neovascular age-related macular degeneration. *Indian J Ophthalmol* 2013; 61(9):490-4.
602. Jain S, Kishore K, Sharma YR: Progressive atrophy of retinal pigment epithelium after trypan Blue-assisted peeling of the internal limiting membrane for Macular hole surgery. *Indian J Ophthalmol* 2013; 61(1): 235-7
603. Jain S, Sankar MM, Sharma N, Singh S, Chugh TD. High prevalence of non-tuberculous mycobacterial disease among non-HIV infected individuals in a TB endemic country—experience from a tertiary center in Delhi, India. *Pathog Glob Health.* 2014; 108 (2): 118-22. doi: 10.1179/2047773214Y .0000000133.
604. Jain S, Sharma P, Mukherjee A, Bal C, Kumar R. 'Witch's milk' and ^{99m}Tc-pertechnetate uptake in neonatal breast tissue: an uncommon but not unexpected finding. *Clin Nucl Med.* 2013 Jul;38(7):586-7.
605. Jain T, Seth R, Singla S, Sharma P, Parida G, Kumar R, Bal C, Malhotra A. Can ¹⁸F-FDG PET-CT accurately reassess patients with Langerhans cell histiocytosis? *J Nucl Med* 2013;54:Supplement 2):437

606. Jain TK, Karunanithi S, Sharma P, Vijay MK, Ballal S, Bal C. Asymptomatic Solitary Cerebral Metastasis From Papillary Carcinoma Thyroid: 131 I SPECT/CT for Accurate Staging. *Clin Nucl Med*. 2014 Feb 21.
607. Jain TK, Sharma P, Suman SK, Faizi NA, Bal C, Kumar R. Primary central nervous system lymphoma with lymphomatosis cerebri in an immunocompetent child: MRI and 18F-FDG PET-CT findings. *Rev Esp Med Nucl Imagen Mol*. 2013 Nov-Dec;32(6):394-6.
608. Jain V, Dube SK, Prabhakar H, Mahajan C Juvenile nasopharyngeal angiofibromawith intracranial extention – a review of 29 cases *J Neuroanaesthesiol Crit Care*, 2014; (1) : 40 – 45
609. Jain V, Yadav J, Satapathy AK. Pheochromocytoma presenting as diabetes insipidus. *Indian Pediatr* 2013;50:1056-7
610. Jain V. Management of type 1 diabetes in children and adolescents. *Indian J Pediatr* 2014;81:170-7
611. Jaipuria J, Sagar S, Singhal M, Bagdia A, Gupta A, Kumar S, et al. Paediatric extremity vascular injuries– Experience from a large urban trauma centre in India. *Injury* 2014; 45: 176-82.
612. Jaiswal AK, Kaushal P, Das S, Gupto M, Dhar P. Differential–pulse cathodic stripping voltammetry (DPCSV) Determination of Arsenic – III (As 3+) in Blood. *Indian Police J* 2013;LX (2):213–22.
613. Jaiswal AK, Krishna S, Medhi MM, Parashar D, Mathur DS. Determination of Vigora 100 (Sex Drug) from Blood using TLC. *J Inst Chemists* 2013; 85 (4): 108-112.
614. Jaiswal AK, Raj J, Mohineesh, Krishna K, Gupta. Detection of monocrotophos by Thin layer chromatography from urine sample A case Report. *J SIMLA* 2013;5(1):22-25
615. Jaiswal AK, Sidhu A, Rai S, Millo T. Determination of Cetrizine (Cetrizine hydrochloride) from blood using Thin layer Chromatography. *J Inst Chemists* 2013; 84 (6): 160-164.
616. Jaiswal AK, Swin RK, Sikari AK. Quantitative Determination of Ethanol in Blood by GLC. *J Inst Chemists* 2013; 85 (2): 50-57.
617. Jaiswal M, Gupta A, Agrawal AK, Jassal M, Dinda AK, Koul V. Bi-layer composite dressing of gelatin nanofibrous mat and polyvinyl alcohol hydrogel for drug delivery and wound healing application: in-vitro and in-vivo studies. *J Biomed Nanotechnol*. 2013 Sep;9(9):1495-508.
618. Jaiswal M, Naz F, Dinda AK, Koul V. In vitro and in vivo efficacy of doxorubicin loaded biodegradable semi-interpenetrating hydrogel implants of poly (acrylic acid)/gelatin for post surgical tumor treatment. *Biomed Mater*. 2013 Aug;8(4):045004.
619. Jalwal GK, Rajagopalan V, Bindra A, Rath GP, Goyal K, Kumar A, et al. Percutaneous retrieval of malpositioned, kinked and unraveled guidewire under fluoroscopic guidance during central venous cannulation. *J Anaesthesiol Clin Pharmacol* 2014; 30(2): 267-269
620. Jamir L, Kalaivani M, Nongkynrih B, Misra P, Gupta SK. Anthropometric characteristics and undernutrition among older persons in a rural area of Northern India. *Asia Pac J Public Health*. 2013 May 30. [Epub ahead of print].
621. Jamir L, Kalaivani M, Nongkynrih B, Misra P, Gupta SK. Relationship between arm span and height among elderly persons in a rural area of Ballabgarh, Haryana. *Indian J Med Specialities* 2013; 4 (2): 248-253.
622. Jamir L, Nongkynrih B, Gupta SK. Community noise pollution in urban India: Need for public health action. *Indian J Community Med* 2014; 39:8-12.
623. Jamir L, Nongkynrih B, Gupta SK. Mobile Health Clinics: Meeting Health Needs of the Urban Underserved. *Indian J Community Med* 2013; 38 (3): 132-4.
624. Jamshed N, Madan K, Ekka M, Guleria R. Successful flexible bronchoscopic management of a large sized aspirated partial denture: *BMJ Case Rep* 2014 Mar 20; 2014.
625. Jamshed N, Ozair FF, Ekka M, Aggarwal P. Does chest radiograph confirm tracheal intubation? *Am J Emerg Med* 2014;32:96–7.
626. Jamshed N, Ekka M, Aggarwal P, Narayan S. Severe hypoglycemia as a presenting feature of aluminum phosphide poisoning. *Ann Saudi Med* 2014;34:189.

627. Jamshed N, Ozair FF, Ekka M, Aggarwal P. Alzheimer disease in post-menopausal women: Intervene in the critical window period. *J Midlife Health* 2014;5:38–40.
628. Jana M, Chandrashekhara SH, Chaudhuri T, Julka PK, Mondal D. Peritoneal lymphomatosis mimicking peritoneal carcinomatosis - a clinical dilemma: Series of two cases and review of literature. *Clin Cancer Investig* 2013; 2:356-8.
629. Jana R, Dhar P. Hepatic flexure in right sub-diaphragmatic space and its embryological basis and clinical importance. *Italian J Anatomy Embryol* 2014;119:74-9.
630. Janjanam J, Jamwal M, Singh S, Kumar S, Panigrahi AK, Hariprasad G...Srinivasan A et al. Proteome analysis of functionally differentiated bovine (*Bos Indicus*) mammary epithelial cells isolated from milk. *Proteomics* 2013; 13: 3189-204
631. Javali TD, Dogra PM, Gupta NP, Singh P, Chatterjee P, Dinda AK. Diagnostic dilemma in histopathology report following robot assisted laparoscopic prostatectomy: tumour 'hide and seek'. *Indian J Cancer*. 2013 Jul-Sep;50(3):170-4.
632. Javali TD, Dwivedi DK, Kumar R, Jagannathan NR, Thulkar S, Dinda AK. Magnetic resonance spectroscopy imaging-directed transrectal ultrasound biopsy increases prostate cancer detection in men with prostate-specific antigen between 4-10ng/mL and normal digital rectal examination. *Int J Urol*. 2014 Mar;21(3):257-62.
633. Javid J, Mir R, Masroor M, Ahamad I, Farooq S, Yadav P, Julka PK, et al. TP53 is a mutational target in non small cell lung cancer patients and its Pro/Pro variant is potentially contributing to cancer susceptibility. *J Carcinog Mutagen* 2013; 4(1): 1-7
634. Jayakrishnan TT, Sharma S, Gulati S, Pandey RM, Wadhwa S, Paul VK. Agreement between visual and goniometric assessments of adductor and popliteal angles in infants. *J Pediatr Neurosci* 2013;8:93-6
635. Jaykar P, Gaillard WD, Tripathi M, Libenson MH, Mathem GW, Cross JH. The Task Force for Epilepsy Surgery, Commission for paediatrics and the diagnostic commission for the International League Against Epilepsy. Diagnostic test Utilization in evaluation for respective Epilepsy Surgery in Children. *Epilepsia* 2014;55(4):507-18.
636. Jebaraj B, Maitra S, Baidya DK, Khanna P. Intravenous paracetamol reduces postoperative opioid consumption after orthopedic surgery: A systematic review of clinical trials. *Pain Res Treat* 2013; 402510.
637. Jha P, Pia Patric IR, Shukla S, Pathak P, Pal J, Sharma V, Gupta D, et al. Genome-wide methylation profiling identifies an essential role of reactive oxygen species in pediatric glioblastoma multiforme and validates a methylome specific for H3 histone family 3A with absence of G-CIMP/isocitrate dehydrogenase 1 mutation. *Neuro Oncol*. 2014
638. Jha R, Gaur P, Sharma SC and Das SN. Single nucleotide polymorphism in *hMLH1* promoter and risk of tobacco-related oral carcinoma in high-risk Asian Indians. 2013, *Gene* 526:223-227.
639. Jhanjee S, Kumar R. Mobile clinic services for opioid users: a feasible treatment modality. *Asian J Psychiatry* 2013;6:626
640. Jhanjee S. Evidence based psychosocial interventions in substance use. *Indian J Psychol Med* 2014;36:112-8.
641. Jhanji V, Agarwal T. A case with post-cataract surgery corneal oedema referred for endothelial keratoplasty. *Br J Ophthalmol*. 2013; 97(11): 1481, 1488-9.
642. Jobling L, Wilson S, Pollard SG, Rewari V, Bellamy MC. Does levobupivacaine rectus sheath block improve postoperative analgesia after open gastric bypass surgery? *Br J Anaesth* 2013;110:880P.
643. Jose B, Lodha R, Kabra SK. Comparison of Two New Generation Pulse Oximeters with Arterial Oxygen Saturation in Critically Ill Children. *Indian J Pediatr* 2014 Mar 15;Epub ahead of print
644. Joseph AA, Shabir I, Marumadi E, Dada R, Ammini C, Mehta M. Psychosexual outcomes in three siblings with partial androgen insensitivity syndrome: impact of nature versus nurture. *Pediatr Endocr Met* 2013;26:915-20.
645. Joshi A, Rajhans P, Galwankar S, Arquilla B, Swaroop M, Stawicki S, Aggarwal P, et al. Academic College

of Emergency Experts in India's INDO-US Joint Working Group (JWG) White Paper on the Integrated Emergency Communication Response Service in India: Much more than just a number! *J Emergencies, Trauma Shock* 2013;6:216-23.

646. Joshi M, Mittal N. Bladder calculi formed over a hair nidus in spinal injury cases. *Journal of Spinal Cord Medicine* (ISSN: 10790268) available online: 03 June 2013 DOI: 10.1179/2045772313Y.0000000133.
647. Joshi R, Kumar A, Manral S, Sinha R, Arora S, Sharma A, et al. Calreticulin transacetylase mediated upregulation of thioredoxin by 7,8-diacetoxy-methylcoumarin enhances the antioxidant potential and the expression of vascular endothelial growth factor in peripheral blood mononuclear cells. *Chem Biol Interact.* 2013;206(2):327-36.
648. Julka PK, Chacko RT, Nag S, Parshad R, Nair A, Koppiker CB, et al. A phase 2 study of sequential neoadjuvant chemotherapy with gemcitabine and doxorubicin followed by gemcitabine and cisplatin in patients with large or locally advanced operable breast cancer: results from long-term follow-up. *Breast Cancer.* 2013 Oct;20(4):357-62.
649. Julka PK, Sharma DN, Mallick S, Gandhi AK, Joshi N, Rath GK. Postoperative treatment of glioblastoma multiforme with radiation therapy plus concomitant and adjuvant temozolomide: A mono-institutional experience of 215 patients. *J Cancer Res Ther* 2013; 9: 381-6
650. Juneja M, Mishra D, Russell PSS, Gulati S, Deshmukh V, Sagar R, et al. INCLIN Diagnostic Tool for Autism Spectrum Disorder (INDT-ASD): Development and Validation. *Indian Pediatrics* 2014;51: 359-65.
651. Jyotsna VP, Ambekar S, Singla R, Joshi A, Dhawan A, Kumar N, Deepak KK, et al. Cardiac autonomic function in patients with diabetes improves with practice of comprehensive yogic breathing program. *Indian J Endocrinol Metab* 2013;17:480-5.
652. Jyotsna VP, Ambekar S, Singla R, Joshi A, Dhawan A, Kumar N, et al...[Deepak KK]. Prospective randomized controlled intervention trial: comprehensive yogic breathing improves cardiac autonomic functions and quality of life in diabetes. *Indian J Endocr Metab* 2013;16:489-91.
653. Jyotsna VP. Postmenopausal hormonal therapy: Current status. *Indian J Endocrinol Metab* 2013; 17(Suppl 1): S45-49.
654. K Alok, Verma A, Kumar A. Accidental human poisoning with a neonicotinoid insecticide, imidacloprid: A rare case report from rural India with a brief review of literature. *Egyptian J Forensic Sci* 2013; 3: 123-6
655. Kabra SK, Lodha R. Antibiotics for preventing complications in children with measles. *Cochrane Database Syst Rev* 2013;8:CD001477:Epub ahead of print
656. Kachhawa G, Agarwal N. Evidence Based Management of Infertility in Women with Polycystic Ovarian Disease. *Indian J Obstet Gynecol* 2013;1(1).
657. Kachhawa G, Kriplani A, Badiger S, Khadgawat R, Bhatla N, Agarwal N. Ovarian priming by Dehydroepiandrosterone in infertile women with Premature Ovarian Failure in Gonadotropin-IUI Cycles. *BJOG:* 2014;121; S2, EP6.16(83).
658. Kachhawa G, Kumar S, Suri V, Goyal M. Sirenomelia in a Fetus Conceived after Levonorgestrel Emergency Contraception Failure: a Case Report and Review of Literature. *Indian J Obstet Gynecol* 2013; 1(1):37-41.
659. Kairo AK, Madan R, Singh CA, Singh S. Nasal vestibular stenosis as a nasogastric tube related complication. *Clin Rhinol* 2014;7 (1):26-7
660. Kakkar A, Kumar A, Jha P, Goyal N, Mallick S, Sharma MC, et al. Meningeal hemangiopericytomas: A clinicopathological study with emphasis on MGMT (O(6)-methylguanine-DNA methyltransferase) promoter methylation status. *Neuropathology.* 2014 Feb 12. doi: 10.1111/neup.12107. [Epub ahead of print] PubMed PMID: 24521400.
661. Kaler S, Dhar P, Bhattacharya A, Mehra RD. Preliminary morphological and immunohistochemical changes in rat hippocampus following postnatal exposure to sodium arsenite. *Toxicol Int* 2013;20:160-9.
663. Kalra B, Kalra S, Balhara YP. Psychological assessment and management in diabetes. *J Pak Med Assoc* 2013;63:1555-7.

663. Kalra B, Sridhar GR, Madhu K, Balhara YP, Sahay RK, Kalra S. Psychosocial management of diabetes in pregnancy. *Indian J Endocrinol Metab* 2013;17:815-8.
664. Kalra S, Balhara YP, Mithal A. Cross-cultural variation in symptom perception of hypoglycemia. *J Midlife Health* 2013;4:176-81.
665. Kalra S, Balhara YP, Sahay BK, Ganapathy B, Das AK. Why is premixed insulin the preferred insulin? Novel answers to a decade-old question. *J Assoc Physicians India* 2013;61(1 Suppl):9-11
666. Kalra S, Balhara YP, Verma K, Unnikrishnan AG. Asian paradox of psychological support: findings from the second Diabetes Attitudes Wishes and Needs study (DAWN-2). *Asia Pac Psychiatry* 2013;5:354-5.
667. Kalra S, Balhara YP. Euthyroid depression: the role of thyroid hormone. *Recent Pat Endocr Metab Immune Drug Discov* 2014;8:38-41.
668. Kalra S, Ganie MA, Unnikrishnan AG. Overt hypothyroidism in pregnancy: Can we consider medical termination of pregnancy? *Indian J Endocrinol Metab* 2013; 17(2): 197-199.
669. Kalra S, Sridhar GR, Balhara YP, Sahay RK, Bantwal G, Baruah MP, et al. National recommendations: Psychosocial management of diabetes in India. *Indian J Endocrinol Metab* 2013;17:376-95
670. Kalra V, Sahu JK, Bedi P, Pandey RM. Blood lead levels among school children after phasing-out of leaded petrol in Delhi, India. *Indian J Pediatr*, 2013, 80 (8), 636 – 40.
671. Kalyanasundaram D, A Schmidt, P Molian, P Shrotriya. Hybrid CO2 Laser/Waterjet Machining of Polycrystalline Diamond Substrate: Material Separation Through Transformation Induced Controlled Fracture. *J Manufacturing Sci Engineering* 2014, 136 (4), 041001.
672. Kankaria A, Gupta SK. Road traffic noise: a risk factor for myocardial infarction? *Natl Med J India* 2013; 26(1): 40-41.
673. Kanojia D, Garg M, Saini S, Agarwal S, Parashar D, Jagadish N, Seth A, et al. Sperm associated antigen 9 plays an important role in bladder transitional cell carcinoma. *PLoS One*. 2013 Dec 9;8(12):e81348.
674. Kant S, Misra P, Gupta S, Goswami K, Krishnan A, Nongkynrih B, et al. The Ballabgarh Health and Demographic Surveillance System (CRHSP-AIIMS). *Int J Epidemiol* 2013; 42 (3): 758-68.
675. Kant S, Misra P, Gupta S, Goswami K, Krishnan A, Nongkynrih B, et al. Cohort Profile: The Ballabgarh Health and Demographic Surveillance System. *Int J Epidemiol* 2013;1–11.
676. Kapil A. Accreditation of microbiology laboratories: a perspective. *Indian J Med Microbiol* 2013; 31:217-8.
677. Kapil A. India needs an implementable antibiotic policy. *Indian J Med Microbiol*. 2013; 31: 111-3.
678. Kapil A. Rejection of a manuscript. *Indian J Med Microbiol*. 2013; 31:329-30.
679. Kapil U, Pandey RM, Jain V, Kabra M, Sareen N, Bhadoria AS, et al Increase in iodine deficiency disorder due to inadequate sustainability of supply of iodized salt in District Solan, Himachal Pradesh. *J Trop Pediatr* 2013;59:514-5
680. Kapil U, Pandey RM, Kabra M, Jain V, Sareen N, Bhadoria AS Status of iodine deficiency in district Kangra, Himachal Pradesh after 60 years of salt iodization. *Eur J Clin Nutr* 2013;67:827-8
681. Kapil U, Pandey RM, Prakash S, Kabra M, Sareen N, Bhadoria AS Assessment of iodine deficiency in school age children in Nainital District, Uttarakhand State. *Asia Pac J Clin Nutr* 2014;23(2):278-81
682. Kapil U, Sachdev HP, Dwivedi SN, Pandey RM, Upadhyay AD, Sareen N. Relative efficacy of weekly and two differing doses of daily iron-folate supplementation in improving hemoglobin in mild and moderately anemic children between 3 and 5 years of age: a cluster randomized trial. *Eur J Clin Nutr*, 2013, 67 (4), 343 – 7.
683. Kapil U, Pandey RM, Jain V, Kabra M, Sareen N, Bhadoria AS, Khenduja P et al. Increase in iodine deficiency disorder due to inadequate sustainability of supply of iodized salt in District Solan, Himachal Pradesh. *J Trop Pediatr*, 2013, 59 (6), 514 – 5.
684. Kapoor B, Kapoor P, Chauhan S, Chowdhury U, Kiran U, Choudhury M. Perioperative levels of tumor necrosis factor- α correlate with outcomes in children and adults with tetralogy of Fallot undergoing corrective

- surgery. *World J Pediatr Congenital Heart Surg* 2014; 5: 38–46
685. Kapoor PM, Subramanian A, Malik V, Devagourou V. Perioperative Endothelin Levels in patients undergoing Intracardiac Repair for Tetralogy of Fallot. *J Card Surg* 2014
 686. Kapoor PM, Subramanian A, Malik V, Usha Kiran, Devagourou V. B-type natriuretic peptide as prognostic marker in Tetralogy of Fallot surgery. *Asian Cardiovascular Thoracic Ann* 2014
 687. Kapoor R, Pati HP, Gupta SK, Gupta N. Acute Promyelocytic Leukemia Presenting as Ischemic Stroke in Young. *Indian J Haematol Transfus Med* 2013; 29: 93-5
 688. Kapoor S, Gupta N, Kabra M. National newborn screening program still a hype or a hope now? *Indian Pediatr* 2013;50(7):639-43
 689. Kapoor S, Mehta M, Sagar R. Self-help manual approach for the treatment of obsessive compulsive disorder: results from a pilot study. *J Ment Health Human Behav* 2013;18: [http://ipsnz.org/journal_sept13/Journal%20Issue%2018%20\(2\)_Sep%202013.pdf](http://ipsnz.org/journal_sept13/Journal%20Issue%2018%20(2)_Sep%202013.pdf)
 690. Kar R, Dhingra B, Vibha D, Mahapatra M, Seth T, Tyagi S. T-acute lymphoblastic leukemia in a young adult complicated with unusual findings: an interesting case. *Indian J Hematol Blood Transfus.* 2013 Jun;29(2):77-9
 691. Karlupia N, Manley NC, Prasad K, Schäfer R, Steinberg GK. Intra-arterial transplantation of human umbilical cord blood mononuclear cells is more efficacious and safer compared with umbilical cord mesenchymal stromal cells in a rodent stroke model. *Stem Cell Res Ther.* 2014;5:45.
 692. Karthik K, Behera C, Gupta SK, Bhardwaj DN. Cut wrists, electrocution and subsequent drowning in a water drum: an unusual combination of methods in complex suicide. *Med Leg J* 2013; 81 (Pt 3): 124-7
 693. Karthikeyan G, Mayosi BM. Letter by Karthikeyan et al regarding article, 'Acute rheumatic fever and rheumatic heart disease: incidence and progression in the Northern Territory of Australia, 1997 to 2010'. *Circulation* 2014;129:e396.
 694. Karthikeyan G, Senguttuvan NB, Joseph J, Devasenapathy N, Bahl VK, Airan B. Urgent surgery compared with fibrinolytic therapy for the treatment of left-sided prosthetic heart valve thrombosis: a systematic review and meta-analysis of observational studies. *Eur Heart J* 2013;34:1557-66.
 695. Karunakaran I, Dhingra R, Dhar P. Accessory digastrics and mylohyoid muscles—a case report. *Int J Anatomic Variations* 2013;6:179-81.
 696. Karunanithi S, Bandopadhyaya GP, Sharma P, Kumar A, Singla S, Malhotra A, et al. Prospective comparison of (99m)Tc-GH SPECT/CT and (18)F-FDOPA PET/CT for detection of recurrent glioma: a pilot study. *Clin Nucl Med.* 2014 Feb;39(2):e121-8.
 697. Karunanithi S, Chakraborty PS, Dhull VS, Nadarajah J, Salunkhe NR, Kumar R. Ciliary body metastasis in a patient with non-small cell lung carcinoma -incidental detection with 18F-FDG PET/CT. *Nucl Med Rev Cent East Eur.* 2014;17(1):40-3.
 698. Karunanithi S, Sharma P, Bal C, Kumar R. (18)F-FDG PET/CT for diagnosis and treatment response evaluation in large vessel vasculitis. *Eur J Nucl Med Mol Imaging.* 2014 Mar;41(3):586-7.
 699. Karunanithi S, Sharma P, Kumar A, Gupta DK, Khangembam BC, Ballal S, et al. Can (18)F-FDOPA PET/CT predict survival in patients with suspected recurrent glioma? A prospective study. *Eur J Radiol.* 2014 Jan;83(1):219-25.
 700. Karunanithi S, Sharma P, Kumar A, Khangembam BC, Bandopadhyaya GP, Kumar R, et al. Comparative diagnostic accuracy of contrast-enhanced MRI and (18)F-FDOPA PET-CT in recurrent glioma. *Eur Radiol.* 2013 Sep;23(9):2628-35.
 701. Karunanithi S, Sharma P, Kumar A, Khangembam BC, Bandopadhyaya GP, Kumar R, et al. 18F-FDOPA PET/CT for detection of recurrence in patients with glioma: prospective comparison with 18F-FDG PET/CT. *Eur J Nucl Med Mol Imaging.* 2013 Jul;40(7):1025-35.
 702. Karunanithi S, Sharma P, Naswa N, Soundararajan R, Mohapatra T, Malhotra A, Bal C, et al. Primary penile lymphoma: the use of PET-CT for accurate staging and response monitoring. *Diagn Interv Radiol.* 2013 Mar-Apr;19(2):130-3.

703. Karunanithi S, Singh H, Sharma P, Gupta DK, Bal C. (18)F-FDG PET-CT-Negative Recurrent High-Grade Anaplastic Astrocytoma Detected by (18)F-FDOPA PET-CT. *Nucl Med Mol Imaging*. 2013 Dec;47(4):299-300.
704. Karunanithi S, Singh H, Sharma P, Naswa N, Kumar R. 18F-FDG PET/CT imaging features of Rosai Dorfman disease: a rare cause of massive generalized lymphadenopathy. *Clin Nucl Med*. 2014 Mar;39(3):268-9.
705. Kashyap S, Venkatesh P, Sen S, Khanduja S, Shrey D, Tinwala S, Garg S. Clinicopathologic characteristics of choroidal melanoma in a North Indian population: analysis of 10-year data. *Int Ophthalmol*. 2013 Jul 4. [Epub ahead of print]
706. Kataria K, Yadav R, Sarkar C, Karak AK. Simultaneous medullary carcinoma, papillary carcinoma and granulomatous inflammation of the thyroid. *Singapore Med J*. 2013 Jul;54(7):e146-8.
707. Kato TA, Balhara YP, Chawla JM, Tateno M, Kanba S. Undergraduate medical students' attitudes towards psychiatry: an international cross-sectional survey between India and Japan. *Int Rev Psychiatry* 2013;25:378-84.
708. Kaul B, Goyal V, Shukla G, Srivastava A, Garg A, Bader B, et al. Mineral deposition on magnetic resonance imaging in chorea-acanthocytosis: a pathogenic link with pantothenate kinase-associated neurodegeneration? *Neurol India*. 2013 Mar-Apr;61(2):169-70.
709. Kaul U, Unverdorben M, Degenhardt R, Seth A, Bahl VK, Hiremath SM, et al. The paclitaxel-eluting PTCA-balloon in combination with a cobalt-chromium stent in two different sequences to treat de novo coronary artery lesions: an angiographic follow up study. *Indian Heart J* 2013;65:510-7.
710. Kaur G, Sharma G, Kumar N, Kaul MH, Bansal RA, Vajpayee M, et al Genomic architecture of HIV-1 infection: current status & challenges. *Indian J Med Res*. 2013; 138:663-81.
711. Kaur H, Pujari G, Sarma A, Mishra YK, Jin MK, Nirala BK, Avasthi DK, et al. Study of in vitro toxicity of glucose capped gold nanoparticles in malignant and normal cell lines. *Adv. Mat.Lett.*, 2013; 4(12): 888 – 894.
712. Kaur J, Kabra SK, Lodha R, Agarwal MK, Kalaivani M. Association of Aeroallergen Sensitization with Asthma Severity and Treatment. *Pediatric Allergy Immunology Pulmonol* 2013;26:187-192.
713. Kaur J, Madan R, Singh L, Sharma DN, Julka PK, Rath GK, Roy S. Malignant peripheral nerve sheath tumour of penis. *Andrologia*. 2014: doi: 10.1111/and.12267
714. Kaur J, Roy S, Mallick SR, Mathur S, Sharma A, Bhasker S, Mohanti BK. Squamous cell carcinoma of larynx in an 8-year-old child: Successful management with chemo-radiation. *Pediatr Blood Cancer DOI* 10.1002/pbc.24952
715. Kaur J, Sawhney M, Datta Gupta S, Shukla NK, Srivastava A, Walfish PG, Ralhan R. Clinical significance of altered expression of β -catenin and E-cadherin in oral dysplasia and cancer: potential link with ALCAM expression. *PLoS One*. 2013;8:e67361. doi: 10.1371/journal.pone.0067361. Print 2013
716. Kaur M, Chandran D, Lal C, Bhowmik D, Jaryal AK, Deepak KK, Agarwal SK. Renal transplantation normalizes baroreflex sensitivity through improvement in central arterial stiffness *Nephro Dial Transp* 2013;28:2645-55.
717. Kaur M, Gupta B, D'Souza N. When to correct coagulopathy in AKI? *Anaesthes Essays and Res* 2014;8:93-95.
718. Kaushik A, Jaimini A, Tripathi M, M D'Souza, Sharma R, Mishra A, et al. Estimation of patient dose in F-18 FDG and F-18 FDOPA PET/CT examinations. *J Cancer Res Ther* 2013; 9(3): 477-483.
719. Kaushik JS, Chakrabarty B, Gulati S, Patel H, Lodha R, Pai G et al. Unusual late neurological complication in a child after an Indian krait bite. *Pediatric Neurol* 2014;Feb 28
720. Kaushik JS, Sharma S, Aneja S, Kumar A. Chiari type 1 malformation and periventricular nodular heterotopia in a 6-year-old boy with congenital hemiplegia: A case report. *J Child Neurol* 2014; 29(1): 99-102.
721. Kaushik S, Singh A, Sinha M, Kaur P, Sharma S, Singh TP. Cloning, expression, crystallization and

- preliminary crystallographic studies of dihydrodipicolinate reductase from *Acinetobacter baumannii*. *Acta Crystallogr* 2013; F69: 653-6.
722. Kaushik S, Singh N, Yamini S, Singh A, Sinha M, Arora A, et al. The Mode of Inhibitor Binding to Peptidyl-tRNA Hydrolase: Binding Studies and Structure Determination of Unbound and Bound Peptidyl-tRNA Hydrolase from *Acinetobacter baumannii*. *PLoS One* 2013; 8: e67547
723. Kavimandan A, Sharma M, Verma AK, Das P, Mishra P, Sinha S, Mohan A, Sreenivas V, Datta Gupta S, Makharia GK. Prevalence of celiac disease in nutritional anemia at a tertiary care center. *Indian J Gastroenterol*. 2014;33:114-8. doi: 10.1007/s12664-013-0366-6. Epub 2013 Sep 1.
724. Kayal S, Mathur S, Karak AK, Kumar L, Sharma A, Bakhshi S, Raina V. CD68 Tumor-Associated Macrophage Marker is Not Prognostic of Clinical Outcome in Classical Hodgkin's Lymphoma. *Leuk Lymphoma*. 2014;55:1031-7.
725. Khadgawat R, Marwaha RK, Garg MK, Ramot R, Oberoi AK, Sreenivas V *et al*. Impact of vitamin D fortified milk supplementation on vitamin D status of healthy school children aged 10-14 years. *Osteoporosis Int* 2013; 24: 2335-43.
726. Khadgawat R, Marwaha RK, Tandon N, Mehan N, Upadhyay AD, Sastry A, et al. Percentage body fat in apparently healthy school children from northern India. *Indian Pediatr* 2013; 50(9): 859-66.
727. Khadgawat R, Ramot R, Chacko KM, Marwaha RK. Disparity in cholecalciferol content of commercial preparations available in India. *Indian J Endocrinology Metabolism* 2013; 17: 1100-103.
728. Khadilkar V, Radjuk KA, Bolshova E, Khadgawat R, El Kholy M, Desai M *et al*. 24-month use of once-weekly GH, LB03002, in prepubertal children with GH deficiency. *J Clin Endocrinol Metabolism* 2014; 99: 126-132.
729. Khaitan BK. ACS(I) Textbook on cutaneous and Aesthetic Surgery. *Int J Dermatol* 2013; 6-60
730. Khaitan BK. Adverse cutaneous drug eruptions. *Nat J Med J India* 2013, 26-54.
731. Khan A, Ahmad A, Xess I, Khan LA, Manzoor N. *Ocimum sanctum* essential oil inhibits virulence attributes in *Candida albicans*, *Phytomedicine* 2014; 21:448–452.
732. Khan MA, Manna S, Malhotra N, Sengupta J, Ghosh D. Expressional regulation of genes linked to immunity & programmed development in human early placental villi. *Indian J Med Res* 2014; 139:125-40
733. Khandakar B, Mathur SR, Kumar L, Kumar S, Gupta SD, Iyer VK, Kalaivani M. Tissue biomarkers in prognostic of serous ovarian cancer following neoadjuvant Chemotherapy. *BioMed Res Int*. 2014.
734. Khandelwal S, Shidhaye R, Demonty I, Lakshmy R, Gupta R, Reddy KS. Impact of omega-3 fatty acids and/or plant sterol supplementation on non-HDL cholesterol levels of dyslipidemic Indian adults. *J Functional Foods* 2013; 5: 36-43
735. Khandpur S, Bhari N. Newer targeted therapies in psoriasis. *Indian J Dermatol Venereol Leprol* 2013; 79 (Suppl): S47-52.
736. Khanduja S, Gupta S, Sinha S, Venkatesh P, Vohra R, Garg S. Surgical outcomes of minimally invasive vitrectomy surgery in Eales' disease. *Nepal J Ophthalmol*. 2013 Jul;5(10):182-9.
737. Khanduja S, Singh S, Venkatesh P, Patwardhan SD. Evaluation of discrepancies between fluorescein angiography and optical coherence tomography in macular edema in uveitis. *Am J Ophthalmol*. 2013;155(3):609.
738. Khanduja S, Sinha S, Gogia V, Kakkar A, Vohra R: Modified subretinal dye extrusion technique (More-DETECH): subretinal diluted trypan blue for detecting occult retinal breaks in Retinal Detachment after Endo-tamponade removal. *Int. Ophthalmol*. 2013; 33(6):729-32.
739. Khanduja S, Venkatesh P, Garg S, Sinha S. Temporal sutureless vitrectomy in infectious scleritis with retinal detachment. *Nepal J Ophthalmol*. 2013 Jan-Jun;5(9):138
740. Khangembam BC, Karunanithi S, Sharma P, Agarwal KK, Singhal A, Dhull VS, et al. Proteus syndrome: a case report with bone scintigraphy findings. *Diagn Interv Radiol*. 2013 May-Jun;19(3):240-3.
741. Khangembam BC, Sharma P, Karunanithi S, Singhal A, Das CJ, Kumar P, et al. ¹³N-Ammonia PET/CT for

- detection of recurrent glioma: a prospective comparison with contrast-enhanced MRI. *Nucl Med Commun.* 2013 Nov;34(11):1046-54.
742. Khangembam BC, Sharma P, Naswa N, Sahoo MK, Kumar R. Solitary breast metastasis from recurrent gallbladder carcinoma simulating a second primary on 18F-FDG PET/CT. *Clin Nucl Med.* 2013;38(11):e433-4.
743. Khanna N, Chandramohan K, Khaitan BK, Singh MK. Post waxing folliculitis: a clinicopathological evaluation. *Int J Dermatol* 2013 doi: 10.1111/ijd.12056.
744. Khanna P, Baidya DK, Tomar V, Agarwal A. Successful use of air Q intubating laryngeal airway after failed rapid sequence intubation in a child with Rubeinstein-Taybi syndrome. *Indian J Anaesthesiol* 2013;57:203-4.
745. Khanna P, Mohan VK, Sunder RA. Efficacy of Diltiazem as an adjunct to lignocaine in intravenous regional anaesthesia. *Saudi J Anaesth.* 2013; 7(3): 305-309.
746. Khanna P, Ray BR, Sinha R, Kumar R, Sikka K, Singh AC. Anaesthetic management of endoscopic resection of juvenile nasopharyngeal angiofibroma: our experience and a review of the literature. *South Afr J Anaesth Analg* 2013;19(6):1-7.
747. Kharbanda OP, Agrawal K, Khazanchi R, Sharma SC, Sagar S, Singhal M, et al. Clinical profile and treatment status of subjects with cleft lip and palate anomaly in India: Preliminary report of a three-center study. *J Cleft Lip Palate Craniofacial Anomalies* 2014; 1 (1): 26-33.
748. Khatri R, Akhtar N, Mukhopadhyay K, Verma KK, Sethuraman G, Sharma A. Genetic endowment of proinflammatory cytokine tumor necrosis factor- α (-) 308 G > A polymorphism to Parthenium hysterophorus induced airborne contact dermatitis in an Indian cohort. *Int J Dermatol* 02/2014: DOI:10.1111/ijd. 12255.
749. Khatua B, Vleet JV, Choudhury BP, Chaudhry R, Mandal C. Sialylation of outer membrane porin protein D: a mechanistic basis of antibiotic uptake in *Pseudomonas aeruginosa*. *Mol Cell Proteomics.* 2014; 13(6): 1412-28.
750. Khera R, Jain S, Lodha R, Ramakrishnan S. Gender bias in child care and child health: global patterns. *Arch Dis Child* 2013;Epub ahead of print
751. Khilnani GC, Jain N. Ventilator-Associated Pneumonia: Changing microbiology and implications. *Indian J Crit Care Med.* 2013; 17(6): 331-2.
752. Khokhar S, Agarwal T, Gupta S, Panda A. Shifting bubble-guided sutureless technique for performing descemetorhexis for retained Descemet's membrane after penetrating keratoplasty. *Int Ophthalmol* 2014;34:125-8.
753. Khokhar S, Agrawal S, Gupta S, Gogia V, Agarwal T. Epidemiology of traumatic lenticular subluxation in India. *Int Ophthalmol* 2013. [Epub ahead of print].
754. Khokhar S, Ganguly A, Gupta S, Sen S. Fugo blade-assisted lens aspiration in a case of intra- and retro-lenticular hemorrhage. *Int Ophthalmol.* 2013 ;33(1):5-7.
755. Khokhar S, Gupta S, Arora T, Gogia V, Dada T. Unilateral persistent fetal vasculature coexisting with anterior segment dysgenesis. *Int Ophthalmol.* 2013;33:399-401. doi: 10.1007/s10792-013-9757-z.
756. Khokhar S, Gupta S, Ganguly A, Shende D. Prevalence and indications of general anaesthesia for adult cataracts in tertiary care centre in India. *Indian J Anaesth* 2014;58:231-2.
757. Khokhar S, Gupta S, Kumar G. Iridodialysis repair: stroke and dock technique. *Int Ophthalmol.* 2014 [Epub ahead of print].
758. Khokhar S, Gupta S, Kusumesh R, Kumar G. Outcomes of phacoemulsification in eyes with congenital choroidal coloboma. *Graefes Arch Clin Exp Ophthalmol.* 2013 [Epub ahead of print].
759. Khokhar S, Gupta S, Yogi R, Gogia V, Agarwal T. Epidemiology and intermediate-term outcomes of open- and closed-globe injuries in traumatic childhood cataract. *Eur J Ophthalmol.* 2013; 0. doi: 10.5301/ejo.5000342.

760. Khokhar S, Sharma R, Patil B, Aron N, Gupta S. Comparison of new motorized injector vs manual injector for implantation of foldable intraocular lenses on wound integrity: an ASOCT study. *Eye* 2014. doi: 10.1038/eye.2014.162. [Epub ahead of print].
761. Khurana S, Pushker N, Naik SS, Kashyap S, Sen S, Bajaj MS. Orbital tuberculosis in a paediatric population. *Trop Doct*. 2014;44(3):148-15.
762. Kiran A, Kiran U. Patient controlled analgesia using ketorolac prevented respiratory failure in a child after cardiac surgery. *Ann Cardiac Anaesthesia* 2013; 16: 68–9
763. Kiran U, Choudhury A, Makhija N, Saini K, Rajput RS, Airan B. Infective endocarditis: Anesthesiologist's perspective. *J Perioperative Echocardiography* 2013; 1: 57-61
764. Kishore S, Kandasamy D, Jyotsna VP. Central pontine myelinosis, hyperparathyroidism, hypokalemia. *Indian J Endocrinol Metab* 2013; 17 (Suppl 1): S114-6
765. Kistler AD, Singh G, Altintas MM, Yu H, Fernandez IC, ..., Dinda AK, et al, Transient receptor potential channel 6 (TRPC6) protects podocytes during complement-mediated glomerular disease. *J Biol Chem*. 2013 Dec20;288(51):36598-609.
766. Kochar GS, Gulati S, Lodha R, Pandey R Full Outline of UnResponsiveness Score Versus Glasgow Coma Scale in Children With Nontraumatic Impairment of Consciousness. *J Child Neurol* 2014(Feb 13)
767. Kokkayil P, Kurapati S, Negi N, Vajpayee M. Comparative evaluation of a reverse transcriptase based assay for HIV-1 viral load quantitation in resource limited settings. *J Virol Methods*. 2014; 203C:1
768. Konanki R, Gulati S, Saxena R, Gupta AK, Seith A, Kumar A, et al. Profile of prothrombotic factors in Indian children with ischemic stroke. *J Clin Neurosci* 2014; 21 (8): 1315-8.
769. Kothari SS, Gupta SK, Ramakrishnan S. Staged pulmonary valve balloon dilatation in patients with severe pulmonary valve stenosis and heart failure. *Catheter Cardiovasc Interv* 2014 [Epub ahead of print].
770. Kothari SS. Of history, half-truths, and rheumatic fever. *Ann Pediatr Cardiol* 2013;6:117-20.
771. Kriplani A, Kachhawa G, Wangdi T, Menon RP. *J Minim Invasive Gynecol*. 2013;20(6):S186.
772. Kriplani A, Wangdi T, Menon RP, Mahey R, Kachhawa G. Laparoscopic removal of eroded mesh following laparoscopic sacrocolpopexy. *J Minim Invasive Gynecol*. 2013;20(6):S54.
773. Kriplani A, Mahey R, Dash BB, Kulshreshta V, Agarwal N, Bhatla N. Intravenous iron sucrose therapy for moderate to severe anaemia in pregnancy. *Indian J Med Res*. 2013;138:78-82.
774. Krishna A, Bansal VK, Kumar S, Goswami A, Garg P, Misra MC. Preventing Delayed Gastric Emptying after Whipples Procedure-Isolated Roux loop reconstruction with pancreaticogastrostomy. *Indian J Surg* (DOI 10.1007/s12262-013-0992-3) published online Nov 2013
775. Krishna GS, Ramam M, Mehta M, Sreenivas V, Sharma VK, Khandpur S. Vitiligo impact scale: an instrument to assess the psychosocial burden of vitiligo. *Indian J Dermatol Venereol Leprol*. 2013; 79 (2): 205-10.
776. Krishna K, Behera C, Singh SR, Bhardwaj DN. Ice pick death: a case report and discussion of the injury pattern. *J Forensic Leg Med* 2013; 20 (7): 803-5
777. Krishna K, Kumar A, Vidua R, Bhardwaj DN, Girdhar S. Recovery of Human Skeletal remains- various issues during medicolegal investigation. *Brazilian J Forensic Sci Med Law Bioethics* 2013; 2(2): 25-35.
778. Krishna K, Kumar A. Ethics in Clinical Research-Indian scenario. *J Res Med Edu Ethics* 2014; 4(1): 14-22.
779. Krishna K, Thejaswi HT, Kumar A, Bhardwaj DN. Fatal Food Asphyxia in A Young Adult: A Case Report. *J South India Medicolegal Assoc* 2014; 6(1): 39-42.
780. Krishnamurthy B, Bharti S, Guleria R, Arya DS; Organophosphorus poisoning-An uncommon cause of severe but fatal metabolic acidosis: *Exp Toxicol Pathol* 2013; 65(5): 709-10.
781. Krishnan A, Nawi NG, Byass P, Pandav CS, Kapoor SK. Sex-specific trends in under-five mortality in rural Ballabgarh. *Indian Pediatr* 2014; 51 (1): 48-51.
782. Krishnan A, Srivastava R, Dwivedi P, Ng N, Byass P, Pandav CS. Non-specific sex-differential effect of DTP vaccination may partially explain the excess girl child mortality in Ballabgarh, India. *Trop Med Int Health* 2013; 18 (11): 1329-37.

783. Krishnan V, Sood M, Chadda RK. Caregiver burden and disability in somatization disorder. *J Psychosom Res* 2013;75:376-80.
784. Kumar A, Acharya SK, Singh SP, Saraswat VA, Arora A, Duseja A, et al. The Indian National Association for Study of the Liver (INASL) Consensus on Prevention, Diagnosis and Management of Hepatocellular Carcinoma in India: The Puri Recommendations. *J Clin Exp Hepatol*, 2014; 3 (Suppl 3), S1–S24.
785. Kumar A, Biswal M, Dhaliwal N, Mahesh R, et al. Point prevalence surveys of healthcare- associated infections and use of indwelling devices and antimicrobials over three years in a tertiary care hospital in India. *J Hosp Infect* 2014; 86: 272-4.
786. Kumar A, Chandra PS, Sharma BS, Garg A, Rath GK, Bithal PK, Tripathi M. The role of neuronavigation-guided functional MRI and diffusion tensor tractography along with cortical stimulation in patients with eloquent cortex lesions. *Br J Neurosurg*.2014;28:226-33.
787. Kumar A, Durairam K, Gogia V, Sehra SV, Gupta S, Midha N. Comparative evaluation of 23-and 25-gauge microneurosurgery vitrectomy surgery in management of diabetic macular traction retinal detachment. *Eur J Ophthalmol*, 2013 May 15:151-156.
788. Kumar A, Garg A, Sharma MC, Sharma BS, Kale SS. Giant cystic intradural extramedullary pilocytic astrocytoma of cauda equine. *J Neurosci Rural Pract*.2013;4(4):453-56.
789. Kumar A, Ghosh S, Logani A. Occurrence of diversity in dental pattern and their role in identification in Indian population: An orthopantomogram based pilot study. *J Forensic Dent Sci*. 2014 Jan;6(1):42-5
790. Kumar A, Gupta H, Yadav CS, Khan SA, Rastogi S. Role of locking plates in treatment of ununited difficult non-unions- A Clinical Study. *Chinese J Traumatol*. 2013; 16:22-6.
791. Kumar A, Gupta S, Mohanty S, Bhargava B, Airan B. Stem Cell Niche is Partially Lost during Follicular Plucking: A Preliminary Pilot Study. *Int J Trichology*. 2013 Apr;5(2):97-100.
792. Kumar A, Khan SA, Sampath Kumar V, Sharma MC. Bizarre parosteal osteochondromatous proliferation (Nora's lesion) of phalanx in a child. *BMJ Case Rep*. 2014 Jan 23; 2014.
793. Kumar A, Maitra S, Khanna P, Baidya DK. Clonidine in acute and chronic pain. *Saudi J Anaesth* 2014; 8: 92-96.
794. Kumar A, Mohanty S, Sahni K, Kumar R, Gupta S. Extracted hair follicle outer root sheath cell suspension for pigment cell restoration in vitiligo. *J Cutan Aesthet Surg*. 2013 Apr;6(2):121-5.
795. Kumar A, Pandia M P, Dash H H. Acute shoulder pain for holding the face mask: A complication of mask ventilation. *J Anaesthesiol Clin Pharmacol*. 2013 ;29:407-8.
796. Kumar A, Prasad K, Tripathi M, Padma Srivastava MV, Vivekanadhan S. Association of genetic polymorphisms at beta-adrenergic receptor with risk of intracerebral hemorrhagic stroke in North Indian population: a case control study. *Neurol India*. 2014;62:183-8.
797. Kumar A, Rani L and Dhole B. Role of oxygen in the regulation of Leydig tumor derived MA-10 cell steroid production: the effect of cobalt chloride. *System Biology in the Reproductive Medicine* 2014, 60(2):112-118.
798. Kumar A, Sagar R, Kumar P, Sahu JK, Grover A, Srivastava AK, et al. Identification of genetic contribution to ischemic stroke by screening of single nucleotide polymorphisms in stroke patients by using a case control study design. *BMC Neurol*. 2013;13:136.
799. Kumar A, Sharma MS, Sharma BS, Bhatia R, Singh M, Garg A, et al. Outcome after decompressive craniectomy in patients with dominant middle cerebral artery infarction: A preliminary report. *Ann Indian Acad Neurol* 2013; 16:509-15.
800. Kumar A, Shekhar S and Dhole B. Thyroid and male reproduction. *Indian J Endocrinol Metab* 2014 18(1) 23-31.
801. Kumar A, Sinha C, Goyal K, Nanda S. A rare complication of mandibular surgery: Something to chew on! *J Anaesthesiol Clin Pharmacol*, 2013; 29(2):264
802. Kumar A, Tinwala S, Gogia V, Sehra S. Tapping of Macular Hole Edges: The Outcomes of a Novel Technique for Large Macular Holes. *Asia Pac J Ophthalmol* 2013; 2:305-9

803. Kumar B, Gupta SK, Srinivasan BP, Nag TC, Srivastava S, Saxena R, et al. Hesperetin rescues retinal oxidative stress, neuroinflammation and apoptosis in diabetic rats. *Microvasc Res* 2013;87:65-74.
804. Kumar G, Srivastava A, Sharma SK, Gupta YK. Safety evaluation of mercury based ayurvedic formulation (sidh makardhwaj) on brain, liver and kidney in rats. *Indian J Med Res* 2014;139:610-8.
805. Kumar G, Srivastava A, Sharma SK, Gupta YK. The hypolipidaemic activity of ayurvedic medicine, arogyavardhini vati in Triton WR-1339 induced hyperlipidaemic rats: a comparison with fenofibrate. *J Ayurveda Integr Med* 2013;4:165-70.
806. Kumar KR, Dehran M, Rangaswamy V, Govindarajan SR. Unanticipated subglottic stenosis complicating airway management of a child with Langer-Giedion syndrome. *Pediatric Anaesthesia* 2013;23:968-9.
807. Kumar M, Kumar K, Jain S, Hassan T, Dada R. Novel insights into the genetic and epigenetic paternal contribution to the human embryo. *Clinics (Sao Paulo)* 2013;68(1):5-14.
808. Kumar M, Tanwar M, Faiq MA, Pani J, Shamsi MB, Dada T, Dada R. Mitochondrial DNA nucleotide changes in primary congenital glaucoma patients. *Mol Vis.* 2013;19:220-30.
809. Kumar M, Kaur P, Kumar M, Khokhar S, Dada R. Molecular and structural analysis of genetic variations in congenital cataract *Mol Vis* 2013; 19: 2436-50
810. Kumar N, Bhatnagar S, Velpandian T, Patnaik S, Menon G, Mehta M, Kashyap K, Singh V, Surajpal. Randomized Controlled Trial in Advance Stage Breast Cancer Patients for the Effectiveness on Stress Marker and Pain through Sudarshan Kriya and Pranayam. *Indian J Palliat Care.* 2013 Sep; 19(3): 180-5.
811. Kumar N, Bindra A, Mahajan C. Anesthetic management of patient with brugada syndrome for craniotomy and tumor excision. *J Neurosurg Anesthesiol* 2013; 25: 216-17.
812. Kumar N, Goyal H, Bindra A, Goyal K. Management of aspirated tooth in adult head injury patient: Report of two cases. *Saudi J Anesth* 2014; 8 (2): 276-8
813. Kumar N, Jha S. Repetitive transcranial magnetic stimulation (RTMS) in organic personality and behavioral disorder, secondary to suicide attempt by hanging. *Clin Neurophysiology* 2013;124:165-6.
814. Kumar N, Kaur G, Tandon N, Kanga U, Mehra NK. Genomic evaluation of HLA-DR3(+) haplotypes associated with type 1 diabetes. *Ann NY Acad Sci.* 1283:91-6, 2013
815. Kumar N, Mitra R, Singh R, Jain A. Transbronchial Migration of Double Lumen Tube during Lobectomy. *Analg Resusc: Curr Res,* 2014; 3:2.
816. Kumar N, Sharma S, Ray R, Airon B. Primary cardiac tumors in a paediatric population:an experience from a tertiary centre with a review of literature. *Afr J Paediatric Surg* 2014;11:44-7.
817. Kumar P, Balooni V, Sharma BK, Kapil V, Sachdeva KS, Singh S. High degree of multi-drug resistance and hetero-resistance in pulmonary TB patients from Punjab state of India. *Tuberculosis (Edinb).* 2014; 94(1): 73-80. doi: 10.1016/j.tube.2013.10.001.
818. Kumar P, Benny P, Jain M, Singh. Comparison of an in-house multiplex PCR with two commercial immunochromatographic tests for rapid identification and differentiation of MTB from NTM isolates. *Int J Mycobacteriol* 2014; 3 (1): 50-56.
819. Kumar P, Jain V, Thakar A, Aggarwal V. Effect of varying bulb height on articulation and nasalance in maxillectomy patients with hollow bulb obturator. *J Prosthodontic Res* 2013;57(3):200-5.
820. Kumar P, Rufai SB, Singh S. Heat fixed but unstained slide smears are infectious to laboratory staff. *Indian J Tuberc.* 2013; 60(3): 142-6.
821. Kumar P, Singh A, Sharma U, Singh D, Dobhal MP, Singh S. Anti-mycobacterial activity of plumericin and isoplumericin against MDR Mycobacterium tuberculosis. *Pulm Pharmacol Ther.* 2013 Jun; 26(3):332-5.
822. Kumar P, Tiwari SC, Goel A, Sreenivas V, Kumar N, Tripathi RK, et al. Novel occupational therapy interventions may improve quality of life in older adults with dementia. *Int Arch Med* 2014;7:261-7.
823. Kumar P, Tiwari SC, Sreenivas V, Kumar N, Tripathi RK, Dey AB. Profile of older adults in memory outpatient's clinic setting and effectiveness of occupational therapy intervention in patients with mild to moderate dementia. *Indian J Physiotherapy Occupational Therapy* 2013; 7:297-302.

824. Kumar R, Chaterjee P, Sharma PK, Singh AK, Gupta A, Gill K... Dey S et al. Sirtuin1: a promising serum protein marker for early detection of Alzheimer's disease. *PLoS One* 2013; 8: 137
825. Kumar R, Garg K, Kakkar A, Sharma MC. Giant calcified intraventricular pilocytic astrocytoma: A rare entity. *Neurol India* 2014; 62:71-3.
826. Kumar R, Prem S, , Mishra P, Pillai L, Mehra, N.K., Saxena, R., Choudhry, V.P. et al Fludarabine, cyclophosphamide and horse antithymocyte globulin conditioning regimen for allogeneic peripheral blood stem cell transplantation performed in non-HEPA filter rooms for multiply transfused patients with severe aplastic anemia. *Bone Marrow Transplantation*. 2006; 37(8), 745-749.
827. Kumar R, Reeta KH, Ray SB. Chronic spinal infusion of loperamide alleviates postsurgical pain in rats. *Indian J Exp Biol* 2014;52:317-22.
828. Kumar R, Sagar P, Thakar A. Temporo Mandibular Joint Ankylosis consequent to Ear Suppuration. *Indian J Otolaryngol Head-Neck Surg* 2013;65 (Suppl 3):627-30.
829. Kumar R, Sikka K, Kumar R, Chatterjee P. Nephrogenic epistaxis. *Singapore Med J* 2013;1-7.
830. Kumar R, Sikka K, Sagar P, Kakkar A, Thakar A. First Branchial cleft anomalies- avoiding the misdiagnosis. *Indian J Otolaryngol Head-Neck Surg* 2013;65 (3):260-3.
831. Kumar R, Sikka K, Thakar A. Lateral Sinus Thrombosis in setting of Acute otitis media: an atypical presentation. *Indian J Otolaryngol* 2013;19:79-81.
832. Kumar R, Singh A. NGF in mechanism of cancer pain & Anti-NGF therapy: A Critical Review. *Indian Journal of Cancer* 2013; 50 (Supple 1): S277.
833. Kumar R. Response to 'Re: Paediatric percutaneous nephrolithotomy: Single-centre 10-year experience. *J Pediatr Urol*. 2013 Aug;9(4):472-5. *J Pediatr Urol*. 2014;10:196-97
834. Kumar R. The Science hoax: poor journalology reflects poor training in peer review. *BMJ*. 2013; Dec 13;347:f7465
835. Kumar S, Jain S, Velpandian T, Gerasimenko Y, Avelev VD, Behari J, et al. Exposure to extremely low-frequency magnetic field restores spinal cord injury-induced tonic pain and its related neurotransmitter concentration in the brain. *Electromagn Biol Med* 2013;32:471-83.
836. Kumar S, Khilnani GC, Banga A, Sharma SK. Predictors of requirement of mechanical ventilation in patients with chronic obstructive pulmonary disease with acute respiratory failure. *Lung India*. 2013; 30(3): 178-82.
837. Kumar S, Mathur S, Subbaiah M, Singh L. Ovarian stromal tumor with minor sex cord elements with coexistent endometrial carcinoma. *Ind J of Med Paed Oncol* 2013; 34: 44-46.
838. Kumar S, Mishra B, Krishna A, Gupta A, Sagar S, Singhal M, et al. Nonoperative management of traumatic chylothorax. *Indian J Surg* 2013; 75 (1): 465-8.
839. Kumar S, Naqvi N, Bhat A, Rani R, Ali R, Agnihotri A, Khanna N, Rao DN. IL-10 production from dendritic cells is associated with DC SIGN in human leprosy. *Immunobiology* 2013; 218: 1488-96
840. Kumar S, Naqvi R, Khanna N, Rao DN. CD4+ CD25+ T regs with acetylated FoxP3 are associated with immune suppression in human leprosy *Mol Immunol* 2013; 56: 513-520
841. Kumar S, Naqvi R, Khanna N, Rao DN. FoxP3 provides competitive fitness to CD4+, CD25+ T cells in leprosy patients via transcriptional regulation. *Eur J Immunol* 44, 431-439; 2014.
842. Kumar S, Pol M, Mishra B, Sagar S, Singhal M, Misra MC, et al. Traumatic Diaphragmatic Injury: A marker of serious injury challenging trauma surgeons. *Indian J Surg* 2013; 1-4.
843. Kumar S, Tomar AK, Singh S, Gill K, Dey S, Singh S, Yadav S. Heparin binding carboxypeptidase E protein exhibits antibacterial activity in human semen. *Int J Biol Macromol*. 2014; 64: 319-27. doi: 10.1016/j.ijbiomac.2013.12.020.
844. Kumar S, Zargar AH, Singhal S, Shetty R, Ganie MA, Bajaj S. Clinical experience with insulin detemir, biphasic insulin aspart and insulin aspart in people with type 2 diabetes: Results from the North India cohort of the A1chieve study. *Indian J Endocrinol Metab* 2013; 17(Suppl 2): S491-495.

845. Kumar Shyam S, Thakar A. Complex Glomus Jugulare Tumor: Management issues. *Indian J Otolaryngol Head Neck Surg* 2013;65 (Suppl 3):676-81.
846. Kumar Singh P, Garg K, Sawarkar D, Agarwal D, Satyarthi G, Gupta D, et al. CT-Guided C2 Pedicle Screw Placement for Treatment of Unstable Hangman's Fractures. *Spine (Phila Pa 1976)*. 2014
847. Kumar SM, Laviraj MA, Rath GK. Quantification and minimization of uncertainties of internal target volume for stereotactic body radiation therapy of lung cancer.: in regard to Ge et al. *Int J Radiat Oncol Biol Phys*. 2013; 87: 5
848. Kumar U, Gokhle SS, Sreenivas.V, Kaur S, Misra D. Prospective, open-label, uncontrolled pilot study to study safety and efficacy of sildenafil in systemic sclerosis-related pulmonary artery hypertension and cutaneous vascular complications. *Rheumatol Int.*, 2013, 33 (4), 1047-52.
849. Kumar V, Chanana B. Comments on surgical iridotomy technique. *J Cataract Refract Surg*. 2014;40(4):690.
850. Kumar V, Chanana B. Sub-internal limiting membrane cavity in anaemic retinopathy evident on spectral domain optical coherence tomography. *Clin Exp Optom*. 2013. doi: 10.1111/cxo.12032.
851. Kumar V, Dwivedi DK, Jagannathan NR. High Resolution NMR Spectroscopy of Human Body Fluids and Tissues in Relation to Prostate Cancer. *NMR Biomed* 2014;27:80-9.
852. Kumar V, Gupta T, Jain S, Chanana B. Posterior sub-Tenon's triamcinolone in choroidal granuloma due to probable ocular sarcoidosis. *Oman J Ophthalmol*. 2013 ;6(2):127-8.
853. Kumar V, Jeria S, Chandra N, Rohatgi J. A case of contact lens deposits mimicking nodular keratopathy. *Clin Exp Optom*. 2014;97(4); 373-4
854. Kumar V, Logani A, Shah N. Dentine sialoprotein expression in gingival crevicular fluid during trauma-induced root resorption. *Int Endod J* 2013 Apr;46(4):371-8
855. Kumar VS, Jalan D, Khan SA, Mridha AR. Aneurysmal bone cyst of medial cuneiform and a novel surgical technique for mid-foot reconstruction. *BMJ Case Rep*. 2014 Feb 21;2014.
856. Kumar VS, Subramani S, Veerapan S, Khan SA. Evaluation of online health information on clubfoot using the DISCERN tool. *J Pediatr Orthop B*. 2014;23:135-8.
857. Kurwale N, Kumar R, Sharma MC, Sharma BS. Suprasellar dermoid cyst associated with colloid cyst of the third ventricle: Disordered embryogenesis or a mere coincidence? *J Neurosci Rural Pract* 4:345-7; 2013.
858. Kusuma YS, Gupta SK, Pandav CS. Treatment seeking behaviour in hypertension: factors associated with awareness and medication among socioeconomically disadvantaged migrants in Delhi, India. *Coll Antropol* 2013; 37 (3): 17-22
859. Kusuma YS, Kumari R, Kaushal S. Migration and access to maternal healthcare: determinants of adequate antenatal care and institutional delivery among socioeconomically disadvantaged migrants in Delhi, India. *Trop Med Int Health* 2013; 18: 1202-1210
860. Kyadari M, Fatma T, Azad R, Velpandian T. Evaluation of antiangiogenic and antiproliferative potential of the organic extract of green algae *Chlorella pyrenoidosa*. *Indian J Pharmacol*. 2013; 45(6):569-74.
861. Lagrange PH, Thangaraj SK, Dayal R, Deshpande A, Ganguly NK, Girardi E, ... Singh S, et al. A toolbox for tuberculosis (TB) diagnosis: an Indian multicentric study (2006-2008). Evaluation of QuantiFERON-TB gold in tube for TB diagnosis. *PLoS One*. 2013 Sep 6;8(9):e73579. doi: 10.1371/journal.pone.0073579.
862. Lakshmy R. Metabolic syndrome: role of maternal under nutrition and fetal programming. *Rev Endocr Metab Disord* 2013; 14: 229-40
863. Lal H, Helavar RV, Gamanagatti S, Jain S, Kumar R. Imaging in renal transplant: Review. *Indian J Transplantation* 2014; 8 (1): S42-S49
864. Lale SV, Aswathy RG, Aravind A, Kumar DS, Koul V. AS1411 aptamer and folic acid functionalized pH responsive ATRP fabricated pPEGMA- PCL-pPEGMA polymeric nanoparticles for targeted drug delivery in cancer therapy. *Biomacromolecules*, 2014 15; 1737-52
865. Lalwani S, Bagla R, Janani S. A Retrospective Tertiary Care Hospital based study of homicide among pregnant females. *Am J Forensic Med Pathol* 2013; 34 (4): 375-6.

866. Lalwani S, Bagla R, Sood M, Behera C, Bhardwaj DN (2013). Suicide among females with pregnancy: a retrospective study. *J Paediatrics, Obstet Gynaecol* 2013;4:83-6.
867. Lalwani S, Bhalla AS, Logani A, Sharma S. Precocious Puberty and Age estimation: A Medicolegal Case Report. *Indian J Paediatr* 2013.
868. Lalwani S, Mathur P, Tak V, Misra MC. Mortality due to septicemia at a level 1 Indian trauma care centre: an epidemiological analysis. *Indian J Med Microbiol* 2013; 31(4):390-1.
869. Lalwani S, Punia P, Mathur P, Trikha V, Satyarthee G, Misra MC. Hospital acquired infections: preventable cause of mortality in spinal cord injury patients. *J Lab Physicians* 2014; 6(1): 36-9.
870. Lameire NH, Bagga A, Cruz D, De Maeseneer J, Endre Z, Kellum JA, et al. Acute kidney injury: an increasing global concern. *Lancet* 2013;382;170-9
871. Lamy A, Devereaux PJ, Prabhakaran D, Taggart DP, Hu S, Paolasso E, Airan B, et al. Coronary Investigators. Effects of off-pump and on-pump coronary-artery bypass grafting at 1 year. *N Engl J Med*.2013;368:1179-88.
872. Leema, Vanamail P, Sehgal S, Kriplani A. Status and awareness of HIV/AIDS among antenatal Indian women. *Indian J Health Wellbeing* 2014;5(3):358-61.
873. Lodha R, Jain Y, Sathyamala C. Reality of Higher Malnutrition among Indian Children *Economic & Political Weekly* 2013;48:71-74
874. Lodha R, Kabra SK, Pandey RM. Antibiotics for community-acquired pneumonia in children. *Cochrane Database Syst Rev* 2013;6:CD004874:Epub ahead of print
875. Lodha R, Kabra SK. Author's reply. *Indian Pediatr* 2014;51:236
876. Lodha R, Mukherjee A, Saini D, Saini S, Singh V, Singh S, et al.; Delhi TB Study Group. Role of the QuantiFERON®-TB Gold In-Tube test in the diagnosis of intrathoracic childhood tuberculosis. *Int J Tuberc Lung Dis* 2013; 17: 1383-8.
877. Lodha R. Leading the Journal to Silver Jubilee and Beyond. *Indian Pediatr* 2013;50:645-7
878. Mabalirajan U, Ahmad T, Rehman R, Leishangthem GD, Dinda AK, Agrawal A et al, Baicalein reduces airway injury in allergen and IL-13 induced airway inflammation. *PLoS One*. 2013 Apr 30;8(4):e62916. doi:10.1371.
879. Madan K, Guleria R. Bamboo spine and the lungs. *BMJ Case Rep*. 2013 Oct; 2013 pil bcr 2013201006.
880. Madan K, Guleria R. Comparison of methods of diagnose sarcoidosis. *JAMA* 2013; 310 (15): 1624
881. Madan K, Hadda V, Khilnani GC, Guleria R. Isolated reduction of the FEV3/FVC ratio as an indicator of mild airflow obstruction. *Chest*. 2014; 145(3): 662.
882. Madan K, Purkait S, Arava S, Bhalla AS, Kumar R, Gularia R. A 79-year-old woman with bilateral cavitating lung nodules. *Chest* 2014; 145: 1419-24
883. Madan K, Yadav SS, Wig N, Guleria R. Corticosteroids for prevention of tuberculosis mortality. *Lancet Infect Dis* 2013;13 (11):915.
884. Madan K, Guleria R. Cumbo sign. *BMJ Case Rep* 2013 Oct 16; 2013.
885. Madan R, Joshi NP, Mohanti BK, Rath GK. Systemic metastasis in a carotid body tumor: A rare presentation of a rare. Tumor. *South Asian J Cancer*. 2013; 2: 97
886. Madhuprakash J, Singh A, Kumar S, Sinha M, Kaur P, Sharma S et al. Structure of chitinase D from *Serratia proteamaculans* reveals the structural basis of its dual action of hydrolysis and transglycosylation. *Int J Biochem Mol Biol* 2013; 4: 166-78.
887. Madhusudhan KS, Agrawal N, Srivastava DN, Pal S, Gupta AK. Percutaneous transhepatic portal vein stenting in a patient with benign non transplant postoperative portal vein stenosis: A case report. *Indian J Radiol Imaging* 2013; 23(4): 351-3.
888. Mahajan C, Rath GP, Bithal PK. Advances in neuro-monitoring. *Anesth Assays Res* 2013; 7(3): 312-318
889. Mahajan C, Rath GP, Sharma MS, Dube SK, Rajagopalan V, Bithal PK. Rate and reasons for elective

- ventilation in patients undergoing intracranial tumor surgery *J Neuroanaesthesiol Crit Care* 2014; 1(2): 125-130
890. Mahajan S, Koul V, Choudhary V, Shishodia G, Bharti AC. Preparation and in vitro evaluation of folate-receptor-targeted SPION–polymer micelle hybrids for MRI contrast enhancement in cancer imaging. *Nanotechnology* 2013, 24, 015603.
891. Maharaja K, Khandpur S, Ramam M, Singh MK, Kumar U, Sharma VK. A study of the clinico-histopathological features of erythematous tender nodules predominantly involving the extremities. *Indian J Dermatol Venereol Leprol.* 2014;80(3):235-42.
892. Maharana PK, Sharma N, Vajpayee RB. Acute corneal hydrops in keratoconus. *Indian J Ophthalmol.* 2013;61(8):461-4.
893. Maharjan S, Patel CD, Sharma DN, Dhull VS, Jain SK, Thulkar S, Malhotra A, Kumar R. Prospective evaluation of qualitative and quantitative 18F-FDG PET-CT parameters for predicting survival in recurrent carcinoma of the cervix. *Nucl Med Commun* 2013; 34 (8): 741-8.
894. Mahey R, Kaur SD, Chumber S, Kriplani A, Bhatla N. Splenectomy during pregnancy: treatment of refractory immune thrombocytopenic purpura. *BMJ Case Rep* 2013. 2013;20(13).
895. Maitra S, Baidya DK, Khanna P. Melatonin in perioperative medicine: Current perspectives. *Saudi J Anesth* 2013; 7: 315-21.
896. Maitra S, Baidya DK, Khanna P. Re: Epidural analgesia vs paravertebral analgesia technique. *Interact Cardiovasc Thorac Surg* 2014; 18: 636.
897. Maitra S, Baidya DK, Pawar DK, Arora MK, Khanna P. Epidural anesthesia and analgesia in the neonate: A review of current evidences sin. *J Anesth* 2014; Epub ahead of print (online publication).
898. Maitra S, Khanna P, Baidya DK. Comparison of laryngeal mask airway supreme and laryngeal mask airway proseal for controlled ventilation under general anaesthesia in adult patients: Meta-analysis. *Euro J Anaesthesiol* 2014;31:266-73.
899. Makhija N, Sarupria A, Choudhary S K, S N, Lakshmy R, Kiran U. Comparison of epsilon aminocaproic acid and tranexamic Acid in thoracic aortic surgery: clinical efficacy and safety. *J. Cardiothorac. Vasc. Anesth* 2013; 27:1201-7.
900. Makhija N, Sarupria A, Lakshmy R, Kiran U. Comparison of different doses of e-aminocaproic acid in children for tetralogy of Fallot surgery: Clinical efficacy and safety. *J Cardiothoracic Vasc Anesthesia* 2013; 27: 23–9
901. Malankar D, Nair VV, Gupta SK, Das S, Airan B. Severe mitral regurgitation after intracardiac repair of tetralogy of Fallot: a rare complication and management. *Interact Cardiovasc Thorac Surg* 2014;18:842-3.
902. Malhotra M. Sood S, Mukherjee A, Muralidhar S, Bala M. Genital Chlamydia trachomatis: An update. *Ind J Med Res,* 2013; 138: 303-16.
903. Malhotra N, Srivastava A, Rana H, Bahadur A, Sengupta J, Ghosh D. Comparitive multiplex analysis of cytokines, and growth factors in follicular fluid of normo-responder women undergoing ovum donation with gonadotropin- releasing hormone agonist versus gonadotropin-releasing hormone antagonist protocols. *J Hum Reprod Sci* 2013;6(3):205-12
904. Malhotra N, Bahadur A, Singh N, Kalaivani M, Mittal S. Does obesity compromise ovarian reserve markers? A clinician’s perspective. *Arch Gynecol Obstet* 2013;287(4):161-6.
905. Malhotra N, Bahadur A, Singh N, Kalaivani M, Mittal S. Role of perifollicular Doppler blood flow in predicting cycle response in infertile women with genital tuberculosis undergoing in-vitro fertilization/ intra-cytoplasmic sperm injection. *J Hum Reprod Sci* 2014;7(1):19-24.
906. Malhotra R, Meena S, Digge VK Tensile type of stress fracture neck of femur: role of teriparatide in the process of healing in a high risk patient for impaired healing of fracture *Clin Cases Miner Bone Metab.* 2013;10:210-12
907. Malhotra R, Singh DP, Jain V, Kumar V, Singh R. Acute total hip arthroplasty in acetabular fractures in the elderly using the Octopus System: mid term to long term follow-up. *J Arthroplasty.* 2013;28:1005-9.

908. Malik PS, Sharma MC, Mohanti BK, Shukla NK, Deo S, Mohan A, et al. Clinico-pathological Profile of Lung Cancer at AIIMS: A Changing Paradigm in India. *Asian Pac J Cancer Prev* 14:489-94; 2013.
909. Mallick S, Ghosh R, Iyer VK, Jain D, Mathur SR. Cytomorphological and Morphometric Analysis of 22 Cases of Rosai-Dorfman Disease: A Large Series from a Tertiary Care Centre. *Acta Cytol.* 2013;57(6):625-32.
910. Mallick S, Panda SS, Ray R, Shukla R, Kabra M, Agarwal R. Semilobar holoprosencephaly with 21q22 deletion: an autopsy report. *BMJ Case Rep.*2014;13: pii: bcr2014203597. doi: 10.1136/bcr-2014-203597.
911. Mallick S, Prasenjit D, Prateek K, Shasanka PS, Virender S, Rajni Y, Gaurav J, Vijay MK, Arun KV, Mahajan JK, Sandeep A, Ranjan DN, Datta Gupta S. Chronic intestinal pseudo-obstruction: systematic histopathological approach can clinch vital clues. *Virchows Arch.* 2014; 464:529-37. Epub 2014 Mar 25
912. Mallick S, Singh L, Rajan K, Sharma MC, Bansal V, Dinda AK. Malignant melanoma of soft parts with osteoclast-rich giant cells: A rare tumour of the jejunum. *Australas Med J* 7:181-4; 2014.
913. Mandal P, Arumuganathan S, Sagar R, Srivastava P. A classical case of bulimia nervosa from India. *Indian J Psychol Med* 2013;35:309-10.
914. Mandal P, Pal A, Sagar R. Common mental disorders: A review. *J Ment Health Human Behav* 2013;18:
915. Mandelia A, Agarwala S, Sharma A, Iyer VK, Bhatnagar V. Assessment of fine needle aspiration cytology samples for molecular genetic analysis in neuroblastoma. *Pediatr Surg Int* 2013;29:1131-8.
916. Mandelia A, Bajpai M, Agarwala S, AK Gupta, R Kumar, A Ali. The role of urinary TGF-b1, TNF-a, IL-6 and microalbuminuria for monitoring therapy in posterior urethral valves. *Pediatr Nephrol* 2013;28:199-2001
917. Mandelia A, S. Agarwala, N. Sharma, S. Solanki, S. Panda. Left-sided Gastroschisis: A rare congenital anomaly. *J Clin Diag Res* 2013;7:2300-2
918. Mangla V, George J, Das P, Dash NR, Pal S, Chattopadhyay TK. Tubercular pancreatic abscess: diagnostic dilemma and management. *Trop Gastroenterol* 2013; 34(3); 178-80
919. Manikandan R, Kashyap L, Rajeshwari S, Mohan VK, Shende D. Effect of Adding Midazolam to PCEA with Morphine and Bupivacaine on Post Thoracotomy Analgesia. *Anesthesiology* 2013; A1092.
920. Mannan R, Sharma N, Pruthi A, Maharana PK, Vajpayee RB. Penetrating keratoplasty for perforated corneal ulcers under topical anesthesia. *Cornea* 2013;32(11):1428-31.
921. Mansoori N, Tripathi M, Alam R, Luthra K, Sharma S, Lakshmy R, et al. Serum folic acid and RFC A80G polymorphism in Alzheimer's disease and vascular dementia. *Am J Alzheimers Dis Other Demen* 2014; 29(1): 38-44.
922. Marda M, Pandia MP, Rath GP, Bithal PK, Dash HH. Postoperative pulmonary complications in patients undergoing transoral odontoidectomy and posterior fixation for craniovertebral junction anomalies. *J Anaesthesiol Clin Pharmacol*, 2013 ;29:200-4
923. Marumudi E, Khadgawat R, Surana V, Shabir I, Joseph A, Ammini AC. Diagnosis and management of classical congenital adrenal hyperplasia. *Steroids* 2013; 78: 741-746.
924. Marwaha RK, Garg MK, Tandon N, Mehan N, Sastry A, Bhadra K. Relationship of body fat and its distribution with bone mineral density in Indian population. *J Clin Densitom* 2013; 16(3): 353-9.
925. Marwaha RK, Tandon N, Ganie MA, Mehan N, Sastry A, Garg MK, Bhadra K, Singh S. Reference range of thyroid function (FT3, FT4 and TSH) among Indian adults. *Clin Biochem* 2013; 46(4-5): 341-345.
926. Marwaha RK, Tandon N, Garg MK, Ganie MA, Narang A, Mehan N, Bhadra K. Impact of body mass index on thyroid functions in Indian children. *Clin Endocrinol (Oxf)* 2013; 79(3): 424-428.
927. Marwaha RK, Tandon N, Garg MK, Narang A, Mehan N, Bhadra K. Normative Data of Body Fat Mass and Its distribution as Assessed by DXA in Indian Adult Population. *J Clin Densitom* 2014; 17(1): 136-42.
928. Masoodi I, Al-Qurashi H, Alfaifi A, Albishri J, Ganie MA, Sirwal IA, Al-Ahmari A. Idiopathic colonic calcification: a case report. *Ger Med Sci* 2013.
929. Mathur A, Thakur A, Toshniwal NG, Misal A, Kharbanda OP. NTRDC retainer: a novel approach for both

- retention and habit control—a follow up of 2 years. *Int J Orthod Milwaukee*. 2014 Spring;25(1):27-9. PubMed PMID: 24812738.
930. Mathur P, Bhardwaj N, Gupta G, Punia P, Tak V, John NV, et al. Outbreak of *Streptococcus pyogenes* emm type 58 in a high dependency unit of a level-1 trauma center of India. *Indian J Crit Care Med* 2014; 18(2): 77-82.
931. Mathur P, Bhardwaj N, Mathur K, Behera B, Gupta G, Kapil A, Singh S. Clinical and molecular epidemiology of beta-hemolytic streptococcal infections in India. *J Infect Dev Ctries*. 2014; 8 (3): 297-303.
932. Mathur P, Singh S. Multidrug resistance in bacteria: a serious patient safety challenge for India. *J Lab Physicians* 2013; 5(1): 5-10.
933. Mathur P, Varghese P, Tak V, Gunjiyal J, Lalwani S, Kumar S, et al. Epidemiology of blood stream infections at a level-1 trauma care center of India. *J Lab Physicians* 2014; 6(1): 22-7.
934. Mathur P. Automated surveillance systems for health care associated infections: need of the hour. *Indian J Med Microbiol* 2014; 32(1): 3-5.
935. Mathur VP, Dhillon JK, Kalra G, Sharma A, Mathur R. Survey of instructions to authors in Indian and British Dental Journals with respect to ethical guidelines. *J Indian Soc Pedod Prev Dent*. 2013 Apr-Jun;31(2):107-12.
936. Mathur VP, Dhillon JK, Kalra G. A new approach to facilitate apexogenesis using soft tissue diode laser. *Contemporary Clinical Dentistry*. 2014;5(1):106-109
937. Mathur VP, Jain V, Pillai RS, Kalra S. Translation and validation of Hindi version of Geriatric Oral Health Assessment Index. *Gerodontology*. Dec 2013
938. Meena A, Jain V, Singh N, Arora N, Jha R. Effect of implant-supported prosthesis on the bite force and masticatory efficiency in subjects with shortened dental arches. *J Oral Rehabil*. 2014 (41); 87-92.
939. Meena S, Ansari MT. Osteomyelitis of scapula with secondary septic arthritis of shoulder joint in a six month old child. *Malaysian Orthop J* 2013;7:67-9.
940. Meena S, Nag HL, Kumar S, Barwar N, Mittal S, Singla A. Delayed migration of k-wire into Popteal fassa used for tension band wiring of fracture patella. *Chin J Traumatol* 2013; 16: 186-188.
941. Meena S, Saini P, Singh V, Kumar R, Trikha V. Bilateral anterior shoulder dislocation. *J Nat Sci Biol Med* 2013; 4(2): 499-501.
942. Meena S, Trikha V, Kumar R, Saini P, Sambharia AK. Elbow dislocation with ipsilateral distal radius fracture. *J Nat Sci Biol Med* 2013; 4(2): 479-81.
943. Meena S, Trikha V, Saini P, Kumar N, Kr S. Well-leg compartment syndrome after fracture fixation in hemilithotomy position: case report of a preventable condition. *Med Princ Pract* 2014; 23(3): 275-8.
944. Meena S, Trikha V, Saini P, Kumar R, Chowdhary B. Orthopaedic surgeon's nightmare: iatrogenic fractures of talus and medial malleolus following tibial nailing. *Chin J Traumatol* 2013; 16 (4): 243-5.
945. Meena S, Trikha V, Singh V, Mittal S, Kishanpuria TS. Uncoiling of reamer during intramedullary nailing for fracture shaft of femur. *J Nat Sci Biol Med* 2013; 4(2): 481-4.
946. Meher SK, Biswas A, Ratha Bikram K. Legal issues among doctors in the implementation of teleconsultation: A study at AIIMS, New Delhi, India *MedInfo 2013: 1107* http://dblp.uni-trier.de/pers/hd/r/Ratha:Bikram_K=.html
947. Meher SK, Kant S. Awareness and attitudes of geriatric patients towards telemedicine in India *Gerontechnology* 2014; 13(2):262 doi: <http://dx.doi.org/10.4017/gt.2014.13.02.391.00>
948. Meher SK, Kumar DV, Ratha Bikram K. A feasibility study for Home Health Care for Geriatric Care in 3rd world developing countries like India through 3G mobile Technologies” *Gerontechnology* 2014; 13(2):263 doi: <http://dx.doi.org/10.4017/gt.2014.13.02.385.00>
949. Meher SK, Biswas A, Ratha BK. Legal issues among doctors in the implementation of teleconsultation: a study at AIIMS, New Delhi, India. *Stud Health Technol Inform*. 2013; 192:1107.
950. Mehla J, Pahuja M, Gupta P, Dethe SM, Agarwal A, Gupta YK. *Clitoria ternatea* ameliorated the

- intracerebroventricularly injected streptozotocin induced cognitive impairment in rats: behavioral and biochemical evidence. *Psychopharmacology* 2013;230:589-605.
951. Mehla J, Pahuja M, Gupta YK. Streptozotocin-induced sporadic Alzheimer's disease: selection of appropriate dose. *J Alzheimers Dis* 2013; 33: 17-21.
952. Mehra N, Siddiqui J, Baranwal A, Goswami S, Kaur G. Clinical relevance of antibody development in renal transplantation. *Ann NY Acad Sci* 2013; 1283: 30-42.
953. Mehra NK. A brief history of the Federation of Immunological Societies of Asia-Oceania (FIMSA). *Ann NY Acad Sci* 2013; 1283.
954. Mehta P, Agarwala S, Jana M, Kabra SK. Swine flu presenting as acute appendicitis: Scientific letter to editor). *Indian J Pediatr* 2014; 81: 208-9.
955. Menon KC, Ferguson EL, Thomson CD, Gray AR, Zodpey S, Saraf A, et al. Iron status of pregnant Indian women from an area of active iron supplementation. *Nutrition* 2014; 30(3): 291-6.
956. Menon P, Rawre J, Malhotra N, Dhawan B. Co-infection of *Mycoplasma genitalium* and *Chlamydia trachomatis* in an infertile female patient with genital tuberculosis. *Ind J Path Microbiol*, 2013; 56:457-459.
957. Menon PS, Jain V, Varma SK. Current issues in pediatric endocrinology. *Indian J Pediatr* 2014;81:51-2
958. Menon PS, Jain V, Varma SK. New paradigms in the diagnosis and management of pediatric endocrine disorders. *Indian J Pediatr* 2014;81:150-1
959. Mina S, Verma R, Balhara YP, Ul-Hasan S. Road rage: prevalence pattern and web based survey feasibility. *Psychiatry J* 2014;897493.
960. Mir R, Jallu S, Singh TP. The shikimate pathway: Review of amino acid sequence, function and three-dimensional structures of the enzymes. *Crit Rev Microbiol* 2013 Aug 6 [Epub ahead of print]
961. Mishra AK, Balhara YPS. Statistical methodology for the scientometrics study of the growth of medical sciences in India. *Curr Sci* 2013;105:821-6.
962. Mishra B, Patro IK, Singh AK, Singh K, Xess I, Dinda A et al A novel antimicrobial peptide derived from modified N-terminal domain of bovine lactoferrin: design, synthesis, activity against multidrug-resistant bacteria and *Candida*. *Biochimica et Biophysica Acta* 2013; 1828: 677-86.
963. Mishra G, Kumar N, Kaur G, Jain S, Tiwari PK, Mehra NK. Distribution of HLA-A, B and DRB1 alleles in Sahariya tribe of North Central India: An association with pulmonary tuberculosis. *Infect Genet Evol.* 2014 Mar;22:175-82.
964. Mishra J, Dey A, Singh N, Somvanshi R, Singh S. Evaluation of toxicity and therapeutic efficacy of a new liposomal formulation of Amphotericin B in mice model by real time PCR. *Indian J Med Res.* 2013; 137: 767-776
965. Mishra J, Merzenich MM, Sagar R. Accessible online neuroplasticity-targeted training for children with ADHD. *Child Adolesc Psychiatry Ment Health* 2013;7:38.
966. Mishra J, Singh S. Miltefosine resistance in *Leishmania donovani* involves suppression of oxidative stress-induced programmed cell death. *Exp Parasitol.* 2013; 135: 397-406. doi: 10.1016/j.exppara. 2013.08.004.
967. Mishra M, Dwivedi S, Hassan MA, Khan MA. Effect of ensured antenatal care and child health services on nutritional status of infants in Allahabad district., *Indian Journal of Preventive and Social Medicine*, 2013
968. Mishra MN, Pandey R, Dinda A, Nityanand S. A peculiar case of splenic marginal zone lymphoma and review of literature. *Iran J Immunol* 2013 Sep;10(3):186-9.
969. Mishra N, Logani A, Shah N, Sood S, Singh S, Narang I. Preliminary Ex-vivo and an Animal Model Evaluation of *Ocinum sanctum*'s Essential oil extract for its Antibacterial and Anti-Inflammatory Properties. *OHDM* 2013; 12(3): 174-79.
970. Mishra P, Seth T, Mahapatra M, Saxena R. Report of chronic myeloid leukemia in chronic phase from All India Institute of Medical Sciences 1990-2010. *Indian J Med Paediatr Oncol* 2013; 34 (3): 159-63
971. Mishra S, Choudhary P, Joshi S, Bhatnagar S. Successful Use of Flupirtine in Refractory Neuropathic Pain Due to Small Fiber Neuropathy. *Am J Hospice Palliat Med* 2013; 30: 91-3.

972. Mishra S, Kumar R, Malhotra N, Dada R. Expression of PARP1 in primary infertility patients and correlation with DNA fragmentation index a pilot study. *J Anat Soc Ind.* 2013;62:98-104
973. Mishra S, Kusuma YS, Babu BV. Concepts of health and illness: continuity and change among migrant tribal community in an Eastern Indian city. *Anthropol Noteb* 2013; 19: 61-69
974. Mishra S, Kusuma YS, Babu BV. Immunization uptake among children of a migrant tribal community living in an Eastern Indian city. *J Pediatr Sci* 2013; 5: e194
975. Mishra S, Kusuma YS, Babu BV. Pluralistic care and therapeutic itineraries among a migrant tribal community living in an urban area of Odisha. *J Anthropol Soc Oxford* 2014; VI: 61-67
976. Mishra S, Rana SPS, Bhatnagar S, Khurana D, Thulkar S. Efficacy of the anterior ultrasound-guided superior hypogastric plexus neurolysis in pelvic cancer pain in advanced gynecological cancer patients. *Pain Med* 2013; 14(6): 837-42
977. Mitra R, Goyal K, Gupta P, Rajagopalan V, Sokhal N. Tuberos Sclerosis and head injury. *Saudi J Anaesth.* 2013; 7 (1): 101-2.
978. Mittal A, Majumdar P, Agrawal A, Sood M, Khandelwal SK. Early onset of obsessive compulsive disorders with obsessive slowness. *Indian J Psychol Med* 2013;35:407-9.
979. Mittal A, Sehgal R, Sureka B, Kumar A, Aggarwal KC. Giant cerebral cysticercosis in an infant confused with a thalamic glioma. *J Child Neurol* 2014; Epub ahead of print.
980. Mittal AK, Anshu, Sharma OP, Mehta M, Sagar R. ADHD & comorbid problems: a preliminary report. *Indian J Psychol Educ* 2013;3:135-8.
981. Mittal N, Joshi M, Gaur R. Evolution of Carbohydrate and Lipid metabolism in spinal cord injured during the first year of injury: Is non esterified fatty acid an indicator of prognosis? *PM&R* 2013; 5(9 Suppl): S243-44.
982. Mittal N, Joshi M. Anthropometric indices as predictors of obesity in acute spinal cord injury. *Am J. Phys. Med. Rehabil.* 2014; 93(3) (Suppl): a7.
983. Mittal N, Majumdar R, Chauhan S, Acharya M. Sprengel's deformity: association with musculoskeletal dysfunctions and tethered cord syndrome. *BMJ Case Reports* 2013; appeared online April 18, 2013, doi:10.1136/bcr-2013-009182.
984. Modi S, Tripathi M, Saha S, Goswami R. Seizures in Patients with Idiopathic Hypoparathyroidism: Effect of Anti epileptic drug withdrawal on recurrence of seizures and serum calcium control. *Eur J Endocrinol* 2014;170(5):777-83.
985. Mohan T, Bhatnagar S, Gupta DL, Rao DN. Current understanding of HIV-1 and T-cell adaptive immunity: progress to date. *Microbial Pathogenesis*, 73, 1-10; 2014.
986. Mohan T, Rao DN. Comparative in-vitro functional characterization of synthetic native, neagatively and positively charged variants of defensins against HIV-INL4.3, E.coli, S. aureus and P. aeruginosa, *Int. J. Pep. Res. Ther.*, 19, 245-255; 2013.
987. Mohan T, Rao DN. Modulation of HIV peptide antigen specific cellular immune response by synthetic a and B defensin peptides. *Vaccine*, 31, 1707-1716; 2013.
988. Mohan T, Rao DN. Nasal delivery of PLG encapsulated defensin peptides adjuvanted gp41 antigens confers long lasting immunoprotective response against HIV-1. *Immunol Res*, 58, 139-153; 2014.
989. Mohan T, Verma P, Rao DN. Comparative mucosal immunogenicity of HIV gp41 membrane-proximal external region (MPER) containing single and multiple repeats of ELDKWA sequence with defensin peptide. *Immuno Biology*, 219, 292-301; 2014.
990. Mohan T, Verma P, Rao DN. Novel adjuvant and delivery vehicle for drgus and vaccine development : A road ahead. *Ind. J. Med. Res.* 138, 779-795;2013.
991. Mohan VK, Nair SP, Kashyap L, Shende D. Evaluation of Hemodynamic Changes and Fluid Responsiveness in Lithotomy and Prone Position by Stroke Volume Variation During Volume Controlled Ventilation in Patients Undergoing Percutaneous Nephrolithotomy. *Anesthesiology* 2013; A2036.

992. Mohanti BK, Sahai P, Thakar A, Sikka K, Bhasker S, Sharma A, et al. Institutional experience of interstitial brachytherapy for head and neck cancer with a comparison of high- and low dose rate practice. *Asian Pacific J Cancer Prev* 2014;15:813-18.
993. Mohanty K, Tanwar M, Dada R, Dada T. Screening of the LTBP2 gene in a north Indian population with primary congenital glaucoma. *Mol Vis.* 2013;19:78-84.
994. Mohanty S, Bose S, Jain KG, Bhargava B, Airan B. TGF β 1 contributes to cardiomyogenic-like differentiation of human bone marrow mesenchymal stem cells. *Int J Cardiol.* 2013; 163:93-9.
995. Mohanty S, Kumar A, Dhawan J, Sharma VK, Gupta S. Depletion of CD200+ bulge stem cells in premature human gray hair follicles. *J Cutan Aesthet Surg.* 2013 Apr-Jun; 6(2): 90–92.
996. Mohapatra S, Samantaray JC, Arulselvi S, Ghosh A. Disseminated intravascular coagulation following malaria due to plasmodium vivax: a thromboelastography based study. *Malaria J* 2013 DOI: 10.1186/1475-2875-12-336.
997. Mohapatra S, Samantaray JC, Arulselvi S, Panda J, Dang N, Saxena R. Comparative evaluation of two flowcytometric analysers as diagnostic tools for the automated detection of malaria. *Ann Clin Lab Sci* 2014; 44 (1): 82-6
998. Mondal D, Jana M, Julka PK, Arava SK. An uncommon cause of headache. *Oman Med J* 2013;28:371-2
999. Monga N, Chaurasia S, Kharbanda OP, Duggal R, Raja Rajeswari M. A study of interleukin 1 α levels in peri-miniscrew crevicular fluid (PMCF). *Prog Orthodontics* 2014; 15: 30-7
1000. Monga N, Kharbanda OP, Duggal R. Innovative biomechanics for orthodontic correction of torsion of maxillary central incisor caused by twin mesiodens. *J Contemporary Clin Dentistry* 2014; 5: 275-7.
1001. Mouli VP, Gamnagatti S, Ahuja V. An unusual case of cyanosis in a young boy. *Gastroenterology* 2013; 145 (6): e5-6.
1002. Mridha A, Kinra P, Sable M, Sharma MC, Rastogi S, Khan SA, Gamnagatti S. Epithelioid hemangioma of distal femoral epiphysis in a patient with congenital talipes equinovarus. *Malaysian J Pathol* 2014;36:63-6
1003. Mukherjee A, Lodha R, Kabra SK Allergy prevention strategy. *Indian J Practical Pediatrics* 2013;15:217-21
1004. Mukherjee A, Lodha R, Kabra SK. Status and Current Role of ‘Interferon Gamma Release Assays’ vs. ‘Tuberculin Skin Testing’ in Diagnosis of Tubercular Disease. *Indian J Pediatr* 2013 ;80 :334-336
1005. Mukherjee A, Saini S, Kabra SK, Gupta N, Singh V, Singh S, et al.; Delhi TB Study group. Effect of micronutrient deficiency on QuantiFERON-TB Gold In-Tube test and tuberculin skin test in diagnosis of childhood intrathoracic tuberculosis. *Eur J Clin Nutr.* 2014; 68 (1): 38-42. doi: 10.1038/ejcn.2013.216.
1006. Mukherjee A, Singh S, Lodha R, Singh V, Hesselting A, Grewal HM, Kabra S; for the Delhi Pediatric TB Study Group. Ambulatory Gastric Lavages Provide Better Yields of Mycobacterium Tuberculosis than Induced Sputum in Children with Intra-Thoracic Tuberculosis. *Pediatr Infect Dis J* 2013;32:1313-7
1007. Mukherjee A, Singla M, Velpandian T, Sirohiwal A, Vajpayee M, Singh R, Kabra SK, Lodha R. Pharmacokinetics of nevirapine, stavudine and lamivudine in Indian HIV-infected children receiving generic fixed dose combinations. *Indian Pediatr.* 2014;51(3):191-7.
1008. Mukherjee A, Singh S, Lodha R, Singh V, Hesselting AC, Grewal HM, Kabra SK; Delhi Pediatric TB Study Group. Ambulatory gastric lavages provide better yields of *Mycobacterium tuberculosis* than induced sputum in children with intrathoracic tuberculosis. *Pediatr Infect Dis J.* 2013 Dec; 32 (12): 1313-7. doi: 10.1097/INF.0b013e31829f5c58.
1009. Mukherjee S, Satinder A, Russell PSS, Gulati S, Deshmukh V, Sagar R, et al. INCLIN Diagnostic Tool for Attention Deficit Hyperactivity Disorder (INDT-ADHD): Development and Validation. *Indian Pediatr* 2014;51:457-62.
1010. Mukhopadhyay AK. Non-observable Influential(s) in the domain of Consciousness. Their identification and description. *Psychol Res* 2013; 3 (11): 637-52

1011. Mukhopadhyay AK. On Some Essential Requirements for a Fruitful Consciousness Research. *Psychol Res* 2014; 4 (2): 75-93.
1012. Mukund A, Gamanagatti S, Saraya A. Chronic pancreatitis causing thrombotic occlusion of IVC and renal veins. *Trop Gastroenterol* 2013; 34 (1): 39-41.
1013. Mundhe K, Pruthi G, Jain V. Prosthodontic Rehabilitation of Patient with Marginal Mandibular Resection Using Attachment Supported Prosthesis: A Clinical Report. *Clinical Contemporary Dentistry*. 2014 (5)123-26.
1014. Munisamy, Tripathi M, Behari M, Raghavan S, Jain DC, Ramanujam B, et al. The Effect of Uridine Diphosphate Glucuronosyltransferase (UGT)1A6 Genetic Polymorphism on Valproic Acid Pharmacokinetics in Indian Patients with Epilepsy: A Pharmacogenetic Approach. *Mol Diagn Ther*. 2013;5:319-26.
1015. Murugan MK, Gulati GS, Ramakrishnan S. Multidetector CT for Truncus Arteriosus and associated Complex Arch Anomaly. *Pediatric Cardiology* 2013;34(3):764-766.
1016. Murugan MK, Gulati GS, Saxena A, Juneja R, Gupta SK. Multi-detector Computed Tomography (MDCT) in Persistent Fifth Aortic Arch (PFAA). *Heart Lung Circ* 2014;23(2):e71-3
1017. Mutch D, Denny L, Quinn M, Belhadj H, Berek J, Bermudez A, Bhatla N, et al. Hereditary gynecologic cancers. *Int J Gynaecol Obstet* 2014;124(3):189-92.
1018. Mutreja D, Kotru M, Sazawal S, Ranjan R, Sharma A, Acharya SK, et al. Hereditary and Acquired Thrombophilia in Splanchnic Vein Thrombosis: A Single-Center Experience. *Clin Appl Thromb Hemost* 2013 Nov 19 [Epub ahead of print]
1019. Mutreja D, Kotru M, Tyagi S. A 1-year-old male child with recurrent respiratory infections since birth. *Indian J Pathol Microbiol* 2013; 56(3): 315-6.
1020. Mutreja D, Tyagi S, Tejwani N, Dass J. Double heterozygous hemoglobin Q India/ hemoglobin D Punjab hemoglobinopathy: Report of two rare cases. *Indian J Hum Genet* 2013; 19(4): 479-82.
1021. Mutreja D, Kotru M, Aggarwal M, Tejwani N, Sharma RK, Pati HP. Hepatosplenic gamma delta T-cell lymphoma in a boy with visceral leishmaniasis: a case report. *J Med Case Reports* 2013; 7: 269
1022. Nadarajah J, Srivastava DN, Malhotra R, Palaniswamy A. Posttraumatic cortical defect of femur. Case report *Orthop*. 2013 : 815460.
1023. Nadarajan V, Arora MK, Gupta DK. Comparison of two different doses of caudal clonidine in combination with a single large dose of rectal paracetamol for the relief of postoperative pain in children-A prospective randomized double-blind study. Published online.
1024. Nag HL, Singh V, Meena S, Saini P. Ochronotic black meniscus during knee arthroscopy. Case report. *J Natur Science Bio Med*. 2013; 4:502-504.
1025. Nahar R, Dube D, Parakh R, Deb R, Saxena R, Singh TP, et al. Implication of novel CYP2C9*57 (p.Asn204His) variant in coumarin hypersensitivity. *Thromb Res* 2013; 131: 535-9
1026. Nair A, Gupta R, Jyotsana VP, Sharma A, et al. An obese young man with uncontrolled diabetes and insatiable hunger: Prader Willi Syndrome. *Indian J Endocrinol Metabol* 2013; Supplement 3:S680-2.
1027. Nair V, Singh S, Gupta YK. Anti-granuloma activity of coriandrum sativum in experimental models. *J Ayurveda Integr Med* 2013;4:13-8.
1028. Nair VV, Kalra R, Narang R, Airan B. Successful management of multiple infected sub-mitral aneurysms of left ventricle. *Ann Pediatr Cardiol* 2014;7:45-8.
1029. Nair VV, Malankar D, Kothari SS, Das S, Gulati GS, Airan B. Unusual Left Ventricular Pseudoaneurysm in a Child After Disseminated Bacterial Infection. *World J Pediatr Congenital Heart Surg* 2014; 5: 121-123.
1030. Nakayama EE, Nakajima T, Kaur G, Mimaya JI, Mehra N, Kimura A, Shioda T. et al. A naturally occurring single amino acid substitution in human TRIM5 α linker region affects its anti-HIV-1 activity and susceptibility to HIV-1 infection. *AIDS Res Hum Retroviruses* (6):919-24, 2013
1031. Nambirajan A, Sharma MC, Gupta RK, Suri V, Singh M, Sarkar C. Study of Stem cell marker Nestin and its correlation with Vascular endothelial growth factor and microvascular density in Ependymomas. *Neuropathol Appl Neurobiol*. 2013 Nov 13. doi: 10.1111/nan.12097. [Epub ahead of print] PubMed PMID: 24224478.

1032. Nandan D, Bhatt GC, Dewan V, Yadav TP, Singh S. Isolated tuberculous liver abscess in a 3-year-old immunocompetent child. *Paediatr Int Child Health*. 2013; 33(3): 187-9. doi: 10.1179/2046905512Y.0000000033.
1033. Narasimham S, Kaila G, Anand S. Non-invasive glucose monitoring using impedance spectroscopy. *Int J Biomed Engineering Technol* 2014 Vol.14, No.3, 225 – 232.
1034. Naswa N, Bal CS. Divergent role of (68)Ga-labeled somatostatin analogs in the workup of patients with NETs: AIIMS experience. *Recent Results Cancer Res*. 2013;194:321-51.
1035. Naswa N, Sharma P, Gupta SK, Karunanithi S, Reddy RM, Patnecha M, et al. Dual tracer functional imaging of gastroenteropancreatic neuroendocrine tumors using 68Ga-DOTA-NOC PET-CT and 18F-FDG PET-CT: competitive or complimentary? *Clin Nucl Med* 2014;39:e27-34.
1036. Naswa N, Sharma P, Kumar R, Malhotra A, Bal C. Successful localization of residual culprit tumor in a case of tumor-induced osteomalacia using 68Ga-DOTANOC PET/CT. *Clin Nucl Med*. 2013 Aug;38(8):639-40.
1037. Naswa N, Sharma P, Kumar R, Malhotra A, Bal C. Usual and unusual neuroendocrine tumor metastases on (68)Ga-DOTANOC PET/CT: a pictorial review. *Clin Nucl Med* 2013;38(6):e239-45.
1038. Naswa N, Sharma P, Soundararajan R, Karunanithi S, Nazar AH, Kumar R, et al. Diagnostic performance of somatostatin receptor PET/CT using 68Ga-DOTANOC in gastrinoma patients with negative or equivocal CT findings. *Abdom Imaging* 2013;38(3):552-60.
1039. Naswa N, Sharma P, Soundararajan R, Patnecha M, Lata S, Kumar R, et al. Preoperative characterization of indeterminate large adrenal masses with dual tracer PET-CT using fluorine-18 fluorodeoxyglucose and gallium-68-DOTANOC: Initial results. *Diagn Interv Radiol* 2013;19:294-8.
1040. Nataraj V, Bakhshi S. Review of Management Issues in Relapsed Osteosarcoma. *Expert Rev* 2014;14:151-61.
1041. Nataraj V, Kandasamy D, Bakhshi S. Imatinib-induced Avascular Necrosis of Femur in Childhood Chronic Myeloid Leukemia. *Pediatr Hematol Oncol* 2014;31:268:270.
1042. Natarajan CK, Sankar MJ, Agarwal R, Pratap OT, Jain V, Gupta N, et al. Trial of daily vitamin D supplementation in preterm infants. *Pediatrics*. 2014; 133 (3): e628-34.
1043. Natung T, Venkatesh P, Thangkhiew L, Syiem J. Asymmetric presentations of familial exudative vitreoretinopathy. *Oman J Ophthalmol*. 2013;6:129-30.
1044. Navin M, Ajay L, Naseem S, Seema S, Surendra S, Isha N. Preliminary ex-vivo and an animal model evaluation of *Ocimum Sanctum* essential oil extract for its antibacterial and anti-inflammatory properties. *Oral Health Dent Manag*. 2013 Sep; 12(3):174-9.
1045. Nayak B, Abrol N, Singh P, Kumar R. Bladder decompression for chronic urinary retention may lead to upper-tract bleeding. *Nat Med J Ind*. 2013;26(2): 82-83
1046. Nayak BK, Desai S, Maheshwari S, Singh D, Sharma S. Interpretation of magnetic resonance imaging of orbit: Simplified for ophthalmologists (Part II). *J Clin Ophthalmol Res* 2013; 1 (2): 101-6.
1047. Nayak N, Satpathy G, Prasad S, Pandey RM, Sharma N, Chawla B, Titiyal JS, Tandon R. In vitro susceptibilities of fungal isolates against amphotericin B and voriconazole in *Aspergillus keratitis*: a comparative study. *J Clin Ophthalmol Res* 2013; 1(2): 7-10.
1048. Negi S, Juyal G, Senapati S, Prasad P, Gupta A, Singh S, Kumar U, et al. A Genome-Wide Association Study Reveals ARL15, a Novel Non-HLA Susceptibility Gene for Rheumatoid Arthritis in North Indians. *Arthritis Rheum* 2013; 65(12):3026-35.
1049. Neha, Kumar R, Lalwani S, Jain M, Dhingra R. Sectional anatomy of plastinated knee joint: A boon for radiologists. *Int J Innovative Res Sci Engineering Technol* 2013;2(10):5460-6.
1050. Nehra A, Tripathi M, Bhatia M, Srivastava P, Singh MB, Chopra S, Kaur H, Bajpai S. Is Epilepsy A Cause Of Cognitive Decline In Developing Brain'. *Activitas Nervosa Superior* 2013, 55, No. 3
1051. Neogi DS, Kumar A, Rijal L, Yadav CS, Jaiman A, Nag HL. Role of non operative treatment in the

- management of degenerative tears of posterior root of the medial meniscus. *Journal of Orthopaedics and Traumatology*. 2013; 14:193-99.
1052. Nirmal J, Singh SB, Biswas NR, Thavaraj V, Azad RV, Velpandian T. Potential pharmacokinetic role of organic cation transporters in modulating the transcorneal penetration of its substrates administered topically. *Eye (Lond)* 2013; 27: 1196-203
1053. Nirmal J, Sirohiwal A, Singh SB, Biswas NR, Thavaraj V, Azad RV, Velpandian T. Role of organic cation transporters in the ocular disposition of its intravenously injected substrate in rabbits: implications for ocular drug therapy. *Exp Eye Res*. 2013;116:27-35.
1054. Nitika, Lohiya A, Nongkynrih B, Gupta SK. Migrants to urban India: Need for public health action. *Indian J Community Med* 2014;39:73-5.
1055. Noohu MM, Dey AB, Hussain ME. Relevance of balance measurement tools and balance training for fall prevention in older adults. *J Clin Gerontol Geriatrics* 2013;4: 1-5.
1056. Oestern HJ, Garg B, Kotwal P. Trauma care in India and Germany. *Clin Orthop Relat Res*. 2013;471:2869-77
1057. Ohal S, Pradhan M, Rani A, Bhute A, Behera C. Bones in the uterus emerging as the cause of suicide- a case report. *Indian Internet J Forensic Med Toxicol* 2013; 11 (3): 79-81
1058. Oliver BG, Haddow LJ, Agarwal U, Kumar M, Easterbrook PJ, Moosa MY, Singh S, Price P. Pre-antiretroviral therapy plasma levels of CCL2 may aid in the prediction of tuberculosis-associated immune reconstitution inflammatory syndrome in HIV patients after they commence antiretroviral therapy. *J Acquir Immune Defic Syndr*. 2013 Jun 1;63(2):e72-4. doi: 10.1097/QAI.0b013e31828e6182.
1059. Ott CE, Fischer B, Schröter P, Richter R, Gupta N, Verma N, Kabra M, Mundlos S, Rajab A, Neitzel H, Kornak U. Severe neuronopathic autosomal recessive osteopetrosis due to homozygous deletions affecting OSTM1. *Bone* 2013;55(2):292-7
1060. Ovais S, Yaseen S, Basir R, Pooja R, Mohammad S, Singh S, et al. Synthesis and anti-inflammatory activity of celecoxib like compounds. *J Enzyme Inhibition Med Chem* 2013;28:1105-12.
1061. Padhy BM, Yadav R, Gupta YK. Hypolipidaemic and anti-inflammatory effects of fixed dose combination of atorvastatin plus ezetimibe in Indian patients with dyslipidaemia. *Singapore Med J* 2013;54:90-5.
1062. Padma Srivastava MV, Bhasin A, Chaudhry R, Sharma S, Vivekanandhan S, Bhatia R, Tripathi M. Role of Interleukin – 6 correlated to C. pneumoniae infection as a biomarker for prediction of stroke severity in young patients with acute ischemic stroke. *Asian J Neurosci* 2014, Article ID 649106.
1063. Pahuja M, Mehla J, Reeta KH, Tripathi M, Gupta YK. Effect of Anacyclus pyrethrum on pentylenetetrazole-induced kindling, spatial memory, oxidative stress and Rho-kinase II expression in mice. *Neurochem Res* 2013;38:547-56.
1064. Pahwa P, Mehta M, Khaitan BK, Sharma VK, Ramam M. The psychosocial impact of vitiligo in Indian patients. *Indian J Dermatol Venereol Leprol*. 2013;79(5):679-85.
1065. Pahwa S, Das CJ, Sharma S, Gupta AK, Dey AB. Hepatic hot spot sign: Beacon of SVC obstruction. *Clin Res Hepatol Gastroenterol*. 2014; May 14.
1066. Pai G, Singh A, Seth R. Rosai-Dorfman disease (sinus histiocytosis with massive lymphadenopathy) in children: Experience from a tertiary care centre. *Indian Journal of Cancer* 2013;50:P-S232
1067. Painuly N, Heun R, Painuly R, Sharan P. Risk of cardiovascular malformations after exposure to paroxetine in pregnancy: meta-analysis. *Psychiatr Bull* 2013;37:198-203
1068. Pal A, Singh A, Nag TC, Chattopadhyaya P, Mathur R, Jain S. Iron oxide nanoparticles and magnetic field exposure promote functional recovery by attenuating free radical induced damage in rats with spinal cord transaction. *Intl J Nanomed* 2013;8:2259-72.
1069. Pal S, Mangla V, Radhakrishna P, Sahni P, Pande GK, Acharya SK, et al. Surgery as primary prophylaxis from variceal bleeding in patients with extrahepatic portal venous obstruction. *J Gastroenterol Hepatol* 2013; 28(6): 1010-4.

1070. Palanivel C, Yadav K, Gupta V, Rai SK, Misra P, Krishnan A. Causes of death in rural adult population of North India (2002-2007), using verbal autopsy tool. *Indian J Public Health*. 2013;57(2):78-83. doi: 10.4103/0019-557X.114988. PubMed PMID: 23873194.
1071. Paliwal D, Panda SK, Kapur N, Varma SP, Durgapal H. Hepatitis E Virus (HEV) Protease: a Chymotrypsin-like Enzyme that Processes both Non-structural (pORF1) and Capsid (pORF2) Protein. *J Gen Virol*. 2014; 95: 1689–700.
1072. Pallavi P, Sagar R, Mehta M, Sharma S, Arulselvi S, Shamshi F, et al. Serum neuro trophic factors in adolescent depression: Gender difference and correlation with clinical severity. *J Affective Disorders* 2013; 150: 415-423.
1073. Panda A, Kandasamy D, Chandrashekhara SH, Jana M. Growing teratoma syndrome of ovary: avoiding a misdiagnosis of tumour recurrence. *J Clin Diagn Res* 2014; 8(1): 197-8. doi: 10.7860/JCDR/2014/7407.3837. Epub 2014 Jan 12.
1074. Panda A, Kumar A, Gamanagatti S, Patil A, Kumar S, Gupta A. Traumatic diaphragmatic injury: A review of CT signs and the difference between blunt and penetrating injury. *Diagn Interv Radiol* 2014; 20(2): 121-8.
1075. Panda A, Kurapati S, Samantaray JC, Myneedu VP, Verma A, Srinivasan A, et al. Rapid identification of clinical mycobacterial isolates by protein profiling using matrix assisted laser desorption ionization-time of flight mass spectrometry. *Indian J Med Microbiol* 2013; 31: 117-122
1076. Panda PS, Dube SK, Sarkar S, Singh DK. Metabolic alkalosis: A less appreciated side effect of Imepenem-cilastatin use. *India J Crit Care Med* 2013; 17:263-4.
1077. Panda SS, Agarwala S, Bhatnagar V, Kabra SK, Jayaswal A, Bhalla AS. A survey of musculoskeletal and aesthetic abnormalities after thoracotomy in pediatric patients. *J Indian Assoc Pediatr Surg* 2013; 18: 136-42.
1078. Panda SS, Agarwala S, Kabra SK, Ray R, Sugandhi N, Bhat AS, et al. Aorto-esophageal fistula in a child. *J Indian Assoc Pediatr Surg* 2013; 18: 124-6
1079. Panda SS, Bajpai M, Mallick S, Sharma MC. Comparison of different morphological parameters with duration of obstruction created experimentally in unilateral upper ureters: An animal model. *Afr J Paediatr Surg* 11:15-7; 2014.
1080. Panda SS, Bajpai M, Sinha A, Mallick S, Sharma MC. Effect of ipsilateral ureteric obstruction on contralateral kidney and role of renin angiotensin system blockade on renal recovery in experimentally induced unilateral ureteric obstruction. *J Indian Assoc Pediatr Surg* 18:58-61; 2013.
1081. Pandav CS, Yadav K, Srivastava R, Pandav R, Karmarkar MG. Iodine deficiency disorders (IDD) control in India. *Indian J Med Res* 2013; 138 (3): 418-33
1082. Pandav CS. Evolution of iodine deficiency disorders control program in India: a journey of 5,000 years. *Indian J Public Health* 2013; 57 (3): 126-32
1083. Pandey A, Pandey R, Gharde P, Devagourou V, Kiran U. Idiopathic left ventricular outflow tract pseudoaneurysm. *Ann Cardiac Anaesthesia* 2013; 16: 209–11.
1084. Pandey AK, Sharma SK, Sharma P, Gupta P, Kumar R. Development of a radiopharmaceutical dose calculator for pediatric patients undergoing diagnostic nuclear medicine studies. *Indian J Nucl Med*. 2013 Apr;28(2):75-8.
1085. Pandey N, Gupta D, Mahapatra A, Harshvardhan R. Bed wise cost analysis of in-patient treatment of brachial plexus injury at a Level I trauma Center in India. *Asian J Neurosurg*, 2014;9:89-92.
1086. Pandey S, Pandey S, Ranjan R, Mishra R, Sharma M, Saxena R. Phenotypic heterogeneity of asian Indian inversion deletions gã(ããã)0 breakpoint a and breakpoint B. *Indian J Clin Biochem* 2013; 28 (1): 98-101
1087. Pandey S, Roychoudhury A, Bhutia O, Singhal M, Sagar S, Pandey RM. Study of the Pattern of Maxillofacial Fractures Seen at a Tertiary Care Hospital in North India. *J Maxillofacial Oral Surg* 2013; 1-8.
1088. Pandey SK, Pandey S, Ranjan R, Shah V, Mishra RM, Sharma M, et al. Phenotypic effect of á-globin gene numbers on Indian sickle â-thalassemia patients. *J Clin Lab Anal* 2014; 28 (2): 110-3.

1089. Pandit AK, Ihtisham K, Garg A, Gulati S, Padma MV, Tripathi M. Autoimmune encephalitis: A potentially reversible cause of status epilepticus, epilepsy, and cognitive decline. *Ann Indian Acad Neurol* 2013 Oct; (16): 577 – 584.
1090. Pandrangi SL, Raju Bagadi SA, Kumar M, Dada R, Saxena S. Establishment and characterization of two primary breast cancer cell lines from young Indian breast cancer patients: mutation analysis. *Cancer Cell Int* 2014;14(1):14.
1091. Pant N, Pant AB, Chaturvedi PK, Shukla M, Mathur N, Gupta YK, et al. Semen quality of environmentally exposed human population: the toxicological consequence. *Environ Sci Pollut Res Int* 2013;20:8274-81.
1092. Panwar H, Kumar VS, Trikha V, Subramanian A. Loose bodies in right elbow joint: Post traumatic? or post infective? *J Emerg Trauma Shock* 2013; 6(2): 129-31.
1093. Paranjape S, Chhabra A. Anaesthesia for robotic surgery. *Trends in Anaesthesia and Critical Care* 2014; 4: 25-31. doi:10.1016/j.tacc.2013.10.003
1094. Parashar D, Kabra SK, Lodha R, Singh V, Mukherjee A, Arya T, Grewal HM, Singh S; Delhi Pediatric TB study group. Does neutralization of gastric aspirates from children with suspected intrathoracic tuberculosis affect mycobacterial yield on MGIT culture? *J Clin Microbiol.* 2013; 27; 51(6):1753-6.
1095. Parida DK, Rath GK. Advantages and implications of high dose rate (HDR) total skin electron irradiation (TSEI) for the management of Mycosis Fungoides. Indian experience. *Rep Pract Oncol Radiother.* 2013; 19: 104-8
1096. Parihar M, Kumar A, Gamanagatti S, Bhalla A, Mishra B, Kumar S, et al. Role of splenic artery embolization in management of traumatic splenic injuries: A prospective study. *Indian J Surg.* 2013; 75(5): 361-7.
1097. Parmar T, Vanathi M, Ghose S, Dada T, Venkatesh P. Colour vision revisited. *Delhi J Ophthalmol* 2014;24(4):223-8
1098. Pathak S, Bajpai D, Banerjee A, Bhatla N, Kumar SK, Jayaram HN, et al. Serum One-Carbon Metabolite and Risk of Cervical Cancer. *Nutr Cancer* 66(5): 818-24; 2014.
1099. Pati HP, Jain S. Flowcytometry in Hematological disorders. *Indian J Pediatr* 2013; 80 (9): 772-8
1100. Patil V, Pattanayak, Mishra AK. Predictors of suicide attempt in early-onset cases: Methodological issues and concerns. *J Clin Psychiatry* 2013;74:1264.
1101. Patne S, Pradhan S, Mittal R, Kumar M, Tanwar P. Glottic Squamous Cell Carcinoma metastatic to the brain. *Asian J Med Sci* 2013; 5 (1): 77-80.
1102. Patra BN, Khandelwal SK, Chadda RK, Lakshmy R. A controlled study of serum lipid profile in depressive disorders. *Indian J Psychol Med* 2014;36:129-36.
1103. Patra S, et al. A Novel Route to Polycaprolactone Scaffold for Vascular Tissue Engineering. *Journal of Biomaterials and Tissue Engineering* , 2013, 3, 289-299.
1104. Pattanayak RD, Sagar R. Emil Kraepelin's contributions to modern psychiatry: Clinical empirical approach and psychiatric nosology. *J Ment Health Human Behav* 2013;18:
1105. Pattanayak RD, Sagar R. Inspirations from History: Eric Kandel and the 'Sea Slug': A simple experimental model for learning & memory. *J Ment Health Human Behav* 2013;18:64-6.
1106. Paul P, Agarwal M, Bhatia R, Vishnubhatla S, Singh MB. Nurse-led epilepsy follow-up clinic in India: is it feasible and acceptable to patients? A pilot study. *Seizure.* 2014 Jan;23(1):74-6.
1107. Paul SB, Sharma. Role of Transcatheter Intra-arterial Therapies in Hepatocellular Carcinoma. *J Clin Exp Hepatol*, 2014; 3 (Suppl 3); S1-S10, <http://dx.doi.org/10.1016/j.jceh.2014.03.048>.
1108. Peshin SS, Srivastava A, Halder N, Gupta YK. Pesticide poisoning trend analysis of 13 years: a retrospective study based on telephone calls at the National Poisons Information Centre, All India Institute of Medical Sciences, New Delhi. *J Forensic Leg Med* 2014;22:57-61.
1109. Phalak M, Agrawal D, Dawar P, Kothiwalla AK, Singh PK, Sharma BS. Theco-peritoneal shunt for post-traumatic hydrocephalus – A valuable adjunct? *IJNT* 2013;10:86-91
1110. Pookamala S, Kumar R, Thakar A, Karthikeyan CV, Bhalla AS, et al. Laryngotracheal Stenosis: Clinical

- Profile, Surgical Management and Outcome. *Indian J Otolaryngol Head Neck Surg* 2014;66:S198-S202.
1111. Prabhakar H, Bindra A, Singh GP, Kalaivani M. Propofol versus thiopental sodium for the treatment of refractory status epilepticus. *Evid Based Child Health* 2013; 8: 1488-508.
 1112. Prabhakar H, Rath S, Kalaivani M. Adrenaline with lidocaine for digital nerve blocks. *Cochrane Database of Systematic Reviews*, 2013; 7: CD010645
 1113. Prabhakar H, Singh GP, Bithal PK, Kalaivani M. Coagulation effects of mannitol in combination with 0.9% normal saline or hydroxyethyl starch in patients undergoing supratentorial craniotomy—a preliminary study. *J Neuroanaesthesiol Crit Care*, 2014;1:56–9.
 1114. Prabhakaran A, Krishnan A, Nongkynrih B, Goswami A, Pandav CS. Cost of ambulatory care by mobile health clinic run by a Medical College in India for the year 2008-09. *Indian J Public Health* 2014;58:100-5.
 1115. Pradhan M, Singh B, Garudadhri GV, Rao S, Behera C. Pathology of retina in fatal methanol poisoning: A case report. *Anil Aggarwal's Internet J Forensic Med Toxicol* 2014; 14 (2)
 1116. Pradhan M, Sreenivas M, Singh BK, Behera C, Dikshi PC. Abdominal pregnancy presenting as sudden death: a case report and review of literature. *Med Sci Law* 2013; 53 (2): 90-92
 1117. Prakash G, Agarwala S, Chitragar S, Ray R, Thulkar S, Bakhshi S. Solitary retrovesical lesion in a newborn. *J Pediatr Hematol Oncol.* 2012;34:159
 1118. Prakash G, Bakhshi S, Raina V, Bhatnagar S, Sharma A, Kumar L, Shukla NK, Julka PK, Rath GK. Characteristics and Pattern of Mortality in Cancer Patients at a Tertiary Care Oncology Center: Report of 259 Cases. *Asian Pacific J Cancer Prev.* 2013; 11: 1755-9
 1119. Prakash K, Chandran DS, Khadgawat R, Jaryal AK, Deepak KK. Correction for blood pressure improves correlation between cerebrovascular reactivity assessed by breath holding and 6% CO₂ breathing. *J Stroke Cerebrovasc Dis* 2014;23:630-5.
 1120. Prakash S, Mandal P, Sagar R. Paroxetine in the treatment of recurrent brief depressive disorder. *J Pharmacol Pharmacother* 2013;4:288-90.
 1121. Prakash S, Chadda RK. Teratogenicity with olanzapine. *Indian J Psychol Med* 2014;36: 91-3.
 1122. Prasad K. Evidence-based medicine in India. *J Clin Epidemiol.* 2013;66:6-9
 1123. Prasad P, Ambekar A, Vaswani M. Case–control association analysis of dopamine receptor polymorphisms in alcohol dependence: a pilot study in Indian males. *BMC Res Notes* 2013;6:418.
 1124. Prashant CK, Bhat M, Srivastava SK, Saxena A, Kumar M, Dinda AK et al. Fabrication of nanoadjuvant with poly- ϵ -caprolactone (PCL) for developing a single-shot vaccine providing prolonged immunity. *Int J Nanomedicine.* 2014 Feb 12;9:937-50.
 1125. Prat J, Belhadj H, Berek J, Bermudez A, Bhatla N, Cain J, et al. Staging classification for cancer of the ovary, fallopian tube, and peritoneum. *Int J Gynaecol Obstet.* 2014;124(1):1-5.
 1126. Preetam C, Kumar R, Sikka K, Kumar R, Durgapal P. A rare association of inflammatory Myofibroblastic tumor of maxilla and idiopathic orbital inflammatory disease. *Clin Rhinol* 2013;6 (1):41-3.
 1127. Preetam C, Sikka K, Kumar R, Kumar R. Always expect the unexpected – chyle leak: revisiting the entity. *Indian J Cancer* 2013;50 (1) E version
 1128. Priyadarshini A, Saxena A, Patel C, Paul VK, Lodha R, Airan B. Myocardial perfusion abnormalities in patients occurring more than 1 year after successful univentricular (Fontan surgery) and biventricular repair (complete repair of tetralogy of Fallot). *Pediatr Cardiol.* 2013;34:786-94.
 1129. Pruthi G, Jain V, Rajendiran S, Jha R. Prosthodontic management of patients with orbital exenteration – a case series. *Indian Journal of Ophthalmology.* 2014 (62)629-32.
 1130. Puri K, Sapra S, Jain V. Emotional, behavioral and cognitive profile, and quality of life of Indian children and adolescents with type 1 diabetes. *Indian J Endocrinol Metab* 2013;17:1078-83
 1131. Pushker N, Shrey D, Khurana S, Sen S, Kashyap K. Ectopic meningioma of the orbit. *Int Ophthalmol.* 2013; 33(6):707-10.

1132. Pushker N, Tejwani LK, Bajaj MS, Khurana S, Velpandian T, Chandra M. Role of oral corticosteroids in orbital cellulitis. *Am J Ophthalmol*. 2013;156(1):178-183.
1133. Pushker N, Tinwala S, Khurana S, Sen S. Bilateral microphthalmos with unilateral superior cyst in a child with autism and CHARGE syndrome. *Int Ophthalmol*. 2013; 33(2):195-8.
1134. Quraishi R, Jain R, Ambekar A. The use of dried blood spot samples in screening drugs of abuse. *Pharmacol Pharmacy* 2013;4:152
1135. Quraishi R, Jain R, Balhara YP. Profile of nicotine use among alcohol dependent patients visiting a tertiary care center in north India. *Indian J Psychol Med* 2014;36:174-8.
1136. Quraishi R, Jain R, Chatterjee B. Laboratory profile of cannabis dependent and concurrent other substance users seeking treatment at a tertiary care centre in India. *Int J High Risk Behav Addict* 2013;2:107-11.
1137. Quraishi R, Lakshmy R, Mukhopadhyay AK, Jaikhani BL. Analysis of the stability of urea in dried blood spots collected and stored on filter paper. *Ann Lab Med* 2013; 33: 190-2.
1138. Quraishi R, Lakshmy R, Mukhopadhyay AK, Jaikhani BL. Transaminase Extraction and Stability from Dried Serum Samples. *Sch J App Med Sci* 2014; 2(1B): 169-70
1139. Radhakrishnan V, Sharma S, Vishnubhatla S, Bakhshi S. MRI findings at baseline and after neoadjuvant chemotherapy in orbital retinoblastoma (IRSS stage III). *Br J Ophthalmol* 2013 ; 97(1): 52-8.
1140. Rah JH, Anas AM, Chakrabarty A, Sankar R, Pandav CS, Aguayo VM. Towards universal salt iodisation in India: achievements, challenges and future actions. *Matern Child Nutr* 2013 Jun 18.
1141. Raheja A, Sharma MS, Singh M, Agrawal D, Kale SS, Sharma BS. Hearing improvement following gamma knife radiosurgery for an intra-canalicular vestibular schwannoma. *Neurol India*. 2013;61(6):683-6.
1142. Rai PK, Pathak AK, Ghatak S, G, AK, Jayasundar R. LIBS based spectroscopic analysis and antidiabetic evaluation of a polyherbal formulation. *J Food Measurement Characterization* 2013;7:114-21.
1143. Rai V, Goyal V, Shukla G, Rath G, Behari M. Adductor laryngeal breathing dystonia in NBIA treated with botulinum toxin-A. *Ann Indian Acad Neurol* 2013; 16(3): 409-10
1144. Rai V, Jetli S, Rai N, Padma MV, Tripathi M. Continuous EEG predictors of outcome inpatients with altered sensorium. *Seizure* 2013;22(8):656-61.
1145. Rai VK, Bhatia R, Prasad K, Padma Srivastava M V, Singh S, Rai N, Suri A. Long-term outcome of decompressive hemicraniectomy in patients with malignant middle cerebral artery infarction: A prospective observational study. *Neurol India* 2014;62:26-31
1146. Raj D, Lodha R, Mukherjee A, Sethi T, Agrawal A, Kabra SK. Fractional Exhaled Nitric Oxide (FENO) in Children with Acute Exacerbation of Asthma. *Indian Pediatr* 2014;51;105-11
1147. Raj D, Lodha R, Pandey A, Mukherjee A, Agrawal A, Kabra SK; New Delhi Childhood Asthma Study Group. Aeroallergen Sensitization in Childhood Asthmatics in North India *Indian Pediatr* 2013;50;1113-1118
1148. Raj S, Senjam SS, Singh AJ. Assessment of Health Promoting Behavior and Lifestyle of Adolescents of a North Indian City. *Int J Preventive Medicine* 2013;4:1189-93
1149. Rajkumari N, Mathur P, Sharma S, Gupta B, Bhoi S, Misra MC. Procalcitonin as a predictor of sepsis and outcome in severe trauma patients: a prospective study. *J Lab Physicians* 2013; 5(2): 100-8.
1150. Rajkumari N, Thanbuana BT, John NV, Gunjyal J, Mathur P, Misra MC. A prospective look at the burden of sharps injuries and splashes among trauma health care workers in developing countries: True picture or tip of iceberg. *Injury* 2014; S0020-1383(14): 00122-3.
1151. Ramachandran G, Kumar M, Selvi Rani D, Annanthapur V, Calambur N, Nallari P..., Kaur P et al. An in silico analysis of troponin I mutations in hypertrophic cardiomyopathy of Indian origin. *PLoS One* 2013; 8: e7070
1152. Ramachandran P, Fitzwater SP, Aneja S, Verghese VP, Kumar V, Nedunchelian K, Kapil A. et al Prospective multi-centre sentinel surveillance for Haemophilus influenzae type b & other bacterial meningitis in Indian children. *Indian J Med Res*. 2013; 137: 712-720.

1153. Ramaiah VK, Bhasker S. Optimizing cervical cancer care in resource constrained developing countries. *J Can Policy* 9 Jan 2014. 10.1016/j.jcpo.2013.11.002.
1154. Ramaiah VK, Bhasker S. Potential opportunities to reduce cervical cancer by addressing risk factors other than HPV. *J Gynecol Oncol* 2013; 24: 295-7
1155. Ramakrishnaiah VP, Gangavatiker R, Dash NR, Sahni P. Pancreas-sparing duodenectomy in a patient with acute corrosive injury. *Updates Surg* 2013; 65(4):309-11.
1156. Ramakrishnan S, Bhargava B, Seth S, Airan B. Alcohol ablation of right ventricular outflow tract obstruction. *JACC Cardiovasc Interv* 2014;7:443-5.
1157. Ramakrishnan S, Bhatt K, Dubey AK, Roy A, Singh S, Naik N, et al. Acute electrocardiographic changes during smoking: an observational study. *BMJ Open* 2013;3(4).
1158. Ramakrishnan S, Kukreti BB, Ramakrishnan L, Salahuddin S, Pendharkar A, Karthikeyan G, et al. Inflammatory markers are elevated in Eisenmenger syndrome. *Pediatr Cardiol* 2013;34:1791-96.
1159. Ramakrishnan S, Mishra S, Chakraborty R, Chandra KS, Mardikar HM. The report on the Indian coronary intervention data for the year 2011—National Interventional Council. *Indian Heart J* 2013;65:518-21.
1160. Ramalingam P, Palanichamy JK, Singh A, Das P, Bhagat M, Sinha S, et al. Biogenesis of intronic miRNAs located in clusters by independent transcription and alternative splicing. *RNA*; 20(1): 76-87; 2014.
1161. Ramam M. Under construction. *Indian J Dermatol Venereol Leprol*. 2014; 80 (1): 4.
1162. Ramanarayanan S, Gupta S, Vuthaluru S, Gamanagatti S. Small-bowel erosion by a functioning peritoneal dialysis catheter. *Perit Dial Int* 2014; 34(1): 124-7
1163. Ramesh V, Ramam M, Pahwa P, Malhotra S. The clinical presentations of penile tuberculosis. *Int J Dermatol*. 2013; 52 (6): 759-61.
1164. Ramkumar S, D Kandasamy, Vijay MK, Madhavi Tripathi, Jyotsna VP. Genu valgum and primary hyperparathyroidism in children. *Int J Case Reports Images* 2014; 5(6): 401–7.
1165. Ramkumar S, Dhingra A, Jyotsna V, Ganie MA, Das CJ, Seth A *et al*. Ectopic insulin secreting neuroendocrine tumor of kidney with recurrent hypoglycemia: a diagnostic dilemma. *BMC Endocr Disord* 2014; 14: 36.
1166. Ramkumar S, Jyotsna VP, Mallick S, Kachhawa G, Kandasamy D, Kriplani A, Ammini AC. Bilateral thecoma presenting as premenopausal hirsutism: Laproscopic removal. *Indian J Endocrinol Metab* 2013;17:662-4
1167. Rana SPS, Bhatnagar S, Khurana D, Thulkar S. Efficacy of the anterior ultrasound-guided superior hypogastric plexus neurolysis in pelvic cancer pain in advanced gynecological cancer patients. *Pain Med* 2013; 14(6): 837-42
1168. Randhawa MA, Alghamdi MS, Maulik SK. The effect of thymoquinone, an active component of *Nigella sativa*, on isoproterenol induced myocardial injury. *Pak J Pharm Sci* 2013;26:1215-9.
1169. Rani N, Bharti S, Manchanda M, Nag TC, Ray R, Chauhan SS, et al. Regulation of heat shock proteins 27 and 70, p-Akt/p-eNOS and MAPKs by naringin Damens myocardial injury and dysfunction in vivo after ischemia/reperfusion. *PLoS One*. 2013; 8(12): e82577.
1170. Ranjan A, Chandoke RK, Chauhan N, Kumari R. Study of Tumors by Imprint Cytology, *Indian J Clin Pract* 2013; 24: 472-6.
1171. Ranjan A, Chandoke RK, Tanwar P, Kumar A, Ray MD, Kshitiz KK, et al. Myeloid Sarcoma of Maxillo-Ethmoidal Sinus: An uncommon presentation of Acute Myeloid Leukemia. *Indian J Clin Pract* 2013; 24: 442-5.
1172. Ranjan A, Pramanik R, Gupta R, Tanwar P, Bharati S, Ray M, Chandoke R, Kumar A. Chronic Neutrophilic leukemia: A rare chronic myeloproliferative disorder. *Int J Hematol Oncol* 2014; 24: 145-7
1173. Ranjan R, Nath D, Dey S, Arava S. Multifocal Jejuno-ileal carcinoma in a 7 year-old boy with Peutz-Jeghers syndrome: A rare occurrence. *Indian J Med Paediatr Oncol* 2014;35:121-2.
1174. Rao A, Gupta V, Chandrashekhar G. Atypical Ocular ischemia in angle closure glaucoma and anemia. *International Ophthalmology*.2013;33(3):295-7.
1175. Rao A, Sihota R, Srinivasan G, Gupta V, Gupta A, Sharma A. Prospective evaluation of optic nerve head by

- confocal scanning laser ophthalmoscopy after intraocular pressure control in adult glaucoma. *Semin Ophthalmol* 2013;28(1):13-8.
1176. Rao R, Agrawal A, Kishore K, Ambekar A. Delivery models of opioid agonist maintenance treatment in South Asia: A good beginning." *Bull World Health Organ* 2013; 91:150-3.
1177. Rasool S, Behari M, Goyal V, Irshad M, Jaikhani BL. Presynaptic membrane receptor in human brain. *Indian J Clin Biochem.* 2013 Apr;28(2):124-35.
1178. Rastogi R, Nagpal N, Alam N, Pandey S, Gautam L, Sinha M, ... Singh TP, et al, Preparation and Antimicrobial Action of Three Tryptic Digested Functional Molecules of Bovine Lactoferrin. *Plos One* 2014; 9: e90011
1179. Rastogi S, Sankineani SR, Nag HL, Mohanty S, Shivanand G, Marimuthu K, et al. Intralesional autologous mesenchymal stem cells in management of osteonecrosis of femur: a preliminary study. *Musculoskelet Surg.* 2013 Jul;97(3): 223-8.
1180. Rath G, Mahajan C, Chouhan R, Dash H, Suri A. Effect of intraoperative brain protection with propofol on Post-operative cognition in patients undergoing temporary clipping during intracranial aneurysm surgery. *J Neurosurg Anesthesiol.* 2013; 25 (4), 458-458
1181. Rath GK. Molecular markers in the head and neck cancers: are we there yet? *J Cancer Res Ther* 2013; 9: 1-2
1182. Rathor N, Chandolia A, Saini NK, Sinha R, Pathak R, Garima K, Singh S, Varma-Basil M, Bose M. An insight into the regulation of mce4 operon of Mycobacterium tuberculosis. *Tuberculosis (Edinb).* 2013;93(4):389-97.
1183. Rautji R, Kumar A, Behera C. Attitude of medical students towards medico-legal/clinical autopsy. *J Indian Acad Forensic Med* 2013; 35 (4): 358-61
1184. Ray BR, Anand RK, Khanna P, Baidya DK. Dental guard: An alternative solution for loose tooth. *J Anaesth Clin Pharmacol* 2013;29:424-5.
1185. Ray BR, Baidya DK, Goswami D, Trikha A, Roychoudhury A, Bhutia O. Anaesthetic management of maxillofacial trauma. *Trends Anaesthesia Crit Care* 2013; 3: 231-7.
1186. Ray S, Sharma S, Maheshwari A, Aneja S, Kumar A. Heat stroke in an infant with hypohidrotic ectodermal dysplasia: brain magnetic resonance imaging findings. *J Child Neurol* 2013; 28(4): 538-40.
1187. Reddy A, Bisoi AK, Singla S, Patel CD, Das S. Adenosine stress myocardial perfusion scintigraphy in pediatric patients after arterial switch operation. *Indian J Nucl Med* 2013; 28 (4): 210-15. DOI:10.4103/0972-3919.121965.
1188. Reed GM, Roberts MC, Keeley J, Hooppell C, Matsumoto C, Sharan P, et al. Mental health professionals' natural taxonomies of mental disorders: implications for the clinical utility of the ICD-11 and the DSM-5. *J Clin Psychol* 2013;69:1191-212.
1189. Regmi SK, Kumar R. Re: Elkoushy et al.: Pulsed Fluoroscopy in Ureteroscopy and Percutaneous Nephrolithotomy. *Urology.* 2013;81, 469
1190. Regmi SK, Walia R, Kumar R. An Unusual Cause of Urinary Retention in a Young Female: A Case Report. *Urol Int.* 2013;PMID:23860360
1191. Rewari V, Ramachandran R, Parakh N, Singh P, Jayanandan SE. Intraoperative interfascicular ventricular tachycardia: A rare occurrence. *Indian J Anaesth.* 2014;58:76-8.
1192. Rewari V, Ramachandran R. Prolonged steep Trendelenburg position: risk of postoperative upper airway obstruction. *J Robotic Surg* 2013;7:405-6.
1193. Rijal L, Nepal P, Ansari T, Joshi KN, Joshi A. Use of ring fixator in the management of degloving injuries of lower limb. *Eur J Orthop Surg Traumatol* 2013;23:493-6.
1194. Rishi K, Venkatesh P, Garg SP. Management of retinal detachment in block related globe perforation with pneumatic retinopexy. *Indian J Ophthalmol.* 2013;61(3):131-2.
1195. Rizwan SA, Kumar R, Singh AK, Kusuma YS, Yadav K, Pandav CS. Prevalence of primary hypertension in

adult tribal populations of India - a systematic review and meta-analysis. PLoS One 2014; 9: e9 5896-1 - e9 5896 -10

1196. Rizwan SA, Nongkynrih B, Charlette Lena, Krishnan A. Temporal Dimension in Reference Standard Misclassification – A Concept Note. *J Clin Diagn Res* 2014 Jul;8(7):1-5.
1197. Rodriguez-Luna D, Dowlatshahi D, Aviv RI, Molina CA, Silva Y, Bhatia R, Padma MV, et al; PREDICT/Sunnybrook ICH CTA Study Group. Venous phase of computed tomography angiography increases spot sign detection, but intracerebral hemorrhage expansion is greater in spot signs detected in arterial phase. *Stroke* 2014;45(3):734–9.
1198. Rosenberg J, Bauchner H, Backus J, De Leeuw P, Drazen J, Frizelle F, ..., Sahni P, et al.; International Committee of Medical Journal Editors. The New ICMJE Recommendations. *Natl Med J India* 2013;26(5):258-9. (Published simultaneously in four journals).
1199. Roy A, Khanna N, Bahl VK. Response to letter regarding article, ‘Janeway lesions: an old sign revisited’. *Circulation* 2013;128:e119.
1200. Roy A, Khanna N, Senguttuvan NB. Rituximab-vincristine chemotherapy-induced acute anterior wall myocardial infarction with cardiogenic shock. *Tex Heart Inst* 2014;41:80-2.
1201. Roy BR, Mohan VK, Kashyap L, Shende D, Darlong VM, Pandey RK. Internal Jugular Vein Cannulation. A comparison of Three Techniques. *J Anaesth Clinical Pharmacol.* 2013;29:367-71.
1202. Roy KK, Negi N, Subbaiah M, Kumar S, Sharma JB, Singh N. Effectiveness of estrogen in the prevention of intrauterine adhesions after hysteroscopic septal resection: a prospective, randomized study. *J Obstet Gynaecol Res.* 2014 Apr;40(4):1085-8. doi: 10.1111/jog.12297. Epub 2014 Feb 26.
1203. Roy KK, Subbaiah M, Kumar S, Sharma JB, Singh N. Feto-maternal outcome in pregnancies complicated by isolated fetal congenital complete heart block. *J Obstet Gynaecol*
1204. Roy KK, Subbaiah M, Naha M, Kumar S, Sharma JB, Jahagirdar N. Intraperitoneal bupivacaine for pain relief after minilaparoscopy in patients with infertility. *Arch Gynecol* 2014; 289(2): 337-40.
1205. Roy M, Jain D, Bakhshi S, Mathur S, Iyer VK. Primary Langerhans cell histiocytosis of the thyroid gland: role of langerin in FNA cytological diagnosis. *Cytopathology* 2014;Mar 25. doi: 10.1111/cyt.12142. [Epub ahead of print]
1206. Roy S, Mallick S, Raza MW, Haresh KP, Gupta S, Sharma DN, et al. Hematologic toxicity in patients undergoing radical anti- cancer therapy: a cross-sectional analysis of patients in an oncology ward in India. *Asian Pac J Cancer Prev* 2014; 15: 3587-92.
1207. Roy S, Nag TC, Upadhyay A, Mathur R, Jain S. Repetitive auditory stimulation at a critical prenatal period modulates the postnatal functional development of the auditory as well as visual system in chicks (*Gallus domesticus*). *Dev Neurobiol* 2013;73:688-701.
1208. Roy S, Nag TC, Upadhyay AD, Mathur R, Jain S. Prenatal music stimulation facilitates the postnatal functional development of the auditory as well as visual system in chicks (*Gallus domesticus*). *J Biosci* 2014;39:1-11.
1209. Roy SS, Mahapatra R, Rath S, Bajpai A, Singh V, Rath S, et al. Improved neonatal survival after participatory learning and action with women’s groups: a prospective study in rural eastern India. *Bull World Health Organ.* 2013;91(6):426-433B.
1210. Roy TS. Recent Human Anatomy: Regional and Clinical, Vol. II and III. Jagannath Prasad, Macmillan Publishers India, NOIDA, Uttar Pradesh, ISBN 9789350591000. Book Review. *Indian Journal of Medical Research* 2013,138:277-78 and 154-55.
1211. Roy TS. Recent Human Anatomy: Regional and Clinical, Vol. II and III. Jagannath Prasad, Macmillan Publishers India, NOIDA, Uttar Pradesh, ISBN 9789350591000. Book Review. *National Medical Journal of India,* 2013;26:254-6.
1212. Sable MN, Nath D, Chumbar S, Das CJ, Priyadarshini P, Kaur K, et al. Pelvic mature cystic teratoma with neuroendocrine carcinoma: Report of a rare association and review of literature. *Indian J Pathol Microbiol.* 2014 Jan-Mar;57(1):113-5.

1213. Sagar R, Mehta M, Chugh G. Road rage: an exploratory study on aggressive driving experience on Indian roads. *Int J Soc Psychiatry* 2013;59:407-12.
1214. Sagar R, Pattanayak RD. Self-help approaches for common mental health problems: Potential utility in Indian context. *J Ment Health Human Behav* 2013;18:
1215. Sagar R. Book review; Child and Adolescent Mental Health. *Natl Med J India* 2013;26:178-9.
1216. Sagar R. Link between Personality and Physical Health: scope for interventions. *J Ment Health Human Behav* 2013;18:1-4.
1217. Sagar S, Kumar S, Gupta A, Singhal M, Mishra B. Successful management of a case of primary cutaneous mucormycosis in an immunocompetent host. *Wounds* 2013; 25 (5): 136-40.
1218. Sah RG, Agarwal K, Sharma U, Parshad R, Seenu V, Jagannathan NR. Characterization of malignant breast tissue of breast cancer patients and the normal breast tissue of healthy lactating women volunteers using diffusion MRI and in vivo 1H MR spectroscopy. *J Magn Reson Imaging*. 2013 Nov 22.
1219. Saha PK, Sharma PK, Sharma SK, Singh A, Mitra DK. Recruitment of Th1 effector cells in human tuberculosis: hierarchy of chemokine receptor(s) and their ligands. *Cytokine* 2013; 63(1): 43-51.
1220. Saha S, Goswami R. Menstruation associated hypocalcemic symptoms and serum calcium in patients with idiopathic hypoparathyroidism. *BMC Endocr Disord* 2014;14: 28.
1221. Sahai P, Joshi P, Sharma DN, Haresh KP, Chandrashekhara SH, Julka PK, Safaya R, Rath GK. Malignant epithelioid hemangioendothelioma of liver. *Translational Gastrointest Cancer* 2013; 1: 272-76
1222. Sahai P, Mohanti BK, Nath D, Bhasker S, Chander S, Bakhshi S, Singh CA. Malignant peripheral nerve sheath tumor of the maxilla. *Case Rep Otolaryngol* 2014, article ID 230849; <http://dxdoi.org/10.1155/2014/230849>.
1223. Sahai P, Singh K, Sharma A, Ghosh R, Nembang P, Sarkar C, et al. Recurrent sebaceous carcinoma of the scalp in a young male treated with adjuvant radiotherapy. *J Cancer Res Ther*. 2013 Oct-Dec;9(4):730-2.
1224. Sahoo MC, Satpathy S, Arya S, Lathwal A. Study of cases filed under CPA at an apex tertiary care teaching hospital in India. *Medico-Legal Update* 2014; Vol. 14 No. 1.
1225. Sahoo MK, Karunanithi S, Bal CS. Pulmonary alveolar microlithiasis: imaging characteristics of planar and SPECT/CT bone scan versus 18F-FDG and 18F-sodium fluoride PET/CT scanning. *Jpn J Radiol*. 2013;31:766-9.
1226. Sahoo MK, Sharma P, Suman S, Jain TK, Bal C, Kumar R. Gallbladder carcinoma metastasizing to adrenal gland: a rare site demonstrated with (18)F-FDG PET/CT. *Clin Nucl Med*. 2014 Feb;39(2):184-5.
1227. Sahu A, Dalal K, Naglot S, Aggarwal P, Krishna CM. Serum based diagnosis of asthma using Raman spectroscopy: an early phase pilot study. *PLoS One* 2013; 8: e78921.
1228. Sahu JK, Gulati S, Sapra S, Arya R, Chauhan S, Chowdhury MR et al. Effectiveness and safety of donepezil in boys with fragile x syndrome: a double-blind, randomized, controlled pilot study. *J Child Neurol* 2013;28;570-5
1229. Sahu SS, Gunasekaran K, Raju HK, Vanamail P, Pradhan MM, Jambulingam P. Response of malaria vectors to conventional insecticides in the southern districts of Odisha State, India. *Indian J Med Res* 2014;139:294-300.
1230. Saini AK, Regmi S, Seth A, Narayan R, Singh P, Dogra PN. Author Reply. *Urology* 2013; 82:856.
1231. Saini AK, Regmi S, Seth A, Narayan R, Singh P, Dogra PN. Outcome analysis of tumors in undescended testes—a single center experience of 15 years. *Urology* 2013; 82:852-6.
1232. Saini C, Prasad HK, Rani R, Murtaza A, Misra N, Narayan NPS, Nath I. Lsr2 of *Mycobacterium leprae* and Its Synthetic Peptides Elicit Restitution of T Cell Responses in Erythema Nodosum Leprosum and Reversal Reactions in Patients with Lepromatous Leprosy. *Clin Vaccine Immunol* 2013; 20(5): 673-82.
1233. Saini P, Meena S, Malhotra R, Gamanagatti S, Kumar V, Jain V. Pseudoaneurysm of the superior lateral genicular artery: case report of a rare complication after total knee arthroplasty. *Patient Saf Surg* 2013; 7(1): 15.

1234. Salve H, Goswami K, Sagar R, Nongkynrih B, Sreenivas V. Perception and attitude towards mental illness in an urban community in South Delhi - A community based study. *Indian J Psychol Med* 2013;35:154-8.
1235. Salve H, Kharya P, Misra P, Rai SK, Kant S. Psychiatric morbidity at secondary level health facility in Ballabgarh, Haryana. *Ind Psychiatry J* 2013;22:86-8
1236. Salve H, Rizwan SA, Kharya P, Rai SK, Kant S. Transversal analysis of malaria outbreak in non-endemic region of rural Haryana, north India. *J Vector Borne Dis* 2014;51:53-7
1237. Salve H, Goswami K, Sagar R, Nongkynrih B, Sreenivas V. Perception and Attitude towards Mental Illness in an Urban Community in South Delhi – A Community Based Study. *Indian J Psychol Med* 2013; 35 (2): 154–158
1238. Sampath Kumar V, Khan SA, Palaniswamy A, Rastogi S. Multifocal osteoid osteoma of tibia. *BMJ Case Rep.* 2013 Dec 5; 2013.
1239. Sampath Kumar V, Jalan D, Khan SA, Mridha AR. Aneurysmal bone cyst of medial cuneiform and a novel surgical technique for mid-foot reconstruction. *BMJ Case Rep.* 2014 Feb 21; 2014.
1240. Sankar J, Nabeel R, Sankar MJ, Priyambada L, Mahadevan S. Factors affecting outcome in children with snake envenomation: a prospective observational study. *Arch Dis Child.* 2013 Aug;98(8):596-601.
1241. Sankar J, Singh A, Sankar MJ, Joghee S, Dewangan S, Dubey N. Pediatric Index of Mortality and PIM2 Scores Have Good Calibration in a Large Cohort of Children from a Developing Country. *Biomed Res Int.* 2014; 2014: 907871.
1242. Sankar J, Vijayakanthi N, Sankar MJ, Dubey N. Knowledge and skill retention of in-service versus preservice nursing professionals following an informal training program in pediatric cardiopulmonary resuscitation: a repeated-measures quasiexperimental study. *Biomed Res Int.* 2013;2013:403415.
1243. Sankar MJ, Kalaivani M. Ringers lactate or normal saline for children with severe dehydration: change from baseline analysis vs ‘conventional’ ANCOVA. *Indian Pediatr.* 2013 May 8;50(5):525-6.
1244. Sankar MJ, Paul VK. Efficacy and safety of whole body skin cleansing with chlorhexidine in neonates—a systemic review. *Pediatr Infect Dis J.* 2013 Jun;32(6):e227-34.
1245. Sankhyan N, Gulati S, Hari S, Kabra M, Ramakrishnan L, Kalra V. Noninvasive screening for preclinical atherosclerosis in children on phenytoin or carbamazepine monotherapy: a cross sectional study. *Epilepsy Res.* 2013;107(1-2):121-6
1246. Sankhyan N, Lodha R, Sharma S, Menon PR, Choudhary A, Kabra SK, Gulati S. Peripheral Neuropathy in Children on Stauvudine Therapy. *Indian J Pediatr* 2014;Epub ahead of print
1247. Sankhyan N, Sharma S, Konanki R, Gulati S. Childhood Guillain-Barré syndrome subtypes in northern India. *J Clin Neurosci* 2014;21:427-30
1248. Sankoh O, Sharrow D, Herbst K, Kabudula CW, Alam N, Kant S et al. The INDEPTH standard population for low- and middle-income countries, 2013. *Glob Health Action* 2014, 7: 23286 - <http://dx.doi.org/10.3402/gha.v7.23286>
1249. Sanyal T, Kumar V, Nag TC, Jain S, Sreenivas V, Wadhwa S. Prenatal loud music and noise: Differential impact on physiological arousal, hippocampal synaptogenesis and spatial behavior in one day-old chicks. *PLoS ONE* 2013;8(7):e67347.
1250. Sanyal T, Palanisamy P, Nag TC, Roy TS, Wadhwa S. Effect of prenatal loud music and noise on total number of neurons and glia, neuronal nuclear area and volume of chick brainstem auditory nuclei, field L and hippocampus: A stereological investigation. *Int J Dev Neurosci* 2013;31:234-44.
1251. Sarat PC, Bal CS, Jain S, Joshua PS, Gaikwad S, Garg A, Ansari A, Nehra A, et al. Intraoperative Coregistration of Magnetic Resonance Imaging, Positron Emission Tomography, and Electrographic Data for Neocortical Lesional Epilepsies May Improve the Localization of the Epileptogenic Focus: A Pilot Study. *World Neurosurg* 2014.
1252. Sarkar S, Khandelwal SK. Orfloxacin induced hypomania. *J Clin Diagnostic Res* 2013;7:1469-70
1253. Sarkar S, Lodha R, Vatsa M. Clinical audit of pediatric medication in a tertiary care hospital *Nurs J India* 2013;104:252-4

1254. Sarvesh PS, Chauhan S, Choudhary M, Malik V, Talwar S, Milind PH, Devagourou V. Modified Blalock Taussig shunt: comparison between neonates, infants and older children. *Ann of Cardiac Anaesthesia* 2014
1255. Sarvesh PS, Kapoor PM, Devagourou V. Pulmonary vein stenosis in a child with ventricular septal defect. *Asian Cardiovascular and Thoracic Ann* 2013
1256. Sarvottam K, Magan D, Yadav RK, Mehta N, Mahapatra SC. Adiponectin, Interleukin 6 and cardiovascular disease risk factors are modified by a short term yoga based life style intervention in overweight/ obese male subjects. *J Altern Complement Med* 2013; 19: 397-402.
1257. Sarvottam K, Yadav RK. Obesity-related inflammation and cardiovascular diseases: efficacy of yoga-based lifestyle intervention. *Indian J Med Res* 2014;139:822-34.
1258. Sarwal MM, Bagga A. Quality of life after organ transplantation in children. *Curr Opin Organ Transplant* 2013;18:563-8
1259. Sasi A, Chandrakumar N, Deorari A, Paul VK, Shankar J, Sreenivas V, Agarwal R. Neonatal self-inflating bags: achieving titrated oxygen delivery using low flows: an experimental study. *Journal of Paediatric Child Health* 2013;49:671-7
1260. Satyaraddi A, Velpandian T, Sharma SK, Vishnubhatla S, Sharma A, Sirohiwal A, Nakharia GK, Sinha S, Biswas A, Singh S. Correlation of plasma anti-tuberculosis drug levels with subsequent development of hepatotoxicity. *Int J Tub Lung Dis* 2014; 18 (2): 188-195.
1261. Sawhney C, Kaur M, Lalwani S, Gupta B, Balkrishnan I, Vij A. Organ retrieval and banking in brain dead trauma patients: Our experience at level-1 trauma center and current views. *Indian J Anesthesia* 2013; 57: 241-7
1262. Saxena A, Anil OM, Juneja R. Clinical and echocardiographic outcome in patients receiving carvedilol for treatment of dilated cardiomyopathy. *Indian J Pediatr* 2013;80:549-54.
1263. Saxena R, Bandyopadhyay G, Singh D, Singh S, Sharma P, Menon V. Evaluation of changes in retinal nerve fiber layer thickness and visual functions in cases of optic neuritis and multiple sclerosis. *Indian J Ophthalmol.* 2013 Oct;61(10):562-6.
1264. Saxena R, Muthukkumaran S, Kumar S, Talwar S, Choudhary SK. 2 Migrated Kirschner wire in the posterior mediastinum *Heart Lung Circ.* 2014; 23:E109-10.
1265. Saxena R, Phuljhele S, Menon V, Gadaginamath S, Sinha A, Sharma P. Clinical profile and short-term outcomes of optic neuritis patients in India. *Indian J Ophthalmol.* 2013 Nov 11.
1266. Saxena R, Puranik S, Singh D, Menon V, Sharma P, Phuljhele S. Factors predicting recurrence in successfully treated cases of anisometropic amblyopia. *Indian J Ophthalmol.* 2013 Nov;61(11):630-3.
1267. Saxena R, Saleheen D, Mehra NK, Ralhan S, Kamboh MI, Mulvihill JJ, , Sanghera DK. et al. Genome-wide association study identifies a Novel Locus Contributing to Type 2 diabetes susceptibility in Sikhs of Punjabi Origin from India. *Diabetes* 62(5):1746-55, 2013.
1268. Saxena R, Sharma R. Childhood Nystagmus. *DOS Times* 19 (8); 2014: 47-51.
1269. Saxena R, Singh D, Vashist P. Glaucoma: an emerging peril. *Indian J Community Med.* 2013 Jul;38(3):135-75.
1270. Saxena R, Singh D. Swollen Optic Disc. *Uttaranchal J Ophthalmol* 2013; 8(1): 52-5.
1271. Saxena R, Sinha A. Tips and Tricks for Successful Outcome in Squint. *DOS Times* 19(6) 2013; 29-34.
1272. Saxena R, Vashist P, Menon V. Is myopia a public health problem in India? *Indian J Community Med.* 2013 Apr;38(2):83-5
1273. Saxena R. "Expert Corner" Neuro-ophthalmology; *DOS Times* 19(6): 2013; 11-17.
1274. Saxena R. Management Options in Intermittent Divergent Squint. *TNOA journal* August 2013; 25-29
1275. Saxena T, Tandon B, Sharma S, Chameettachal S, Ray P, Ray AR, Kulshreshtha. Combined miRNA and mRNA Signature Identifies Key Molecular Players and Pathways Involved in Chikungunya Virus Infection in Human Cells. *Plos One*, 2013, 8(11):e79886.

1276. Schaefer F, Coppo R, Bagga A, Senguttuvan P, Schlosshauer R, Zhang Y, et al. Efficacy and safety of valsartan in hypertensive children 6 months to 5 years of age. *J Hypertens* 2013;31:993-1000
1277. Seeberg J, Pannarunothai S, Padmawati RS, Trisnantoro L, Barua N, Pandav CS. Treatment seeking and health financing in selected poor urban neighbourhoods in India, Indonesia and Thailand. *Soc Sci Med* 2014; 102: 49-57
1278. Sehgal R, Gulati S, Sapra S, Tripathi M, Kabra M, Pandey RM. Neurodevelopmental and epilepsy outcome in children aged one to five years with infantile spasms—a North Indian cohort. *Epilepsy Res* 2014;108(3):526-34.
1279. Sehgal R, Khandpal S, Dadhwal V, Kriplani A. Socio-demographic and risk-behaviour among women infected with HIV and their partners. *JPOG* 2013;11:371-376.
1280. Sehra SV, Titiyal JS, Sharma N, Tandon R, Sinha R. Change in corneal microstructure with rigid gas permeable contact lens use following collagen cross-linking: an in vivo confocal microscopy study. *Br J Ophthalmol*. 2014 Apr;98(4):442-7. Epub 2013 Dec 24
1281. Selvarajah S1, Hammond ER, Haider AH, Abularrage CJ, Becker D, Dhiman N, Gupta D, et al. The burden of acute traumatic spinal cord injury among adults in the united states: an update. *J Neurotrauma*. 2014 Feb 1;31(3):228-38.
1282. Sen S, Chhabra A, Ganguly A, Baidya DK. Esophageal polyp as a posterior mediastinal mass: intraoperative dynamic airway obstruction requiring emergency tracheostomy. *J Anaesth Clin Pharmacol* 2014;30:97-100.
1283. Sen S, Lyngdoh AD, Pushker N, Meel R, Bajaj MS, Chawla B. Impression cytology diagnosis of ulcerative eyelid malignancy. *Cytopathology*. 2014. doi: 10.1111/cyt.12133.
1284. Sengupta S, Panda SK, Acharya SK, Durgapal H. Role of hepatitis B virus genotype D & its mutants in occult hepatitis B infection. *Indian J Med Res* 2013;138(3):329-39.
1285. Senguttuvan NB, Goswami KC. Clapping atrio-ventricular valves. *Heart* 2013;99:1140.
1286. Senjam S. Comparison of Health Promoting Behavior among Manipuri and Native north Indian Students in Chandigarh, India. *Int J Curr Res Review* 2014;6:51-6 .
1287. Seth A, Ram I. Cloacal anomaly with bladder tumor. *Indian J Urol*. 2013 Apr;29(2):142-4.
1288. Seth R, Das R, Singh A, Puri K. Clinical profile and chemotherapy response in children with Hodgkin lymphoma at a tertiary care centre. *Indian Society of Medical and Pediatric Oncology. Indian Journal of Cancer* 2013;50:P-5232
1289. Seth R, Kumar R, Chopra A, Singh A. Absence of minimal residual disease at end of induction is a good prognostic marker for treatment outcomes in childhood B-lineage acute lymphoblastic leukemia: Report from a tertiary center in India. *Indian Journal of Cancer* 2013;50:P-S232
1290. Sethi BS, Gupta K, Chauhan S, Choudhary SK. Lung decortications and lobectomy in a child with unrepaired tetralogy of fallot. *World J Pediatr Congenit Heart Surg* 2013; 4:430-32.
1291. Sethi BS, Kapoor PM, Chauhan S, Ujjwal K, Chowdhury UK, Kiran U, Choudhury M. Perioperative Levels of Tumor Necrosis Factor- α Correlate with Outcomes in children and Adults with Tetralogy of Fallot Undergoing Corrective Surgery. *World J Pediatr Cong Heart Surg* 2014; 5 (1): 38-46
1292. Sethi S, Pushker N, Kashyap S, Sharma S, Mehta M, Bakhshi S, et al. Extraocular retinoblastoma in Indian children: clinical, imaging and histopathological features. *Int J Ophthalmol* 2013;6(4):481-486.
1293. Sethuraman G, Ramesh V. Cutaneous tuberculosis in children. *Pediatr Dermatol* 2013; 30: 7-16
1294. Sethuraman G, Sharma VK, Sreenivas V. Melanin Index in Assessing the Treatment Efficacy of 1064 nm Q Switched Nd-Yag Laser in Nevus of Ota. *J Cutan Aesthet Surg*. 2013 Oct;6(4):189-93.
1295. Sethuraman G, Sreenivas V, Yenamandra VK, Gupta N, Sharma VK, Marwaha RK, et al. Threshold levels of 25(OH)D and parathyroid hormone for impaired bone health in children with congenital Ichthyosis in type IV and V skin. *Br J Dermatol*. 2014 doi: 10.1111/bjd.13131.
1296. Shabir I, Ganie MA, Praveen EP, Khurana ML, John J, Gupta N, et al. Morning plasma cortisol is low among obese women with polycystic ovary syndrome. *Gynecol Endocrinol* 2013; 29(12): 1045-1047.

1297. Shabir I, Ganie MA, Zargar MA, Bhat D, Mir MM, Jan A, et al. Prevalence of metabolic syndrome in the family members of women with polycystic ovary syndrome from North India. *Indian J Endocrinol Metab* 2014; 18(3): 364-79.
1298. Shabir I, Khurana ML, Marumudi E, Khadgawat R, Ammini AC. Novel nucleotide insertions in two unrelated Indian patients with 5 α reductase 2 deficiency leading to premature termination of SRD5A2 enzyme. *Steroids* 2013; 78: 1159-1163.
1299. Shah BM, Dada T, Panda A, Tanwar M, Bhartiya S, Dada R. Novel occurrence of axenfeld: Rieger syndrome in a patient with blepharophimosis ptosis epicanthus inversus syndrome. *Indian J Ophthalmol* 2013 [Epub ahead of print].
1300. Shah N, Khaitan BK, Ramam M, Sharma VK, Singh MK. Photosensitive spongiotic/lichenoid eruption of micropapules and plaques: a morphologically distinct entity. *Indian J Dermatol Venereol Leprol.* 2013 Jul-Aug;79(4):497-505.
1301. Shah N, Logani A, Kumar V. A minimally invasive surgical approach for large cyst-like periapical lesions: a case series. *Gen Dent.* 2014 Jan-Feb; 62 (1):e1-5.
1302. Shah N, Logani A. Author's reply. *J Conserv Dent.* 2013 May; 16(3):277-9.
1303. Shalimar, Das P, Sreenivas V, Datta Gupta S, Panda SK, Makharia GK. Mechanism of villous atrophy in celiac disease: role of apoptosis and epithelial regeneration. *Arch Pathol Lab Med.* 2013;137:1262-9.
1304. Sharawat SK, Bakhshi R, Vishnubhatla S, Gupta R, Bakhshi S. BAX/BCL2 RMFI ratio predicts better induction response in pediatric patients with acute myeloid leukemia. *Pediatr Blood Cancer*, 2013, 60 (8), E63-66.
1305. Sharawat SK, Bakhshi R, Vishnubhatla S, Gupta R, Bakhshi S. FLT3-ITD Mutation in Relation to FLT3 Expression in Pediatric AML: a Prospective Study from India. *Pediatr Hematol Oncol* 2014;31:131-7.
1306. Sharawat SK, Gupta R, Raina V, Kumar L, Sharma A, Iqbal S, Bakhshi R, et al. Quantitative Assessment of BAX Transcript and Flow-cytometric Expression in Acute Myeloid Leukemia: a prospective study FLT3-ITD. *Hematology.* 2014; PMID: 24620954
1307. Sharawat SK, Gupta R, Raina V, Kumar L, Sharma A, Iqbal S, Bakhshi R, Vishnubhatla S, Bakhshi S. Increased Co-Expression of c-KIT and FLT-3 Receptors on Myeloblasts: Independent Predictor of Poor Outcome in Pediatric Acute Myeloid Leukemia. *Cytometry B Clin Cytom* 2013;84:390-397.
1308. Sharma A, Aggarwal S, Ahuja V, Bal C. Evaluation of gastroesophageal reflux before and after sleeve gastrectomy using symptom scoring, scintigraphy, and endoscopy. *Surg Obes Relat Dis.* 2014 Jan 28. pii: S1550-7289(14)00026-4.
1309. Sharma A, Satpathy G, Nayak N, Tandon R, Sharma N, Titiyal JS, Panda A, Vajpayee RB, Pandey RM. Ocular Chlamydia trachomatis infections in patients attending a tertiary eye care hospital in north India: a twelve year study. *Indian J Med Res.* 2012 Dec; 136(6): 1004-10.
1310. Sharma A, Singh PM, Trikha A, Rewari V, Chandralekha. Entropy correlates with Richmond Agitation Sedation Scale in mechanically ventilated critically ill patients. *J Clin Monit Comput* 2014; 28: 193-201.
1311. Sharma A, Tilak T, Lodha R, Sharma MC, Dabkara D. Long-term survivor of human immunodeficiency virus-associated plasmablastic lymphoma. *Indian J Med Paediatr Oncol* 2013;34:96-8
1312. Sharma AP, Aggarwal S, Ahuja V, Bal CS. Evaluation of Gastroesophageal Reflux Before and After Sleeve Gastrectomy Using Symptom Scoring, Scintigraphy and Endoscopy *Surg Obes Relat Dis* 2014 Jan 28 [Epub ahead of print] doi: 10.1016/j.soard.2014.01.017
1313. Sharma BV, Pandia MP, Raut PP. Anesthetic management of a case of GAPO syndrome for Craniosynostosis surgery. *JOACP*, 2013; 29 (4): 580.
1314. Sharma C, Singh N. A synthetic chimeric peptide harbouring HPV-16 cytotoxic T lymphocyte epitopes shows therapeutic potential in a murine model of cervical cancer. *Immunol Res.* 58(1): 132-8; 2014.
1315. Sharma D, Srivastava N, Pawar S, Garg R, Nagpal VK. Infraclavicular brachial plexus block: Comparison of posterior cord stimulation with lateral or medial cord stimulation, a prospective double blinded study. *Saudi J Anaesthesia* 2013; 7 (2): 134-7.

1316. Sharma DN, Chaudhari P, Sharma S, Gupta L, Jagadesan P, Rath GK, Julka PK. Comparison of high-dose-rate intracavitary brachytherapy dosimetry with and without anesthesia in patients with cervical carcinoma. *J Appl Clin Med Phys*. 2014; 15: 4670
1317. Sharma DN, Deo SV, Rath GK, Shukla NK, Thulkar S, Madan R, Julka PK. Perioperative high-dose-rate interstitial brachytherapy boost for patients with early breast cancer. *Tumori*. 2013; 99(5): 604-10
1318. Sharma DN, Gandhi AK, Sharma S, Rath GK, Jagadesan P, Julka PK. Interstitial brachytherapy vs. intensity-modulated radiation therapy for patients with cervical carcinoma not suitable for intracavitary radiation therapy. *Brachytherapy*. 2013; 12: 311-6
1319. Sharma DN, Rastogi S, Bakhshi S, Rath GK, Julka PK, Laviraj MA, Khan SA, Kumar A. Role of extracorporeal irradiation in malignant bone tumors. *Indian J Cancer*. 2013; 50(4): 306-9.
1320. Sharma DN, Rath GK, Julka PK, Gandhi AK, Jagadesan P, Kumar S. Role of gefitinib in patients with recurrent or metastatic cervical carcinoma ineligible or refractory to systemic chemotherapy: first study from Asia. *Int J Gynecol Cancer*. 2013; 23: 705-9
1321. Sharma DN, Thulkar S, Sharma S, Gandhi AK, Haresh KP, Gupta S, Rath GK, Julka PK. High-dose-rate interstitial brachytherapy for liver metastases: first study from India. *J Contemp Brachytherapy* 2013; 5: 70-5
1322. Sharma G, Singh R, Kumar A, Sharma V, Farooque K. Acute femoral artery pseudoaneurysm due to lesser trochanter fragment: an unusual complication of an intertrochanteric fracture. *Chin J Traumatol* 2013; 16(5): 301-3.
1323. Sharma JB, Gupta SK. Acute thrombotic occlusion of internal carotid artery: a rare neurological presentation of acute promyelocytic leukaemia. *Neurol India*. 2013 Nov-Dec;61(6):662-4. doi: 10.4103/0028-3886.125281.
1324. Sharma JB, Kumar S, Goyal M, Roy KK. Prevalence of incidental perihepatic adhesions at laparotomy in cases of ovarian cancer. *Int J Gynaecol Obstet*. 2014 Jan;124(1):81. doi: 10.1016/j.ijgo.2013.07.022. Epub 2013 Oct 5.
1325. Sharma JB, Naha M, Kumar S. Successful pregnancy outcome in a case of pheochromocytoma presenting as severe pre-eclampsia with normal urinary catecholamine level. *Indian J Endocrinol Metab*. 2013 May;17(3):540-1.
1326. Sharma JB, Yadav M. New ground breaking International Federation of Gynecology and Obstetrics's classification of abnormal uterine bleeding: Optimizing management of patients. *J Midlife Health*. 2013 Jan;4(1):42-5. doi: 10.4103/0976-7800.109637.
1327. Sharma M, Gupta M, Singh D, Kumar M, Kaur P. Synthesis, evaluation and molecular docking of prolyl-fluoropyrrolidine derivatives as dipeptidyl peptidase IV inhibitors. *Chem Biol Drug Des* 2013; 82: 156-166.
1328. Sharma M, Singh A, Seth R, Kumar R, Kabra SK, Pandey RM. Hyperleukocytosis in childhood acute leukemia: Role of hydroxyurea in a randomized control trial Indian Society of Medical and Pediatric Oncology. *Indian Journal of Cancer* 2013;50:P-S231
1329. Sharma M, Singh P, Agnihotri A, Das P, Mishra A, Verma AK, Ahuja A, *et al*. Celiac disease: a disease with varied manifestations in adults and adolescents. *J Digestive Diseases* 2013; 14: 518-25.
1330. Sharma M, Vikram N, Misra A, Bhatt S, Tarique M, Luthra K, *et al*. Assessment of 11- β hydroxysteroid dehydrogenase (11- β HSD1) 4478T>G and Tumor necrosis factor- α (TNF- α) -308G>A polymorphisms with obesity and insulin resistance in Asian Indians in North India. *Mol Biol Rep*. 2013; 40(11): 6261-70.
1331. Sharma MS, Borkar SA, Kumar A, Sharma MC, Sharma BS, Mahapatra AK. Thoracic extraosseous, epidural, cavernous hemangioma: Case report and review of literature. *J Neurosci Rural Pract*. 2013; 4: 309-12
1332. Sharma N, Bhatnagar V, Srinivas M, Agarwala S, Singh MK, Sharma R. Correlation of intracystic pressure with cyst volume, length of common channel, biochemical changes in bile and histopathological changes in liver in choledochal cyst. *J Indian Assoc Pediatr Surg* 2014;19:1.
1333. Sharma N, Chacko J, Velpandian T, Titiyal JS, Sinha R, Satpathy G, Tandon R, Vajpayee RB. Author reply. *Ophthalmology*. 2013;120(9):e63-4

1334. Sharma N, Chacko J, Velpandian T, Titiyal JS, Sinha R, Satpathy G, Tandon R, Vajpayee RB. Comparative evaluation of topical versus intrastromal voriconazole as an adjunct to natamycin in recalcitrant fungal keratitis. *Ophthalmology*. 2013;120(4):677-81.
1335. Sharma N, Goel M, Bansal S, Agarwal P, Titiyal JS, Upadhyaya AD, Vajpayee RB. Evaluation of Moxifloxacin 0.5% in treatment of nonperforated bacterial corneal ulcers: a randomized controlled trial. *Ophthalmology*. 2013;120(6):1173-8.
1336. Sharma N, Jain M, Sehra SV, Maharana P, Agarwal T, Satpathy G, Vajpayee RB. Outcomes of therapeutic penetrating keratoplasty from a tertiary eye care centre in Northern India. *Cornea* 2014; 33:114-8.
1337. Sharma N, Rao K, Maharana PK, Vajpayee RB. Ocular allergy and keratoconus. *Indian J Ophthalmol*. 2013;61(8):407-9.
1338. Sharma N, Roy S, Maharana PK, Sehra SV, Sinha R, Tandon R, Titiyal JS, Vajpayee RB. Outcomes of corneal collagen crosslinking in pseudophakic bullous keratopathy. *Cornea*. 2014 Mar;33(3):243-6.
1339. Sharma N, Samal A, Sharma R, Tandon R, Titiyal JS, Satpathy G, Sen S, Vajpayee RB. Evaluation of 0.3% gatifloxacin hydrochloride in decontamination of donor corneas. *Eye Contact Lens*. 2012 Sep;38(5):295-9.
1340. Sharma N, Swarup R, Bali SJ, Maharana P, Titiyal JS, Vajpayee RB. Management of intra-Descemet membrane air bubble in big-bubble deep anterior lamellar keratoplasty. *Cornea*. 2013;32(9):1193-5.
1341. Sharma P, Arora S, Mukherjee A, Pal S, Sahni P, Garg P, et al. Predictive value of 68Ga-DOTANOC PET/CT in patients with suspicion of neuroendocrine tumors: is its routine use justified? *Clin Nucl Med* 2014;39(1):37-43.
1342. Sharma P, Dhull VS, Arora S, Gupta P, Kumar R, Durgapal P, et al. Diagnostic accuracy of (68)Ga-DOTANOC PET/CT imaging in pheochromocytoma. *Eur J Nucl Med Mol Imaging*. 2014 Mar;41(3):494-504.
1343. Sharma P, Dhull VS, Bal C, Malhotra A, Kumar R. Von Hippel-Lindau syndrome: demonstration of entire disease spectrum with (68)Ga-DOTANOC PET-CT. *Korean J Radiol*. 2014 Jan-Feb;15(1):169-72.
1344. Sharma P, Dhull VS, Jeph S, Reddy RM, Singh H, Naswa N, et al. Can hybrid SPECT-CT overcome the limitations associated with poor imaging properties of 131I-MIBG?: Comparison with planar scintigraphy and SPECT in pheochromocytoma. *Clin Nucl Med* 2013;38:e346-53.
1345. Sharma P, Dube D, Sinha M, Yadav S, Kaur P, Sharma S, et al. Structural Insights into the Dual Strategy of Recognition by Peptidoglycan Recognition Protein, PGRP-S: Structure of the Ternary Complex of PGRP-S with Lipopolysaccharide and Stearic Acid. *PLoS One* 2013; 8: e53756
1346. Sharma P, Dube D, Yadav SP, Sinha M, Kaur P, Sharma S, et al. Structural and Functional Studies of Mammalian Peptidoglycan Recognition Protein, PGRP-S. *J IISc* 2013; 94: 109-117
1347. Sharma P, Garg G, Kumar A, Mohammad F, Kumar SR, ..., Karthikeyan G, et al. Genome wide DNA methylation profiling for epigenetic alteration in coronary artery disease patients. *Gene* 2014; 541: 31-40.
1348. Sharma P, Jain S, Karunanithi S, Pal S, Julka PK, Thulkar S, et al. Diagnostic accuracy of (18)F-FDG PET/CT for detection of suspected recurrence in patients with oesophageal carcinoma. *Eur J Nucl Med Mol Imagin*. 2014; Epub ahead of print
1349. Sharma P, Jain TK, Reddy RM, Faizi NA, Bal C, Malhotra A, Kumar R. Comparison of single photon emission computed tomography-computed tomography, computed tomography, single photon emission computed tomography and planar scintigraphy for characterization of isolated skull lesions seen on bone scintigraphy in cancer patients. *Indian J Nucl Med*. 2014 Jan;29(1):22-9.
1350. Sharma P, Karunanithi S, Dhull VS, Jain S, Bal C, Kumar R. Prostate cancer with lytic bone metastases: 18F-fluorodeoxyglucose positron emission tomography-computed tomography for diagnosis and monitoring response to medical castration therapy. *Indian J Nucl Med* 2013; 28: 178-9.
1351. Sharma P, Khangembam BC, Suman KC, Singh H, Rastogi S, Khan SA, et al. Diagnostic accuracy of 18F-FDG PET/CT for detecting recurrence in patients with primary skeletal Ewing sarcoma. *Eur J Nucl Med Mol Imaging*. 2013 Jul;40(7):1036-43.
1352. Sharma P, Mishra A, Arora G, Tripathi M, Bal CS, Kumar R. Post meningitis subdural hygroma: Anatomical

and functional evaluation with Tc-99m ethylene cysteine dimer single photon emission tomography/computed tomography. *Indian J Nucl Med* 2013; 28: 23-5.

1353. Sharma P, Mukherjee A, Bal C, Malhotra A, Kumar R. Somatostatin receptor-based PET/CT of intracranial tumors: a potential area of application for 68 Ga-DOTA peptides? *AJR Am J Roentgenol* 2013;201:1340-7.
1354. Sharma P, Mukherjee A, Karunanithi S, Nadarajah J, Gamanagatti S, Khan SA, et al. modality for the diagnosis of osteoid osteoma. *Nucl Med Commun.* 2014;35:876-83.
1355. Sharma P, Singh H, Basu S, Kumar R. Positron emission tomography-computed tomography in the management of lung cancer: An update. *South Asian J Cancer.* 2013 Jul;2(3):171-178.
1356. Sharma P, Singh H, Dhull VS, Suman KC S, Kumar A, Bal C, et al. Adrenal masses of varied etiology: anatomical and molecular imaging features on PET-CT. *Clin Nucl Med.* 2014; 39: 251-60.
1357. Sharma P, Singh H, Nazar AH, Srinivas M, Kumar R. 99mTc-pertechnetate SPECT/CT for detecting recurrent foregut duplication cyst in a case with negative planar scintigraphy. *Clin Nucl Med* 2013; 38: 641-2.
1358. Sharma P, Singh H, Singhal A, Bal C, Kumar R. Detection of recurrent cutaneous angiosarcoma of lower extremity with (18)f-fluorodeoxyglucose positron emission tomography-computed tomography: report of three cases. *Indian J Dermatol* 2013;58(3):242.
1359. Sharma P, Thakar A, Suman KCS, Dhull VS, Singh H, Naswa N, et al. 68Ga-DOTANOC PET/CT for Baseline Evaluation of Patients with Head and Neck Paraganglioma, *J Nucl Med* 2013;54(6):841-7.
1360. Sharma P, Tomer R, Menon V, Saxena R, Sharma A. Evaluation of periosteal fixation of lateral rectus and partial VRT for cases of exotropic Duane retraction syndrome. *Indian J Ophthalmol.* 2013 Nov 11.
1361. Sharma P, Tyagi S. NSE/áNAE positivity in B-lineage acute lymphoblastic leukemia: revisiting a potential cytochemical diagnostic pitfall. *Biotech Histochem* 2014; 89(1): 19-22.
1362. Sharma P, Yamini S, Dube D, Singh A, Mal G, Pandey N, et al. Structural basis of the binding of fatty acids to peptidoglycan recognition protein, PGRP-S through second binding site. *Arch Biochem Biophys* 2013; 529: 1-10
1363. Sharma PK, Shukla G, Gupta A, Goyal V, Srivastava A, Behari M. Primary sleep disorders seen at a Neurology service-based sleep clinic in India: Patterns over an 8-year period. *Ann Indian Acad Neurol.* 2013 Apr;16(2):146-50.
1364. Sharma R, Jhanji V, Satpathy G, Sharma N, Khokhar S and Agarwal T. Co-infection with *Acanthamoeba* and *Pseudomonas* in Contact Lens-associated keratitis. *Optom Vis Sci* 2013 : 90(2) : e53-5.
1365. Sharma R, Majumdar S, Sobti A, Arora T, Agarwal T, Dada T. Comparison of Tono-Pen AVIA intraocular pressure measurements performed at limbus with central corneal Tono-Pen AVIA intraocular pressure. *Cornea.* 2013;32(7):943-6.
1366. Sharma R, Sharma A, Arora T, Sharma S, Sobti A, Jha B, Chaturvedi N, Dada T. Application of anterior segment optical coherence tomography in glaucoma. *Surv Ophthalmol* 2013.doi:pii:S0039-6257(13)00143-4.
1367. Sharma S, Gupta D, Mohanty S, Jassal M, Agrawal AK, Tandon R. Surface-modified electrospun poly (epsilon-caprolactone) scaffold with improved optical transparency and bioactivity for damaged ocular surface reconstruction. *Invest Ophthalmol Vis Sci.* 2014 Feb 12; 55(2):899-907. doi: 10.1167/iovs.13-12727.
1368. Sharma S, Jain P, Gulati S, Sankhyan N, Agarwala A. Use of the Modified Atkins Diet in Lennox Gastaut Syndrome. *J Child Neurol* 2014(March 20)
1369. Sharma S, Juneja R, Sharma G, Arava S, Ray R. Desmin-related restrictive cardiomyopathy in a paediatric patient: a case report. *Indian J Pathol Microbiol* 2013;56:402-4.
1370. Sharma S, Mohanty S, Das P, Datta Gupta S, Kumar L, Gupta D. Propitious role of bone marrow-derived mononuclear cells in an experimental bile duct ligation model: potential clinical implications in obstructive cholangiopathy. *Pediatr Surg Int.* 2013;29:623-32. Epub 2013 Apr 19.
1371. Sharma S, Nag TC, Thakar A, Bhardwaj DN, Roy TS. The aging human cochlear nucleus: changes in the glial fibrillary acidic protein, intracellular calcium regulatory proteins, GABA neurotransmitter and cholinergic receptor. *J Chem Neuroanat* 2014;56:1-12.

1372. Sharma S, Sen A. Complete testicular epididymal dissociation in the abdominal cryptorchid testis. *J Pediatr Urol* 2013;9: 1023-7
1373. Sharma S, Singh AK, Kaushik S, Sinha M, Singh RP, Sharma P, et al. Lactoperoxidase: Structural Insights into Function, Ligand Binding and Inhibition. *Int J Biochem Mol Biol* 2013; 4: 108-128
1374. Sharma S, Singh S, Sen A. Congenital double duodenal diaphragms in an infant. *J Indian Assoc Pediatr Surg* 2013; 18:147-8
1375. Sharma S, Sinha M, Kaushik S, Kaur P, Singh TP. C-lobe of lactoferrin: The whole story of a half molecule. *Biochem Res Int* 2013; 2013: e271641
1376. Sharma S, Tandon R, Mohanty S, Kashyap S, Vanathi M. Phenotypic evaluation of severely damaged ocular surface after reconstruction by cultured limbal epithelial cell transplantation. *Ophthalmic Res.* 2013;50(1):59-64. doi: 10.1159/000346868.
1377. Sharma S, Tripathi M. Ketogenic diet in epileptic encephalopathies. *Epilepsy Res Treat.* 2013;2013:652052.
1378. Sharma S, Vanathi M, Mohanty S, Tandon R. Limbal epithelial stem cells in corneal regeneration. *Recent advances. Delhi J Ophthalmol* 2013; 24: 43-50.
1379. Sharma S, Gupta DK, Mohanty S, Datta Gupta S, Das P, Kumar L. Plausible hepatocyte transdifferentiation following bone marrow-derived mononuclear cells in congenital obstructive cholangiopathy. *J Pediatr Surg* 2014
1380. Sharma SK, Gupta S, Durgapal P, Mukherjee A, Seth T, Mishra P, et al. Disseminated histoplasmosis in a patient with aplastic anemia. *Indian J Hematol Blood Transfus* 2014;30:142-4.
1381. Sharma SK, Kumar S, Agrawal N, Singh L, Mukherjee A, Dar L et al. Cytomegalovirus reactivation following hematopoietic stem cell transplantation. *J Infect Dev Ctries.* 2013; 7:1003-7.
1382. Sharma SK, Kumar S, Singh AK, Seth T, Mishra P, Mahapatra M, et al. Feasibility and outcome of CT-guided lung biopsy in patients with hematological diseases and suspected fungal pneumonia. *J Infect Dev Ctries* 2013; 7(10): 748-52.
1383. Sharma SK, Kumar S, Singh AK, Seth T, Mishra P, Sharma S, et al. Diffuse alveolar haemorrhage following allogeneic peripheral blood stem cell transplantation: A case report and short review. *Indian J of Hematol and Blood Transfus.* 2014, 30; 41-4.
1384. Sharma SK, Kumar S, Vijayakumar AR, Seth T, Mishra P, Mahapatra M, Sazawal S, Velpandian T, Saxena R. Utility of the trough plasma imatinib level monitoring at two time points in patients with the chronic myeloid leukemia-chronic phase. *J Cancer Res Ther.* 2014 Apr-Jun; 10 (2): 305-8.
1385. Sharma SK, Singh PK, Seth T, Mishra P, Mahapatra M. Antithymocyte globulin induced recurrent seizures in a case of severe aplastic anemia. *Indian J Hematol Blood Transfus* 2014; 30 (1): 70-1.
1386. Sharma SK, Soneja M, Prasad KT, Ranjan S. Clinical profile & predictors of poor outcome of adult HIV-tuberculosis patients in a tertiary care centre in north India. *Indian J Med Res.* 2014 Jan;139(1):154-60.
1387. Sharma SK, Soneja M, Ranjan S, Miglani S, Hari S, Sinha S, et al. Progressive multifocal leucoencephalopathy in HIV/AIDS: observational study from a tertiary care centre in northern India. *Indian J Med Res.* 2013;138:72-7.
1388. Sharma U, Jagannathan NR. Characterization of breast tissues by diffusion weighted MR imaging. *Biomedical Spectroscopy Imaging* 2014;3:1–13
1389. Sharma V, Dahiya S, Jangra P, Das BK, Kumar R, Sood S, Kapil A. Study of the role of efflux pump in ciprofloxacin resistance in *Salmonella enterica* serotype Typhi. *Indian J Med Microbiol.* 2013; 31:374-8.
1390. Sharma VB, Prabhakar H, Rath GP, Bithal PK. Comparison of dexmedetomidine and lignocaine on attenuation of airway and pressor responses during tracheal Extubation. *J Neuroanaesthesiol Crit Care* 2014; 1(1): 50-55
1391. Sharma VB, Prabhakar H, Rath GP, Bithal PK. Perioperative management and postoperative outcome following Moyamoya disease: our institutional experience and review of literature. *J Neuroanaesthesiol Crit Care* 2014; 1(2): 131-136

1392. Sharma VK, Raj D, Xess I, Lodha R, Kabra SK. Prevalence and risk factors for allergic bronchopulmonary aspergillosis in Indian children with cystic fibrosis. *Indian Pediatr* 2014;51:295-7
1393. Sharma VK, Singh S, Ramam M, Kumawat M, Kumar R. A randomized placebo-controlled double-blind pilot study of methotrexate in the treatment of H1 antihistamine-resistant chronic spontaneous urticaria. *Indian J Dermatol Venereol Leprol.* 2014;80(2):122-8.
1394. Sharma VK, Khandpur S. Evaluation of cyclophosphamide pulse therapy as an adjuvant to oral corticosteroid in the management of pemphigus vulgaris. *Clin Exp Dermatol.* 2013;38(6):659-64.
1395. Shetkar SS, Doshi SR, Seth S. Vanishing pulmonary oedema, a visual delight! *Eur Heart J* 2014;35:454.
1396. Shetkar SS, Gupta SK, Gulati GS, Juneja R. Right Superior Vena Cava to Left Atrium: Importance of 'Bubbling It Right'. *Echocardiography* 2014. doi: 10.1111/echo.12562. [Epub ahead of print]
1397. Shetkar SS, Kothari SS. Double-outlet left atrium: Ventriculo-atrial malalignment defect. *Ann Pediatr Cardiol* 2013;6:158-61.
1398. Shetkar SS, Ramakrishnan S, Seth S, Chandna P, Verma SK, Bhargava B, Bahl VK. CYP 450 2C19 polymorphisms in Indian patients with coronary artery disease. *Indian Heart J* 2014;66:16-24.
1399. Shimony A, Grandi SM, Pilote L, Joseph L, O'Loughlin J, Paradis G, ..., Yadav R, et al; ZESCA Investigators. Utilization of evidence-based therapy for acute coronary syndrome in high-income and low/middle-income countries. *Am J Cardiol.* 2014;113:793-7.
1400. Shivaprasad C, Marwaha RK, Tandon N, Kanwar R, Mani K, Narang A, et al. Correlation between bone mineral density measured by peripheral and central dual energy X-ray absorptiometry in healthy Indian children and adolescents aged 10-18 years. *J Pediatr Endocrinol Metab* 2013; 26(7-8): 695 – 702.
1401. Shobha N, Bal S, Boyko M, Kroshus E, Menon BK, Bhatia R, et al. Measurement of length of hyperdense MCA sign in acute ischemic stroke predicts disappearance after IV tPA. *J Neuroimaging* 2014; 24(1): 7-10.
1402. Shreshtha D, Sikka K, Singh CA, Thakar A. Foreign Body Esophagus: When endoscopic removal fails. *Indian J Otolaryngol Head Neck Surg* 2013;65 (4):380-2.
1403. Shriram AN, Krishnamoorthy K, Vanamail P. Survival of diurnally sub periodic *Wuchereria bancrofti* in *Downsiomyianivea*(Diptera: Culicidae): a density dependent factor from Andaman & Nicobar Islands. *Indian J Med Res* 2014;139:167-73.
1404. Siddiqui S, Arora S, Peipert J, Sagar S, Crandall M, Swaroop M. Survey of helmet influences of female pillions in New Delhi. *J Surg Res* 2013; 184: 404-41.
1405. Siddiqui SA, Singh PK, Garg K, Agrawal D, Sharma BS. Intra-operative K-wire breakage during odontoid screw fixation. *Neurol India.* 2014;62:203-4.
1406. Sigamani E, Wari MN, Iyer VK, Agarwala S, Sharma A, Bakhshi S, Dinda A. Loss of heterozygosity at 11p13 and 11p15 in Wilms tumor: a study of 22 cases from India. *Pediatr Surg Int* 2013;29:223-7
1407. Sikari AK, Jaiswal AK, Detection of Carbon Monoxide in Blood, *J. Inst. Chemists,* 2013; 85 (3): 65-69.
1408. Sikarwar J, Kaushik S, Sinha M, Kaur P, Sharma S, Singh TP. Cloning, expression and purification of Nucleoside diphosphate kinase from *Acinetobacter baumannii*. *Enzyme Res* 2013; 2013: e597028
1409. Sikri K, Tyagi JS The evolution of Mycobacterium tuberculosis dormancy models. *Current Science,* 2013, 105:607-616
1410. Silan V, Kant S, Haldar P, Goswami K, Rai SK, Misra P. HIV risk behavior among men who have sex with men. *North Am J Med Sci* 2013;5:515-22.
1411. Singh A, Agarwal A, Chakravarty J, kumari S, Rai M, Sundar S. Predictive Markers of Failure of First Line Anti Retroviral Treatment in HIV Patients in India. *J AIDS Clin Res.* 2013(4)doi:10.4172/2155-6113.1000210
1412. Singh A, Arya S, Chellani H, Aggarwal KC, Pandey RM. Prediction model for low birth weight and its validation. *Indian J Pediatr.* 2014, 81 (1), 24 – 8.
1413. Singh A, Bajpai M, Bhatnagar V, Agarwala S, Srinivas M, Sharma N. Effect of number of associated anomalies on outcome in oesophageal atresia with or without tracheoesophageal fistula patient. *Afr J Paediatr Surg*

1414. Singh A, Gopinath K, Singh N, Singh S. Deciphering the sequential events during in-vivo acquisition of drug resistance in *Mycobacterium tuberculosis*. *Int J Mycobacteriol* 2014; 3 (1): 36-40.
1415. Singh A, Haris M, Cai K, Kogan F, Hariharan H, et al. (2014) High Resolution T1 ρ Mapping of “In Vivo” Human Knee Cartilage at 7T. *PLoS ONE* 9(5): e97486.
1416. Singh A, Mohan A, Dey AB, Mitra DK. Inhibiting the programmed death 1 pathway rescues *Mycobacterium tuberculosis*-specific interferon γ -producing T cells from apoptosis in patients with pulmonary tuberculosis. *J Infect Dis*. 2013 Aug 15; 208(4): 603-15.
1417. Singh A, Palanichamy JK, Ramalingam P, Kassab MA, Luthra K, Sinha S, et al. Long term suppression of HIV-1C virus production in human peripheral blood mononuclear cells by LTR heterochromatization with short double-stranded RNA. *J Antimicrob Chemother*; 69(2): 404-15; 2014.
1418. Singh A, Panda SS, Bajpai M, Jana M, Baidya DK. Our experience, technique and long-term outcomes in the management of posterior urethral strictures. *J Pediatric Urology* 2014;10:40-44.
1419. Singh A, Sharma P, Singh D, Saxena R, Sharma A, Menon V. Evaluation of FD2 (Frisby Davis distance) stereotest in surgical management of intermittent exotropia. *Br J Ophthalmol*. 2013 Oct;97(10):1318-21.
1420. Singh A, Vajpayee M, Ali SA, Chauhan NK. Loss of ROR α DNA binding activity inhibits IL-17 expression in HIV-1 infected Indian individuals. *Viral Immunol*. 2013; 26:60-7.
1421. Singh AK, Dixit G, Sharma S, Kumar S, Yadav R, Agrawal N, Mishra P, et al. Skin manifestations associated with mantle cell lymphoma: a case report. *Mediterr J Hematol Infect Dis* 2013; 5 (1): e2013020
1422. Singh AK, Gaur P, Das SN. Natural Killer T cell anergy, co-stimulatory molecules and immunotherapeutic interventions. *Hum Immunol*. 2014, 75:250-260.
1423. Singh AK, Gaur P, Shukla NK, Das SN. Differential dendritic cell-mediated activation and functions of invariant NKT cell subsets in oral cancer. *Oral Dis*. 2014, Mar 22.
1424. Singh AK, Kalaivani M, Krishnan A, Aggarwal P, Gupta SK. Prevalence, awareness, treatment and control of hypertension among elderly persons in an urban slum of Delhi, India. *Indian J Med Specialities*. Published online on 16 October 2013.
1425. Singh AK, Radhakrishnan N, Seth T, Mishra P, Mahapatra M, Pati HP. Diamond Backfan Anemia: a tertiary care center experience. *Mediterr J Hematol Infect Dis* 2013 Jun 3; 5 (1): e2013039
1426. Singh AK, Shukla NK, Das SN. Altered Invariant Natural Killer T cell subsets and functions in patients with oral squamous cell carcinoma. *Scand J Immunol*. 2013, 78: 468-477.
1427. Singh B, Biswas I, Garg I, Sugadev R, Dey S, Khan GA. von Willebrand factor antagonizes nitric oxide synthase to promote insulin resistance during hypoxia. *Biochemistry* 2013; 53: 115
1428. Singh D, Das CJ, Baruah MP. Imaging of non alcoholic fatty liver disease: A road less travelled. *Indian J Endocrinol Metab*. 2013 Nov;17(6):990-5.
1429. Singh G, Joshi P, Rao N, Seth A. Predominantly tubular chromophobe renal cell carcinoma: an unusual histological presentation reminiscent of a neuroendocrine tumor. *Int J Surg Pathol* 2013;21(3):311-3.
1430. Singh G, Mathur SR, Iyer VK, Jain D. Cytopathology of neoplastic meningitis: A series of 66 cases from a tertiary care center. *Cyto J* 2013;10:13.
1431. Singh G, Sharma MC, Suri V, Sarkar C, Garg A, Singh M. Alveolar soft part sarcoma of the paranasal sinuses masquerading as a giant invasive pituitary adenoma. *Ann Diagn Pathol*. 2013;16:509-15.
1432. Singh GP, Pandia MP, Goyal K. Report of AIIMS neuroanaesthesia update 2013, New Delhi, India. *J Neuroanaesthesiol Crit Care* 2014; 1: 82-3.
1433. Singh GP, Prabhakar H, Kalaivani M, Anand V. Inhalational versus intravenous technique for rapid emergence from anaesthesia in patients undergoing brain tumour surgery. *Cochrane Database of Systematic Reviews*, 2013; 4: CD010467
1434. Singh GP, Prabhakar H. Report of 14th Annual ISNACC Conference at Varanasi, India. *J Neurosurg Anesthesiol*, 2013; 25: 357- 358

1435. Singh H, Garg S, Sharma R, Venkatesh P, Saxena R, Dada T.: Evaluation of the Effect of Pan Retinal Photocoagulation on Optic Nerve Head Parameters Using HRT3. *J Glaucoma* 2013 [Epub ahead of print].
1436. Singh H, Sharma P, Reddy RM, Bal C, Malhotra A, Kumar R. Sister Mary Joseph nodule in endometrial carcinoma: detection with FDG PET/CT. *Clin Nucl Med.* 2013 Jun;38(6):e263-4.
1437. Singh H, Sharma P, Suman KCS, Bal C, Malhotra A, Julka PK, et al. Apocrine sweat gland carcinoma: initial evaluation, staging, and response monitoring using 18F-FDG PET/CT. *Clin Nucl Med.* 2013 May;38(5):e223-5.
1438. Singh H, Yadav R, Patel CD. Tachycardic ventricular pacing in a patient with permanent pacemaker demonstrates stress-induced ischaemia on myocardial perfusion scan. *Europace* 2014;16:87.
1439. Singh IB, Harsvardhan R, Arya SK, Sharma DK. A Cost Analysis Study of Inpatient Care Services at a Large Tertiary Care Teaching Institute at New Delhi, India. *Int J Res Foundation Hosp Healthcare Admin* 2014; 2 (1): 15-18. 10.5005/JP Journals 100035-1009
1440. Singh J, Sankar MM, Kumar S, Gopinath K, Singh N, Mani K, Singh S. Incidence and prevalence of tuberculosis among household contacts of pulmonary tuberculosis patients in a Peri-urban population of South Delhi, India. *PLoS One.* 2013; 8 (7) e69730. doi:10.1371/journal.pone.0069730
1441. Singh K, Ray R, Sharma A, Gupta R, Bagga A, Dinda AK. Peritubular capillaries and renal function in pediatric idiopathic nephrotic syndrome. *Saudi J Kidney Dis Transpl* 2013;24:942-9.
1442. Singh L, Jain D, Madan K, Mathur SR, Chatterjee P, Guleria R, et al. Pulmonary Mycoses Diagnosed Using Exfoliative Cytology: Infection or Colonization? *Acta Cytol* 2013;57(6):604-10.
1443. Singh L, Ranjan R, Arava S, Singh MK. Role of p40 and Cytokeratin 5/6 in the differential diagnosis of sinonasal undifferentiated carcinoma. *Ann Diagn Pathol* 2014 Jan 13. pii: S1092-9134(14)00004-5. doi: 10.1016/j.anndiagpath.2014.01.003.
1444. Singh LP, Bhardwaj A, Deepak KK. Occupational noise-induced hearing loss in Indian steel industry workers: an exploratory study. *Hum Factors* 2013; 55:411-24.
1445. Singh M, Gadepalli R, Dhawan B, Mukhopadhyay K. Combination of Alpha Melanocyte Stimulating Hormone with Conventional Antibiotics against Methicillin Resistant *Staphylococcus aureus*. *PLoS One.* 2013; 89. e 73815.
1446. Singh M, Garg K, Bisht A, Sharma BS, Singh PK, Pandia M, Mahapatra A. Spinal epidural hematoma with myelitis and brainstem hemorrhage: An unusual complication of dengue fever. *Neurol India.* 2013 ;61:541-3
1447. Singh M, Sahare PD, Kumar P. Synthesis and dosimetry characteristics of a new high sensitivity TLD phosphor NaLi₂PO₄:Eu³⁺. *Radiation Measurements* 2013; 59: 8-14.
1448. Singh N, Bahadur A, Tewari A. Role of early serum beta human chorionic gonadotropin (â HCG) measurement in predicting multiple pregnancy and pregnancy wastage in an IVF-ET cycle. *J Human Reprod Sci* 2013;6 (3):213-18.
1449. Singh N, Begum AA, Malhotra N, Bahadur A, Vanamail P. Role of early serum beta human chorionic gonadotropin measurement in predicting multiple pregnancy and pregnancy wastage in an *in vitro* ET fertilization cycle. *J Human Reprod Sci* 2013; 6(3).
1450. Singh N, Das P, Datta Gupta S, Sahni P, Pandey RM, Gupta S, Chauhan SS, Saraya A. Prognostic significance of extracellular matrix degrading enzymes-cathepsin L and matrix metalloproteases-2 [MMP-2] in human pancreatic cancer. *Cancer Invest.*2013;31:461-71.
1451. Singh N, Goyal M, Kumar S, Roy KK. Successful Outcome in a rare case of pregnancy with familial hypercholesterolemia and dilated cardiomyopathy. *JOGR* 2013; 39(9): 1415-8.
1452. Singh N, Goyal M, Malhotra N, Tewari A. Predictive value of early serum beta-HCG (day 14) for successful outcome in women undergoing IVF. *J Human Reprod Sci* 2013;6 (4).
1453. Singh N, Goyal M, Sharma JB, Kumar S. Prenatal diagnosis in conjoint twins. *J of Paed Obstet & Gynecol* 2013; 4(2): 66-67.

1454. Singh N, Gupta P. Serum estradiol as a predictor of success of in vitro fertilization. *J Obstet Gynecol India* 2013.
1455. Singh N, Karmakar D, Devagorou V, Tiwari R, Kumar S. Obstetric Consideration in a rare cardiovascular catastrophe needing multidisciplinary care. *Vascular Med* 2014.
1456. Singh N, Kriplani A, Mahey R, Kachhawa G. Management of narrow introitus with Fenton's operation followed by successful pregnancy in a woman with repaired bladder exstrophy. *J Obstet Gynaecol.* 2014; 2014: Sept.4.
1457. Singh N, Malik E, Banerjee A, Chosdol K, Srinivas V, Mittal S. Anti-Mullerian Hormone: Marker for Ovarian Response in Controlled Ovarian Stimulation for IVF Patients': A First Pilot Study in the Indian Population. *J Obstet Gynecol India* 2013; 63: 268-72.
1458. Singh N, Naha M, Malhotra N, Vanamail P, Tewari A, Lata K. Comparison of GnRH agonist with GnRH antagonist in PCOS patients undergoing IVF cycle -Retrospective Analysis from a tertiary centre and review of literature. *J Human Reprod Sci* 2014;7 (1):52-71.
1459. Singh N, Zangmo R, Kumar S, Roy KK, Sharma JB, Malhotra N, Vanamail P. A prospective study on role of dehydroepiandrosterone (DHEA) on improving the ovarian reserve markers in infertile patients with poor ovarian reserve. *Gynecol Endocrinol.* 2013 Nov;29(11):989-92.
1460. Singh N, Gopal SC, Srivastava RN, Chandra T, Agarwal SP, Singh S Gupta DK, Balapure AK. In vitro maintenance of Olfactory Mucosa: with enriched Olfactory Ensheathing Cells. *J Stem Cell Res Ther* 2013, 3:1
1461. Singh P, Agnihotri A, Jindal G, Sharma PK, Sharma M, Das P, Datta Gupta S, Makharia GK. Celiac disease and chronic liver disease: is there a relationship? *Indian J Gastroenterol.* 2013;32:404-8.
1462. Singh P, Borle A, Trikha A. Post-operative unmasked bilateral vocal cord palsy attributed to pre-operative radiotherapy. *J Anaesthesiol Clin Pharmacol* 2013;29:272-4.
1463. Singh P, Das P, Jain AK, Mathan M, Mathur M, Bhat AS, Varma S, Chaturvedi MK, Datta Gupta S, Bhatnagar S. Microscopic colitis in children with chronic diarrhea. *J Pediatr Gastroenterol Nutr.* 2013;57:240-4.
1464. Singh P, Dogra PN, Regmi SK. Reply. *Urology* 2013 ;82 :99
1465. Singh P, Kumar A, Trikha A. Rural perspective about anesthesia and anesthesiologist: A cross-sectional study. *J Anaesthesiol Clin Pharmacol* 2013;29:228-34.
1466. Singh P, Kumar R. Percutaneous Nephrolithotomy in Children. *Sri Lanka J Surg* 2013;31:12-18.
1467. Singh P, Kurray L, Agnihotri A, Das P, Verma AK, Sreenivas V, Datta Gupta S, Makharia GK. Titers of Anti-tissue Transglutaminase Antibody correlate well with severity of Villous Abnormalities in Celiac Disease. *J Clin Gastroenterol.* 2014 Feb 27. [Epub ahead of print]
1468. Singh P, Mirdha BR, Ahuja V, Singh S. Loop-mediated isothermal amplification (LAMP) assay for rapid detection of *Entamoeba histolytica* in amoebic liver abscess. *World J Microbiol Biotechnol.* 2013; 29:27-32.
1469. Singh PM, Borle A, Aravindan A, Trikha A. Chest tube and air travel. Patient worsening and improving spontaneously. *J Anaesthesiol Clin Pharmacol* 2013;29:282.
1470. Singh PM, Borle A, Trikha A. Are we infusing acids into our patient's blood? *Indian J Crit Care Med* 2014;18:49-50.
1471. Singh PM, Borle A, Trikha A. Diagnostic dilemma: rare case of recurrent d-lactic acidosis leading to recurrent acute cardiac failure. *Acta Anaesthesiol Taiwan* 2013;51:94-6.
1472. Singh PM, Borle A, Trikha A. Giant oral tumor in a child with malnutrition and sickle cell trait: Anesthetic challenges. *J Anaesthesiol Clin Pharmacol* 2013;29:380-3.
1473. Singh PM, Kashyap L. Post-operative severe hypokalemia mimicking myocardial ischemia. *J Anaesth Clinical Pharmacol* 2013;29:567-8.
1474. Singh PM, Rewari V, Chandralekha, Arora MK, Trikha A. A retrospective analysis of determinants of self extubation in a tertiary care intensive care unit. *J Emerg Trauma Shock* 2013;6:241-5.

1475. Singh PM, Trikha A, Sinha R, Borle A. Measurement of consumption of sevoflurane for short pediatric anesthetic procedures: Comparison between Dion's method and Dragger algorithm. *J Anaesthesiol Clin Pharmacol* 2013;29:516–20.
1476. Singh PM, Trikha A, Sinha R, Ramachandran R, Rewari V, Borle A. Pharmaco-economics: Minute-based cost of sevoflurane in pediatric short procedures and its relation to demographic variables. *J Anaesth Clin Pharmacol* 2013; 29(3): 328-32.
1477. Singh PM, Trikha A, Sinha R, Rewari V, Ramachandran R, Borle A. Sevoflurane induction procedure: cost comparison between fixed 8% versus incremental technique in pediatric patients. *AANA J.* 2014;82(1):32-7.
1478. Singh R, Sharma MC, Sarkar C, Singh M, Chauhan SS. Transcription factor C/EBP- β mediates downregulation of dipeptidyl-peptidase III expression by interleukin-6 in human glioblastoma cells. *FEBS J.* 2014 Mar;281(6):1629-41.
1479. Singh RB, Chander S, Mohanti BK, Pathy S, Kumar S, Bhatla N, et al. Neoadjuvant chemotherapy with weekly paclitaxel and carboplatin followed by chemoradiation in locally advanced cervical carcinoma: A pilot study. *Gynecol Oncol* 2013; 129(1): 124-8.
1480. Singh S, Khaitan BK, Sharma MC, Seenu V, Kumawat M, Chatterjee P. Bowen's disease on finger: A diagnostic and therapeutic challenge. *Indian J Dermatol Venereol Leprol* 79:227-30; 2013.
1481. Singh S, Khandpur S, Sharma VK, Ramam M. Comparison of efficacy and side-effect profile of oral PUVA vs. oral PUVA sol in the treatment of vitiligo: a 36-week prospective study. *J Eur Acad Dermatol Venereol.* 2013 Nov;27(11):1344-51.
1482. Singh S, Khanna N, Ramam M, Singh M. Solitary glomangioma mimicking a venous lake at an unusual site. *Int J Dermatol* 2013; 52: 1409-11
1483. Singh S, Kumar R, Karwasra R, Kalra P, Rani S, Nayak D, et al. Evaluation of safety profile of homeopathic mother tinctures. *Indian J Res Homeopathy* 2014;8:81-6.
1484. Singh S, Munawwar A, Rao S, Mehta S, Hazarika NK. Serologic prevalence of *Toxoplasma gondii* in Indian women of child bearing age and effects of social and environmental factors. *PLoS Negl Trop Dis* 2014; 8 (3): e2737. doi: 10.1371/journal.pntd.0002737
1485. Singh S, Shariff A, Roy TS, Kumar H. Prenatal development of the myenteric plexus in human sigmoid colon. *J Morphol* 2013;30:156-66.
1486. Singh S, Shukla G, Goyal V, Srivastava AK, Singh MB, Vibha D, Behari M. Impact of sleep on the localizing value of video EEG in patients with refractory focal seizures - A prospective video-EEG with EOG and submental EMG study. *Clin Neurophysiol.* 2014 S1388-2457(14)00172-2.
1487. Singh S, Singh A, Mankotia DS, Luthra K, Irshad M. Expression of TTV-ORF2 protein for detection of anti-TTV IgG antibodies in human sera. *Adv Infect Dis* 2013; 3: 223–9.
1488. Singh S, Khandpur S, Verma P, Singh M. . Follicular Dowling Degos disease: a rare variant of an evolving dermatosis. *Indian J Dermatol Venereol Leprol* 2013;79(6):802-4..
1489. Singh S. Bio-safety precautions in tuberculosis laboratory. *Indian J Tuberc* 2013; 60(3): 135-7.
1490. Singh S. Commentary: Slow or long term on-progressor HIV patients: Indian scenario. *Indian J Med Microbiol* 2014; 32 (1): 77-78.
1491. Singh SP, Chauhan S, Choudhury M, Malik V, Choudhary SK. Recombinant activated factor VIII in cardiac surgery: single centre experience. *Asian Cardiovasc Thorac Ann* 2014; 22: 148-54.
1492. Singh SP, Chouhan S, Choudhury M, Malik V, Hote MP, Devagourou V. Modified Blalock Taussig Shunt: Comparison between neonate, infant and children. *Ann Card Anaesth* 2014; 17(3): 191-7
1493. Singh SP, Hasija S, Chauhan S. An uncommon presentation of partially ligated left atrial appendage on transesophageal echocardiography. *Ann Cardiac Anaesthesia* 2014; 17: 320-1
1494. Singh SP, Hasija S, Chauhan S. Paravalvular leak after mitral valve replacement: Advantages of 3D echocardiography. *Ann Cardiac Anaesthesia* 2014; 17: 137-8

1495. Singh SP, Makhija N, Talwar S. TEE images of inferior vena cava conduit thrombosis following extra cardiac total cavopulmonary anastomosis. *J CardiovascAnesth* 2014;28:E22-23.
1496. Singh SR, Krishna K, Behera C, Swain R, Bhardwaj DN. Fatal radiation exposure due to careless disposal of Cobalt-60 from a university lab. A case report. *J Indian Acad Forensic Med* 2013; 35 (3): 281-4
1497. Singh T, Sood R. Work place based assessments: Measuring and shaping clinical learning. *NMJI* 2013;26 (1):42-46.
1498. Singh Y, Garg MK, Tandon N, Marwaha RK. A study of insulin resistance by HOMA-IR and its cut-off value to identify metabolic syndrome in urban Indian adolescents. *J Clin Res Pediatr Endocrinol* 2013; 5(4): 245-51.
1499. Singhal A, Singla S, Sharma P, Dhull VS, Khangembam BC, Kumar R. 68Ga DOTANOC PET/CT for accurate delineation of disease extent in a case of sinonasal small cell neuroendocrine carcinoma. *Clin Nucl Med*. 2013 Oct;38(10):e395-6.
1500. Singhal A, Tripathi M. Refractory status epilepticus. *Neurol Asia* 2013;18 (1):67–71.
1501. Singla A, Shankar V, Mittal S, Garg B. Baastrup's disease: The kissing spine. *World J Clin Cases* 2014; 2 45-47
1502. Sinha A, Bagga A. Maintenance dialysis in developing countries. *Pediatr Nephrol* 2014;doi. 10.1007/s00467-013-2745-8
1503. Sinha A, Bajpai J, Saini S, Bhatia D, Gupta A, Puraswani M, Dinda AK, et al. Serum-soluble urokinase receptor levels do not distinguish focal segmental glomerulosclerosis from other causes of nephrotic syndrome in children. *Kidney Int* 2014 Mar;85(3):649-58.
1504. Sinha A, Gulati A, Saini S, Blanc C, Gupta A, Gurjar BS, et al. Prompt plasma exchanges and immunosuppressive treatment improves the outcomes of anti-factor H autoantibody-associated hemolytic uremic syndrome in children. *Kidney Int* 2014;85:1151-60
1505. Sinha A, Yadav AK, Chakraborty S, Kabra SK, Lodha R, Kumar M, et al. Exosome-enclosed microRNAs in exhaled breath hold potential for biomarker discovery in patients with pulmonary diseases. *J Allergy Clin Immunol* 2013;13:219-222.
1506. Sinha M, Gautam L, Shukla PK, Kaur P, Sharma S, Singh TP. Current perspectives in NSAID-induced gastropathy *Mediators Inflamm* 2013; 2013: e258209
1507. Sinha M, Kaushik S, Kaur P, Sharma S, Singh TP. Antimicrobial Lactoferrin Peptides: The hidden players in the protective function of a multifunctional protein. *Int J Peptides* 2013; 2013: e390230
1508. Sinha M, Shokeen A, Sharma P, Singh A, Kaushik S, Mitra DK et al. Evidence of a novel allergen protein, Narcin, in the bulbs of *Narcissus tazetta*. *Int J Biochem Mol Biol* 2013; 4: 95-101.
1509. Sinha M, Singh A, Kaushik S, Mitra DK, Kaur P, Sharma S, Singh TP et al. Evidence of a novel allergenic protein narcin in the bulbs of *Narcissus tazetta*. *Int J Biochem Mol Biol*. 2013 Jul 29; 4(2):95-101.
1510. Sinha M, Singh RP, Kushwaha GS, Iqbal N, Singh A, Kaushik S, Singh TP, et al, Current Overview of Allergens of Plant Pathogenesis Related Protein Families. *Sci World J* 2014; 2014: e543195
1511. Sinha R, Bali SJ, Kumar C, Shekhar H, Sharma N, Titiyal JS, Vajpayee RB. Results of cataract surgery and plasma ablation posterior capsulotomy in anterior persistent hyperplastic primary vitreous. *Middle East Afr J Ophthalmol*. 2013;20(3):217-20.
1512. Sinha R, Chandlerkaha, Batra M, Ray BR, Mohan VK, Saxena R. A randomized comparison of lidocaine 2% gel and proparacaine 0.5% eye drops in paediatric squint surgery. *Anaesthesia* 2013;68:747-52.
1513. Sinha R, Ray BR. Difficulty in ProSeal LMA insertion: An unusual cause. *J Anaesth Clin Pharmacol* 2013; 29(3): 401-2.
1514. Sinha R, Ray BR. Laser treatment for retinopathy of prematurity under topical anesthesia - prospective from our experience. *Paediatr Anaesth*. 2013;23(4):376.
1515. Sinha R, Saxena R. A reply. *Anaesthesia* 2013; 68(9)985-6.

1516. Sinha R, Shekhar H, Gantyal SP, Titiyal JS. Haptic placement of posterior chamber intraocular lens in fibrin glue-assisted intrascleral fixation. *J Cataract Refract Surg.* 2013;39(11):1779-80.
1517. Sinha R, Shekhar H, Sharma N, Titiyal JS, Vajpayee RB. Posterior capsular opacification: A Review. *Indian J Ophthalmol.* 2013 Jul; 61(7):371-6.
1518. Sinha S, Amandeep K, Sharma BS. Bifrontal Basal Interhemispheric Approach for Midline Suprasellar Tumors: An analysis of 48 patients. *Neurol India.* 2013; 61(6): 581-6
1519. Sinha S, Ekka M, Sharma U, Pandey RM, Jagannathan NR. Assessment of changes in brain metabolites in Indian patients with type-2 diabetes mellitus using proton magnetic resonance spectroscopy. *BMC Res Notes* 2014;7:41.
1520. Sinha S, Gunawat P, Nehra A, Sharma BS. Cognitive, functional and psychosocial outcome after severe traumatic brain injury: A cross sectional study at a tertiary trauma care center. *Neurol India* 2013; 61 (5): 501-6.
1521. Sinha S, Kale SS, Chandra SP, Suri A, Mehta VS, Sharma BS. Brainstem Gliomas: Surgical indications and technical considerations in a series of 58 cases. *Br J Neurosurg.* 21; 2013
1522. Sinha S, Raghunandan P, Chandrashekhar R, Sharma SK, Kumar S, Dhooira S, et al. Nevirapine versus efavirenz-based antiretroviral therapy regimens in antiretroviral-naive patients with HIV and tuberculosis infections in India: a pilot study. *BMC Infect Dis* 2013;13:482.
1523. Sinha S, Shankar KB, Kale SS, Sharma BS. Surgery in multisegmental cervical spondylotic myelopathy-outcome analysis in a series of 65 patients. *Indian J Neurosurgery* 2013; 2(2): 170-4.
1524. Sivakumar T, Yadav A, Sood M, Khandelwal SK. Lorazepam withdrawal catatonia. *Asian J Psychiatry* 2013;6:620-1.
1525. Sivaneasn S, Shende D, Kashyap L, Mohan V. The Effect of Addition Clonidine 15,25,35 µg to Spinal Heavy Bupivacaine 10mg on Sub Arachnoid Block Characteristics. *Anesthesiology* 2013; A3196.
1526. Solanki S, V.Bhatnagar, A.K.Gupta, R.Kumar. Crossed fused renal ectopia : challenges in diagnosis and management. *Journal of Indian Association of Pediatric Surgeons* 2013;18:7-10.
1527. Sonali N, Tripathi M, Sagar R, Velpandian T, Subbiah V. Clinical effectiveness of rivastigmine monotherapy and combination therapy in Alzheimer's patients. *CNS Neurosci Ther* 2013;19:91-7.
1528. Sonali N, Tripathi M, Sagar R, Velpandian T, Subbiah V. Impact of CYP2D6 and CYP3A4 genetic polymorphism on combined cholinesterase inhibitors and memantine treatment in mild to moderate Alzheimer's disease. *Dement Geriatr Cogn Disord* 2014;37:58-70.
1529. Sonali N, Tripathi M, Sagar R, Vivekanandhan S. Val66Met polymorphism and BDNF levels in Alzheimer's disease patients in North Indian population. *Int J Neurosci* 2013;123:409-16.
1530. Soni KD, Sharma J, Gupta MK. Interpretation of Arterial Blood Gas Analysis. *Journal of Clinical and Preventive Cardiology*, 2013; 2: 207-13
1531. Sood M. Book Review: Expanding Horizons of the Mind Science(s). *Nat Med J India* 2013;26:55-6.
1532. Sood R, Singh T. Assessment in medical education: Evolving perspectives and contemporary trends. *NMJI* 2012;25(6):357-64.
1533. Sood R. Principles of assessment in medical education (Tejinder Singh, Anshu) Book Review *NMJI* 2012;25 (6):371-72.
1534. Sood S, Mahajan N, Verma R, Kar HK, Sharma VK. Emergence of decreased susceptibility to extended spectrum cephalosporins (ESCs) in *Neisseria gonorrhoeae* in India. *Natl Med J India*, 2013; 26: 26-28.
1535. Sosa JA, Elisei R, Jarzab B, Balkissoon J, Lu SP, Bal C, et al. Randomized safety and efficacy study of fosbretabulin with paclitaxel/carboplatin against anaplastic thyroid carcinoma. *Thyroid* 2014; 24: 232-40.
1536. Soundararajan R, Naswa N, Sharma P, Karunanithi S, Nazar AH, Das KJ, et al. SPECT-CT for characterization of extraosseous uptake of ^{99m}Tc-methylene diphosphonate on bone scintigraphy. *Diagn Interv Radiol.* 2013; 19: 405-10.
1537. Srivastava A, Sengupta J, Kirplani A, Roy KK, Ghosh D. Profiles of cytokines secreted by isolated human

endometrial cells under the influence of chorionic gonadotropin during the window of embryo implantation. *Reprod Biol Endocrinol* 2013;11:116

1538. Srivastava A, Sharma R, Sood SK, Shukla G, Goyal V, Behari M. Saccadic eye movements in Parkinson's disease. *Indian J Ophthalmol*. 2014 May;62(5):538-44.
1539. Srivastava P, Gupta R, Varshney M, Sharan P. A rare case of imitation injury. *Indian J Psychol Med* 2014;36:215-7.
1540. Srivastava P, Mandal P, Mehta M, Sagar R. Psychological Intervention in a Case of Bulimia Nervosa: A Case Report. *Psychol Stud* 2014;59: 68-75.
1541. Srivastava R, Gupta SK, Mathur VP, Goswami A, Nongkynrih B. Prevalence of Dental Carries and Periodontal Diseases, and their Association with Socio-Demographic Risk Factors among Older Persons in Delhi, India. A community-based study. *Southeast Asian J Trop Med Public Health* 2013; 44 (3): 523-33
1542. Srivastava S, Chadda RK, Bala K, Majumdar P. A study of neuropsychiatric manifestations of neurocysticercosis. *Indian J Psychiatry* 2013;55:264-7.
1543. Subbaiah M, Kumar S, Roy KK, Sharma JB, Singh N. Pregnancy outcome in patients with idiopathic thrombocytopenic purpura. *Arch Gynecol Obstet* 2014;289(2):269-73.
1544. Subbaiah M, Kumar S, Roy KK, Sharma JB, Singh N. Pregnancy outcome in women with pulmonary arterial hypertension: single-center experience from India. *Arch Gynecol Obstet*. 2013;288(2):305-9.
1545. Subbaiah M, Sharma JB, Kumar S. Case of the month: A 34 years old lady presented with complaints of pain in lower abdomen and postcoital bleeding. *J of Paediatrics, Obstet & Gynaecol* 2013;4(6):207-8.
1546. Subbaiah M, Sharma V, Kumar S, Rajeshwari S, Kothari SS, Roy KK, Sharma JB, Singh N. Heart disease in pregnancy: cardiac and obstetric outcomes. *Arch Gynecol Obstet* 2013;288:23-7.
1547. Subramanian A, Albert V, Agrawal D, Saxena R, Pandey RM. Evaluation of the utility of thromboelastography in a tertiary trauma care centre. *ISRN Hematol* 2014 Feb 12:2014: 849-626
1548. Subramanian A, Albert V, Saxena R, Agrawal D, Pandey RM. Establishing a normal reference range for thromboelastography in North Indian healthy volunteers. *Indian J Pathol Microbiol* 2014; 57 (1): 43-50
1549. Sudhaman S, Behari M, Govindappa ST, Muthane UB, Juyal RC, Thelma BK. VPS35 and EIF4G1 mutations are rare in Parkinson's disease among Indians. *Neurobiol Aging* 2013 Oct;34(10):2442.e1-3.
1550. Sugandhi N, Agarwal S, Bhatnagar V, Singh MK, Sharma R. Liver histology in choledochal cyst- pathological changes and response to surgery: the overlooked aspect. *Pediatr Surg Int* 2014;30:205-211.
1551. Sugandhi N, Srinivas M, Agarwala S, Gupta DK, Sharma S, A Sinha, AK Dinda, S Mohanty. Effect of stem cells on renal recovery in rat model of partial unilateral upper ureteric obstruction. *Pediatr Surg Int* 2014;30:233-8
1552. Sukeeja D, Janani S, Lalwani S, Subramaniam A. Can a post-mortem skin biopsy predict cause of death? *J Lab Physicians* 2013; 5(2): 121-3
1553. Sukheeja D, Dawar P, Gupta D, Arulselvi S. Post-Traumatic Leptomeningeal Cyst in Child: A Case Report and Review of Literature. *Int J Case Reports Med* 2013; DOI 10.5171/2013/533543.
1554. Sukheeja D, Kumar P, Singhal M, Arulselvi S. Subcutaneous mercury injection by a child: A histopathology case report. *J Lab Physicians* 2014; 6: 55-7.
1555. Sukheeja D, Shanmugam J, Arulselvi S, Lalwani S. Can a post mortem skin biopsy predict the cause of death? *J Lab Physicians* 2013; 5: 121-123.
1656. Sumalatha KB, Handa G, Singh U. Rehabilitation medicine implications of stem cell therapy in spinal cord injury – a review. *IJPMR* 2013; 24 (1): 9-15.
1557. Suman S, Sharma P, Jain TK, Sahoo MK, Bal C, Kumar R. Recurrent dermatofibrosarcoma protuberans with pulmonary metastases presenting twelve years after initial diagnosis: 18F-FDG PET/CT imaging findings. *Clin Nucl Med*. 2014 Jan;39(1):77-8.
1558. Sundar G, Sharan P, Khandelwal SK, Sharma U, Jagannathan NR. Neurochemicals measured by 1H-

- MRspectroscopy: putative vulnerability biomarkers for obsessive compulsive disorder. *Magn Resonance Materials Physics Biol Med* 2013;1:1-13.
1559. Sundar G, Sivakumar T, Khandelwal SK, Sood M. Olanzapine induced tardive dystonia. *J Neuropsychiatry Clin Neurosci* 2014;26:24-5.
1560. Sundar S, Singh A, Singh OP, Strategies to Overcome Antileishmanial Drugs Unresponsiveness, *J Trop Med* 2014, 2014, Article ID 646932,doi:10.1155/2014/646932
1561. Sundar S, Singh A, Tiwari A, Shukla S, Chakravarty J, Rai M. Efficacy and Safety of Paromomycin in Treatment of Post-Kala-Azar Dermal Leishmaniasis, *ISRN Parasitology*, 2014,vol. 2014, Article ID 548010,doi:10.1155/2014/548010
1562. Suri A, Bansal S, Singh M, Mahapatra AK, Sharma BS. Jugular foramen schwannomas: A single institution patient series. *J ClinNeurosci*. 13; 2013
1563. Suri S, Goyal K, Chowdhury T. Role of percutaneous tracheostomy in emergent difficult airway conditions: An Update. *Critical Review. OA Anaesthetics* 2013 May 01; 1(1):8.
1564. Swain R, Mallick S, Behera C, Murty OP. Bluish discoloration of stomach in dextropropoxyphene poisoning: an unusual finding at autopsy and discussion of differential diagnosis. *BMJ Case Rep* 2013 Apr 19.
1565. Swain R, Singh SR, Krishna K, Behera C, Mallick S, Bhardwaj DN. Fatal Dextropropoxyphene Poisoning: An Autopsy study of 11 cases. *J Indian Acad Forensic Med* 2014; 36 (1): 34-7.
1566. Swarup R, Luthra G, Matalia H, Taneja M, Rao SK, Vanathi M. An insight into practice patterns for collagen crosslinking treatment for corneal ectasias. *Ophthalmic Deliberations. Delhi J Ophthalmol* 2013;24(2):126-135
1567. Swarup V, Srivastava AK, Padma MV, Moganty RR. Quantitative profiling and identification of plasma proteins of spinocerebellar ataxia type 2 patients. *Neurodegener Dis* 12(4): 199- 206, 2013.
1568. Swarup V, Srivastava AK, Padma MV, Rajeshwari MR. Quantitative profiling and identification of differentially expressed plasma proteins in Friedreich's ataxia. *J Neurosci Res*, Nov;(11): 1483 – 1491, 2013.
1569. Tabassum R, Chauhan G, Dwivedi OP, Mahajan A, Jaiswal A, Kaur I, ..., Venkatesh P, et al. Genome-wide association study for type 2 diabetes in Indians identifies a new susceptibility locus at 2q21. *Diabetes*. 2013; 62(3):977-86.
1570. Tak V, Mathur P, Lalwani S, Misra MC. Staphylococcal blood stream infections: epidemiology, resistance pattern and outcome at a level 1 Indian trauma care center. *J Lab Physicians*. 2013; 5(1): 46-50.
1571. Tak V, Mathur P, Varghese P, Misra MC. Elizabethkingia meningoseptica: an emerging pathogen causing meningitis in a hospitalized adult trauma patient. *Indian J Med Microbiol* 2013; 31(3): 293-5.
1572. Tak V, Mathur P, Xess I, Kale P, Sagar S, Misra MC. A case of dual infection in a paediatric trauma victim of primary cutaneous aspergillosis caused by Aspergillus flavus and Aspergillus terreus. *Indian J Med Microbiol* 2013; 31(2): 193-6.
1573. Tak V, Mirdha BR, Yadav P, Vyas P, Makharia GK, Bhatnagar S. Molecular characterisation of Giardia intestinalis assemblages from human isolates at a tertiary care centre of India. *Indian J Med Microbiol*. 2014; 32:19-25.
1574. Tak V, Xess I, Kale P, Mathur P, Sagar S, Misra MC. A case of dual infection in a paediatric trauma victim of primary cutaneous aspergillosis caused by Aspergillus flavus and Aspergillus terreus. *Indian journal of medical microbiology* 2013; 31:193-6.
1575. Takkar B, Azad RV, Azad S, Sharma YR et al: Spontaneous dislocation in pseudoexfoliation syndrome. *Seminars in Ophthalmology, Oman J Ophthalmology*. 2013; 28(4):236-8. doi:10.3109/08820538.2012.760622.
1576. Takkar B, Bhatia I, Chandra P, Ganguly A, Azad R. Bilateral macular folds as a diagnostic clue to late-presenting posterior microphthalmos. *Semin Ophthalmol*. 2014;29(3):169-71.
1577. Takkar B, Mehdi MU, Ahmed NR, Chandra P, Vanathi M. Anterior segment optical coherence tomography

- of live ocular cysticercosis. *Clin Experiment Ophthalmol*. 2014. doi: 10.1111/ceo.12339. [Epub ahead of print].
1578. Talukdar S, Kumar S, Bhatla N, Mathur S, Thulkar S, Kumar L. Neo-adjuvant chemotherapy in the treatment of advanced malignant germ cell tumors of ovary. *Gynecol Oncol* 2014;132(1): 28-32.
 1579. Talwar S, Ahmed T, Saxena A, Kothari SS, Juneja R, Airan B. Morphology, surgical techniques, and outcomes in patients above 15 years undergoing surgery for congenitally corrected transposition of great arteries. *World J Pediatr Congenit Heart Surg* 2013;4:271-7.
 1580. Talwar S, Choudhary SK, Airan B. Diaphragmatic nerve palsy after cardiac surgery in children. *World J Pediatr Congenit Heart Surg* 2013;4:326.
 1581. Talwar S, Choudhary SK. Coronary implantation using the autologous flap extension technique in complicated arterial switch operations *Pediatr Cardiol* 2014;34:1520.
 1582. Talwar S, Desai M, Talwar A, Choudhary SK, Sreenivas V, Saxena A, et al. Cardiopulmonary exercise performance after total cavopulmonary connection with or without prior superior cavopulmonary connection. *J Card Surg* 2014;29:244-50.
 1583. Talwar S, Jaiswal LS, Choudhary SK, Saxena A, Juneja R, Kothari SS, Airan B. Retrospective study of results of Kawashima procedure. *Heart Lung Circ* 2014;23:674-79.
 1584. Talwar S, Jha AJ, Choudhary SK, Gupta SK, Airan B. Repair of Anomalous Left Coronary Artery from Pulmonary Artery (ALCAPA) beyond infancy. *Heart Surg Forum*.2013; 16:E210-5.
 1585. Talwar S, Jha AJ, Choudhary SK, Rajashekar P, Airan B. Arterial Switch operation for Transposition of Great Arteries with anomalies of cardiac situs and aortic position. *J Thorac Cardiovasc Surg*. 2013; 146:1553-6.
 1586. Talwar S, Jha AJ, Hasija S, Choudhary SK, Airan B. Paediatric myocardial protection—strategies, controversies and recent developments. *Indian J Thorac Cardiovasc Surg* 2013; 29: 114-23
 1587. Talwar S, Keshri VK, Choudhary SK, Gupta SK, Ramakrishnan S, Saxena A, et al. Unidirectional valved patch closure of ventricular septal defects with severe pulmonary arterial hypertension: Hemodynamic outcomes. *J Thorac Cardiovasc Surg*. 2013 [Epub ahead of print].
 1588. Talwar S, Kumar MV, Muthukkumaran S, Airan B. Is Sternotomy Superior to Thoracotomy for Modified Blalock Taussig Shunt? *Interact Cardiovasc Thorac Surg* 2014; 18:271-75.
 1589. Talwar S, Meena A, Choudhary SK, Kothari SS, Gupta SK, Saxena A, Juneja R, Airan B. Anomalous branch of pulmonary artery from the aorta and tetralogy of Fallot: morphology, surgical techniques and results. *Eur J Cardiothorac Surg* 2014;46:291-6.
 1590. Talwar S, Meena A, Ramakrishnan S, Choudhary SK, Airan B. Hemitruncus with ventricular septal defect in a 6-year-old child. *Ann Pediatr Cardiol* 2013;6:194-6.
 1591. Talwar S, Muthukkumaran S, Choudhary SK, Makhija N, Sreenivas V, Saxena A, et al. A complete extracorporeal circulation-free approach to patients with functionally univentricular hearts provides superior early outcomes. *World J Pediatr Congenit Heart Surg* 2014;5:54-9.
 1592. Talwar S, Muthukkumaran S, Makhija N, Hasija S, Rajashekhar P, Choudhary SK, Airan B. Extra cardiac Fontan without cardiopulmonary bypass: Techniques and early results: A review. *Indian J Thorac Cardiovasc Surg* 2013; 29: 174–83
 1593. Talwar S, Nair VV, Choudhary SK, Sreenivas V, Saxena A, Juneja R, et al. Pericardiectomy in children <15 years of age. *Cardiol Young* 2014;24:616-22.
 1594. Talwar S, Rajashekar P, Anderson RH, Jagia P, Makhija N, Choudhary SK, Airan B. Totally anomalous pulmonary venous connection draining through an intrapulmonary vertical vein. *World J Pediatr Congenit Heart Surg*. 2012 Oct 1;3(4):521-4.
 1595. Talwar S, Rajashekar P, Gupta SK, Gulati GS, Choudhary SK, Airan B. Hemitruncus, septal defect, and anomalous coronary artery from pulmonary artery. *Asian Cardiovasc Thorac Ann* 2013;21:338-41.
 1596. Talwar S, Rajashekar P, Muthukkumaran S, Airan B. Tetralogy of fallot, dextrocardia, and situs inversus associated with total anomalous pulmonary venous return. *J Card Surg* 2013; 28:587-90.

1597. Talwar S, Rajashekar P, Reddy VA, Choudhary SK, Airan B. Transposition of great arteries and partial anomalous pulmonary venous drainage. *Asian Cardiovasc Thorac Ann.*2013; 21:713-6.
1598. Talwar S, Rajashekhar P, Jha AJ, Airan B. Misplacement of left ventricular vent as a cause of cardioplegia failure during routine open-heart surgery. *World J Pediatr Congenit Heart Surg* 2014; 5:133-4.
1599. Talwar S, Subramanian M, Choudhary SK, Makhija N, V.Sreenivas, Saxena A, et al. A Complete Extracorporeal Circulation-Free Approach to Patients With Functionally Univentricular Hearts Provides Superior Early Outcomes. *World Journal for Pediatric and Congenital Heart Surgery*, 2014, 5 (1), 54-59.
1600. Tandon N, Garg MK, Singh Y, Marwaha RK. Prevalence of metabolic syndrome among urban Indian adolescents and its relation with insulin resistance (HOMA-IR). *J Pediatr Endocrinol Metab* 2013; 26(11 – 12): 1123–30.
1601. Tandon V, Garg K, Mahapatra AK, Borkar SA. Extra Giant Occipital Encephalocele- Can it Grow Bigger Than This? *Indian J Pediatr.* 2014 Feb 14
1602. Tandon V, Garg K, Mahapatra AK. ‘Double skull’ appearance due to calcifications of chronic subdural hematoma and cephalhematoma: a report of two cases. *Turk Neurosurg.*23(6):815-817.
1603. Tembhre MK, Sharma VK, Sharma A, Chattopadhyay P, Gupta S. T helper and regulatory T cell cytokine profile in active, stable and narrow band ultraviolet B treated generalized vitiligo. *Clin Chim Acta.* 2013 Sep 23;424:27-32.
1603. Thakral NK, Ray AR, Jacobsen J, Bar-Shalom D, Eriksson AH, Majumdar DK. Colon targeting of fluticasone propionate inclusion complex: a novel approach in inflammatory bowel disease. *J Inclusion Phenomena Macrocyclic Chem* 2013; 75: 175-184.
1604. Thejaswi HT, Kumar A, Jegadheshwararaj. Desi-Katta (Country-made Firearm) and Wound Ballistics-a review. *J Indian Acad Forensic Med* 2013; 35 (2): 165-9.
1605. Thilagavathi J, Mishra SS, Kumar M, Vemprala K, Deka D, Dhadwal V, et al. Analysis of telomere length in couples experiencing idiopathic recurrent pregnancy loss. *J Assist Reprod Genet* 2013;30:793-8.
1606. Thom S, Poulter N, Field J, Patel A, Prabhakaran D, Stanton A, et al; UMPIRE Collaborative Group. Effects of a fixed-dose combination strategy on adherence and risk factors in patients with or at high risk of CVD: the UMPIRE randomized clinical trial. *JAMA* 2013;310:918-29.
1607. Thotton Veedu P, Bhalla AS, Sreenivas V, Kabra SK, Arora A, Singh D, et al.; Pediatric vs adult pulmonary tuberculosis: A retrospective computed tomography study. *World J Clin Pediatr*, 2013, 2 (4), 70-76.
1608. Tilak T, Sherawat S, Agarwala S, Gupta R, Vishnubhatla S, Bakhshi S. Circulating T-regulatory Cells in Neuroblastoma: A Pilot Prospective Study. *Pediatr Hematol Oncol.* 2014; PMID:24684178
1609. Tilak TV, Raina V, Kumar L, Sharma A, Sharma MC, Vishnubhatla S, et al. Superior vena cava syndrome and poor performance status at presentation affect survival in mediastinal T-lymphoblastic lymphoma-a single institute experience from India. *Ann Hematol*, 2013, 92 (7) 917-23.
1610. Tilak TV, Sharawat SK, Gupta R, Agarwala S, Khan SA, Rastogi S, et al. Circulating T- regulatory cells in PNET: A prospective study. *Pediatr Blood Cancer.* 2014; 61: 228-232
1611. Tiwari V, Rajeswari MR Common mechanism adopted by sensitive and carbapenem resistant strain of *Acinetobacter baumannii* in starvation, *J of Proteins and Proteomics*, 14(1): 9-10; 2013.
1612. Tiwari V, Rajeswari MR. Effect of Iron Availability on the Survival of Carbapenem-Resistant *Acinetobacter baumannii*: a Proteomic Approach. *J Proteomics Bioinform* 6:125-131; 2013. doi: 10.4172/jpb.1000270
1613. Tomar N, Gupta N, Goswami R. Calcium-sensing receptor autoantibodies and idiopathic hypoparathyroidism. *J Clin Endocrinol Metab* 2013; 98(9): 3884-91.
1614. Trikha A, Singh PM. Maximum working hours and minimum monitoring standards-need for both to be mandatory. *J Anaesthesiol Clin Pharmacol* 2013;29:149–50.
1615. Trikha A, Singh PM. Predicting post-operative pain: Still a long way to go! *J Anaesthesiol Clin Pharmacol* 2013;29:433–4.
1616. Tripathi G, Gough JE, Dinda A, Basu B. In vitro cytotoxicity and in vivo osseointegration properties of

- compression-molded HDPE-HA-Al₂O₃ hybrid biocomposites. *J Biomed Mater Res A*. 2013 Jun;101(6):1539-49.
1617. Tripathi M, Das C, Kant K, Khangembam BC, Dhull VS. Spontaneously resolving lower polar ATN in a transplant kidney with dual vascular supply demonstrated on Tc-99m EC renography. *Clinical Nuclear Medicine* 2013; 38(5):90-391.
1618. Tripathi M, Das CJ, Srivastava A, Bal C, Malhotra A. Metastatic Brachial Plexopathy in a Case of Recurrent Breast Carcinoma Demonstrated on (18)F-FDG PET/CT. *Nucl Med Mol Imaging*. 2014 Mar;48(1):85-6.
1619. Tripathi M, Mansoori N, Alam R, Luthra K, Sharma S, Lakshmy R, et al. Folic Acid and RFC A80G Polymorphism in Alzheimers Disease and Vascular Dementia. *Am J Alzheimers Dis Other Demen* 2014;29(1) 38-44
1620. Tripathi M, Tripathi M, Damle N, Kushwaha S, Jaimini A, D'souza MM, et al. Differential Diagnosis of Neurodegenerative Dementias using Metabolic Phenotypes on F-18 FDG PET/CT. *Neuroradiol J* 2014;27(1):18-21.
1621. Tripathi M, Tripathi M, Kumar G, Malhotra A, Bal CS. 'Double Cortex' sign on FDG PET/CT in diffuse band heterotopia. *Indian J Nucl Med* 2013; 28: 249-50.
1622. Tripathi M, Tripathi M, Sharma R, Jaimini A, D' Souza M, Saw S, et al. Functional neuroimaging using F-18 FDG PET/CT in amnesic mild cognitive impairment: A preliminary study. *Indian J Nucl Med* 2013; 28: 129-133.
1623. Tripathi MN, Phookan HR, Talukdar U, Srivastava AS, Yadav JS. Aggression in psychiatry: impact of family history, substance use, psychiatric history and dual diagnosis. *Dysphrenia* 2014;5:6-11.
1624. Tripathi V, Kumar R, Dinda AK, Kaur J, Luthra K. CXCL12-CXCR7 Signaling Activates ERK and Akt Pathways in Human Choriocarcinoma Cells. *Cell Commun Adhes*. Jan 23. [Epub ahead of print] PMID:24450273; 2014.
1625. Tuteja A, Siddiqui AB, Madan K, Goyal R, Shalimar, Sreenivas V, Kaur N, Panda SK, Narayanasamy K, Subodh S, Acharya SK. Mutation profiling of the hepatitis B virus strains circulating in North Indian population. *PLoS One*. 2014; 17;9(3):e91150. PMID: 24637457.
1626. Tyagi RK, Das MK, Singh SS, Sharma YD. Discordance in drug resistance-associated mutation patterns in marker genes of *Plasmodium falciparum* and *Plasmodium knowlesi* during coinfections. *J Antimicrob Chemother*, 2013, 68, 1081-1088.
1627. Upadhyay RP, Krishnan A, Rai SK, Chinnakali P, Odukoya O. Need to focus beyond the medical causes: a systematic review of the social factors affecting neonatal deaths. *Paediatr Perinat Epidemiol*. 2014; 28(2):127-37. doi:10.1111/ppe.12098.Epub 2013 Dec 20.
1628. Upadhyay RP, Rai SK, Krishnan A. Using three delays model to understand the social factors responsible for neonatal deaths in rural haryana, India. *J Trop Pediatr*.2013 Apr;59(2):100-5. doi: 10.1093/tropej/fms060. Epub 2012 Nov 21. PubMed[citation] PMID: 23174990
1629. Uttam AK, Joshi R, Dwivedi R, Prasad K, Padma MV, Bhatia R, et al. Applicability of the new ILAE classification for epilepsies (2010) in persons with epilepsy at a tertiary care center in India. *Epilepsia* 2013;54(4):751-6.
1630. Vaghani G, Singh PK, Gupta DK, Agrawal D, Sinha S, Satyarthee G, et al. Outcome of patients with traumatic head injury in infants: An institutional experience at level 1 trauma center. *J Pediatr Neurosci*. 2013 May;8(2):104-7.
1631. Vajpayee M, Negi N, Kurapati S. The enduring tale of T cells in HIV immunopathogenesis. *Indian J Med Res*. 2013; 138:682-99.
1632. Vajpayee RB, Maharana PK, Jain S, Sharma N, Jhanji V. Thin lenticule Descemet's stripping automated endothelial keratoplasty: single, slow pass technique. *Clin Experiment Ophthalmol*. 2013. doi: 10.1111/ceo.12271.
1633. Vajpayee RB, Maharana PK, Kaweri L, Sharma N, Jhanji V. Intrastromal fluid drainage with air tamponade: anterior segment optical coherence tomography guided technique for the management of acute corneal hydrops. *Br J Ophthalmol*. 2013;97(7):834-6.

1634. Vajpayee RB, Shekhar H, Sharma N, Jhanji V. Demographic and clinical profile of ocular chemical injuries in the pediatric age group. *Ophthalmology*. 2014;121(1):377-80.
1635. Vanamail P. Reproductive risk factors assessment for anaemia among pregnant women in India using a multinomial logistic regression model. *Tropical Medicine & International Health* 2014. doi:10.1111/tmi.12312
1636. Vanamoorthy P, Tomar A, Prabhakar H, Rath GP. Rare Complications during Deep Brain Stimulation surgery for Parkinson's disease. *J Neuroanaesthesiol Crit Care* 2014; 1(2): 150-152
1637. Vanathi M, Bypareddy R. Collagen Crosslinking. *KJO* 2013 – 14.
1638. Vanathi M, Kashyap S, Khan R, Seth T, Mishra P, Mahapatra M, Tandon R. Ocular surface evaluation in allogeneic hematopoietic stem cell transplantation patients. *Eur J Ophthalmol* 2014 Mar 7 doi: 10.5301/ejo.5000451
1639. Vanathi M. Publish and cherish. Editorial *Delhi J Ophthalmology*. 2013;24(1):6
1640. Vanathi M. Revel in the Essence of Change. Editorial *Delhi J Ophthalmol* 2013;24:79
1641. Vanathi M. Rise and Shine. Editorial *Delhi J Ophthalmol* 2014;24(3):150
1642. Vanathi M. Writing is its own reward. Editorial. *Delhi J Ophthalmol* 2014;24(4):222
1643. Varghese MJ, Kothari SS. Cardiac tamponade with only left heart collapse in a child with severe pulmonary artery hypertension. *Echocardiography*. 2013;30:E263-4.
1644. Varughese B, Kumar R, Murthi P, Luthra K, Bhatla N, Dwivedi SN, Dhingra R. Effect of Circulating Angiogenic Factors on Trophoblast Cell Proliferation. *Int J Innovative Res Sci Eng Tech*. 2013; 2(9):4602-11.
1645. Vasdev S, Chauhan S, Malik M, Talwar S, Velayudham D, Kiran U. Congenital heart surgery outcome analysis: Indian experience. *Asian Cardiovasc Thorac Ann*.2013;21:675.
1646. Vasdev S, Chauhan S, Talwar S, Pandey A, Kiran U. Monitoring pulmonary artery pressure in children undergoing the Fontan procedure. *Asian Cardiovasc Thorac Ann* 2013;21:303-5.
1647. Vashishtha R, Mohan K, Singh B, Devarapu SK, Sreenivas V, Ranjan S, et al. Efficacy and safety of thrice weekly DOTs in tuberculosis patients with and without HIV co-infection: an observational study. *BMC Infect Dis* 2013;13:468. doi:10.1186/1471-2334-13-468.
1648. Vashist A, Shahabuddin S, Gupta YK, Ahmad S. Polyol induced interpenetrating networks: chitosan-methylmethacrylate based biocompatible and pH responsive hydrogels for drug delivery system. *J Mater Chem B* 2013;1:168-78.
1649. Vashist A, Vashist A, Gupta YK, Ahmad S. Recent advances in hydrogel based drug delivery systems for human body. *J Mater Chem B* 2014;2:147-66.
1650. Vashist P, Gupta N, Rathore AS, Shah A, Singh S. Rapid assessment of trachoma in underserved population of Car-Nicobar Island, India. *PLoS One*. 2013 Jun, 14;8(6):e65918.
1651. Vaz C, Ahmad HM, Bharti R, Pandey P, Kumar L, Kulshreshtha R, Bhattacharya A. Analysis of the microRNA transcriptome and expression of different isomiRs in human peripheral blood mononuclear cells. *BMC Res Notes*. 2013 Sep 28;6(1):390.
1652. Veedu PT, Bhalla AS, Vishnubhatla S, Kabra SK, Arora AK, Singh D, Gupta AK. Pediatric vs adult pulmonary tuberculosis: A retrospective computed tomography study . *World J Clin Pediatr* 2013;2:70-76
1653. Vemparala K, Roy A, Bahl VK, Prabhakaran D, Nath N, Sinha S, et al. Early accelerated senescence of circulating endothelial progenitor cells in premature coronary artery disease patients in a developing country - a case control study. *BMC Cardiovasc Disord* 2013;13:104.
1654. Venkatesh P, Khanduja S, Singh S, Lodha R, Kabra SK, Garg S, Vohra R: Prevalence and risk factors for Developing Ophthalmic Manifestations in Pediatric Human immunodeficiency Virus infection. *Ophthalmology* 2013; 120(9):1942-3.
1655. Venkatesh P, Majumdar SS, Kakkar A, Singh S, Gogia V, Garg S. Resolution of serous retinal detachment

- following partial sclerectomy with mitomycin C in nanophthalmos. *Ophthalmic Surg Lasers Imaging Retina*. 2013;44(3):287-9.
1656. Venkatnarayan K, Madan K, Walia R, Kumar J, Jain D, Guleria R. "Diesel siphoner's lung": Exogenous lipid pneumonia following hydrocarbon aspiration. *Lung India* 2014;31:63-6.
1657. Venkatnarayan K, Sankar MJ, Agarwal R, Paul VK, Deorari AK. Phenobarbitone in Rh hemolytic disease of the newborn: a randomized double-blinded placebo-controlled trial. *Journal of Trop Pediatr* 2013;59:380-6
1658. Venkatnarayan K, Sankar MJ, Deorari A, Krishnan A, Paul VK. A micro-costing model of neonatal intensive care from a tertiary Indian unit: feasibility and implications for insurance. *Indian Pediatrics* 2014;51:215-7
1659. Venkatraman B, Karunanithi S, Kumar A, Bal C, Ammini AC, Kumar R. vxGa-DOTATOC PET-CT in the localization of source of ectopic ACTH in patients with ectopic ACTH-dependent Cushing's syndrome. *Clin Imaging*. 2014 Mar-Apr;38(2):208-11.
1660. Venkitaraman B, Karunanithi S, Kumar A, Khilnani GC, Kumar R. Role of 68Ga-DOTATOC PET/CT in initial evaluation of patients with suspected bronchopulmonary carcinoid. *Eur J Nucl Med Mol Imaging* 2014; 41(5): 856-64.
1661. Verma IC, Kabra SK *Indian Journal of Pediatrics: Journey of Eight Decades*. *Indian J Pediatr* 2014;81;107-8
1662. Verma N, Lodha R, Kabra SK. Recent advances in management of bronchiolitis. *Indian Pediatr* 2013;50:939-49
1663. Verma N, Lodha R. Plasma Exchange for Hemolytic Crisis and Acute Liver Failure in Wilson Disease: Authors' Reply. *Indian J Pediatr* 2013 Aug 31;Epub ahead of print
1664. Verma P, Chattree V, Seth RK, Biswas S, Rao DN. Detection of histidine rich protein 2 and lactate dehydrogenase antigens of *P. falciparum* in malaria patients by immunocapture base diagnostic assay. *Ind. J. Med. Res.*, 138, 977-987; 2013.
1665. Verma P, Dalal K. Serum Cartilage Oligomeric Matrix Protein (COMP) in Knee Osteoarthritis: A Novel Diagnostic and Prognostic Biomarker. *J Orth Resch* 2013; 31: 999-1006
1666. Verma P, Mohan T, Kumar P, Parida M M, Hoti S L, Ali S, Rao D N et al. Evaluation of peptide based IgM/ IgG detection for diagnosis of Chikungunya infection. *Clin. Chem. Lab. Med.*, 52, 297-307; 2014.
1667. Verma R, Mina S, Ul-Hassan S, Balhara YP. A descriptive analysis of patients presenting to psychosexual clinic at a tertiary care center. *Indian J Psychol Med* 2013;35:241-7.
1668. Verma R, Sood S, Singh R, Sumana G, Bala M, Sharma VK et al. Coupling electrochemical response of a DNA biosensor with PCR for *Neisseria gonorrhoeae* detection. *Diagn Microbiol Infect Dis*. 2014 Jan; 78(1):16-23.
1669. Verma SK, Kumar A, Singh PK, Bindra A, Sagar S, Sharma BS. Glioblastoma multiforme presenting as a fungating mass extending through previous craniotomy site. *Neurol India*. 2013; 61(3): 325-6
1670. Vibha D, Ola V, Behari M, Goyal V, Shukla G, Joseph Devarajan SL. Multiple intraventricular neurocysticerci. *Neurology* 2013 Sep 3;81(10):936-7
1671. Vijayakanthi V, Choudhury M, Hote MP, Kiran U. Patent ductus arteriosus ligation: Do not take it easy. *J Anaesthesiol Clin Pharmacol* 2013; 29: 564-6.
1672. Vijayvargiya M, Jain D, Mathur SR, Iyer VK. Papillary cystadenoma of the epididymis associated with von Hippel-Lindau disease diagnosed on fine needle aspiration cytology. *Cytopathology*.2013;doi: 10.1111/cyt.12090. [Epub ahead of print]
1673. Vivekananth S, Sood SK, Senthil Kumaran S, Srivastava A. Mechanism of selective attention: fMRI study of face-word stroop task performance. *Indian J Physiol Pharmacol* 2013;57:354-60
1674. Vuthaluru S, Pushker N, Lokdarshi G, Kumar R, Bajaj MS, Kashyap S, Mathur S, Chawla B, Khurana S, Ghose S. Sentinel Lymph Node Biopsy in Malignant Eyelid Tumor: Hybrid Single Photon Emission Computed Tomography/ Computed Tomography and Dual Dye Technique. *Am J Ophthalmol*. 2013. doi :pii: S0002-9394(13)00142-6. 10.1016/j.ajo.2013.02.015.

1675. Wadhwa N, Chandran A, Aneja S, Lodha R, Kabra SK, Chaturvedi MK, et al. Efficacy of zinc given as an adjunct in the treatment of severe and very severe pneumonia in hospitalized children 2-24 mo of age: a randomized, double-blind, placebo-controlled trial. *Am J Clin Nutr* 2013;97;1387-94.
1676. Wadhvani AR, Sharma VK, Ramam M, Khaitan BK. A clinical study of the spectrum of photodermatoses in dark-skinned populations. *Clin Exp Dermatol* 2013; 38 (8): 823-9.
1677. Walia R, Jain D, Mathur SR, Bakhshi S, Iyer VK. Metastatic retinoblastoma of mandible diagnosed on fine needle aspiration cytology. *Cytopathology* 2013 Nov 15. doi: 10.1111/cyt.12115. [Epub ahead of print]
1678. Walia R, Jain D, Mathur SR, Iyer VK. Spindle Cell Melanoma: A Comparison of the Cytomorphological Features with the Epithelioid Variant. *Acta Cytol.* 2013;57(6):557-61.
1679. Wani IY, Ganie MA, Mehraj I, Wani YY, Naik M. Alström syndrome: A rare association of retinitis pigmentosa with insulin resistance syndrome. *Indian J Endocrinol Metab* 2013; 17(5): 949-950.
1680. Whitlock R, Teoh K, Vincent J, Devereaux PJ, Lamy A, —, Karthikeyan G, et al. Rationale and design of the steroids in cardiac surgery trial. *Am Heart J* 2014;167:660-5.
1681. Wilson V, Gupta N, Prabhakar P, Ramakrishnan L, Seth S, Maulik SK. Effect of percutaneous transvenous mitral commissurotomy on plasma apelin level in mitral stenosis patients. *J Clin Exp Cardiology* 2014;5:283.
1682. Winfree KN, Pretzer-Aboff I, Hilgart D, Aggarwal R, Behari M, Agrawal SK. The effect of step-synchronized vibration on patients with Parkinson's disease: case studies on subjects with freezing of gait or an implanted deep brain stimulator. *IEEE Trans Neural Syst Rehabil Eng.* 2013 Sep;21(5):806-11
1683. Yadav AK, Nadarajah J, Chandrashekhara SH, Tambade VD, Acharya S. Myoepithelioma of the soft palate: a case report. *Case Rep Otolaryngol* 2013; 2013:642806. doi: 10.1155/2013/642806. Epub 2013 Oct 2.
1684. Yadav JS, Tripathi MN, Kaur S, Singh TB. Comparative efficacy of antiepileptic drugs and lacosamide in patients with epilepsy due to an underlying brain lesion. *Dysphrenia* 2013;4:127-130.
1685. Yadav K, Kumar R, Pandav CS, Karmarkar MG. Successful implementation of a laboratory iodization quality assurance system in small-scale salt production facilities in India. *Public Health Nutr* 2013; 5: 1-8
1686. Yadav N, Kumar A, Singh GP, Balakrishnan I, Aggarwal R, Prabhakar H. Anesthetic management of a patient with bronchopleural stula following blunt trauma chest: A brief report. *Egyptian J. Anaesth,* 2014; 30: 215- 218
1687. Yadav N, Saini N, Ayub A. Anatomical variations of interscalene brachial plexus block: Do they really matter? *Saudi J Anaesth* 2014; 8(1): 142-3.
1688. Yadav R, Jain D, Mathur SR, Sharma A, Iyer VK. Gallbladder carcinoma: An attempt of WHO histological classification on fine needle aspiration material. *CytoJournal* 2013;10:12.
1689. Yadav R, Prasad K, Padma MV, Srivatava AK, Tripathi M, Bhatia R. Influence of socio-economics status on in-hospital mortality and morbidity after Stroke in India: Retrospective Hospital-Based Cohort Study. *Ind JILAE Comm Med* 2013;38:39-41.
1690. Yadav R, Sharma MC, Malgulwar PB, Pathak P, Sigamani E, Suri V, Sarkar C, et al. Prognostic value of MIB-1, p53, epidermal growth factor receptor, and INI1 in childhood chordomas. *Neuro Oncol.* 2014 Mar;16(3):372-81.
1691. Yadav RN, Singh BK, Sharma SK, Sharma R, Soneja M, Sreenivas V, et al. Evaluation of GenoType MTBDR_{plus} line probe assay in the diagnosis of multidrug resistant tuberculosis (MDR-TB) at a tertiary care centre in north India. *PLoS ONE* 8(9): e72036. doi:10.1371/ journal.pone.0072036.
1692. Yadav S, Bentley P, Srivastava P, Prasad K, Sharma P. The first Indian-origin family with genetically proven cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL). *J Stroke Cerebrovasc Dis.* 2013;22:28-31.
1693. Yadav S, Hasan N, Marjot T, Khan MS, Prasad K, Bentley P, et al. Detailed analysis of gene polymorphisms associated with ischemic stroke in South Asians. *PLoS One.* 2013;8:e57305
1694. Yadav VK, Chhikara N, Gill K, Dey S, Singh S, Yadav S. Three low molecular weight cysteine proteinase inhibitors of human seminal fluid: purification and enzyme kinetic properties. *Biochimie* 2013; 95: 1552-9

1695. Yadav VK, Mandal RS, Puniya BL, Singh S, Yadav S. Studies on the interactions of SAP-1 (an N-terminal truncated form of cystatin S) with its binding partners by CD-spectroscopic and molecular docking methods. *J Biomol Struct Dyn*. 2013 Nov 21. [Epub ahead of print]
1696. Yaseen S, Ovais S, Basir R, Rathore P, Shamim M, Singh S, et al. Synthesis and biological evaluation of 4-arylphthalzones bearing benzenesulfonamide as anti-inflammatory and anticancer agents. *Archiv Der Pharmazie* 2013; 346:491-8.
1697. Yellasiri SP, Lalwani S, Rautji R, Dogra TD. Postmortem human teeth bite mark: A Resuscitative Artefact? *J Indian Acad Forensic Med* 2013; 35 (2): 184-6.
1698. Zaidi SMA, Pathan SA, Singh S, Ahmad FJ, Jamil S, Khar RK. Anticonvulsant, anxiolytic and neurotoxicity profile of aqarqarha (anacyclus pyrethrum) DC (Compositae) root ethanolic extract. *Pharmacol Pharmacy* 2013;4:535-41.
1699. Zangmo R, Singh N, Kumar S, Tiwari A, Vanamail P. Role of dehydroepiandrosterone (DHEA) in improving the ovarian response and outcome in previous poor responders in vitro Fertilization (IVF) cycles. *Reprod Biomed* 2014;28 (6):743–7.
1700. Zanzmera P, Shukla G, Gupta A, Goyal V, Srivastava A, Garg A, et al. Effect of successful epilepsy surgery on subjective and objective sleep parameters—a prospective study. *Sleep Med*. 2013 Apr;14(4):333-8.
1701. Zeeshan M, Bora H, Sharma YD. Presence of memory T cells and naturally acquired antibodies in *Plasmodium vivax* malaria-exposed individuals against a group of tryptophan-rich antigens with conserved sequences. *J Infect Dis* 2013; 207: 175-85.

Abstracts

1. Acharya SK, Jain S, Shalimar, Nayak B, Yadav DP, Paul SB. Indocyanine Green as a Predictor of Development of Post Transarterial Chemoembolisation Liver Failure. *J Clin Exp Hepatol* 2014; 4: S57–S58.
2. Acharya SK, Paul SB, Sharma H, Sreenivas V, Gamanagatti S, Dhamija E, et al. Hepatocellular Carcinoma Associated with Hepatic Venous Outflow Tract Obstruction (HVOTO-HCC): Is it Different from HCC of Viral Etiology? *J Clin Exp Hepatol* 2014; 4: S57.
3. Agarwal N, Bhatla N, Kulshrestha V, Kachhawa G, Kriplani A, Gupta S. Outcome of Cases of Vulvar Cancer and Correlation of Old to New Classification of Carcinoma Vulva. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-37.
4. Agarwal N, Gupta M, Kriplani A, Bhatla N. Combined hormonal vaginal ring in management of abnormal uterine bleeding. Abstract Book of 18th World Congress on Controversies in Obs & Gynae & Infertility (COGI), Vienna, Austria, 24-27.10.2013.
5. Agarwal N, S Singh, Kriplani A, Bhatla N. Gabapentine in management of hot flushes symptoms in post-menopausal women. Abstract Book of 18th World Congress on Controversies in Obs & Gynae & Infertility (COGI), Vienna, Austria, 24-27.10.2013.
6. Agarwal N, Singh S, Kriplani A, Bhatla N, Singh N. Evaluation of gabapentine in management of hot flushes in post-menopausal women. *Post Reprod Health* 2014;20:36-8.
7. Agarwal R, Mohanty K, Mishra S, Kumar D, Dada R, Angmo D, et al. Genetic screening and oxidative stress analysis in primary open angle glaucoma (POAG): IOVS 2014;55:2143
8. Agarwala S, Bakhshi S, Biswas B, Sharma DN, Mohanti B, Srinivas M, Bajpai M, Bhatnagar V. Pediatric chest wall ewings sarcoma/PNET: surgical treatment and outcomes. *Pediatr Blood Cancer* 2013 (O-023).
9. Agarwala S, Bhadoo D, Bakhshi S, Srinivas M, Bajpai M, Gupta DK, Gupta AK, Bhatnagar V. Recurrent testicular malignant germ cell tumor. *Pediatr Blood Cancer* 2013 (O-243).
10. Aggarwal P, Das N, Aggarwal N, Dalal K. ACE C1237T Gene Polymorphism in Indian Women with Gestational Diabetes Mellitus, Proc. 73rd American Diabetes Association scientific session, Chicago, IL, USA, June 21-25, 2013, 97-LB
11. Aggarwal P, Das N, Aggarwal N, Dalal K. ACE G2350A gene polymorphism in Gestational Diabetes Mellitus. Proc. National Conference of Gynae Endocrinology-2013, Pune, May 3-5, 2013.
12. Aggarwal R, Kumar N, V. Goyal, R. M. Pandey, G. Shukla, S. Singh, et al. Development of health related

quality of life instrument for Hindi speaking Parkinson's disease patients (indo-PDQOL) and initial psychometric testing. *Movement Disorders*, 2013;28: S97-S97.

13. Aggarwal S, Sharma A, Wahal A, Anand S, Sharma S. Outcome After Non-Operative Management Of Acute Staple Line Leaks Following Laparoscopic Sleeve Gastrectomy. *Obesity surgery* 2013; 23 (8)
14. Aggarwal S, Wahal A, Khadgawat R, Yadav R. Impact of Sleeve Gastrectomy on Type II Diabetes Mellitus in patients with BMI 30-35. *Obes Surg* 2013; 23 (8)
15. Agrawal T, Rai P, Singh P, Saini AK, Dogra PN. A Prospective analysis of Urinary stones using Perkin Fourier Transform Infrared (FTIR) spectroscopy from Indian Subcontinent. *Indian J Urol*.2014;30 : S-86 (Abstract)
16. Agrawal T, Singh P, Saini A K, Kumar R, Seth A., Dogra P N. Iatrogenic ureteroscopic injury: Management by long Boari flap. *Indian J Urol*.2014;30 : S-133 (Abstract)
17. Ahmed N, Sharma R, Faiq M, Dada R, Saluja D, Dada T. A novel protocol for consistent and enhanced expression of unmodified heterologous CYP1B1 for functional genomics studies in Glaucoma. *IOVS* 2014; 55: 3817.
18. Akhtar N, Khatri R, Sharma A. Genetic polymorphism of pro-inflammatory cytokine TNF-alpha and Anti inflammatory cytokines TGF-beta in pathenium induced contact dermatitis in Indian Cohort. *Ind J Clin Biochemistry*;28 (1 Suppl):85; 2013.
19. Ambastha AK, Das PC, Chatterjee P, Dey AB. Clinical Profile Of The Elderly Patients Visiting To Geriatric Out Patient Department Of All India Institute Of Medical Sciences, New Delhi. *J Nutr Health Aging*. 2013;17; S 294-295.
20. Anand D, Kanjilal M, Kaur S, Kumar U and Das N Transcript levels of complement regulatory proteins (CD35 and CD59) in rheumatoid arthritis patients and their relationship with disease activity and prognosis. *Front. Immunol. Conference Abstract: 15th International Congress of Immunology (ICI)*. doi: Published Online: 22 Aug 2013.0.3389/conf.fimmu.2013.02.00379.
21. Anand V, Asothai R, Das D, Khandpur S and Sharma A Involvement of α -T cells in the pathogenesis of autoimmune skin disorder: Pemphigus Vulgaris. *Front. Immunol. Conference Abstract: 15th International Congress of Immunology (ICI)*. doi: 10.3389/conf.fimmu.2013.02.00702; 2013
22. Anand V, Chugh S, Swaroop L and Sharma A Interplay of Th17/Treg cells in immunopathogenesis of Urothelial carcinoma of bladder. *Front. Immunol. Conference Abstract: 15th International Congress of Immunology (ICI)*.doi: 10.3389/conf.fimmu.2013.02.00701; 2013
23. Andrabi R, Makhdoomi M, Luthra K. Characterization of human anti-V3 monoclonal antibody 904 isolated from an Indian clade C Human Immunodeficiency Virus type-1 (HIV-1) infected donor. *Retrovirology*. 10(Suppl 1): P52; 2013.
24. Arora P, Kumar P, Gupta A, Sharma S, Mukhopadhyay AK. A Cross-Sectional Study of nutritional Markers in Pregnancy. *Indian J Hematol Blood Transfus* 2013; 29: 376.
25. Arora P, Kumar P, Kapil A, Sharma S, Mukhopadhyay AK. VCS parameters like MNV, MMV as early markers of sepsis and treatment response. *Int J Lab Hematol* 2014; 36 (Suppl 1); 80
26. Arora S, Sharma P, Parida G, Bal C, Malhotra A, Kumar R. Is ^{68}Ga -DOTANOC PET-CT justified in patients with suspicion of neuroendocrine tumors. *J Nucl Med* 2013; 54 (Suppl 2): 106
27. Arun K, Yadav JS, Mehdi A, Pathak A. Mania related symptoms to discontinuation of bupropion therapy for smoking cessation: A case report. *Indian J Psychiatry* 2013; 55 (Suppl):S155.
28. Badiger S, Kriplani, Mahey R, Kachhawa G, Misra MC. Leiomyosarcoma after laparoscopic hysterectomy: a complication of morcellation. *Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-37.*
29. Bahadur A, Kriplani A, Kulshreshtha V, Agarwal N, Kachhawa G, Bhatla N, et al. Role of Antitubercular treatment for positive DNA PCR in endometrial aspirates on the Reproductive outcome in infertile patients in Indian setting- a Randomized trial. *Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-26.*
30. Bahadur A, Kriplani A, Kulshreshtha V, Kachhawa G, Mahey R, Agarwal N, et al. A comparative study of clomiphene with gonadotropins and intrauterine insemination in infertile women with PCR positive receiving

ATT vs. no ATT. Abstract book of 57th All India Congress of Obstetricians and Gynaecologists (AICOG), Organised by FOGSI, Patna, 1-5 Feb, 2014: P. 144-144.

31. Bahadur A, Kriplani A, Kulshrestha V, Kachhawa G, Mahey R, Agarwal N, et al. A randomized controlled trial on the role of antitubercular treatment for positive DNA PCR in endometrial aspirates on the reproductive outcome in infertile patients in Indian setting. *Br J Obstet Gynecol* 2014;121(S2): FC6.06 (76).
32. Bakhshi S, Biswas B, Shukla N, Deo S, Agarwala S, Sharma D, Srineevas V. Evaluation of outcome and prognostic factors in extrasosseous primitive neuroectodermal tumor: A single institutional experience fo 60 cases with uniform chemotherapy protocol. *Pediatr Blood Cancer* 2013 (O-486).
33. Bathwal S, Agarwal N, Kriplani A, Bhatla N, Kacchawa G, Mahey R. A rare case of acute renal failure post blood transfusion after caesarean section in an Rhisoimmunized patient: A case report. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-46-47.
34. Behari M, Mathew J, Pandit AK, Pathak A, Kumar G, Vibha D, Goyal V, et al. Olfaction dysfunction in Parkinson's disease (PD) and multiple system atrophy (MSA). *Movement Disorders* 2013; 28: S152.
35. Bhadoo D, Agarwala S, et al. Metastatic malignant germ cell tumor of the testis- interesting case presentation. *Pediatric Blood and Cancer*, 2013
36. Bhalla AS, Kandasamy D, Veedu PT, Mohan A, Gamanagatti S. A retrospective analysis of 334 cases of hemoptysis treated by bronchial artery embolization. *J Vasc Intervention Radiol* 2014; 25(3): S156-S157
37. Bhasker M, Pandit P, Srivastava AS, Yadav JS. Very late onset schizophrenia like psychosis: a case report. *Indian J Psychiatry* 2013; 55 (Supl):S112.
38. Bhatla N, Vashist S, Mathur SR, Rai S, Kriplani A, Agarwal N, et al. Cervical cancer control in the community: novel approach for comprehensive coverage. Abstract book of 33rd Annual Convention of Indian Association for Cancer Research, Thiruvananthapuram, 13-15 Feb 2014:P.46.
39. Birla S, Sharma A, Jyotsna VP. Genetic structure of growth hormone deficiency. *Eur J Human Genetics* 2014; Vol 22: Supplement 1, 89.
40. Biswas A, Goyal S, Kakkar A, Sarkar C, Bakhshi S, Julka PK, Rath GK. Intracranial atypical teratoid rhabdoid tumor: A single intitute experience of fifteen patients from North India. *Euro J Cancer* 2013 (P-1649).
41. Biswas A, Mallick S, Roy S, Sharma S, Laviraj MA, Manigandan D, Bhasker S, et al. Intensity modulated radiation therapy in sinonasal tumor: a single institute experience of 25 patients from north India'. Poster presentation in Indian Cancer Congress 2013, New Delhi. Abstract published in Indian Journal of Cancer, Nov 2013, volume 50, supplement 1.
42. Biswas B, Agarwala S, Rastogi S, Khan SA, Mohanti BK, DN Sharma, S Pathy, S Bakhshi. High burden of metastases and poor outcome in pelvic PNET. *Pediatr Blood Cancer* 2013;60:E97-9
43. Biswas B, Rastogi S, Khan SA, Agarwala S, Shukla N, Deo S, Mohanti BK, Sharma DN, Sharma MC, Srineevas V, Pathy S, Bakhshi S. Evaluation of outcome and prognostic factors in primitive neuroectodermal tumor of children and young adults: single institutional experience of 262 cases with uniform chemotherapy protocol. *Pediatr Blood Cancer* 2013 (P-0156).
44. Biswas B, Rastogi S, Khan SA, Shukla NK, Deo SVS, Agarwala S, Mohanti BK, Thulkar S, Vishnubhatla S, Bakhshi S. Hypoalbuminemia: an Independent Predictor of Poor Outcome in Metastatic Ewing's Sarcoma. *Clin Oncol (R Coll Radiol)* 2014 pii: S0936-6555(14)00201-5.
45. Biswas B, Sharma M, Mridha AR, Bakhshi S. Expression of cathepsin L in tumor cells and tumor associated macrophages in patients with primitive neuroectodermal tumor. *Pediatr Blood Cancer* 2013 (P-0157).
46. Bora GS, Kumar R, Jagannathan NR, Singh P, Dwivedi DK. In-vivo multiparametric magnetic resonance studies in renal masses and correlation with histopathology. *Indian J Urol.* 2014;30 (Supp 1): S47
47. Bora GS, Rao N, Kumar R. Robotic Adrenalectomy for Left Pheochromocytoma. *Indian J Urol.* 2014;30(Supp 1): S102
48. Chandran D, Kattoor AJ, Jaryal AK, Deepak KK. Component analysis of photoplethysmographic signal for assessing vascular responses to Valsalva maneuver. *Indian J Physiol Pharmacol* 2013;57:54.
49. Chantada G, Luna-Fineman S, Sitorus RS, Kruger M, Israels T, Leal-Leal C, Bakhshi S, Qaddoumi I, Abramson DH, Doz F. SIOP-PODC Recommendations for Graduated-Intensity of Retinoblastoma in

Developing Countries. *Pediatr Blood Cancer* 2013 (P-0310).

50. Chatterjee P, Kandel R, Ambastha AK, Jathar S, Gurjar V, Khatoon S, et al. Living With Geriatric Syndromes – An Obstacle Against Active Ageing For The Community Dwelling Elderly Population. *J Nutr Health Aging*. 2013;17; S 311-312.
51. Chaubey R, Sazawal S, Chhikara S, Mahapatra M, Saxena R. Aberrant Methylation of p151NK4B, SOCS-1, Calcitonon and FHIT genes in patients with MDS and their prognostic implications. *Indian J Hematol Blood Transfus* 2013; 29: 286
52. Chaudhary C, Yadav J S, Kaur S, Pandit B. Psychogenic impact of early onset dementia of familial origin. *Indian J Psychiatry* 2013; 55 (Suppl):S66.
53. Chaudhary O, Bala M, Singh J, Hazarika A, Kumar R, Luthra K Reduction of dendritic cells and their subsets in long term versus early injecting drug users from North India. *Scand J Immunol* 2013; 77: 261–333.
54. Chaudhary O, Bala M, Singh J, Hazarika A, Luthra K. DC-SIGN, DC-SIGNR and SDF-1 polymorphism in high risk seronegative sexually transmitted disease patients from north Indian. *Sex Transm Infect* 89:Suppl 1 A146; 2013.
55. Chaudhary O, Kumar S, Makhdoomi MA, Bala M, Singh J, Luthra K.. DC-SIGNR polymorphism and expression: correlation with dendritic cell count and subsets in Indian HIV-1 infected patients and injecting drug users. *AIDS Research and Human Retroviruses*. (11): A-1-A-208; 2013.
56. Chauhan S, Sen S, Sharma A, Chauhan SS, Kashyap S, Tandon R, Pushkar N, Vanathi M. Epigenetic alteration of stratifin in ocular surface squamous neoplasia: Pathogenesis and prognosis *Cancer Res*. October 1, 2013 73:A03.
57. Chauhan S, Sen S, Sharma A, Kashyap S, Chauhan S, Tandon R, Pushker N, Vanathi M, Azad RV. Stratifin-A novel biomarker in the prognosis of Ocular Surface Squamous Neoplasia patients. *Invest Ophthalmol Vis Sci* 2013; 54: E-Abstract 5891—D0254. ARVO 2013
58. Chauhan S, Sen S, Sharma A, Kashyap S, Chauhan SS, Tandon R. Stratifin as a prognostic marker in ocular surface squamous neoplasia. United States and Candian Academy of Pathology Annual meeting, March 2-8, 2013 Baltimore. Programme and proceedings, *Mod Pathol* 26: 420-422; doi:10.1038/modpathol.2013.19, pg.-420A.
59. Chhikara S, Sazawal S, Chaubey R, Mishra P, Mahapatra M, Seth T, Saxena R. Influence ofMDR1 gene polymorphisms in Response to Imatinib Mesylate in Indian Chronic Myeloid Leukemia Patients. *Indian J Hematol Blood Transfus* 2014 Supplement
60. Chhikara S, Sazawal S, Sharma R, Chaubey R, Kumar R, Mishra P, Saxena R. P210 BCR-ABL transcript load down regulates CXCR4 expression in CML Blast crisis. *Indian J Hematol Blood Transfus* 2014 Supplement
61. Choudhary LP, Singh P, Kumar R, Dogra PN, Kapil A. Fluoroquinolone resistance and antibiotic sensitivity pattern in E. Coli using rectal swab cultures in men undergoing transrectal ultrasound guided prostate biopsy: An Indian population study. *Indian J Urol*. 2014; 30 (Supp 1): S81
62. Choudhary SK, Shekhar JL, Saxena R, Muthukkumaran S, Talwar S, Gharde P, et al. Mycobacterial aortopathy: an institutional review. *Indian J Thorac Cardiovasc Surg* 2014; 30: 104
63. Das N, Biswas B, Arora V, Kumar U and Kumar A (2013). Effect of immune complexes and cytokines on expression and modulation of neutrophil complement regulatory proteins in SLE. *Front. Immunol. Conference Abstract: 15th International Congress of Immunology (ICI)*. doi: 10.3389/conf.fimmu.2013.02.00208. Published Online 22 Aug; 2013.
64. Das PC, Jha AA, Chatterjee P, Kandel R, Kumar P, Dey AB. Comparative Study If Co-Morbidity Profiles And Predictors Of Mortality In Elderly Male And Female Of Indian Urban Population, Attending To Emergency Department Of Tertiary Care Setup. *J Nutr Health Aging*. 2013;17; S 291.
65. Das S, Rajput RS, Airan B. Perioperative dexmedetomidine treatment prevents junctional ectopic tachycardia after congenital heart surgery. *Ann Pediatr Cardiol* 2014; 7 (Suppl 1): S34
66. Dash D, Goyal V, Kumar A, Shukla G, Behari M. Efficacy and Safety of Video Assisted Thoracoscopic Surgery Thyrectomy for Myasthenia Gravis With and Without Thymoma: A Comparative Study .*Neurology*

67. Dash R, Kumar U, Kanjilal M, Biswal B and Das N. Modulations in the Expression of Leukocyte Complement Receptors (CR1 and CR2) in Rheumatoid Arthritis. *Front. Immunol. Conference Abstract: 15th International Congress of Immunology (ICI)*. doi: 10.3389/conf.fimmu.2013.02.00280. Published Online: 22 Aug; 2013.
68. Deepak KK. Autonomic dysregulation, psychologic insult and gastrointestinal motility disorders. *Indian J Physiol Pharmacol* 2013;57:6.
69. Deepak KK. Expanding Horizons of Medical Education: Empowerment of Healthcare Professionals. *Medical J Shree Birendra Hospital* 2013/S;38-9.
70. Deepti K, Kriplani A, Agarwal N, Kachhawa G, Mahey R, Kumari A, Bhatla. Successful pregnancy in a woman with systemic sclerosis—A Case report . *Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-45*.
71. Desai P, Dogra PN, Singh P. Robotic management of primary obstructive megaureter. *Indian J Urol*.2014; 30: S-103 (Abstract)
72. Dey AB, Navinath M. Frailty Among Older Indians: Development Of A New Clinical Tool. *J Nutr Health Aging*. 2013;17; S 510.
73. Dey AB. Analysis of Issues and Recommendation for Improving Emergency Care of the Older Patients, *J Nutr Health Aging*. 2013;17; S 248.
74. Dey AB. National Programme For Health Care Of The Elderly (NPHCE): A Major Initiative In Old Age Care In India, *J Nutr Health Aging*. 2013;17; S 254-255.
75. Dhar P, Kaushal P, Mehra RD. Ameliorative role of Alpha lipoic acid (ALA) in sodium arsenite (NaAsO₂) induced neurotoxicity in developing rat cerebellum. *FASEB J* 2013;27:537.2
76. Dhingra R, Srivastava S, Behra S, Vadiraja PK, Venuthurimilli AK, Shalimar, Dash NR, Madhusudhan KS, Gamanagatti SR, Garg PK. Single or Multiport Percutaneous Endoscopic Necrosectomy Under Conscious Sedation Is a Safe and Effective Treatment for Infected Pancreatic Necrosis. *Gastrointest Endosc* 2014; 79(5): AB235-AB236.
77. Dhull V, Sharma P, Suman KCS, Malhotra A, Kumar R. Metabolic response on FDG PET-CT can predict progression free survival in patients with recurrent carcinoma cervix: A prospective study. *Indian J Nucl. Med* 2013; 54 (Suppl 2): 150
78. Dhull VS, Sharma P, Kundu P, Agarwala S, Bakhshi S, Bhatnagar V, et al. Diagnostic value of 18F-FDG PET/CT in paediatric neuroblastoma: comparison with 131I-MIBG scintigraphy. *J Nucl Med* May 2013; 54: S199.
79. Dogra PN, Singh P. Robot assisted laparoscopic partial nephrectomy: Different ways to do. *Indian J Urol*.2014; 30: S-54 (Abstract)
80. Ekka M, Sharma U, Sinha S, Jagannathan NR. Cerebral metabolic changes in diabetes type 2 studied using in-vivo proton MRS. *ISMRS meeting, 18-24 April, 2013. USA*.
81. Farooque K, Kavin, Gupta B. Management of Neglected Traumatic Bilateral Cervical Facet Dislocations without Neurological Deficit. *Trauma Mon*. 2014 October; 19(4): e18385
82. Faruq M, Narang A, Kumari R, Dash D, Srivastava AK, Mukerji M. Genetic deconvolution of cerebellar ataxias in India through next generation sequencing: Novel mutations in atypical and typical genetic loci. *Journal of Neurological sciences*: 333; c142
83. Gambhir HS, Vivekanandhan S, Goyal V, Shukla G, Mathur R, Behari M. Improved motor scores after retinal pigment epithelial (RPE) cells transplantation in rat model of Parkinson's disease (PD). *Movement Disorders*, 2013;28:S37-S37.
84. Gandhi AK, Rath GK, Sharma DN, Sharma S, Kumar S, Thulkar S, Julka PK. Chronic Gastrointestinal Toxicity in Locally-Advanced Carcinoma Cervix Treated With Intensity Modulated Versus Conventional Pelvic Radiation Therapy: Results From a Prospective Randomized Study. *Int J Radiat Oncol Biol Phys*. 2013; 87: S32
85. Gandhi AK, Soumyajit R, Biswas A, Bhasker S, Sharma A, Bakhshi S, Thakkar A, Mohanti BK. Adenoid cystic carcinoma of head and neck: A single institutional analysis of 73 cases treated with multimodality approach. *Euro J Cancer* 2013 (P-3180).

86. Ghati N, Sood R, Mohan A, Samantaray JC, Aggarwal P, Sreenivas V. Study of Predictors of mortality in severe malaria *JAPI.2014;62*. (Abstract) Available at: www.japi.org/Feb.2014/Infections_Diseases.html.
87. Ghose S, Khokhar S, Titiyal JS. Paediatric dacryocystorhinostomies. Second meeting of the international Society of Dakryology.1990 Amsterdam.
88. Ghosh D. Endometrial receptivity toward blastocyst implantation in the primate: A middle-out view. *Indian J Physiol Pharmacol* 2013;57 (Supp 5):5.
89. Gochhait S, Gupta A, Shekhar S, Sharma, S, Mukhopadhyay AK. VCS Parameters: Indicator for Predicting Diabetes Mellitus, Impaired Fasting Glucose and Diabetes with Complications. *Indian J Hematol Blood Transfus* 2013; 29: 398.
90. Goswami P, Das P, Datta Gupta S, Das TK, Nag TC, Ahuja V, et al. Ultrastructural changes in tight junctions in celiac disease and Crohn's disease. *J Gastroenterol Hepatol* 2013; 28 (Suppl 3): 379
91. Goswami P, Das P, Verma AK, Prakash S, Das TK, Nag TC, et al. Alteration of Tight junction Proteins (ZO-1, Claudin 2, 3 and 4, Occludin and Jam) in patients with Celiac Disease and Crohn's Disease. *Indian J Gastroenterol* 2013; 32 (Suppl 1): A 5
92. Goswami P, Verma AK, Das P, Datta Gupta S, Das TK, Nag TC, et al. Tight junction proteins in maintenance of intestinal permeability in celiac disease and Crohn's disease. *J Gastroenterol Hepatol* 2013; 28 (Suppl 3): 379
93. Govindarajan SR, Punj J, Chandralekha C, Darlong V, Pandey RK, Deepak K K. Isoflurane and vecuronium requirement in diabetic patients with and without autonomic neuropathy undergoing elective surgery. *Eur J Anaesthesiol* 2013;30:27.
94. Goyal A, Mehla J, Gupta YK. Atorvastatin ameliorates cognitive impairment subsequent to pentylenetetrazol-induced seizures in rats. *Epilepsia* 2013;54 (Suppl. 3):340.
95. Gudlavalleti A, M Padma, D Dash, A Bhasin, A Kumar. A comparison of ASCO1 and TOAST classification systems for stroke in young. *Int J Stroke Vol 9 (Suppl. 3); October 2014; 41–331*.
96. Gupta A, Jaipuria J, Chauhan S, Sagar S, Kumar S, Misra M. Motorized two wheeler vehicles injury patterns, severity, mortality and helmet usage: Analyses from largest trauma databank in India and lessons for society. *J Prehospital Disaster Med* 2013; 28 Suppl 1: 99
97. Gupta B, Ramchandani S, Balakrishnan I, Kumar A. Transient aphonia, aphagia and facial tingling following intrathecal administration of fentanyl. *Anesth Essays Res* 2014;8:93-5.
98. Gupta B, Suri S, Kohli S. Arthrogyrosis multiplex congenital: Airway Concerns in an emergency situation. *Acta Anaesthesiologica Taiwanica* 2014;S2:88-90
99. Gupta M, Agarwal N, Kriplani A, Bhatla. N. Role of combined hormonal vaginal ring in menorrhagia. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-.
100. Gupta M, Kriplani A, Kachhawa G, Menon RP. Importance of imaging in diagnosis of cyclical abdominal pain post caesarean section: A case report. Abstract book of 57th All India Congress of Obstetricians and Gynaecologists (AICOG), Organised by FOGSI, Patna, 1-5 Feb, 2014: P. 131-131.
101. Gupta R, Swaroop L, Singh P, Saini AK, Dogra PN. Is robot assisted laparoscopic radical cystectomy the standard of care? *Indian J Urol.* 2014; 30: S-78-9 (Abstract)
102. Gupta S, Agarwal N, Kriplani A, Dora S, Bhatla N, Bahadur A, Kulshrestha V. Role of Hyperhomocysteinemia in Unexplained Recurrent Pregnancy Loss. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-25.
103. Gupta S, Laviraj MA, Haresh KP, Sharma DN, Pandey D, Prabhakar R, Rajendran M, Julka PK, Rath GK. A dosimetric Comparison of VMAT and IMRT in Sinonasal Cancers. *Int J Radiat Oncol Biol Phys.* 2014; 88: 493
104. Gupta S, Laviraj MA, Haresh KP, Sharma DN, Rajendran M, Julka PK, Rath GK. Comparative dosimetric study of three-dimensional conformal (3DCRT), intensity modulated radiotherapy (IMRT), and volumetric modulated arc therapy (VMAT) for treatment in pituitary adenomas. *J Clin Oncol.* 2013; 31: e13043
105. Gupta SK, Chopra A, Singh S, Gajendra S, Bakhshi S, Sharma A, Kumar L, Kumar R. CD 9 expression in acute myeloid leukemia: Does it predict any cytogenetic subgroup? *Indian J Hematol Blood Transfus (Oct-Dec 2013) 29(4): 280*

106. Halder A, Jain M, Chaudhary I, Mohan V, Kumar P. Suspected microdeletion syndromes and molecular cytogenetic techniques: an experience with 330 cases. *Molecular Cytogenetics* 2014; 7 (Suppl 1): 20 (O7). DOI: 10.1186/1755-8166-7-S1-O7. ISSN: 1755-8166.
107. Halder A, Jain M, Kumar P. Primary Testicular Failure: Genotype Phenotype Correlation of 140 cases. *Andrology* 2014; 2 (suppl. 1): 66-67 (poster no.16)
108. Haresh KP, Laviraj MA, Gupta S, Sharma DN, Rajendran M, Julka PK, Rath GK. A comparative analysis of 3DCRT, IMRT, and VMAT in the palliative treatment of spinal metastases. *J Clin Oncol.* 2013; 31: e20679
109. Hariprasad G, Kota D, Adhikary A. Structural analysis and ligand binding studies of Oriental liver fluke PLA2 isoforms: Implications for personalized medicine in clonorchiasis induced hepatic cancer. *J Clin Oncol* 2013; 30: e15510
110. Hariprasad G. Classification of group III PLA2 enzymes by the structural Biology. *J Prot Proteome* 2013; 4: 8
111. Hooda B, Prabhakar H, Singh GP, Ali Z, Kalaivani M. Pharmacological and non-pharmacological interventions for reducing pain on rocuronium injection—A systematic review. *J Neuroanaesthesiol Crit Care* 2014; 1: 94.
112. Irshad M, Ansari MA, Singh Shiwani, Singh Akanksha, Mankotia DS. Current Scenario of Viral Hepatitis in India. *Hepatogastroenterol* 2014.
113. Jagia P et al. Angioplasty of the aortic or renal artery stenosis in acute setting in patients with aorto-arteritis. *Journal of Vascular and Interventional Radiology - March 2014 (Vol. 25, Issue 3, Supplement, Page S92)*. This paper was presented as oral paper in SIR-2014 held at San Diego, USA
114. Jain D, Singh L, Mathur SR, Madan K, Guleria R , Iyer VK. Pulmonary mycoses diagnosed on exfoliative cytology: infection or colonization? *Acta Cytologica (Suppl 1)*. 2013;57:116.
115. Jain D, Vijay MK, Mathur SR, Iyer VK. Cytologic findings of papillary cystadenoma of the epididymis associated with von hippel-lindau disease: a rare case report. *Acta Cytologica(suppl 1)* 2013;57:147.
116. Jain D, Yadav R, Mathur SR, Sharma A, Iyer VK. Gallbladder carcinoma: an attempt of WHO histological classification on fine needle aspiration material. *Acta Cytologica (Suppl 1)* 2013;57:59.
117. Jain P, Gulati S, Seth R, Bakhshi S, Toteja GS, Pandey RM. Vincristine induced neuropathy in children with acute lymphoblastic leukemia prevalence and electrophysiological characteristics. *Euro J Ped Neurol* 2013(P-1542).
118. Jain P, Gulati S, Shastri S, Kabra M, Gupta YK, Pandey RM, Gupta N. Prevalence of genetic polymorphisms of UGT1A6 and their association with serum valproate levels in north Indian children with epilepsy on valproate monotherapy. *Eur J Paediatr Neurol* 2013; 17s:57.
119. Jain P, Gulati S, Toteja GS, Seth R, Bakhshi S, Pandey RM. Serum alpha-tocopherol, vitamin B12 and folate levels in Childhood ALL (Acute Lymphoblastic Leukemia) survivors with and without neuropathy. *JICNA* 2014;Suppl (1)
120. Jain P, Shastri S, Gulati S, Kabra M, Gupta YK, Gupta N et al. Prevalence of genetic polymorphisms of Ugt1a6 and their association with serum Valproate levels in north indian children With epilepsy on valproate monotherapy. *European Journal of Pediatric neurology* 2013;17:S77
121. Jain S, Singhal A, Sharma P, Mishra A, Tripathi M, Bal C, Malhotra A, Kumar R. 99mTc-MDP bone scintigraphy in diabetic foot: Is there any additional benefit of SPECT-CT? *J Nucl Med* 2013; 54 (Suppl 2): 1980
122. Jain T, Seth R, Singla S, Sharma P, Parida G, Kumar R, Bal C, Malhotra A. Can 18F-FDG PET-CT accurately reassess patients with Langerhans cell histiocytosis? *J Nucl Med* 2013; 54 (Suppl 2): 437.
123. Jain V, Banik S, Bindra A, Goyal K, Rath GP. Extubation failure in head injured patients: an analysis of three months data. *JNACC* 2014; 1: 91.
124. Jain V, Jana M, Adhikari S, Ahmad N, Vikram N, Ramakrishnan L, et al. Prevalence of fatty liver and cardiometabolic complications in overweight Indian adolescents. *Obesity Reviews* 2014;15 (S2):95
125. Jha KA, Nag TC, Wadhwa S, Roy TS. Damaging effect of intense visible light in different photoperiods to neonatal chick retina: Morphological and biochemical investigation. *Ann Neurosci* 2013;20 (suppl):78.

126. Jhanjee S. Putting tobacco harm reduction in perspective: Is there any evidence? *Indian J Soc Psychiatry* 2013; 29:A9-16
127. Jyotsna VP, Singla R, Ambekar S, Dhawan A, Gupta N, V.Sreenivas, et al. Improvement in sympathetic cardiac autonomic functions after 6 months of comprehensive yogic breathing program in patients with diabetes. *Endocrine Abstracts*, 2013, 32, P419.
128. Jyotsna VP, Singla R, Singh MB, Suma SV, Gupta N. Effect of long term valproate therapy on bone health parameters. *Endocrine Abstracts* 2013; Vol 32: ISSN 1479-6848.
129. Kachhawa G, Kriplani A, Badiger S, Khadgawat R, Bhatla N, Agarwal N. Ovarian priming by dehydroepiandrosterone in infertile women with premature ovarian failure in Gonadotropin-IUI Cycles. *Br J Obstet Gynecol* 2014; 121(52): EP6.16 (83)
130. Kachhawa G, Kriplani A, Bhatla N, Agarwal N, Vanamail P, Kumari A. Perinatal and maternal outcomes in obese north Indian women and correlation with maternal C-peptide levels. Abstract book of 57th All India Congress of Obstetricians and Gynaecologists (AICOG), Organised by FOGSI, Patna, 1-5 Feb, 2014: P. 86 – 86.
131. Kachhawa G, Kriplani A, Kusumlata, Menon RG, Karthik. Previous Caesarian Scar Rupture presenting as bowel herniation through vagina. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-40-41.
132. Kakkar AK, Kumar G, Gulati S, Gupta YK. Serum trace element levels in children receiving antiepileptic drug therapy: A cross sectional study. *Epilepsia* 2013; 54: 61
133. Kannan L, Gulati S, Agarwala A, Kabra M, Tripathi M, Pandey RM. Efficacy of low glycemic index diet therapy in children with refractory epilepsy: a randomized controlled trial. *Epilepsia* 2013;54:229
134. Kapoor R, Agarwala S, Ali S, Gupta DK, Bhatnagar V. Prevalence of C-kit mutation in neuroblastoma. *Pediatric Blood and Cancer*, 2013
135. Karthik SDS, Kriplani A, Bhatla N, Agarwal N, Khadgawat R, Kachhawa G Comparison of two different regimens of GnRH antagonists in Controlled Ovulation and IUI cycles: Randomized controlled study. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-23.
136. Karthik SDS, Kriplani A, Kachhawa G, Bhatla N, Agarwal N, Khadgawat R. Fixed versus Flexible GnRH antagonist regimen for preventing premature luteinization in COH-IUI cycles. Abstract book of 57th All India Congress of Obstetricians and Gynaecologists (AICOG), Organised by FOGSI, Patna, 1-5 Feb, 2014: P. 69-69.
137. Karunanithi S, Sharma P, Kumar A, Goenka A, Bandopadhyaya G, Gupta D, et al. Comparison of contrast enhanced MRI and 18F-FDOPA PET-CT in detection of recurrent glioma. *J Nucl Med* 2013; 54 (Suppl 2): 1834
138. Kathpalia P, Sanyal T, Nag TC, Wadhwa S. Calretinin expression in brainstem auditory nuclei of chicks in response to prenatal noise stimulation at 110 dB. *Ann Neurosci* 2013;20 (suppl):79.
139. Kaur M, Gupta B, D'Souza N. When to correct coagulopathy in AKI? *Anaesthes Essays Res* 2014;8:93-95
140. Kaur S, Kachhawa G, Kriplani A, Agarwal N. Hepatocellular carcinoma in pregnancy: A case report. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-47.
141. Khan AK, Pal S, Sharma R, Yadav AK, Dash NR, Dattagupta S, et al. Prediction of pancreatic fistula and fibrosis in patients undergoing pancreatic resections using differential pancreatic enhancement pattern on multiphase CT scan: A prospective study. *Pancreatol* 2014;14(2): S7-S8.
142. Khandelwal E, Jaryal AK, Deepak KK. Symptomatic and asymptomatic patients of orthostatic hypotension have distinct pattern of autonomic dysfunctions. *Indian J Physiol Pharmacol* 2013;57:155.
143. Khanna V, Agarwala S, Bakhshi S, Srinivas M, Bajpai M, Gupta DK, et al. Treatment outcome of recurrent hepatoblastoma: Role of irrinotecan. *Pediatric Blood and Cancer*, 2013
144. Khanna V, Agarwala S, Tandon N, Chumber S, Srinivas M, Bajpai M, et al. Pediatric thyroid cancers: Presentation and outcomes. *Pediatric Blood and Cancer*, 2013
145. Kriplani A, Kachhawa G, Wangdi T, Menon RP. *J Minim Invasive Gynecol*. 2013;20(6): S186.
146. Kriplani A, Wangdi T, Menon RP, Mahey R, Kachhawa G. Laparoscopic removal of eroded mesh following laparoscopic sacrocolpopexy. *J Minim Invasive Gynecol* 2013; 20(6): S54.

147. Kulshrestha V, Kriplani V, Agarwal N, Sareen N, Kachhawa G, Bhatla N. Long term use of the Levonorgestrel Intrauterine System (LNG-IUS) in abnormal uterine bleeding (AUB): the Indian experience. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-51
148. Kumar A, Deepak KK, Jyotsna VP, Talwar A. Postural variation of pulmonary diffusing capacity in type - II diabetes mellitus. *Indian J Physiol Pharmacol* 2013; 57: 104.
149. Kumar A, Pal S, Dash NR, Sharma A, Sharma R, Duttagupta S, et al. Concurrent versus sequential neoadjuvant chemoradiotherapy followed by surgery in operable carcinoma gallbladder patients: a pilot study. *Trop Gastroenterol* 2013; 34 (Suppl. 1): S48:B2
150. Kumar A, Rao N, Dogra PN, Saini AK, Singh P. Outcome of extracorporeal shock wave lithotripsy (ESWL) in pediatric population: does the site and size of stone matter? *Indian J Urol* 2014; 30: S-140 (Abstract)
151. Kumar A, Sharma P, Karunanithi S, Kumar R, Malhotra A, Bandopadhyaya G, et al. Search for an ideal PET radiotracer in the evaluation of medullary thyroid carcinoma. *J Nucl Med* 2013; 54 (Suppl 2): 306.
152. Kumar P, Gupta A, Arora P, Sharma S, Mukhopadhyay A. Mean platelet volume and mean neutrophilic volume as predictors of the presence and severity of diabetes mellitus. *Int J Lab Hematol* 2014; 36 (Suppl 1): 34.
153. Kumar P, Nag TC, Jha KA, Roy TS, Wadhwa S. Expression patterns of iron regulatory proteins hepcidin and haphaestin in rat retina. *Ann Neurosci* 2013;20 (suppl): 40.
154. Kumar P, Tiwari SC, Sreenivas V, Kumar N, Tripathi RK, Chatterjee P, et al. Profile of Older Adults in Memory Outpatient Clinic Setting And Application Of Novel Occupational Therapy Technique In Patients With Mild To Moderate Dementia. *J Nutr Health Aging*. 2013; 17: S289.
155. Kumar R, Damle N, Bal C, Malhotra A, Tripathi M, Kumar R, et al. Extraction of residual 18F-fluoride for PET bone scan simultaneously with the synthesis of 18F-FDG using Explora synthesis module in single run of cyclotron with minimal radiation exposure. *J Nucl Med* 2013; 54 (Suppl 2): 1189
156. Kumar R, Dhull V, Sharma P, Agarwala S, Bakhshi S, Bal C, et al. Utility of 18F-FDG PET-CT in pediatric neuroblastoma: Comparison with 131I-MIBG Scintigraphy. *Indian J Nucl Med* 2013; 54 (Suppl 2): 199.
157. Kumar R, Irshad M, Behera D, Chopra A. Reference diagnostic range for serum immuno-globulin free light chains in Indian subjects. Comparison with multiple myeloma. *Clin Chem* 2014.
158. Kumar R, Sarvottam K, Yadav RK, Khadgawat R. Effect of weight loss on Vitamin D and diabetic risk factors in overweight/ obese subjects. *Indian J Physiol Pharmacol* 2013;57:213.
159. Kumar R. Laparoscopic right adrenalectomy for pheochromocytomas: step-by-step. *J Urol*. 2013; 189 (Supp 4): 375
160. Kumar S, Kumar P, Gupta A, Sagar S, Misra M. Epidemiology of bowel injuries after blunt trauma-5 year experience from a tertiary care center of India. *J Prehospital Disaster Med* 2013; 28 Suppl 1: 99.
161. Kumar SB, Chawla B, Seth R, Surabhi, Dada R. Loss of paternal sperm DNA integrity in non-familial retinoblastoma. *IOVS* 2014;55:6440.
162. Kumar SB, Yadav R, Yadav RK, Dada R. Impact of life style interventions on markers of cellular aging. *Andrology* 2014;2 (Suppl 1):73.
163. Kumar V, Chatterjee P, Dey AB. Simple tool to asses functionality in outpatient setting. *J Nutr Health Aging*. 2013; 17: S305.
164. Kumari A, Kriplani A, Bhatla N, Agarwal N, Kachhawa G, Deepti K, Vanamail P. Effect of Maternal Body Mass Index on Feto-Maternal Outcome in North Indian Women. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-25.
165. Kumari P, Kriplani A, Agarwal N, Mahey R, Kachhawa G, Rai S, Bhatla N. A Comparison of Maternal & Fetal Outcome of Trial of Labour after Previous Two Caesarean sections versus Previous One Caesarean section. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-58.
166. Kumari P, Kriplani A, Agarwal N, Mahey R, Kachhawa G, Rai S, Bhatla N. A comparison of maternal and fetal outcome of trial of labor (TOL) after previous two caesarean sections versus previous one caesarean section. Abstract book of 57th All India Congress of Obstetricians and Gynaecologists (AICOG), Organised by FOGSI, Patna, 1-5 Feb, 2014: P. 112-112.

167. Kundru S, Gupta A, Jhakar A, Kumar S, Sagar S, Misra M. Railway track injury-A common mode of life threatening injury: An experience from a developing nation. *J Prehospital Disaster Med* 2013; 28 Suppl 1: 97
168. Kusumlata, Agarwal N, Bhatla N, Kriplani A. Ovarian Tumors in Young Females. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-36.
169. Lakshminarasimman Parasuraman L, Singh CA, Sharma SC, Thakar A, Iyer V, Balla AS. Fine Needle Aspiration Cytology versus Direct Laryngoscopic Biopsy in Suspicious Laryngo-Hypopharyngeal Masses. *Otolaryngol Head Neck Surg* 2013; 149: 172.
170. Linga VG, Arora R, Kulkarni KP, Bakhshi S. Systematic analysis of current outcomes of retinoblastoma from India. *Pediatr Blood Cancer* 2013 (P-0307).
171. Lokesh BN, Gupta YK, Kumar L, Iqbal S, Velpandian T, Singh S. Treatment response of imatinib in chronic myeloid leukaemia: Role of p-glycoprotein. *Indian J Pharmacol* 2013;45(Suppl 1):S139.
172. Magan D, Mehta M, Yadav RK. Stress- induced changes in cognitive functions are modified by short-term meditation in overweight/obese subjects. *Indian J Physiol Pharmacol* 2013;57:125.
173. Mahajan C, Rath GP, Singh GP, Bithal PK. Efficacy of dexmedetomidine infusion for conscious sedation in patients undergoing awake craniotomy: A preliminary study. *J Neuroanaesthesiol Crit Care* 2014; 1: 85.
174. Mahajan S, Bora M, Saraya A, Kumar A. Fibroblast growth factor-23 & its correlation with carotid artery intimal medial thickness among chronic peritoneal dialysis patients: a cross-sectional study. *Perit Dial Int* 2014; 34 (Suppl 1): S-16.
175. Mahey R, Kriplani A, Kachhawa G, Wangdi T, Menon RP. Laparoscopic hysteropexy for genital prolapse in young women and reproductive outcome. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-31.
176. Malik N, Kriplani A, Bhatla N, Agarwal N, Yadav R, Kachhawa G. Dehydroepiandrosterone (DHEA) as an Adjunct to Gonadotrophins in Infertile Asian Indian women with Premature Ovarian Ageing (POA). Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-22.
177. Mankotia DS, Irshad M. Cloning and Expression of N22 region of TTV genome and use of peptide in developing immunoassay for TTV antibodies. *Virology J* 2014.
178. Martin A, Imperiale B, Ravolonandriana P, Coban AY, Akgunes A, Ikram A, Mishra M, Singh U. Prospective multicentre evaluation of the direct nitrate reductase assay for the rapid detection of extensively drug-resistant tuberculosis. *J Antimicrob Chemother.* 2014; 69:441-4.
179. Mathur SR, Jain D, Singh G, Iyer VK. Role of cerebrospinal fluid cytology in diagnosis of meningeal carcinomatosis: a series of 66 cases from a large tertiary care center. *Acta Cytologica (suppl 1)* 2013;57:107.
180. Mathur SR, Mallick S, Jain D, Iyer VK. Cytomorphological and morphometric analysis of Rosai Dorfman disease. *Acta Cytologica (suppl 1)* 2013;57:124.
181. Mehdi A, Yadav JS, Arun K, Sarif N. Pregnancy induced obsessive compulsive disorder: A case report. *Indian J Psychiatry* 2013; 55 (Suppl):S69.
182. Menon RP, Agarwal N, Kriplani A, Bhatla N, Khadgawat R. Therapy with oral hypoglycaemic Glibenclamide versus Insulin in diabetes during pregnancy Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-36.
183. Mishra A, Prakash S, Ahuja V, Datta Gupta S, Makharia GK. Transcriptional expression of tight junction proteins in patients with active celiac disease. *J Gastroenterol Hepatol* 2013; 28 (Suppl 3): 379
184. Mishra P, Agrawal N, Sharma S, Seth T, Mahapatra M. Prospective study to identify risk factors for post thrombotic syndrome and evaluate role of compression ultrasound sonography to decide discontinuation of anticoagulant. *J Thrombo Hemostasis* 2013; 11: 433
185. Mishra P, Mahapatra M, Seth T. Peripheral blood stem cell transplant in heavily pre-transfused aplastic anemia patients. *Rinsho Ketsueki* 2013; 9: 1043-1504.
186. Mishra P, Mahapatra M, Seth T. Thrombotic complications in hematological malignancies. *J Thrombosis Hemostasis* 2013; 11 (suppl 2): 989
187. Mishra S, Kumar M, Vemparala K, Kumar R, Malhotra N, Dada R. Mitochondrial copy number variation: No correlation with sperm defects: Implications in ART. *Andrology* 2014;2 (Suppl.1):73

188. Mishra S, Kumar R, Kumar SB, Dada R. Sperm telomere length and DNA integrity: role in idiopathic male infertility: impacts of life style interventions. *Andrology* 2014;2 (Suppl 1):66.
189. Mishra S, Mohanty K, Vemparala K, Tolahunase MR, Kumar R, Dada R. Infertility, recurrent spontaneous abortion, congenital malformations and cancer: Points of common causality. *Andrology* 2014; 2 (Suppl 1): 68
190. Mudila, F. Mohammed, A. Srivastava. Mitochondrial DNA variations and evidence of haplogroup in Indian Friedrich's ataxia (FRDA) patients. *Journal of Neurological sciences*: 333; c708-709
191. Murugan V, Biswas B, Bakhshi S. Infection profile in pediatric patients undergoing autologous hematopoietic stem cell transplantation: single center experience of 66 cases. *Pediatr Blood Cancer* 2013 (P-0509).
192. Mutkkumaran S, Talwar S, Gharde P, Sharma S, Singh S, Choudhary SK. Is routine computerized tomographic angiography justified in patients undergoing Aortic Valve Replacement for Bicuspid Aortic Valve Disease? *Indian J Thorac Cardiovasc Surg* 2014; 30: 92-3
193. Mutreja D, Sazawal S, Chhikara S, Mahapatra M, Mishra P, Seth T, Saxena R. Polycythemia Vera: Correlation of JAK2V617F mutation with clinicohematologic characteristics: A single tertiary care center experience. *Indian J Hematol Blood Transfus* 2013; 29: 306
194. Naglot S, Aggarwal P, Dada R, Dalal K. C Allele of rs4950928 Promoter Variation in CHI3L1 is not associated with Asthma Susceptibility Supplementary issue of Allergy, Asia pacific congress of allergy, asthma and clinical immunology, Taipei, Taiwan, November 14-17, 2013.
195. Naglot S, Aggarwal P, Dey S, Dada R, Dalal K. Serum YKL-40: A possible biomarker in bronchial asthma. Supplementary issue of Allergy. Asia pacific congress of allergy, asthma and clinical immunology, Taipei, Taiwan, November 14-17, 2013
196. Natung T, Khokhar S, Vajpayee RB, Sharma N, Agarwal N. Amniotic membrane transplantation in neurotrophic corneal ulcers, refractory to medical management. XXI Congres of ESCRS Munich, 6-10, 2003.
197. Nazar A, Sharma P, Khangembam B, Suman KCS, Kumar R, Malhotra A. Utility of 18F-FDG PET-CT for detecting recurrence in patients with skeletal Ewing sarcoma: A retrospective analysis. *J Nucl Med* 2013; 54 (Suppl 2): 605
198. Nehra A, Pershad D, Sreenivas V. Indian Aphasia battery: Tool for specific diagnosis of language disorder post stroke, *Jour of the Neurological Sciences*, 2013, 333, E165.
199. Pahwa R, Kumar U, Das N. Complement Regulatory Protein MCP; CD46 in Rheumatoid Arthritis. *Front. Immunol. Conference Abstract: 15th International Congress of Immunology (ICI)*. doi: 10.3389/conf.fimmu.2013.02.00423. Published Online: 22 Aug; 2013.
200. Pai G, Singh A, Seth R Rosai-Dorfman disease (sinus histiocytosis with massive lymphadenopathy) in children: Experience from a tertiary care centre. *Indian Journal of Cancer* 2013;50:P-S232
201. Pandey AK, Sharma SK, Sharma P, Gupta P, Kumar R. Development of a radiopharmaceutical dose calculator for pediatric patients undergoing diagnostic nuclear medicine studies. *Indian J Nucl Med* 2013; 28 (2): 75-8
202. Pandit AK, Kumar G, Vibha D, A. Srivastava, G. Shukla, V. Goyal, et al. Complementary and alternative medicine (CAM) in Indian Parkinson's disease (PD) patients. *Movement Disorders*, 2013; 8: S153-S153.
203. Panwar R, Kilambi R, Pal S, Dash NR, Vij A, Sahni P, Misra MC. Survey of the awareness and beliefs regarding brain death and deceased organ donation amongst medical students in India. *J Clin Exp Hepatol* 2014; 4 (Suppl. 2): S94
204. Panwar R, Kilambi R, Pal S, Dash NR, Vij A, Sahni P, Misra MC. Survey of the awareness and beliefs regarding brain death and deceased organ donation amongst lay persons in India. *J Clin Exp Hepatol* 2014; 4 (Suppl. 2): S81
205. Panwar R, Pal S, Dash NR, Sahni P, Acharya SK. Early and Long Term Results of Hepatic Resection for Hepatocellular Carcinoma (HCC) at a Tertiary Care Centre in India. *J Clin Exp Hepatol* 2014; 4 (Suppl. 2): S93
206. Parida G, Jain T, Sharma P, Singla S, Kumar R, Bal C, et al. Role of 18F-FDG PET-CT for restaging patients

- with primary malignant germ cell tumors: Single institutional experience. *J Nucl Med* 2013; 54 (Suppl 2): 477
207. Patel S, Singh N. Evaluation of effect of metformin and its various combinations on epithelial ovarian cancer. Proceedings of AACR Intl. Conf. on Advances in ovarian cancer research: from concept to clinic. A30:pg74; 2013.
 208. Patnaik P, Arun Kumar V, Dhingra R, Pal S, Dash NR, Gamanagatti S, Garg P, Sahni P. Haemorrhage in severe acute pancreatitis: Management and outcome at a tertiary care centre. *Pancreatol*, 2014 March;4 (2): S5
 209. Patnaik PN, Pal S, Singh A, Seth A, Sahni P. Adapting liver transplantation techniques in the surgical management of renal tumors with IVC tumour thrombus. *J Clin Exp Hepatol* 2014; 4 (Suppl. 2): S91
 210. Porwal C, Kaushik A, Makkar N, Banavaliker JN, Hanif M, Singla R, Singh UB. Incidence and risk factors for extensively drug-resistant tuberculosis in Delhi region. *PLoS One*. 2013; 8:e55299.
 211. Prabhakar P, Reeta KH, Maulik SK, Gupta YK. Alpha asarone ameliorates high fructose diet-induced metabolic syndrome in rats. *Ind J Pharmacol* 2013;45:S212.
 212. Prabhakar P, Reeta KH, Maulik SK, Gupta YK. Protective effect of alpha amyryn against high fructose diet induced metabolic syndrome in rats. *Diabetes Metab J* 2013;37 (Suppl.1):117.
 213. Prakash K, Chandran D, Jaryal AK, Khadgawat R, Deepak KK. Cerebrovascular reactivity and systemic vascular reactivity in the patients of type 2 Diabetes Mellitus. *Indian J Physiol Pharmacol* 2013;57:156-7.
 214. Rai NK, et al. REM behavioral disorder (RBD) in Parkinson's disease. *Movement Disorders*. 2013;28.
 215. Rai NK, Goyal V, Shukla G, Kumar N, Shrivastava AK, Behari M. Evaluation of unified multiple system atrophy rating scale (UMSARS) in Indian MSA patients. *Movement Disorders* 2013; 28: S286-S288.
 216. Rai NK, Goyal V, Shukla G, Kumar N, Shrivastava AK, Behari M. Evaluation of supranuclear palsy rating scale in patients with progressive supranuclear palsy. *Movement Disorders*, 2013; 28: S283-S285.
 217. Rai NK, Goyal V, Shukla G, Shrivastava AK, Behari M. REM behavioral disorder (RBD) in Parkinson's disease. *Movement Disorders*, vol. 28, pp. S294-S295. 2013.
 218. Rai S, Agarwal N, Kriplani A, Bhatla N, Kachhawa G, Mahey R. Chronic kidney disease (CKD) in Pregnancy: Medical and obstetric outcome. Abstract book of 57th All India Congress of Obstetricians and Gynaecologists (AICOG), Organised by FOGSI, Patna, 1-5 Feb, 2014: P. 45-45.
 219. Rai S, Agarwal N, Kriplani A, Bhatla N, Khacchawa G, Mahey R. Systemic lupus erythematosus and pregnancy. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-30.
 220. Rajkumari N, Mathur P, Sharma S, Gupta B, Bhoi S, Misra MC. Procalcitonin as a predictor of sepsis and outcome in severe trauma patients: A prospective study. *J Lab Physicians* 2013;5:100-8.
 221. Ranga R, Kriplani A, Agarwal N, Kachhawa G, Mahey R, Kaur S, et al. Successful Pregnancy Outcome in Woman with Lupus Nephritis: A Case Report. Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-46.
 222. Ranjan A, Chandoke RK, Tanwar P, Kumar A, Ray MD, Kshitiz KK, Chauhan N; Myeloid sarcoma of maxilloethmoidal sinus: an uncommon presentation of acute myeloid leukemia. *IJHBT* (Oct-Dec 2013) 29(4): 278-400.
 223. Rao N, Regmi SK, Singh P, Dogra PN. Large benign prostate: Prostatectomy the robotic way. *Indian J Urol*.2014;30 : S-52 (Abstract)
 224. Rao N, Singh P, Saini A, Seth A, Dogra PN, Kumar R. Pheochromocytomas and paragangliomas: 5 year experience. *Indian J Urol*.2014;30 : S-79 (Abstract)
 225. Rath GK, Gandhi AK, Sharma DN, Julka PK, Hareesh KP. Role of PET-CT in Predicting Clinical Outcome in Patients With Recurrent Carcinoma Cervix Following Definitive Radiation Therapy. *Int J Radiat Oncol Biol Phys*. 2013; 87: S408.
 226. Reeta KH, Gupta YK. NMDA and GABA-ergic mechanisms in the antiepileptic effect of tianeptine in experimental models of epilepsy. *Epilepsia* 2013;54 (Suppl 3):254.
 227. Reeta KH, Prabhakar P, Gupta YK. Curcumin attenuates high fructose diet-induced metabolic syndrome in rats. *Ind J Pharmacol* 2013;45:S174-5.

228. Regmi SK, Dogra PN, Singh P. Difficult Robotic Prostatectomy: The Menace of an Enlarged Median Lobe. *Indian J Urol*.2014;30 : S-108-9 (Abstract)
229. Regmi SK, Singh UB, Sharma JB, Kumar R. Relevance of Positive Semen PCR for Tuberculosis in Asymptomatic men Undergoing Infertility Evaluation. *Indian J Urol*. 2014;30(Supp 1): S100
230. Roy S, Jaryal AK, Srivastava AK, Deepak KK. Cold pressor test unmasks differential reactivity of the heart and the blood vessels in patients of multiple system atrophy with Parkinsonism. *Indian J Physiol Pharmacol* 2013;57:225-6.
231. Roy S, Nag TC, Mathur R, Jain S. Functional development of visual system following prenatal repetitive auditory stimulation in chickens (*Gallus domesticus*). *Ann Neurosci* 2013;20 (suppl):33.
232. Roy S, Nag TC, Mathur R, Jain S. Repetitive auditory stimulation at a critical prenatal period modulates the activity dependent development of the auditory cortex and visual Wulst in chicks (*Gallus domesticus*). *Indian J Physiol Pharmacol* 2013;57:219.
233. Sagar R, Sagar S, Singhal M, Sahu A, Misra M. Psychiatric aspects in patients undergoing amputation following trauma: A neglected entity in developing nation. *J Prehospital Disaster Med* 2013; 28 Suppl 1: 139.
234. Sagar S, Jaipuria J, Singhal M, et al. Pediatric peripheral vascular injuries: An experience from level 1 trauma center. *Indian J Prehospital Disaster Med* 2013; 28 Suppl 1: 94.
235. Saini AK, Narain T, Singhal M, Sagar S, Singh S, Singh P. Radial artery forearm free flap phalloplasty for post traumatic ecthyma gangrenosum of the penis. *Indian J Urol*.2014;30 : S-53 (Abstract)
236. Sarvottam K, Netam RK, Magan D, Yadav RK. Adiponectin, interleukin -6 and endothelin-1 correlate with cardio-metabolic risk factors in overweight/obese men. *Indian J Physiol Pharmacol* 2013;57:159.
237. Satpathy S, Chaudhry A, Gupta SK, Kapil A. Study of HAI at a tertiary hospital in India: Economic implications for developing countries. *Antimicrobial Resistance and Infection Control Journal* 2013; Vol. 2 (Suppl-1) page 261.
238. Sawhney C, Kaur M, Lalwani S, Gupta B, Balakrishnan I, Vij A. Organ retrieval and banking in brain dead trauma patients: Our experience at level-1 trauma centre and current views. *Indian J Anaesth* 2013;57:241-7
239. Sazawal S, Mutreja D, Malhotra S, Chhikara S, Chaubey R, Mahapatra M, et al. Acute Myeloid leukemia with Ph chromosome and BCR-ABL positivity: AIIMS experience. *Indian J Hematol Blood Transfus* 2013; 29: 282
240. Sehgal R, Shankar M, Kriplani A, Leema, Kandpal S, P. Vanamail. Changing Trends of Medical Termination of Pregnancy (MTP): A retrospective study . Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-39.
241. Senthil G, Dash NR, Pal S, Sharma A, Mohanti BK, Sharma R, Dattagupta S, Sahni P. Preoperative chemoradiation and surgery vs. surgery alone in gastroesophageal junction adenocarcinomas. *Trop Gastroenterol* 2013; 34 (Suppl. 1); S1:E3
242. Seth A, Sharma A, Swaroop L, Chugh S, Anand V. Expression of cytokines of Th17 cells in patients of muscle invasive urothelial carcinoma of urinary bladder. *Urology* 82, (3 Supplement 1), p S39; 2013.
243. Seth R, Das R, Singh A, Puri K Clinical profile and chemotherapy response in children with Hodgkin lymphoma at a tertiary care centre Indian Society of Medical and Pediatric Oncology. *Indian Journal of Cancer* 2013;50:P-5232
244. Seth R, Kumar R, Chopra A, Singh A Absence of minimal residual disease at end of induction is a good prognostic marker for treatment outcomes in childhood B-lineage acute lymphoblastic leukemia: Report from a tertiary center in India. *Indian Journal of Cancer* 2013;50;P-S232
245. Shalimar, Hanish Sharma, Saurabh Kedia, Ajay Kumar, Shivanand Gamanagatti, Gurpreet Gulati, Siddhartha Dutta Gupta, Renu Saxena, Subrat Kumar Panda, Subrat Kumar Acharya. HVOTO: Twenty five years' experience at a tertiary care center. *J Clin Experimental Hepatol* 2013; 3(1): S80-S81.
246. Shamsi MB, Dada R. Varicocele: Clinical implications and prognosis in management of infertility. *Andrology* 2014;2 (Suppl.1):75

247. Shamsi MB, Mishra S, Dada R. Effect of oxidative stress and sperm DNA damage on early events of conception, indices of embryo growth and embryo quality in couples opting for IVF. *Andrology* 2014;2 (Suppl.1):67
248. Sharif N, Pandit B, Srivastava AS, Yadav JS. Clozapine withdrawal catatonia. *Indian J Psychiatry* 2013; 55 (Suppl):S119.
249. Sharma A, Asothai R, Anand V, Khandpur S. Disequilibrium of Tregs and TH17 cells in the pathogenesis of autoimmune skin disorder: Pemphigus vulgaris. *Front. Immunol. Conference Abstract: 15th International Congress of Immunology (ICI)*. doi:10.3389/conf.fimmu.2013.02.00886; 2013.
250. Sharma A, Senthil Kumaran S, Saxena R, Shukla G, Sreenivas V, Jagannathan NR. Neurocognitive alteration associated with auditory tasks in early and late blind subjects *Proc. Intl. Soc. Mag. Reson. Med.*, 2013, 21.
251. Sharma A, Senthil Kumaran S, Saxena R, Shukla G, Sreenivas V, Jagannathan NR. Adaptations in cortical activations in early, late blind individuals reading Braille *Proc. Intl. Soc. Mag. Reson. Med.* 2013, 21.
252. Sharma A. Th17/Treg cell axis: The crucial imbalance in immunopathogenesis of Pemphigus vulgaris. *Indian J Clin Biochemistry* 2013;28 (1 Suppl):30-31.
253. Sharma DN, Deo S, Rath GK, Gandhi AK, Bakhshi S, Julka PK, et al. Perioperative High-Dose-Rate Interstitial Brachytherapy in Patients With Soft Tissue Sarcomas. *Int J Radiat Oncol Biol Phys.*2013; 87: S614
254. Sharma DN, Joshi N, Haresh KP, Gupta S, Julka PK, Rath GK. High-Dose-Rate Interstitial Brachytherapy Alone for Early Stage Penile Carcinoma. *Brachytherapy* 2013; 12: S17
255. Sharma M, Khan R, Aggarwal M, Sharma A. Role and correlation of inflammatory cytokines, angiogenic markers and insulin growth factors in post treatment (neoadjuvant chemoradiation) disease mapping in advanced stage carcinoma of uterine cervix. *Front. Immunol. Conference Abstract: 15th Int Congress of Immunology (ICI)*. doi:10.3389/conf.fimmu.2013.02.00887; 2013.
256. Sharma M, Singh A, Seth R, Kumar R, Kabra SK, Pandey RM. Hyperleukocytosis in childhood acute leukemia: Role of hydroxyurea in a randomized control trial. *Indian J Cancer* 2013;50:P-S231
257. Sharma P, Suman KCS, Dhull V, Singh H, Bal C, Malhotra A, Kumar R. Baseline evaluation of patients with head and neck paraganglioma with 68Ga-DOTANOC PET-CT. *J Nucl Med* 2013; 54 (Suppl 2): 45
258. Sharma U, Mewar S, Makharia GK and Jagannathan NR. Biochemical characterization of celiac disease biology using in-vitro NMR spectroscopy. *J Gastroenterol Hepatol* 2013; 28 (Suppl 3): 378.
259. Shukla G, Gupta A, Katoch J, Garg A, Goyal V, Srivastava A, et al. High prevalence of single small CT lesions among patients with juvenile myoclonic epilepsy: Diagnostic and treatment implications. *Epilepsia* 2013 54(Suppl. 3):241.
260. Shukla SM, Shukla G, Behari M, Goyal V, Srivastava AK, Vibha D, et al. Impact of sleep on localizing value of video EEG in patients with refractory focal seizures – a prospective video-EEG-Polysomnography study. *Epilepsia* 2013 54(Suppl. 3):265.
261. Singh A, Bora GS, Saini AK, Singh P, Dogra PN. Comparison of intraoperative and postoperative outcomes in transperitoneal versus extraperitoneal robotic-assisted radical prostatectomy: a single-center, single-surgeon experience. *Indian J Urol.*2014;30 : S-89 (Abstract)
262. Singh A, Singh S, Ansari MA, Mankotia DS, Irshad M. Development of a Multiplex real time PCR assay for determining HCV-genotypes using different sub-genomic regions. *Liver Int* 2014.
263. Singh H, Patel C, Sharma P, Malhotra A. Does perfusion pattern influence stress induced changes in left ventricular mechanical dyssynchrony on Thallium-201 gated myocardial perfusion SPECT? *J Nucl Med Meeting abstracts* 2013; 54: 1726
264. Singh L, Kashyap S, Pushker N, Sen S, Bakhshi S, Sharma A, Saini N, Kaur J. Role of apoptotic regulatory proteins in retinoblastoma, *IOVS*, 2013; 54;E-Abstract 4987.
265. Singh P, Dogra PN, Kumar R, Seth A, Saini A. Robotic pyeloplasty: Different ways to handle pelviureteric junction obstruction. *Indian J Urol.* 2014; 30 (Supp 1): S109
266. Singh P, Dogra PN, Saini A. Robot assisted laparoscopic radical cystectomy: A minimal invasive approach for Bladder cancer. *Indian J Urol.*2014; 30: S-55

267. Singh P, Kurray L, Agnihotri A, Das P, Verma AK, Sreenivas V, et al. Correlation between anti-tissue transglutaminase titres and villous abnormalities in celiac disease. *J Gastroenterol Hepatol* 2013; 28 (Suppl 3): 599
268. Singh P, Kurray L, Agnihotri A, Das P, Verma AK, Sreenivas VV, et al. Titres of anti-tissue transglutaminase antibody correlate well with severity of villous abnormality in celiac disease. *Indian J Gastroenterol* 2013; 32 (Suppl 1): A 8
269. Singh P, Sharma PK, Agnihotri A, Jyotsna VP, Das P, Datta Gupta S, et al. Patients with short stature should be screened for celiac disease. *J Gastroenterol Hepatol* 2013; 28 (Suppl 3): 380
270. Singh S, Gupta YK. Evaluation of the antiarthritic and anti granuloma activity of *cissus quadrangularis* in experimental models. *Basic Clin Pharmacol Toxicol* 2014;115(Suppl 1):291.
271. Singh S, Gupta YK. Evaluation of the efficacy of *berberis aristata* in experimental arthritis. *Basic Clin Pharmacol Toxicol* 2014;115(Suppl 1):292.
272. Singh S, Rani N, Kumar H, Shariff A, Roy TS. Brachialis Muscle Supplied by a Combined Branch of Median Nerve Roots: A Report of Anatomical Variation with Clinical Implications. *Int Med J* 2013;20(1).
273. Singh U, Verma AK, Mishra M, Pandey P, Mishra A, Pandey KK, et al. *Mycobacterial avium paratuberculosis*: Is it a pathogen for Crohn's disease? *J Gastroenterol Hepatol* 2013; 28 (Suppl 3): 576
274. Singhal A, Patel C, Singh H, Khangembam B, Malhotra A. Electrical versus mechanical dyssynchrony as a predictor of ventricular function in heart failure: A radionuclide ventriculography based study. *J Nucl Med Meeting abstracts* 2013; 54: 1697
275. Singla S, Goyal V, Shukla G, Srivastav AK, Behari M. To assess the severity of spectrum of non motor symptoms and quality of life of Parkinson's disease patients visiting tertiary centre in North India. *Movement Disorders* 2013 (28) S100-S100.
276. Srivastava A, Kriplani A, Kulshrestha V, Kachhawa G, Agarwal N, Bhatla N, Hari S. To Compare The Efficacy Of Ormeloxifene Versus Oral Contraceptive Pills In Medical Management Of Menorrhagia Due To Uterine Myomas. *Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013*: P-21.
277. Srivastava AK, Faruq M, D Kumar, R Gupta, M Mukerji. Genetic screening of ATXN3 CAG expansion mutation in ADCA-I phenotype: Prevalence and clinical findings of SCA3 in North Indian context. *Movement disorders*. 2013; 28; S 250-251
278. Srivastava AK, Faruq M, S Shakya, M Behari. A rare co-occurrence of two commonest Indian spinocerebellar ataxia subtypes. *Movement disorders*. 2013; 28; S 250-251
279. Srivastava AK, Faruq M, S. Shakya, P Negi, D Kumar, N Kumar, et al. Reduced penetrance alleles of TBP (SCA17) in Indian ataxia cohort: Homozygous mutation and ambiguity of 41–44 CAG/CAA for pathogenic association. *Journal of the Neurological Sciences*. 2013; 333; c69
280. Srivastava AK, Faruq M, T Dada, A Garg, S Singh et al. Spinocerebellar ataxia 7 (sca7) in India: Genotype–phenotype correlation and insight into origin of mutation in a predisposed endogamous population. *Journal of Neurological sciences*: 333; c107
281. Talwar S, Desai M, Talwar A, Choudhary SK, Sreenivas V, Saxena A, et al. Exercise performance after total cavopulmonary connection with or without prior superior cavopulmonary connection. *Indian J Thorac Cardiovasc Surg* 2014; 30: 60
282. Talwar S, Jaiswal LK, Choudhary SK, Gupta SK, Ramakrishnan S, Saxena A, et al. Early and mid-term results of Kawashima procedure. *Indian J Thorac Cardiovasc Surg* 2014; 30: 61
283. Talwar S, Meena A, Choudhary SK, Gupta SK, Ramakrishnan S, Saxena A, et al. Tetralogy of Fallot and Hemitruncus: anatomy, decision making, surgical strategies, results. *Indian J Thorac Cardiovasc Surg* 2014; 30: 60
284. Talwar S, Meena A, Choudhary SK, Gupta SK, Ramakrishnan S, Saxena A, et al. Results of surgery for Tetralogy of Fallot in or beyond the fourth decade of life. *Indian J Thorac Cardiovasc Surg* 2014; 30: 61-2
285. Talwar S, Muthukkumaran S, Choudhary SK, Makhija N, Sreenivas V, Saxena A, et al. A complete extracorporeal circulation free approach to patients with functionally univentricular hearts provides superior early outcomes. *J Cardiothorac Surg* 2013; 8 (Suppl 1): O313
286. Talwar S, Muthukkumaran S, Makhija N, Choudhary SK, Gupta SK, Ramakrishnan S, et al. Evolving

- experience with the fontan operation without cardiopulmonary bypass. *Ann Pediatr Cardiol* 2014; 19 (Suppl 1): S-48
287. Talwar S, Muthukkumarn S, Choudhary SK, Gupta SK, Ramakrishnan S, Saxena A, et al. Arterial switch operation in patients with physiologically uncorrected complete TGA with L Posed aorta. *Indian J Thorac Cardiovasc Surg* 2014; 30: 60-61
288. Talwar S, Muthukkumarn S, Choudhary SK, Gupta SK, Ramakrishnan S, Saxena A, et al. LeCompte maneuver in situations other than the arterial switch operation. *Indian J Thorac Cardiovasc Surg* 2014; 30: 61
289. Tandon R, Mohanty S, Singh H, Gupta D, Sen S, Kashyap S, et al. Development and Characterization of decellularized human corneal stroma as a scaffold for tissue engineering, *IOVS* 2013; 54;E-Abstract 1656.
290. Tembhre MK, Sharma VK, Sharma A, Chattopadhyaya P, Gupta S. Regulatory T cells in peripheral blood and tissue of active generalized vitiligo *Front. Immunol. Conference Abstract: 15th International Congress of Immunology (ICI)*. doi: 10.3389/conf.fimmu.2013.02.00602; 2013
291. Thosar M, Kriplani A, Agrawal N, Kachhawa G, Mahey R, Wangdi T, et al. Atypical presentation of antenatal Bartter's synome: Maternal polyhydramnios with normal amniotic fluid chloride levels. *Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-45.*
292. Upadhyay K, Sharma A. Serum Prealbumin is a useful marker of inflammation and monitoring tool in patients with AECOPD. *Chest* 10/2013; 144 (4MeetingAbstracts):708A; 2013
293. Vemparala K, Kumar M, Mishra S, Dada R. Role of sperm transcripts in the etiology of idiopathic recurrent early pregnancy loss. *Andrology* 2014;2 (Suppl.1):65
294. Venkatesan S, Atri SK, Purohit A, Mishra P, Saxena R. Spontaneous remission in acute lymphoblastic leukemia: A case report. *Indian J Hematol Blood Transfus* 2014 Supplement
295. Vibha D, Singh S, M. Behari, V. Goyal, G. Shukla, A. Garg, M.C. et al. Atypical neurological manifestations of lymphomatous malignancy in immunocompetent patients: Case series of four patients *Journal of the neurological sciences* 2013. volume 333 issue Page e580
296. Wangdi T, Kriplani A, Kachhawa G, Mahey R. Endoscopic management of placenta accrete. *Abstract Book of 35th Annual AOGD Conference, Delhi, 21-22 Sep 2013: P-32.*
297. Wangdi T, Kriplani A, Kachhawa G, Mahey R. Laparoscopic Gonadectomy in patients with disorders of sexual differentiation. *Abstract book of 57th All India Congress of Obstetricians and Gynaecologists (AICOG), Organised by FOGSI, Patna, 1-5 Feb, 2014: P. 53-53.*
298. Wari MNU, Iyer VK, Agarwala S, Chattapadhyay PP, Bakhshi S, Sharma A, et al. Loss of imprinting and loss of heterozygosity at 11P15 locus in India patients of Wilm Tumor. *Pediatr Blood Cancer* 2013 (O-140).
299. Yadav JS, Kaur S, Pathak A. Diagnostic dilemma of dissociative motor disorder in child with stress. *Indian J Psychiatry* 2013; 55 (Suppl):S92.
300. Yadav JS, Kaur S, Tiwari SC, Das SC, Tripathi MN, Pandit B. Child abuse and mental health. *Indian J Psychiatry* 2013; 55 (Suppl):S18.
301. Yadav JS. A rare case of Fahn's disease masked by schizophreniform psychosis: a case report. *Indian J Psychiatry* 2013; 55 (Suppl):S66.
302. Yadav K, Kumar R, Karmarkar MG, Pandav CS. Quality assurance of iodized salt at production end in India and partnership of private, NGOs and government agencies. *Ann Nutr Metab* 2013; 63 (suppl 1): 1422
303. Yadav P, Mirdha BR, Makharia GK, Bhatnagar S, Datta Gupta S. Detection and transmission pattern of intestinal parasites in patients with diarrhea at a tertiary care centre. *J Gastroenterol Hepatol* 2013; 28 (Suppl 3): 377
304. Yadav R, Das P, Kinra P, Pal S, Sahni P, Shalimar, et al. Liver Biopsy in Hepatic Venous Outflow Tract Obstruction: An Important Diagnostic Adjunct with New Morphological Insight. *J Clin Exp Hepatol* 2014; 4 (Suppl. 2): S85–S86
305. Yadav R, Pragya P, Tomar A, Yadav RK, Mehta N. Cardio-metabolic risk factors are modified by a short-term yoga based lifestyle intervention in overweight/ obese subjects. *Indian J Physiol Pharmacol* 2013;57:207.

Chapters in Books

1. Aathira R, Jain V. Antibiotic Resistance: Mechanisms. In, Lodha R, Kabra SK, Jose B, Bhat AS eds. Antibiotics for common infections in children. Published by IJP, New Delhi, India 2013
2. Agarwal N, Pal S, Sahni P. Surgical therapy for pancreatic cancer. In: Pramod Garg (Ed.) *Pancreatic tumors*. ECAB Clinical Update: Gastroenterology/Hepatology. New Delhi: Elsevier; 2013: 87-125.
3. Agarwal N. Hot flushes. In: Goyal N (ed.) Book of menopause. Jaypee Brothers 2014;97-101.
4. Agarwal R, Jain V, Sankhyan N. Normal Growth and its Disorders. Ghai's Text book of Pediatrics. Eds: Ghai OP, Paul VK, Bagga A.
5. Agarwal R, Paul V, Deorari AK. Newborn Infants. Ghai's Text book of Pediatrics. Eds: Ghai OP, Paul VK, Bagga A.
6. Agarwal R, Sankar MJ. Disorder of newborn. In: Text book of Obstetrics. 2nd edition. 2014.
7. Agarwal R, Sankar MJ. Newborn examination. In: Text book of Obstetrics. 2nd edition. 2014.
8. Agarwal R, Sankhyan N. Normal and Abnormal Development. Ghai's Text book of Pediatrics. Eds: Ghai OP, Paul VK, Bagga A.
9. Agarwal R, Shashidharan R, Jain A. Neonatal Resuscitation. In: Ian Donald Practical Obstetric Problem. Ed: Mishra R. 7th Edition. New Delhi: BI Publication. 2014. Pp 659-668.
10. Agarwal SK, Agarwal A. Peritoneal transport in CAPD. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
11. Agarwal SK, Bhargava Y. Rehabilitation of hemodialysis patient. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
12. Agarwal SK, Fernando E. Single needle dialysis, daily dialysis and home dialysis. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
13. Agarwal SK, Ramakrishnan S. Metabolic and nutritional complication of peritoneal dialysis. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
14. Agarwal SK, Shankar M. CAPD catheters. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
15. Agarwal SK. Assessment of body fluid. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
16. Agarwal SK. Creation of AV shunt. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
17. Agarwal SK. Dry weight and fluid management in hemodialysis. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
18. Agarwal SK. Evaluation of recipient and living donor. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
19. Agarwal SK. Immunological Concept of Renal Transplantation. In Textbook of Nephrology Anil K Mandal and Jai Prakash (eds). Jaypee Brothers Medical Publishers (P) Ltd. 2013; pp 423-437.
20. Agarwal SK. Long-term complications of hemodialysis and its management. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
21. Agarwal SK. Normal kidney function and chronic kidney disease. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
22. Agarwal SK. Setting up of hemodialysis unit. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
23. Agarwal SK. Viral infections in hemodialysis. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
24. Agrawal D, Mahapatra AK. Minor Head Injury. In: Mahapatra AK (ed.) *Textbook of Traumatic Brain Injury*. 2nd edition. New Delhi. Jaypee Publishers;2014.
25. Agrawal D, Mahapatra AK. Traumatic dural venous sinus thrombosis. In: Mahapatra AK (ed.) *Textbook of Traumatic Brain Injury*. 2nd edition. New Delhi. Jaypee Publishers;2014

26. Ambekar A, Goyal S. Clinical practice guidelines for treatment of opioid use disorders. In: Basu D, Dalal PK (Eds.). *Clinical Practice Guidelines for the Assessment and Management of Substance Use Disorders*. New Delhi: Indian Psychiatric Society 2014: 157-262.
27. Ambekar A, Sinha Deb K. Import of narcotics for clinical trial supplies. In: Khirsagar, N, Kulkarni T, Desai A, Shah J (Eds.). *Regulatory Requirements for Drug Development and Clinical Research*, New Delhi: ICMR 2013:340-68
28. Arasho B, Sandu N, Nothen C, Filis A, Sadr-Eshkevari P, Prabhakar H, Bushfelder M, Schaller B. Transsphenoidal/transcranial surgery of pituitary adenomas: Prognosis-related occurrence for the trigemino-cardiac reflex. In: Tumors of the central nervous system, Volume 10. In: MA Hayat (Ed.) Springer Science+Business Media Dordrecht 2013. DOI 10.1007/978-94-007-5681-6_25 Volume 10, 2013: 237-43
29. Arulselvi S. Blood Bank Manual for clinical use- Understanding utilisation of blood transfusion services- A Transdisciplinary clinical perspective.
30. Baidya DK, Maitra S. Preanaesthetic evaluation. In: Duttagupta S (ed). *Anaesthesia Update for PostGraduates*, 4th ed. ISBN: 978-93-5152-096-2.
31. Ballal HS, Agarwal SK. Placement of permanent catheter. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
32. Bhartiya P, Sharma P, Khokhar S, Tandon R. Levo drops in older children with Amblyopia in *Newer drugs in ophthalmology* 2000, 43-48, Pragati Publishing Co. India.
33. Bhatia R, Bahrani K. Drug therapy for relapsing remitting multiple sclerosis. In Srivastava MVP, Bhatia R. Eds. *Clinical Practice of Multiple Sclerosis*. Kontentworx Communications. 2014. Pages 119-148.
34. Bhatia R, Kaul B. Huntington's Disease. In. Kumar A. Ed. *Textbook of movement disorders*. Jaypee Publishers. 2013.
35. Bhatia R, Singhal A. Initiating therapy in MS: evidence and challenges. In Srivastava MVP, Bhatia R. Eds. *Clinical Practice of Multiple Sclerosis*. Kontentworx Communications. 2014. Pages 103-118.
36. Bhatia R, Uttam A. NMO and NMO spectrum disorders. In Srivastava MVP, Bhatia R. Eds. *Clinical Practice of Multiple Sclerosis*. Kontentworx Communications. 2014. Pages 86-102
37. Bhatla N, Awasthi D, Mahey R. Intrauterine Growth Restriction. In: Ian Donald's Practical Obstetric Problems, Seventh Edition, (Ed: Misra R), BI Publications Pvt. Ltd., New Delhi, pp. 339-352, 2014.
38. Bhatla N, Mahey R, Yadav R. The Cardiac Case. In: Ian Donald's Practical Obstetric Problems, Seventh Edition, (Ed: Misra R), BI Publications Pvt. Ltd., New Delhi, pp. 176-195, 2014.
39. Bhatla N, Mahey R. HPV Vaccination – Current status. *AOGD Bulletin*, 2013;13:10.
40. Bhatla N, Mahey R. Special Cases. In: Ian Donald's Practical Obstetric Problems, Seventh Edition (Ed. Misra R), BI Publications Pvt. Ltd., New Delhi, pp. 80-93, 2014.
41. Bhatla N, Mukhopadhyay A, Mahey R. Anaemia. In: Ian Donald's Practical Obstetric Problems, Seventh Edition, (Ed: Misra R), BI Publications Pvt. Ltd., New Delhi, pp.196-216, 2014.
42. Bhatla N. Human Papillomavirus (HPV) vaccine: A new addition in the armamentarium of our immunization schedule, *FOGSI FOCUS, Preventive Oncology* (Ed: Ganguli I), New Delhi, pp. 64-72, 2014.
43. Bhatla N. Role of Human Papillomavirus Detection in Cervical Cancer Screening. In: *Precancerous Lesions of Cervix. Prevention, Early diagnosis and Management*. (Eds. Ahuja M, Basu P, Banerjee D). Jaypee Brothers Medical Publishers (P) Ltd., New Delhi, 2014, pp. 77-80.
44. Bhatnagar S, Garg R. Cancer pain in children. In: Muralidhar Joshi (eds). *Textbook of Pain Management*. 2014; 3rd ed Paras Medical Publisher, Hyderabad, New Delhi.
45. Bhatnagar S, Naqvi RA, Ali R, Rao DN., Preparation of Peptide microspheres using tumor antigen-derived peptides *Methods Mol Biol., Cancer Vaccine Methods and Protocols*, Chapter 42, 2014;1139:443-52. doi: 10.1007/978-1-4939-0345-0-34.
46. Bhowmik D, Sacdev SS. Other Endocrine Drugs. In Visweswaran Kasi R (ed). *Prescribing drugs in renal diseases*, Tree Life Media, Mumbai, 2014:449-457.
47. Bhowmik D, Tiwari SC. Cardiovascular complications. In Agarwal SK, Jha V (eds). *Postdoctoral certificate course in dialysis medicine*, IGNOU, New Delhi.

48. Biswas NR, Khokhar S, Maitra AN. Nano particle kelorolae compared with plain kelorolae in Acute VKC. In *Newer drugs in ophthalmology*. Ed. 2000; 35-37, Pragati Publisher Co. India.
49. Borkar SA, Mahapatra AK. Post-operative pituitary apoplexy. In Turgut M, Mahapatra AK. *Pituitary apoplexy* (Springer Verlag), 2013.
50. Breslau J, Miller E, Jin R, Andrade LH, Chatterji S, Medina-Mora M.E, Sagar R. Mental Disorders, marriage and divorce. In: *The Burdens of Mental Disorders: Global Perspectives from WHO – World Health Organization*. Cambridge University Press 2013; 66-76.
51. Chadda RK. India's contributions to social psychiatry. *World Assoc Soc Psychiatry Newsletter* 2013 (June-July); 53-56.
52. Chosdol K, Bhagat M, Dikshit B, Madan E, Chattopadhyay P, Sinha S. Nuclear factors linking cancer and inflammation. In: *Nuclear signaling pathways and targeting transcription in cancer; Cancer drug discovery and development*. Humana Press, Springer Science+ Business Media, New York 2014
53. Choudhury M, Chauhan S. ECMO Basic. Chapter 43, *Text Book of Perfusion and ECMO*. Sandeep Chauhan. Academia Publisher, New Delhi. 2014. 1st ed
54. Choudhury M, Pandey R. Deep hypothermic circulatory arrest in adult and pediatric. *Seminars in Cardiac Anesthesia*. AIIMS Series 1. Sagar Printers and Publishers, New Delhi
55. Choudhury M, Vasdev S. Emergencies in cardiac anesthesia. *AIIMS Series 1*. Sagar Printers and Publishers, New Delhi
56. Choudhury M. A patient with ischaemic heart diseases, intracardiac stent, and on anticoagulation posted for elective abdominal surgery - A long case discussion. *Anaesthesiology Updates for Post Graduates*. 4th edition. Cancer Care Publication. Cuttack.
57. Choudhury M. Physiology of the Endocrine System. Chapter 6, *Text Book of Perfusion and ECMO*. Sandeep Chauhan. Academia Publisher, New Delhi. 2014. 1st ed
58. Continuous positive airway pressure (CPAP). In: Walsh BK (ed). *Neonatal and Pediatric Respiratory Care*, 4th Ed, Elsevier Saunders, St. Louis, Missouri; 2014: 267-286.
59. Dada R, Kumar BS, Kumar M, Oberoi AS, Shamsi MB. Sperm DNA damage assessment: Techniques and relevance in male infertility diagnostics. In: Talwar P. *Manual of Cytogenetics in Reproductive Biology*. New Delhi: Jaypee Publisher; 2014:135-142.
60. Dada R, Kumar M, Pani J, Tomar D. Cytogenetics. In: Talwar P. *Manual of Cytogenetics in Reproductive Biology*. New Delhi: Jaypee Publisher; 2014:47-57.
61. Dada R, Mishra S, Mohanty K, Kumar M, Vemprala K. Polymerase chain reaction. In: Talwar P. *Manual of Cytogenetics in Reproductive Biology*. New Delhi: Jaypee Publisher; 2014:59-70.
62. Das GK, Khokhar SK, Biswas, Maitra AN. Comparative efficacy of kelorole (plain) and kelorole (Nano particle) in post operative cataract cases in prospective randomized double blind multicentric clinical trial. In: *Newer Drugs in Ophthalmology* Ed. 2000: 32 : 34.
63. Das N. Biological Oxidation in *Text Book of Biochemistry, Biotechnology, Allied & Molecular Medicine* Ed. G.P Talwar, Prantice Hall (Pub)
64. Das N. Metabolism of Glucose and other Absorbed Sugars in *Text Book of Biochemistry, Biotechnology, Allied & Molecular Medicine* Ed. G.P Talwar, Prantice Hall (Pub)
65. Das SN, Gaur P: Role of Biotechnology in modern medicine. In Parween Bansal and S.N. Das (eds). *Biotechnology in Medicine and Herbal drug development*. Basera Verlag, Albert Rosshaupter Strasse 110, 81369, Munchen, Germany, 2014, pp 18-24.
66. Datta D, Agarwala S. Bronchoscopy and removal of foreign body. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp222-223
67. Datta D, Agarwala S. Chest tube insertion. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 211-213
68. Datta D, Agarwala S. Layers of Scalp. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 121-124
69. Datta D, Agarwala S. Polydactyly. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 198-201

70. Datta D, Agarwala S. Ureteric reimplantation. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 478-481
71. Deka D, Gupta N, Kabra M (Chapter updated by Mohita Pengoria). Genetic Counseling for Obstetricians. Principles and Practice of Obstetrics & Gynecology for Postgraduates. Editors Narendra Malhotra, PK Shah, Hema Divakar, FOGSI. Jaypee Brothers Medical Publishers (P) Ltd., 4th edition, 52-63.
72. Deka D. Fetal Surgery. Operative Obstetrics & Gynecology, Jaypee Brothers Medical Publishers (P) Ltd. 2013: second edition, 277-285.
73. Dey AB, Chatterjee P, Jathar SS. Biomarkers of ageing. In: Postgraduate Medicine. Volume 27. Panja M (Ed). Association of Physicians of India & Indian College of Physicians. Mumbai. 2013: 415-419.
74. Dhawan A, Balhara YPS, Mohan I. Substance abuse in adolescents. In: Lal R, Pattanayak RD (Eds). *Substance Use Disorders: Handbook for Physicians*. 2nd edn. New Delhi: NDDTC, AIIMS; 2013:191-8.
75. Dubey R, Gulati S, Chakrabarty B. Investigations in Epilepsy. In: Passi G, Thora S, Goswami VP, Yewale V, Rawat SS, Mulye S. Epilepsy in Children. New Delhi, Jay Pee Publications 2014:24-35
76. Dubey R, Gulati S. Status Epilepticus . In: Thora S, Goswami VP, Yewale V, Jain H, Rawat SS, Malpani P, Mehta N, Jain N. Pediatrics for Practitioner. New Delhi, Jay Pee Publications 2014:109-118
77. Fibrates in dyslipidemia' for Handbook of lipidology
78. Gamanagatti S, Kandasamy D, Gupta AK. Picture Archiving and Communication System and Radiology Information system. In: Gupta AK, Chowdhury V, Khandelwal N, Sharma S, Bhalla AS, Hari S (Eds). Recent Advances and Applied Physics in Imaging, 2nd edition, New Delhi, Jaypee Brothers Medical Publishers; 2013: 309-18.
79. Gamanagatti S, Pal S, Khosla A. Biliary Imaging. In: Nundy S, Kapoor VK (Eds.) *Surgery of the bile ducts*. ECAB Clinical Update: Surgical Gastroenterology and Liver Transplantation. New Delhi:Elsevier; 2013:133-65.
80. Ganie MA, Farooqui KJ, Pandita KK. Erectile dysfunction. In: Bhansali A, Sridhar GR, Kalra S, Shah N, Ammini AC, Prasana K, Mithal A (eds.) *Endocrine Society of India Manual*, 2014. pp 655-664.
81. Ganie MA, Kuchay S, Nisar S. Testosterone and Diabetes: emerging links Polycystic ovary syndrome. In: Bhansali A, Sridhar GR, Kalra S, Shah N, Ammini AC, Prasana K, Mithal A (eds.) *Endocrine Society of India Manual*, 2014. pp 596-604.
82. Ganie MA, Kumar R, Raizada N, Hamadurehman S. Hypothalamo-pituitary-gonadal axis in men having other endocrine disorders. In: Kumar A (ed.) *Text Book of Reproduction*, 2014. Pp 655-664.
83. Garg A. Non-multiple sclerosis demyelinating diseases. In: Gupta RK, Kumar S, editors. Magnetic Resonance Imaging of Neurological Diseases In tropics. New Delhi: Jaypee Brothers Medical Publishers; 2014b. p. 281-91.1019.
84. Garg R, Agarwala S. Biopsy of extremity tumor. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 202-203
85. Garg R, Gupta RC. Epidural Anaesthesia in major oncosurgery. In: Chandra U, Basu SM (eds). Year Book of Anaesthesiology 2014; Volume 3. Paras Medical Publisher, India 2014; 226-37
86. Garg R, Hariharan U. Anaesthesia for cardiovascular surgery. In: Singh M (ed). Text book of Anaesthesia and Allied Sciences for Paramedics 2013, 1st Edition. SR Health Sciences Pvt Ltd, Daryanganj, New Delhi. pp 346-351.
87. Gazula S, Agarwala S. Bowel resection. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 280-282
88. Gazula S, Agarwala S. Nephrostomy. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 453, 458
89. Gazula S, Agarwala S. Open nephrectomy. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 442-444
90. Gazula S, Agarwala S. Sacrococcygeal teratoma. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 501-503
91. Goel P, Agarwala S. Esophageal atresia and trachea-esophageal fistula. In: R Carachi, S Agarwala, TJ

- Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 224-227
92. Goswami KC, Verma SK. Tips and tricks in PTMC. Cardiology update 2014.
 93. Gulati S, Chakrabarty B, Dubey R, Kaushik JS, Naik N. Guidelines for diagnosis and management of Childhood epilepsy. In: Verma A, Kunju PAM, Kanhere S, Maheshwari N. IAP textbook of Pediatric Neurology. New Delhi. Jay Pee Publications 2014:208-231
 94. Gulati S, Chakrabarty B, Tripathi M. Epilepsy Surgery. In: Passi G, Thora S, Goswami VP, Yewale V, Rawat SS, Mulye S. Epilepsy in Children. New Delhi, Jay Pee publications 2014:162-174
 95. Gulati S, Chakrabarty B. Muscular Dystrophy. In: Gupta BD, Maheshwari RK, Parakh M, Purohit A, Kumar M. Recent Trends in Pediatrics, Pediatric Neurology 2, Barmer ,IAP 2013:97-318
 96. Gulati S, Sharma S, Jain P. Disorders of the Nervous system. In: Gupta P ed. Textbook of Pediatrics. New Delhi, CBS 2013:455-502
 97. Gulati S, Yoganathan S. Approach to Neonatal Seizures. In Ghosh A, Mitra M, Choudhury J eds. Treatment and diagnosis in Pediatrics, IAP Pediatric treatment handbook (ed2) New Delhi, Jaypee 2013:60-64
 98. Gulati S. Neuromuscular disorders in children. In Singhi PD (Chapter editor) Disease of the Central nervous system. Parthasarathy A (Editor –in –Chief) Menon PSN, Gupta P, Nair MKC, Agrawal R, Sukumaran TU (Editorial Advisors). IAP Text book of Pediatrics (ed 5) New Delhi, IAP National Publication House, Jaypee 2013:381-390.
 99. Gulati S. Neuromuscular disorders. In Eds Ghai OP, Paul VK Bagga A. Ghai Essential Pediatrics (Ed 8) New Delhi, CBS Publishers & Distributors 2013:587-98.
 100. Gupta AK, Jana M. Dual Energy CT. In: Gupta AK, Chowdhury V, Khandelwal N, Sharma S, Bhalla AS, Hari S (eds). Recent Advances and Applied Physics in Imaging, 2nd ed, New Delhi, Jaypee Brothers Medical Publishers (P) Ltd, 2013: 57-65.
 101. Gupta AK. Pediatric Radiology. In: Parthasarathy A, Menon PSN etal (Eds.). *IAP, Textbook of Pediatrics*. 5th edition. Delhi: Jaypee Brothers Medical Publishers (P) Ltd; 2013; 1015-1028.
 102. Gupta D. Advanced Neuromonitoring in Traumatic Brain injury. Textbook of Head Injury. CBS Publishers 4th Edition 2013
 103. Gupta L, Agarwala S. Congenital Diaphragmatic hernia. In: R Carachi, S Agarwala, TJ Bradnock (eds). Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 312-313
 104. Gupta N, Kabra M. Genetic disorders. In: Ghai Essential Pediatrics VIIIth edition
 105. Gupta N, Kabra M. Inborn errors of Metabolism. In: Ghai Essential Pediatrics VIIIth edition
 106. Gupta V, Khokhar SK, Kumar H, Biswas NR. Topical cyclosporin–A in Management of VKC in Newer drugs in Ophthalmology Nov. 2000; 66-70, Pragati Publishing Co. India.
 107. Gupta V, Verma SK, Ramakrishnan S. Therapeutic hypothermia-Current status in CPR. CSI Cardiology Update 2013, 507-13.
 108. Halder A. Clinical, Conventional & Molecular Cytogenetics. In: API text book of medicine Editor: YP Munjal), 10th edition. 2013, Vol.1, Ch 3.
 109. Halder A. Molecular cytogenetics. Chapter 26. In: Handbook on Medical Genetics and Genetic Counseling. Edited by RK Marwaha, I Panigrahi & A Halder. Noble Vision (Medical Book Publishers; ISBN No. 978-81-906227-4-5) First Edn. pp.181-186; 2013.
 110. Holden A, Sharma S, Jagia P. Endovascular management of vasculitides. In: Geschwind JH, Dake MD. Abrams Angiography: Interventional Radiology, 3rd ed. published by——— Lippincott Williams & Wilkins
 111. Hosseini A, Halder A. Genomics and human genome project. Chapter 27. In: Handbook on Medical Genetics and Genetic Counseling. Edited by RK Marwaha, I Panigrahi & A Halder. Noble Vision (Medical Book Publishers; ISBN No. 978-81-906227-4-5) First Edn. pp.187-189; 2013
 112. Irshad M, Mankotia DS, Khushboo I (2014). An insight into the diagnosis and pathogenesis of hepatitis C virus infection. In: (First Edition) World Clinical Gastroenterology (2549 - 2562). Pleasanton, CA: Baishideng Publishing Group.
 113. Jagannathan NR. Role of Magnetic Resonance Imaging (MRI) and in vivo Magnetic Resonance Spectroscopy

- (MRS) in Breast Cancer. In: *Indian Science Congress Association Publications*, Kolkata, 2013, 1-16
114. Jagia P, Sharma S. Chapter 6. Cardiac Imaging. Chapter in API book of Medicine, 9th ed. pg 38-43.
 115. Jayasundar R. Ayurvedic approach to functional foods. In: (Ed. DM Martirosyan). *Introduction to Functional Food Science*, Richardson, Texas, USA, Food Science Publisher, 2013, pp. 454-479.
 116. Jayasundar R. Quantum logic in ayurveda. In: (Eds. A Morandi, ANN Nambi). *An integrated model of Health and well-being. From Indian tradition to globalized knowledge*, Heidelberg, Germany, Springer, 2013, 115-139.
 117. Jayaswal A. Hip Athroplasty for Tumors around the Hip Joint. In: Complex Primary Total Hip Replacement, Editor SKS Marya, First Edition, Jaypee medical Publications, New Delhi, 2012
 118. Jhanjee S. Nicotine dependence. In: Lal R, Pattanayak RD (Eds). *Substance Use Disorders: Handbook for Physicians*. 2nd edn. New Delhi: NDDTC, AIIMS; 2013:88-97.
 119. Jyotsna VP, Ammini AC. Puberty and its disorders. In: *API Textbook of Medicine*, 2013.
 120. Jyotsna VP, Singla R. Primary ovarian failure: management. In: Bajaj S (ed). *ESI Manual of Clinical Endocrinology*, 2nd e, Jaypee Brothers Medical Publishers; 2013. Chapter 84.
 121. Kabra M. Contributor to section on Genetics in Case Scenarios in Pediatric and adolescent practice by A. Parthasarathy 2014
 122. Kabra S. Cystic Fibrosis: In Treatment and Prognosis in Pediatrics. Eds Apurba Ghosh, Monjori Mitra, Jaydeep Choudhary. Jaypee 2013, pp 108-112.
 123. Kabra S. Upper Respiratory Tract Infection. In IAP Text Book of Pediatrics. Eds Parthasarathy A, Menon PSN, Nair MKC, Agarwal R, Sukumaran TU. IAP National Publication House, Gwalior, Jaypee Brothers Medical Publishers, 2013, pp m465-67.
 124. Kabra SK, Lodha R, Kabra M. Is it Cystic Fibrosis? In Year Book 2014, Evidence Based Respiratory Disorders in Children. Meenu singh (Ed). 2014, APC, PGIMER, Chandigarh, pp 73-84.
 125. Kabra SK. Community Acquired pneumonia. In Text Book of Pediatric Infectious Diseases. Eds Partahsarathy A, Kundu R, Agarwal R, Choudhary J, Shastri D, Yewle V, Shah AK, Uttam KG. IAP National Publication House, Gwalior. Jaypee brothers Medical Publishers, 2013, pp 147-53.
 126. Kabra SK. Interstitial Lung Disease. In Treatment and Prognosis in Pediatrics. Eds Apurba Ghosh, Monjori Mitra, Jaydeep Choudhary. Jaypee 2013, pp 118-120.
 127. Kachhawa G, Khadgawat R. Female Hormonal Contraception. *Reproductive Endocrinology*. 2nd Edition, New Delhi. Jaypee Brothers Medical Publishers (P) Ltd. 2013.
 128. Kaistha S, Pal S. Creation and management of bowel stoma. In: DP Jewell, RK Tandon, V Ahuja (Eds.) *Inflammatory bowel disease*. Gurgaon: Macmillan Medical Communications; 2014: 141-156.
 129. Kalra OP, Mahajan S. Secondary glomerular diseases. Munjal YP (ed). *API Textbook of Medicine*. 10th Edition. Delhi: API;2014:In press
 130. Kapil A. Hand Hygiene and Personal portative equipment. In: Wattal C, Khardori N (Eds). *Hospital Infection Prevention*. Springer India 2014; 93-102.
 131. Kapoor P, Singh SP, Talwar S. Pulmonary stenosis. Transesophageal echocardiography of the tricuspid and pulmonary valves. Jaypee brothers, 2013. pp 153-181.
 132. Kapoor P, Talwar S. Extracorporeal membrane oxygenation, carbon dioxide removal. In Manual of Extracorporeal membrane oxygenation in the ICU. Jaypee brothers, 2013: 204-208.
 133. Kapoor PM, Das SN, Hasija S, Chawla R. Extracorporeal Membrane Oxygenation for Noncardiac Surgery. In: Kapoor PM, Manual of Extracorporeal Membrane Oxygenation in the ICU (1st edition). Jaypee Brothers Medical Publishers (P) Ltd. New Delhi. India, pp 209-18, 2014.
 134. Kapoor PM, Goyal V, Oza P, Hasija S. Complications of Extracorporeal Membrane Oxygenation. In Kapoor PM, Manual of Extracorporeal Membrane Oxygenation in the ICU (1st edition). Jaypee Brothers Medical Publishers (P) Ltd. New Delhi. India, pp 116-27, 2014.
 135. Kapoor PM, Hasija S. Cardio Help: The future of Extracorporeal Membrane Oxygenation. In: Kapoor PM. Manual of Extracorporeal Membrane Oxygenation in the ICU (1st edition). Jaypee Brothers Medical Publishers (P) Ltd. New Delhi. India, pp 243-8, 2014.

136. Kaur J, Malik MA, Banerjee R. Prevalence of reproductive problems in India. In: S.S. Gill, Z. Singh and P. Bansal (eds.), *Recent Advances in Assisted Reproductive Technology*, Gulab Publishers, New Delhi, 2013; 1-7.
137. Kaur J, Malik MA, Goswami S. Stem cell engineering and its therapeutic applications. In: P. Bansal and S.N. Das (eds.), *Biotechnology in Medicine and Herbal Drug Development*, Gulab Publishers, New Delhi, 2014; 41-51.
138. Kaur J, Malik MA. Importance of evidence based medicine. In: S.S. Gill, R. Manhas and P. Bansal (eds.), *Preservation and Digitization in Evidence Based Medicine*, Saurabh Medical Publishers, Chandigarh, 2013; 51-58.
139. Kaur J, Malik MA. Role of body hormones in assisted reproductive technology and reproductive health. In: S.S. Gill, Z. Singh and P. Bansal (eds.), *Recent Advances in Assisted Reproductive Technology*, Gulab Publishers, New Delhi, 2013; 109-114.
140. Kaur J, Malik MA. Role of stem cells in assisted reproductive technology. In: S.S. Gill, Z. Singh and P. Bansal (eds.), *Recent Advances in Assisted Reproductive Technology*, Gulab Publishers, New Delhi, 2013; 182-189.
141. Khaitan BK, Kathuria S, Priyanka. Segmental vitiligo. In: Lahiri K, Chatterjee M, Sarkar R. *Pigmentary Disorders* 1st edition. New Delhi, Jaypee Brothers Medical Publishers (P) Ltd.; 166-180
142. Khaitan BK, Kathuria S. Oral and systemic corticosteroids in management of vitiligo. In: Lahiri K, Chatterjee M, Sarkar R. *Pigmentary Disorders* 1st edition. New Delhi, Jaypee Brothers Medical Publishers (P) Ltd.; 205-212
143. Khanna N. Leprosy and pregnancy. Eds, Kumar B, Kar HK. *IAL Textbook of Leprosy*. 1st ed. New Delhi. Jaypee Medical Publishers. 2014; 313-324.
144. Khokhar S, Kumar A. Amniotic membrane Graft in ocular surface disorders. In *Ophthalmology update*. Ed Choudhry HK, SILEIZOC 2003, Ch.17, pg.17.1-17.6.
145. Khokhar S, Pangtey MS, Gupta V. Penetrating keratoplasty for pseudophakic and aphakic bullous keratopathies and IOL exchange. In; *Corneal transplantation*; Vajpayee RB. Ed. Jaypee Publications 2002: 192-200.
146. Kriplani A, Lunkad A. Past, present and future of robotic surgery in Gynecology. In: Dasgupta's *Recent Advances in Obstetrics & Gynecology (Volume 9)* Dipika Deka. Eds. 1st Ed. New Delhi. Jaypee Brothers Medical Publishers (P) Ltd, 2013;12:156-165.
147. Kumar A, Mahanta P, Logani A, Chaithra V. Forensic Odontology In: Putul Mahanta. *Modern Textbook of Forensic Medicine & Toxicology First Edn*, New Delhi, Jaypee Brothers Medical Publishers, 2014: 142-170
148. Kumar A, Mahanta P. Thermal Injuries In: Putul Mahanta. *Modern Textbook of Forensic Medicine & Toxicology First Edn*, New Delhi, Jaypee Brothers Medical Publishers, 2014: 307-327.
149. Kumar A, Sarmah PC, Thejaswi HT. Human Rights, Custodial Torture & Deaths In Putul Mahanta. *Modern Textbook of Forensic Medicine & Toxicology First Edn*, New Delhi, Jaypee Brothers Medical Publishers, 2014: 496-508
150. Kumar A, Sinha S, Gogia V. MIVS in Macular Edema: Macular edema in vascular occlusions, Vitrectomy in diabetic macular edema. 132-141. 2013. *Minimally Invasive Vitreous Surgery 20 Gauge to 27 Gauge*, Ed by Shalabh Sinha. Publ. Jaypee Brothers.
151. Kumar R, Gopalakrishnan G. Important studies and drug trials in BPH. In Patwardhan SK, Shaikh A (Eds). *Common Urologic Problems: BPH*. Jaypee Publishers, New Delhi. 2014;256-62
152. Kumar R. Male infertility. In Salam MA (Ed). *Principles and practice of Urology 2nd Edition*. Jaypee Publishers, New Delhi. 2013;1081-1099
153. Kumar R. Managing Azoospermia. In Arora S, Merchant R, Allahbadia GN eds. *Reproductive Medicine: Challenges, Solutions and Breakthroughs*. Jaypee Publishers, New Delhi. 2013;493-502
154. Kumar R. TURP versus HoLEP. In Patwardhan SK, Shaikh A (Eds). *Common Urologic Problems: BPH*. Jaypee Publishers, New Delhi. 2014;269-72

155. Kumar S, Sharma DN, Mathur S. Carcinoma Vulva. Treatment and Prognosis in Obstetrics and Gynecology. Patna:Jaypee; 2013:424-42
156. Kumar S. Fertility Sparing Surgery in Gynae Oncology. Recent Advances in Obstetrics and Gynaecology, First Edition(Vol 9), New Delhi: Jaypee; 2013: 123-137.
157. Kumar U. Parenchymal pulmonary disease and pulmonary artery hypertension in connective tissue diseases. In: U R K Rao *Manual of rheumatology*. Fourth edition. Mumbai: Publisher Indian Rheumatology Association;2014 pp507-515.
158. Kumar V, Dodd C, Murray D, Pandit H. Oxford medial mobile bearing unicompartmental knee arthroplasty. In: Current Advances in Total Knee Arthroplasty. Unitec House, 2 Albert Place, London N3 1QB, UK (Future Medicine Ltd) 2014 Pages 6-18.eBook ISBN: 978-1-78084-498-5
159. Lakshmy R. Physical activity and serum lipids: Effect of running, jogging, walking and lifting small weights on lipids. In: Running, Jogging, brisk walking for health. Name of editor(s). *Narain Medury (Ed): The Times Group books*, New Delhi, India 2013: 2008-224.
160. Lodha R, Sarthi M. Pediatric Critical Care. In: Paul VK, Bagga A (Ed). *Ghai Essential Pediatrics*. CBS Publishers. Delhi. 2014 pp: 708-26
161. Macha MA, Chauhan SS, Batra SK. *Head and neck Cancer in Principles and Practice of Cancer Prevention*. Edited by Redhwan Ahmed Al-Naggar, Published by OMICS Group eBooks, 731 Gull Ave, and Foster City. CA 94404, USA
162. Madaan N. Office Management and Administrative Issues. In Goel S, Gupta AK. *Hospital Administration— a problem solving approach*. 1st ed. New Delhi: Elsevier 2014.
163. Mahajan S, Rizvi Y. Structure and function of kidney. Munjal YP (ed). *API Textbook of Medicine*. 10th Edition. Delhi: API;2014:In press
164. Mahapatra M. Aplastic anemia: Challenges in Management. *Clinical Medicine Update (2013)*. Jaypee Publication. Edited by Rewari BB. Chapter 22: 163-167.
165. Mahapatra M. Pancytopenia: Aplastic Anemia. deGruchy's *Clinical Hematology in Medical Practice*. Wiley India edition. 2013 (6th Edition) chapter: 6: 107-119.
166. Mahey R, Kriplani A. Cesarean myomectomy. *AOGD Bulletin*. 2014: 21
167. Malhotra R, Singh R. Role of Allografts and bone substitutes. In *Oncology Section "IOA Textbook of Orthopedics"* 2014
168. Malik MA, Kaur J. Impact of molecular biology in ophthalmology. In: P. Bansal and S.N. Das (eds.), *Biotechnology in Medicine and Herbal Drug Development*, Gulab Publishers, New Delhi, 2014; 159-166.
169. Malik MA, Parveen F, Kaur J. Effect of assisted reproductive technology on social, psychological and emotional health of patients. In: S.S. Gill, Z. Singh and P. Bansal (eds.), *Recent Advances in Assisted Reproductive Technology*, Gulab Publishers, New Delhi, 2013; 226-235.
170. Mehta M, Sagar R, Pattanayak RD. Adolescent Psychiatry - An overview of Indian Research. In: Malhotra S, Chakrabarti S (Eds.). *Development of Psychiatry in India. Clinical Research & Policy Perspectives*. Springer; 2014.
171. Mehta M. Common behaviour problems. In: Parthasarathy A (ed). *IAP Textbook of Pediatrics*. Gwalior:Jaypee; 2013:940-94.
172. Mehta P, Kumar P, Kabra SK, Antimicrobial therapy in community acquired pneumonia. In: IAP Specility series on Rational Antimicrobial Practice in Pediatrics. Ed Singhal T, Shah N. Jaypee, 2013, 212-24.
173. Mennin S, Burch V, Kwizera E, Troncon EA, Singh T, Sood R. Culture, medical education and assessment In: McGahie W (Eds) *International Best Practices for Evaluation in Health Professions*, Okon, VK. Radcliffe Publishing Ltd. 2012 pp 229-255
174. Mishra S, Shamsi MB, Vemparala K, Dada R. Genetics of male infertility: Diagnostic and prognostic implications. *Ranbaxy Foundation*. 2014:165-86.
175. Mohan VK. Glossopharyngeal / Genuiculate / Vagus Neuralgia. In: Joshi M (ed.) *Textbook of Pain Management*, 3rd ed. Hyderabad:Paras Medical Publishers; 2014: 214-18.
176. Mohanty K, Mishra S, Vemprala K, Hassan T, Dada R. Cell. In: Talwar P. *Manual of Cytogenetics in Reproductive Biology*. New Delhi: Jaypee Publisher; 2014:35-42.

177. Mukhopadhyay AK. From Quantum to Consciousness. A long way to go! Brain Mind, Cosmos. The nature of our existence and the universe. Part I, E-book, Ed. Deepak Chopra. Pub. Deepak Chopra, pp. 202-229 (2014).
178. Mukhopadhyay AK. Who is the Knower? A response from Medical Science point of view. 9th Nalanda Dialogue on Philosophical and Scientific Models of Understanding Consciousness. Dept. of Philosophy Nava Nalanda Mahavihara, under Ministry of Culture, Govt. of India. (2014), pp. 56-61
179. Nag HL, Naranje S. Importance of flexibility exercise. In textbook - *Running, Jogging, Brisk walking and walking for Health. A Sustainable Lifestyle Approach*. Editor. Medury N. Bennett, Coleman & Co. Ltd. New Delhi, 2013; 101-135.
180. Nag HL, Naranje S. Weight training as supplement. In textbook- *Running, Jogging, Brisk walking and walking for Health. A Sustainable Lifestyle Approach*. Editor. Medury N. Bennett, Coleman & Co. Ltd. New Delhi, 2013; 136 – 146
181. Nagpal J, Agarwal R. Examination of newborn. In: Ian Donald Practical Obstetric Problem. Ed: Mishra R. 6th Edition. New Delhi: BI Publication. 2014. Pp 663-658.
182. Nehra A, Sadana D, Rajeswaran J. Critical analysis-Neuropsychological Rehabilitation. In Rajeshwaran J. Neuropsychological Rehabilitation-Principles and Applications. Elsevier Inc. 2013.
183. Nehra A. Assessment tools for Alzheimer's and other dementias – as per Indian settings. Dementia Decoded, Tripathi M (1st Ed.) A division of KWX Communications Pvt. Ltd. 2014.
184. Padma MV, Dash D. Acute stroke: Clinical features and management guidelines. Neurology in tropics. Elsevier Publication.
185. Padma MV. Cognition and Ageing. Text book of Dementia; (Ed) Tripathi.
186. Pal S, Chattopadhyay TK. Chapter 51. Cancer of esophagus. In: Haribhakti S (Ed.) *Surgical Gastroenterology* 2nd Edition; Hyderabad: Paras Medical Publisher; 2014: 403-16.
187. Pal S, Sahni P. Chapter 144. Surgery for portal hypertension. In: Haribhakti S (Ed.) *Surgical Gastroenterology* 2nd Edition; Hyderabad: Paras Medical Publisher; 2014: 1150-1163.
188. Panda A, Chawla R, Khokhar SK, Biswas NR. Role of Flumarizine in Apoptosis in Rabbit cornea in *Newer Drugs in ophthalmology*, ed 2000, Pragati Publishing Co. India, 2000; 13-18.
189. Panda Ch, Senjam SS, Singh AJ. Locus of control and health promotion. In: AJ Singh. Health Promotion-Need of Public Health Activism. 1st Ed. LAP Lambert Academic Publishing, Deutschland Germany 2013:321-30.
190. Panda S, Agarwala S. Branchial Remnants. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 137-140
191. Pandey RK. Bag mask ventilation. In: *Manual of ICU procedures*, Elsevier Publication/ J.P Brothers Publication.
192. Parakh N, Singh S, Bhargava B. Newer innovations in cardiology In *Cardiology update 2013* Ed by K Venugopal, 2013,p-518-26.
193. Paul VK, Lodha R, Agarwala A. Nutrition. In, Paul VK, Bagga A (Ed). *Ghai Essential Pediatrics*. CBS Publishers. Delhi. 2014; pp 88-109
194. Prathyusha K, Chaudhry R. Salmonella Typhi. In: Dongyou Liu, RCPA Biosecurity QAP (Eds). *Manual of Security Microbes and Toxins*. New South Wales, Australia.
195. Raju S, Agarwal SK. Temporary catheteristaion access for hemodialysis. In Curriculum of Post Graduate Certificate Course for Dialysis Physician. IGNOU, New Delhi, 2013.
196. Ranjan P, Sood R. Lungs in systemic sclerosis. In: SK Jindal, SS Patel (Eds): *Pulmonary manifestations of systemic diseases, World Clinics in Pulmonary and Critical Care Medicine*. Jaypee Brothers. Medical Publishers Ltd: 2014, India, pp.325-343.
197. Rath GK, Haresh KP. Cancer in India: the burden and how to prevent it. In: Das AK. *Non communicable diseases in India: Burden and prevention 2013*. Pages 94-103.
198. Rath GP, Gupta N. Intracranial hypertension: Profile and Neuromonitoring. In: *Yearbook of Anaesthesiology (Volume 3)* Chandra U, Basu SM (Eds). Hyderabad: Paras Medical Publishers 2013; p16-26.

199. Rathia S, Chakrabarty B, Gulati S. Approach to headache in children. In: Lodha R, Kabra SK, Mehta P, Bothra M. Ambulatory Pediatrics. New Delhi, Indian Journal of Pediatrics 2013:11-18
200. Ray R, Balhara YPS. Treatment: principles and overview. In: Lal R, Ambekar A (Eds). *Substance Use Disorders: Manual for Paramedical Personnel*. New Delhi: NDDTC, AIIMS:45-53.
201. Sagar R, Pattanayak RD. Dementia versus Depression. In: Tripathi M (Ed.) *Clinical Handbook on Differential Diagnosis of Dementia*. KontentWorx 2013; 68-83.
202. Sagar S, Raj R, Kaur H. Training module for Master Trainer on school safety program: AIIMS First responder manual. nidm.gov.in 2013 pg 90-112
203. Sankar P, Mishra J, Singh S. Hepatitis A and E in Potable Water: A threat to Health. In: Water & Health. Singh PP & Sharma VP (Eds). Springer India. 2014, pp 29-51.
204. Sankar S, Seth R Childhood malignancy. In Paul VK, Bagga A. Ghai's Essential Pediatrics .CBS Publishers.2013. 599-624
205. Satpathy S, Reddy ARJ. Role of Planning & Designing in Hospital Management. In: Goel S, Gupta AK. Hospital Administration—a problem solving approach. 1st ed. New Delhi: Elsevier 2014: 51-60.
206. Saxena R. Conventional Recession and Resection Surgery. Video Atlas of Ophthalmic Surgery. Jaypee brothers Medical Publishers 2013.
207. Saxena R. Inferior Oblique Surgery: Modified Elliot and Nankin's Procedure. Video Atlas of Ophthalmic Surgery. Jaypee brothers Medical Publishers 2013.
208. Saxena R. Management of Venous Thromboembolism: Indian Experience. In: Management of Antithrombotic and Thrombolytic Therapy. 462-467. 1st ed. KONTENTWORX, New Delhi. 2014
209. Saxena R. Posterior tenectomy of Superior Oblique. Video Atlas of Ophthalmic Surgery. Jaypee brothers Medical Publishers 2013.
210. Saxena R. Retro-equatorial Myopexy Superior Rectus Faden Procedure. Video Atlas of Ophthalmic Surgery. Jaypee brothers Medical Publishers 2013.
211. Senjam SS, Pant Bh, Singh AJ. Promoting Health at Individual Level. In: AJ Singh. Health Promotion-Need of Public Health Activism. 1st Ed. LAP Lambert Academic Publishing, Deutschland Germany 2013: 257-9.
212. Senjam SS, Singh AJ Non-Communicable disease and health promoting lifestyle profile of north Indian students. In: AJ Singh. Health Promotion-Need of Public Health Activism. 1st Ed. LAP Lambert Academic Publishing, Deutschland Germany 2013:284-97.
213. Senjam SS, Singh AJ. Salutogenesis versus Pathogenesis - A relatively new paradigm to explain health promotion behaviors among college students. In: AJ Singh. Health promotion-need of public health activism. 1st Ed. LAP Lambert Academic Publishing, Deutschland Germany 2013, 260-8.
214. Senjam SS. Hardiness: A new Perspective in health Promotion. In: AJ Singh. Health Promotion-Need of Public Health Activism. 1st Ed. LAP Lambert Academic Publishing, Deutschland Germany 2013:319-20.
215. Shankar P, Mishra J, Srivastava S, Singh S. In-vitro diagnostic methods for visceral leishmaniasis. In: Advances in developing affordable in vitro molecular diagnostics. Puri CP, Abidi N, Bhanushali P, Pere A, Gupta SK (eds.) Yashraj Research Foundation, Navi Mumbai, India. 2013; 111-138
216. Sharma A. 13 Chapters contributed in Immunology Section of *Anantnarayan and Panikers Textbook of Microbiology*. University Press, Hyderabad 2013, Pages 78-198 & 640-643.
217. Sharma KA, Kriplani A. Approach to baby with ambiguous genitalia. Treatment and Prognosis in Obstetrics and Gynaecology. Eds Mishra M.G. Jaypee Publishers.
218. Sharma KA, Kriplani A. Immunological disorders in pregnancy. In 'practical guide to third trimester of pregnancy and puerperium. Eds Sharma A, Jaypee Publishers.
219. Sharma KA, Pandey A. Screening for fetal hypoxia. 'Screening in Obstetric & Gynaecology – Abnormality detected what next ?' Eds Pandey A. Jaypee Publishers.
220. Sharma KA, Sachdev A. Antenatal Counselling and Antenatal Therapy for Fetal Illness. Advances in Pediatrics. Eds Sachdev A. Jaypee Publishers.
221. Sharma R, Kandasamy D. Imaging of Pancreatic Tumors. 2013. ECAB Clinical Update, Gastroenterology:

- Pancreatic Tumors, Elsevier 2013. Editor Pramod garg.
222. Sharma R, Senathipathy D. Magnetic Resonance Imaging in Medicine. API Text book of Medicine 2014, Jaypee Brothers.
 223. Sharma S, Jagia P. Endovascular Management of Non-Specific Aorto-Arteritis. In: Peripheral vascular interventions. Kandarpa K (ed). Wolters Kluwer
 224. Sharma S, Jagia P. Management of Vascular arteritides. Chapter 42. In: Mauro et al (eds). Image-guided Intervention. 2nd ed, Elsevier Science. 2014; 262-70.
 225. Sharma YR, Chabra P, Sharma R, Azad RV. Retinopathy of prematurity. In: Diagnostic procedures in Ophthalmology, 3rd ed. Nema HV, Nema N (eds). Jay pee brothers Medical publishers, 2014.
 226. Significance of blood levels of lipids & lipoproteins in health and disease' - for Textbook of Biochemistry and Human Biology
 227. Singh A, Seth R. Constipation in children. In SK Kabra & Rakesh Lodha. *Ambulatory Pediatrics 1st edition*. Indian journal of pediatrics -2013. 72-82
 228. Singh GP, Prabhakar H, Kalaivani M, Anand V. Inhalation versus intravenous technique for rapid emergence from anaesthesia in patients undergoing brain tumour surgery. Cochrane Database of Systematic Reviews 2013, Issue 4. Art. No.: CD010467. DOI: 10.1002/s14651858.CD010467.
 229. Singh H, Abhishek, Bhatia R. How to manage gait dysfunction and spasticity in a patient with MS. In Srivastava MVP, Bhatia R. Eds. Clinical Practice of Multiple Sclerosis. Kontentworx Communications. 2014. Pages 183-204.
 230. Singh S. Use of protein biomarkers for the early detection of breast cancer. OMICs Applications in Biomedical, Agricultural and Environmental Sciences, CRC Press, USA, 2013:299-316.
 231. Singh U, Handa G, Badhal S. Locomotor Disability. In: Status of Disability in India-2012. Rehabilitation Council of India, Ministry of Social Justice and Empowerment, Government of India. December 2013; Pp 223-259.
 232. Singhal T, Lodha R, Kabra SK. Infections and Infestations. In: Paul VK, Bagga A (ed). Ghai Essential Pediatrics. CBS Publishers. Delhi. 2014; pp 209-77
 233. Sinha A, Agarwala S. Cervical esophagostomy. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 163-165
 234. Sinha A, Agarwala S. Empyema. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 218-221
 235. Sinha A, Agarwala S. Endoscopic treatment of vesicoureteric reflux. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 475-477
 236. Sinha A, Agarwala S. H-type TEF. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013; 163-5
 237. Sinha A, Agarwala S. Long Gap Esophageal atresia. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 317-321
 238. Sinha A, Agarwala S. Small Bowel atresia. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 290-293
 239. Sinha A, Bagga A, Srivastava RN. Disorders of the kidney and urinary tract. In: Eds. Ghai OP, Paul VK, Bagga A. *Essential Pediatrics* 8th edn. New Delhi; CBS Publishers, 2013
 240. Sinha S, Hafiz A. Cyclosporiasis: An Emerging Potential Threat for Water Contamination. Text Book of Water & Health. (2013). P.P. Singh, VP Sharma (eds), 3rd edition, Chap. 12, pp 179-189.
 241. Srivastava AK, Faruq M. Hereditary Ataxias: An overview and Indian perspectives. Textbook of Movement Disorders; 362-393; edition: 2014
 242. Sugandhi N, Agarwala S. Abdominal neuroblastoma. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 331-333
 243. Sugandhi N, Agarwala S. Duodenal atresia. In: R Carachi, S Agarwala, TJ Bradnock (eds) Basic Techniques in Pediatric Surgery: An operative Manual, Springer, Germany, 2013 pp 322-324

244. Sugandhi N, Agarwala S. Excision of thyroglossal cyst and fistula. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 147-148
245. Sugandhi N, Agarwala S. Loop enterostomy. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013: 278-9
246. Sugandhi N, Agarwala S. Right lower lobectomy. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 234-236
247. Sugandhi N, Agarwala S. Right pneumonectomy. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 228-230
248. Sugandhi N, Agarwala S. Right upper lobectomy. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 231-233
249. Sugandhi N, Agarwala S. Stamm Gastrostomy. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 260-262
250. Sugandhi N, Agarwala S. Ureterostomy. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 461-464
251. Sugandhi N, Agarwala S. Wedge resection. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 237-238
252. Sugandhi N, Agarwala S. Wilms Tumor. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 328-330
253. Sundar S, Singh A. Kala-Azar- An overview. BB Rewari, DG Jain, MPS Chawla, *Clinical Medicine-A practical guide for emergency medicine and tropical disease*. First edition, New Delhi: Jaypee; 2014, Chapter no.29; pg 225-230:
254. Suri A, Borkar SA. Endoscopic Management of Neurocysticercosis: Clinical Neuroendoscopy Current Status. Delhi, Thieme Publishers, 2013, page. 12-17
255. Suri A, Tandon V. Endoscopic Third Ventriculostomy Vs Ventriculoperitoneal Shunt: Controversies answered: Clinical Neuroendoscopy Current Status. Delhi, Thieme Publishers, 2013, p 12-17
256. Suri A, Tandon V. Intracranial Arachnoid Cyst: Endoscopy is safe and feasible: Clinical Neuroendoscopy Current Status. Delhi, Thieme Publishers, 2013, page. 35-42
257. Suri A, Tripathi M, Baby B, Banerji S. Beyond the Lenses: Development of Hands-on and Virtual Neuroendoscopy Skills Training. In: Deopujari, Venkataramanaa, Suri A. *Clinical Neuroendoscopy Current Status*, Delhi; Thieme Publishers Delhi Neuroendoscopy Study Group of India 2013pg 139-149
258. Talwar S, Keshry VK. Pediatric Myocardial protection. In: Chauhan S (ed) *Book of perfusion and ECMO*. Academia publisher, New Delhi, 2014, pp 245-51.
259. Tembre MK, Sharma A, Khan R & Gupta S Clinical, Biochemical and Immunological aspects of Vitiligo, published in Book entitled *Pigmentary Disorders : A Comprehensive Compendium* edited by Lahiri K et al Publisher: Jaypee Brothers Medical Publishers (P) Ltd., 2014 Chapter15 Page 135-140.
260. Tempe D, Hasija S. Perioperative implications of diastolic dysfunction. *Anesthesiology year book 2014*.
261. Tempe DK, Hasija S. Assessment of mitral stenosis and prosthetic valve stenosis. In: Tempe DK, Subramaniam B, Subramaniam K, Ramakrishna H. *Problem-Based Transesophageal Echocardiography*. 1st edition. New Delhi: CBS Publishers & Distributors; 2014:73-82.
262. Thapa SR, Das RR, Kabra SK. Community acquired pneumonia. In *Antibiotics for common infections in children: An evidence based approach*. Eds Lodha R, Kabra SK, Jose B, Bhat AS. *Indian Journal of Pediatrics*.2013. pp 23-27.
263. Tiwari SC, Bhowmik D. Acute kidney injury and its management. In Agarwal SK, Jha V (eds). *Postdoctoral certificate course in dialysis medicine*, IGNOU, New Delhi.
264. *Transesophageal Echocardiography of Congenital Heart Diseases'* 1st Edition, Jaypee Publication- 2014. chapter no. 9 &21
265. *Transesophageal Echocardiography of the Tricuspid and Pulmonary Valves*, 1st Edition, Jaypee Publication- 2014. chapter no. 2
266. Tripathi M, Dang N. Nocturnal Seizures Versus Parasomnias: A Challenging Diagnosis. *Complicated Cases*

- in Epilepsy. Edited by Bhim Singhal, Atma Ram Bansal. Published by Kontentworx, a division of KWX Communication Pvt. Ltd. 2013;10:74-83.
267. Tripathi M, Dash D. Evaluation of a patient with dementia. *Neurology in Tropics*. Elsevier Publication.
 268. Tripathi M, Vibha D. Epilepsy and movement disorders. Edited by Dr Ashok Kumar, Dept of Neurology, IGIMS. 2014
 269. Tripathi M. Role of EEG in Epilepsy: Epilepsy. Edited by Mark Holmes. Nov 2013, ISBN 980-903-307-1106-6.
 270. Verma A, Agarwala S. Lymph Node Biopsy. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 149-150
 271. Verma A, Agarwala S. Torticollis. In: R Carachi, S Agarwala, TJ Bradnock (eds) *Basic Techniques in Pediatric Surgery: An operative Manual*, Springer, Germany, 2013 pp 155-56
 272. Verma KK, Parida DK: Radiation treatment of cutaneous lymphomas (Mycosis fungoides) – Indian experience. In: Panizzon RG, Cooper JS, eds. *Radiation Treatment and Radiation Reactions in Dermatology*. Berlin, Heidelberg, New York: Springer-Verlag; 2013: p109-120.
 273. Vikram NK. Nutrition Supplements & Running. In Ed. Narain Medury. *Running, Jogging, Brisk Walking & Walking for Health. A Sustainable Lifestyle Approach*. New Delhi; Published by Bennet, Cleman & Co. Ltd.; 2013
 274. Yadav J, Jain V. Failure to thrive. In Lodha R, Kabra SK eds. *Ambulatory Pediatrics*. Published by IJP, New Delhi, India 2014
 275. Yadav JS, Kaur S. Epidemiology and classification of mental disorders of in elderly. In: Sanchettee P (Ed.): *Text book of Geriatric Medicine*. Delhi: Paras Medical Publisher (under the Aegis of Indian Academy of Geriatrics) 2014.
 276. Yoganathan S, Gulati S. Outpatient management of seizures. In eds Lodha R, kabra SK. *Ambulatory Pediatrics*, Indian J Pediatr New Delhi 2014:55-64

Books

1. Ambekar A, Rao R, Agrawal A, Ray R, Dhawan A. *Quality Assurance for OST Programmes: A Field Guide for Mentors*, New Delhi: NDDTC, AIIMS & National AIDS Control Organisation, India 2013.
2. Ambekar A, Rao R. *Training of General Physicians on Substance Use Disorders: A manual for Facilitators*. New Delhi: NDDTC, AIIMS; 2013.
3. Azad RV, Chandra P. Training manual on Retinopathy of prematurity. Azad R, Chandra P. In collaboration with Sightsavers. Published by Atharva Arts. (2013)
4. Azad RV, Chandra P. Workshop on Retinopathy of Prematurity: Training module for RIOs. Azad R, Chandra P. In collaboration with NPCB, MOHFW. Published by SDM Printers. (2013)
5. Bansal P, Das SN (eds). *Biotechnology in Medicine and Herbal drug development*. Basera Verlag, Albert Rosshaupter Strasse 110, 81369, Munchen, Germany, 2014 (ISBN: 978-81-92064-0-4)
6. Carachi R, Agarwala S, Bradnock TJ (eds). *Basic Techniques in Pediatric Surgery: An operative manual*, Springer, Germany, 2013
7. Chattopadhyay TK, Sahni P, Pal S (eds). *GI Surgery Annual Vol. 20*. New Delhi: 2013;1-229.
8. Chaudhry R. *Probiotic*. Kontentworx tree life media, KWX communications Pvt. Ltd.
9. *Childhood Cancer: What parents must know (English & Hindi)*
10. *CPAP Art Science Practice 3rd ed (revised)*, January, 2014 Noble Vision, New Delhi.
11. Dada T. *Glaucoma Fundamentals-National Postgraduate Training Module*. All India Ophthalmological Society. January 2014.
12. Dhawan A, Jhanjee S. *Manual for Long Term Pharmacotherapy*. 2nd ed, New Delhi: NDDTC, AIIMS; 2013.
13. Gupta AK, Aggarwal VK, Goel N. *Handbook of clinical trials in ophthalmology*. Jaypee brothers medical publishers (P) Ltd. 2013

14. Hand Book of Forensic Analytical Toxicology, 1st edition. 2014 Jaypee Brothers Medical Publishers (P) Ltd, New Delhi.
15. Jagannathan NR (ed). Prostate MR: Current Status, Challenges and Future directions. *NMR Biomed* Wiley. 2014;27:1-111 (Special Issue Editor).
16. Jhanjee S, Jain R, Sethi S. *Rolling Out of Opioid Substitution Treatment (OST) in Tihar Prisons, India*. New Delhi: United Nations Publication; 2013.
17. Julka PK. Developing a world class clinical trial site. Second edition. New Delhi:CR Books; 2014
18. Kapil A. *Ananthnarayan and Paniker's Textbook of Microbiology* 9th ed. Universities Press; 2013.
19. Khanna N (Chief editor), Kubba R (Guest Editor). *World Clinics in Dermatology. Acne issue*. New Delhi: Jaypee Brothers; 2013.
20. Khanna N, Kathuria S. *Bhutani's Color Atlas of Sexually Transmitted Infections*. 2nd ed. New Delhi: Jaypee Brothers; 2013.
21. Kusuma YS, Kumar A, Burman D, Ranjan A. *Ek Kadam–Swasth Samaaj ki or–jan saadharan evam swaasthya karmiyon hetu swaasthya jaankaari pustika*. (A booklet in Hindi compiled with information on health for the community and the health workers).
22. Lodha R, Kabra SK (eds). *Ambulatory Pediatrics*. Indian J Pediatrics, 2013
23. Lodha R, Kabra SK, Jose B, Bhat AS (eds). *Antibiotics for common infections in children: An evidence based approach*. Indian Journal of Pediatrics.2013
24. Mehta M, Sagar R. *A Remedial Training Manual for Children with Specific Learning Disability for Parents, Teachers and Counselors*. New Delhi: Psycho Matrix; 2013.
25. Pandav CS, Ray SK, Yadav K, Kumar R, Sinha S (eds). *Iodine deficiency disorders in Bangladesh: Current status and future strategy*. International Council for Control of Iodine Deficiency Disorders (ICCIDD), New Delhi, India. June 2013.
26. Paul VK, Bagga A. *Essential Pediatrics*, CBS Publishers, 8th edition, 2013, New Delhi
27. Satapathy S. *Needs of children in emergencies: A training module*. New Delhi: NIDM Publications; 2014.
28. Shaarawy TM, Dada T. *ISGS Textbook of Glaucoma Surgery*. Jaypee Publishers, New Delhi February 2014.
29. Sharan P, Sagar R. *Testing the Performance of Depression Identification Instrument for SEARO in Primary Care Population*. New Delhi: Department of Psychiatry AIIMS & WHO, SEARO; 2014.
30. Sharma JB. *The Textbook of Obstetrics* published by Avichal publishing company 2014.
31. Singh S. *Diseases and Theranostics*. Biotechnology Series Vol. 9. Studium Press, LLC, Texas, USA, 2014.
32. Sood S, Kumar A (eds). *Disorders of Retina and Vitreous*. 1st ed. 2014, CBS Publishers.

13.1 Finance Division

The Institute gets grants under the Heads 'Plan' and 'Non-Plan' from the Government of India, Ministry of Health and Family Welfare. Plan grants are also received for National Drug Dependence Treatment, separately. Besides, extramural grants are also received from various external funding agencies such as ICMR, DST, CSIR, WHO, UNICEF, DBT, etc. for various research projects. Plan and Non-Plan grant received from the Government of India and other agencies are further allocated to superspecialty centres/departments/research section as per their projections/requirements.

The Finance Division of the Institute monitors/controls the expenditure against the above funds/budget by obtaining monthly expenditure from the respective centres/units/departments and also administers day-to-day financial matters, payment of salaries to faculty and staff, payment of personal claims, pension and GPF in respect of the employees of the Institute and payment to contractors/suppliers. While making payments, all checks prescribed by Government of India were being exercised by the respective DDOs. Financial advice was also being rendered by the Finance Division whenever required.

All the above works are executed by Financial Advisor, Finance & Chief Accounts Officers (F&CAOs)/Accounts Officers under overall control of Senior Financial Advisor.

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

RECEIPT & PAYMENT ACCOUNT
FOR THE YEAR 2013-2014

		AIIMS(Main) (A)				(Amount in Rs.)	
RECEIPT		2013-14	2012-13	PAYMENT	2013-14	2012-13	
I	OPENING BALANCES			I	Grants transferred to the Centres/Schemes Cell		
A	Cash at bank			A			
i)	(a) AIIMS (MAIN)	2118715947		i) PLAN			
	(b) Unspent Balance of specific grants remained with AIIMS(M)	303080499	1512454727	a)Capital Assets (New)	303300000	319839843	
ii)	Scheme Cell	170451547	201224501	b)Grant in Aid Salary	56100000	50400000	
				c)Grant in Aid General Non-Plan	114000000	91000000	
B	CASH IN HAND (IMPREST)			a) Grant in Aid Salary	499600000	444000000	
i)	AIIMS (Main)			b) Grant in Aid General	160000000	95000000	
	(a)Balance as per cash book of the cashier	703950	683950	iii) Transfer from receipts of AIIMS (Main)		20000000	
C	AMOUNT LYING UNDISBURSED			B			
i)	AIIMS (Main)	61475	197351	i) PLAN			
ii)	Scheme Cell			a)Capital Assets (New)	450000000	400000000	
				b)Grant in Aid Salary	120825000	114029000	
D	POOR PATIENT A/C			c)Grant in Aid General Non Plan	150000000	64500000	
i)	AIIMS (Main)	2597226	1685917	a) Grant in Aid Salary	1093500000	990000000	
	a) Cash/Bank	1202610	1202610	b)Grant in Aid General	330000000	230000000	
	b) FDRs			iii) Transfer from receipts of AIIMS (Main)		30000000	
E	PATIENT TREATMENT A/C			iv) Transfer from receipts of Gamma Knife Patient A/c		29375000	
	AIIMS	106306586	91464066				

F	Hostels				C	N.D.D.T.C.		
	a) Cash in hand				i)	Plan	144400000	119185000
	b) Cash at bank							
	c) FDR's							
G	DEPARTMENT OF GERIATRIC MEDICINE				D	Scheme Cell		
	a) Cash at bank	956437	396906		i)	Grants against receipts		651968542
		5283021	5026772		ii)	Non Plan grant for National Service Scheme		
					iii)	Institute Research Grant		13114290
H	CUSTOM DUTY A/C				E	Dr.B.R.A.I.R.C.H.		
	a) Cash at bank	195937688	323820525		i)	Plan		
						a) Capital Assets (New)	98400000	100000000
						b) Grant in Aid Salary	14535000	11168000
I	PDA A/C					c) Grant in Aid General	34100000	42300000
	a) Cash at bank	13653385	6819584		ii)	Non-Plan		
J	NEW PENSION SCHEME					a) Grant in Aid Salary	374100000	345000000
	a) Cash Book	7613109				b) Grant in Aid General	260000000	195000000
						(c) Transfer from receipts of AIIMS (Main)		20000000
K	GENERAL PROVIDENT FUND				F	J.P.N.APEX TRAUMA CENTRE		
	Cash Book	94780742				Plan		
2	GRANTS FROM GOVT. OF INDIA					i) Capital Assets (New)	159614434	150000000
a)		2150000000	2610000000			ii) Grant in Aid (General)	500000000	459000000
	i) Capital Assets (New)					ii) Grant in Aid (Salary)	591025000	545148000
	ii) Grant in Aid General	140000000	1170000000					
	iii) Grant in Aid Salary	1300000000	920000000					

		G CENTRE FOR DENTAL EDUCATION & RESEARCH			
b)	Non-Plan				
	i)Grant in Aid General	245000000	2087000000		17677000
	ii)Grant in Aid Salary	6250000000	5800000000		41523000
c)	N.D.D.T.C.	144400000	119185000		41055000
d)	Oversight Committee(Plan)				
	i) Capital Assets (New)		518000000		3465356326
	ii) Grant in Aid Salary	200000000	3330000000		27921090
3	Miscellaneous Receipts	304465872	362680234		30464039
4	Hospital Receipts	221831999	168907902		21516884
5	Interest	280176542	205356243		1611517
6	Licence Fee	29976971	34160635		2565585
7	Tuition Fee /Examination Fee	22383500	26433405		682913755
8	Employees Health Scheme (EHS)	39049789	41051636		602423155
9	Pot Fund	324020	227150		1580151904
10	Employees Insurance Scheme	12058837	11959635		26987234
11	GPF	434579282	410074915		152280924
					109306265

12	Out side recoveries	568174585	482190669	7	Employees Insurance Scheme	15452805	12219458
13	Security Deposits/ Earnest Money	57817949	62381319	8	G.P.F.	434579282	410074915
14	Caution Money	56700	84452	9	Recoverable Advances		
					a)Car	160000	
15	Leave Salary & Pension contribution	509671	1416698		b)Scooter/Motor Cycle	822000	464000
					c)Bicycle	3000	
					d)House Building Advance	546090	533451
16	Recoverable Advances				e)Computer	930000	750000
	a)Car	628812	693799		f)Festival	3045000	3228750
	b)Scooter/Motor Cycle	1683124	648153				
	c)Bicycle	81228	7900	10	Expenditure out of grant received for specific purpose (Scheme Cell)		
	d)H.B.A.	2080588	2982134		Appendix-A	772685908	
	e)Computer	1192274	1049693				
	f) Festival	3125725	2688250	i)			
17	Post Partum Programme (Incentive money)	700000	200000	ii)	Add undisbursed for 2012-2013 paid now	61475	
				iii)	Less undisbursed for 2013-2014	182500	773684412
18	Grants received for specific purpose Appendix-A (Scheme Cell)	678689427	613629615	11	Post Partum programme (Incentive money)	728815	541710
19	Schemes			12	Books & Publications	28785730	27785807
i)	Grants against receipt		659581278	13	PLAN		
ii)	Grants transfer from A.I.I.M.S. Non-Plan				a) Salary	497307113	153772089
iii)	Direct received	67412100	70080014		b) Spares & Accessories	158813716	107801859

iv)	IRG Grant from AIIMS	13114290				546243470	272340033
20	Miscellaneous Donations (Appendix-D)						
		46395767	3148775			85129100	122886333
		72160000	74829825			215459730	227168508
21	Revolving Funds					27887492	17423627
22	New Pension Scheme	79079853	66000356	14	Purchase of Vehicles	26970452	13081063
23	Cochelar Implant Patient Treatment A/c				(a) Transport Office	6822189	
		53275500	36974460		(b) Hospital Store		
24	Deposit Work			15	Advance Payments		
(a)	Power Grid Corpn. Of India for construction of Dharmasala at Trauma Centre			a)	Material & Supply (NP) for foreign purchase	5997407	6999037
(b)	M/s R.S.S.Vishram Sadan	29000000		b)	Machinery & Equipment(Plan)		
(c)	Rajgarhia, Surekha & Shri Sai Vishram Sadan	352000		c)	PAO for procurement of Stores	327073375	440029200
		800000		d)	Temporary/Contigent Advances	20867188	17130218
25	Travel Grant		1298460	e)	Private firms for stores	7941690	148620
26	UNDCP Grant	5000000		f)	Custom Duty for Machinery & Equipment	50000000	
				g)	For Books & Journals	65456888	48638922
				h)	National Informatics Centre Services Inc		
27	TCIL payment for honorarium		390308	i)	for computerisation	10827211	1777253
28	Prime Minister Relief Fund	10000000			HSCC for surgical block (oversight)	4000000	

29	Receipt for Patient Treatment		20000	j)	HSCC for PC & Teaching Block phase II (oversight)	78300000	214842628
30	Receipt for conference	1275000	2411591	k)	HSCC for cont. of Hostel Block at AIIMS	210000000	183000000
31	Receipts from Gamma Knife Patient A/c		150000000	l)	HSCC for renovation of RKAK OPD (major work)		
32	Refund from Custom Duty Advance		100000000	m)	Kohli & Co. for p/o A.C.(major work)	235810	
33	Workshop Receipts		225000	n)	BRP (major work)	6033756	
34	Receipt for Scholarship		419800	o)	Executive Engineer (major work)	20900000	
35	Reimbursement for CGHS Claim		38724	p)	Ex. Engg., CPWD (major work)	10633620	
36	Grant for FIMSA Congress		350000	q)	CPWD for covering of Nallah Phase-II (major work)		48600000
37	Donation (i) Prof. P.N. Tondon & A.K. Banerjee (ii) R.L. Rajgarhia		500000	r)	HSCC for underground parking (major work)	3377000	108900000
38	Receipt for Asian Society for paed Urology	385000	500000	s)	HSCC for outreach OPD Badsha (Hr.) (major work)		10416000
				t)	Hitachi Homes for p/o split A/c (minor work)		606704
				u)	Blue Star Ltd for p/o A.C. (maintenance)	2600576	

39	Receipt from Director General ICMR	487197	v)	HSCC for Dining Hall (Oversight)	132500000
40	Receipt for Student Union Pulse	602000	w)	HSCC for renovation of CNC -CCU ward (major work)	30000000 22400000
41	Receipt for The energy resources Institute	75000	x)	HSCC for renovation of laundry & OPD (major work)	
42	Receipt for National Symposium	75000	y)	HSCC for consultancy fee (major work)	24700000
			z)	E.E. Delhi Water Services Division (major work)	55100000
			aa)	Sidwal Refregration for p/o A.C. (major work)	165363
			ab)	Hitachi Homes for p/o AC (major work)	1172959
			ac)	LG Elect. For p/o AC (major work)	3289004
			ad)	Inderprastha Gas Limited (minor work)	841610
			ae)	LG Elect. For p/o AC (minor work)	274618
			af)	Usha Int'nal for p/o AC (minor work)	331120
			ag)	Universal Comfort for p/o AC (minor work)	539474
			ah)	Secy., NDMC (major work)	4560000

ai)	HSCC for renovation of CCU (major work)	10000000		
aj)	HSCC for Trauma Centre (major work)	56500000		
ak)	HSCC for const. for resident (major work)	100000000		
al)	Universal Comfort for p/o AC (major work)	3555107		
16	Security Deposit/ Earnest Money			
(i)	Refund against the receipts upto the year 2012-13		40144514	
(ii)	Pertains to 2013-14	44555514	4411000	43524391
17	Outside recoveries	580223017		482572675
18	Miscellaneous Donations (Appendix-D)	44488173		3104625
19	Revolving Funds	68145000		62756000
20	New Pension Scheme to National Securities Depository Ltd.	139169984		95395062
ii)	to NPS A/c	19469897		41766302
21	Cochelear Implant Patient A/c	54240000		35439560

22	Deposit Work				
(a)	Power Grid Corpn. Of India for construction of Dharmasala at Trauma Centre				
(b)	M/s R.S.S.Vishram Sadan	323947			
	(i) Expenditure	28053	352000		
(c)	Rajgarhia, Surekha & Shri Sai Vishram Sadan			136789	
23	Deposit Linked Insurance Scheme		391548		626915
24	Oversight committee				
	a) Major works		199263665		32738990
	b) Pay & Allowances		191000000		231000000
	c) Machinery & Equipment (Store)		9030176		58325581
25	Payment to The energy resources Institute		75000		
26	Janani Suraksha Yojna(JSY)				17200
27	Travel Grant				1298460
28	Payment to National Symposium		75000		
29	UNDCP Grant				500000

30	TCIL payment for honorarium		390308
31	Prime Minister Relief Fund	10000000	
32	Payment for Student Union Pulse	602000	
33	Refund for Patient Treatment		20000
34	Refund for Conference	1275000	2411591
35	Scholarship for students		419800
36	Reimbursement for CGHS claim		38724
37	Refund of Grant for FIMSA Congress		350000
38	Workshop Payment		225000
39	Investment (i) Prof. P.N. Tondon & A.K. Banerjee (ii) R.L. Rajgarhia	385000	500000
40	Payment to Asian Society for paed Urology	500000	
41	Payment to Director General ICMR	487197	

POOR PATIENT ACCOUNTS

a) Grant	385806	942217	1	AIIMS	97800	99473
b) Interest	104946	68565				
c) FDRs						

PATIENT TREATMENT ACCOUNTS

PATIENT TREATMENT ACCOUNTS

(a) Grant	97787697	78575055	1	AIIMS	74299704	67592171
(b) Interest	4231872	3870917	2	Bank clearing charges	8212	11281
			3	Interest earned transfer to AIIMS Main A/c	19222081	

HOSTELS

HOSTELS

i) Security Deposits	1320000	1470000	1	Security refunds	1182500	1219500
ii) Miscellenous Receipts		112079	2	Miscellenous Expenditure		360
iii) Interest earned	174932	453561	3	Deposited in AIIMS Main A/c	788004	

DEPARTMENT OF GERIATRIC MEDICINE

DEPARTMENT OF GERIATRIC MEDICINE

(i) Interest received	1170525	1391465		(i)Salary	2910000	4493476
				(ii)Material & Supply (Non-Plan)	2469845	556592
				(iii)Research Activities		400000
				(iv)Advance to Engg Deptt	350000	594000

(v)Machinery & Equipment	22045	301846
(vi)Refund to AIIMS		1000
(vii)Furniture	758502	59331
(viii)Bank Charges	402	0
(ix) Training	242355	

CUSTOM DUTY ACCOUNTS

Receipts	14000000	0	156821925	127882837
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PD ACCOUNTS

Receipts	3500000	12000000	4833980	5166199
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NEW PENSION SCHEME

i) Receipts (Legacy data)	24279265		26751950	
ii) Interest received on FDR	13261251		1007	
iii) Interest received on FD			772500000	

Bank Account

iv) FD Maturity amount	1489310			
	760000000			

GENERAL PROVIDENT FUND

i) GPF Subscription	683373681		565667134	
ii) Interest received	326700804			
iii) Invest maturity	1091300000		1529579284	

CLOSING BALANCES

A	CASH AT BANK			
1	a) AIIMS(Main)			1643778222

b) Unspent Balance of Specific Grants remained with AIIMS (Main)	328403940	1972182162	2421796446
Schemes Cell		151959615	170451547
B CASH IN HAND (IMPREST)			
1 AIIMS (Main)			
a)Balance as per cash book of the cashier		713150	703950
C AMOUNT LYING UNDISBURSED			
1 AIIMS (Main)			
2 Scheme Cell		182500	61475
D POOR PATIENT ACCOUNT			
1 AIIMS (Main)			
(a) Cash/Bank		2990178	2597226
(b) FDR's		1202610	1202610
E PATIENT TREATMENT A/C			
AIIMS		114796158	91316376
Interest			14990210
F HOSTELS			
1 Cash in hand			
2 Cash at Bank		1224480	956437
3 FDR's		4539406	5283021

G	DEPARTMENT OF GERIATRIC MEDICINE		
	Cash at Bank	22757485	28340109
H	CUSTOM DUTY ACCOUNT		
	Cash at Bank	179115763	195937688
I	PD ACCOUNT		
	Cash at Bank	12319405	13653385
J	New Pension Scheme		
	Cash Book	7389978	
K	General Provident Fund		
	Cash Book	100908809	

Sub-Total(A) **23119625732** **19446207975** **23119625732** **19446207975**

DR. RAJENDER PRASAD CENTRE FOR OPHTHALMIC SCIENCES(B)

I	OPENING BALANCE				
A	Cash at Bank				446076846
B	Cash in hand				50400000
i)	Imprest	20000	20000	0	16889843
C	Poor Patient A/C				4750066
	Cash/Bank	369870	332390	51846811	13135036
II	GRANT IN AID				39500000
i)	Plan				9985000
					11292628
					Material & Supply

a) Capital Assets (New)	303300000				Material & Supply(Reg Pay)	286632144	
b) Grant in Aid Salary	56100000				Advance Payment	295414517	270559096
c) Grant in Aid General Non-Plan	114000000						
ii) a) Grant in Aid Salary	499600000				Refund of Security	4240594	5000
b) Grant in Aid General	160000000	1133000000	1020239843		a) Repair & Maint. Of Mach.		
					& Equip. Non- Plan	7205436	2935000
					<u>Mach. & Equipment (Plan)</u>		
					i) Actual Payment	297336675	
III Security Deposits received		6514000	4576000		Adv. Payment made to foreign purchase	4687826	292015675
					Comprehensive Annual Maintenance Contract (CAMC) (RG)	62154000	51500000
					XI Vehicle purchased		
					XII Furniture & Fixture	1275499	7984325
					XIII Mach. & Equipment (Plan) Jhajjar	0	2950000
IV GRANT IN AID (NON-RPC SCHEMES)					<u>PAYMENTS TOWARDS NON RPC SCHEMES</u>		
1 ABN AMRO Natra Raksha				..	1 ABN AMRO Natra Raksha	0	30000
2 Acuate Bacterial Conjunctivities				..	2 Acuate Bacterial Conjunctivities		
3 Administrative charges received through Projects					3 Administrative Charges	376041	265631
4 AMD View Study				1147796	4 AMD View Study		
5 Bacterial Corneal Ulcer Eye					5 Bacterial Corneal Ulcer eye Treatment		
6 Brimidine DS/DDDS		34668	36936		6 Brimidine DS/DDDS	48310	41971
7 Catract Patient (IOL)		842800	108000		7 Catract Patient (IOL)	349720	121400

8	Clinical Evaluation Polyherbal AOD		8	Clinical Evaluation AOD	
9	Clinical Evaluation on Blink & Clean (AMO)		9	Clinical Evaluation on Blink & Clean (AMO)	
10	Clinical Evaluation OZONE		10	Clinical Evaluation OZONE	
11	CRP		11	CRP	
12	CSIR	1574037	12	CSIR	1511055
13	DCDRF	1769032	13	DCDRF	1552680
14	DEGAS		14	DEGAS	
15	DME		15	DME	1340
16	DST Cyclosporine		16	DST Cyclosporine	
17	DST Evaluation of Tear fluid		17	DST Evaluation of Tear fluid	
18	DST/FIST		18	DST/FIST	
19	ENDURE Study		19	ENDURE Study	
20	ESG Evaluation Study on Gloucoma		20	ESG Evaluation Study on Gloucoma	
21	FAME Study		21	FAME Study	
22	FTG	65462	22	FTG	65462
23	High Precision Bio Analytical (HP-BAF)	74519	23	High Precision Bil Anailtical (HP-BAF)	290956
24	ICMR	8685567	24	ICMR	8369215
25	INDEGEN (LSTM)	6189252	25	INDEGEN (LSTM)	115500
26	INDEYE		26	INDEYE	
27	INMAS Biomedical Dispensing Products		27	INMAS Dispensing Biomedical Products	
28	INMAS Human Pharmacology		28	INMAS Human Pharmacology	
29	LCIF		29	LCIF	
30	LUX 201 Omnicare		30	LUX 201 Omnicare	43152
31	MA Foundation	300000	31	MA Foundation	367992
32	MBDL ILLY- LILLY		32	MBDL ILLY LILLY	242564
33	Mayopia Study	1102320	33	Mayopia Study	1272778

34	M.K. Media corneal Transplant (Min. of Finance)	1000000	1397660	34	M.K. Media Corneal Transplant(Min. of Finance)	1403666	322333
35	Multifocal IOL			35	Multifocal IOL		160896
36	NAB			36	NAB		
37	Neema International			37	Neema International		
38	Novartis Shield study			38	Novartis Shield Study		
39	Novartis Visudyme			39	Novartis Visudyme		
40	NPCB DOS Training		811171	40	NPCB DOS Training	288977	380092
41	NPCB Eye Camp Godda Jharkhand		157718	41	NPCB Eye Camp (Godda Jharkhand)	94425	63293
42	NPCB/DBCS	30000	621250	42	NPCB/DBCS	541791	86988
43	NPCB-NSU	227973	172210	43	NPCB-NSU	134940	229973
44	NPCB-SSU	213189	274114	44	NPCB-SSU	177928	213189
45	OEU		349916	45	OEU	65600	372771
46	ORBIS PECP			46	ORBIS PECP		18817
47	Pharmacokinetic Quinacrine			47	Pharmacokinetic Quinacrine		5806
48	Phase II age related macular degeneration menet study (ARMD)			48	Phase II age related macular degeneration menet study (ARMD)		
49	Pink Eye (Bausch & Lomb)			49	Pink Eye (Bausch & Lomb)		
50	Polyherbal Evaluagion DES			50	Polyherbal Evaluagion DES		
51	Posudurex Allergan International		58860	51	Posudurex Allergan International		486412
52	PVD /VRT Study			52	PVD /VRT Study		
53	Reliance Relinatra			53	Reliance Relinatra		
54	ROP Macugen			54	ROP Macugen		
55	ROP Workshop		660000	55	ROP Workshop		660000
56	RTI			56	RTI		
57	Sight Saver			57	Sight Saver		
58	SSMI-VFA	500000	872953	58	SSMI-VFA	647039	691356
59	Symposium Workshop			59	Sysposium Workshop		

60	Treatment of Dry eye Allergan International			60	Treatment of Dry eye Allergan International		
61	Prevalence of dry eye			61	Prevalence of dry eye		
62	WHO Malaysia	80400		62	WHO Malaysia	11000	20118
63	WHO Gujrat Survey			63	WHO Gujrat Survey		
67	WHO-SEIND			64	WHO-SEIND		
65	WHO Short term training	24900		65	WHO Short term training		173400
66	Ozurdex Project	709200	360000	66	Ozurdex Project	664074	520247
67	Diabetic Retinopathy in Urban slum			67	Diabetic Retinopathy in urban slum of Delhi		
	of Delhi (DRUSD)	3470990	5778867		(DRUSD)	3622716	4099808
68	GNEC (Guru Nanak Eye Centre)		25000	68	GNEC (Guru Nanak Eye Centre)		25000
69	Study Drug (DE-109)	689300	160000	69	Study Drug (DE-109)	684905	107830
70	Vision Delhi -PEC	5495236	1733422	70	Vision Delhi -PEC	4826970	579953
71	ROP Services	224625	1353188	71	ROP Services	1038551	407103
72	Comprehensive Primary Eye care			72	Comprehensive Primary Eye care		
	Services (CPECS/DJIS	713630	646000		Services (CPECS/DJIS	514132	218027
73	National Trachoma Survey Part-A & Part-B	6062056		73	National Trachoma Survey Part-A & Part-B	232476	
74	PHFI/QEDJT-EER	350000		74	PHFI/QEDJT-EER	147502	
75	LUMINOUS Study	140811		75	LUMINOUS Study	14081	
76	National ROP Summit	1587406		76	National ROP Summit	1393585	
77	Prevalence study of trachoma Project	110000		77	Prevalence study of trachoma Project	109915	
V	NIAF	44600	83900	XV	NIAF	3122	68235
VI	Hospital Receipts including variouskits	167843038	160148617	XVI	AIIMS Recoveries Remitted	103960879	104616997
VII	Interest on Recoverabl Adv.	280295	2216	XVII	Outside Recoveries remitted	50883335	35340481
VIII	Misc. Receipts	558860	589499	XVIII	NPS Contribution remitted	7095009	5702170

i)	C.N. Centre	5981079	103302133	b) Wages	19001621	13776069
				c) Travelling Allowance	2933437	3111088
ii)	CT Patient A/c					
	a) Bank	1218507	53823111	2 Stores (Non-Plan)		
	b) FDR	100000000	170000000	a) Repair & Maintenance of Machinery & Equipment	4378967	1931648
iii)	Angiography A/c			b) Material & Supply	335957492	338031779
	a) Bank	32215235	54339147	c) ORBO	29294	151164
	b) FDR	59800000	19800000			
iv)	Gamma Knife patient A/c			3 Stores (PLAN)		
	a) Bank	42283799	16353119	a) Machinery & Equipment (Advance Payment)	187932868	275343773
	b) FDR	70000000	197300000	b) Machinery & Equipment (Indian currency)		
v)	Neuro Surgery patient A/c			c) Furniture & Fixtures	105572995	129766771
	a) Bank	22117646	16888680	d) Spares & Accessories (CTC)	3545274	1526924
	b) FDR	15900000	15900000	e) Spares & Accessories (NSC)	48365064	48383000
				f) Consumables spare & Accessories/ Maintenance		
				g) Salary (Plan)	119824353	114029121
				h) Development Activities		23866480
		61000	47000	i) Grant in Aid General	15586439	12495954
				4 Building maintenance	30485765	29213265
				5 Cardiac Procedure (Consumables)	20000000	
				6 Minor Work (Revenue General)	29484891	39596705
		132907	133123			
B	CASH IN HAND (IMPREST)					
i)	C.N. Centre					
ii)	Cash in hand/Imprest					
C	POOR PATIENT A/C					
i)	N.S. Centre					
	a) Cash/Bank					

2	GRANT-IN-AID	7	Office Contingencies	9038429	20749091
(i)	Plan				
	a)Capital Assets (New)	45000000	Recoverable Advance		
	b)Grant in Aid Salary	120825000	(Non-Plan)		
	c)Grant in Aid General	150000000	a) Car	180000	
	d)Development Activities	29375000	b) Scooter/Motor Cycle	230000	160000
(ii)	Non-Plan	1423500000	c) House Building Advance		
	a) Spares & Accessories CTC	22500000	d) Computer	590000	780000
		48383000	e) Bi-cycle		
			f) Festival	1087500	1207500
3	a) Miscellenous Receipts	10446452	Refund of Security Deposits	6255485	3349000
	b)Private Ward	44634039			
	c) X-Ray	933720	Donation	114400	
	d)C.T.Scan charges	3503030			
	e)Ultra sound	126500	Neurology Patient A/c	17971231	13565736
4	Interest	32262983	Blood Test/Lab. Charges	5081895	11436711
5	Security Deposit/ Earnest Money	10500500	Cardio Test	6669226	4343050
6	Donations	350100	Thallium Test	3374809	5760953
7	Refund and Recoveries	2460714	Amount sent to PAO (GPF)		
8	Neurology Patient A/c	15662701	i)GPF	117574962	
9	Thallium Test	3495250	ii)Amt sent to PAO (GPF)	55989	110429568
		3836250	New Pension Schemes	118134951	

10	Levy charges	95380	107000	(i) NPS A/c (Main)	1510156	
11	Rent Charges/Licence Fee	1302787	1150300	(ii) NPS (Employees Share)	25762967	22438399
12	GPF	118134951	110429568	(iii) NPS(Employer Share)	25762967	20197128
13	New Pension Schemes	27273123	22438399	18 Employees Health Services	5551750	5477235
14	Recoverable Advances			19 Outside Recovery		
	a) Bicycle		1800	a)Outside Recovery	159574180	
	b) Scooter	237508	305046	b)Amt Sent to PAO (E.I.S.)	5435	132906584
	c) Car	204592	99492	20 Amount Sent to PAO (E.I.S.)		
	d) House Building	809250	867870	21 Pot Fund	32320	34680
	e) Computer	426742	311984	22 Water charges	435884	994057
	f) Festival	1121775	1222781	23 Institute Recovery (Computer Advance)	2400	7900
15	Cardio Test	4858540	4977070	24 Amount sent to PAO (HBA)	51686	
16	Blood Test/Lab. Charges	10953850	9546120	25 NACO Fund	400000	40000
17	MRI Charges	342000		26 HBA Sent to Main Instt.	26400	29892
18	Employees Health Services	5555660	5438105	27 Scooter Advance Sent to Main Instt.	460	5520
19	Outside Recovery	159579615	132906584			
20	Water Charges	435884	994057			

28 P.M Relief Fund 1535200 504824

21	Pot Fund	32320	34680
22	Institute Recovery (Computer Advance)	2400	7900
23	NACO Fund	400000	400000
24	Institute Recovery (Scooter Advance)	460	5520
25	Institute Recovery HBA	26400	29892
26	Transport Charges		1374
27	P.M Relief Fund	1535200	504824
28	Amount Sent to PAO(HBA)	51686	

C.T. PATIENT A/C

1	a) Patient's Receipts during 2013-14	255817608			
	b) Patients' Refund 13-14	41960182	213857426	222062774	
2	a) Interest during 2013-14	5734588	14042684		
					22500000
					48383000
					27910387
					21694201

C.T. PATIENT A/C

1	Purchase of Stores	241356664	288632861
2	Fresh Cheque		
3	a) Transferred to AIIMS CNC A/cs	22500000	48383000
4	Poor Patient Treatment Expenditure 2013-14	27910387	21694201

ANGIOGRAPHY PATIENT A/C

1	a)Patient's Receipts 2013-14	253217991				1	Purchase for stores	183378962	193716711
	b)Patients refunds	27665683	225552308	210890901		2	Poor Patient's treatment expenditure during 2013-14	5495567	6186700
2	Interest during 2013-14		7631713	6888598					

GAMMA KNIFE PATIENT A/C

1	Patient Receipts 2013-14	30322753				1	Purchase for Stores	1870982	
	Refund to Patients	2998650	27324103	28037005		2	MRI Charges	1823000	2356000
2	Interest		9277201	22949900		3	Bank charges		225
						4	Fund transfer to AIIMS (Main)		15000000

NEURO SURGERY PATIENT A/C

1	a)Patient Receipts 2013-14	85544254				1	Purchase for Stores	63753674	63224413
	b) Patient Refund	15643652	69900602	69450081		2	Poor Patient Treatment Expenditure 13-14	1723477	3162103
2	Fixed/CLTD Interest 13-14		2678137	2165401					

POOR PATIENT ACCOUNTS

N.S. Centre
Donation
Less Correction for 2012-13

31509
2023
29486

1784

1260
2000

**POOR PATIENT
ACCOUNTS**

N.S. Centre
Expenditure

CLOSING BALANCES

A CASH AT BANK

i) C.N. Centre 86827399 5981079

ii) C.T. Patient A/c

(a) Bank 29043470 1218507

(b) FDRs 100000000

iii) Angiography A/c

a) Bank 76524727 32215235

b) FDRs 59800000 59800000

iv) Gamma Knife Patient A/c

a) Bank 75191121 42283799

b) FDRs 70000000 70000000

v) Neuro Surgery Patient
A/c

a) Bank 29219234 22117646

b) FDRs 15900000 15900000

B C.N. Centre

i) Imprest 61000 47000

ii) Cash in Hand with
cashier

100000000

**D POOR PATIENT
ACCOUNT**

i) N.S. Centre

Cash at Bank 161133 132907

Sub-total (C)

3536276849 3522192487

3536276849 3522192487

12	Capital Works					245260	
13	Employee Contribution to NPS					1524394	784355
<u>Institute Recovery</u>							
1	GPF Subscription & Advance	8880649	8874216	1	GPF Subscription & Advance	8880649	8874216
2	Conveyance			2	Conveyance		
3	HBA	87880	66876	3	HBA	87880	66876
4	Licence fee	103437	117865	4	Licence fee	103437	117865
5	Officer Association	2080	2160	5	Officer Association	2080	2160
6	EIS	51040	48310	6	EIS	51070	48280
7	EHS	316050	322300	7	EHS	316375	321975
8	Computer Recovery	19200	19200	8	Computer recovery	19200	19200
9	Faculty Club	7000	3000	9	Faculty Club	7000	3000
10	One day salary contribution	68230	18871	10	New Pension Scheme	1658394	957809
11	New Pension Scheme	1658394	957809	11	One day salary contribution	68230	18871
12	Festival Advance	375		12	Festival Advance	375	
13	Karamchhari Union	1000		13	Karamchhari Union	1000	
<u>Outside Recovery</u>							
1	Income Tax	6143285	4177078	1	Income Tax	6143285	4180310
2	LIC	58572	59538	2	LIC	58572	59538
3	Court Rec.	49591	102996	3	Court Recovery	49591	102996
4	Society	4583630	4002626	4	Society	4583630	4002626
5	TDS	191701	88220	5	TDS	191701	88220
6	Labour cess	53104	27148	6	Labour cess	53104	27148

**NATIONAL DRUG
DEPENDENCE TREATMENT**

**CENTRE (N.D.D.T.C.)
(UNDCP PROJECT)**

1 i) Grant-in-Aid 9039891
ii) less refunded 4419547

2 Miscellaneous Receipt

**NATIONAL DRUG
DEPENDENCE
TREATMENT**

**CENTRE (N.D.D.T.C.)
(UNDCP PROJECT)**

1 a)TA 187309 575775

b) TA Advance 333300 347173

c) Pay & Allowances 14620 14546

2 a)Office contingency 466170 63195

b)Refreshment 2379094 953749

c) Accommodation charges

d)Advance for Accommodation Charges

e)Printing Charges 2379094

f)Transportation 32472

g) Postage 97932

h) Training 3588792 33750

i) Medicine 714302

3 Resarch activity 272560

4 Fund Transferred to Centres 443000

5 RTGS

6 Advance 1438000 140000

7 Bank Charges 173 1980

CLOSING BALANCES

A CASH AT BANK

i) N.D.D.T.C. 1043679 4210804

ii) UNDCP 1899821 2260019

Sub-Total (E)

184675526 152709039

184675526 152709039

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

1	Opening Balance		1(a)	Building Construction -Minor works	5805755	10880043
	Cash at bank		b	Engg. Maintenance etc	114433004	103641299
	Imprest	81120147 90000	2	Manpower		
2	GRANT-IN-AID		a	Recurring & Out Sources	69309948	55759175
i)	Creation of Capital Assets (New)	159614434	b	Pay & Allowances	632959390	547900933
ii)	Grant-in-Aid (General)	50000000	c	Festival Advance Paid	131250	93750
iii)	Grant-in-Aid (Salary)	591025000	d	Material & Supply	311479264	267648581
			e	Contingency	25039848	18985054
3	Other Receipts		3	Furniture & Fixtures	460598	753249
a)	i) Hospital Receipt	10272742	4	Machinery & Equipment		
	ii) Security refund from NDMC	2700000		Machinery & Equipment	92520063	56011609
b)	Security deposit(EMD)	162000		(a) Advance Payment made to		
c)	Interest on TDR	22683561		Foreign Purchases	67094371	88951917
d)	Miscellaneous Receipt			(b) Advance paid as Custom Duty		
	(PT A/C,ATLAS/other Transferable Dues)	6218734		(c) Advance paid as PDA		
e)	Festival Advances Recoveries	80625	5	Refunds		
f)	Misc. Receipt/ Cancelled Cheque	3534171		a)Security Refunds	3390000	6965000
				b)PT A/C,ATLAS/other Transferable Dues	5545908	13052035
			6	Bank Charges	142	
			7	<u>CLOSING BALANCES</u>		
				CASH IN HAND	6706	90000

CASH AT BANK 46625167 81120147
1374801414 1251852792 1374801414 1251852792

CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)

Sub-Total (F)		1374801414	1251852792	1374801414	1251852792
A	Cash at Bank				
(i)	CDER	14557664	10455873	43637402	40989363
	Cash in Hand	5000	5000	2963585	3261150
				6423	6380
1	Grant -in-Aid				
i)	Capital (New)	11664000	17677000	37547714	29042571
ii)	Revenue General	50012000	41523000	9830734	9031550
iii)	Grant in Aid Salary	43500000	41055000		822340
2	Security Deposit	2370700	2430751		
3	Interest on STDR	2318559		11645380	16854660
4	Miscellaneous Receipt	127068	133519	855370	254915
5	Hospital Receipt	1472420	1545450	30000000	
6	Institute Recovery				
	GPF Subscription & advance	516304		516304	
	EIS	6000		6000	
	EHS	24000		24000	
	Licence fee	7131		7131	
	Water Charges	2160		2160	
	Miscellaneous Recovery	14623		14623	
	Faculty Club	2500		2500	
	NPS	1101744		1101744	
7	Outside Recovery				
	Labour Cess	74321		74321	
	D Vat	25836		25836	
	Income tax (Faculty)	1658824		1658824	
	TDS	421340		421340	
8	Outside Recovery				
	Labour Cess	74321		74321	
	D Vat	25836		25836	
	Income tax (Faculty)	1658824		1658824	
	TDS	421340		421340	
7	Outside Recovery				
	Labour Cess	74321		74321	
	D Vat	25836		25836	
	Income tax (Faculty)	1658824		1658824	
	TDS	421340		421340	

Closing Balance

A	Cash at Bank	-10464197	14557664
B	Cash in Hand (Imprest)	5000	5000

Sub-Total (G)	129882194	114825593	129882194	114825593
GRAND TOTAL (A) TO (G)	31006629896	26922298158	31006629896	26922298158

Financial Advisor

Senior Financial Advisor

DIRECTOR

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

**INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR 2013-2014**

		AIIMS(Main) (A)				(Amount in Rs.)	
EXPENDITURE		2013-14	2012-13	INCOME	2013-14	2012-13	
NON-PLAN							
1	Pay & Allowances	3465356326	3332589926	1	Oversight Committee (Plan)	200000000	
2	Stipend	30464039	21516884	2	Grant in Aid Salary (Plan)	474015000	
3	Travelling Allowances	28065041	27921090	3	Grant in Aid General (Plan)	166942059	
4	Pensionary Benefits	682913755	574594347	4	Non-Plan	9475665	
5	Material & Supply				i)Grant in Aid General	1700000000	
	i) Expenditure during 2013-14	1580151904			ii)Grant in Aid Salary	4282800000	
	ii) Adjustment of Advances	2785590		REVENUE RECEIPTS			
	iii) Adjustment of Advances	69870		1	Hospital Receipts	224023174	
	iv) Adjustment of Advances	3504327	1426334975	2	Tution Fee and Examination Fee	22383500	
6	Office Contingency			3	Employees Health Scheme	39049789	
	i) Expenditure during 2013-14	602423155		4	Licence fee	34160635	
	ii) Adjustment of Advances	17130218	588161564	5	Interest	280176542	
7	Repair & Maintenance of Machinery & Equipment	26987234	25812831	6	Miscellaneous Receipts	304465872	
8	Maintenance of Buildings					362680234	

9	i) Expenditure during 2013-14	152280924						150000000
	ii) Adjustment of Advances							
			152280924	111048753				
9	New Pension Scheme	158639881						7910000
	i) Less Receipts	79079853	79560028	71161008				
10	Leave salary & Pension Contribution	1611517						
	i) Less Receipt	509671	1101846	1148887				
11	Deposit Linked Insurance Scheme		391548	626915				
12	Amount transferred from Revenue to:-							
	i) Dr. R.P. Centre			20000000				
	ii) C.N. Centre			30000000				
	iii) Dr. B.R.A.I.R.C.H.			20000000				
9	Establishment Charges (scheme Cell)		20222256					
13	<u>PLAN</u> Pay & Allowances		497307113	153772089				
14	Travelling Allowances		26970452	13081063				
15	Institute Research Grant							
16	Computerisation			822513				

17	Amount transferred from revenue to:- C.N. Centre	29375000						
18	Spares & Accessories	158813716						
18	<u>Oversight Committee</u> Pay & Allowances	231000000						
	<u>HOSTELS</u>							
1	Miscellaneous Expenditure	360	1	Miscellaneous Receipts	112079			
2	Deposited in AIIMS Main account	788004	2	Interest	174932	453561		
	<u>DEPARTMENT OF GERIATRIC MEDICINE</u>							
	(i)Salary	2910000		(i)Grant in aid	1170525	1391465		
	(ii)Research Activities	4493476		(ii)Interest				
	(iii)Material & Supply (Non-Plan)	4000000						
	(iv)Bank Charges	2469845						
	(v) Training	402						
		242355						
	<u>EXCESS OF INCOME OVER EXPENDITURE</u>							
1	AIIMS (Main)	192385278	1	AIIMS(Main)				
2	Hostel	397014676	2	Department of Geriatric Medicine	4452077	7658603		

3	Department of Geriatric Medicine	3	Hostel	613072
	Sub-Total (A)	7766295226	7085598229	7766295226 7085598229

DR. RAJENDER PRASAD CENTRE FOR OPHTHALMIC SCIENCES(B)

1	i) Pay & Allowances	498720337	446076846	1	Grant-in-Aid		
	ii) Pay & Allowances (Revenue General)	56100000	50400000		i) Non-Plan	659600000	559000000
	iii) Spare & Accessories (RG)				ii) Pay & Allowances (Revenue General)	56100000	50400000
	iv) CAMC (RG)	62154000	51500000		iii) CMC (RG)	62154000	51500000
2	Daily Wages			2	Hospital Receipts i/c kits	167843038	160148617
3	Travelling Expenses	7362686	4750066	3	Interest on Recoverable Adv.	280295	2216
4	Material & Supply			4	Miscellaneous Receipts	558860	589499
i)	Reg. payment	286632144		5	Interest on CLTD	15937525	15926718
ii)	Material received during 13-14	3382303	265543783	6	Administrative Receipts (Projects)	1485022	
5	Office Expenses	21220893	13135036				
6	Maintenance of Buildings	11292628	9985000				
7	Repair & Maintenance of Machinery & Equipment	7205436	2935000				
8	NPS Contribution	7095009	5702170				
9	Administrative Charges (Projects)	376041					
	EXCESS OF INCOME OVER EXPENDITURE				EXCESS OF EX-PENDITURE OVER INCOME		
	Dr. R.P. Centre	2417263			Dr. R.P. Centre	12460851	
	Sub-Total (B)	963958740	850027901			963958740	850027901

CARDIO-THORACIC & NEURO SCIENCES CENTRE (C)

Non-Plan	1 Grant-in-Aid	
1 Pay & Allowances & Wages	(a)	i) Salary ii) Salary (RG) to be refund to AIIMS
2 Travelling Expenditure	(b)	i) Plan (Revenue General) ii) Less Amt. transfer to patients A/c
3 Material & Supply	(c)	Non-Plan
4 Office Contingency		
5 Repair & maintenance of Machinery & Equipment		
6 Maintenance of Buildings		
7 For consumables		
8 Salary Plan (Revenue General)		
9 New Pension Scheme		
10 ORBO		
11 Development Activities		
12 Grant in Aid General (RG)		
	2 Revenue Receipts	
	a) Hospital Receipts	
	b) Amount received from outside patients 2013-14	
	c) Less amount received 13-14	
	3 Misc. Receipts	
	4 Rent Charges/ Licence Fee	
	5 Refund & Recoveries	
	6 Interest	
	7 Levy Charges	

13	i) Cardiac Procedure (Cons..)	20000000				8	Transport Charges	0	1374
	ii) Less transf. to Patients A/c	20000000	0			9	MRI Charges	342000	
	<u>C.T. PATIENT A/C</u>								
1	Purchase for Stores	241356664	288632861			1	Patient's Receipts	213857426	222062774
2	Poor Patient Treatment Expd	27910387	21694201			2	Interest during 2013-14	5734588	14042684
3	Transferred to AIIMS CNC A/cs	22500000	48383000			3	Cancelled Cheque		
	<u>ANGIOGRAPHY PATIENT A/C</u>								
1	Purchase for Stores	183378962	193716711			1	Patient's Receipts	225552308	210890901
2	Poor Patient Treatment Expenditure	5495567	6186700			2	Interest during 13-14	7631713	6888598
3	Transferred to AIIMS CNC A/cs					3	Cancelled Cheques		
	<u>GAMMA KNIFE PATIENT A/C</u>								
1	Purchase of Stores	1870982				1	Patient Receipts	27324103	28037005
2	MRI Charges	1823000	2356000						
3	Fresh Cheques					2	Interest	9277201	22949900
4	Bank Charges		225						
5	Fund transfer to AIIMS (Main)		150000000						

<u>NEURO SURGERY PATIENT A/C</u>		<u>NEURO SURGERY PATIENT A/C</u>	
1	Purchase of Stores	63224413	69900602
2	Bank Charges	63753674	2678137
3	Transferred to AIIMS CNC A/cs		2165401
4	Poor Patient Treatment Expenditure 2013-14	3162103	
<u>EXCESS OF INCOME OVER EXPENDITURE</u>			
1	CT PATIENT A/C	21542004	95211630
2	ANGIO PATIENT A/C	17876088	72175037
3	GAMMA KNIFE PATIENT A/C	32907322	122604604
4	NEURO SURGERY PT. A/C	7101588	
Sub-Total (C)		2349928484	2387510586
<u>NEURO SURGERY PATIENT A/C</u>		<u>NEURO SURGERY PATIENT A/C</u>	
1	Patient Receipts	63224413	69900602
2	Fixed/CLTD Interest		2678137
3	Cancelled Cheques		2165401
<u>EXCESS OF EX-PENDITURE OVER INCOME</u>			
1	CNC	21542004	95211630
2	CT PATIENT A/C	17876088	72175037
3	NEURO SURGERY PT. A/C	32907322	122604604
4	ANGIO PATIENT A/C	7101588	
Sub-Total (C)		2349928484	2387510586

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

1	Pay & Allowances	376398299	336325500	Non-Plan	
2	Expenditure of TA/DA	9261643	6749453	i)Grant-in-aid Salary	345000000
				ii)Grant-in-aid General	195000000
Sub-Total (C)		2349928484	2387510586		

3	Material & Supply	232803173	202594128	iii) Revenue Rec. from AIIMS	20000000
4	Maintenance of Building	10779144	11914903	2 Grant in Aid General (Plan)	43040180
5	Outsourcing	26869292	24316914	3 Miscellaneous Hospital Receipt	22186181
6	Contingency Expenditure	2958449	3834619	4 ICMR	562000
7	Repair & Maintenance of Mach. & Equip.	11869658	10075662	5 Interest Receipts	10147944
8	Comprehensive Annual Maintenance Contract of Machinery & Equipment	15323298	27203399		188000
9	Salary Plan	14738000	11168000		3488628
10	Sanitation (BVG)	12087319	11491122		
	<u>EXCESS OF INCOME OVER EXPENDITURE</u>			<u>EXCESS OF EX-PENDITURE OVER INCOME</u>	
	I.R.C.H.			I.R.C.H.	14026181
	Sub-Total (D)	713088275	645673700		713088275
					645673700

NATIONAL DRUG DEPENDENCE TREATMENT CENTRE & UNDCP PROJECT (E)

1	Pay & Allowances	79726591	66442329	1 Grant-in-aid (Plan)	128600000
					115900000

2	Wages	10340246	5350358	2	Hospital Receipt	397810	398655
3	Material & Supply	33597390	39582550	3	Miscellaneous Receipt	1175	23563
5	NPS	1524394	784355				

NATIONAL DRUG DEPENDENCE TREATMENT

CENTRE (N.D.D.T.C.) (UNDCP PROJECT)

1	TA adjusted	187309	575775	1	Grant-in-aid (Plan)	4620344	5236393
2	Misc./Office Contingency		14546	2	Miscellaneous Receipts	2510156	
3	Transfer to Centres	443000					
4	Refund to WHO						
5	Pay & Allowances	333300	347173				
6	Accommodation adjusted	466170	953749				
7	Refreshment	14620	63195				
8	Transportation	32472					
9	Medicine	714302					
11	Resarch	272560					
12	Printing		2379094				
13	Training	3588792	33750				
14	Bank Charges	173	1980				
14	Postage		97932				
15	Advance						

i)	Adjustment during 13-14		34000				
ii)	Adjustment during 13-14		3809250				
iii)	Adjustment during 13-14		100000				
iv)	Adjustment during 13-14		1355000				
			5298250				

<u>EXCESS OF INCOME OVER EXPENDITURE</u>		<u>EXCESS OF EX-PENDITURE OVER INCOME</u>	
1	NDDTC	3810364	4162626
2	UNDCP Project		769199
	Sub-Total (E)	140349933	121558611
J.P.N. APEX TRAUMA CENTRE (F)			
1	Material & Supply	311479264	267648581
2	Contingency	25039848	18985054
2	Manpower /Out sources	69309948	55759175
3	Pay & Allowances	632959390	547900933
4	Engg. Maintenances etc.	114433004	103641299
5	Bank Charges		142
	Sub-Total (F)	1153221596	1012497531
EXCESS OF INCOME OVER EXPENDITURE			
	J.P.N. APEX TRAUMA CENTRE	18562489	25706122
		1153221596	1012497531
CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)			
1	Pay & Allowances	43637402	40989363
			43500000
	Sub-Total (G)	87274804	84489363
		1153221596	1012497531

1	Pay & Allowances	43637402	40989363	1	Grant in Aid Salary	43500000
					Grant in Aid General	50012000
						82578000
						93512000
						82578000

2	Material & Supply	37547714	29042571	2	Interest on STDR by Bank	2318559	0
3	Maintenance of Building	9830734	9031550	3	Miscellaneous Receipts	127068	133519
4	Office Expenses	2963585	3261150	4	Hospital Receipts	1472420	1545450
5	Bank Charges	6423	6380				
	<u>EXCESS OF INCOME OVER EXPENDITURE</u>				<u>EXCESS OF EX-PENDITURE OVER INCOME</u>		
	CENTRE FOR DENTAL EDUCATION & RESEARCH	3444189	1925955				
	Sub-Total (G)	97430047	84256969			97430047	84256969
	Grand Total (A) to (G)	13184272301	12187123527			13184272301	12187123527

Financial Advisor

Senior Financial Advisor

DIRECTOR

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

BALANCE SHEET AS ON 31.3.2014

AIIMS(Main) (A) (Amount in Rs.)

LIABILITIES		2013-14	2012-13	ASSETS	2013-14	2012-13
AIIMS (MAIN)		AIIMS (MAIN)				
1	BALANCE			1		
a)	Amount due but not paid (Scheme Cell)	182500	61475	a)	713150	703950
2 A)	CAPITAL GRANTS FROM GOVT. OF INDIA			b)	182500	61475
i)	i) Upto 2012-13	13913722569		2		
ii)	ii) Unspent balance of previous year	499200000		a)	1643778222	
	a) During 2013-14	755846946		(i) AIIMS (Main)		
	i) Creation of Capital Assets			(ii) Unspent Balance of Specific Grants remained with AIIMS (Main)	328403940	2421796446
	ii) Unspent balance of 2013-14	366838620		b)	151959615	170451547
	ii) Grant in Aid General (Plan)	348417051		3		94780742
iii)	Less on account of Machinery & Equipment condemned during 13-14	142579721		4		7613109
iv)	Less Books weeded out/ lost during 2013-14	61713		5		
				Investment		

v)	Less on account of vehicle condemned during 13-14	366490	15741017262	14412922569	(Appendix-C)	11153424	3517650323
B)	Oversight Committee						
	i) Grant upto 12-13	1144600000			6	200000	200000
	ii) Unspent balance for previous year	690900000					
	ii) During 13-14		1835500000	1835500000	7		
3	Grant received from Ministry of Welfare for P.M.R. ADIP Scheme		1218	1218			7240007
4	Centralised Accident and Trauma Services		29142	29142	8		330986
5	Diabetes Control		420000	420000	9		
					i)	72850	541662
6	AIDS		2400000	2400000	ii)	55299	916423
7	NON-INSTITUTE SCHEMES				iii)	46183	124411
	Unspent balance of grants received for specific purpose (APPENDIX-A)				iv)	2261452	2523726
	i) Less amount transferred to I/E	485709784			v)	8136220	9670718
		55161497	430548287	480772053	VI)	2566025	2646750
8	Donated Vehicles						
a)	Up to 2012-13	3508197					
b)	During 2013-14	962761			10		
c)	Vehicle condemned						

(a)	Starford India	1589098	1589098	B	For Foreign purchase of Machinery & Equipment (PLAN)			
(b)	Rajgarhia Vishram Sadan	1483711	1483711					
(c)	Surekha Vishram Sadan	1985	1985	i)	Upto 2012-13	432396034		
(d)	Shri Sai Vishram Sadan	500	500	ii)	During 2013-14	327073375		
(e)	MTNL for cable lying in A.V Nagar	112	112	iii)	Less equipment received During 2013-14	457402247	302067162	432396034
(f)	Rajgarhia , Surekha & Shri Sai Vishram Sadan	663211		C	Advance payment to P&AO for purchase of Building Material			
(g)	Power Grid Corpn. Of India for construction of Dharmshala at Trauma Centre	29000000		i)	Upto 2012-13	25869623		25869623
15	Security Deposits/ Earnest Money			ii)	Adjustment during 2013-14		25869623	
a)	Upto 2012-13	123275159		D	Temporary Contingent Advance			
b)	During 13-14	57817949		i)	Upto 2012-13	17130218		
c)	Refund against receipt upto 2012-13	40144514		ii)	During 2013-14	20867188		
d)	Refund against receipts of year 2013-14	4411000		iii)	Adjustment during 2013-14 of previous year	17130218	20867188	17130218
16	Caution Money			E	Private Firms for stores			
a)	Upto 2012-13	1428260		i)	Upto 2012-13	3637597		
b)	Receipts during 2013-14	56700		ii)	during 2013-14	7941690		
17	G.P.F. Account (Appendix F)			iii)	Less adjustment during 2013-14	69870	11509417	3637597
				F	Secretary, NDMC for security for electric connection			
				i)	Upto 2012-13	670950		

18	NPS (Appendix F)			157613109	ii)	Adjustment during 2013-14	10000	660950	670950
19	Pot Fund				G	P. & AO (for procurement of stores)			
	i) Upto 2012-13	2219267			i)	Upto 2012-13	3902376		
	ii) During 2013-14	324020	2543287	2219267	ii)	During 2013-14	2500000		
20	N.A.C.O.				iii)	Less adjustment during 2013-14	2785590	3616786	3902376
a)	Machinery & Equipment		1932605	1932605	H	Custom duty for Machinery & Equipment			
21	Revolving funds				i)	Upto 2012-13	133520452		
i)	Upto 2012-13	22687161			ii)	Add during 2013-14	50000000		
ii)	Receipt during 13-14	72160000			iii)	Less adjustment/ receipt during 2013-14			
iii)	Expenditure during 13-14	68145000			iv)	Less adjustment during 2013-14			
iv)	Transferred as 'Receipt' as per SFC approval	7910000	18792161	22687161			124596699	58923753	133520452
22	Post Partum Programme				I	For Books & Journals			
a)	Upto 2012-13	78165			i)	Upto 12-13	80485959		
b)	Receipts during 2013-14	700000			ii)	Add during 13-14	65456888		
c)	Expenditure during 2013-14	728815	49350	78165	iii)	Adjustment of advances made in previous years	13909532	132033315	80485959
23	V.V.I.P.				J	National Informatics Centre Services Inc for computerisation			
			120842	120842	i)	Upto 12-13	97070586		
24	VVIP Care at Parliament House Annexe Upto 13-14				ii)	Add during 13-14	10827211		
			7600	7600	iii)	Adjustment during 13-14	1643551	106254246	97070586
					K	Central Public Works Department, SJHPD for Dr.Hostel		1181250	1181250

25	Cochelar Patient treatment A/c												
	a)Upto 2012-13	2453326											5000000
	b) Receipt during 13-14	53275500											5000000
	c) Expenditure during 13-14	54240000	1488826	2453326									60000000
26	Janani Suraksha Yojana(JSY) A/c												
	a) Upto 13-14		9800	9800									12755500
27	WHO-in-Country Fellowship A/c												
	a) Upto 13-14		720487	720487									7463500
													14000000
													1711770
													192602

T	i) Upto 13-14 New Delhi Municipal Corporation for Building Construction	282474	282474	282474
U	Upgrading Architectural cell of Engineering Services Department at AIIMS	18733600	18733600	18733600
V	Chief Controller of Accounts (M/s Deepak Elect. Co.) for Electric works	45132	45132	45132
W	Chief Controller of Accounts (M/s Sanico Ind.) for Electrics works	190890	190890	190890
X	Chief Controller of Accounts (M/s Surya Roshni) for Electric works	98486	98486	98486
Y	M/s Blue Star Ltd. (for A/c works) for maintenance i) During 13-14	266165	266165	266165
Z	M/s Universal comfort (for A/c work) Upto 13-14	0	2600576	0
AA	M/s Videocon Ind. Ltd. (A/c work) Upto 12-13	539474	539474	539474
AB	Adjustment during 13-14 M/s Voltas Ltd. for	559841	559841	559841

i)	A/c work			
AC	Upto 13-14 Chief Controller of Accounts for purchase of stores M/s Inderprastha for CNG	461833	461833	461833
AD	Pipeline Directorate General Supply & Disposal M/s Rashmi Industry for A/c work	3343957	3343957	3343957
AE	M/s LG Elect. Split A/c for A/c & Electric Work	10405000	10405000	10405000
AF	Upto 13-14 Ex. Engg. SJH(CPWD) for sewage Treatment plant	2976242	2976242	2976242
i)				
AG	M/s HSCC Ltd. for construction Registrar, Guru Govind Singh Univ. for consultancy fee	262260	262260	262260
AH	M/s HSCC for preparation of Master Plan (major work)	11344542	11344542	11344542
AI	M/s HSCC for repair & renovation of RKAK OPD (major work)	1000000	1000000	1000000
AJ	M/s HSCC for facilitation block (Major work)	18000	18000	18000
AK	M/s HSCC construction of	105874500	105874500	105874500
AL				
AM				

					4868896	4868896	
AX	of additional lifts (major work) Ex. Engg. CPWD for installation of lift at ward block (major work)				1000000	1000000	
AY	Ex. Engg. CPWD for sewage treatment plant (major work)				10900000	10900000	
AZ	Ex. Engg. AIIMS CPWD for const. of Hostel (major work)				5000000	5000000	
BA	M/s Hitachi Homes Solutions for p/o A/c (major work)						
i)	Upto 12-13			1172959			
ii)	During 13-14			81817			
iii)	Adjustment during 13-14			849334			
BB	M/s Gurdev Singh Sons for A/c						1172959
	(minor work)						
BC	M/s Usha International Ltd. for A/c						302357
	(minor work)						
i)	Upto 13-14						331120
BD	HSCC for prep of master plan surgical block phase - II (oversight)						
i)	Upto 12-13			5868950			
ii)	During 13-14			4000000			
BE	HSCC for PC & Teaching Block phase II (oversight)						5868950

i)	Upto 12-13	298657578			
ii)	Add during 13-14	78300000		215289908	298657578
iii)	Adjustment during 13-14	161667670			
BF	HSCC for cont. of Hostel Block at AIIMS				
i)	Campus (oversight)	238699950			
ii)	Upto 12-13	210000000			
iii)	Add during 13-14	130268438		318431512	238699950
	Adjustment during 13-14				
BG	HSCC for renovation of RKAK OPD				
	(major work)			16899950	16899950
BH	HSCC Ex. Engineer, Delhi Water Service				
	Haryana Govt. (major work)			50000000	50000000
BI	DMRC for tunnel connection between AIIMS & Trauma Centre (major work)			250000000	250000000
BJ	CPWD for Lift (major work)			10000000	10000000
BK	CPWD for covering of Nallah Phase-II (major work)				
i)	Upto 13-14			59396099	59396099
BL	HSCC for underground parking (major work)				
i)	Upto 12-13	408399950			
ii)	Add during 13-14	3377000			
iii)	Adjustment during 13-14	408399950		3377000	408399950

BM	HSCC for outreach OPD Badsha (Hr.) (major work)	105416000	105416000	105416000
i)	Upto 13-14			
BN	Hitachi Homes for p/o split A/c (minor work)	606704	606704	606704
i)	Upto 13-14			
BO	HSCC for Dining Hall (Oversight)	132500000	132500000	132500000
BP	HSCC for renovation of CNC-CCU ward (major work)			
i)	Upto 12-13	30000000	30000000	30000000
ii)	During 13-14	20100000	20100000	20100000
BQ	HSCC for renovation of laundry & OPD (major work)	22400000	22400000	22400000
BR	HSCC for consultancy fee (major work)	24700000	24700000	24700000
BS	E.E. Delhi Water Services Division (major work)	55100000	55100000	55100000
BT	Sidwal Refregation for p/o A.C. (major work)			
i)	Upto 12-13	165363	165363	165363
ii)	During 13-14	1416168	1416168	1416168
iii)	Adjustment during 13-14	165363	165363	165363
BU	Secy. NDMC (major work)			
i)	Upto 13-14	4560000	4560000	4560000

BV	HSCC for renovation of CCU (major work) During 13-14	10000000		
i)				
BW	Inderprastha Gas Limited (minor work)	841610		841610
BX	HSCC for Trauma Centre (major work) During 13-14	56500000		
i)				
BY	HSCC for const. for resident (major work) During 13-14	100000000		
i)				
BZ	M/s Universal comfort (for A/c work) major work During 13-14	3555107		
i)				
14	Books & Publications			
i)	Books & periodicals (purchased)			
	a) Upto 2012-13		408110344	
	b) During 2013-14		28785730	
	c) Less books weeded out/ lost during 2013-14		61713	
	c) Adjustment of advances made in previous year		13909532	408110344
ii)	Books donated			
	a) Upto 2012-13		193655	
	b) During 2013-14		8570	193655
15	Building Construction	450743893		
		202225		

	during 13-14	366490	32562910	26107211
B	Vehicles donated for AIIMS			
a)	Upto 2012-13	3508197		
b)	During 2013-14	962761		
c)	Vehicle condemned dg 13-14		4470958	3508197
19	Hospital receipts recoverable from outside patients			
a)	Upto 2012-13	3886262		
b)	During 2013-14	8931483		
c)	Amount recovered during 2013-14	6740308	6077437	3886262
20	Oversight Committee Major works			
a)	i) upto 2012-13	371920114		
	ii) during 13-14	199263665		371920114
	iii) Adjustment during 13-14	161667670		
	iv) Adjustment during 13-14	130268438	863119887	
b)	Machinery & Equipment(store)			
	i) upto 2012-13	96589099		
	ii) during 13-14	9030176	105619275	96589099
	<u>POOR PATIENT A/C</u>			
1	AIIMS (Main)			
	a)Opening Balance		3087978	2597226
	i) Cash/Bank		1202610	1202610

1	i) Cash Book Open. Balance	7613109			Opening Balance Investment	150000000	
	ii) Investment	15000000	157613109		i) Investment during the year	772500000	
3	Receipt in NPS	39029826			ii) Less investment matured	12500000	
	Funds transferred from NPS	26752957	12276869		Cash Book Closing Balance	7389978	
	<u>GENERAL PROVIDENT FUND</u>				<u>GENERAL PROVIDENT FUND</u>		
1	Opening Balance		3451662641		Opening Balance Investment	3356881899	
2	i) Subscription Received	683373681			i) Investment during the year	1529579284	
	ii) Less Withdrawal	565667134	117706547		ii) Less investment matured	1091300000	438279284
3	O/s Interest received for the year 2012-13		39099375		Add Cash Book Closing balance 2013-14	100908809	
4	Interest received on Subscription for 2013-14		287601429				
	<u>EXCESS OF INCOME OVER EXPENDITURE</u>						
1	AIIMS (Main)						
	(i) Upto 2012-13	522525033					
	(ii) Add amount transferred from liability	55161497					
	(ii) Add during 13-14	192385278	770071808	522525033			
2	HOSTEL						
	i) Upto 2012-13	3409678					
	ii) Less Excess of Expd over						

ii)	Rec. during 13-14	0	0	0	0	ii)	Paid during 13-14	0		
iii)	Exp. during 13-14	0	0	0	0	iii)	Recovered during 13-14	12000	15500	27500
3	<u>Administrative Charges</u>					f)	Festival Advance			
i)	Upto 12-13	2941303				i)	Upto 12-13	433670		
ii)	Less amount transferred to I/E	2941303	0	2941303		ii)	Paid during 13-14	738750		
						iii)	Recovered during 13-14	723000	449420	433670
4	<u>AMD View Study</u>					4	<u>Machinery & Equipment (PLAN)</u>			
i)	Upto 12-13	294646				i)	Upto 12-13	1449077518		
ii)	Rec. during 13-14	0				ii)	Paid during 13-14	297336675		
iii)	Exp. during 13-14	0	294646	294646		iii)	Recovered during 13-14	7647739		
						iii)	Condmedn during 13-14	958010	1753103922	1449077518
5	<u>Brimiridine DS/DDS</u>					5	<u>Machinery & Equipment (Non-Plan)</u>			
i)	Upto 12-13	13642				i)	Upto 13-14		5872266	5872266
ii)	Rec. during 13-14	34668				6	<u>Capital Assets (Building)</u>			
iii)	Exp. during 13-14	48310	0	13642		i)	Upto 12-13	181597048		
						ii)	During 13-14	51846811	233443859	181597048
6	<u>Catract Patient (IOL)</u>					7	<u>NPCB (M & E)</u>		7002852	7002852
i)	Upto 12-13	111724				8	<u>ICMR (M & E)</u>		605150	605150
ii)	Rec. during 13-14	842800				9	<u>Vehicles</u>			
iii)	Exp. during 13-14	349720	604804	111724		a) i)	Vehicles Up to 12-13	4246987		
						ii)	Vehicle purchased 13-14	0		
7	<u>CGD in Primary Angle Closure Glacoma</u>					iii)	Vehicle Condmedn	0	4246987	4246987
i)	Upto 12-13	41445								
ii)	Rec. during 13-14	0								
iii)	Exp. during 13-14	0	41445	41445						
8	<u>CSIR</u>									
i)	Upto 12-13	216352								
ii)	Rec. during 13-14	1574037								

iii)	Exp. during 13-14	1511055	279334	216352	b)	Donated Vehicles upto 13-14	1351931	1351931
9	<u>DEGAS</u>	184074			10	<u>Furniture & Fixtures</u>		
i)	Upto 12-13	0			i)	Upto 12-13	13405858	
ii)	Rec. during 13-14	0			ii)	During 13-14	1275499	
iii)	Exp. during 13-14		184074	184074	iii)	Furniture condem. Dg13-14	852850	13405858
10	<u>DME</u>	7762			11	<u>Sundry Debtors</u>	76253	76253
i)	Upto 12-13	0			12	<u>Advances Payment made to foreign purchases (ME)</u>		
ii)	Rec. during 13-14	0		7762	i)	Upto 12-13	7626401	
iii)	Exp. during 13-14		7762		ii)	During 13-14	4687826	
11	<u>DNB Examination</u>	5000			iii)	M & E received during 13-14	7626401	7626401
i)	Upto 12-13	0			13	<u>Material & Supply (RPC)</u>		
ii)	Rec. during 13-14	0			i)	Upto 12-13	13164402	
iii)	Exp. during 13-14		5000	5000	ii)	Advances payment made to foreign purchase 13-14	8782373	
12	<u>FTG</u>	674			iii)	Material received during 13-14	3382303	13164402
i)	Upto 12-13	65462			14	<u>Machinery & Equipment (PLAN) Jhajjar</u>		
ii)	Rec. during 13-14	65462		674		Upto 13-14	2950000	2950000
iii)	Exp. during 13-14		674					
13	<u>High Precision Bio Analytical (HP-BAF)</u>	434911						
i)	Upto 12-13	74519						
ii)	Rec. during 13-14							

iii)	Exp. during 13-14	290956	218474	434911
14	<u>ICMR</u>			
i)	Upto 12-13	2862665		
ii)	Rec. during 13-14	8685567		
iii)	Exp. during 13-14	8369215	3179017	2862665
15	<u>INDEGEN (LSTM)</u>			
i)	Upto 12-13	730		
ii)	Rec. during 13-14	0		
iii)	Exp. during 13-14	0	730	730
16	<u>LUX 201 Omnicare</u>			
i)	Upto 12-13	887245		
ii)	Rec. during 13-14	0		
iii)	Exp. during 13-14	196736	690509	887245
17	<u>MA Foundation</u>			
i)	Upto 12-13	122088		
ii)	Rec. during 13-14	300000		
iii)	Exp. during 13-14	367992	54096	122088
18	<u>M.K. Media Corneal Transplant (Min. of Finance)</u>			
i)	Upto 12-13	1362437		
ii)	Rec. during 13-14	1000000		
iii)	Exp. during 13-14	1403666	958771	1362437
19	<u>NAB</u>			
i)	Upto 12-13	54132		
ii)	Rec. during 13-14	0		
iii)	Exp. during 13-14	0	54132	54132

20	<u>Novartis Shield study</u>								
i)	Upto 12-13								
ii)	Rec. during 13-14								
iii)	Exp. during 13-14	0	0						
21	<u>NPCB DOS Training</u>								
i)	Upto 12-13	519908							
ii)	Rec. during 13-14	0							
iii)	Exp. during 13-14	288977	230931	519908					
22	<u>NPCB Eye Camp Godda Jharkhand</u>								
i)	Upto 12-13	94425							
ii)	Rec. during 13-14	0							
iii)	Exp. during 13-14	94425	0	94425					
23	<u>NPCB/DBCS</u>								
i)	Upto 12-13	549291							
ii)	Rec. during 13-14	30000							
iii)	Exp. during 13-14	541791	37500	549291					
24	<u>NPCB-NSU</u>								
i)	Upto 12-13	70027							
ii)	Rec. during 13-14	227973							
iii)	Exp. during 13-14	134940	163060	70027					
25	<u>NPCB SSI</u>								
i)	Upto 12-13	86811							
ii)	Rec. during 13-14	213189							
iii)	Exp. during 13-14	177928	122072	86811					
26	<u>OEU</u>								
i)	Upto 12-13	69013							
ii)	Rec. during 13-14	0							

iii)	Exp. during 13-14	65600	3413	69013
27	<u>ORBIS PECP</u>			
i)	Upto 12-13	52323		
ii)	Rec. during 13-14	0		
iii)	Exp. during 13-14	0	52323	52323
28	<u>Pharmacokinetic Quinacrine</u>			
i)	Upto 12-13	63		
ii)	Rec. during 13-14	0		
iii)	Exp. during 13-14	0	63	63
29	<u>Posudurex PS/DDS Allergan</u>			
	International			
i)	Upto 12-13			
ii)	Rec. during 13-14			
iii)	Exp. during 13-14		0	0
30	<u>Ozurdex Study</u>			
i)	Upto 12-13	1753		
ii)	Rec. during 13-14	709200		
iii)	Exp. during 13-14	664074	46879	1753
31	<u>Mayopia Study</u>			
i)	Upto 12-13			
ii)	Rec. during 13-14			
iii)	Exp. during 13-14		0	0
32	<u>SSMI-VFA</u>			
i)	Upto 12-13	504091		
ii)	Rec. during 13-14	500000		
iii)	Exp. during 13-14	647039	357052	504091

33	<u>Treatment prevalence of dry eye</u>								
i)	Upto 12-13	105300							
ii)	Rec. during 13-14	0							
iii)	Exp. during 13-14	0	105300	105300				105300	
34	<u>WHO Malaysia</u>								
i)	Upto 12-13	60282							
ii)	Rec. during 13-14	0							
iii)	Exp. during 13-14	11000	49282	60282					
35	<u>WHO Short term Training Programme</u>								
i)	Upto 12-13								
ii)	Rec. during 13-14								
iii)	Exp. during 13-14		0	0					
36	<u>Workshop</u>								
i)	Upto 12-13	31600							
ii)	Rec. during 13-14	0							
iii)	Exp. during 13-14	0	31600	31600					
37	<u>Diabetic Retinopathy in Urban slum of Delhi (DRUSD)</u>								
	Upto 12-13	1679059							
	Rec. during 13-14	3470990							
	Exp. during 13-14	3622716	1527333	1679059					
38	<u>GNEC (Guru Nanak Eye Centre)</u>								
	Upto 12-13	0							
	Rec. during 13-14								
	Exp. during 13-14		0	0					
39	<u>Vision Delhi-PEC</u>								

	Upto 12-13	1153469				
	Rec. during 13-14	5495236				
	Exp. during 13-14	4826970	1821735	1153469		
40	<u>Comprehensive Primry eye care services</u> (CPECS/DJJS)					
	Upto 12-13	427973				
	Rec. during 13-14	713630				
	Exp. during 13-14	514132	627471	427973		
41	<u>ROP Services</u>					
	Upto 12-13	946085				
	Rec. during 13-14	224625				
	Exp. during 13-14	1038551	132159	946085		
42	<u>ROP Workshop</u>					
	Upto 12-13	0				
	Rec. during 13-14					
	Exp. during 13-14		0	0		
43	<u>Study Drug (DE-109)</u>					
	Upto 12-13	52170				
	Rec. during 13-14	689300				
	Exp. during 13-14	684905	56565	52170		
44	<u>National Trachoma Survey</u> Part- A & Part-B					
	Upto 12-13	0				
	Rec. during 13-14	6062056				
	Exp. during 13-14	232476	5829580			
45	<u>PHFI/OEDJT-EER</u>					
	Upto 12-13	0				

	Rec. during 13-14	350000							
	Exp. during 13-14	147502	202498						
46	<u>LUMINOUS STUDY</u>								
	Upto 12-13	0							
	Rec. during 13-14	140811							
	Exp. during 13-14	14081	126730						
47	<u>National ROP Summit</u>								
	Upto 12-13	0							
	Rec. during 13-14	1587406							
	Exp. during 13-14	1393585	193821						
48	<u>Prevalence Study of Trachoma Project</u>								
	Upto 12-13	0							
	Rec. during 13-14	110000							
	Exp. during 13-14	109915	85						
<u>VI</u>	<u>NIAF</u>								
i)	Upto 12-13	1273441							
ii)	Rec. during 13-14	44600							
iii)	Exp. during 13-14	3122	1314919				1273441		
<u>VII</u>	<u>NPCB</u>								
i)	Upto 12-13	827							
ii)	Rec. during 13-14	0							
iii)	Exp. during 13-14	0	827				827		
<u>VIII</u>	<u>Security deposits</u>								
i)	Upto 12-13	6422000							
ii)	Rec. during 13-14	6514000							
iii)	Exp. during 13-14	4240594	8695406				6422000		

IX	<u>A.I.I.M.S. Remittance</u>													
	Upto 12-13	215790												
	Rec. during 13-14	0	215790	215790										
X	<u>Outside Recoveries</u>													
	Upto 13-14		11288	11288										
	<u>Poor Patient A/c</u>													
1	Cash	369870											369870	
2	Receipts													
	i) Interest	15511												
	ii) Donation	186540												
	iii) Misc Receipts													
	iii) Payments	189677												
3	Closing Balance		382244	382244									382244	
XI	<u>Excess of Income Over Expenditure</u>													
i)	Upto 12-13	97808274												
ii)	Add amount transferred from liability	2941303												
ii)	During 13-14	2417263	103166840	97808274										
	Sub-Total (B)		2154111541	1790743319									2154111541	
													1790743319	
CARDIO-THORACIC & NEURO SCIENCES CENTRE (C)														
1	a) Amount due but not paid (Cashier)													
	b) Imprest 2013-14		20000	6000									61000	41000

i)	Upto 2012-13	8692451						
ii)	During 2013-14	4858540						
iii)	Less exp. during 2013-14	6669226	6881765	8692451				
14	NACO fund							
	Upto 2012-13	360000						
ii)	During 2013-14	400000						
iii)	Less exp. during 2013-14	400000	360000	360000				
	<u>POOR PATIENT A/C</u>							
1	N.S. Centre							
a)	Cash/Bank	132907					161133	132907
b)	Donations	31509						
c)	Less Correction for 2012-13	2023						
c)	Payments	1260						
d)	Closing Balance		161133	132907				
	<u>C.T. PATIENT A/C</u>							
	<u>ANGIOGRAPHY PATIENT A/C</u>							
	Cash recoverable from							
	Sh. Dal Chand Verma,							
	Cashier						3245441	3245441
	Fixed Deposits						59800000	59800000
	Cash at bank						76524727	32215235
	<u>GAMMA KNIFE PATIENT A/C</u>							
	Fixed Deposit						70000000	70000000

d)	(LCs) during 2013-14 Add adjustment of CDA/ PDA	74918497 11637572		
e)	Less Machinery & Equipment condmned during 13-14	15701463	1324608291	1232304624
7	<u>Security Deposited</u> <u>NDMC</u>		2626000	2626000
8(i)	<u>Building Construction</u> Upto 2013-14		294156972	294156972
9	<u>Vehicle</u>			
a)	Upto 2012-13	1603082		
b)	During 2013-14	1096227	2699309	1603082
10	<u>Furniture & Fixture</u>			
a)	Upto 2012-13	10840372		
b)	during 2013-14	0		
c)	Less furniture condmned during 13-14	0	10840372	10840372
11	<u>Advance payment to</u> <u>Custom Duty & PDA</u> <u>Account</u>			
(i)	Upto 2012-13	20016640		
(ii)	Add during 2013-14	10355740		
(iii)	Less Custom Duty adjusted during 2013-14	11637572	18734808	20016640
12	<u>Festival Advance</u>			

5	EIS Payable											
	i)Upto 2012-13	30	0	30	Building Construction	101953715	102198975	101953715				
	ii)Paid during 2013-14	30			Upto 2012-13	245260						
	EHS payable				During 2013-14							
6	i)Upto 2012-13	325	0	325	Vehicle		9033101	9033101				
	ii)Paid during 2013-14	325			Upto 2013-14							
					Outside recovery		40708	40708				
					Upto 2013-14							
					Advance for Material & Supply	290000						
					Upto 2012-13							
					During 13-14							
					Less Mat.& Supply Recvd.	20000	270000	290000				
					during13-14							
					Custom duty Advance		400000	400000				
					NATIONAL DRUG							
					DEPENDENCE							
					TREATMENT							
					CENTRE (N.D.D.T.C.)							
					(UNDCP PROJECT)							
					Opening balance	464680	464680	464680				
					TA Adv Outstanding	34000		34000				
					Adjusted during 13-14	34000	0	34000				
					Training Advance	3809250		3809250				
					Outstanding							
					Adjusted during 13-14	3809250	0	3809250				
					Accommodation Advance							
					Outstanding	100000		100000				
					Adjusted during 13-14	100000	0	100000				

Note:

- 1 The accounts have been prepared on actual Receipt and Expenditure basis.
- 2 No depreciation on Machinery & Equipment, vehicles etc. has been provided as the Institute is fully funded by the Govt. of India.
- 3 A statement showing the expenditure made by various Project Investigators during 2013-14 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.
- 4 Institute is exempted from Income-Tax under Section 8G(5)(vi) of the Income Tax Act, 1961.
- 5 The amount shown under four patient Accounts viz. C.T. Patient A/c, Angio Patient A/c, N.S. Patient Account and Gammaknife Patient A/c on the asset side of the Balance Sheet represents the amount as "Excess of Income over Expenditure" and the same is invested in term deposits. The amount is accumulated during the previous years on introduction of package charges in the year 1995. Package was introduced for convenience of patients and to ensure that quality products are used at reasonable rates. The package rates included service charges and ICU charges which were approved by Standing Finance Committee and ratified by Governing Body. Later on it was decided not to levy such charges from the patients and was withdrawn in the year 2000. During that period (1995-2000) accumulated balance amount and also the earned interest were invested in term deposit. A part of the interest only has however been utilised for treatment of poor patients as is reflected in the Receipt & Payment Account. The accumulated balance has not been utilised during the previous years in the absence of a guideline regarding its utilisation.
- 6 Issue regarding the utilisation of accumulated balances on account of user charges and interest thereon was discussed in the Standing Finance Committee meeting held on 11.11.2010, wherein it was decided that all the Centres will prepare their sub-budget (from the financial year 2011-12 onwards) indicating the amount proposed to be utilised out of accumulated balances available under patient account before the consolidated budget for the Institute is prepared. The same was ratified by the Governing Body on 27.11.2010. Accordingly, C.N. Centre has utilised the funds out of the accumulated balances for the current financial year 2013-14 under CT patient A/c.
- 6 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.7910000/- has been transferred out of the accumulated balances of Revolving Funds main account of the Institute as 'Receipt'.
- 7 The minus figure of closing balance in CDER accounts is appearing as a TDR amounting to Rs.30000000/- alongwith interest has not been credited by the bank during march 2014 after maturity. The said TDR along with interest has now been credited by bank during april 2014.

Financial Advisor

Senior Financial Advisor

DIRECTOR

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
RESEARCH SECTION
STATEMENT SHOWING THE EXPENDITURE OF THE GRANT RECEIVED FOR THE VARIOUS RESEARCH
PROJECTS FOR THE YEAR 2013-2014**

No.	Funding Agency	Opening Balance		Receipt	Total Receipt	Expend	Estd	Expenditure	Adjust.		Balance	
		Cr.	Dr.						Cr.	Dr.	Cr.	Dr.
1	Institute Research Grant	3860265.00		33415890	37276155.00	33512200		33,512,200.00			3763955.00	
2	Abbot health care pvt ltd.	471630.00			471630.00			0.00			471630.00	
3	ABBOTT VASCULAR, USA	482902.00			482902.00			0.00			482902.00	
4	ACE PHARMACEUTICALS BV, NETHERLAND	18186.00			18186.00	3070.00		3,070.00			15116.00	
5	Actelion Pharmaceuticals Ltd. Switzerland	0.00			0.00			0.00			0.00	
6	Aimil Pharmaceutical India Ltd.	-331.00			-331.00			0.00				331.00
7	AJINOMOTA CO. JAPAN	99798.00		420399.00	520197.00	362311.00	42,040.00	404,351.00			115846.00	
8	Albert David Ltd	0.00			0.00			0.00			0.00	
9	American Academy of Paediatrics			882,179.00	882,179.00	569,012.00	44,109.00	613,121.00			269058.00	
10	Amgen Technolgoy Private Limited	1482769.00		4050	1486819.00		122.00	122.00			1486697.00	
11	ANTISENSE PHARMA Gmbh, GERMANY	-11740.00		0	-11740.00	-11393.00		-11,393.00				347
12	AO Spine International, USA	61910.00		126907	188817.00	177531.00	3,807.00	181,338.00			7479.00	
13	Appothecaries PvtLtd	748030.00			748030.00			0.00			748030.00	
14	Atomic Energy Regulatory Board	409629.00			409629.00			0.00			409629.00	
15	Auxilium Technical & Management Services Pvt. Ltd.	400.00			400.00			0.00			400.00	
16	AVENTIS PHARMACEUTICALS, USA	14135.00			14135.00			0.00			14135.00	
17	AYUSH, Ministry of Health and Family Welfare	-9485.00		4,602,244.00	4592759.00			0.00			4592759.00	
18	B.A.R.C	477447.00			477447.00			0.00			477447.00	
19	Beijing Toshiba Pharmaceuticals Co. Ltd.	180235.00			180235.00			0.00			180235.00	
20	Bharat Biotech International Ltd	12241.00			12241.00			0.00			12241.00	

47	Centre for Chronic Diseases Control, New Delhi	493098.00				493098.00				0.00				493098.00	
48	Centre Franco-Indien Pour La Promotion De La Recherche Advance (CEFIPRA), France	1320573.00				1320573.00	690094.00			690,094.00				630479.00	
49	Charak Pharma (P)Ltd.	1144.00				1144.00				0.00				1144.00	
50	CLINCYTE, USA	665.00				665.00				0.00				665.00	
51	Clinical Marketing Pvt Ltd	530576.00		4,127.00		534703.00	146403.00	412.00		146,815.00				387888.00	
52	Clinigene International Pvt. Ltd	1144531.00				1144531.00				0.00				1144531.00	
53	CLINIRx RESEARCH PVT. LTD. GURGAON, HARYANA	38807.00		385332		424139.00	276577.00	11,560.00		288,137.00				136002.00	
54	CODMAN & SHURTLEFF, INC., USA	42138.00				42138.00				0.00				42138.00	
55	Coloplast	-5775.00				-5775.00				0.00					5775
56	CONARD, USA	591.00				591.00				0.00				591.00	
57	Convatee Sayibb	2328.00				2328.00				0.00				2328.00	
58	CORVENTIS, USA	85504.00				85504.00	51352.00			51,352.00				34152.00	
59	Criterion	381711.00				381711.00	196349.00			196,349.00				185362.00	
60	Cystic Fibrosis/World Wide, USA	14605.00				14605.00				0.00				14605.00	
61	D.B.T.	138345767.00		139,819,922.00		278165689.00	143940749.00	5,789,979.00		149,730,728.00				128434961.00	
62	D.R.D.O.	1414014.00		1,486,236.00		2900250.00	2014563.00	74,312.00		2,088,875.00				811375.00	
63	Dabur Research Foundation	508578.00				508578.00				0.00				508578.00	
64	DANIDA RESEARCH COUNCIL	19.00				19.00				0.00				19.00	
65	Defence Intitute of Phy. & Allied Scienes,			550,000.00		550000.00	216639	27500		244,139.00				305861.00	
66	Delhi State Control Society/AIDS	148857.00		192000.00		340857.00	238002.00	0.00		238,002.00				102855.00	
67	DELHI TAPEDIK UNMULAN SAMITI	10824.00				10824.00				0.00				10824.00	
68	Department of Health and Human Services Centers for disease control, USA	16602024.00		44009563		60611587.00	57601137.00	2,200,476.00		59,801,613.00				809974.00	
69	Deptt of Information Technology	118659.00				118659.00	125774.00			125,774.00					7115
70	Deptt of Pharmaceuticals	6140512.00				6140512.00	1070425.00			1,070,425.00				5070087.00	
71	DEPTT. OF ELECTRONICS	56370.00				56370.00				0.00				56370.00	
72	DIGENE CORPORATION, USA	42184.00				42184.00				0.00				42184.00	
73	Directorate General of Health Services	-57267.00				-57267.00				0.00					57267
74	Directorate of Education (NSS)	22799.00				22799.00				0.00				22799.00	

75	Dr. Reddys Lab. Pvt. Ltd.	144687.00		340886	485573.00	197580.00	22,830.00	220,410.00		265163.00	
76	DRDE(Gwallior)	910134.00			910134.00	54180.00		54,180.00		855954.00	
77	DST	29514942.00		138016006	167530948.00	78893204.00	3,342,601.00	82,235,805.00		85295143.00	
78	Eli Lilly	-199733.00		253993	54260.00	314970.00	25,399.00	340,369.00			286109
79	Emcure Pharmaceutical Ltd.	-6380.00			-6380.00			0.00			6380
80	EMMES Corporation, Maryland, USA	3297.00			3297.00			0.00		3297.00	
81	European Commission	2441498.00		11337295	13778793.00	2068136.00	1,133,729.00	3,201,865.00		10576928.00	
82	Federation of Obstetric & Gynaecological	-276.00			-276.00			0.00			276.00
83	Flamentera AG, Switzerland	319671.00			319671.00	271478.00		271,478.00		48193.00	
84	Fogarty International Centre,NIH, USA	33575.00		315599	349174.00	264000.00	31,560.00	295,560.00		53614.00	
85	Fondazione Angelo Bianchi Bonomi, Milan- Italy	232295.00		899,800.00	1132095.00	544307.00	89,979.00	634,286.00		497809.00	
86	Ford Foundation	458594.00			458594.00			0.00		458594.00	
87	FREEDOM TRIAL	86253.00			86253.00			0.00		86253.00	
88	Fulford India Ltd.	290864.00			290864.00	176664.00		176,664.00		114200.00	
89	Glaxo India Ltd.	217377.00			217377.00			0.00		217377.00	
90	Glaxo Smith Kline	1699051.00		203692	1902743.00	807551.00	20,369.00	827,920.00		1074823.00	
91	GlaxoSmith Kline Asia Private Ltd	1701115.00			1701115.00	1533986.00		1,533,986.00		167129.00	
92	Global Cancer Concern India	3647.00			3647.00	0		0.00		3647.00	
93	GW Pharma Ltd. U.K.	8866.00			8866.00			0.00		8866.00	
94	Hamilton Health Sciences & MCMaster University, Canada			100,000.00	100000.00	555964.00	21,359.00	577,323.00		477323.00	
95	Hamilton Health Sciences Corporation, Canada	881888.00		213601	1095489.00		10000	10,000.00		1085489.00	
96	Helpage India	-304978.00		20,000.00	-284978.00			0.00			284978.00
97	Himalaya Drug Co.	1366236.00			1366236.00			0.00		1366236.00	
98	Hindustan Latex Family Planning Promotion	-7020.00			-7020.00			0.00			7020.00
99	Hindustan Latex Limited	475767.00		372,000.00	847767.00	138890.00	11,160.00	150,050.00		697717.00	
100	Horiba India Pvt. Ltd			655,000.00	655000.00		65500	65,500.00		589500.00	
101	I.C.C.S.R.	-74861.00			-74861.00			0.00			74861.00
102	I.C.G.E.&B	13494.00		600000	613494.00			0.00		613494.00	
103	I.S.H.T.M	780963.00			780963.00	1254844.00	18,000.00	1,272,844.00			491881.00
104	IADVL	22329.00			22329.00	12329.00		12,329.00		10000.00	

105	ICMR	103534030.00				353151619.00	264144311.00	9,643,685.00	273,787,996.00			79363623.00	
106	ICSSR	-79411.00				-79411.00			0.00				79411.00
107	Imperial Life Sciences(P) Ltd.					177,000.00	107329	17700	125,029.00			51971.00	
108	INCLN	-118368.00				-118368.00			0.00				118368.00
109	INCLN & USAID	24.00				24.00			0.00			24.00	
110	INCTR USA	-108067.00				293147	281956.00	2,823.00	284,779.00				99699.00
111	India Medtronic Pvt. Ltd	61279.00				466900	320350.00	23,107.00	343,457.00			184722.00	
112	Indian Council of Agriculture Research.	2633868.00				1273593	3555977.00	63,679.00	3,619,656.00			287805.00	
113	Indian council of Philosophical Research	4920.00				4920.00			0.00			4920.00	
114	Indian Heart Rhythm Society	70810.00				70810.00	65000.00		65,000.00			5810.00	
115	Indian Institute of Technology	-347595.00				528,200.00	403488.00	26,410.00	429,898.00				249293.00
116	INDO-US	749033.00				749033.00			0.00			749033.00	
117	Indo-US Science & Technology Forum	1396181.00				1396181.00	312571.00		312,571.00			1083610.00	
118	INSA	25331.00				25331.00			0.00			25331.00	
119	Institute De Recherches Internationales Servier (IRIS), France	-2034.00				-2034.00			0.00				2034.00
120	Institute of Cancer Research UK co-ordination Committee	-7209.00				-7209.00			0.00				7209.00
121	Institute of Genomics & Integrative Biology	1559094.00				500000	2055576.00	15,000.00	2,070,576.00				11482.00
122	Intas BIOPHARMACEUTICALS lrd					81,600.00		8160	8,160.00			73440.00	
123	International Union Against Tuberculosis and Lung Diseases					75,000.00	65188	3750	68,938.00			6062.00	
124	International Atomic Energy Agency	293812.00				1019684	1075790.00	101,967.00	1,177,757.00			135739.00	
125	International Paediatrics Nephrology Association	462959.00				462959.00			0.00			462959.00	
126	International Union Against Cancer (UICC)	235571.00				235571.00	140000.00		140,000.00			95571.00	
127	Invictus Oncology					647,680.00	356004	32384	388,388.00			259292.00	
128	Ipca laboratoris	995391.00				314074	415664.00	31,407.00	447,071.00			862394.00	
129	JIV DAYA FOUNDATION	35497.50				1,658,686.00	1292951.00	87,108.00	1,380,059.00			314124.50	
130	JOHN HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH (JHBSPH)	1419169.00				6153450	4845520.00	281,128.00	5,126,648.00			2445971.00	
131	Johnson & Johnson	45306.31				45306.31			0.00			45306.31	

159	Ministry of Earth Science	134025.00		41603	175628.00	17000.00	2,080.00	19,080.00			156548.00	
160	Ministry of Environment & Forest	1144709.00			1144709.00	844722.00		844,722.00			299987.00	
161	Ministry of Health & Family Welfare (AYUSH)	271676.00			271676.00	1673164.00	154,463.00	1,827,627.00				1555951.00
162	Ministry of Health And Family Welfare (N.A.C.O)	2263246.00		1716929	3980175.00	3099557.00	28,098.00	3,127,655.00			852520.00	
163	Ministry of Health and Family welfare	990956.00		2071685	3062641.00	5732280.00	16,580.00	5,748,860.00				2686219.00
164	Ministry of Social Justice and Empowerment	77882.00			77882.00			0.00			77882.00	
165	Ministry of Welfare	2100.00			2100.00			0.00			2100.00	
166	Morphotek Inc. USA	1095934.58		50292	1146226.58	260000.00	1,509.00	261,509.00			884717.58	
167	MSD (India) Pvt. Ltd.	252808.00		171000	423808.00	19481.00	7,290.00	26,771.00			397037.00	
168	N.C.Pvt. Ltd	37117.00			37117.00			0.00			37117.00	
169	N.C.T.	33584.00			33584.00			0.00			33584.00	
170	N AIP	-59810.00			-59810.00			0.00				59810.00
171	NATCO Pharma India	24579.00		90000	114579.00		4,500.00	4,500.00			110079.00	
172	National AIDS Control Organisation	56.00			56.00	414982.00		414,982.00			414926.00	
173	National Commission for protection of child Rights	318503.00		496,266.00	814769.00	1126606.00	24,813.00	1,151,419.00				336650.00
174	National Health and Medical Research Council , Australia			123,762.00	123762.00		12376	12,376.00			111386.00	
175	National Information Centre	324031.00		4669200	4993231.00	1937176.00	233,460.00	2,170,636.00			2822595.00	
176	NATIONAL INSTITUTE OF HEALTH, USA	5675496.00		10644450	16319946.00	6607300.00	261,431.00	6,868,731.00			9451215.00	
177	National Institute of Nutrition (NIN) Hyderabad	109.00			109.00			0.00			109.00	
178	National Institute of pharmaceutical Education & Research	12439.00			12439.00			0.00			12439.00	
179	National Knowledge Commission	1372942.00		810000	2182942.00	2105070.00	-253,800.00	1,851,270.00			331672.00	
180	National Perinatal Epidemiology Unit, University of Oxford, UK	3004328.99		4501948.56	7506277.55	4183786.00	135,059.00	4,318,845.00			3187432.55	
181	National Thalassemia Welfare Society	8219.00			8219.00	10000.00		10,000.00				1781.00
182	Neeman Medical International Asia Ltd.	237385.00			237385.00			0.00			237385.00	
183	Newcastle University, UK	98734.00		143,122.00	241856.00	207563.00	7,156.00	214,719.00			27137.00	
184	NIE	55161496.71		28,141,713.00	83303209.71	20222255.82		20,222,255.82			63080953.89	
185	Nova Nordisk India Pvt Ltd.	323122.00		301869	624991.00	230000.00	30,187.00	260,187.00			364804.00	

186	NovaBay Pharmaceuticals Inc., USA			96,235.78	96235.78	50000	4812	54,812.00		41423.78	
187	Novartis India Ltd.	1850421.31		1206041.91	3056463.22	1820782.00	64,626.00	1,885,408.00		1171055.22	
188	NPfCE, MOH&FW	4000000.00			4000000.00	1688839.00		1,688,839.00		2311161.00	
189	NSD (Security Deposit)	5104355.00		2955100	8059455.00	1096000.00		1,096,000.00		6963455.00	
190	Ovation Pharmaceuticals, USA	37222.00			37222.00			0.00		37222.00	
191	Ovrseas associates	190.00			190.00			0.00		190.00	
192	Oxford University, UK	957460.78		657224.47	1614685.25	920547.00	19,717.00	940,264.00		674421.25	
193	OXIGENE, USA	215126.84			215126.84			0.00		215126.84	
194	Ozone pharmaceuticals ltd.	239.00			239.00			0.00		239.00	
195	Panacea biotech Ltd.	8084.00			8084.00			0.00		8084.00	
196	PAREXEL INTERNATIONAL LTD., U.K.	2564149.27			2564149.27	565472.00		565,472.00		1998677.27	
197	Path/One world Health	1704300.00			1704300.00	677724.00		677,724.00		1026576.00	
198	Peregrine Pharmaceuticals, USA	449165.00			449165.00	475742.00		475,742.00			26577.00
199	Pfizer Ltd.	1953262.35			1953262.35	1858494.00		1,858,494.00		94768.35	
200	Pharmacia India Pvt. Ltd	837.00			837.00			0.00		837.00	
201	Pharmacosmos A/S, Denmark	-9000.00		9000	0.00		900.00	900.00			900.00
202	PHARM-OLAM INTERNATIONAL, LTD.	16923.00			16923.00			0.00		16923.00	
203	Piramal Healthcare Ltd	197554.00		14925	212479.00		1,492.00	1,492.00		210987.00	
204	Piramal Life Sciences	36211.00			36211.00			0.00		36211.00	
205	PPD Pharmaceutical Development India Pvt. Ltd.	-22668.00			-22668.00			0.00			22668.00
206	PRA India Pvt Ltd.			406,074.00	406074.00	393892	12182	406,074.00		0.00	
207	QED PHARMACEUTICAL SERVICES PVT. LTD	577043.00			577043.00			0.00		577043.00	
208	Qiagen Inc.India	3709.00			3709.00			0.00		3709.00	
209	Quintiles Spectral India	2930578.56		476518.3	3407096.86	516934.00	14,291.00	531,225.00		2875871.86	
210	Rajiv Gandhi Foundation	-989.00			-989.00			0.00			989.00
211	Ranbaxy /Eli Lilly & company pvt Ltd	1942897.00			1942897.00	21693.00		21,693.00		1921204.00	
212	Reliance Clinical Research Services (P) Ltd.	1938641.50			1938641.50	1557584.00		1,557,584.00		381057.50	
213	Relisys Medical Devices Ltd.	-3433.00			-3433.00			0.00			3433.00
214	Revolving Funds for Drugs / SNMC	195710.00			195710.00			0.00		195710.00	
215	ROCHE Products(India) Pvt Ltd.	712879.00		1043135	1756014.00	398502.00	104,036.00	502,538.00		1253476.00	
216	Russan Pharma Ltd Mumbai	5425.00		1435500	1440925.00	355400.00	71,775.00	427,175.00		1013750.00	

247	The University of Edingburgh and NHS Lothian		876,944.00	876944.00	608175	43847	652,022.00		224922.00	
248	THRESHOLD PHARMACEUTICALS, USA	-3136.00		-3136.00			0.00			3136
249	Torrent Pharma	2115352.00		2115352.00	25000.00		25,000.00		2090352.00	
250	Torrent Pharmaceutical Ltd	39694.00		39694.00	39694.00		39,694.00		0.00	
251	Troikaa Pharmaceutical Ltd	26393.00		26393.00			0.00		26393.00	
252	U.G.C.	-1519681.00	8230054	6710373.00	7702499.00	45,684.00	7,748,183.00			1037810
253	UN International Drug and crime Control Programme	97601.00	698700	796301.00	415604.00	34,935.00	450,539.00		345762.00	
254	UNICEF	340150.88	2749585	3089735.88	3251308.00	210,458.00	3,461,766.00			372030.12
255	University of Bergen, Norway	697668.00		697668.00	33693.00		33,693.00		663975.00	
256	UNIVERSITY OF CALGARY, CANADA	57187.00		57187.00			0.00		57187.00	
257	University of Maryland	90282.00		90282.00			0.00		90282.00	
258	University of Nottingham, UK	2318.00		2318.00	344.00		344.00		1974.00	
259	University of Warwick U.K	-1061.00		-1061.00			0.00			1061.00
260	University of Western Australia	0.00		0.00			0.00		0.00	
261	US SCience & Technology Forum, USA	419323.00		419323.00	20000.00		20,000.00		399323.00	
262	Vulimiri Ramalingaswami Foundation	-6508.00		-6508.00			0.00			6508.00
263	W.H.O.	13613897.00	9,847,828.00	23461725.00	5856666.00	419,752.00	6,276,418.00		17185307.00	
264	Wockhardt, Mumbai	1176899.00		1176899.00			0.00		1176899.00	
265	Wyeth Pharmaceuticals Inc	1585007.00		1585007.00	1451221.00		1,451,221.00		133786.00	
266	Zenotech	356271.00		356271.00	59309.00		59,309.00		296962.00	
267	Zydas Healthcare Ltd	-398.00		-398.00			0.00			398.00
		473532045.66	779,517,417.72	1253049463.38	745977527.82	26708380.00	772,685,907.82		493629241.68	13265686.12

APPENDIX -A1**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
RESEARCH SECTION**

S. NO.	CODE NO.	NAME OF PROJECT INVESTIGATOR	MONTH	AMOUNT
1	N1399	DR. A.B.DEY	Jul-13	617,177.00
2	N1399	DR. A.B.DEY	Sep-13	1,200.00
3	N1399	DR. A.B.DEY	Oct-13	2,736.00
4	N1399	DR. A.B.DEY	Dec-13	28,037.00
5	N1399	DR. A.B.DEY	Feb-14	1,842.00
6	N1399	DR. A.B.DEY	Mar-14	75,240.00
7	CSIR625	DR. A.K.DINDA	MAY 2013	180,000.00
8	CSIR625	DR. A.K.DINDA	JUL 2013	120,000.00
9	D324	DR. A.K.DINDA	Oct-13	110,600.00
10	D324	DR. A.K.DINDA	Mar-14	135,000.00
11	N1429	DR. A.K.DINDA	DEC 2013	2,449,970.00
12	N1364	DR. A.K.DINDA	MAR 2014	16,190.00
13	N1403	DR. ALKA KRIPLANI	JUL 2013	39,900.00
14	N1403	DR. ALKA KRIPLANI	OCT 2013	29,234.00
15	N935	DR. Balram Bhargava	Apr-13	53,680.00
16	N935	DR. Balram Bhargava	Jun-13	99,225.00
17	N935	DR. Balram Bhargava	Jul-13	198,000.00
18	I812	DR. CHITRA SARKAR	SEP 2013	774,320.00
19	D292	DR. D.K.MITRA	OCT 2013	1,834.00
20	I562	DR. D.N.RAO	JUN 2013	39,349.00
21	N1376	DR. D.N.RAO	May-13	195,000.00
22	I760	DR. DEBABRATA GHOSH	SEP 2013	5,157.00
23	N1192	DR. H.K.PRASAD	NOV 2013	8,911.00
24	N1325	DR. J.S.TYAGI	Jul-13	39,520.00
25	N1325	DR. J.S.TYAGI	Aug-13	4,532.00
26	N1325	DR. J.S.TYAGI	Mar-14	591,212.00
27	N1383	DR. KALPANA LUTHRA	Apr-13	553,812.00
28	N1383	DR. KALPANA LUTHRA	Sep-13	2,055.00
29	N1383	DR. KALPANA LUTHRA	Feb-14	68,825.00
30	N1383	DR. KALPANA LUTHRA	Mar-14	3,364.00
31	N1347	DR. KALPANA LUTHRA	Nov-13	6,903.00
32	I814	DR. Kameshwar Prasad	JUL 2013	149,997.00
33	I814	DR. Kameshwar Prasad	SEP 2013	80,512.00
34	I814	DR. Kameshwar Prasad	OCT 2013	16,140.00
35	I814	DR. Kameshwar Prasad	JUN 2013	99,900.00
36	N968	DR. Kameshwar Prasad	SEP 2013	3,695.00
37	N968	DR. Kameshwar Prasad	OCT 2013	726.00
38	N968	DR. Kameshwar Prasad	MAR 2014	42,987.00

39	N1156	DR. Kameshwar Prasad	Sep-13	26,838.00
40	D305	DR. KUNZANG CHOSDOL	Dec-13	342,986.00
41	D305	DR. KUNZANG CHOSDOL	Jul-13	19,761.00
42	D305	DR. KUNZANG CHOSDOL	Aug-13	2,266.00
43	N1276	DR. KUNZANG CHOSDOL	MAR 2014	31,397.00
44	N1463	DR. M.BAJPAI	FEB 2014	151,200.00
45	N1463	DR. M.BAJPAI	DEC 2013	475,743.00
46	N1463	DR. M.BAJPAI	JAN 2014	198,195.00
47	I823	DR. MADHULIKA KABRA	Sep-13	38,588.00
48	I823	DR. MADHULIKA KABRA	Oct-13	38,193.00
49	I823	DR. MADHULIKA KABRA	Feb-14	95,625.00
50	I823	DR. MADHULIKA KABRA	Mar-14	155,360.00
51	D311	DR. MADHURI BEHARI	DEC 2013	23,742.00
52	D311	DR. MADHURI BEHARI	FEB 2014	301,819.00
53	D311	DR. MADHURI BEHARI	JUL 2013	39,522.00
54	D311	DR. MADHURI BEHARI	AUG 2013	4,530.00
55	D311	DR. MADHURI BEHARI	SEP 2013	61,100.00
56	D311	DR. MADHURI BEHARI	OCT 2013	199,500.00
57	N1239	DR. MANOJ K.SINGH	APR 2013	5,080.00
58	N934	DR. N.K.MEHRA	JUN 2013	218,696.00
59	D331	DR. N.R.JAGANNATHAN	DEC 2013	3,707,230.00
60	N1444	DR. NEETA SINGH	SEP 2013	579,357.00
61	I786	DR. O.P.KHARBANDA	May-13	441,000.00
62	D302	DR. PEUSH SAHNI	OCT 2013	27,000.00
63	D302	DR. PEUSH SAHNI	DEC 2013	5,979.00
64	D302	DR. PEUSH SAHNI	MAR 2014	42,000.00
65	I702	DR. PRAMOD GARG	MAY 2013	2,642.00
66	I747	DR. PUNIT KAUR	NOV 2013	2,669.00
67	D298	DR. PUNIT KAUR	FEB 2014	1,732,111.00
68	I777	DR. RAJ MEHRA	SEP 2013	7,589.00
69	I777	DR. RAJ MEHRA	OCT 2013	2,150.00
70	I777	DR. RAJ MEHRA	DEC 2013	13,147.00
71	I777	DR. RAJ MEHRA	FEB 2014	65,295.00
72	I759	DR. RAKA JAIN	APR 2013	14,778.00
73	I759	DR. RAKA JAIN	JUL 2013	19,761.00
74	I759	DR. RAKA JAIN	AUG 2013	2,266.00
75	I758	DR. RAMA CHAUDHARY	May-13	737.00
76	N1326	DR. RAMA CHAUDHARY	JUN 2013	10,067.00
77	N1326	DR. RAMA CHAUDHARY	MAR 2014	55,064.00
78	D299	DR. RANDEEP GULERIA	Sep-13	53,676.00
79	D299	DR. RANDEEP GULERIA	Mar-14	420,000.00
80	D299	DR. RANDEEP GULERIA	Apr-13	14,778.00
81	N1420	DR. RANDEEP GULERIA	OCT 2013	32,282.00

82	N1420	DR. RANDEEP GULERIA	MAR 2014	623,466.00
83	N1421	DR. RENU SAXENA	JUL 2013	930,675.00
84	I749	DR. S.K.ACHARYA	Oct-13	296.00
85	D304	DR. S.K.ACHARYA	SEP 2013	3,291.00
86	N1363	DR. S.K.KABRA	DEC 2013	27,876.00
87	N1363	DR. S.K.KABRA	FEB 2014	590,117.00
88	N1363	DR. S.K.KABRA	MAR 2014	3,177.00
89	N1363	DR. S.K.KABRA	OCT 2013	1,379.00
90	N1363	DR. S.K.KABRA	NOV 2013	1,450.00
91	N1363	DR. S.K.KABRA	APR 2013	14,778.00
92	N776	DR. S.K.KABRA	APR 2013	1,156,115.00
93	D216	DR. S.K.PANDA	AUG 2013	83,000.00
94	D288	DR. S.K.PANDA	JUN 2013	3,494.00
95	D288	DR. S.K.PANDA	MAR 2014	5,000.00
96	N1341	DR. S.K.PANDA	OCT 2013	4,365.00
97	N1341	DR. S.K.PANDA	FEB 2014	17,037.00
98	N1341	DR. S.K.PANDA	MAR 2014	29,814.00
99	N1341	DR. S.K.PANDA	JUN 2013	240,000.00
100	I643	DR. S.K.SHARMA	May-13	2,543.00
101	N1357	DR. S.K.SHARMA	Feb-14	14,486.00
102	N1357	DR. S.K.SHARMA	Mar-14	12,258.00
103	D303	DR. S.S.CHAUHAN	JUN 2013	3,858.00
104	D303	DR. S.S.CHAUHAN	OCT 2013	3,635.00
105	I736	DR. SARMAN SINGH	Jun-13	24,606.00
106	N1358	DR. SATYA N DAS	OCT 2013	4,615.00
107	D309	DR. SAVITA YADAV	Aug-13	2,265.00
108	D309	DR. SAVITA YADAV	Oct-13	462,000.00
109	D309	DR. SAVITA YADAV	Jul-13	19,761.00
110	N1372	DR. SAVITA YADAV	Sep-13	1,200.00
111	N1372	DR. SAVITA YADAV	Oct-13	3,417.00
112	N1372	DR. SAVITA YADAV	Feb-14	29,203.00
113	N1433	DR. UMESH KAPIL	SEP 2013	10,182.00
114	N1311	DR. UMESH KAPIL	Jun-13	23,416.00
115	N1311	DR. UMESH KAPIL	Mar-14	166,500.00
116	I657	DR. V.K. PAUL	MAY 2013	65,314.00
117	I657	DR. V.K. PAUL	OCT 2013	28,238.00
118	I639	DR. LALIT DAR	FEB 2014	15,025.00
119	I639	DR. LALIT DAR	JUL 2013	10,674.00
120	I639	DR. LALIT DAR	OCT 2013	11,927.00
121	I824	DR. Sushma bhatnagar	Dec-13	19,900.00
122	I824	DR. Sushma bhatnagar	Mar-14	160,877.00
123	I824	DR. Sushma bhatnagar	May-13	118,046.00
124	N1273	DR. B.R.MIRDHA	SEP 2013	5,344.00

125	N1386	DR. Manjari Tripathi	Jun-13	39,349.00
126	N1386	DR. Manjari Tripathi	Mar-14	4,179.00
127	N1369	DR. RIMA DADA	Apr-13	14,779.00
128	N1369	DR. RIMA DADA	Jun-13	9,844.00
129	N1369	DR. RIMA DADA	Sep-13	1,690,594.00
130	I612	DR. PRATIK KUMAR	MAY 2013	119,103.00
131	N1291	DR. V.K.SHARMA	Oct-13	270.00
132	N1291	DR. V.K.SHARMA	May-13	198,450.00
133	N1291	DR. V.K.SHARMA	Jun-13	5,474.00
134	N1021	DR. BALRAM AIRAN	SEP 2013	5,904.00
135	N1021	DR. BALRAM AIRAN	DEC 2013	12,604,068.00
136	N1021	DR. BALRAM AIRAN	MAR 2014	272,107.00
137	N1021	DR. BALRAM AIRAN	JUN 2013	413,724.00
138	N1293	DR. URVASHI B. SINGH	SEP 2013	9,736.00
139	N1293	DR. URVASHI B. SINGH	APR 2013	552,565.00
140	N1321	DR. RITU GUPTA	Mar-14	72,428.00
141	N1321	DR. RITU GUPTA	Apr-13	17,036.00
142	N1321	DR. RITU GUPTA	Oct-13	700.00
143	N1321	DR. RITU GUPTA	Feb-14	12,703.00
144	I647	DR. SUJATA MOHANTY	Apr-13	90.00
145	I778	DR. SUJATA MOHANTY	Mar-14	393,670.00
146	I778	DR. SUJATA MOHANTY	Jul-13	544,720.00
147	I778	DR. SUJATA MOHANTY	Dec-13	19,806.00
148	I720	DR. TANUJ DADA	FEB 2014	184,274.00
149	D317	DR. B.S.SHARMA	OCT 2013	80,710.00
150	D317	DR. B.S.SHARMA	DEC 2013	71,226.00
151	D317	DR. B.S.SHARMA	JAN 2014	5,273,240.00
152	D317	DR. B.S.SHARMA	FEB 2014	486,390.00
153	D317	DR. B.S.SHARMA	MAR 2014	4,844,989.00
154	D317	DR. B.S.SHARMA	SEP 2013	2,905,350.00
155	N986	DR. RAJESH KHADGAWAT	MAY 2013	152,621.00
156	I779	DR. ASHISH SURI	Sep-13	274,410.00
157	I779	DR. ASHISH SURI	Apr-13	14,779.00
158	D294	DR. ASHISH SURI	DEC 2013	23,742.00
159	N1274	DR. P. SARAT CHANDRA	FEB 2014	933,323.00
160	N1274	DR. P. SARAT CHANDRA	MAR 2014	565,489.00
161	N1274	DR. P. SARAT CHANDRA	MAY 2013	503,003.00
162	N1274	DR. P. SARAT CHANDRA	JUN 2013	17,676.00
163	N1274	DR. P. SARAT CHANDRA	JUL 2013	5,573,730.00
164	N1274	DR. P. SARAT CHANDRA	SEP 2013	3,589,514.00
165	N1274	DR. P. SARAT CHANDRA	NOV 2013	398,475.00
166	N1274	DR. P. SARAT CHANDRA	DEC 2013	2,694,702.00
167	D284	DR. VEENA JAIN	Oct-13	16,400.00

168	I764	DR. ALPANA SHARMA	APR 2013	14,779.00
169	CSIR 624	DR. ALPANA SHARMA	SEP 2013	6,472.00
170	I813	DR. NITISH NAIK	SEP 2013	150,000.00
171	N1418	DR. VENKATESWARAN K. IYER	MAR 2014	262,500.00
172	I807	DR. RAKESH YADAV	MAY 2013	676,200.00
173	T147	DR. RAMESH AGARWAL	OCT 2013	21,472.00
174	N1100	DR. SANJAY K. RAI	Jul-13	77,595.00
175	I789	DR. ALOK THAKAR	APR 2013	14,778.00
176	I789	DR. ALOK THAKAR	SEP 2013	486,490.00
177	I789	DR. ALOK THAKAR	MAR 2014	1,350.00
178	I811	Dr. GARIMA SHUKLA	JUL 2013	19,761.00
179	I811	Dr. GARIMA SHUKLA	AUG 2013	2,266.00
180	I811	Dr. GARIMA SHUKLA	SEP 2013	15,274.00
181	D252	Dr. GARIMA SHUKLA	Feb-14	401,382.00
182	N1361	Dr. JAGRITI BHATIA	JUN 2013	650.00
183	N1361	Dr. JAGRITI BHATIA	SEP 2013	15,764.00
184	N1406	Dr. Immaculata Xess	SEP 2013	210,921.00
185	N1406	Dr. Immaculata Xess	OCT 2013	363,531.00
186	N1404	Dr. Immaculata Xess	DEC 2013	7,356.00
187	N1405	Dr. Immaculata Xess	SEP 2013	322,194.00
188	N1406	Dr. Immaculata Xess	JUL 2013	59,994.00
189	N1404	Dr. Immaculata Xess	SEP 2013	515,400.00
190	D293	Dr. Ritu Gupta	JUN 2013	14,001.00
191	I733	Dr. Ramanjit Sihota	JUL 2013	19,760.00
192	I733	Dr. Ramanjit Sihota	AUG 2013	2,266.00
193	D316	DR. BHAVNA CHAWLA	AUG 2013	98,575.00
		GRAND TOTAL		70,869,194.00

Financial Advisor

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

S.No.	Funding Agency	Debit
1	Aimil Pharmaceutical India Ltd.	331
2	ANTISENSE PHARMA Gmbh, GERMANY	347
3	BHARAT SERUMS AND VACCINES LTD.	10000
4	BRISTOL MYER SQUIBB(BMS), USA	15191
5	BRNS,Mumbai	830995
6	Central Council for Research in Yoga And Naturopathy	61182
7	Coloplast	5775
8	Deptt of Information Technology	7115
9	Directorate General of Health Services	57267
10	Eli Lilly	286109
11	Emcure Pharmaceutical Ltd.	6380
12	Federation of Obstetric & Gynaecological	276
13	Hamilton Health Sciences & McMaster University, Canada	477323
14	Helpage India	284978
15	Hindustan Latex Family Planning Promotion	7020
16	I.C.C.S.R.	74861
17	I.S.H.T.M.	491881
18	ICSSR	79411
19	INCLEN	118368
20	INCTR, USA	99699
21	Indian Institute of Technology	249293
22	Institute De Recherches Internationales Servier (IRIS), France	2034
23	Institute of Cancer Research UK co-ordination Committee	7209
24	Institute of Genomics & Integrative Biology	11482
25	L.G. Chemicals India Pvt Ltd.	668
26	M/S ASPREVA PHARMACEUTICAL CORPORATION, CANADA	41266
27	M/S Markansas Research Division	4745
28	Media Lab Asia	11301
29	MERCK SERONO INTERNATIONAL S.A., SWITZERLAND	207315
30	Ministry of Communication and Information & Technology	66833
31	Ministry of Health & Family Welfare (AYUSH)	1555951
32	Ministry of Health and Family welfare	2686219
33	NAIP	59810
34	National AIDS Control Organisation	414926
35	National Commission for protection of child Rights	336650
36	National Thalassaemia Welfare Society	1781
37	Peregrine Pharmaceuticals, USA	26577
38	Pharmacosmos A/S, Denmark	900

39	PPD Pharmaceutical Development India Pvt. Ltd.	22668
40	Rajiv Gandhi Foundation	989
41	Relisys Medical Devices Ltd.	3433
42	Sarabhai Chemicals	4868
43	SAVING NEWBORN LIVES, USA	10898
44	SIRO CLIN PHARMA PVT. LTD	35171
45	SRB-Clinical Pharamacology	3154100
46	THE MICRONUTRIENT INITIATIVE, ASIA	4702
47	The Service de Dermatologie, France	8445
48	THRESHOLD PHARMACEUTICALS, USA	3136
49	U.G.C.	1037810
50	UNICEF	372030
51	University of Warwick UK	1061
52	Vulimini Ramalingaswami Foundation	6508
53	Zydas Healthcare Ltd	398
	Total	13265686

Financial Advisor

Appendix-C

ALL INDIA INSTITUTE OF MEDICAL SCIENCES STATEMENT SHOWING THE DONATIONS & INVESTMENT AS ON 31-03-14

S.NO.	PARTICUALRS & MODE OF INVESTMENT	AMOUNT OF DONATION	AMOUNT OF INVESTMENT
1	AIIMS ROTARY CANCER HOSPITAL	700000	700000
2	MISC. DONATION - HEAMOTOLOGY UNDER Dr. A.K. SARAYA	8000	8000
3	ANNONYMOUS DONORS	70000	70000
4	DR. B.B. DIXIT LIB.	10000	13700
5	CHACHAMA DONORS	150000	199600
6	MJ. GENERAL S.L. BHATIA	10000	9800
7	Mj. GENERAL AMIR CHAND	150000	149660
		100000	100000
8	SARUP CHAND HANS RAJ	20000	19500
9	RAJ KUMARI AMRIT KAUR	25000	25000
10	KATHERINE SORAL FREYMAN	5000	5000
11	DR. S.L. KALRA	6000	5800
12	R.L. RAJGARHIA	985000	985000
13	SMT. PRAKASH WATI DONATION	13800	13800
14	SMT. KRIPAL KAUR (UNIT TRUST)	6000	5908
15	LALA KHUSHI RAM	247753	247753
16	S.P. VIRMANI (FIXED DEPOSIT)	1500	1500
17	EAST INDIA COMMERCIAL PVT. LTD CALCUTTA (FIXED DEPOSIT) SRB	3200000	2800000
18	DR. KANTI KAPILA (UNIT TRUST)	10079	10002
19	DR. V. RAMALINGASWAMI (UNTI TRUST)	8000	7996
20	SR. S. SABHARWAL (UNIT TRUST)	10000	9951
21	DR. N.H. KASWANI (UNIT TRUST)	10000	9990
22	DR. V. HINGORANI	15000	15000
23	KUMUDINI KRISHNA MOORTHY	15000	15000
24	G.D. RADHAKRISHNA (SARWESHWARI MEMORIAL ORATION, UNIT TRUST)	20000	19987
25	P.L. TANDON (FIXED DEPOSIT)	15000	15000
26	XV INTERNATIONAL CONGRESS OF PEADIATRICS (UNIT TRUST)	40000	40000
27	RAM LOBHAYA DONATION (FIXED DEPOSIT)	15000	15000
28	SUBHASH MEMORIAL FOUNDATION (V.L. TELEKAR DONATION)	10101	10101
29	SMT. INDIRA SATYANAND	10000	10000
30	SH. K.V. SUBA RAO	10000	10000
31	NEWZELAND HIGH COMMISSION	10000	10000
32	AKHILESH MITTAL (SUMITH MOHAN SADAN DAYAL TRUST)	20000	20000
33	PREMALATA KAPOOR	10000	10000
34	DWARKA PRASAD TRUST	50000	50000
35	LATE. SH. D.R. BAHRI	15000	15000

36	SEWA RAM	15000	15000
37	FACULTY BENEVELENT FUND	60065	60065
38	V.RANGA MEMORIAL TRUST	50000	50000
39	SH. DORABJI TRUST	10000	10000
40	CORPUS FUND	30000	30000
41	AIIMSONIANS	10000	10000
42	SARLA ATAM PRAKASH	15000	15000
43	K.L. WIG RESEARCH FOUNDATION	100000	100000
44	V.K. MITTAL	130000	130000
45	SNEH LATA SONI	15000	15000
46	AIIMSONIAN OF AMERICA	129850	129850
		151630	151630
		126471	126471
47	SMT. LEELA WATI SALWAN	15000	15000
48	DR. D.K. GUPTA	100000	100000
49	J.R. CHAWLA	15000	15000
50	URMIL SHARMA IN R/O SHYAM SHARMA	15000	15000
51	SMT. SUSHILA WATI MALHOTRA	500000	500000
52	BASANTI KUMARI	100000	100000
53	ORTHOPAEDICS FUND	250000	250000
54	DR. S.B. ROY	125000	125000
55	MR. R.V. KANDHARI	100000	100000
56	DR. B.K. KAPOOR	125000	125000
57	SMT.SAVITRI UGGARSEAN	100000	100000
58	VIMAL LAUMAS	200000	200000
59	MRS. PRAMADA BAJAJ	200000	200000
60	DR. V. RAMALINGASWAMI	100000	100000
61	DR. N.C. NAYAK	100000	100000
62	DR. H.D. TANDON	100000	100000
63	PROF. N. GOPINATH (CTVS)	1200000	1200000
64	PROF. L.K. BHUTANI ORATION	500000	500000
65	BINEY ROHTAGI & SMT. SHAKUNTALA	36000	-
66	Dr. K.L. WIG (SBI)	36990	37000
68	ZENITH FINANCE & CO. (SBI)	17000	17000
68	KAMANI CHARITY TRUST (SBI)	15000	15000
69	SMT. KAUSHALYA THAPAR (UNTI TRUST)	12000	12017
70	SMT. BRIJ RANI SAWHENY (UNIT TRUST)	22501	22472
71	KAMLA B.K. ANAND	100000	100000
72	SH. G.D JHANGINI	25500	25602
73	DR. B.K. ANAND (UNIT TRUST)	5000	4995
74	R.S. NANDA	78274	78274
75	Prof. P.N. TONDON & A.K. BANERJEE	500000	500000
	TOTAL	11537514	11153424

Financial Advisor

Appendix-D
ALL INDIA INSTITUTE OF MEDICAL SCINECES
Details of Misc. Donations as on 31.3.2014

S. NO.	DEPARTMENT	OP. BAL AS ON 1/4/2013	GRANT	TOTAL	EXPD.	CL. BAL AS ON 31/03/2014
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 PATIENT	120000		120000		120000
26	PEAD. GENETICS	731697	46395767	47127464	44488173	2639291
27	MRS. USHA SHARMA	176600		176600		176600
28	MISC. RECEIPT	145540		145540		145540
		2999413	46395767	49395180	44488173	4907007

Financial Advisor

APPENDIX - E
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Details of Misc. Deposits as on 31.3.2014
2013-2014

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

Financial Advisor

13.2 Audit Report

Separate Audit Report of the Comptroller and Auditor General of India on the Accounts of All India Institute of Medical Sciences (AIIMS), New Delhi, for the year ended 31 March 2014

We have audited the attached Balance Sheet of All India Institute of Medical Sciences (AIIMS), New Delhi, as at 31 March 2014, the Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 19 (2) of the Comptroller and Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with section 18 (2) of the AIIMS Act, 1956. These financial statements are the responsibility of the AIIMS management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/Comptroller and Auditor Generals' Audit Reports separately.
3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.
4. Based on our audit, we report that:

- i We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;
- ii The Balance Sheet, Income & Expenditure Account and Receipts & Payments Account dealt with by this report have not been drawn up in the format approved by the Ministry of Finance.
- iii In our opinion, proper books of accounts on double entry system of accounting and other relevant records have been maintained by the AIIMS in so far as it appears from our examination of such books.
- iv We further report that :

A. Balance Sheet

A.1. Liabilities

A.1.1. AIIMS (Main): ` 234189.50 lakh

A.1.1.1 Revolving Fund: ` 187.92 lakh

The closing balance of the Revolving Fund in the Balance Sheet was ` 187.92 lakh whereas the records maintained for the Revolving Fund show a balance of ` 80 lakh as on 31st March 2014. The difference has not been reconciled.

A.2. Assets

A.2.1. Dr. B.R.A Institute Rotary Cancer Hospital (BRAICH): ` 186.67 crore

A.2.1.1 The advance payment of Machinery and Equipment included an opening balance of ` 713.45 lakh and 'adjustment of advances (LCs) during 2013-14' of ` 749.18 lakh. The details of the adjustments revealed that all adjustments pertained to the year 2012-13. Further scrutiny of records revealed that two adjustments amounting to ` 52.03 lakh (` 12.33 lakh and ` 39.70 lakh) were adjusted twice in the years ending 31.3.2012 and 31.3.2013. Thus the opening and the closing balance of advances was understated by ` 52.03 lakh.

A.2.1.2 The outstanding balances of LTC advance and travelling advance amounting to ` 7.91 lakh reflected in its records was not incorporated in the asset of the Balance Sheet of BRAICH.

B. General

B.1. The Balance Sheet of the AIIMS (main) shows an investment of ` 111.53 lakh in the assets side (Appendix C). However scrutiny of records of these investments revealed that the detail of fixed deposits of only ` 32.35 lakh was available and audit could not verify existence of remaining investments of ` 79.17 lakh.

B.2. The accounts of the Institute were not prepared as per common format of accounts approved by the Government of India.

C. Grants-in-aid

During the year 2013–14 AIIMS received grants of ` 1389.44 crore {Plan ` 485.00 crore and Non-Plan ` 870.00 crore, Oversight Committee (Plan) ` 20.00 crore and ` 14.44 crore (Plan) for National Drug Dependence Treatment Centre (NDDTC) }. It also had its own income of ` 127.91 crore. The total expenditure incurred was ` 1571.94 crore (` 358.50 crore Plan Capital, ` 83.16 crore Plan Revenue, ` 19.10 crore Oversight Committee and ` 1111.18 crore Non Plan). Besides, the institute received grants for various schemes amounting to ` 77.95 crore and incurred an expenditure of ` 74.60 crore.

E. Management letter:

Deficiencies which have not been included in the Audit Report have been brought to the notice of the Director, AIIMS, through a management letter issued separately for remedial/corrective action.

- v. Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income and Expenditure Account and Receipts and Payments Account dealt with by this report are in agreement with the books of accounts.
- vi. In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in Annexure to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India;
 - a. In so far as it relates to the Balance Sheet, of the state of affairs of the All India Institute of Medical Sciences as at 31 March 2014; 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 C&AG of India,

Place : New Delhi

Date : 18.11.2014

**Director General of Audit
(Central Expenditure)**

Annexure to Audit Report

1. Adequacy of internal audit system

The internal audit system of the Institute was not adequate. During 2013–14, out of total no of 144 units only 31 units were audited, by the internal audit wing of the Institute.
The Institute did not have any internal audit manual.

2. Adequacy of Internal Control System

The internal control system of the Institute was adequate in areas seen by audit.

3. System of physical verification of fixed assets

The physical verification of fixed assets had not been conducted during 2013–14.

4. System of physical verification of inventory

The physical verification of stationery, books and publications and consumable items was conducted for the year 2013–14.

5. Regularity in payment of statutory dues

As per the accounts, no statutory dues over six months were outstanding.

Replies to Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of AIIMS for the year ending 31 March 2014

A.1.1. Revolving Fund: ` 187.92 lakh
The difference is being reconciled.

A.1.2 Dr. B.R.A. Institute Rotary Cancer Hospital (BRAICH): ` 186.67 Crore

A.2.1.1 Opening and closing balance of advances was understated by ` 52.03 lakh
The observation of the Audit has been noted and will be rectified during current financial year 2014–15.

A.2.1.1.2 Outstanding Balance of LTC & Travelling Advance
The observation has been noted for future compliance.

B1 Details of Fixed Deposit (Appendix C) of Balance Sheet
The difference of Donation and Investment in Appendix 'C' is being reconciled and the outcome of the same will be intimated to audit in due course.

B2 Non preparation of accounts of the Institute as per common format of accounts
It is submitted that the Institute is in the process of shifting its annual accounts to New Format of Accounts prescribed by the Comptroller and Auditor General of India for Autonomous Bodies.
In order to ensure a smooth transfer to the new format of accounts prescribed by the C&AG, the financial statement for the financial year 2012–13 and 2013–14 are being prepared separately and same will be submitted to the Audit at the earliest for comments/further directions. The observation raised by the Audit has been noted for compliance.

C Grants in aid
Factual facts, hence no comments



शरीरमाद्यं खलुधर्मसाधनम्