



# 54<sup>th</sup> AIIMS ANNUAL REPORT 2009-2010



ALL INDIA INSTITUTE OF MEDICAL SCIENCES  
NEW DELHI 110029



**54<sup>th</sup>**  
**AIIMS**  
**ANNUAL REPORT**

**2009–2010**



शरीरमाद्यं खलु धर्मसाधनम्

**All India Institute of Medical Sciences**  
**New Delhi 110029**

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**February 2011**





## 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 with the objects 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 undergraduate and postgraduate levels and awards its own degrees. Teaching and research are conducted in 50 disciplines. In the field of medical research AIIMS is the leader, having more than 1500 research publications by its faculty and researchers in a year. AIIMS also runs a College of Nursing, training students for B. Sc. (Hons.) Nursing and B. Sc. Nursing (Post-Certificate) degrees.

Twenty-five clinical departments including six super-speciality centres manage practically all types of disease conditions with support from pre-clinical and para-clinical departments. AIIMS also runs a 60-bedded hospital and the Comprehensive Rural Health Centre at Ballabgarh in Haryana and provides health cover to about 7.7 lakh people through the Centre for Community Medicine.

# AIIMS AT A GLANCE

## 2009–2010

### Year of establishment 1956

Teaching Departments and Centres	<b>50</b>	Medical graduates	<b>2321</b>
Faculty members (Sanctioned 629)	<b>434</b>	Postgraduates	<b>7405</b>
Non-faculty staff (Sanctioned 9198)	<b>7832</b>	Nursing graduates	<b>1690</b>
No. of Undergraduate students	<b>673</b>	Publications in journals	<b>1559</b>
No. of Postgraduate students	<b>1134</b>	Chapters in Books/monographs	<b>245</b>

### HOSPITAL SERVICES

	<b>OPD</b>	<b>Admission</b>	<b>Surgery</b>	<b>Bed (Gen.)</b>	<b>Bed (Pvt.)</b>
Main Hosp.	1510430	70176	75751	1486	125
Dr. R.P. Centre	378194	30365	29534	280	21
Dr. BRA, IRCH	74,080	26,002	6,177	167	15
C.T. Centre	148227	11227	3772	166	14
N.S. Centre	106681	4083	2951	166	14
C.C.M.	138894	6436	1712	50	—
JPNAT Centre	44456	5046	4307	30	—

Average bed occupancy	<b>80.7%</b>
Average period of hospital stay	<b>5.5 days</b>
Net death rate	<b>2.7%</b>
Infection rate (Crude)	<b>8.69%</b>

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**AIIMS**

## **ORGANISATIONAL STRUCTURE**

**Institute Body**



**Governing Body**



↓  
Finance  
Committee

↓  
Selection  
Committee

↓  
Academic  
Committee

↓  
Estate  
Committee

↓  
Hospital Affairs  
Committee

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



# 1. Director's Review

I am glad to present the Fifty-fourth Annual Report and audited statement of accounts for the year 2009–2010.

The All India Institute of Medical Sciences (AIIMS) was established in 1956 by an Act of Parliament as an institution of national importance. In keeping with this mandate, AIIMS continues to be the torch bearer in the field of medical education, research and patient care. It is committed to serving the people of India by training clinicians, scientists and scholars; discovering newer modalities to ameliorate the suffering of people and translating these to better healthcare for society. In 2009–2010, we advanced our key priorities because of the dedication and creativity of the Institute community.

## **Innovative and equitable education**

Educating tomorrow's leaders in healthcare is the paramount goal at AIIMS. Since its inception AIIMS has introduced innovative approaches to training. Our students do not acquire knowledge passively while sitting in lecture halls. We have a curriculum that requires trainees to take responsibility for their own learning. In addition, the use of modern teaching–learning methodologies ensures a steady stream of self-reliant medical scholars.

In keeping with India's need for diverse health manpower, AIIMS offers graduate level courses in medicine (MBBS), nursing (B.Sc. [post-certificate], B.Sc. [Hons.]), and medical technology (B.Sc. [Hons.] in Ophthalmic Techniques, B.Sc. [Hons.] in Medical Technology in Radiography). The curricula of these courses are constantly scrutinized and upgraded by the faculty to keep these abreast with current developments. These courses are immensely popular within India and also attract students from other countries. AIIMS has full time postgraduate, post-doctoral and super-specialty courses, i.e. MD, MS, MDS, MHA, PhD, MCh, DM, and MSc in 47 disciplines. The guiding principle for postgraduate training is to produce competent, compassionate and ethical teachers, researchers and doctors. This year we have approved a specialized postgraduate course in emergency medicine in collaboration with the University of South Florida, Tampa. Student enrollment will start in the coming year.

AIIMS has also built alliances with scientists from all over India and other countries to facilitate research and training for clinicians and scientists. We provided short/long term training to doctors and other health trainees from various organizations and state governments, World Health Organization (WHO)-in-country fellows and foreign students. In addition, elective training was provided to several candidates, including foreign nationals. The Institute also continued to provide consultancy services to several neighbouring countries under bilateral agreements or under the aegis of intergovernmental and international agencies. In addition to courses offered on site and online, over 150 conferences were held. In 2009, department leaders advanced the all-important goal of developing strategies to better evaluate learning effectiveness.

Social considerations must not bar the most qualified students from disadvantaged sections from joining our community. In keeping with this, AIIMS has increased undergraduate and postgraduate

seats by 30% to accommodate more such scholars. Also, a new code of conduct has been ratified, wherein students and where applicable, their parents have to give a written undertaking that they will not discriminate against students belonging to disadvantaged communities.

### **Research infrastructure and state of the art research**

AIIMS is a leader in the field of medical research. Our faculty and scientists are active in frontline research areas such as molecular medicine, nanotechnology, proteomics, radiocrystallography, newer diagnostics through imaging sciences, immunogenetics and transplantation, stem cell therapy, cancer therapy, and technology-based innovations including biocompatible implant devices for joint replacement, and implants and stents in cardiology, otology, trauma-related clinical research, newer surgical practices, and a host of contemporary research areas of national and global importance. Research grants amounting to Rs 56 crores (approximately) were obtained from various intergovernmental, international and national funding agencies during the year 2009–2010. These grants support projects in multiple disciplines and are deemed likely to have a high impact in biomedicine and public health. During the year the faculty and the scientists of the Institute participated in over 300 research projects, published over 1500 research papers in national and international journals and over 200 books/monographs and chapters in books/monographs.

AIIMS has initiated a partnership with the Wellcome Trust and the Department of Biotechnology, Government of India, to support research and develop projects that would provide innovative healthcare products at affordable costs. The aim is to bring together researchers from both the public and private sectors, largely working in India, to develop new medical devices, diagnostics, medicines, vaccines, etc. that will reach the largest numbers of beneficiaries, without compromising on quality. Funded projects would cover a wide range of applications including new treatments for tuberculosis, cardiovascular disease and stem cell-based therapy. Similarly, the continuing Stanford–India Biodesign Programme aims to train the next generation of medical technology innovators in India through fellowships, internships and events to develop cheap, affordable and indigenous biomedical devices. This programme is funded by the Department of Biotechnology, Ministry of Science and Technology, and Stanford University, and is administered in collaboration with Stanford University, the Indian Institute of Technology Delhi, and the Indo-US Science & Technology Forum (IUSSTF). Five devices have already been developed and are in various stages of trial.

The AIIMS research scheme supports research, scholarship and service by young researchers dedicated to understanding and curing disease. Pilot funds enable research teams to generate the preliminary data necessary for securing long term funding, an especially important consideration for junior investigators looking to establish independent research programmes.

### **Caring for patients and communities**

The Institute has constantly endeavored to demonstrate its commitment to professionalism and service to common people at an affordable cost. Presently, the AIIMS hospital has a total of 2534 beds, including those for day care. Thousands of patients from all over the country and from neighbouring countries such as Nepal, Bangladesh, Sri Lanka, and Bhutan come to AIIMS everyday for treatment.

The AIIMS main hospital and its centres—the Cardiothoracic and Neurosciences Centre (CN Centre), the Jai Prakash Narain Apex Trauma Centre (JPNATC), the Dr B.R. Ambedkar Institute–



Rotary Cancer Hospital (Dr BRAIRCH), the Dr Rajendra Prasad Centre for Ophthalmic Sciences (RAPCOS), the Centre for Dental Education and Research (CDER), the Centre for Behavioural Sciences (National Drug Dependence Treatment Centre, NDDTC)—provided care to nearly 25 lakh outpatients, 1.5 lakh inpatients and 1.8 lakh patients with emergent conditions. Also, nearly 1.3 lakh surgical procedures were conducted in the main hospital and the centres. Due to expansion of facilities such as the OPD, emergency service, private wards and use of innovative methods, the AIIMS hospital has been able to provide better and more efficient patient care. The average duration of stay in hospital is around 5.5 days; the average bed occupancy 80.7%, and the net death rate 2.7%, which is at par with similar parameters in developed countries. With the use of mechanical cleaning devices and active interaction of the Hospital Infection Control Committee (HIFCOM), the general hygiene and sanitation of the hospital is of a high level. Medicines are supplied to all patients attending the Emergency services free of cost.

With the view to decongest AIIMS, a second campus is planned at Jhajjar. The Haryana Government has given 300 acres of land and the project will cost Rs 5000 crores.

AIIMS is the nodal centre for the National Initiative on Patient Safety (NIPS). The cell will maintain a database of medical negligence reported in the country with the aim of helping other hospitals avoid such errors. The initiative has been implemented in 11 medical colleges in the country and will cover over 60 healthcare institutions across India in the next two years. The National Pharmacovigilance Programme of the Union Health and Family Welfare Ministry was launched in the country under the aegis of Central Drugs Standard Control Organisation (CDSCO) in collaboration with the Department of Pharmacology, AIIMS. The programme will aid in the detection, assessment, understanding and prevention of adverse effects and other drug-related problems and thus will enhance patient safety. The programme has been implemented in 40 medical colleges across the country and will cover all medical colleges across India in the next two years.

AIIMS has developed a computerized patient management system for its outpatient department as well as a computerized centralized admission facility. The Trauma Center already has an online software system that monitors and transmits vital data of all ICU patients over the internet, which can be viewed by doctors from any station through a secure login from any internet-enabled computer. The trauma center has also become the first centre in the country to have a legally tenable system of computer generated medico-legal certificates.

AIIMS continued to provide specialized investigations and services for common as well as difficult-to-treat patients in medical and surgical fields; and introduced a number of innovations in practice, e.g. urine screen to screen out early stage renal disease in potential kidney donors, robotic surgery in urology, repeating transcranial magnetic stimulation (rTMS) for psychiatric patients, cyber knife facility for surgery of intracranial tumours, new techniques for in vitro fertilization (IVF), etc.

In keeping with its status as an institution of national importance, AIIMS clinicians and scientists were called upon to provide expert opinion on issues of public health importance such as swine flu, dengue, head injury, declining sex ratio, stroke, pentavalent vaccine, vaccination to prevent cervical cancer, organ donation, etc. Experts from AIIMS also opined in sensitive court cases of national importance. AIIMS was also selected as a sentinel centre to treat dengue, and for treating injuries during the Commonwealth Games. In recognition of the planned implementation of National

programmes for diabetes and heart disease, AIIMS was entrusted with the development of Indian standards for the management of these conditions.

We want to remove societal roadblocks and redress infrastructure failures that prevent advances in AIIMS from reaching destitute populations. One factor contributing to the surge in interest in health across barriers is information technology's ability to connect people in real time. AIIMS has created a telemedicine program that brings diagnostic tools and treatments to patients in remote locations by providing consultancy to primary care providers. In response to Dr. APJ Abdul Kalam's promise (made in 2005) of providing medical assistance to African nations, this year AIIMS Telemedicine went international with doctors from AIIMS providing diagnostic and therapeutic expertise for patient management in 54 African countries.

Community-based programmes have been an integral part of the Institute's clinical and research activities. The Centre for Community Medicine has a widely acclaimed model of rural health services at Ballabgarh in the neighbouring state of Haryana. Apart from providing comprehensive health services at the doorsteps of people in the villages under its coverage, the centre also provides secondary healthcare through a 50-bed hospital at Ballabgarh. The project has achieved significant successes in terms of improving the health of mothers and children in the area. The Urban Health and Family Health Exercise Programmes of the Centre for Community Medicine cater to some urban slums of Delhi with a population of about 87,106. These services include domiciliary care and are coordinated through a Mobile Health Clinic. In addition, the Centre for Community Medicine has a Disease Outbreak Response Cell (DORC) to provide a rapid response to outbreaks of infectious diseases; and an AIDS Education and Training Cell for the prevention of HIV/AIDS. In addition to community services provided by the Centre for Community Medicine, the departments of Obstetrics and Gynecology, Rehabilitation and Physical Medicine, Pediatrics, Dr. Rajendra Prasad Centre for Ophthalmic Sciences and the National Drug Dependence Treatment Centre serve various rural communities through numerous community outreach programmes including camps.

Due to consistent advocacy efforts of the JPNATC (AIIMS), the Central Board of Secondary Education has agreed to introduce a course on life support system and emergency medicine in its curriculum.

The Hospital Administration Department of AIIMS was awarded the ISO 9001: 2008 certification for delivering technologically sophisticated and safe health services as well as emergency care. The MBBS course of the Institute has been adjudged the best in the country for the 8th consecutive year by national surveys published in the popular media. Also, 25 scholars from AIIMS have received prestigious ICMR awards for their significant research work.

AIIMS has made a sincere effort to live up to the mandate given to it by Parliament as it strives to provide better healthcare to our people and produce significant research work.

Professor R. C. Deka  
Director, AIIMS

## 2. Institute Body

**w.e.f. 1-4-2009 to 31-3-2010**

1. **Sh. Ghulam Nabi Azad**  
Union Minister for Health & Family Welfare,  
Nirman Bhawan, New Delhi-110011  
President  
(w.e.f. 05.06.2009)
2. **Sh. R.K. Dhawan**, MP(Rajya Sabha)  
141, Golf Links, New Delhi-110003  
Member
3. **Prof. Vijay Kumar Malhotra**, MP (Lok Sabha)  
6, Dr. Bishamber Dass Marg,  
New Delhi-110001  
Member  
(upto 16.05.2009)
- Dr. Jyoti Mirdha**, MP (Lok Sabha)  
875 Sector-17B, Gurgaon  
Haryana - 122001  
Member  
(w.e.f. 27.10.2009)
4. **Dr. Karan Singh Yadav**, MP (Lok Sabha)  
C-6 M.P Flats, Baba Khadak Singh Marg,  
New Delhi-110001  
Member  
(upto 16.05.2009)
- Smt. Sushma Swaraj**, MP (Lok Sabha)  
8 Safdarjung Lane,  
New Delhi  
Member  
(w.e.f. 27.10.2009)
5. **Dr. Deepak Pental**  
Vice Chancellor,  
Delhi University.  
Member  
(Ex-Officio)
6. **Shri Naresh Dayal**  
Secretary (Health)  
Ministry of Health & Family Welfare,  
Nirman Bhawan, New Delhi-110011  
Member  
(upto 26.10.2009)
- Ms. K. Sujatha Rao**  
Secretary (Health)  
Ministry of Health & Family Welfare,  
Nirman Bhawan, New Delhi-110011  
Member  
(w.e.f. 27.10.2009)
7. **Dr. R.K. Srivastava**  
Directorate General of Health Services  
Nirman Bhawan, New Delhi-110011  
Member  
(Ex-Officio)
8. **Dr. Shyam Prasad**,  
Vice President,  
National Board of Examinations, New Delhi  
Member

- |     |   |                  |
|-----|---|------------------|
| 9.  | <p><b>Dr. S.S. Agarwal</b><br/> Central Drug Research Institute,<br/> Chattar Manzil Palace,<br/> Post Box No. 173, Lucknow-226001<br/> <b>Dr. S.S. Agarwal</b><br/> Former Director, SGPGI,<br/> D-13, Vivekanandpuri, Lucknow-226007.</p> | Member           |
| 10. | <p><b>Prof. B.P. Chatterjee</b><br/> Deptt. of Biological Chemistry,<br/> Indian Association for the Cultivation of Science,<br/> Jadavpur, Kolkata-700032.</p>   | Member           |
| 11. | <p><b>Sh. R.P. Agrawal</b><br/> Secretary,<br/> Department of Secondary Education and<br/> Higher Education,<br/> Ministry of Human Resource Development (HRD)<br/> Shastri Bhawan, (Gate No.6), New Delhi-110001</p>                       | Member           |
| 12. | <p><b>Prof. K.K. Talwar</b><br/> Director<br/> Postgraduate Institute of Medical Education<br/> and Research, Chandigarh.</p>   | Member           |
| 13. | <p><b>Prof. Kartar Singh</b><br/> Director,<br/> Sanjay Gandhi Postgraduate Institute of<br/> Medical Sciences, Lucknow.</p>  | Member           |
| 14. | <p><b>Professor R. Surendran</b><br/> Professor and Head of the Department of<br/> Surgical Gastroenterology,<br/> Government Stanley Hospital, Chennai</p>   | Member           |
| 15. | <p><b>Dr. (Mrs.) Nilima Arun Kshirsagar</b><br/> Dean, Professor and Head,<br/> Department of Clinical Pharmacology,<br/> Seth G.S. Medical College and KEM Hospital,<br/> Mumbai.</p>  | Member           |
| 16. | <p><b>Shri Naved Masood</b><br/> Addl. Secretary &amp; Financial Advisor<br/> Ministry of Health &amp; Family Welfare,<br/> Nirman Bhawan, New Delhi-110011</p>   | Member           |
| 17. | <p><b>Prof. R.C. Deka</b><br/> Director, AIIMS</p>  | Member Secretary |

- |     |  |                 |
|-----|--|-----------------|
| 18. | <b>Sh. B.K. Prasad</b><br>Joint Secretary<br>Ministry of Health & Family Welfare,<br>Nirman Bhawan, New Delhi-110011 | Special Invitee |
| 19. | <b>Dr. Rani Kumar</b><br>Dean (Acad.), AIIMS<br>New Delhi  | Special Invitee |
| 20. | <b>Dr. D.K. Sharma</b><br>Medical Superintendent<br>AIIMS, New Delhi   | Special Invitee |

### GOVERNING BODY

- |    |   |                                 |
|----|---|---------------------------------|
| 1. | <b>Sh. Ghulam Nabi Azad</b><br>Union Minister for Health & Family Welfare,<br>Nirman Bhawan, New Delhi-110011   | Chairman<br>(w.e.f. 05.06.2009) |
| 2. | <b>Sh. R.K. Dhawan</b> , MP(Rajya Sabha)<br>141, Golf Links,<br>New Delhi – 1110003.  | Member                          |
| 3. | <b>Dr. Karan Singh Yadav</b> , MP (Lok Sabha)<br>C-6 M.P Flats, Baba Khadak Singh Marg,<br>New Delhi-110001   | Member<br>(upto 16.05.2009)     |
| 4. | <b>Shri Naresh Dayal</b><br>Secretary (Health)<br>Ministry of Health & Family Welfare,<br>Nirman Bhawan, New Delhi-110011   | Member<br>(upto 26.10.2009)     |
|    | <b>Ms. K. Sujatha Rao</b><br>Secretary (Health)<br>Ministry of Health & Family Welfare,<br>Nirman Bhawan, New Delhi-110011  | Member<br>(w.e.f. 27.10.2009)   |
| 5. | <b>Dr. R.K. Srivastava</b><br>Directorate General of Health Services<br>Nirman Bhawan, New Delhi-110011   | Member<br>(Ex-Officio)          |
| 6. | <b>Shri Naved Masood</b><br>Addl. Secretary & Financial Advisor<br>Addl. Secretary & Financial Advisor<br>Ministry of Health & Family Welfare,<br>Nirman Bhawan, New Delhi-110011 | Member                          |
| 7. | <b>Dr. Shyam Prasad</b><br>Vice President,<br>National Board of Examinations,<br>New Delhi  | Member                          |

- |     |   |                  |
|-----|---|------------------|
| 8.  | <b>Prof. K.K. Talwar</b><br>Director<br>Postgraduate Institute of Medical Education<br>and Research, Chandigarh.                                | Member           |
| 9.  | <b>Prof. Kartar Singh</b><br>Director,<br>Sanjay Gandhi Postgraduate Institute of<br>Medical Sciences, Lucknow.                                 | Member           |
| 10. | <b>Professor R. Surendran,</b><br>Professor and Head of the Department of<br>Surgical Gastroenterology,<br>Government Stanley Hospital, Chennai | Member           |
| 11. | <b>Prof. R.C. Deka</b><br>Director, AIIMS   | Member Secretary |
| 12. | <b>Sh. B.K. Prasad,</b><br>Joint Secretary<br>Ministry of Health & Family Welfare,<br>Nirman Bhawan, New Delhi-110011                           | Special Invitee  |
| 13. | <b>Dr. Rani Kumar</b><br>Dean (Acad.), AIIMS<br>New Delhi   | Special Invitee  |
| 14. | <b>Dr. D.K. Sharma</b><br>Medical Superintendent  | Special Invitee  |

### **FINANCE COMMITTEE**

- |     |   |                            |
|-----|---|----------------------------|
| 1   | <b>Shri Naresh Dayal,</b> Health Secretary                | Chairman (upto 26.10.2009) |
| 2.  | <b>Prof. Vijay Kumar Malhotra,</b> MP (Lok Sabha)         | Member (upto 16.05.2009)   |
| 3   | <b>Shri R.K. Dhawan,</b> MP (Rajya Sabha)                 | Member                     |
| 4.  | <b>Dr. R.K. Srivastava,</b> DGHS                          | Member                     |
| 5.  | <b>Shri Naved Masood,</b> Addl. Secretary                 | Member                     |
| 6.  | <b>Dr. Shyam Prasad</b>                                   | Member                     |
| 7.  | <b>Sh. R.P. Agrawal,</b>                                  | Member                     |
| 8.  | <b>Dr. S.S. Agarwal</b>                                   | Member                     |
| 9.  | <b>Prof. R.C. Deka</b><br>Director, AIIMS                 | Member Secretary           |
| 10. | <b>Dr. Rani Kumar</b><br>Dean (Acad.), AIIMS<br>New Delhi | Special Invitee            |

11. **Sh. B.K. Prasad,** Special Invitee  
Joint Secretary  
Ministry of Health & Family Welfare  
Nirman Bhawan, New Delhi-110011

### **ESTATE COMMITTEE**

- |   |                            |
|---|----------------------------|
| 1. Prof. Vijay Kumar Malhotra             | Chairman (upto 16.05.2009) |
| 2. Prof. Karan SinghYadav, MP (Lok Sabha) | Member (upto 16.05.2009)   |
| 3. Dr R.K. Srivastava, DGHS               | Member                     |
| 4. Dr. S.S. Agarwal                       | Member                     |
| 5. Shri Naresh Dayal, Health Secretary    | Member (upto 26.10.2009)   |
| 6. Prof. Deepak Pental                    | Member                     |
| 7. Shri Naved Masood, A.S. & F.A          | Member                     |
| 8. Shri R.P. Agrawal,                     | Member                     |
| 9. Prof. R.C. Deka<br>Director, AIIMS     | Member Secretary           |

### **ACADEMIC COMMITTEE**

- |                                       |                  |
|---------------------------------------|------------------|
| 1. Prof. Nilima Arun Kshirsagar       | Chairperson      |
| 2. Prof. R. Surendran                 | Member           |
| 3. Prof. Kartar Singh                 | Member           |
| 4. Prof. K.K. Talwar                  | Member           |
| 5. Dr. R.K. Srivastava                | Member           |
| 6. Dr. Shyam Prasad                   | Member           |
| 7. Prof. B.P. Chatterjee              | Member           |
| 8. Shri R.P. Agrawal, Secretary       | Member           |
| 9. Prof. R.C. Deka<br>Director, AIIMS | Member Secretary |

### **HOSPITAL AFFAIRS COMMITTEE**

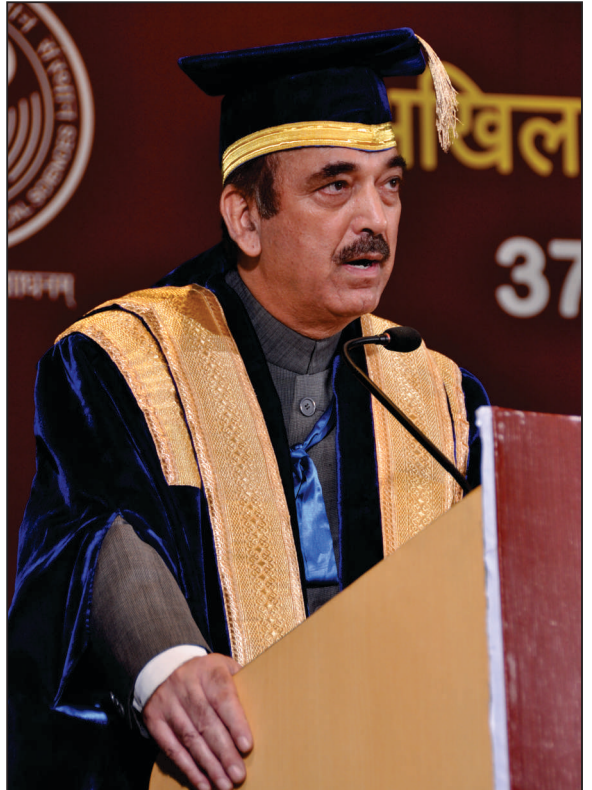
- |   |                          |
|---|--------------------------|
| 1. Prof. S.S. Agarwal                     | Chairman                 |
| 2. Shri R.K. Dhawan, MP (Rajya Sabha)     | Member                   |
| 3. Prof. Karan SinghYadav, MP (Lok Sabha) | Member (upto 16.05.2009) |
| 4. Dr. R.K. Srivastava, DGHS.             | Member                   |
| 5. Shri Naresh Dayal, Health Secretary    | Member (upto 26.10.2009) |
| 6. Shri Naved Masood, A.S. & F.A.         | Member                   |

- |      |                                    |                  |
|------|------------------------------------|------------------|
| 7.   | Prof. Nilima Arun Kshirsagar,      | Member           |
| 8.   | Prof. K.K. Talwar                  | Member           |
| 8(a) | Dr. Shyam Prasad                   | Member           |
| 9.   | Prof. R.C. Deka<br>Director, AIIMS | Member Secretary |

### **SELECTION COMMITTEE**

- |    |                                    |                             |
|----|------------------------------------|-----------------------------|
| 1  | Prof. R. Surendran                 | Chairman                    |
| 2  | Prof. Karan Singh Yadav, MP (LS)   | Member<br>(upto 16.05.2009) |
| 3. | Dr. R.K. Srivastava                | Member                      |
| 4. | Prof. K.K. Talwar                  | Member                      |
| 5. | Prof. Kartar Singh                 | Member                      |
| 6. | Sh. R.P Agrawal, Secretary         | Member                      |
| 7. | Prof. Nilima Arun Kshirsagar       | Member                      |
| 8. | Dr. Shyam Prasad                   | Member                      |
| 9. | Prof. R.C. Deka<br>Director, AIIMS | Member Secretary            |









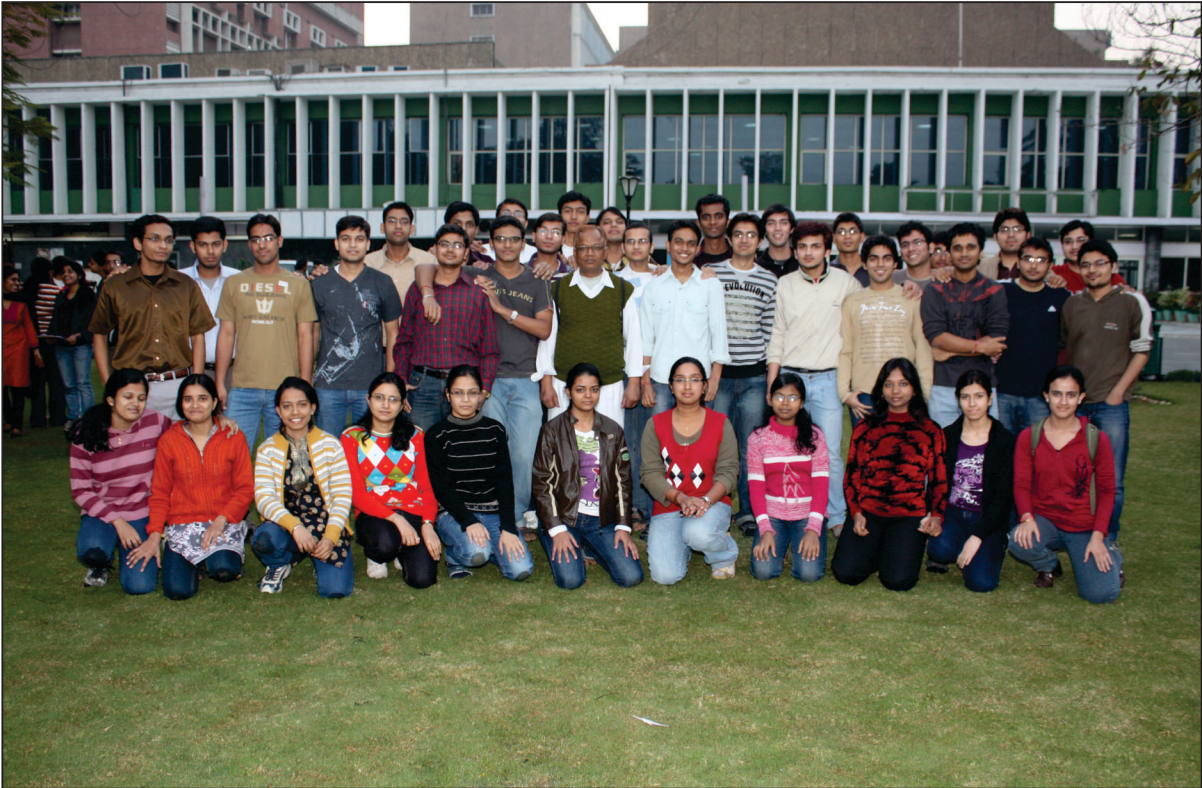




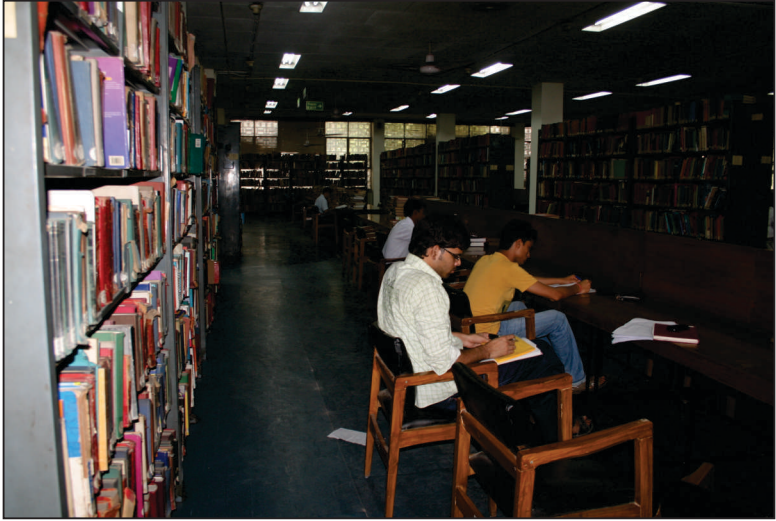


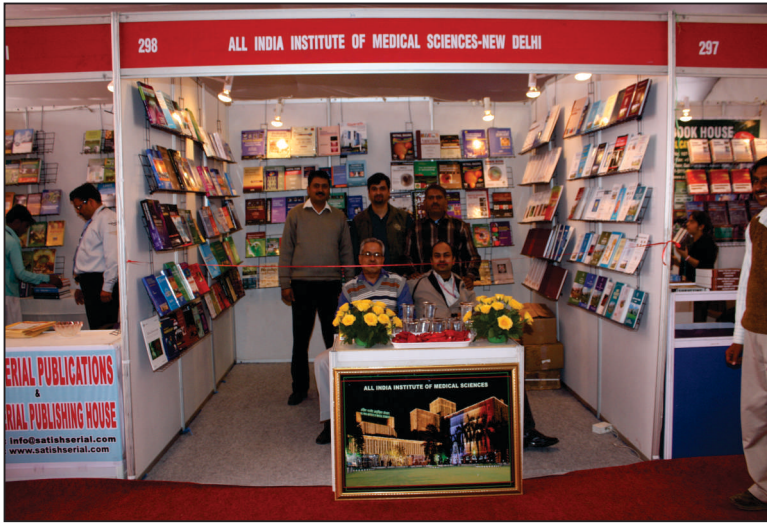


















### 3. Academic Section

#### Dean

Rani Kumar

#### Sub-Dean

Sunil Chumber

#### Registrar

V.P. Gupta

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

#### UNDERGRADUATE EDUCATION

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

#### Bachelor of Medicine and Bachelor of Surgery (M.B.B.S.)

The pattern of education at the undergraduate level was reviewed and implemented from July, 2004 onwards. The duration of the M.B.B.S. course continues to be 5 ½ years, including one year compulsory internship training. The training during this period is as follows:

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

From August 2008 onwards 27 seats of MBBS students are increased and now MBBS seats are 77. Out of 77 seats, 5 seats are reserved for foreign nationals and the screening and admissions for these 5 seats is done on the recommendation of the Ministry of External Affairs, Government of India. For the remaining 72 seats (11 for Scheduled Caste, 6 for Scheduled Tribe, 19 OBC and 36 General Category Candidates), students are selected on the basis of their performance in an All-India Entrance Examination. Further, 3% seats are reserved for orthopaedic physically handicapped candidates on horizontal basis. During the year, there were 44,269 applicants, and 34,253 candidates appeared in the entrance examination held on 01.06.2009 at national level for these 77 seats. The total number of undergraduate (MBBS) students as on 31<sup>st</sup> March 2010 was 311 including 56 interns.

Merit scholarships of Rs.750 per month and Rs.500 per month were awarded to 6 students who secured first and second position in the 1<sup>st</sup>, 2<sup>nd</sup> and final M.B.B.S. examination.

Summer fellowships were awarded to nil for research in selected areas. These students were given a stipend of Rs. 500 per month. They worked under the supervision of a member of the faculty.

## PARAMEDICAL AND NURSING EDUCATION

All activities pertaining to the admission and training of paramedical and nursing students are handled by this cell. A batch of 62 students was admitted for B.Sc. (Hons) Nursing in August 2009. A batch of 26 students was admitted for B.Sc. Nursing (Post-Certificate) Course in August 2009. 15 students was admitted for B.Sc. (Hons) Ophthalmic Techniques in August 2009 and 9 students was admitted for B.Sc. (Hons) Medical Technology in Radiography in August 2009.

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

<i>Nursing courses</i>	<i>Number of students</i>
B.Sc. Nursing (Post Certificate)	51
B.Sc. (Hons.) Nursing	245
<i>Paramedical courses</i>	
B.Sc. (Hons.) Ophthalmic Techniques	42
B.Sc. (Hons.) Medical Technology in Radiography	24

## POSTGRADUATE EDUCATION

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

The admission to all postgraduate courses is done by an All India Entrance Examination that is held twice a year. Foreign nationals are also admitted through an entrance examination. Postgraduate students from Nepal are admitted under a bilateral agreement between the Governments of India and Nepal.

A total of 448 students, including 24 state-sponsored and 12 foreign nationals, were admitted to the above-mentioned courses during the year under review. The total number of postgraduate and doctoral students on 31 March 2010 was 1134. The subject wise distribution of postgraduate students is given below.

A total of 294 postgraduate students MS/MS/MDS/DM/MCh/PhD/MSc/M.Biotech passed out during the year 2009–2010.

PhD	General	Sponsored
Anatomy	16	–
Biochemistry	42	–
Biophysics	22	–
Biostatistics	01	1 (in service)
Biotechnology	21	–

Cardiology	03	–
Cardiac Biochemistry	02	–
Forensic Medicine	03	–
Gastroenterology	06	–
Neuro-surgery	01	–
Obst. & Gynae.	—	2 (in service)
Haematology	09	1 (in service)
CTVS	03	–
Laboratory Medicine	13	–
Medical Oncology	04	–
Medical Physics	03	–
Medicine	10	–
Microbiology	24	–
Neurology	13	–
Nuclear Magnetic Resonance	06	1
Nuclear Medicine	05	1
Otorhinolaryngology (ENT)	01	–
Ophthalmology	07	2
Ocular Pharmacology	05	–
Ocular Microbiology	04	–
Community Ophthalmology	02	–
Ocular Pathology	02	–
Ocular Biochemistry	04	–
Paediatrics	09	–
Pathology	14	–
Centre for Community Medicine	01	–
Endocrinology	05	–
Paediatric Surgery	02	–
Neuro-Biochemistry	05	–
Pharmacology	11	–
Physiology	15	2
Psychiatry	10	–

Radiation Oncology	02	–
Reproductive Biology	06	–
Transplant Immunology and Immunogenetics	09	1
<b>TOTAL</b>	<b>332</b>	<b>11</b>
<b>DM</b>	<b>General</b>	<b>Sponsored</b>
Cardiac Anaesthesiology	6	3
Cardiology	16	-
Clinical Haematology	5	3
Endocrinology	8	3
Gastroenterology	10	3
Haemato-Pathology	4	3
Medical Oncology	12	-2
Neonatology	4	3
Nephrology	8	3
Neuro-Anaesthesiology	8	1
Neurology	15	3
Neuroradiology	3	–
Paediatric Neurology	6	1
Clinical Pharmacology	3	–
<b>TOTAL</b>	<b>136</b>	<b>28</b>
<b>MCh</b>	<b>General</b>	<b>Sponsored</b>
Cardiothoracic & Vascular Surgery	15	–
Gastrointestinal Surgery	5	3
Neurosurgery	27	2
Paediatric Surgery	6	1
Urology	8	3
<b>TOTAL</b>	<b>70</b>	<b>9</b>
<b>MD</b>	<b>General</b>	<b>Sponsored</b>
Anaesthesiology	28	–
Anatomy	16	–
Biochemistry	11	–
Biophysics	12	–

Community Medicine	19	–
Dermatology & Venereology	11	1
Forensic Medicine	10	–
Hospital Administration	04	8
Laboratory Medicine	08	–
Medicine	38	3
Microbiology	11	–
Nuclear Medicine	12	1
Obstetrics and Gynaecology	30	1
Ophthalmology	80	–
Pediatrics	20	3
Pathology	20	–
Pharmacology	10	–
Physical Medicine & Rehabilitation	08	–
Physiology	13	–
Psychiatry	20	–
Radiodiagnosis	18	3
Radiotherapy	08	1
<b>MS</b>		
Orthopaedics	14	3
Otorhinolaryngology	15	–
Surgery	39	3
<b>MDS</b>		
Conservative Dentistry & Endodontics	06	–
Orthodontics	07	1
Prosthodontics	06	1
Oral & Macxillofacial surgery	06	–
<b>TOTAL</b>	<b>529</b>	<b>29</b>
<b>MSc</b>	<b>General</b>	<b>Sponsored</b>
Anatomy	–	–
Biochemistry	04	01
Biophysics	01	–

Perfusion Technology	05	–
Biotechnology	10	01
Nuclear Medicine Technology	06	01
Pharmacology	04	01
Physiology	03	–
<b>MSc Nursing</b>		
Oncological Nursing	03	–
Cardiological/CTVS Nursing	02	–
Nephrological Nursing	03	–
Neurosciences Nursing	03	–
Paediatric Nursing	02	01
Psychiatric Nursing	03	–
Critical Care Nursing	02	–

**SANCTIONED SEATS 61**

**TOTAL 51 + 05 = 56**

*Salaries:* The present salary of residents, as recommended by the Sixth Pay Commission is:

Junior Residents Rs 15600-39100 + (GP Rs.5400) plus allowances as per rules

Senior Residents Rs 15600–39100 + (GP Rs.6000) plus allowances as per rules.

### **TRAINING PROGRAMMES**

The section handles activities regarding training programmes of short and long term duration for both medical and para-medical personnel. During the year, the Institute had 649 short and 05 long-term trainees. In addition 32 WHO Fellows (Foreign National) under WHO fellowship programme & 51 foreign trainees and 12 WHO Fellows (Indian National) for WHO-In-Country Fellowship training programme (2009-2010) were imparted training in various departments. The elective posting of foreign undergraduate medical students is also handled by the section. 35 foreign undergraduate medical students underwent elective training during the year.

WHO In-Country Fellowship (Indian)	=	12
WHO Sponsored Foreign National	=	32
Foreign National	=	51
Elective Training	=	35
Conferences/Workshops/Symposiums	=	152

### **SHORT-AND LONG-TERM TRAINING**

Short Term Trainee Joined w.e.f. 1.4.2009 to 31.3.2010	=	649
Long Term Trainee Joined w.e.f. 1.4.2009 to 31.3.2010	=	5

## COMMITTEE MEETINGS

The Academic Section is responsible for arranging the meetings like Academic committee, Staff Council, Faculty meetings and Dean's Committee. During the year details of the meetings held is as under:

Academic Committee Meetings	02
Staff Council Meeting	01
Dean's Committee Meeting	01
Faculty Meetings	13

## ORATION'S

The Academic Section organized the following Orations during 2009-2010.

S.No.	Name of Oration	Name of Orator	Date of Oration, Time & Venue
01.	<b>2<sup>nd</sup> (Second) Dr. L.K. Bhutani Oration</b>	Dr. Sanjay K. Agarwal, Professor and Head, Department of Nephrology, AIIMS	On Wednesday the 2 <sup>nd</sup> September, 2009 at 4.00 PM in LT-I, AIIMS.
02.	<b>13<sup>th</sup> (Thirteenth) Kamla B.K. Anand Oration</b>	Dr. C.S. Paulose, Director, Centre for Neuroscience, Professor and Head, Department of Biotechnology, Cochin University of Science and Technology, Cochin, Kerala	On Friday the 4 <sup>th</sup> September, 2009 at 4.00 PM in LT-I, AIIMS.
03.	<b>4<sup>th</sup> (Fourth) Prof. K.C. Kandhari Oration</b>	Dr. C. Balachandran, Professor and Unit Head, Department of Skin & STD, Kasturba Medical College & Hospital, Manipal-576 104	On Friday the 11 <sup>th</sup> September, 2009 at 4.00 PM in LT-I, AIIMS.
04.	<b>19<sup>th</sup> (Nineteenth) AIIMS Silver Jubilee Oration</b>	Dr. Ajay Nehra, Professor of Urology, Mayo Clinic, Rochester, Minnesota, USA	On Friday the 12 <sup>th</sup> February, 2010 at 4.00 PM in LT-I, AIIMS
05.	<b>20<sup>th</sup> (Twentieth) Sarveshwari Memorial Oration</b>	Prof. Madjid Samii, Director, Neurosurgical Clinic, Nordstadt Hospital, Hannover.	On Thursday the 18 <sup>th</sup> February, 2010 at 4.00 PM in J.L. Auditorium, AIIMS.

## Convocation

The Annual Convocation of the Institute was held on Monday the 16th November, 2009 at the Jawaharlal Auditorium, AIIMS. Hon'ble Smt. Pratibha Devi Singh Patil, President of India addressed

the Convocation. The Chief Guest distributed Institute Medals/Awards to the outstanding students and addressed the gathering. The President, AIIMS and Hon'ble Minister of Health and Family Welfare distributed the degrees.

## RESEARCH

The intramural research funds and its allocation is handled by the Section. The details of intramural research conducted during the year is given in Appendix I.

1. The research grant allocated to faculty members Rs.50000/- to Rs.1,00000/- per annum depending on the Research Project.
2. Project review by specially review groups - 15<sup>th</sup> March.
3. Final Recommendations of the Research Committee - 31<sup>st</sup> March.
4. Allocation of funds - 15<sup>th</sup> April.

Appendix-I

### ACADEMIC SECTION-II

(Nursing & Para Medical Cell)

Statement of Institute Research Grant for the year, 2009-2010.

#### BASIC SUBJECTS

S.No.	NAME OF THE INVESTIGATOR	TITLE OF THE PROJECT	AMOUNT ASKED FOR	DURATION
1.	Dr. Rima Dada Assoc. Prof. Deptt. of Anatomy	Cytogenetic and PAX6 gene mutation analysis in Ocular Coloboma.	1,00,000/-	2 years
2.	Dr. Suman Jain Asstt. Prof. Deptt. of Physiology	Behavioral development of visual system following prenatal chronic auditory stimulation in chicks ( <i>Gallus domesticus</i> ).	1,00,000/-	1 year
3.	Dr. Kunzang Chosdol Asstt. Prof. Deptt. of Biochemistry	A case – control study of the genetic polymorphism (SNP) of folate metabolizing enzymes and their association with Meningioma and Glioma in Indian population.	1,00,000/-	2 years
4.	Dr. Seema Sen Assoc. prof. Ocular Pathology Dr. R. P. Centre	Identification of Human Papilloma Virus types in malignant ocular tumours.	1,00,000/-	2 years
5.	Dr. Jatinder Katyal Asstt. Prof.	Development and standardization of model of drug resistant seizures	1,00,000/-	1 year



	Deptt. of Pharmacology	in mice.		
6.	Dr. T. K. Das Assoc. Prof. Deptt. of Anatomy	To study the regional differences in amyloid beta induced microglia activation in vivo.	1,00,000/-	1 year
7.	Dr. Garima Shukla Assoc. Prof. Deptt. of Neurology	Prevalence of the restless legs syndrome in women and its relationship with iron deficiency – a prospective case – controlled study from North India.	44,000/-	2 years
8.	Dr. S.S. Chauhan Professor Deptt. of Biochemistry	Diagnostic Significance of aberrantly methylated genes in breast cancer.	6803/-	One year
9.	Dr. Ratna Sharma Assoc. Prof. Deptt. of Physiology	Cognition induced changes in brain oscillations.	1,00,000/-	2 years
10.	Dr. Seema Kashyap Assoc. Prof. Dr. R. P. Centre	Immunohistochemical detection of cancer stem cell markers in retinoblastoma.	1,00,000/-	1 year
11.	Dr. Tulika Seth Asstt. Prof. Deptt. of Hematology	Pilot study of the cytokine Profile of chronic immune thrombocytopenic purpura patients.	1,00,000/-	1 year
12.	Dr. Sujata Mohanty Asstt. Prof. Stem Cell Facility	Establishment of Melanocyte Culture in a serum free system for transplantation in Vitiligo Patients.	1,00,000/-	1 year
13.	Dr. D. S. Arya Assoc. Prof. Deptt. of Pharmacology	Pharmacological studies on Asparagus racemosus in experimentally induced myocardial infarction in rats.	1,00,000/-	1 year
14.	Dr. Rama Chaudhry Professor Deptt. of Microbiology	Genotyping of C. difficile by PCR sequencing and PFGE from fecal samples in HIV and non-HIV patient.	1,00,000/-	3 years
15.	Dr. Pramod Garg Assoc. Prof. Deptt. of Gastroenterology	To develop a mouse model of acute pancreatitis and to correlate the severity of acute pancreatitis with levels of TNF-a and IL-6 cytokines.	1,00,000/-	2 years

16.	Dr. S. K.Maulik Addl. Prof. Deptt. of Pharmacology	Evaluation of preventive potential of atorvastatin and coenzyme-Q10 in doxorubicin-induced cardiomyopathy in rats.	1,00,000/-	2 years
17.	Dr. Raju Sharma Addl. Prof. Deptt. of Radiodiagnosis	Diagnostic accuracy of coronal whole body diffusion-weighted MRI in oncologic imaging : comparison with whole body STIR-MRI and FDG-PET-CT.	60,000/-	2 years
18.	Dr. Neena Malhotra Assoc. Prof. Deptt. of Obst. & Gynae.	Perifollicular vascularity and follicular fluid vascular endothelial growth factor concentration in in-vitro fertilization (IVF) cycles.	1,00,000/-	2 years
19.	Dr. Pushpa Dhar Addl. Prof. Deptt. of Anatomy	To study the effects of antioxidant supplementation on rat hippocampus following sodium arsenite exposure during early postnatal period.	70,000/-	2 years
20.	Dr. Anjana Talwar Asstt. Prof. Deptt. of Physiology	To study the effect of Ocimum sanctum (Tulsi) leaf extract on Event related potentials in healthy adults.	1,00,000/-	2 years
21.	Dr. Tushar Agarwal Asstt. Prof. of Ophthalmology Dr. R. P. Centre	CRYAA gene profile in Congenital Cataract Patients.	1,00,000/-	2 years
22.	Dr. Nibhriti Das Professor Deptt. of Biochemistry	Paraoxonase (PON 1) activity and its genetic determinants (PON 1 gene polymorphisms, in coding region at codon 55, 192 and in promoter region at position – 108) in relation to coronary artery disease (CAD).	50,000/-	3 years
23.	Dr. Ajay Logani Asstt. Prof. Centre for Dental Education and Research	Evaluation of Atraumatic Restorative Treatment (ART) for dental caries in geriatric patients in a resettlement colony of Delhi.	1,00,000/-	3 years

## CLINICAL SUBJECTS

S.No.	NAME OF THE INVESTIGATOR	TITLE OF THE PROJECT	AMOUNT ASKED FOR	DURATION
1.	Dr. Amit Gupta Asstt. Prof. Deptt. of Surgery JPNAT Centre	Randomized Control Clinical Trial of Early versus Late Tracheostomy to compare length of mechanical ventilations; and, length of ICU stay in Critically ILL Trauma Patients.	50,000/-	2 years
2.	Dr. V. K. Iyer Assoc. Prof. Deptt. of Pathology	Prognostication of Pediatric Abdominal Solid Tumors on the Basis of 1p And 16q Chromosomal Deletions.	1,00,000/-	3 years
3.	Dr. Rajesh Sinha Asstt. Prof. Ophthalmology Dr. R. P. Centre	Lamellar Keratectomy in Central Corneal Ulcers.	1,00,000/-	1 year
4.	Dr. Sandeep R. Mathur Asstt. Prof. Deptt. of Pathology	Evaluation of apoptosis in breast cancer and its correlation with hormone receptor status, grade and Her 2 neu status.	1,00,000/-	1 year
5.	Dr. Ramesh Agarwal Asstt. Prof. Deptt. of Pediatrics	Natural history of patent ductus arteriosus (PDA) and cardiac functions in preterm VLBW babies with hemodynamically significant PDA and role of Brain Natriuretic Peptide (BNP) in predicting the need for treatment.	1,00,000/-	1 year
6.	Dr. Atul Sharma Assoc. Prof. Deptt. of Medical Oncology, IRCH	Prothrombotic Factors in Patients with Newly Diagnosed Multiple Myeloma-an Observational Study.	1,00,000/-	18 <sup>th</sup> Months
7.	Dr. Kh Reeta Asstt. Prof. Deptt. of Pharmacology	Randomized Double Blind Placebo-Controlled Study to Compare the Efficacy of Riboflavin Versus Propranolol in Prophylaxis of Migraine.	1,00,000/-	1 year
8.	Dr. Achal K.Srivastava Assoc. Prof. Deptt. of Neurology	Study of Risk Factors, Psychiatric Co-Morbid Condition and Disability in Patients of Psychogenic Nonepileptic Seizure (PNES).	1,00,000/-	1 year

9.	Dr. Vandana Jain Asstt. Prof. Deptt. of Pediatrics	Adiponectin, C-reactive protein and interleukin-6 in overweight children and adolescents and their relationship with dyslipidemia and insulin resistance.	1,00,000/-	2 years
10.	Dr. Alpana Sharma Asstt. Prof. Deptt. of Biochemistry	Study of extra cellular matrix proteins as prognostic factors in multiple myeloma.	1,00,000/-	3 years
11.	Dr. Sambhunath Das Asstt. Prof. Deptt. of Cardiac Anaesthesia CNC	Role of pentoxifyline in reducing neurocognitive decline and inflammatory response after coronary artery bypass grafting using cardiopulmonary bypass.	1,00,000/-	3 years
12.	Dr. D. N. Sharma Asstt. Prof. Deptt. of Radiotherapy DR. BRAIRCH	Clinical Impact of PET scan in patients with pelvic recurrence from cervical cancer following radiation therapy.	1,00,000/-	3 years
13.	Dr. Vatsla Dadhwal Assoc. Prof. Deptt. of Obst. & Gynae.	Screening for Inherited Thrombophilias in Women with Adverse Pregnancy Outcome.	1,00,000/-	1 year
14.	Dr. Seema Mishra Asstt. Prof. Unit of Anaesthesiology Dr. BRAIRCH	Efficacy of The Anterior Ultrasound-Guided Superior Hypogastric Plexus Neurolysis in intractable pelvic cancer pain in advanced gynaecological cancer patients and assessment of Quality of life before the neurolysis and after neurolysis.	1,00,000/-	1 year
15.	Dr. G. Sethuraman Assoc. Prof. Deptt. of Derm. & Vene.	Histopathological and etiological profile of small and medium vessel vasculitis.	1,00,000/-	2 years&3 months
16.	Dr. Sushmita Pathy Asstt. Prof. Deptt. of Radiotherapy Dr. BRAIRCHAIIMS	To study the impact of overall treatment time and scheduling of brachytherapy on outcome of concurrent chemo radiotherapy in advanced carcinoma of uterine cervix.	54,000/-	3 years

17.	Dr. Rachna Seth Asstt. Prof. Deptt. of Pediatric Oncology	A study of infections in Febrile neutropenic pediatric oncology patients at a tertiary care hospital.	1,00,000/-	3 years
18.	Dr. S. Seth Assoc. Prof. Deptt. of Cardiology	Labeling of stem cells with Technetium-99m hexamethylene propylene amine oxine (Tc99m HMPAO) and to detect the homing of stem cells in the myocardium after intra-coronary injection.	1,00,000/-	1 year
19.	Dr .Namrata Sharma Assoc. Prof. of Ophthalmology Dr. R. P. Centre	Comparison of the results of autologous cultured limbal stem cells on amniotic membrane versus amniotic membrane transplantation alone in the management partial limbal stem cell deficiency due to ocular burns.	1,00,000/-	1 year
20.	Dr.Minati Choudhury Assoc. Prof. Deptt. of Cardiac Anaesthesia	Osteopontin, a mediator of systemic inflammatory response in high risk cardiac surgical patients.	1,00,000/-	2 years
21.	Dr. Milind P. Hote Asstt. Prof. Deptt. of CTVS	Serum osteopontin, a marker of severity of coronary artery disease.	1,00,000/-	2 years
22.	Dr. Vineet Ahuja Assoc. Prof. Deptt. of Gastroenterology	Retinoic acid is the “Microenvironmental cue” determining disease activity in patients with Ulcerative colitis.	1,00,000/-	1 year

## COMMUNITY STUDIES

S.No.	NAME OF THE INVESTIGATOR	TITLE OF THE PROJECT	AMOUNT ASKED FOR	DURATION
01.	Dr. K. Anand Assoc. Prof. C.C.M.	Validation of available risk assessment scores for Non communicable diseases in adults.	70,000/-	1 year
02.	Dr. Baridalyme Nongkynrih Asstt. Prof. C.C.M.	Expenditure on Non-Communicable Diseases-related Risk Behaviours among adults in urban and rural India.	84,500/-	1 year

## CONTINUATION PROJECTS

S.No.	NAME OF THE INVESTIGATOR	TITLE OF THE PROJECT	AMOUNT ASKED FOR	DURATION
1.	Dr . T. C. Nag Assoc. Prof. Deptt. of Anatomy	Mechanism of Muller glial activation in aging human retina : an immunohistochemical investigation.	1,00,000/-	1 year
2.	Dr. Kalpana Luthra Assoc. Prof. Deptt. of Biochemistry	Genetic characteristics of HIV-1 subtype C envelopes inducing v3 antibodies.	1,00,000/-	2 year
3.	Dr. Tanuj Dada Assoc. Prof. for Ophthalmic Sciences Dr. R. P. Centre	Mitochondrial genome mutation analysis in congenital glaucoma.	1,00,000/-	2 year
4.	Dr. N. C. Chandra Asstt. Prof. Deptt. of Biochemistry	A comparative study on expression and/or transcription between LDL receptor (LDLR) and tumor suppressor proteins (p53, pRB) in presence of Insulin, thyroxin and Benzo(a)-pyrene.	1,00,000/-	2 years
5.	Dr. Renu Dhingra Assoc. Prof. Deptt. of Anatomy	Role of circulating angiogenetic factors in the pathogenesis of Preeclampsia.	75,000/-	2 years
6.	Dr. Sameer Bakhshi Assoc. Prof. Deptt. of Medical Oncology IRCH	To study chromosomal abnormalities and FLT3 Internal Tandem Duplication (ITD) mutations in acute myeloid leukemia.	1,00,000/-	3 years
7.	Dr. Ashutosh Halder Assoc. Prof. Deptt. of Re-Biology	Rapid Detection of Chromosome X, Y, 21, 18 & 13 Aneuploidy by Primed In Situ Labeling.	1,00,000/-	2 years
8.	Dr. Neeta Singh Asstt. Prof. Deptt. of Obst. & Gynae.	To evaluate endometrial and sub-endometrial blood flows in the prediction of Pregnancy during In-Vitro fertilization Treatment.	1,00,000/-	2 years

9.	Dr. Y. S. Kusuma Asstt. Prof.C.C.M.	Antenatal care : utilization, perceptions and expectations of migrant women in Delhi – a mixed methods study.	99,950/-	2 years
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Total - 51,64,253/-  
Total Allocated - 50,00,000/-  
Balance - 1,64,253/-

## 4. Examination Section

### Dean

Rani Kumar

### Sub-Dean

A. K. Dinda

### Assistant Controller of Examinations

B.K. Joshi

### Accounts Officer

N.D. Sharma

### Assistant Administrative Officer

V.D. Talwar  
(upto Dec, 2009)

### Office Superintendents

Raj Kumar

Kulvinder Singh Walia

During the period under review (2009 - 2010), the Examination Section conducted the following Professional and Entrance Examinations :

### A. POSTGRADUATE AND UNDER GRADUATE PROFESSIONAL EXAMINATION

Details of various undergraduate and postgraduate professional examinations conducted by A.I.I.M.S. from 1.4.2009 to 31.3.2010.

#### Data of Professional Examinations held between 1.4.2009 – 31.3.2010

S.No.	Month & Year	Examination	NUMBER OF STUDENTS			
			Appeared	Absent	Passed	Failed
1	MAY 2009	Final Postgraduate/Postdoctoral	130	2	116	12
2	-do-	M.Sc. (Nursing) Phase-I	18	0	15	3
3	-do-	M.Sc. (Nursing) Phase-II	12	0	12	0
4	-do-	Final MBBS (Supple.)	9	2	3	4
5	-do-	Second MBBS (Supple.)	10	2	6	2
6	-do-	B.Sc. Nursing (Post-certificate)Phase-I	28	0	27	1
7	-do-	Phase-II	16	0	14	2
8	-do-	B.Sc. (Hons) Nursing Phase-I	62	2	52	8
9	-do-	Phase-II	51	0	48	3



S.No.	Month & Year	Examination	NUMBER OF STUDENTS			
			Appeared	Absent	Passed	Failed
10	-do-	Phase-III	46	0	46	0
11	-do-	Phase-IV	52	0	52	0
12	<b>JULY 2009</b>	First Professional MBBS	76	1	64	11
13	-do-	B.Sc. (Hons) Ophthalmic Techniques Phase-I	11	1	7	3
14	-do-	Phase-II	12	1	5	6
15	-do-	Phase-III	7	0	7	0
16	-do-	B.Sc.(H) Medical Tech. in Radiography Phase-I	8	0	5	3
17	-do-	Phase-II	7	0	6	1
18	-do-	Phase-III	6	1	5	0
19	<b>AUG. 2009</b>	First MBBS Professional (Supplementary)	10	1	6	3
20	<b>NOV. 2009</b>	B.Sc.(H) Ophthalmic Tech. Phase-I (Supple.)	3	0	1	2
21	-do-	Phase-II (Supple.)	5	0	5	0
22	-do-	B.Sc. (H) Medical Tech. in Radiography Phase-I Supple.)	3	0	1	2
23	-do-	B.Sc. (H) Medical Tech. in Radiography Phase-II Supple.)	1	0	0	1
24	-do-	B.Sc. (H) Medical Tech. in Radiography I Phase-IIISupple.)	0	1	0	
24	<b>DEC.2009</b>	Final Postgraduate/Postdoctoral	135	7	128	0
25	-do-	M.Sc. (Nursing) Phase-I (Supple.)	3	0	0	3
26	-do-	Final MBBS	63	0	52	11
27	-do-	Second MBBS	54	6	39	9
28	-do-	B.Sc. Nursing (Postcertificate) Phase-I (Supple.)	1	0	1	0
29	-do-	B.Sc. Nursing (Postcertificate) Phase-II (Supple)	7	0	6	1
30	-do-	B.Sc. (Hons) Nursing Phase-I (Supple.)	9	0	9	0
31	-do-	Phase-II (Supple.)	8	0	6	2
32	-do-	Phase-III (Supple.)	2	0	0	2
33	<b>JAN. 2010</b>	Final MBBS (Compartmental examination)	5	0	4	1
<b>Grand Total:</b>			<b>871</b>	<b>26</b>	<b>749</b>	<b>96</b>

## B. Entrance Examinations for Undergraduate and Postgraduate courses:

Sl. No.	Courses	Date of Examination	No. of Candidates Applied	No. of Candidates Appeared
1.	MD/MS/MDS (AIIMS) July Session 2009	10-05-2009	18318	14703
2.	DM/MCh/MHA July Session 2009	17-05-2009	1751	1415
3.	M.B.B.S. (AIIMS) August Session 2009	01-06-2009	44269	34253
4.	B.Sc. (Hons) Nursing 2009	14-06-2009	881	635
5.	B.Sc. Nursing (Post-Certificate) 2009	20-06-2009	113	63
6.	B.Sc. (Hons) Paramedical Courses 2009	06-06-2009	189	152
7.	M.Sc. Courses 2009	11-07-2009	342	195
8.	M.Sc. Nursing 2009	05-07-2009	691	486
9.	M. Biotechnology Entrance Examination 2009	19-07-2009	711	387
10.	Ph.D. July Session 2009	27-06-2009	430	290
11.	Senior Residents Ent Examination, July, 2009 Session	26.04.2009	739	492
12.	MD/MS/MCh (6 yrs)/MDS (AIIMS) January Session 2010	15-11-2009	28603	26794
13.	DM/MCh/MHA January Session 2010	13-12-2009	2201	1815
14.	All India PG Entrance Exam: MD/MS/Diploma/MDS-2010	10-01-2010	62161	56826

### Details of Entrance Examination:-

Number of Entrance Exams conducted : 15 (fifteen)

Number of Applicants : 161815 (One lakh sixty one thousand eight hundred fifteen)

Number of candidates appeared : 138799 (One lakh thirty eight thousand seven hundred Ninety nine)

Candidate Passed in Ph.D. Viva-Voce

Examination 1<sup>st</sup> April, 2009 to 31<sup>st</sup> March, 2010 : — ( 41 )

### C. Examination for Recruitment

S.No	Name of Exam	Written Exam	Interview	Applied	Appeared
1.	Technical Officer	29.08.2009		29	25
2.	UDC Departmental Test	06.09.2009		107	94
3.	Stenographer	25.10.2009		1415	523

#### Details of Recruitment Examination:-

Number of Examination conducted	:	03
Number of Applicants	:	1551
Number of candidates appeared	:	642

#### Entrance Examinations conducted:

1. All India PG Entrance Examination for admission to MD/MS/Diploma/MDS Courses against 50% open merit seats quota was held in 126 centres (Local= 25, out station= 101 ) in 15 cities of India on 10.01.2010. The results were declared on 15th February, 2009.
2. AIIMS PG Entrance Examination for admission to MD/MS/MDS courses was conducted on 10<sup>th</sup> May, 2009 for July, 2009 session in Delhi at 37 centres and 15<sup>th</sup> November, 2009 for January, 2010 session at 55 centres respectively. The results were declared on 25<sup>th</sup> May, 2009 and 25<sup>th</sup> November, 2009 respectively.
3. Selections for various Post-Doctoral (super-specialty) courses viz. DM/M.Ch and Master in Hospital Administration for July, 2009 and January 2010 sessions were made on the basis of a two stage performance evaluation between 21<sup>st</sup> – 23<sup>rd</sup> May, 2009 and 17<sup>th</sup> - 19<sup>th</sup> December, 2009 respectively.
4. The Institute has also conducted written test for the Post of Senior Residents/ Senior Demonstrators on 26.04.2009.
5. Selections of candidates for registration to Ph.D. programme for July, 2009 and January 2010 sessions were held between 29<sup>th</sup> June to 1<sup>st</sup> July, 2009 and 19<sup>th</sup> to 21<sup>st</sup> January, 2010. The results were declared on 3<sup>rd</sup> July, 2009 and 25<sup>th</sup> January, 2010 respectively.
6. The Entrance Examination for admission to MBBS course of AIIMS for August 2009 session was held in 91 (local = 42 and outstation = 49) centres in ten cities of India on 1<sup>st</sup> June, 2009.
7. B.Sc. (Hons.) Nursing Entrance Examination was held in Delhi & Thiruvananthapuram on 14<sup>th</sup> June, 2009.
8. The Entrance Examination for admission to M.Sc. Course and M. Biotechnology courses August, 2009 session was held in Delhi on 11<sup>th</sup> July, 2009 and 19<sup>th</sup> July, 2009 respectively.
9. The Entrance Examination for admission to M.Sc. Nursing course was introduced from the year 2005. This examination was held on 15<sup>th</sup> June, 2009 in Delhi only. The admission was made by allotment of seats on merit basis through counselling held on 16.07.2009.

10. B.Sc. Nursing (Post-Certificate) Entrance Examination was held in Delhi on 20.06.2009 followed by the personal assessment of candidates on 22.06.2009.
11. The entrance examination for admission to Para-Medical courses viz. B.Sc. (Hons.) Ophthalmic Techniques and B.Sc. (Hons.) Medical Technology in Radiography for August, 2009 session was held in Delhi at one centre on 6<sup>th</sup> June, 2009. The admissions to these two courses were made by allotment of seats on merit basis through Counselling held on 15<sup>th</sup> July, 2009.
12. The Examination Section has also conducted Written/Skill Test for recruitment to the following posts at the Institute:
  - i) Written Test for the post of Technical Officer at AIIMS was held on 29.08.2009. The interview for same was held on 15.09.2009.
  - ii) For Departmental candidate written test for the post of UDC was conducted on 06.09.2009.
  - iii) Written Test for the post of Stenographer was conducted by the Examination Section on 25.10.2009 and Skill Test held on 27.10.2009. The interview for same was held on 14.01.2010.

### **Participation in other events:**

1. The Examination Section actively participates in the counselling for admission to AIIMS-PG, B.Sc (Hons) Para-Medical, M.Sc. (Nursing) courses and interview for B.Sc. (Nursing) Post-Certificate course.
2. Professor-in-charge (Exam) has been co-ordinating the evaluation of P.G. students thesis from B.P. Koirala Institute of Health Sciences, Dharan, Nepal.
3. The Institute is also conducting MBBS Entrance Examination of North Eastern Indira Gandhi Regional Institute of Health & Medical Sciences, Shillong, Meghalaya from 2009. This year the examination was conducted on 26.07.2009.

### **SIGNIFICANT EVENTS**

The M.Biotechnology Entrance Examination has now been separated from other M.Sc. courses with effect from August, 2006 session, in order to facilitate the candidate to apply for other M.Sc. courses as well as for M.Biotechnology. The Examination Section has also been conducting the MBBS Entrance Examination of North Eastern Indira Gandhi Regional Institute of Health & Medical Sciences, Shillong, Meghalaya from 2009. The Examination for the year 2009 was held on 26<sup>th</sup> July, 2009.

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 SBI branches. In order to avoid any case of impersonation, all candidates are digitally photographed and thumb impressions obtained during the entrance examination. In addition to this physical frisking has also been started from the year 2006.

The Examination Section has also introduced Online Application system for inviting the applications for various Entrance Examination from January, 2010. Candidates can now apply online and also get their Admit Cards downloaded from the Internet.

In All India PG Entrance Examination, each candidate was provided pen to write. This was done to prevent use of any electronic feature inbuilt into pen carried by them.

Frisking of every candidate on main entrance of the examination centre has been introduced to prevent the usage of electronic gadgets during the examination.

Photography (Snapshot) is being done in case of doubt in genuineness of identity of a candidate during the course of the examination.

Cash Transaction has been minimized by sending 90-95% amount through Demand Draft/ Bankers Cheque in advance to the designated Exams. centres.

## 5. General Administration

### Deputy Director (Administration)

Shailesh Kumar Yadav, IPS  
(upto 18.12.2009)

Sharat Chauhan, IAS  
(w.e.f. 19.12.2009)

### Chief Administrative Officer

Attar Singh

### Senior Administrative Officers

K.C. Chhoker  
(upto 31.01.2010)

E.L. Lakra

K.K. Vaid

### Administrative Officers Recruitment & Hostel

**Hospital**  
Kundan Kumar

Ravi Chauhan

**JPNA Trauma Centre**  
Rajavelu Simon

**General, Estate &  
Transport**

V.V. Mishra

**ACR/SC/ST &  
Coordination Cell**

A.K. Nim

**Legal Cell**

Bhagirath Jha

### Faculty Cell/Estt. Section-I & II

Lalit Kumar

### Assistant Administrative Officers CT & NS Centre

**NDDTC**  
Uday Singh

Shyam Lal

**DR. BRA IRCH**  
Ram Rattan

### SECURITY

### Deputy Chief Security Officer

Rajiv Lochan

### Security Officers

R.S. Rawat

Deepak Kumar

### STORES

### Stores Officers

S.S. Bhaduria  
V.M.S. Gandhi

K.D. Sharma

Pradeep Kumar Gupta

**ENGINEERING SERVICES DEPARTMENT**

**Superintending Engineer**

B.S. Anand

**Executive Engineers**

M. Rastogi

S. Bhasker

**GENERAL ADMINISTRATION**

The General Administration, including personnel and establishment, security, estate, matters related to Engineering Services Department, stores, vigilance and public relations activities of AIIMS are controlled and supervised by the Deputy Director (Administration). There are various branches looking after the above-mentioned areas. Each branch is headed by a senior officer with supportive officers and staff members. A brief description of the activities of these branches is given below.

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

The total sanctioned staff of AIIMS is 9827, including the main hospital, all the centres and administration. These include the following:

S. No.	Category/group	Sanctioned strength	In position staff
1.	Faculty	629	434
2.	Group 'A'	320	200
3.	Group 'B'	4,189	3,501
4.	Group 'C'	2,845	1,940
5.	Group 'D'	1,844	2,191
	<b>Total</b>	<b>9,827</b>	<b>8,266</b>

## 6. Main Hospital

### Medical Superintendent

D.K. Sharma

### Additional Professor

Siddhartha Satpathy

### Associate Professor

I.B. Singh

Sanjay Arya

### GENERAL INFORMATION

Total Number of Beds (This includes Main Hosp., Bassinets & CNC)	<b>1504</b>
Main Hosp & Pvt. Wards	<b>1056</b>
Bassinets	<b>25</b>
CNC	<b>423</b>

HOSPITAL PERFORMANCE INDICES	2009-10		2008-09		Comments
	Main	CCN	Main	CNC	
	Hospital		Hospital CNC		
Average length of stay (Days) utilisation of beds.	<b>5.5</b>	<b>7.3</b>	<b>5.9</b>	<b>7.2</b>	Indicates effective
Average Bed Occupancy rate %	<b>80.7</b>	<b>79.9</b>	<b>79.9</b>	<b>72.1</b>	Indicates fair occupancy.
Net Death Rate (%)	<b>2.7</b>	<b>4.4</b>	<b>2.7</b>	<b>5.0</b>	Indicates low mortality rate despite the fact that quite large no. of critically ill patients are admitted to the Hospital.
Combined crude Infection Rate (%)	<b>8.69</b>	—	<b>7.60</b>	—	

Please See **Appendix I and II** for details.



## 6.1 Medical Records Services

### Chief Medical Record Officer & Sub-Registrar, Births & Deaths

N.K. Sharma

#### MEDICAL RECORDS SERVICES

##### a) Education & Training:

- A group of Medical Record Students from S.D.A. School of Medical Records, Ranchi visited in Medical Record Section (Main Hospital) and Out Patient Department of AIIMS on 1<sup>st</sup> April, 2009.
- A group of Medical Record Technician from St. Stephens Hospital, New Delhi visited in Medical Record Section (Main Hospital) and Out Patient Department of AIIMS on 17<sup>th</sup> June, 2009.
- A group of 21 B.Sc. (PC) Nursing students visited in Medical Record Section (Main Hospital) and a brief lecture was delivered on Medical Record Management at AIIMS by Sh. N.K. Sharma, Chief Medical Record Officer on 7<sup>th</sup> August, 2009.

##### b) Meetings:

During the year, Dr. Sanjay Arya, Assoc. Professor, Sh. N.K. Sharma, Chief Medical Record Officer and Sh. Ashok Kumar, MRT were attended the **meeting regarding the Registration of Birth & Deaths** in the office of M.O.H., Health Department, NDMC, Palika Kendra, New Delhi on 28<sup>th</sup> July, 2009.

##### c) Court Attendance:

A total number of 1239 Summons (Average 4 summons per day) were received in the Medical Record Section (Main Hospital) from the various Courts of Delhi and Out-side Delhi.

##### d) Computerization of Medical Record:

Computerization of Medical Records is in full swing. In the 1<sup>st</sup> phase, Central Admission Office & Hospital Enquiry is computerized. The 2<sup>nd</sup> phase, the computerization of Medical Record Section (Hospital) is under progress, as assurance given by the Computer Facility.

#### In-Patient Services:

The hospital has maintained its tradition of services and quality of patient care, in spite of ever increasing number of Patients that come to this hospital from all over the country as well as from abroad. **A total number of 88486 Patients were admitted during the year in the various clinical units of the Main Hospital and C.N.C. The Department-wise, State-wise and Gender-wise admissions are given in Appendix-III & IV. The number of Surgical Procedures performed during the year in different Surgical Disciplines is given in Appendix -V.**

Medical Record of indoor patients is systematically classified and categorized for easy retrievals. These records are stored in the Compactors. **All the In-patient records of C. N. Centre** are also maintained by the Medical Record Section of the Main Hospital.

**In addition to that the following two wards i.e. (i) KMC Ward and (ii) NICU-B has been started w.e.f. 21.4.2009 in the New Private Ward Block for providing the extra care of Mother's and Kangaroo's :**

- 1) **Kangaroo Mother Care (KMC Ward) - 8 Beds**
- 2) **Neonatal Intensive Care Unit (NICU-B) - 10 Beds**

#### **Central Admission Office & Hospital Enquiry:**

Medical Records of Patients admitted to the hospital are initiated from the Central Admission Office which also functions as Enquiry Counter. All types of enquiries regarding Patients, Departments, Doctors and Centres are provided from this office.

This office functions round the clock i.e. 365 x 24. Therefore, the staff working there is on shift duties. This office is manned by Receptionists, Medical Record Technicians & other Ministerial & Hospital staff.

#### **Out Patient Department and Specialty Clinics**

A total of **1440254\* Patients** attended the general out-patient department and Specialty Clinics of the Main Hospital. The details of the out-patient load profile are given in **Appendix-VI**.

**YEARLY STATISTICAL HEALTH BULLETIN**  
(2009 – 2010)

		MAIN HOSPITAL	CNC	TOTAL
1.	<b>Total Patient Admitted</b>	70176	18310	<b>88486</b>
	a. Adults & Children	67838	—	—
	b. New Born Infants	2338	—	—
2.	<b>Total No. of Patients Discharge</b>	62453	15983	<b>78436</b>
	a. Adult & Children	60179	—	—
	b. New Born Infants	2274	—	—
3.	<b>Total Days of Care</b>	345634	117045	<b>462679</b>
	a. Adult & Children	331370	—	—
	b. New Born Infants	14264	—	—
4.	<b>Average length of Stay (ALS)</b>	5.5	7.3	<b>5.9</b>
	a. Adult & Children	5.5	—	—
	b. New Born Infants	6.3	—	—
5.	<b>Total number of Patient Care days in Hospital (as per daily census)</b>	318240	123263	<b>441503</b>
	a. Adult & Children	313766	—	—
	b. New Born Infants	4474	—	—
6.	<b>Daily Average Number of Patients (as per daily census)</b>	872	338	<b>1210</b>
	a. Adult & Children	860	—	—
	b. New Born Infants	12	—	—
7.	<b>Average % age of Bed occupancy</b>	80.7	79.9	<b>80.4</b>
	a. Adult & Children	81.4	—	—
	b. New Born Infants	48.0	—	—
8.	<b>Births in Hospital</b>	2338	—	<b>2338</b>
	a. Male	1244	—	<b>1244</b>
	b. Female	1094	—	<b>1094</b>
	c. Inter Sex	—	—	—
9.	<b>Total Death (including new born)</b>	2700	978	<b>3678</b>
	a. Death under 48 hrs.	1052	281	<b>1333</b>
	b. Death over 48 hrs.	1648	697	<b>2345</b>
	c. Gross death rate (in %age)	4.3	6.1	<b>4.7</b>
	d. Net death rate (in %age)	2.7	4.4	<b>3.0</b>
10.	<b>Attendance in Casualty</b>	109605	—	<b>109605</b>
	Deaths in Casualty	431	—	<b>431</b>
	Brought Dead in Casualty	250	—	<b>250</b>

## APPENDIX-II

## DEPARTMENT WISE DISTRIBUTION (MAIN HOSPITAL + CNC)

Department	ADMISSION	DISCHARGES	Day of Care	Average Length of stay	Total Deaths	Deaths under 48 hrs.	Deaths Over 48 hrs.	Gross Deaths Rate in%	Net Deaths Rate in%
Medicine I	1574	1431	12740	8.9	388	176	212	27.1	16.9
Medicine II	1169	1142	10715	9.4	316	146	170	27.7	17.1
Medicine III	1423	1340	12518	9.3	372	170	202	27.8	17.3
Surgery I	1415	1235	9941	8.0	32	5	27	2.6	2.2
Surgery II	2244	1792	14401	8.0	48	11	37	2.7	2.1
Surgery III	1250	1026	9707	9.5	25	5	20	2.4	1.9
Surgery IV	1674	1418	9417	6.6	23	8	15	1.6	1.1
Orthopaedics I	1763	1490	13105	8.8	3	1	2	0.2	0.1
Orthopaedics II	1925	1644	16175	9.8	8	1	7	0.5	0.4
Obst. & Gynae.I	4234	3705	18931	5.1	4	1	3	0.1	0.1
Obst. & Gynae.II	3090	2697	16441	6.1	3	—	3	0.1	0.1
Obst. & Gynae.III	3234	2926	14480	4.9	14	1	13	0.5	0.4
Nephrology	4898	4376	15459	3.5	155	56	99	3.5	2.3
Endocrine	473	465	8399	18.1	7	3	4	1.5	0.9
Gastro-Entrology	2608	2416	18784	7.8	503	195	308	20.8	13.9
Haematology	8839	8107	20345	2.5	234	85	149	2.9	1.8
Psychiatry	355	307	8768	28.6	—	—	—	—	—
Urology	5184	3870	16748	4.3	20	6	14	0.5	0.4
Otolaryngology I	1236	1125	4157	3.7	5	—	5	0.4	0.4
Otolaryngology II	1472	1377	5582	4.0	3	1	2	0.2	0.1
Otolaryngology III	1399	1303	6385	4.9	8	4	4	0.6	0.3
Dermatology	3414	3238	8542	2.6	10	1	9	0.3	0.3
New Born	2338	2274	14264	6.3	59	25	34	2.6	1.5
Neonatal (NICUB)	98	98	1193	12.2	—	—	—	—	—
KMC Ward	26	19	58	3.0	—	—	—	—	—
Paediatric I	2420	2159	7544	3.5	74	20	54	3.4	2.5
Paediatric II	1570	1395	7984	5.7	60	23	37	4.3	2.7
Paediatric III	3825	3459	9304	2.7	81	18	63	2.3	1.8
Paediatric Surgery	2495	2321	16630	7.2	69	6	63	3.0	2.7
Radio Therapy	59	63	111	1.8	34	28	6	54.0	17.1
Dental Surgery	186	166	1275	7.7	—	—	—	—	—
Nuclear Medicine	690	650	948	1.5	—	—	—	—	—
Gastro-Int. & Liver	809	698	11243	16.1	57	7	50	8.2	7.2
P.M.R.	22	23	852	37.0	—	—	—	—	—
I.R.C.H.	340	356	2122	6.0	85	49	36	23.9	11.7
Anaesthesiology	425	342	366	1.1	—	—	—	—	—
<b>Total (Main)</b>	<b>70176</b>	<b>62453</b>	<b>345634</b>	<b>5.5</b>	<b>2700</b>	<b>1052</b>	<b>1648</b>	<b>4.3</b>	<b>2.7</b>
Cardiology	7732	7148	27905	3.9	312	140	172	4.4	2.4
C.T.V.S.	3495	3196	30089	9.4	202	23	179	6.3	5.6
Neurology I	1665	1402	12773	9.1	148	42	106	10.5	7.8
Neurology II	1738	1582	13225	8.3	109	33	76	6.9	4.9
Neuro-Surgery I	1879	1238	15870	12.8	105	23	82	8.5	6.7
Neuro-Surgery II	1801	1417	17183	12.1	102	20	82	7.2	5.9
Neuro-Anaesth.	—	—	—	—	—	—	—	—	—
<b>Total (CNC)</b>	<b>18310</b>	<b>15983</b>	<b>117045</b>	<b>7.3</b>	<b>978</b>	<b>281</b>	<b>697</b>	<b>6.1</b>	<b>4.4</b>
<b>Grand Total (Main+CNC)</b>	<b>88486</b>	<b>78436</b>	<b>462679</b>	<b>5.9</b>	<b>3678</b>	<b>1333</b>	<b>2345</b>	<b>4.7</b>	<b>3.0</b>

**IN-PATIENTS  
(2009 – 2010)**

<b>Department</b>	<b>ADMISSION</b>
Medicine I	1574
Medicine II	1169
Medicine III	1423
Surgery I	1415
Surgery II	2244
Surgery III	1250
Surgery IV	1674
Orthopaedics I	1763
Orthopaedics II	1925
Obst. & Gynae.I	4234
Obst. & Gynae.II	3090
Obst. & Gynae.III	3234
Nephrology	4898
Endocrine	473
Gastro-Entrology	2608
Haematology	8839
Psychiatry	355
Urology	5184
Otolaryngology I	1236
Otolaryngology II	1472
Otolaryngology III	1399
Dermatology	3414
New Born	2338
Neonatal (NICUB)	98
KMC Ward	26
Paediatric I	2420
Paediatric II	1570
Paediatric III	3825
Paediatric Surgery	2495
Radio Therapy	59
Dental Surgery	186
Nuclear Medicine	690
Gastro-Int. & Liver	809
P.M.R.	22
I.R.C.H.	340
Anaesthesiology	425
<b>Sub-Total (Main)</b>	<b>70176</b>
Cardiology	7732
C.T.V.S.	3495
Neurology I	1665
Neurology II	1738
Neuro-Surgery I	1879
Neuro-Surgery II	1801
Neuro-Anaesth.	—
<b>Sub-Total (CNC)</b>	<b>18310</b>
<b>Grand Total (Main+CNC)</b>	<b>88486</b>

**STATEWISE DISTRIBUTION OF IN-PATIENTS  
(2009 – 2010)**

<b>STATE</b>	<b>Main Hospital</b>	<b>CNC</b>	<b>Total</b>
Delhi	35858	6048	41906
Uttar Pradesh	13785	3898	17683
Haryana	7371	2018	9389
Bihar	6668	3063	9731
Rajasthan	1230	621	1851
Punjab	293	272	565
Other States	4837	2344	7181
Other Countries	134	46	180
<b>Total</b>	<b>70176</b>	<b>18310</b>	<b>88486</b>

**GENDERWISE DISTRIBUTION OF IN-PATIENTS  
(MAIN HOSPITAL & C.N. CENTRE)  
(2009 – 2010)**

	<b>MALE</b>	<b>FEMALE</b>	<b>MALE CHILD</b>	<b>FEMALE CHILD</b>	<b>TOTAL</b>
<b>MAIN HOSPITAL</b>	27266	25891	11975	5044	70176
<b>C.N.C.</b>	9578	4497	3007	1228	18310
<b>Total</b>	<b>36844</b>	<b>30388</b>	<b>14982</b>	<b>6272</b>	<b>88486</b>

**SURGICAL PROCEDURES  
(2009 – 2010)**

Department	MAJOR	MINOR		Total
		Indoor OT	Outdoor OT	
Surgery I	701	220	2503	<b>3424</b>
Surgery II	998	629	2381	<b>4008</b>
Surgery III	562	189	2239	<b>2990</b>
Surgery IV	837	194	2225	<b>3256</b>
Gastro-Intestinal & Liver	590	8	—	<b>598</b>
Urology	1374	251	9617	<b>11242</b>
Obstetrics	815	151	—	<b>966</b>
Gynaecology	1409	1153	—	<b>2562</b>
E.N.T.	2076	1763	25078	<b>28917</b>
Orthopaedics I	1168	384	—	<b>1552</b>
Orthopaedics II	910	716	—	<b>1626</b>
Paediatric Surgery	1706	130	3100	<b>4936</b>
Dental Surgery	797	2	8666	<b>9465</b>
Casualty	—	209	—	<b>209</b>
<b>Total (Main)</b>	<b>13943</b>	<b>5999</b>	<b>55809</b>	<b>75751</b>
Cardio-Thoracic & Vascular Surgery	3772	—	—	<b>3772</b>
Neuro Surgery I	1306	136	—	<b>1442</b>
Neuro Surgery II	1378	131	—	<b>1509</b>
<b>Total (CNC)</b>	<b>6456</b>	<b>267</b>	—	<b>6723</b>
<b>Grand Total (Main + CNC)</b>	<b>20399</b>	<b>6266</b>	<b>55809</b>	<b>82474</b>

**ATTENDANCE IN O.P.D.'S AND SPECIALITY CLINICS  
(2009 – 2010)**

<b>(A) Medical Disciplines</b>		<b>NEW CASES</b>	<b>OLD CASES</b>	<b>Total</b>
<b>Medical Discipline</b>	1. General O.P.D.	63769	59079	122848
	2. Speciality Clinics			
	a) Chest	1923	4245	<b>6168</b>
	b) Renal	6591	22299	<b>28890</b>
	c) Endocrinology	9894	23606	<b>33500</b>
	d) Nuclear Medicine	1466	6238	<b>7704</b>
	e) Renal Transplant Clinic	216	7022	<b>7238</b>
	f) Rheumatology Clinic	278	8189	<b>8467</b>
	g) Geriatric Clinic	102	467	<b>569</b>
	h) Sleep Related Breathing Disorder Clinic	190	116	<b>306</b>
<b>Haematology</b>	3417	20579	<b>23996</b>	
<b>Gastro-Entrology</b>	16532	35617	<b>52149</b>	
<b>Paediatrics</b>	1. General O.P.D.	32096	37894	<b>69990</b>
	2. Speciality Clinics			
	a) Well Baby	271	576	<b>847</b>
	b) Fellow up T.B.	263	1655	<b>1918</b>
	c) Renal	469	3491	<b>3960</b>
	d) Paediatrics Neurology	1062	2477	<b>3539</b>
	e) Paediatrics Chest Clinic	454	3302	<b>3756</b>
	f) High Risk Neonatal	322	1020	<b>1342</b>
	g) Genetic & Birth Def. Clinic	2901	1353	<b>4254</b>
<b>Dermatology</b>	1. General O.P.D.	26704	33249	<b>59953</b>
	2. Specialty Clinics			
	a) STD(Dermatology Surg.)	712	1190	<b>1902</b>
	b) Allergy Clinic	469	1217	<b>1686</b>
	c) Leprosy	359	2543	<b>2902</b>
	d) Pigmentation	517	2298	<b>2815</b>
	e) Psycho-Sexual	—	—	—
	f) Dermo-Surgery	392	969	<b>1361</b>
<b>Psychiatry</b>	1. General O.P.D.	1727	—	<b>1727</b>
	2. Specialty Clinics			
	a) Walk-in-clinic	11899	26327	<b>38226</b>
	b) Child Guidance	445	507	<b>952</b>



<b>(B) Surgical Disciplines</b>		<b>NEW CASES</b>	<b>OLD CASES</b>	<b>Total</b>
<b>Surgical Discipline</b>	1. General O.P.D.	37486	28005	<b>65491</b>
	2. Speciality Clinics			
	a) Plastic Surgery	—	—	—
	b) Urology	13384	29007	<b>42391</b>
	c) G.I. Surgery	2050	5377	<b>7427</b>
<b>Paediatric Surgery</b>	1. General O.P.D.	6112	12670	<b>18782</b>
	2. Speciality Clinic			
	a) Hydrocephalus	19	225	<b>244</b>
	b) Inter Sex Clinic	25	241	<b>266</b>
	c) Paed. Urology	330	3032	<b>3362</b>
<b>Anaesthesia Clinics</b>	a) Pain Clinic	948	2355	<b>3303</b>
	b) Pre-Anaesthesia Clinic	7935	1445	<b>9380</b>
<b>Orthopaedics</b>	1. General O.P.D.	62775	108821	<b>171596</b>
	2. Speciality Clinics			
	a) Follow up Clinic	—	7410	<b>7410</b>
	b) Tuberculosis	239	902	<b>1141</b>
	c) Polio	—	—	—
	d) Scoliosis	427	1356	<b>1783</b>
	e) Hand Clinic	817	1238	<b>2055</b>
	f) C.T.E.V.	145	1290	<b>1435</b>
	g) Arthritis	2	—	<b>2</b>
	h) Sports Clinic	22	3	<b>25</b>
<b>Otorhino-laryngology including Ruas</b>	1. General O.P.D.	35012	41510	<b>76522</b>
	2. Speciality Clinic			
	a) Audiology	132	102	<b>234</b>
	b) Speech	1111	1518	<b>2629</b>
	c) Hearing	838	1914	<b>2752</b>
	d) Voice	632	920	<b>1552</b>
	e) Vertigo	118	77	<b>195</b>
	f) Rhinology	97	63	<b>160</b>
<b>Obstetrics &amp; Gynaecology</b>	1. General O.P.D.	29859	50661	<b>80520</b>
	2. Specialty Clinics			
	a) Post Natal	42	12	<b>54</b>
	b) Infertility	—	—	—
	c) IVF	354	1444	<b>1798</b>
	d) Family Welfare	8272	5395	<b>13667</b>
	e) Antenatal	563	2899	<b>3462</b>
	f) Endo-Gynaecology	37	71	<b>108</b>
g) High Risk Pregnancy	2415	12588	<b>15003</b>	
<b>Radio-Therapy</b>	General O.P.D.	413	41950	<b>42363</b>

<b>(B) Surgical Disciplines</b>		<b>NEW CASES</b>	<b>OLD CASES</b>	<b>Total</b>
<b>Dental Surgery</b> *(Data for the period of 1.4.09 to 30.9.09)	1. General O.P.D.	14878	6227	<b>21105</b>
	2. Speciality Clinic			
	a) Orthodontics Clinic	679	4795	<b>5474</b>
	b) Combined Cleft Palate	23	214	<b>237</b>
	c) Tri-Neuralgia Clinic	82	158	<b>240</b>
	d) Restorative-cum-Endodontic	5471	5183	<b>10654</b>
	e) Oral Prophylaxis Clinic	3076	4679	<b>7755</b>
	f) Prosthodontics-cum- Maxillofacial Prosthesis	5791	8420	<b>14211</b>
<b>Others</b>	1. <b>Casualty</b>	109605	—	<b>109605</b>
	2. <b>E.H.S.</b>	101942	67960	<b>169902</b>
	3. <b>Nutrition</b>	1626	856	<b>2482</b>
	4. <b>P.M.R.</b>	14042	10369	<b>24411</b>
	5. <b>S.M.C.C.</b>	1972	2129	<b>4101</b>
<b>Total</b>	<b>657238</b>	<b>783016</b>		<b>1440254</b>

## 6.2 Hospital Dietetics Services

### Chief Dietician (Actg.)

Parmeet Kaur

### Dietician

Swapna Chaturvedi

### Assistant Dieticians

Gurdeep Kaur  
Anjali Bhola

Richa Jaiswal  
Monita Gahlot

Vasundhara Singh

### HOSPITAL DIETETICS SERVICES

#### No. of indoor patients served different diets

Total number of diets	-	6,74,561
Normal diets	-	3,37,551
Semisolid	-	50,565
Therapeutic Diets	-	1,44,660
Kitchen based Enteral feeds	-	42,348
Commercial Enteral feeds	-	367
Private ward diet	-	99,437

#### Nutrition Clinic - Out patients

Old OPD patients	-	856
Male	-	513
Female	-	343
New OPD patients	-	1626
Male	-	869
Female	-	757

## 6.3 Welfare Unit

### Welfare Officer

Preeti Ahluwalia

#### WELFARE UNIT

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

#### Patients Welfare :

**Patients's Care : Rs. 49,84,400/- (approx.) raised as donation.**

Purpose	Donation	Donor
For treatment and surgery Of poor and needy patients who are undergoing treatment in the Main Hospital & Centres.	Rs. 6,99,731/-	Shri Sai Bhakta Samaj (Regd.)
	Rs. 5,11,080/-	Handicapped Children's Rehabilitation Association
	Rs. 2,50,000/-	Jawahar Bhawan Trust
	Rs. 1,33,400/-	Sahu Jain Trust
	Rs. 65,000/-	Indo Global Social Service Society
	Rs. 63,000/-	Chetnalya
	Rs. 45,000/-	Rajendra Bhawan Trust
	Rs. 38,737/-	Voluntary Donors
	Rs. 19,800/-	Shirdi Sai Dhaam (Trust)
	Rs. 11,000/-	Sewa Prakalp Mahila Mandal Trust
	Rs. 14,000/-	Vijay Gujral Foundation
AIIMS Poor Fund Account	Rs. 75,000/-	Mrs. Dwarka Prasad Trust
	Rs. 51,000/-	M/S Cargo Planners Ltd.
	Rs. 10,000/-	Mrs. Anjana Ahluwalia
	Rs. 5,000/-	Mrs. Vimmi Bhutani
Anti-Cancer drugs provided Free to cancer patients.	Rs.29,92,711/-	Gopal Foundation

Shakti Sewa Samiti Charitable Trust (Regd. ) New Delhi provided House Keeping through professional service provider for Raj Kumari Amrit Kaur OPD. The Trust spent approx. Rs.50 lakhs to provide these services over the past 3 years i.e. 2007-2010. Earlier, the Trust had donated mattresses, steel almirah, blankets, blanket covers, bed sheets, geysers etc. for the benefit of the inmates of the Vishram Sadans.

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

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

#### **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 15900 patients and their attendants who were undergoing treatment at the Institute and its Centres. In special cases, food is arranged through donors for the poor & needy inmates of the Vishram Sadans. Cancer Patients Aid Association celebrated Diwali with the inmates of the Sadans.

#### **Employees Welfare :**

##### **Appointment on Compassionate grounds :**

Cases for appointments on compassionate grounds were dealt with. Counselling services and moral support was provided to the family members so as to assist them to accept/overcome the great loss they have suffered and thereby enable them to shoulder the responsibilities befallen upon them. As need be, assistance for funeral expenses was provided to the relatives of the deceased employees. Assistance for school fees was also extended.

##### **Counselling Services :**

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

##### **Redressal of grievances:**

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

##### **Free Hearse Van Facility :**

Free Hearse Van Facility is being organized through Shri Sai Bhakta Samaj (Regd.) to enable easy transportation of the dead body by the distressed relatives to their homes/crematorium in Delhi.

##### **Sports Activities :**

Facilitating participation of Institute employees in the Inter-Ministry Tournaments. The AIIMS Badminton Team secured 3<sup>rd</sup> position in the Men Team Championship of the Inter Ministry Badminton Tournament. Dr. Biplab Mishra secured the Winners in the Men Singles (Qualifying) Inter Ministry Badminton Tournament. The AIIMS Shooting Ball Team won the 28th National Shooting Ball championship.

## 6.4 Billing Section

### HOSPITAL BILLING SECTION

Following is the amount of Donation received and the payments made to the patients during the financial year 2009-2010:-

Donations received from donors : **Rs. 1,28,815.00**

(Bank Int. + donations + Poor fund boxes)

Payment made to [62+207] 269 patients : **Rs. 89,815.00**

(The amount disbursed to these to these poor patients is from the donations received from donors during the year as well as from the previous balance lying in the “**AIIMS POOR FUND ACCOUNT**”).

## 6.5 Laundry

### LAUNDRY

The mechanized laundry of AIIMS Hospital is providing its services to all departments of AIIMS Hospital, Dr. R.P.Centre, Dr. B.R.Ambedkar Institute Rotary Cancer Hospital, Cardio-Thoracic and Neuro-Sciences Centre.

Hospital Laundry was visited by several batches of Hospital Administrator attending the causes at National Institute of Health and Family Welfare and by several teams of Doctors from other hospitals in the country. These visits have helped the participants to gain first hand knowledge of the mechanized laundry with a view to start similar system in their respective hospitals.

#### Workload during the year 2009-2010 :

1. Total pieces processed	38,83,890
2. Total weight (in kgs.)	11,94,950
3. Total cost of washing material (Rs.)	18,79,973
4. Cost of washing material per piece	0.4840
5. Cost of washing material per kg. of linen	1.573

## 6.6 Blood Bank

### BLOOD BANK

#### (I) Donor Room

1.	Total relative Donors	17536
2.	Total Voluntary Donors	19037
	(From Donation camps 10340)	
	(From AIIMS Blood Bank 8697)	
	(From Mobile Donation Nil)	
3.	Collected from CNC	1040
	IRCS	1139
	Others	1304
	JPNA Trauma Centre	195
	<b>Total Collection</b>	<b>40251</b>
4.	Total camps organised	83

#### (II) Routine Lab

1.	Total Patients	45352
2.	Total ABO Grouping	125854
3.	Total Rh	85603
4.	Total OPD grouping & Rh	3661
5.	Total X match (Emergency & Routine)	62842
6.	Total Donor Grouping	80502
7.	Total ICT	1095
	ICT Pos	177
8.	Total Titre	85
9.	Total A/B	41691
10.	Total DCT	615
	DCT Pos	146
11.	Total Blood Issued	35373
12.	Total Receive Back	523
13.	Total small units	928
14.	Total blood discarded	3526
15.	Blood issued but not transfused	Nil
16.	Total blood issued to private ward	2979
17.	Total component issued to private ward	3127
18.	Total blood issued to out side hospital	1218
19.	Total component issued to out side hospital	104
20.	Total X- match but not transfused	10268

21. Blood issued to IRCH	6908
IRCS	06
CNC	141

<b>Total</b>	<b>512684</b>
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**(III) Special Procedure Laboratory**

1. Minor grouping	73
2. Platelet Antibody	03
3. Reagent Cell Thawing	650
4. Cell freezing	Nil
5. DAT	37
6. Cross matching Discrepancy	54
7. Gr. Discrepancy	16
8. AB Screening	26
9. Blood Thawing	Nil
10. Anti Sera Q.C.	72
11. EQAS	18

<b>Total</b>	<b>1386</b>
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**(IV) Component Lab**

1. Platelet Rich Concentrate	26624
2. Fresh Frozen Plasma	18639
3. Liquid Plasma	15124
4. Cryoprecipitate	1202
5. Red Blood Cells	33966
6. Single Donor Platelet Pheresis (SDP)	141
7. Component QC	340

<b>Total Component Prepared</b>	<b>95696</b>
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**Infection Lab**

1. HIV test	46505
2. HBV test	44494
3. Anti HBc test	43866
4. HCV test	44531
5. VDRL	40832

<b>Total</b>	<b>220228</b>
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## 6.7 Division of Emergency Medicine

### Professor Incharge

Praveen Aggarwal

### Professor

L. R. Murmu

### DIVISION OF EMERGENCY MEDICINE

#### EDUCATION

The Faculty organized several life support courses (both basic and advanced) for both undergraduates and postgraduates posted in Emergency Medicine. In addition, the department faculty was involved in didactic teaching of undergraduates and postgraduates through journal clubs and seminars.

The department imparted short term training to 11 undergraduate students from Europe, Australia and USA. A few residents from the Department of Community Medicine were also provided training in Emergency.

#### CONTINUING MEDICAL EDUCATION

##### Conferences/seminars/workshops organized:

- Division of Emergency Medicine, AIIMS was one of the collaborating partners for the ‘Indo-US Emergency Medicine Summit - 2009’ held at Coimbatore on 30<sup>th</sup> October – 1<sup>st</sup> November, 2009. The Conference was hosted by PSG Institute of Medical Sciences & Research. Other collaborating partner was University of South Florida, USA and State University of New York, Downstate Medical Center, USA.

##### Dr. Praveen Aggarwal

- ‘Indo-US Academic Council for Emergency and Trauma – 2009’ (ACET-2009) on 29<sup>th</sup> and 30<sup>th</sup> October, 2009 at Coimbatore, Tamil Nadu
- ‘Pediatric Toxicological Life Support’ Workshop during ‘Indo-US Emergency Medicine Summit-2009’ on 30<sup>th</sup> October, 2009 at Coimbatore

##### Dr. L.R. Murmu

- “National CME on Advances in Wound Care” on 6th Sept, 2009 at AIIMS, New Delhi.
- “National Patient Safety Conference” on 12th & 13th Oct, AIIMS, New Delhi
- “AIIMS Trauma Alert” during Indo-US Emergency Medicine Summit 2009 on 30th Oct to 1st Nov, 2009 at Coimbatore

##### Lectures delivered:

The Faculty of the Department participated and delivered lectures in both national and international workshops and conferences during the year.

## **Dr. Praveen Aggarwal**

- ‘Essential Drugs in Emergency Medicine’ at the ‘Expert Group Meeting on National Essential Medicine List’ organized jointly by Central Drugs Standards Control Organization, Ministry of Health, Govt. of India and Department of Pharmacology, AIIMS on 16<sup>th</sup> September, 2009
- ‘Non-Toxic Ingestions in Children’ in ‘Indo-US Emergency Medicine Summit 2009’ on 30<sup>th</sup> October, 2009 at Coimbatore
- ‘Snake Bites in Children’ in ‘Indo-US Emergency Medicine Summit 2009’ on 30<sup>th</sup> October, 2009 at Coimbatore
- ‘Pesticide Poisoning in Children’ in ‘Indo-US Emergency Medicine Summit 2009’ on 30<sup>th</sup> October, 2009 at Coimbatore
- ‘Childhood Poisoning in India’ in ‘Indo-US Emergency Medicine Summit 2009’ on 30<sup>th</sup> October, 2009 at Coimbatore

## **Dr. L.R. Murmu**

- ‘Medico-legal Issues in Emergency Care’ at ‘Indo-US Emergency Medicine Summit 2009’ on 30<sup>th</sup> October, 2009 at Coimbatore
- ‘Medico-legal Issues in Emergency Care’ in ‘Trauma -2009’ at JPNATC, AIIMS

## **RESEARCH**

### **Funded Research**

## **Dr. Praveen Aggarwal**

### ***Completed Projects:***

1. To compare the efficacy and safety of intravenous methyl prednisolone followed by oral administration of methyl prednisolone with intravenous hydrocortisone followed by oral prednisolone in the treatment of acute exacerbation of chronic obstructive lung disease – Completed Research; Funded by M/s Pfizer Limited; Funding Rs. 1,24,138; duration of project – one year
2. To compare the efficacy and safety of intravenous methyl prednisolone followed by oral administration of methyl prednisolone with intravenous hydrocortisone followed by oral prednisolone in the treatment of acute bronchial asthma – Completed Research; Funded by M/s Pfizer Limited; Funding Rs. 1,24,138; duration of project – one year

## **PUBLICATIONS**

### **Chapters in Books:**

- Aggarwal P. Chemical Terrorism. In: Medicine Update 2009; Agarwal AK (Ed), published by Association of Physicians of India, 2009, pp 453-463.
- Aggarwal P. Silicotuberculosis. In: Tuberculosis, Sharma SK (Ed), Jaypee Brothers Medical Publishers Ltd, Delhi, 2009, pp 268-274.
- Aggarwal P, Wali JP, Handa R. Antiretroviral Therapy. In: Sexually Transmitted Diseases and HIV/AIDS, Sharma VK (Ed), Viva Books, New Delhi, 2009, pp 151-169.

## **PATIENT CARE:**

### **The details of various activities of Emergency Services (2009-2010)**

Average no. of patients:            9,000/month                    1,06,624/year

## **SIGNIFICANT EVENTS AND HONOURS**

In collaboration with University of South Florida, Tampa, USA, Emergency Medicine has started publishing an international journal, Journal of Emergencies, Trauma and Shock (JETS). Dr. Praveen Aggarwal and Dr. L.R. Murmu are the chief Editors of JETS from India, the other two are from USF, Tampa. This journal is published quarterly and has been indexed in PubMed.

To promote the specialty of Emergency Medicine in India, the fourth annual meeting of Academic Council of Emergency and Trauma (ACET) was organized at Coimbatore. This Council includes a group of faculty from MCI recognized medical colleges in India. The goal is to establish and promote the idea of specialty of emergency medicine in India. This Council is led by faculty from Division of Emergency Medicine, AIIMS and Department of Emergency Medicine at University of South Florida, USA.

Dr. Aggarwal has been nominated as a member of Committee constituted by the Indian Pharmacopoeia Commission to revise the National Drug Formulary of India.

Dr. Aggarwal and Dr. Murmu were nominated as members of a Committee constituted by the Governing Body of University College of Medical Sciences for framing recruitment rules for faculty posts for the Department of Emergency Medicine.

Dr. Praveen Aggarwal was invited as the Guest of Honour at the 1<sup>st</sup> Emergency and Trauma Airway Course (ETAC) & Workshop organized by the Department of Anaesthesiology, Jawaharlal Nehru Medical College, Aligarh Muslim University on 8<sup>th</sup>-10<sup>th</sup> August, 2009.

## 7. College of Nursing

### Principal

Manju Vatsa

### Lecturers

Meena Agarwal  
Ashia Qureshi

Sandhya Gupta  
Deepika C. Khakha

Rachel Andrews  
Kamlesh Sharma

### Senior Nursing Tutor

Geeta Razdan

### Nursing Tutor

Kiran Singh Simak  
Sucheta  
Meena Ara

Gayatri Batra  
Shashi Mawar  
Philomina Thomas

Poonam Joshi  
Babita Sahoo

## A. EDUCATION

### 1. Undergraduate:

- i) B.Sc. (Hons.) Nursing - students graduated from the four years course.
- ii) B.Sc. Nursing (Post-certificate) – students graduated from the two Years course.

### II. Post Graduate:

M. Sc. Nursing - students graduated from M. Sc. Nursing two year course.

Eighteen students have joined the program this year in the following specialties:

1. Pediatric Nursing
2. Psychiatric Nursing
3. Cardiology/CTVS Nursing
4. Neurosciences Nursing
5. Oncology Nursing
6. Critical care Nursing
7. Nephrology Nursing

### III. Continuing Nursing Education (CNE)

- I. The College of Nursing has organized the following CNE programs- Short term courses/ Symposium /Workshops:
  - i) “Cardiology Nursing Update” was held in October, 2009. A total of 33 nurses from AIIMS Hospital attended the update. Ms. R. Andrews, Lecturer was the coordinator.
  - ii) “Mental Health Nursing update” was held in November, 2009. In all 26 nurses from AIIMS hospital attended the update. Dr. S. Gupta, Lecturer was the coordinator.
  - iii) “Oncology Nursing Update” was held in October, 2008. In all 37 nurses from AIIMS hospital attended the update. Ms. K. Sharma, Lecturer, was the coordinator.

- iv) “Nephrology Nursing Update” was held in March, 2009. Total 27 nurses from AIIMS hospital attended the update. Ms. D. C. Khakha was the coordinator.
- v) Workshop on “Feeding of normal & sick newborns with special emphasis on breast feeding” was held in November, 2007. In all 17 nurses from AIIMS attended the update. Ms. P. Joshi, Tutor was the coordinator.
- vi) “Neurological Nursing Update” was held in September, 2008. In all 24 nurses from AIIMS Hospital attended the update. Ms. M. Agarwal, Lecturer was the coordinator.
- vii) Workshop on “Substance use disorder nursing” was held on March 2009. In all 17 nurses from AIIMS hospital attended the workshop. Dr. S. Gupta was the coordinator.
- viii) Symposium on “Making Hospitals Safe” was held on Annual day of the college. More than 370 nurse participants, students & others from AIIMS hospital attended the program. Ms. R. Andrews, lecturer was the coordinator.
- ix) One “Master Trainers training program in HIV/AIDS” funded by INC-GFATM project were held. A Total of 32 Faculty members from different colleges of nursing in Delhi, Chandigarh, Kolkata, SNDT Mumbai, Punjab, Chattisgarh, Gujrat, Rajasthan & Haryana attended the programs. Dr. Manju Vatsa coordinated the workshop.
- x) Master Trainer workshop on “Essential Newborn Care” funded by WHO was held in which 30 faculty members from different colleges of nursing in India got the certification
- xi) Master trainer in NRP in collaboration with NNF. 28 faculty members got the certification
- xii) CON collaborated for Annual conference of the IANN was held in October 2009. Total 150 nurse participants from all over India attended the conference

2. The College of Nursing conducted orientation/briefing sessions for:

- Two groups of visitors from abroad and 5 groups of visitors from various educational institutions from India.

3. Faculty members of the college attended 21 workshops/conferences & delivered 67 lectures for 35 continuing nursing/medical education programs and workshops held during the year.

## **B. CONSULTANCY AND PARTICIPATION AS EXPERT**

1. Principal, Dr. M. Vatsa participated in/ as:

- Core group member of Ph.D. consortium in India coordinated by the Indian Nursing Council
- Took teaching sessions for Ph.D. scholars through Video conferencing
- Continuing as Guide for 6 Ph.D scholars for consortium for Ph.D. in Nursing, INC & RGUHS
- Member of the Indian Nursing Council and its executive and education committees.

- Expert group member for INC GFATM project
- Member National Advisory Board, Prism's Nursing Practice- Journal of clinical nursing – education, training and career development, (earlier called The Journal of Nursing), Quarterly publication of Prism books, Bangalore, since its inception in 2005.
- Member Advisory Board, Journal of Nursing Practice & Research Publication of SKIMS Srinagar.
- Member Advisory Board, ISJBT.
- Member National Editorial Advisory Board, International Journal of Nursing Education, Published from New Delhi.
- Member faculty of nursing BFUHS, Faridkot
- Chairperson Institutional review committee, I P University
- Preconf workshop on CPAP, First annual conference of IANN October 2009
- Board of studies in nursing- BHU Varanasi
- Board of studies in nursing, SGPGI, Lucknow
- Center of excellence in Midwifery SBA - INC JHPIEGO
- Second meeting of the South –East asia Nursing & Midwifery Educational Institutions Network, Yangon, Myanmar,
- Member Committee for complaints regarding sexual harassment of women at workplace, AIIMS
- CMET Adjunct faculty & committee for Skill Lab
- INC QAM Project meeting of expert group
- Invited as expert for valedictory session for the Holistic Health Conference for nursing professionals, “Caring, sharing & Inspiring core values for better nursing care” September 2009
- She was Expert members for
  - i. Technical resource group on HRD for Technical support for capacity building and HR planning and Development. NACO-Phase III.
  - ii. Development of National maternal health policy, Govt. of India, Ministry of Health and Family Welfare, Maternal Health Division.
  - iii. Revision of MTP act, MOH & FW, GOI
  - iv. Strengthening of Pre-service education of ANM, GNM as Skilled Birth Attendant, INC.
  - v. Technical meeting on strengthening nursing & midwifery programs to support NRHM, INC
  - vi. Teaching modules for ANM school teachers for midwifery INC

- vii. TOT for ENBC, Nrupur nursing academy, Baroda
  - viii. Skilled birth attendant modules & teaching –INC & CEDPA
  - ix. Indian Association of Neonatal Nurses (IANN) president & executive Committee member
  - x. Guidelines for oral health promotion in disabled population GOI WHO project, Centre for Dental Education & Research , AIIMS
  - xi. Review meeting on Pre service IMNCI for NIPI states LHMC/ WHO
  - xii. Expert group meeting on community & home based newborn care – finalization of strategy & modules NIHFW & UNOPS
  - xiii. Invited as Chief Guest for ENBC training for teachers in Haryana state at MM College of nursing, Mullana Ambala
2. Dr. Manju Vatsa, Principal and Dr. Sandhya Gupta, Lecturer continue to be on review panel of Indian Journal of Nursing and midwifery
  3. Dr. Manju Vatsa , Principal and Ms. Sandhya Gupta, Ms. R. Andrews and Ms. Deepika C.Khakha, Lecturers participated as expert for
    - i. Development of “training manual for nurses for trainers and nursing personnel in HIV/AIDS” organized by the Indian Nursing Council, & NACO
    - ii. Two days orientation training program for trainers for HIV modules organized by the Indian Nursing Council under GFATM project.
  4. Dr. S Gupta Is nominated as:
    - i. Chief Editor of Indian Society of Psychiatric Nurses
    - ii. Joint-organizing secretary for International conference of Indian society of Psychiatric Nursing to be held in 2009 at Bangalore.
    - iii. Member of Editorial Board: International Journal of Nursing Education
    - iv. Member Expert group of NACO on HIV/AIDS for IDUs, Govt of India
    - v. Member Education committee, Indian nursing Council
    - vi. Member of technical committee, Indian Standard’s Institute
    - vii. Was organizing secretary for National workshop on teaching and learning methods for health professions” organized by CMET, AIIMS in Nov. 2008.
    - viii. Expert group member of committee on geriatric care homes in India by Helpage India
    - ix. Participated as expert for revision of syllabus of ‘Nursing management of Substance Use Disorders for Paramedical staff, NDDTC,AIIMS .
    - x. Organized National workshop on teaching and learning methods for health professions” organized by CMET, AIIMS in Nov. 2008.

- xi. Facilitator for workshops on ‘standards for old age homes’ & ‘standards for long term care’ for the Conference Proceedings of international conference of Gerontology, organized by Indian geriatric society, held in Delhi in February, 2009
5. Ms. Rachel Andrews
  - (i) Was trainer for HIV/AIDS TOT under the GMFT project at con AIIMS & Kolkata
  - (ii) Coordinator for HIV/AIDS course for the NACO in training of nursing personnel working in ART centers
  - (iii) Was expert committee member for developing evaluation tools for the critical care specialty training for nurses organized by booc.
  - (iv) Worked as counselor for IGNOU Post basic B.Sc. nursing 2<sup>nd</sup> year students in Medical Surgical Nursing course (24 hours)
6. Ms. Rachel Andrews, Ms. Deepika Khakha, & Ms. Kamlesh Sharma attended Workshop for “Medical Teachers on Research Methodology Improving Quality of PG thesis’ held at Department of Pediatrics, AIIMS.
7. Ms. Deepika Khakha was
  - (i) Co-Ordinator for Asian Congress of Urology, Nursing Workshop held on 3-4 October, 08, New Delhi
  - (ii) Resource Person for Sessions for NACO Training in HIV Counselling for Pare Medical Staff of Central Paramilitary Forces Medical Services organized by Jamia Milia Islamia University in October 2008
8. Ms. Kamlesh Sharma, Lecturer, was resource persons for
  - (i) Training of trainers workshop on “Breast self examination” for CGHS doctors from Delhi in May, 2008, organized at AIIMS, New Delhi.
  - (ii) One day workshops on Kangaroo Mother Care (KMC) at Sir Ganga Ram Hospital and Chacha Nehru Hospital in Delhi in November , 2008.
  - (iii) KMC practices session in “Lactation management and KMC workshop” ISOPARB conference, March, 2009.
  - (iv) For development of training module on Midwifery, organized by INC
  - (v) Subcommittee member (DNC) to develop ANM practical records and question bank in December, 2008.
9. Ms. K. Sharma, S. Mawar, A. Qureshi, G. Razdan, P. Thomas attended Master trainer training program on HIV/AIDS for nurses organized by CON AIIMS, under INC- GFATM project
10. Ms. Kiran Singh is continuing as program officer of NSS Unit, AIIMS.
11. Participation of Dr. M. Vatsa, Principal and other faculty members as resource persons/committee members for the following organizations”
  - Various committees at AIIMS
  - Indian Nursing Council – General Body, executive committee and education committee



- Faculty of Nursing , Baba Farid University of Health Sciences
- Ministry of Health and Family Welfare, Govt.of India
- Public Service Commission, Allahabad
- RAK College of Nursing, external lecturers selection committee
- Adjunct faculty, CMET, AIIMS
- Punjab University , Chandigarh- Board of Studies in Nursing
- NEIGRIHMS Shillong – NIMHANS – Selection Committee
- Indira Gandhi National Open University – Core/expert group member
- Trained Nurses Association of India
- Indian Journal of Nursing and Midwifery – Review Committee
- GGS Indraprastha University – Institutional assessment committee
- Indian academy of hospital administration
- I.P. University: inspections, College of Nursing of Batra Hospital & St. Stephen Hospital, Safdarjang & RML Hospitals
- NIPI
- Jamia Milia Islamia University
- Institute of liver & Biliary Sciences, New Delhi

12. Faculty members of the College participated in conduct of inspections and examinations in various colleges of nursing and universities in India.

### **CLINICAL AND COMMUNITY SERVICES**

1. The faculty and students participated in outdoor and indoor patient care activities of all clinical departments of the institute.
2. The faculty and students organized and conducted:
  - i) Participated in 6 rounds of Pulse Polio program at 2 centers of South Delhi, organized by Govt. of N.C.T. of Delhi. Ms. Kiran Singh coordinated and supervised the program.
  - ii) >100 health education sessions in rural areas and >100 in urban slums and OPDS of AIIMS on various health issues, such as B.P. Immunization, New born care, PNC Care etc.
  - iii) Community awareness camp was organized and supervised which was held in Kalyanpuri area on ‘Prevention of Substance abuse’.
  - iv) Training program on “Life skills” was organized for Street children and school drop-outs in Trilok puri area for one month.
  - v) An educational program was organized for patients recovering from Substance Use disorder who were taking treatment from Trilok puri treatment Centre.

- vi) Street plays (10) and exhibitions on various health related topics for urban slums, Prevention of obesity, HIV/AIDS substance abuse, prevention of female feticide.
- vii) Newborn week was celebrated in November 2009. Breastfeeding promotion programs in urban & rural community at Ballabhgarh. 100 women actively participated & benefited from the program.

#### **D. PUBLICATIONS**

1. Smriti Arora, **Manju Vatsa**, Vatsala Dadhwal, “ A study to compare cabbage Vs hot and compresses in treatment of breast engorgement”. Indian Journal of Community medicine (Serial online) 2008. Cited 2008 July 24;33;160-2, available from <http://www/ijcm.org.in/test.asp?2008/33/3/160/42053>.
2. Lavanya subhashini, **Manju Vatsa**, Rakesh Lodha, “Knowledge attitude & practices among health care professionals regarding pain in children”, Indian Journal of Pediatrics, July/Aug 2008.
3. Lavanya subhashini, **Manju Vatsa**, Rakesh Lodha, “Comparison of two pain scales in Indian children” The Indian Journal of Pediatrics, 21 June 2008. PMID: 18568301 [PubMed - as supplied by publisher]
4. Oommen Accamma, **Manju Vatsa**, Vinod Paul, “Breastfeeding Practices of Urban and Rural Mothers in North India: A Longitudinal Study” Indian Pediatrics, accepted March 2009.
5. A. Nyamathi, **Manju Vatsa**, **Deepika C. Khakha**, Donna McNeese Smith, Barbara Leake, John L. Fahey, “HIV knowledge improvement among nurses in India : Using a Train the Trainer program”. JANC (Journal of the Association of Nurses in AIDS care, Vol. 19, No. 6, Nov/Dec 2008.
6. Indira, Sreeja, **Gupta Sandhya**, Lal, Rakesh, Singh, Mamta, Bhushan, “Comparison of Burden Between Family Caregivers of Patients Having Schizophrenia and Epilepsy”, **The internet Journal of Epidemiology, January 2009, ISSN:1540-2614.**
7. **Gupta Sandhya.**, “Investigation into the Quality of Life of institutionalized older persons” Papers published in Conference Proceedings of international conference of Gerontology, organized by Indian geriatric society, held in Delhi in February, 2009
8. **Gupta Sandhya.**, “Training need of formal and informal caregivers of older persons, Papers published in Conference Proceedings of international conference of Gerontology, organized by Indian geriatric society, held in Delhi in February, 2009.
9. **Gupta Sandhya.**, “Role of nurse in psycho-social Rehabilitation, Papers published in Conference Proceedings of international conference of Social Psychiatry by Indian society of social psychiatry, held in Delhi in November, 2008.
10. **Gupta Sandhya.**, “Investigation into the Quality of Life of parents of mentally challenged children”, Proceedings of *The Richmond Fellowship & Asia Pacific Forum Conference: Psychosocial Rehabilitation Across Cultures* organized by Richmond society, held in Bangalore in November, 2008
11. **Khakha D.C**, Adherence is key to HIV treatment. The Nursing Journal of India. 2008, Vol. XCIX, 6:125-127.

12. **Sabitha P.B. Khakha D.C.**, Aggarwal M., Mahajan S., Gupta S. Yadav S.L. “Effect of Cryotherapy on arteriovenous fistula puncture related pain in Hemodialysis patient”. India Journal of Nephrology 2008; 18(4): 155-158
13. **Manju Vatsa, Sandhya Gupta, D. C. Khakha** et al “HIV/AIDS & ART Training for Nurse-Facilitator’s Guide and Nurses Manual published by NACO & INC, 2008
14. **G. Razdan** project (LIFE) “Literacy initiative for Empowerment” by UNESCO and NIOS (National Open School). The module “ literacy for safe motherhood”
15. **Mawar S.** “A comparative study to assess the qualify of life of patients with ESRD on two different dialysis modalities and to identify factors associated with the qualilty of life”. Indian Journal of Nursing, May, 2008 P107.
16. **Philomina Thomas.** Chapter entitled- “Indian Nurses: seeking new shores” Connell. J. (Edited 2008). The international Migration of Health workers”, New York. Routledge.

#### **E. AWARDS AND HONOURS**

- i) Principal, Dr. Manju Vatsa is Nominated member, faculty of nursing, Baba Farid University of Health Sciences, Faridkot, Punjab.
- ii) Dr. S. Gupta is nominated member of Board of studies –Punjab University, Chandigarh.

## 8. Research Section

The mandate of the All India Institute of Medical Sciences makes research an important and integral part of the activities of the faculty. AIIMS has been at the forefront of conducting high quality research, both in the fields of basic and applied health sciences. During the year under review, the faculty of AIIMS had 339 ongoing projects and initiated 119 new projects. These were funded by national and international agencies and the total funding was nearly Rs. 56 crores.

The Research Committee constituted by the Director is as follows:

### *From 1<sup>st</sup> April 2009 to 31<sup>st</sup> March 2010*

1. Professor Rani Kumar, Dean (Academic)	Chairperson
2. Dr N.R. Jagannathan, Professor and Head of NMR	Member
3. Dr S. S. Chauhan, Professor of Biochemistry	Member
4. Dr Rama Chaudhary, Professor of Microbiology	Member
5. Dr Y. D. Sharma, Professor and Head of Biotechnology	Member
6. Dr Y.K. Gupta, Professor and Head of Pharmacology	Member
7. Dr R. Handa, Professor of Medicine	Member
8. Dr C. S. Bal, Professor of Nuclear Medicine	Member
9. Dr S. K. Aggarwal, Professor and Head of Nephrology	Member
10. Dr G. V. S. Murthy, Additional Professor of Community Medicine	Member
11. Dr Sunil Chumber, Sub-Dean (Academic)	Member
12. Dr D. K. Mitra, Associate Professor of T.I.I.	Member
13. Dr A.K. Dinda, Additional Professor of Pathology	Member
14. Dr S. Bhatnagar, Scientist-III, Department of Paediatrics	Member
15. Dr A. B. Dey, Professor of Medicine and Professor-in-Charge (Research Section)	Member-Secretary

### **Ongoing projects funded by Indian agencies**

Investigator	Project	Funding agency	Funds (Rs)
<b>Anatomy</b>			
Rima Dada	Genetic and DNA fragmentation study in infertile couples opting for ART and couples experiencing recurrent IVF/ICSI failure	ICMR	1,040,768
S. B. Ray	A study on the novel analgesic effect of intraspinal loperamide in a murine model of postsurgical pain	ICMR	978,433
Shashi Wadhwa	Influence of prenatal chronic noise exposure on brain stem auditory nuclei hippocampus and spatial memory in chicks	DBT	864,623

T.S.Roy	Prenatal development and maturation of human inferior colliculus	DST	802,141
<b>Biochemistry</b>			
Alpana Sharma	Role of angiogenic factors and cyclooxygenase in multiple myeloma	ICMR	836,116
Alpana Sharma	Determination of telomerase activity and telomere length in the T-cells of peripheral blood in patients of Parthenium induced contact dermatitis and its correlation with severity of the disease	DBT	1,305,568
D. N. Rao	A study to assess the effects of long-term obstruction of epididymis on the morphology, functional and chromatin status of epididymal spermatozoa in men: comparison with ejaculated sperm from men of proven fertility	ICMR	739,892
D. N. Rao	III Clinical trial with an intravasal injectable male contraceptive-RSIUG	ICMR	105,434
D. N. Rao	Multiple antigen peptide approach (MAP) incorporating BT constructs of FI and V antigen of Y pestis in nanoparticles for plague vaccine	DBT	1,314,639
D. N. Rao	Programme for productization of diagnostics and development of prophylactics for neglected infectious diseases with filariasis as a model	DBT	138,532
Kalpana Luthra	SDF-1 & DC-SIGNR polymorphisms and expression in HIV-1 infection	ICMR	588,100
Kalpana Luthra	Production and characterization of site-selected human monoclonal antibodies against the envelope glycoprotein of HIV-1(Clade-C)	DBT	3,184,000
Kalpana Luthra	Investigation of genetic basis and gene-lifestyle interactions in generalized and regional obesity, insulin resistance and diabetes in Asians	DBT	1,363,910
Kunzang Chosdol	An in vitro study of the role of FAT, a Drosophilla tumour suppressor gene homologue in human glial tumorigenesis	DRDO	2,315,055
M. R. Rajeswari	Neurological disorders Friedreich's ataxia (FRDA) and spinocerebellar ataxia (SCA) associated with DNA trinucleotide repeats: Identification and development of protein biomarkers and circulating DNA for clinical diagnosis	ICMR	510,390
N. C. Chandra	Studies on SREBP-mediated regulation of low-density lipoprotein receptor (LDLR), low-density lipoprotein receptor-related protein (LRP) and receptor-associated protein (RAP)	DST	491,446

N. C. Chandra	An in vitro model study of hyperlipoproteinemia on the degree of LDL receptor expression in placental trophoblast cells: Correlation with oral steroid contraceptive induced hyperlipoproteinemia	ICMR	331,687
N. C. Chandra	An in vitro silencing of endogenous oxidized-LDL-receptor (LOX-I) gene by SiRNA: Study of NF-KB activated expression of proinflammatory cytokines and related atherogenic proteins—its evaluation against anti-inflammatory cytokine mediated responses	DBT	661,475
Neeta Singh	To study the immune response of T cell dominant synthetic peptides derived from HPV-16 using different adjuvants in a mouse model of cervical cancer	DBT	737,713
S. S. Chauhan	Mechanism(s) of regulation of human dipeptide peptidase-III expression in tumour cell lines	DRDO	1,090,197
Subrata Sinha	Funds for improvement of S&T infrastructure (FIST)	DST	98,664
Subrata Sinha	Deregulated initiation of translation in oral carcinogenesis	DST	320,708
Subrata Sinha	Therapy of infectious and chronic diseases. Targeted gene delivery and long-term specific modulation of gene expression	DBT	2,498,497
<b>Biomedical Engineering Unit</b>			
J. C. Bhardwaj	Reversibility of injectable intravascular contraceptive for the male: Technology development and multicentric non human primates study	MoHFW	293,846
J. C. Bhardwaj	Evaluation of vaginal microbial flora and sperms after styrene maleic anhydride (SMA) application	IIT	169,533
Sneh Anand	Analysis of autonomic nervous system correlates and health of rhythmic breathing techniques	AYUSH, MoHFW	864,231
<b>Biophysics</b>			
Punit Kaur	Three-dimensional structure determination of the novel mammalian signaling proteins SPX-40 secreted during involution and their complexes with various oligo-saccharides and designed oligopeptides	DST	441,350
Punit Kaur	Structural and functional studies of peptidoglycan recognition proteins	DST	811,861
Savita Yadav	Isolation, purification and structural and functional characterization of new proteins from amniotic fluids and seminal plasma	DST	831,300

Savita Yadav	Purification, biochemical and functional characterization of heparin binding proteins in human seminal plasma	DBT	779,520
Sharmistha Dey	Development of synthetic alternatives to currently available microbicidal agents	ICMR	911,105
Sujata Sharma	Structural and functional studies of lactoperoxidase	DST	565,597
<b>Biostatistics</b>			
R. M. Pandey	New born screening for congenital hypothyroidism and congenital adrenal hyperplasia: A multicentric study	ICMR	165,681
V. Sreenivas	A multicentric randomized controlled clinical trial of lamivudine, lamivudine and adefovir, glycyrrhizin and adefovir in HBV related decompensated cirrhosis	ICMR	354,505
<b>Biotechnology</b>			
Anushree Gupta	Polymorphisms in genes of the endothelin system in patients undergoing coronary artery bypass grafting surgery and having a concomitant diagnosis for diabetes	ICMR	1,126,712
H. K. Prasad	Functional characterization of RV2986c. A DNA binding protein of <i>M. tuberculosis</i>	DST	637,683
H. K. Prasad	Comprehensive proteomics profiling of CSF from patients of different meningitis infections for biomarker discovery	DBT	127,750
H. K. Prasad	Development of Vaccine for control of Bovine tuberculosis	DBT	393,786
H. K. Prasad	Molecular switch in Th1-Th2 response by SMAR1: Its implications in Mycobacterium infection	DBT	322,829
J. S. Tyagi	Comprehensive proteomics profiling of CSF proteins from patients of different meningitis infections for biomarker discovery	DBT	1,355,195
J. S. Tyagi	Computational design and development of inhibitors for the treatment of tuberculosis	DBT	88,200
J. S. Tyagi	Deciphering the transcriptional profile of dormant and replicating tubercle bacilli within THP-human macrophages	DBT	740,000
J. S. Tyagi	Reconstructing cellular network: Two-component regulatory systems	DBT	3,152,315

Satya N. Das	Studies of FAC (CD95) and FAS ligand (CD95L) gene polymorphisms and their association with tobacco related oral carcinomas	ICMR	180,291
Satya N. Das	Development and characterization of autologous NKT cell vaccine for active specific immunotherapy of oral squamous cell carcinoma	DBT	456,957
<b>Cardiac Biochemistry</b>			
R. Lakshmy	Evaluation of HDL2, HDL3 and apolipoprotein A 1 levels in a large Indian industrial population: Association with genetic variants in CETP, LCAT, hepatic lipase and LPL gene	DST	1,730,053
R. Lakshmy	Relation of candidate gene variants regulating triglyceride metabolism to serial changes in childhood body mass index and coronary artery disease risk factors in young adulthood	ICMR	1,116,241
R. Lakshmy	Low dose magnesium sulphate regimen for management of eclampsia: A randomized controlled trial	ICMR	60,267
R. Lakshmy	Circulating endothelial progenitor cells in CAD patients: Role of telomere length and telomerase activity in EPC senescence	DBT	998,525
<b>Cardiac Radiology</b>			
Gurpreet Gulati	MRI for in vivo tracking iron oxide labeled mesenchymal stem cells in a rat model of heart failure	DBT	874,829
<b>Cardiology</b>			
Anita Saxena	To study the prevalence of rheumatic heart disease among children of 5–15 years age group in Ballabgarh block of Haryana using echocardiography with Doppler (Pilot study)	ICMR	198,600
Balram Bhargava	Efficacy of stem cell in improvement of left ventricular function in patients with acute myocardial infarction	DBT	1,273,645
Balram Bhargava	Stanford India Biodesign SIB Programme	DBT	21,529,017
Balram Bhargava	Cardiovascular product evaluation support service for industry	DBT	5,141,999
Balram Bhargava	Biodesign in Medicine	DBT	729,442
R. Juneja	Intravascular ultrasound for severe pulmonary artery hypertension in congenital heart diseases	DST	672,879
Rakesh Yadav	Zyban as an effective smoking cessation aid for patients following an acute coronary syndrome:	Centre for Chronic	201,290



	The ZESCA trial	Disease Control	
Rakesh Yadav	A comparison of prasugrel and clopidogrel in acute coronary syndrome (ACS) subjects with unstable angina/non-ST-elevation myocardial infarction (UA/NSTEMI) who are medically managed. The TRILOGY ACS study	Quintiles Spectral India	302,256
<b>Cardiothoracic and Vascular Surgery</b>			
Balram Airan	Establishment of centre for stem cell research: Basic and translational	DBT	50,937,800
Balram Airan	Use of autologous bone marrow stem cells for myocardial regeneration	DBT	765,401
<b>Centre for Behavioural Sciences (Psychiatry)</b>			
Nand Kumar	Effects of breathing techniques (SKY) with standard treatment on depressive disorder patients in comparison to standard treatment alone	ICMR	698,673
R. K. Chadda	Development of Pharmacogenomics SNP database for critical candidate genes involved in drug response for Schizophrenia	DBT	258,519
Rajesh Sagar	Efficacy and safety of a gomeiatine (25mg/day with potential adjustment at 50mg/day) given orally compared to placebo in addition to a mood stabilizer in bipolar patients with a current major depressive episode	Quintiles Spectral India	558,558
<b>Centre for Community Medicine</b>			
K. Anand	NCD risk factor surveillance under Integrated Diseases Surveillance Project	ICMR	-1,599
<b>Centre for Dental Education and Research</b>			
O. P. Kharbanda	Computerised cephalogram analysis for orthodontics	Central Scientific Instruments Organization	445,099
Ritu Duggal	Assessment of safety profile for dental procedures in India	MoHFW	4,832,373
<b>Dermatology and Venereology</b>			
K. K. Verma	Randomized clinical trial of azathioprine weekly pluse versus daily azathioprine for the treatment of parthenium dertmatitis	ICMR	552,166

Neena Khanna	Prevalence of antibiotic resistant Propionibacterium acnes and periadolescent acne before and after treatment with oral retinoids	ICMR	559,761
Somesh Gupta	A comparative study of effectiveness of immunotherapy with intralesional injection of killed <i>Mycobacterium w</i> vaccine and imiquimod cream in clinical resolution of external anogenital warts and reduction of viral load: A randomized trial	DBT	1,835,300
V. K. Sharma	Evaluation of cyctophosphamide pulse therapy as adjuvant in the management of pemphigus	ICMR	620,296
V. K. Sharma	Programme support for skin pigmentation and melanocyte–keratinocyte biology	DBT	717,345
<b>Dr B. R. Ambedkar Institute–Rotary Cancer Hospital</b>			
Atul Sharma	Randomized phase III b, multicentre, open-label parallel study of enoxaparin (low molecular weight heparin) given concomitantly with chemotherapy vs chemotherapy alone in patients with inoperable gastric and gastro-oesophageal cancer	Criterion	881,687
B. K. Mohanti	Patterns of care and survival studies in cancers: Registry programme	ICMR	643,717
Lalit Kumar	Lenalidomide plus low dose dexamethasone versus thalidomide plus low dose dexamethasone for multiple myeloma: A randomized phase III study	Dr Reddys Lab	170,394
Lalit Kumar	CML registry: An observational study	Novartis India	81,027
Lalit Kumar	To study the molecular biology of multiple myeloma	DBT	1,067,599
Lalit Kumar	Endothelial progenitor cells as biomarker of disease activity in multiple myeloma	DBT	410,791
P. K. Julka	A phase III trial of ALIMTA vs. docetaxel in patients with locally advanced or mmetastatic non-small cell lung cancer	Ranbaxy/ Eli Lilly & Co.	885,963
P. K. Julka	A randomized double blind placebo controlled multicentre phase 3 study of denosumab on prolonging bone metastasis free survival in men with hormone refractory prostate cancer	Quintiles Spectral India	468,980
Ritu Gupta	Molecular and immunological basis of biological heterogeity in chronic lymphocytic leukemia	DBT	380,254
Ritu Gupta	Regulatory T cells repertoire in plasma cell myeloma	DBT	234,931

Sameer Bakhshi	An open label multicentric study to assess the efficacy and safety of pegylated recombinant human granulocyte colony stimulating factor (pegfilgastrin) injections in patients undergoing myelosuppressive chemotherapy	Cadila Health Care	112,561
Sameer Bakhshi	Evaluation of prognostic value of FDG-PET after two cycles of chemotherapy in pediatric and adolescent high grade lymphomas	DBT	957,591
Sameer Bakhshi	Pharmacokinetic and toxicity profile of high dose methotrexate: Relationship with serum creatinine and MTHFR polymorphisms in Indian children	Jiv Daya Foundation	508,678
Sameer Bakhshi	An open label multicentric study to assess the efficacy and safety of recombinant human granulocyte colony stimulating factor (filgastrim) injections in patients undergoing myelosuppressive chemotherapy	Cadila Health Care	188,413
V. Raina	A double-blind, randomized phase 2b study evaluating the efficacy and safety of sorafenib compared to placebo when administered in combination with paclitaxel in patients with locally recurrent or metastatic breast cancer	Reliance Clinical Research Services	1,813,632
V. Raina	Evaluation of circulating tumour DNA in serum of breast cancer patients	DBT	679,000
V. Raina	A treatment protocol for patients with gastrointestinal stromal tumour who are ineligible for participation in other SU011248 protocols and are refractory to or intolerant of imatinib mesylate	Pfizer	635,594
V. Raina	A SU011248 expanded access protocol for systemic therapy of patients with metastatic renal cell carcinoma who are ineligible for participation in other SU011248 protocols but may derive benefit from treatment with SU011248	Pfizer	688,386
V. Raina	Randomized phase 3 trial of ALIMTA (PEMETREXED) and carboplatin versus etoposide and carboplatin in extensive-stage small cell lung cancer	Ranbaxy/ Eli Lilly & Co.	119,369
<b>Dr Rajendra Prasad Centre for Ophthalmic Sciences</b>			
Atul Kumar	Use of autologous bone marrow derived stem cells for rehabilitation of patients with age related macular degeneration and retinitis pigmentosa: A phase 1 clinical trial	ICMR	718,002

Gita Satpathy	Development of small interfering RNAs [(s)RNAs] for inhibition of Enterovirus 70 and Coxsackevirus zA24 virus causing acute hemorrhagic conjunctivitis	DBT	1,660,778
Niranjan Nayak	Phenotypic molecular and ultrastructural study of coagulase negative <i>Staphylococci</i> and their biofilms in device related infections	ICMR	316,216
Radhika Tandon	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	DBT	921,875
Rohit Saxena	Assesment of magnitude and progression of myopia in school going children in Delhi	DST	1,364,490
T. Velpandian	Development of topical ocular formulation of calcium dobesilate and evaluation of its formulation characteristics	Ozone Pharmaceuticals	365,792
T. Velpandian	Development of novel water-soluble isoflavone derivatives using in-silico approach and determination of its ocular pharmacological activity in experimental model of post-menopausal dry eye	DBT	996,445
<b>Endocrinology and Metabolism</b>			
A. C. Ammini	B-cell dysfunction versus insulin resistance in polycystic ovary syndrome in Indian women	ICMR	498,205
A. C. Ammini	Congenital adrenal hyperplasia: Genotype phenotype correlation	DBT	792,472
A. C. Ammini	A phase II multicenter, randomized, double-blinded, placebo and active comparator controlled study to evaluate the safety and efficacy of MBX-102/JNJ-39659100 in patients with type 2 diabetes mellitus with inadequate glycemic control on metformin monotherapy	Pharm-Olam International	47,520
A. C. Ammini	Effects of arzoxifene on vertebral fracture incidence and on invasive breast cancer incidence in postmenopausal woman with osteoporosis or with low bone density	Quintiles Spectral India	1,421,879
A. C. Ammini	A phase 2B long-term randomized, open-label safety and tolerability trial comparing (S.S.) reboxetine (PNU-165442G) with routine care in patients with chronic painful diabetic peripheral neuropathy (DPN) clinical trial agreement	Pfizer	145,502

M. L. Khurana	Development of N-BNP assay for screening of cardiovascular disease in patients with type II diabetes mellitus	ICMR	812,643
M. L. Khurana	Relationship of androgens deficiency to the bone mineral density in aging men	ICMR	780,271
Nikhil Tandon	Registry of people with diabetes in India with young age at onset	ICMR	1,243,871
Nikhil Tandon	A randomized, double-blind, placebo-controlled, parallel group study to determine whether, in patients with type 2 diabetes at high risk for cardiovascular and renal events, aliskiren, on top of conventional treatment, reduces cardiovascular and renal morbidity and mortality	Novartis India	2,106,750
Nikhil Tandon	Safety and efficacy of extenatide once weekly injection versus metformin depeptidyl peptidase-4 inhibitor or thiazolidinedione as monotherapy in drug naive patient with type 2 diabetes	Eli Lilly	267,590
Rajesh Khadgawat	Correlation between first trimester glucose screening and serum insulin levels with development of gestational diabetes mellitus in pregnancy	ICMR	381,149
Ravinder Goswami	Prevalence and significance of celiac disease in patients with type 1 diabetes	ICMR	675,047
Ravinder Goswami	Role of oral vitamin D as an adjunct therapy in category I pulmonary tuberculosis along with assessment of immunological parameter (Double-blind, randomized, placebo-controlled, clinical trial)	DBT	889,831
Viveka P. Jyotsna	Effect on glycemic control, depression and quality of life, in patients of diabetes mellitus with rhythmic breathing (Sudarshan Kriya Yoga and Pranayam) in addition to standard treatment of diabetes	ICMR	965,397
<b>ENT (Otorhinolaryngology)</b>			
Alok Thakar	Phase II/III randomized placebo controlled clinical trial of curcumin in squamous head and neck cancers	DBT	1,043,755
Alok Thakar	Prevalence of hypothyroidism following treatment of head neck cancer and its impact on quality of life	DST	181,614
<b>Gastroenterology and Human Nutrition Unit</b>			
Anoop Saraya	Study on prognostic significance of protease expression and molecular markers in patients with carcinoma of pancreas	ICMR	630,343
Govind Makharia	Characterization of tight junction proteins in patients with Crohn's disease and celiac disease	DST	950,000

Govind Makharia	A multicenter study of efficacy and safety of DOTS category I regimen in abdominal tuberculosis under revised national tuberculosis control program	MoHFW	613,108
Govind Makharia	Detection of Mycobacterial pathogens in patients with Crohn's disease	DBT	1,253,211
Pramod Garg	A study of mutational and histopathological risk factors for gallbladder cancer in patients with gallstones	DBT	1,149,603
S. K. Acharya	FIST infrastructure in universities and higher educational institutes	DST	199,684
S. K. Acharya	Advanced center for liver diseases	ICMR	7,068,944
S. K. Acharya	Identification of a biomarker for differentiation of Crohn's disease from intestinal tuberculosis using proteomics and gene expression analysis	DBT	1,487,380
S. K. Acharya	An open label response adaptive study of telbivudine in adults with HBeAg positive compensated chronic hepatitis B	Novartis India	394,537
Umesh Kapil	Efficacy of daily iron folic acid supplementation in correction of iron deficiency anemia amongst 3-5 years old children	ICMR	628,947
Y. K. Joshi	Assessment of intestinal permeability in chronic liver disease and its consequences	ICMR	611,037
<b>Haematology</b>			
Tulika Seth	Community based planned intervention for change in perception and health seeking behaviour of cancer in Delhi: A pilot study	ICMR	3,967,513
Renu Saxena	Role of nitric oxide in the development of stroke	DST	1,508,434
Renu Saxena	Evaluation of platelet receptor polymorphism in patients with coronary artery disease	ICMR	1,964,022
Renu Saxena	Modulation of genes in response to Imatinib therapy in the Philadelphia-chromosome-positive chronic myeloid leukemia	ICMR	861,695
Renu Saxena	Evaluation of molecular parameters affecting biology of chronic lymphocytic leukemia in India	ICMR	501,683
Renu Saxena	Thalassemia awareness and screening programme for detection of Thalassemia trial	National Thalassemia Welfare Society	90,245

<b>Jai Prakash Narayan Apex Trauma Centre</b>			
Purva Mathur	Efficacy of a short course of prophylactic antibiotic treatment for prevention of postoperative infections in open reduction and internal fixation of closed fractures	ICMR	543,896
Purva Mathur	Molecular and epidemiological study of <i>Streptococcus pyogenes</i> in India	ICMR	658,445
<b>Laboratory Medicine</b>			
A. K. Mukhopadhyay	Assessment of risk factor associated with Alzheimers's disease and vascular dementia	ICMR	757,295
A. K. Mukhopadhyay	Study of oxidative stress risk factors in Alzheimer's disease and vascular dementia in geriatric patients	ICMR	494,163
A. K.	Effect of yoga on serum interleukin levels in Mukhopadhyay adolescents with depression	Central Council for Research in Yoga and Naturo-pathy	1,175,288
M. Irshad	Cloning sequencing and expression of different genomic regions of transfusion transmitted virus (TTV) prevalent in Indian population	ICMR	1,104,110
M. Irshad	Role of Hepatitis C virus (HCV) core protein in diagnosis and pathogenesis of HCV infection	ICMR	1,202,596
Sarman Singh	Identification of <i>Leishmania donovani</i> reservoir (S) in various animal species of endemic areas using species-specific antibodies and PCR technique	DST	480,924
Sarman Singh	Genotyping of <i>Mycobacterium tuberculosis</i> isolates from an endemic area of Delhi and determining their transmission dynamics in the house hold contacts and the community using molecular methods	ICMR	1,244,880
Sarman Singh	Isolation and purification of active compounds with anti-leishmanial acitivity of unani medicinal plants	Central Council for Research in Unani Medicine	1,229,680
Sarman Singh	Proteomic analysis of <i>M. tuberculosis</i> during the stage of acquisition of resistance to isoniazid and rifampicin	DBT	1,165,098
Sarman Singh	Developing a novel multiplex PCR assay for simultaneous detection and differentiation of hepatitis	DBT	713,475

	A & E, <i>Salmonella</i> spp., <i>Entamoeba histolytica</i> and <i>Giardia lamblia</i> directly from drinking water samples		
Sarman Singh	A novel multiplex PCR assay for simultaneous detection and differentiation of <i>Mycobacterium tuberculosis</i> , <i>M. avium</i> complex and other <i>Mycobacterium</i> species directly from clinical samples of suspected tuberculosis cases	DBT	1,470,360
<b>Medicine</b>			
A. B. Dey	Development of a web-portal directed at welfare of older people	DST	1,066,572
A. B. Dey	Health emergencies in older people: Predictors of hospital revisit and adverse out come	ICMR	1,870,243
Anant Mohan	Study of variability in the degree of systemic inflammation in patients with chronic obstructive pulmonary disease due to tobacco and non-tobacco related causes	ICMR	1,041,673
Anant Mohan	Mitochondrial DNA mutations and its clinical applications in lung cancer	DBT	526,093
Randeep Guleria	Genetic, metabolic and hormonal profile in obstructive sleep apnoea syndrome	DST	1,006,693
Randeep Guleria	Serum leptin, nutritional status and inflammatory markers in chronic obstructive pulmonary disease. Relationship with dyspnea and severity of disease	ICMR	529,656
Randeep Guleria	Clinical implications of circulating DNA and protein markers in lung cancer	ICMR	426,401
Randeep Guleria	To compare the efficacy of yoga and pulmonary rehabilitation on dyspnoea, muscle strength, inflammatory markers and quality of life in patients with chronic obstructive pulmonary disease	ICMR	1,200,924
Randeep Guleria	A randomized, double-blind, placebo controlled, exploratory study to assess the safety and efficacy of multiple doses of ACZ885 in COPD	Novartis India	333,455
Randeep Guleria	Double blind randomized placebo controlled trial of herbal compound MA- 364 in patients with mild to moderate bronchial asthma	Maharishi Ayurveda	44,326
S. K. Sharma	Impact of HIV infection on latent TB among patients with HIV-TB co-infection	ICMR	342,005
S. K. Sharma	International, multi-centre, randomized, double blind study to compare the overall mortality in acutely ill	Reliance Clinical	427,726



S. K. Sharma	medical patients treated with enoxaparin versus placebo in addition to graduated elastic stocking Comparison of tuberculin skin test (TST) and interferon- $\gamma$ release assay in latent TB infection and tuberculosis disease	Research Services NCT	220,703
S. K. Sharma	Obstructive sleep apnoea and the effect of treatment with continuous airway pressure (CPAP) on metabolic syndrome	Pfizer	346,109
S. K. Sharma	A Phase II, placebo-controlled, double-blind, randomized trial to evaluate the anti-bacterial activity, safety, and tolerability of TMC207 in subjects with sputum smear-positive pulmonary infection with multi-drug resistant <i>Mycobacterium tuberculosis</i> (MDR-TB)	Johnson & Johnson	646,710
S. K. Sharma	Efficacy and safety of immunomodulator mycobacterium w, mw as an adjunct therapy in pulmonary tuberculosis	DBT	2,911,170
S. K. Sharma	Anti retroviral treatment	MoHFW	1,276,317
S. K. Sharma	Efficacy of thrice weekly intermittent short course antituberculosis chemotherapy in tuberculosis patients with and without HIV infection	MoHFW (NACO)	934,558
S. K. Sharma	Evaluation of the efficacy of thrice weekly DOTS regimen in TB pleural effusion at six months	Directorate General Health Services	411,715
S. K. Sharma	Role of oral vitamin D as an adjunct therapy in category I pulmonary tuberculosis along with assessment of immunological parameters (Double-blind, randomized, placebo-controlled, clinical trial)	DBT	764,875
S. K. Sharma	Efficacy and safety of immunomodulator ( <i>Mycobacterium w</i> ) as an adjunct therapy in category I pulmonary tuberculosis along with assessment of immunological parameters	DBT	1,894,080
S. K. Sharma	Impact of HIV infection on latent TB among patients with HIV-TB co-infection	DBT	2,399,280
Sanjeev Sinha	Study of early versus delayed initiation of antiretroviral therapy for HIV infected patients with tuberculosis on antituberculosis chemotherapy in Indian subjects	MoHFW (NACO)	1,482,071

Sanjeev Sinha	Nevirapine versus efavirenz based highly active antiretroviral therapy regimens in antiretroviral-naïve patients with HIV and tuberculosis infection in India	MoHFW (NACO)	1,830,125
Uma Kumar	Genome sciences and predictive medicine	DBT	592,613
Uma Kumar	A phase IIIB multicenter, randomized, double-blind, 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	Bristol Meyer Squibb India	599,357
<b>Microbiology</b>			
Arti Kapil	Mechanisms of resistance to ciprofloxacin in <i>Salmonella typhi</i>	ICMR	889,248
Arti Kapil	Comprehensive proteomics profiling of CSF proteins from patients of different meningitis infections for biomarker discovery	DBT	91,563
Arti Kapil	Expert Group on Antibiotic Susceptibility Testing (EGAST) 2008: Observational plan	Pfizer	260,846
Arti Kapil	Development of nanosilver nanohydrogels for biomedical applications	DBT	647,960
B. K. Das	Pneumolysin DNA construct as a vaccine candidate against <i>Streptococcus pneumoniae</i> : An immune response study	DST	797,011
B. R. Mirdha	Study of genetic diversity and phylogenetic analysis of pneumocystis proved isolated obtained from patients with clinical diagnosis of <i>Pneumocystis carinii</i> pneumonia (PCP)	CSIR	276,655
Benu Dhawan	Molecular tracking of community-associated methicillin resistant <i>Staphylococcus aureus</i> strains disseminating in a tertiary hospital	ICMR	605,897
Madhu Vajpayee	External quality assessment programme	MoHFW (NACO)	600,000
Madhu Vajpayee	Voluntary counselling and testing facility (VCTC)	MoHFW (NACO)	377,242
Rama Chaudhary	Cloning and expression of flagellin gene of <i>Salmonella typhi</i> : An immunodiagnostic approach	ICMR	1,301,054
Rama Chaudhary	To study colonization and immunomodulatory effect of probiotic strains in Indian children	DBT	803,929

Rama Chaudhary	Administration of <i>Lactobacillus rhamnosus</i> GG for the prevention and treatment of <i>Clostridium difficile</i> infection and subsequent diarrhea in Indian population	DBT	868,123
Seema Sood	Development of DNA biosensor for detection of <i>Neisseria gonorrhoea</i> in clinical samples	DBT	812,783
Shobha Broor	Respiratory virus infections: Rapid low molecular detection	ICMR	882,054
Shobha Broor	Cloning and expression of G protein gene of group B respiratory syncytial viruses in bacterial and mammalian systems and their antigenic as well as biophysical characterization	DBT	1,204,574
Shobha Broor	An RNA interference based approach to study the simultaneous inhibition of respiratory syncytial virus (hRSV) and human metapneumovirus virus (hMPV) multiplication in tissue culture and animal model	DBT	549,999
Urvashi B. Singh	Comprehensive proteomics profiling of CSF proteins from patients of different meningitis patients for biomarker discovery	DBT	482,166
Urvashi B. Singh	Role of oral vitamin D as an adjunct therapy in category I pulmonary tuberculosis along with assessment of immunological parameter (Double-blind, randomized, placebo-controlled, clinical trial)	DBT	20,909
<b>National Drug Dependence Treatment Centre</b>			
Anju Dhawan	Effectiveness of yoga in patients of opiate dependence	AYUSH, MoHFW	428,740
<b>Nephrology</b>			
S. K. Agarwal	Detection of HCV core antigen (HCV c-Ag) for diagnostic screening of HCV infection in patients on maintenance haemodialysis	ICMR	1,070,235
S. K. Agarwal	To study the diagnostic value of quantiFERON gold test in detecting latent tubercular infection in end stage renal disease patients on replacement therapy	ICMR	503,740
<b>Neurobiochemistry</b>			
S. Vivekanandhan	The study of mitochondrial dysfunction in genesis of programmed cell death cascade in patients with amyotrophic lateral sclerosis	ICMR	321,342
S. Vivekanandhan	Exploring the role of MHC and co-stimulatory molecules in the immune evasion mechanism of glioma stem cells	DBT	638,207
S. Vivekanandhan	Pharmacogenetics of epilepsy drug therapeutics	DBT	690,277

<b>Neurology</b>			
Achal Kumar Srivastava	Mitochondrial variations and common founders for Friedreich's ataxia in the Indian population	ICMR	363,570
Kameshwar Prasad	Intravenous autologous bone marrow stromal cells (MSC) or mononuclear cells (MMC) for patients with acute ischaemic stroke: A multi-institutional project	DBT	1,879,377
Kameshwar Prasad	Mobilization of stem cells using G-CSF for acute ischemic stroke: A randomized clinical trial	DBT	1,742,903
Kameshwar Prasad	Central Data management facility	DBT	698,564
Kameshwar Prasad	Capacity building for Stroke research programme	DBT	344,270
M. V. Padma	Intra-arterial autologous bone marrow mononuclear cells (MNCs) infusion in patients with non-progressive (static) encephalopathy with special reference to cerebral palsy	DST	1,336,197
M. V. Padma	Normobaric oxygen therapy in acute ischemic stroke	ICMR	1,096,061
M. V. Padma	Efficacy of minocycline in acute ischemic stroke: A single-blinded placebo-controlled trial	ICMR	132,043
Madhuri Behari	Clinical correlation of AchR-Abs and MuSK-Abs in myasthenia gravis patients in context with phenotype and genotype variation	ICMR	1,207,571
Madhuri Behari	To study the safety and efficacy of R-HSC-001 in patients with Parkinson's disease	Reliance Clinical Research Services	61,128
Madhuri Behari	A phase III, double blind placebo controlled study to determine the efficacy and safety of a low (50–100 mg/day) and high (150–200 mg/day) dose range of safinamide as add-on therapy in patients with idiopathic Parkinson's disease with motor fluctuations, treated with a stable dose of levodopa and a phase III, double blind placebo controlled, 12 months extension study to investigate the long term efficacy and safety of a low (50–100 mg/day) and high (150–200 mg/day) dose range of safinamide, as add-on therapy, in patients with idiopathic Parkinson's disease with motor fluctuations, treated with a stable dose of levodopa	Clinirx Research, Gurgaon, Haryana	743,274
Madhuri Behari	A multicentre randomized double blind placebo and entacapone controlled parallel group study of the efficacy safety and tolerability of E2007 in	Quintiles Spectral India	759,787

	levodopa treated parkinson:s disease patients with motor fluctuations		
Manjari Tripathi	Cognitive activation studies of languages and memory as a preoperative evaluation in patients with intractable epilepsy: A novel noninvasive method of investigation	DST	865,370
Manjari Tripathi	To assess whether saliva and serum free anti-epileptic drugs levels are equivalent	ICMR	425,143
Manjari Tripathi	A randomized double blind parallel group multicenter study to evaluate the retention rate, efficacy, safety, and tolerability of carisbamate, topiramate and levetiracetam as adjunctive therapy in subjects with partial onset seizures	Quintiles Spectral India	11,752
Manjari Tripathi	Correlation of electrophysiological states and haemodynamic changes during simultaneous performance of EEG-fMRI (SEM) in intractable epilepsy: Another non-invasive tool for localisation of seizures in patients with intractable epilepsy	DBT	1,656,541
<b>Neuroradiology</b>			
Ajay Garg	Quantitative vessel size imaging (VSI) in cerebral gliomas and correlation with histopathological grading and vascular endothelial growth factor expression	DBT	265,880
<b>Neurosurgery</b>			
B. S. Sharma	DST FIST Programme-2006	DST	997,534
P. Sarat Chandra	Evaluation of autonomic function, saccadic eye movement control and fibrillin gene (exon 24–28) in development bony craniovertebral junction anomalies	DBT	266,573
<b>Nuclear Magnetic Resonance</b>			
N. R. Jagannathan	A proposal for 700 MHz NMR spectrometer for biomedical research	DST	1,139,906
N. R. Jagannathan	Magnetic resonance spectroscopic imaging (MRSI) and diffusion-weighted MRI (DW-MRI) in the non-invasive detection, assessment of treatment response and tumor metabolism in breast cancer	DST	504,762
<b>Nuclear Medicine</b>			
G. P. Bandopadhyaya	To evaluate radiolabeling and efficacy of radiolabelled betacyclodextrin for infection imaging	ICMR	671,395

<b>Obstetrics and Gynaecology</b>			
J. B. Sharma	Study of efficacy and safety of directly observed treatment strategy (DOTS) in female genital tuberculosis	MoHFW	2,355,570
Alka Kriplani	Comparative study of oral single dose of metronidazole, tinidazole, secnidazole and ornidazole in the case of bacterial vaginosis	DST	420,756
Alka Kriplani	An open label single-arm, non comparative study to evaluate the efficacy and safety of iron sucrose (OROFER-S) injection in the treatment of iron deficiency anaemia during pregnancy	Emcure Emcure Pharmaceutical	97,001
Suneeta Mittal	Estimation of oxidative stress during oral iron supplementation (daily vs weekly) with or without vitamin C among anemic pregnant mothers	ICMR	93,138
Suneeta Mittal	Phase IV Multicentric study with Centchroman	ICMR	523,054
Suneeta Mittal	Study of placenta for oxidative stress status in pregnant women on daily versus weekly iron supplementation	ICMR	145,436
Suneeta Mittal	Prevention of mother to child transmission of HIV in Delhi	Delhi State AIDS Control Society	245,474
Suneeta Mittal	Pretreatment with misoprostol before vacuum aspiration versus MVA: A double blind RCT	MoHFW	162,221
Sunesh Jain	Evaluation of curcumin in the management of advanced cancer cervix	DBT	1,676,907
<b>Orthopaedics</b>			
Rajesh Malhotra	A new hip hemiarthroplasty option based on femoral stem design suitable for the morphology of proximal femur of elderly Indian population	CSIR	2,210,707
Rajesh Malhotra	Evaluation of efficacy of platelet concentrate in the treatment of non union of fractures of long bones	ICMR	597,313
Rajesh Malhotra	A phase III randomised, parallel group, double-blind, active controlled study to investigate the efficacy and safety of oral 220 mg dabigatran etexilate (110 mg on the day of surgery followed by 220 mg once daily) compared to subcutaneous 40 mg enoxaparin once daily for 28–35 days in prevention of venous thrombo-embolism in patients following primary elective total hip arthroplasty (RE-NOVATE II)	Siro Clin Pharma	3,356,727
Kanchan Mittal	To study the profile of musculoskeletal pain in tea garden workers in northeast India	ICMR	1,667,865

<b>Paediatric Surgery</b>			
D. K. Gupta	Role of stem cells in a surgically created rat model of biliary atresia	ICMR	224,284
M. Bajpai	A study on clinical and molecular markers of chronic interstitial nephropathy in congenital unilateral ureteropelvic junction obstruction	DBT	983,978
<b>Paediatrics</b>			
Madhulika Kabra	IMD newborn screening for congenital hypothyroidism and congenital adrenal hyperplasia: A multicentric study	ICMR	1,689,169
Madhulika Kabra	To compare integrated screening with contingent sequent screening for prenatal detection of Downs syndrome in the Indian context	DBT	443,980
Madhulika Kabra	Programme support on genetic medicine	DBT	2,456,969
Madhulika Kabra	Identification of novel genes for nonsyndromic hearing loss in the Indian population	DBT	860,434
Madhulika Kabra	Evaluation of MLPA and array CGH for the detection of cryptic subtelomeric rearrangements in idiopathic mental retardation	DBT	897,541
Madhulika Kabra	Validation of strategies for rapid prenatal detection of aneuploides	DBT	538,722
Madhulika Kabra	Molecular genetic studies in Indian children with steroid resistant nephritic syndrome	DBT	340,736
Pankaj Hari	Antibiotic prophylaxis in the management of vesicoureteric reflux: A multicentric randomized double blind placebo controlled trial	ICMR	444,707
Pratima Ray	Molecular characterization of Rotavirus strains infecting neonates born in the hospital and diarrheal children admitted at AIIMS	ICMR	1,614,470
Pratima Ray	Evaluation of Chikungunya infection in children and adults	DBT	2,497,204
Rachna Seth	Detection of minimal residual disease (MRD) in B cell lineage acute lymphoblastic leukemia at the end of induction by flowcytometry	ICMR	1,616,366
Rakesh Lodha	Nevirapine levels in HIV-infected children receiving antiretroviral therapy with fixed dose combinations	ICMR	1,813,240
Rakesh Lodha	Immunologic effect of zinc supplementation in HIV infected children receiving highly active antiretroviral therapy: A randomized, double blind placebo controlled trial	ICMR	1,376,183



Ramesh Agarwal	Micronutrient status of low birth weight babies during early infancy	ICMR	1,310,291
Shinjini Bhatnagar	Intravenous autologous bone marrow derived stem cell therapy for patients with acute ischaemic stroke: A multiinstitutional project	DBT	801,048
Shinjini Bhatnagar	Efficacy of stem cell in improvement of left ventricular function in patients with acute myocardial infarction	DBT	530,466
Shinjini Bhatnagar	Effects of administering 10 mg zinc orally to young infants aged 7 days and upto 4 months with possible serious bacterial infection on survival and function of peripheral blood mononuclear cells...age	DBT	3,011,321
Vandana Jain	Kigs Advanced patient outcome survey number SN87-052-38	Pfizer	76,437
Veena Kalra	FIST in subject area life sciences for Level II support	DST	-404,33
<b>Pathology</b>			
Chitra Sarkar	Glial tumours: A correlative clinicopathological study of chromosome 1p/19q status, epidermal growth factor receptor (EGFR) amplification and p53 expression	ICMR	1,173,371
Chitra Sarkar	Angiogenesis in astrocytic tumors of the brain: A clinicopathological study with special reference to expression of vascular endothelial growth factor (VEGF), and hypoxia inducible factor (HIF)-I alpha and correlation with vascular morphometric parameters and tumor infiltrating inflammatory cells	ICMR	776,620
Manoj K. Singh	Primary cutaneous lymphomas: Use of an antibody panel to improve diagnostic accuracy in skin biopsy, classify cases using the WHO-EORTC classification of primary cutaneous lymphomas, flowcytometric analysis of peripheral blood to detect and quantify the circulating neoplastic lymphocytes in these patients, attempt to delineate therapeutic subgroups for future planning of therapeutic options	ICMR	672,279
S. K. Panda	Operation of the JC Bose Fellowship	DST	850,669
S. K. Panda	FIST Program	DST	6,533,716
S. K. Panda	Study of viral proteins and other molecular markers in hepatitis E virus (HEV) infected cells using high throughput molecular techniques	DBT	2,747,468
S. K. Panda	Investigation related to mechanism of entry of HEV into the host cells	DBT	-1,874,203



Sandeep R. Mathur	Analysis of her 2/neu status on fine needle aspiration cytology smears and its correlation with hormone receptor status, proliferation markers and apoptosis in breast cancer: A fluorescent in situ hybridization (FISH) and immunocytochemistry study	CSIR	1,404,156
Vaishali Suri	Study of the role of bone marrow derived pluripotent cells in peripheral nerve repair in adult rats	ICMR	568,304
<b>Pharmacology</b>			
D. S. Arya	Studies on pharmacological and molecular mechanism to investigate an angiotensin type 1 receptor blocker, irbesartan in experimental model of myocardial ischemia-reperfusion injury	ICMR	849,348
D. S. Arya	Screening and scientific evaluation of hypoglycemic effects of some unani dugs in streptozotocin-induced diabetic rats	Central Council for Research in Unani Medicine	163,454
D. S. Arya	To study the cardioprotective effects of seabuckthorn pulp oil in experimental models of myocardial infarction (MI)	NAIP	835,453
D. S. Arya	An experimental evaluation of the anti-atherogenic effect of selected unani medicines in experimentally induced hypercholesterolemic rats	Central Council for Research in Unani Medicine	1,650,000
K. H. Reeta	Estimation of oxidative stress during oral iron supplementation (daily vs. weekly) with or without vitamin C among anemic pregnant mothers	ICMR	819,572
S. K. Maulik	Study of placenta for oxidative stress status in pregnant women on daily versus weekly iron supplementation	ICMR	1,200,000
Y. K. Gupta	Efficacy and safety evaluation on antiepileptic activity of selected Indian herbs	DST	309,413
Y. K. Gupta	Pharmacological evaluation of medicinal planta and their products Eli Lilly	Ranbaxy/	1,478,095
Y. K. Gupta	Assesment of awareness of environmentalmercury pollution in healthcare system: Solutions and strategies for prevention	Ministry of Environment and Forest	121,898

<b>Physiology</b>			
Ashok Kumar Jaryal	Development of blood flow variability software using impedance plethysmography technique and derivation of BFV-BPV relationship	Ministry of Communication and Information Technology	1,974,138
H. N. Mallick	The role of lateral preoptic area in regulation of body temperature, thermal preference, sleep-wakefulness and homeostatic restoration of sleep during chronic exposure in rats	ICMR	286,110
Jayasree Sengupta	Role of human chorionic gonadotropin in endometrial receptivity for pregnancy establishment	DST	1,822,652
Jayasree Sengupta	Effect of inorganic arsenic compounds on the activity of intestinal smooth muscle in mammals: A molecular physiological study	DST	221,396
Jayasree Sengupta	Elucidating endometriosis using genomic strategy	DBT	3,375,974
Raj Kumar Yadav	Psychoneuroimmune effects of meditation An evaluation by PET and biochemical markers	DBT	278,554
Rashmi Mathur	To study the effect of repeated magnetic stimulation on sensori-motor recovery in spinal cord injured patients	DST	945,575
Rashmi Mathur	Effect of bone marrow cells transplantation and magnetic stimulation in the sensory motor functional recovery of spinalised rat	ICMR	525,977
S. C. Mahapatra	Immunomodulatory effects of <i>Tulsi</i> ( <i>Ocimum sanctum Linn</i> ) on healthy human subjects	AYUSH, MoHFW	54,393
Sanjay Kumar Sood	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	DST	2,156,504
<b>Reproductive Biology</b>			
Anand Kumar	Testing of pregnancy kits produced by Hindustan Latex Ltd for supply to NRHM programme of Govt of India	Hindustan Latex	337,923
<b>Stem Cell Facility</b>			
Sujata Mohanty	Isolation and expansion of mesenchymal stem cells (MSC) from human bone marrow (BM)/umbilical cord blood (UCB) and evaluation of its cardiomyogenic and eurogenic differentiation potential	ICMR	923,212

Sujata Mohanty	Transplantation of mesenchymal stem cells in animal models of myocardial infarction and Parkinson's disorder	DBT	1,174,583
<b>Surgery</b>			
Anita Dhar	Safety and efficacy of autologous stem cells in prevention of amputation of patients with chronic critical limb ischemia	DBT	-2,939,512
Sandeep Guleria	Evaluation of efficacy and tolerability of Tacrolimus in patients undergoing renal transplantation	Panacea Biotech	171,566
<b>Transfusion Medicine</b>			
Kabita Chatterjee	Prevention of infection and strengthening the blood banking system in the country	MoHFW	589,009
<b>Transplant Immunology and Immunogenetics</b>			
D. K. Mitra	Early detection of polarized producing allo-reactive T cells and the role of chemokines in their selective homing among patients undergoing renal transplantation	DST	781,243
D. K. Mitra	Impact of HIV infection on latent TB among patients with HIV-TB co-infection	ICMR	297,491
D. K. Mitra	Study of NKT cells in polarized immunity among leprosy patients	ICMR	1,534,665
D. K. Mitra	Efficacy of oral zinc administration as an adjunct therapy in category I pulmonary tuberculosis along with assessment of immunological parameters	DBT	602,454
D. K. Mitra	Role of oral vitamin D as an adjunct therapy in category I pulmonary tuberculosis along with assessment of immunological parameter (Double-blind, randomized, placebo-controlled, clinical trial)	DBT	706,919
N. K. Mehra	Genomic analysis of MHC genes (HLA and non HLA) in type 1 diabetes in the Indian population	ICMR	2,579,160
N. K. Mehra	Genetic basis for HIV-1 transmission, resistance and disease progression: Polymorphism in MHC, chemokine/cytokine and their receptor genes	ICMR	919,175
N. K. Mehra	Genetic basis for HIV-I transmission resistance and disease progression polymorphism in MHC chemokine/cytokine and their receptor genes	DBT	2,092,951
N. K. Mehra	Hematopoietic stem cell transplantation in India. Challenges and opportunities and immunogenetic aspects of HIV infection	DBT	719,894

<b>Ongoing research projects funded by international agencies</b>			
<b>Investigator</b>	<b>Project</b>	<b>Funding agency</b>	<b>Funds (Rs)</b>
<b>Biochemistry</b>			
Kalpana Luthra	Characterization of HIV-1 subtypes from indian subjects	NIH, USA	239,499
<b>Cardiology</b>			
Balram Bhargava	Future revascularization evaluation in patients with diabetes mellitus: Optimal management of multivessel disease (The FREEDOM Trial)	NIH, USA	775,647
G. Karthikeyan	Diagnostic performance of gated SPECT myocardial perfusion imaging at rest in patients presenting to the emergency room with chest pain and a normal or non-diagnostic ECG	International Atomic Energy Agency	683,985
Sandeep Seth	Multi-sensor monitoring in congestive heart failure (MUSIC)	Corventis, USA	848,645
V. K. Bahl	A double-blind, randomized, placebo-controlled, multicenter study to assess the efficacy and safety of Darbeopetin alfa treatment on mortality and morbidity in heart failure (HF) subjects with symptomatic left ventricular systolic dysfunction and anemia	Amgen Technology	648,991
V. K. Bahl	A clinical evaluation of the Xience TM V everolimus eluting coronary stent system in the treatment of patients with de nova coronary artery lesions	Abbott Vascular, USA	554,656
<b>Cardiothoracic and Vascular Surgery</b>			
Balram Airan	CABG Off or On Pump Revascularization Study (CORONARY)	McMaster University Canada	90,675
<b>Centre for Behavioural Sciences (Psychiatry)</b>			
Sonali Jhanjee	Rolling out of opioid substitution treatment (OST) in Tihar prisons, India. A collaborative project of UNODC-ROSA, AIIMS and Tihar prisons	UN International Drug and Crime Control Program	29,028
<b>Dermatology and Venereology</b>			
Somesh Gupta	Determination of melanin and haemoglobin distribution	The	-8,445

	in the skin of idiopathic cutaneous hyperchromia of the orbital region (ICHOR)	Service de Dermatologie, France	
<b>Dr B. R. Ambedkar Institute–Rotary Cancer Hospital</b>			
Sushma Bhatnagar	An open label study investigating long term safety and tolerability of nasalfent (fetanyl citrate nasal spray) in the treatment of breakthrough cancer pain (BTCP) in subjects taking regular opioid therapy	Archimedes Development, UK	-1,052,713
V. Raina	Adjuvant taxoxifen long against short (ATLAS) trial	Oxford Univ, UK	1,495,817
V. Raina	Indox Cancer Trials Network Center	Oxford Univ, UK	2,673,333
V. Raina	A randomized double blind multicentre placebo controlled study of adjuvant lapatinib in women with early stage Erb B2 overexpressing breast cancer EGF 105485	Glaxo Smith Kline Asia	1,385,216
V. Raina	A randomized, multi-centre, open-label, phase III study of adjuvant lapatinib, trastuzumab, their sequence and their combination in patients with HER2/ErbB2 positive primary breast cancer	GlaxoSmith Kline Asia	1,525,623
<b>Endocrinology and Metabolism</b>			
A. C. Ammini	A phase III randomized, placebo-controlled clinical trial to assess the safety and efficacy of odanacatib (MK-0822) to reduce the risk of fracture in osteoporotic postmenopausal women treated with vitamin D and calcium	Merck & Co., USA	2,401,547
Rajesh Khadgawat	A phase III, multi-centre, randomized, parallel group study of safety and efficacy of the LB03002 a new sustained release formulation of human recombinant growth hormone as compared to standard daily therapy with genotropin in treatment naive children with growth failure due to insufficient secretion of endogenous growth hormone	Parexel International, UK	2,074,497
<b>Gastroenterology and Human Nutrition Unit</b>			
Govind Makharia	A phase 2/3 multicenter, randomized, placebo-controlled, double-blind study to evaluate the safety and efficacy of golimumab induction therapy,	Centocor Research Develop-	508,537

	administered subcutaneously, in subjects with moderately to severely active ulcerative colitis	ment, USA	
<b>Laboratory Medicine</b>			
Sarman Singh	European Network for global collaboration on AIDS and Tuberculosis	European Commission & Bill & Melinda Gates Foundation	0
<b>Medicine</b>			
Sanjeev Sinha	ASHA HIV Health promotion intervention in India	NIH, USA	808,299
<b>Microbiology</b>			
Shobha Broor	Direct and indirect protection by influenza vaccine given to children in India	Univ. of Alabama, USA	58,368,585
Shobha Broor	Addressing emerging infectious disease in the Republic of India: Influenza disease burden in rural communities in India	CDC, USA	14,976,068
<b>Neurology</b>			
Kameshwar Prasad	Efficacy of nitric oxide in stroke (ENOS): A prospective, international, multicentre, randomised, parallel-group, blinded, controlled, collaborative, factorial trial to investigate the safety and efficacy of treatment with transdermal glyceryl trinitrate, a nitric oxide donor, and of stopping or continuing prior antihypertensive therapy, in patients with acute stroke	Univ. of Nottingham, UK	124,139
Madhuri Behari	A randomized, multicenter, double-blind, placebo-controlled, dose-comparison study to determine the efficacy, and safety of BG00012 in subjects with relapsing-remitting multiple sclerosis	Biogen Idec, UK	501,368
Manjari Tripathi	A multicenter, randomized, double blind, placebo-controlled, parallel group trial with placebo run-in, followed by an open label treatment period to evaluate the performance of the cogstate computerized neuropsychological battery and the ADAS-Cog in generally cholinesterase-naive AD patients randomized to either donepezil or placebo	Merck & Co., USA	28,800
Vinay Goyal	Safety and effectiveness of open label melperone in the treatment of patients with psychosis in Parkinson's disease	Ovation Pharmaceuticals, USA	2,616

<b>Neurosurgery</b>			
Ashish Suri	The International infant hydrocephalus study (IIHS): A multicentre prospective randomized study	International Society for Paediatric Neurosurgery (ISPNE)	20,763
B. S. Sharma	A prospective, multi-centre, double blind, randomized, placebo-controlled, parallel-group study to assess the efficacy and safety of clazosentain in reducing vasospasm-related morbidity and all-cause mortality in adult patients with aneurysmal subarachnoid hemorrhage treated by surgical clipping	Actelion Pharmaceuticals, Switzerland	1,557,489
Deepak Kumar Gupta	Open label, dose confirmation study of intestinal 1131-ch TNT-A/B MAb (COTARAR) for the treatment of recurrent glioblastoma multiforme (GBM) at first relapse	Peregrine Pharmaceuticals, USA	1,506,623
P. Sarat Chandra	Safety, tolerability and effectiveness evaluation of the ISS in the treatment of vascular dementia. A pilot study	Brains Gate, Israel	259,113
P. Sarat Chandra	Surgical trial in lobar intracerebral haemorrhage (STICH II trial)	Medical Research Council, UK	79,201
Shashank Shard Kale	An assessment of surgical techniques for treating cervical spondylotic myelopathy—international multicenter study	AO Spine International, USA	153,399
<b>Nuclear Medicine</b>			
C. S. Bal	A multicentric, open-label, randomized phase II/III study to evaluate the safety and efficacy of combretastatin A-4 phosphate in combination with paclitaxel and carboplatin in comparison with paclitaxel and carboplatin against anaplastic thyroid carcinoma	OXiGENE, USA	374,836
C. S. Bal	Lu-177 EDTMP in hormone refractory prostate cancer patients with bone metastases: A phase I activity escalation study	International Atomic Energy Agency	921,921
Rakesh Kumar	Cost effective differential diagnosis in lung cancer using PET generator based radiopharmaceuticals	International Atomic Energy Agency	507,102

Rakesh Kumar	Role of nuclear cardiology techniques in ischemia assessment with exercise imaging in asymptomatic diabetes	International Atomic Energy Agency	467,050
<b>Obstetrics and Gynaecology</b>			
J. B. Sharma	CORONIS: International study of caesarean section surgical technique: A randomized factorial trial	National Perinatal Epidemiology Unit, Univ of Oxford, UK	3,226,200
Neerja Bhatla	Effectiveness and safety of 2 vs 3 doses of HPV vaccine in preventing cervical cancer: An Indian multi-center randomized trial	WHO	3,201,250
<b>Paediatrics</b>			
Arvind Bagga	Levamisole treatment for children with steroid sensitive nephritic syndrome: A multicentre, double-blind, placebo-controlled randomized trial	Ace Pharmaceuticals BV, Netherland	758,597
S. K. Kabra	Strengthening of cystic fibrosis services at AIIMS	Cystic fibrosis Worldwide USA	177,970
S. K. Kabra	Zinc supplementation in childhood tuberculosis patients in Delhi, India	Univ of Bergen, Norway	4,963,294
Shinjini Bhatnagar	Hib meningitis sentinel surveillance in north India	Johns Hopkins Bloomberg School of Public Health	4,728,563
Shinjini Bhatnagar	Etiology and characteristics of influenza and other acute lower respiratory infection in New Delhi	Johns Hopkins Bloomberg School of Public Health	4,165,675
Sheffali Gulati	Model infection centres (MICs): A program to improve infection practices in the country	INCLIN and USAID	181,071



<b>Surgery</b>			
Rajinder Prasad	Adjuvant taxoxifen: longer against shorter (ATLAS) for breast cancer patients	Oxford Univ, UK	162,507
Virinder Kumar Bansal	Cost effectiveness analysis and comarison of single stage vs two stage management of patients wigth concomitant gall stone disease and common bile duct stones: A randomized controlled trial	Society of American Gastrointestinal Endoscopic Surgeons	1,409,706
<b>Transplant Immunology and Immunogenetics</b>			
N. K. Mehra	Type 1 diabetes genetics consortium (TIDGC): An international effort	NIH, USA	943,106
N. K. Mehra	Comprehensive approach to understand streptococcal diseases and their sequelae to develop innovative strategies for diagnosis, therapy, prevention and control	European Commission	4,563,514

#### **New research projects funded by Indian agencies**

<b>Investigator</b>	<b>Project</b>	<b>Funding agency</b>	<b>Funds (Rs)</b>
<b>Anatomy</b>			
Rima Dada	An exploratory study: Causes of congenital cataract	ICMR	1,348,401
<b>Anesthesiology</b>			
Jyotsna Punj	Isoflurane and vecuronium dose requirement in diabetics with and without diabetic autonomic neuropathy undergoing elective surgery as determined by entropy and neuromuscular transmission (NMT) monitor respectively. A prospective double blinded study	ICMR	160,422
Jyotsna Punj	Ultraviolet radiation to decontaminate mobile phones in hospital	ICMR	289,126
<b>Biochemistry</b>			
D. N. Rao	Role of Immunochemical and oytokine gene polymorphism : Correlation with recovery in patients with post-traumatic shock	ICMR	416,200
Kalpna Luthra	Characterization of HIV-1 envelope in natural infection: Immune focusing vaccine development	ICMR	894,541
M. R. Rajeswari	Characterization of circulating cell-free mRNA species of differentially expressed protein in plasma and to correlate with molecular pathogenesis of Friedreich's ataxia	ICMR	757,476

N. C. Chandra	Intracellular cholesterol homeostasis and cell proliferation	BARC	570,300
Nibhriti Das	Complement receptor-I, TNF-a nitric oxide and the respective gene polymorphisms in relation to the pathophysiology and susceptibility to severe malaria	ICMR	998,500
Parthaprasad Chattopadhyaya	Hypoxia and p53-HICI axis in stemness of glial tumors and cell lines	DBT	3,016,000
Subrata Sinha	To identify B and T cell epitopes and study their humoral and cellular mediated immune responses of peptides derived from envelope of chikungunya virus (CHIKV)	DST	576,000
Subrata Sinha	A comparison of gene expression in glioblastoma cell lines under short and long term exposure to hypoxia with reference to the key cellular regulatory and adaptive pathways	ICMR	861,698
<b>Biophysics</b>			
A. Srinivasan	Proteomics of ascitic fluid for the differentiation of advanced ovarian cancer	DST	744,000
A. Srinivasan	Expression of human sperm proteins, lipids and sperm functional parameters in human treated RISUG vs NSV subjects: A comparative study	ICMR	300,000
Savita Yadav	Isolation and purification of anti-diabetic protein (s) from Syzygium cumini seeds	DST	525,000
T. P. Singh	Distinguished Biotechnology Research Professorship Award	DBT	1,456,000
<b>Biostatistics</b>			
V. Sreenivas	HCV The India Face	Liver Foundation	95,512
<b>Biotechnology</b>			
J. S. Tyagi	Lead optimization of promising anti-tubercular compounds with sterilizing activity against non-replicating (dormant) <i>Mycobacterium tuberculosis</i>	DBT	2,507,000
J. S. Tyagi	Validation and clinical studies for method for diagnosis of tuberculsis by smear microscopy culture and polymerase chain reaction using processed clinical samples and kit thereof	DBT	227,000

<b>Cardiac Anaesthesiology</b>			
Poonam Malhotra Kapoor	Role of prognostic markers in complex congenital cardiac surgery	ICMR	853,440
<b>Cardiac Radiology</b>			
Sanjeev Sharma	Induction of therapeutic angiogenesis in limb ischemia by intra-arterial delivery of autologous bone marrow derived stem cells	DBT	2,908,800
<b>Cardiology</b>			
Anita Saxena	To define the incidence of congenital heart disease in newborns	ICMR	1,191,545
Rakesh Yadav	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?	ICMR	392,493
Rakesh Yadav	South Asian Systolic Heart Failure Registry (SASHFER)	India Medtronic	35,565
S. Ramakrishnan	Fast Track Proposal for Young Scientists: Study of platelet morphology and function in patients of primary pulmonary hypertension (PPH)	DST	156,000
<b>Centre for Community Medicine</b>			
K. Anand	Prevalence of coronary heart disease and its risk factors in residents of urban and rural areas of NCR: A repeat survey	ICMR	3,969,601
Puneet Mishra	Indoor air pollutants and behaviour assessment of rural community to reduce health effects	TERI	150,000
<b>Centre for Dental Education and Research</b>			
Ajay Logani	Age estimation in living adults based on aspartic acid racemization from tooth biopsy specimen	DBT	841,000
O. P. Kharbanda	Micro implant generated stress on maxilla: Effect of design and placement protocols	ICMR	674,006
Ritu Duggal	Finite element study to analyze the stress distribution in human mandible following twin block therapy	ICMR	922,338
<b>Dermatology and Venereology</b>			
Somesh Gupta	Comparison of hair follicle stem cells differentiation into melanocytes and keratinocytes from grey and pigmented hair follicles	IADVL	427,000
<b>Dr B. R. Ambedkar Institute–Rotary Cancer Hospital</b>			
Atul Sharma	A phase III study of ERBB2 positive advanced or metastatic gastric or esophageal or gastroesophageal junction adenocarcinoma treated with capecitabine plus oxaliplatin with or without lapatinib	Glaxo Smith Kline	388,069

P. K. Julka	A phase 1/2, modified dose escalation, open label trial to determine the therapeutic effect and safety of INCB007839 combined with transtuzumab in patients with previously untreated HER2 positive metastatic breast cancer	Siro Clin Pharma	370,384
Pratik Kumar	Development of sensitive thermo-luminescent materials for radition dose determination and its application in radiological medical imaging	ICMR	438,089
Sushma Bhatnagar	Evaluation of the effect of rhythmic breathing proception among advance state cancer patient having pain	Central Council for Research in Yoga and Natur-opathy	639,000
V. Raina	A randomized open label, multicenter, phase 2/3 study to evaluate of safety and efficacy of lumiliximab in combination with fludarabine, cyclophosphamide and rituximab versus fludarabine,cyclophosphamide and rituximab alone in subjects with relapsed chronic lymphocytic leukemia	Siro Clin Pharma	171,096
V. Raina	Axitinib (AG-013736) as second line therapy for metastatic renal cell cancer: Axis trial	Pfizer	812,141
V. Raina	Single arm open label multicenter phase II study to evaluate the efficacy and safety of P276-00 in subjects with relapsed and/or refractory mantle cell lymphoma	Piramal Life Sciences	45,000
V. Raina	A phase 3 randomized open label two arm study of Neartinib plus paclitaxel versus trastuzumab plus paclitaxel as first line treatment for erbB2 positive locally recurrent or metastatic breast cancer	Wyeth Pharmace-uticals	0
<b>Endocrinology and Metabolism</b>			
A. C. Ammini	A phase III randomized double blind, placebo-controlled parallel group study to compare the efficacy and safety of twice daily administration of the free combination of BI 1356 2.5mg+metformin 500mg or of BI 1356 2.5mg+metformin 1000 mg with individual components of metformin (500mg or 1000mg, twice daily), and BI 1356 (5.0 mg, once daily) over 24 weeks drug naiive or previously treated (4 week wash-out and 2 weeks placebo run-in) type 2 diabetic patients with insufficient glycemic control	Quintiles Spectral India	0
Nikhil Tandon	A 26 week randomized controlled open label multicenter, multinational three arm treat to target trial comparing efficacy and safety of three different dosing regimens of either soluble insulin basal analogue (SIBA) or insulin glargine with or without combination	Nova Nordisk	201,600 India

	with OAD treatment in subject with type 2 diabetes mellitus		
Ravinder Goswami	Skeletal muscle strength including its energy metabolism, bone mineral homeostasis and Th1/Th2 cytokines expression in Asian Indians with chronic hypovitaminosis D before and after oral cholecalciferol supplementation	ICMR	469,579
<b>ENT (Otorhinolaryngology)</b>			
Alok Thakar	Phase II/III randomized placebo controlled clinical trial of curcumin in squamous head and neck cancers	DBT	1,043,755
Alok Thakar	Prevalence of hypothyroidism following treatment of head neck cancer and its impact on quality of life	DST	181,614
<b>Gastroenterology and Human Nutrition Unit</b>			
Anoop Saraya	Effect of glutamine on intestinal permeability in acute pancreatitis	ICMR	443,085
Anoop Saraya	Gene mutations in patients with chronic pancreatitis and their role in pathogenesis of malignant transformation	DBT	1,289,000
Govind Makharia	A multicenter (country wide) prospective data collection of patients with inflammatory bowel disease Indian Society of Gastroenterology task force on inflammatory bowel disease	Sun Pharmaceuticals	82,179
Vineet Ahuja	A phase 3, randomised, placebo-controlled, blinded, multicentre study of the induction and maintenance of clinical response and remission by MLN0002 in patients with moderate to severe ulcerative colitis	Quintiles Spectral India	497,845
Vineet Ahuja	Phase 3, open/label study to determine the long term safety and efficacy of MLN0002 in patients with ulcerative colitis and Crohn's disease	Quintiles Spectral India	0
Vineet Ahuja	A phase 3, randomized, placebo-controlled, blinded multicentre study of the induction and maintenance of clinical response and remission by MLN0002 in patients with moderate to severe Crohn's disease	Quintiles Spectral India	114,936
Pramod Garg	Role of TNF-a in the pathogenesis of experimental acute pancreatitis and the effect of anti-TNF-a therapy in attenuating the severity of pancreatitis and in the subsequent regeneration of the pancreas	ICMR	1,307,115
Umesh Kapil	Validity of spot testing kit in the assessment of iodine content of salt. A multicentric study	MBI Kits	498,000
Y. K. Joshi	Health related quality of life in patients with chronic liver disease and effect of probiotics in the treatment of MHE and health related quality of life	ICMR	899,993

<b>Gastrointestinal Surgery</b>			
Peush Sahni	Multi-centric trial of medical syringe pump developed by AIIMS for production know how	Dept of Information Technology	380,000
<b>Haematology</b>			
Pravas Chandra Mishra	An open label, phase I dose escalation clinical trial of NRC-AN-019 in patients with all phases of chronic myeloid leukemia, who are resistant or intolerant to imatinib mesylate	NATCO Pharma India	613,118
Renu Saxena	Role of ZAP-70, CD38, mutational status of immunoglobulin heavy-chain variable-region (IgVh) gene and CD4+CD25hi+FoxP3+T regulatory cells (Tregs) in the prognostication of chronic lymphocytic leukemia in India and determination of its biology	DST	833,000
<b>Laboratory Medicine</b>			
A. K. Mukhopadhyay	The role of major neurotrophins, cytokines and genetic polymorphisms in clinical manifestation of depression in adolescents	DBT	1,768,000
S. Arulsevi	Evaluation of coagulation profile in patients with isolated head injury	ICMR	775,633
Sarman Singh	Doctors office diagnostic instrument for detection of <i>M. tuberculosis</i> in the field conditions adapted for use by unskilled personnel	DBT	301,000
<b>Medicine</b>			
Ashutosh Biswas	Dyslipidemia among HIV infected patients receiving antiretroviral therapy: A prospective observational study	ICMR	765,470
G. C. Khilnani	A multicentre study of clinical and microbiological profile of community acquired pneumonia (Cap) in Indian patients	Pfizer	354,680
Naval K. Vikram	Evaluation of newer markers of atherosclerosis in patients with type 2 diabetes	ICMR	771,841
<b>Microbiology</b>			
Arti Kapil	Multicenter study on antimicrobial resistance monitoring of <i>Salmonella typhi</i> and <i>Salmonella paratyphi A</i> . An attempt to make national guidelines to treat enteric fever	ICMR	318,046
B. R. Mirdha	Study of genetic polymorphisms of dihydropteroate synthase (DHPS) genes in <i>Pneumocystis jirovecii</i> isolates: Correlation with treatment failure and clinical outcome in patients with <i>Pneumocystis carinii</i> pneumonia	DST	970,000

B. R. Mirdha	Detection and quantification (quantitation) of <i>Pneumocystis jiroveci</i> in respiratory samples by real time polymerase chain reaction for clinical management of <i>Pneumocystis carinii</i> pneumonia (PCP) in human immunodeficiency virus (HIV) infected and uninfected individuals	ICMR	524,855
Benu Dhawan	Development and clinical evaluation of a real time quantitative PCR assay for detection of <i>Chlamydia trachomatis</i> in Indian women with infertility	ICMR	354,239
Rama Chaudhary	Genotyping of <i>C. difficile</i> and <i>C. perfringens</i> by PFGE and MLST from fecal samples in antibiotic associated diarrhea	ICMR	406,026
Seema Sood	LAMP as point-of-care test for gonorrhoea	DBT	1,300,000
Shobha Broor	Multisite epidemiological and virological monitoring of human influenza surveillance network in India, phase II	ICMR	678,431
<b>Neuroanaesthesiology</b>			
H. H. Dash	Avoidance of nitrous oxide during anaesthesia in patients undergoing craniotomy for supratentorial tumours	ICMR	482,880
<b>Neurobiochemistry</b>			
S. Vivekanandhan	Health Profile of Population of Dhar (MP)	ICMR	875,726
<b>Neurology</b>			
Garima Shukla	Generating knowledge for assesment of emerging technologies: The effects of continuous positive airways pressure therapy for prevention of new vascular events in patients with sleep disordered breathing and stroke: A randomized controlled study	DST	2,800,000
Kameshwar Prasad	Beta adrenergic receptor and angiotensin converting enzyme encoding gene polymorphism as a risk factor for stroke: A case control study	ICMR	305,709
Kameshwar Prasad	Comparison of effects of administration of bone marrow mononuclear cells (BMMNCs) in combination with melatonin versus BMMNCS alone in middle cerebral artery occlusion model of stroke in rats	DBT	2,033,000
M. V. Padma	Study of feasibility and efficacy of intravenous infusion of autologous bone marrow derived mononuclear stem cells in chronic ischemic stroke: Clinico-radiological correlative study with biomarkers of stroke recovery	DST	432,000

Vinay Goyal	Evaluation of therapeutic effect of repetitive transcranial magnetic stimulation (rTMS) in writers cramp, migraine, drug resistance depression and obsessive compulsive disorders	ICMR	498,396
<b>Neuroradiology</b>			
Ajay Garg	Quantitative vessel size imaging (VSI) in cerebral gliomas and correlation with histopathological grading and vascular endothelial growth factor expression	DBT	265,880
<b>Neurosurgery</b>			
Ashish Suri	Collaborative Indo-German program for bilateral workshops, seminars and tele-education in training microsurgical and endoscopic techniques in neurosurgery	DBT	5,342,000
<b>Nuclear Medicine</b>			
C. S. Bal	Fusion of medical images of MRI, PET and SPECT modalities	Dept of Information Technology	530,000
C. S. Bal	An international randomized, double-blinded, phase 3 efficacy study of XL 184 versus placebo in subjects with unresectable, locally advanced, or metastatic medullary thyroid cancer	PPD Pharmaceutical Development India	17,274
Rakesh Kumar	Early evaluation of treatment response of neo-adjuvant chemotherapy in locally advanced breast cancer (LABC) patients using metabolic tumor burden (MTB) estimated by PET-CT and correlation with CD 34 and VEGF expression	ICMR	230,473
<b>Obstetrics and Gynaecology</b>			
Alka Kriplani	Phase-I/Phase-IIB clinical trial on selected strains of probiotic lactobacilli packed as tablet for colonization potential and efficacy against recurrence of bacterial vaginosis	DBT	292,000
Neerja Bhatla	A phase III clinical trial to demonstrate the immunogenicity, tolerability, and manufacturing consistency of V503 (A multivalent human papillomavirus (HPV) virus-like particle (VLP) vaccine in preadolescents and adolescents (9 to 15 year old) with a comparison to young women (16 to 26 years olds)	MSD (India)	90,000
Neerja Bhatla	Evaluation of efficacy and anti-inflammatory action of placentrex TM in women with inflammatory PAP smears	Albert David	150,000



Suneeta Mittal	Comparative acceptability of male condom and FC-2 female condom in young Indian couples seeking contraceptive options	ICMR	35,020
<b>Orthopaedics</b>			
Arvind Jayaswal	Database of the scoliosis patients	ICMR	406,140
Rajesh Malhotra	Valuation of cytokines in patients undergoing total hip replacement and their correlation with osteolysis	ICMR	938,600
<b>Paediatric Surgery</b>			
M. Bajpai	To study the role of molecular markers in the diagnosis and treatment of posterior urethral valves (PUV)	ICMR	1,139,180
M. Bajpai	A study on clinical and molecular markers of chronic interstitial nephropathy in congenital unilateral ureteropelvic junction obstruction	ICMR	2,155,708
M. Bajpai	A study on the effect of endoscopic treatment of VUR in patients with angiotensin converting enzyme insertion deletion gene polymorphism in downregulating RAS activation	ICMR	3,469,328

#### **Paediatrics**

Arvind Bagga	A prospective, randomized controlled trial comparing the efficacy of intravenous cyclophosphamide and alternate day prednisolone versus tacrolimus and alternate day prednisolone for patients with steroid resistant nephrotic syndrome	ICMR	483,853
Rakesh Lodha	Biomarker discovery in asthma using an integrated genomics approach	Institute of Genomics and Integrative Biology	1,000,000
V. K. Paul	Impact of diaper use on incidence of systemic bacterial infection in hospitalized neonates	DBT	287,200
<b>Pathology</b>			
A. K. Dinda	Reconstruction of extensive long bone defects in rabbit using calcium phosphate-mullite composites	Indian Institute of Technology	50,000

<b>Pharmacology</b>			
D. S. Arya	Cardioprotective mechanisms of telmisartan in experimental models of myocardial infarction in streptozotocin-induced diabetic rats	DST	1,050,000
Surender Singh	Evaluation of antiarthritic activity of plant lipids containing omega-3 fatty acids in experimental models	ICMR	616,077
Surender Singh	To study the efficacy and safety of certain drugs from plants sources in the treatment of erectile dysfunction in experimental models	Sanat Product Ltd	318,476
Y. K. Gupta	Quantitative detection of heavy metals and phthalates	ICMR	315,450
Y. K. Gupta	A preliminary study on the antiobesity property of a Unani formulation in experimental models in rats	Central Council for Research in Unani Medicine	668,598
Y. K. Gupta	Effect of traditionally used ayurvedic rasa aushadhies on renal and hepatic functions: Clinical and experimental study	Central Council for Research in Ayurveda and Sidha	981,840
<b>Physiology</b>			
Ashok Kumar Jaryal	Modulation of the activity of barosensitive and chemosensitive neurons in nucleus tractus solitarius by medial preopic area stimulation in rats	DST	2,400,000
Debabrata Ghosh	Endometrial receptivity for blastocyst implantation in the primate systems biology approach	DST	2,100,000
Raj Kumar Yadav	Efficacy of yoga and dietary management in sedentary overweight subject with regards to markers of endothelial dysfunction, obesity and diabetes	AYUSH, MoHFW	1,270,680
Suman Jain	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	DST	1,500,000
<b>Reproductive Biology</b>			
Anand Kumar	Mediatory role of hypoxia inducible factor 1a on vascular endothelial growth factor expression in an immortalized mouse Leydig cell line	DST	800,000

<b>Surgery</b>			
Anurag Shrivastava	Safety and efficacy of autologous stem cells in prevention of amputation of patients with chronic critical limb ischemia	DBT	123,581
<b>Transplant Immunology and Immunogenetics</b>			
N. K. Mehra	Evaluation medical science: Identification of HIV/AIDS-related genes to develop therapeutic and preventive strategies	DST	270,000
N. K. Mehra	Implications of the interferon system and immunogenetic basis of resistance in HIV-1 infection and disease	ICMR	1,954,100
<b>Urology</b>			
Rajeev Kumar	Evaluation of oxidative stress as a cause for idiopathic male infertility and the role of 'Adozoa' in its treatment	Charak Pharma	540,073

#### New research projects funded by international agencies

Investigator	Project	Funding agency	Funds (Rs)
<b>Cardiology</b>			
Balram Bhargava	Untreated heart failure: Activation of the immunological and inflammatory systems and changes after short term treatment	British Council, UK	3,351,119
<b>Dermatology and Venereology</b>			
V. K. Sharma	Genetic analysis of psoriasis and arthritis in Indians	NIH, USA	0
<b>Dr B. R. Ambedkar Institute–Rotary Cancer Hospital</b>			
Lalit Kumar	A randomized, double-blind, placebo-controlled, phase 3 study to assess the efficacy and safety of weekly farletuzumab (MORAb-003) in combination with carboplatin and taxane in subjects with platinum-sensitive ovarian cancer in first relapse	Morphotek Inc., USA	0
Sushma Bhatnagar	A double blind, randomized, placebo controlled, parallel group dose-range exploration study of sativex in relieving pain in patients with advanced cancer, who experience inadequate analgesia during optimized chronic opioid therapy	GW Pharma, UK	44,335
<b>Medicine</b>			
S. K. Sharma	Sustaining research mentioned over the coming decades: Mentoring the next generation of Researchers for tuberculosis	European Commission	3,390,175

Sanjeev Sinha	A study of patients in resource-limited areas with cancer who also have HIV	EMMES Corporation, USA	234,549
<b>Microbiology</b>			
Shobha Broor	Rapid low cost molecular detection of influenza virus infections	NIH, USA	825,570
Shobha Broor	Enhanced surveillance for pandemic H1N1 (pH1N1) of swine lineage: A multisite study	CDC, USA	4,953,992
<b>Neurology</b>			
Kameshwar Prasad	Genetic basis of stroke in an Indian Population	British Council, UK	748,833
Madhuri Behari	A phase III, double blind, placebo controlled randomized trial to determine the efficacy and safety of a low (50 mg/day) and high (100 mg/day) dose of safinamide, as add-on therapy, in subjects with early idiopathic parkinson's disease treated with a stable dose of a single dopamine agonist	Merck Serono International S.A., Switzerland	494,786
Madhuri Behari	Open label trial to determine the long term safety of safinamide in Parkinson's disease patients	Merck Serono International S.A., Switzerland	571,722
<b>Obstetrics and Gynaecology</b>			
Suneeta Mittal	A cluster randomized controlled trial to evaluate the effectiveness of the clinical intergrated RHL evidence-based medicine course	WHO	1,058,637
<b>Paediatrics</b>			
A. K. Deorari	Phototherapy or exchange transfusion in neonates with hyperbilirubinemia	WHO	216,000
Madhulika Kabra	An open-label extension study of gene-activated human glucocerebrosidase (GA-GCB) enzyme replacement therapy in patients with type 1 Gaucher disease	Shire Human Genetic Therapies, Inc., USA	2,262,573

## 9.1 Anaesthesiology

### Professor and Head

Chandralekha

### Professors

Mahesh Kumar Arora  
Rajeshwari Subramaniam  
Lokesh Kashyap

Dilip Kumar Pawar  
Anjan Trikha  
Dilip Shende (RPC)

Ravinder Kumar Batra  
Maya Dehran

### Additional Professor

Ganga Prasad

### Associate Professors

Virender K. Mohan  
Rani A. Sunder

Vimi Rewari

Vanlal M. Darlong

### Assistant Professors

Amar Pal Bhalla  
Anjolie Chhabra

Jyotsna Punj  
Rashmi Ramchandran

Ravinder Kumar Pandey  
Renu Sinha (RPC)

## EDUCATION

- Academic activities of undergraduate, postgraduate and paramedical staff, B.Sc. (Nursing), M.Sc. (Nursing) are continuing as before.
- Training of doctors and technicians from India and abroad in various aspects of Anaesthesia, intensive care management, pain medicine and emergency care are continuing as before.

## Short and Long-term Training

The following candidates' underwent training in the department during the year:

S.No.	Name of the candidate	Place
1.	Dr Rakhee Goyal	Base Hospital, Delhi Cantt.
2.	Mr Rajesh Singh	
3.	Mr Bharat	Prakash Institute of Physiotherapy, Greater Noida
4.	Mr Sudhanshu Pandey	T.H.P.I, Hyderabad
5.	Ms Upasna Sharma	Manimajra, Chandigarh
6.	Mr Rakesh Kumar Jamwal	Siali, Pathankot, Punjab
7.	Dr Ranu Arora	Sweden
8.	Dr Luke Gibson	Monash University, Australia
9.	Dr Shambhu Kumar Pahari	Bir Hospital, Kathmandu, Nepal

The number of short term and long term trainees came to the department were:-

- Pain Clinic - 2
- ICU - 5
- Anaesthesia - 1

## **CONTINUING MEDICAL EDUCATION**

### ***Organized by the department***

#### **Professor Ravinder Kumar Batra**

1. 'Module of attempting theory examination for DNB candidates 2009', 19 April 2009, AIIMS, New Delhi.

### ***Lectures delivered***

#### **Professor Chandralekha**

1. 'Anaesthesia problems in a patient with chronic renal failure' in EUROCAPS (Examination oriented refresher course for anaesthesia postgraduate students), Department of Anaesthesiology and Intensive Care, UCMS & GTB Hospital, 8 September 2009.
2. 'Anaesthesia for Lapro/Endoscopic surgery', 12th training course in Minimally Invasive Gynaecology, Department of Obstetrics and Gynaecology, AIIMS, 3–13 August 2009.
3. 'Anaesthesia for Lapro/Endoscopic surgery', 13th training course in Minimally Invasive Gynaecology, Department of Obstetrics and Gynaecology, AIIMS, 16–26 November 2009.
4. 'Anaesthesia for Lapro/Endoscopic surgery', 14th training course in Minimally Invasive Gynaecology, Department of Obstetrics and Gynaecology, AIIMS, 1–11 February 2010.
5. Chaired 'Coronary stents and transvenous pacing before and surgery, when is it required', Annual Conference, Department of Anaesthesiology and Intensive Care, MAMC, 3–4 April 2010.
6. 'Drugs used in critical care unit', Critical Care Update, College of Nursing, AIIMS, 5-6 April 2010.

#### **Professor Ravinder Kumar Batra**

1. 'How to attempt theory paper successfully?', CME-Workshop on 'Module of Attempting Theory Examination for DNB candidates 2009' AIIMS, New Delhi, 19 April 2009.
2. 'Post-burn contracture neck, chest and arm and acute burns' UCMS & GTB Hospital, New Delhi, 5 September 2009.
3. 'Temporo-mandibular joint ankylosis' UCMS & GTB Hospital, New Delhi, 5 September 2009.
4. 'Life Saving Anaesthesia Skills in EmOC', Unicef state health specialist, New Delhi, 7 October 2009.
5. Ketamine as an adjunct with bupivacaine in paravertbral analgesia for breast surgery, ISA (Delhi) monthly meeting, AIIMS, New Delhi, 20 November 2009.
6. 'Anaesthetic consideration for neonate', PG Assembly, SGR Hospital, New Delhi, 17 February 2010.

7. 'Managing Emergency Obstetric Anesthesia-Pitfalls and Solutions' for MBBS Doctors practicing Emergency Obstetric Anesthesia, Workshop for TOT for Training of M.B.B.S doctors in Life Saving Anesthetic skills for Emergency Obstetric Care, Raipur, Chhattisgarh, 5–6 March 2010; Hyderabad, Andhra Pradesh, 19–20 March 2010.
8. 'Life saving Anesthesia for Obstetrics Emergency: Contents, skills to be acquired and key points for trainers' Orientation workshop for Master Trainers on the course and Curriculum developed in Anaesthesia and OBG training for MOs and its implementation for the UT of Lakshadweep, Chennai, 23–24 March 2010.

**Professor S.Rajeshwari**

1. 'Anesthetic Considerations in Patients with Adrenal Disease' and 'Portal hypertension and anaesthesia', PG Assembly, SGR Hospital, New Delhi, 11 February 2010.
2. Anaesthetic Management of Bariatric Surgery, Bariatric Surgery Workshop, January 2010
3. How do I read a scientific paper?, CME, International Conference on Critical Care, Indian Society of Critical Care Medicine Criticare 2010, Hyderabad.
4. Labour analgesia workshop, National conference of Association of Obstetric Anesthesiologists, PGIMER, Chandigarh.
5. Tracheostomy: Anesthesia implications, EUROCAPS 2009, UCMS & GTB Hospital, Delhi.

**Professor Maya**

1. Organized a teaching and training programme in Cardiopulmonary resuscitation for the doctors of different specialities in Punjab at Radha Swami Sat Sang Beas in December 2009.

**Dr. V.Rewari**

1. Anesthesia for congenital heart disease, EUROCAPS 2009, UCMS & GTB Hospital, Delhi, 7 September 2009.

**NATIONAL AND INTERNATIONAL CONFERENCES**

*Lectures delivered*

**Professor Chandralekha**

1. Clinical strategies and antifungal therapies in high risk ICU and hematologic patients, 2nd Asia Pacific ICU Hematology Forum, Shanghai, China, 26–27 September 2009.
2. 'Pulmonary function testing: its value in preoperative evaluation' 57th Annual National Conference, Indian Society of Anaesthesiologists, ISA, Chennai, Tamilnadu
3. 'Nutritional support in critically ill patients', NZISACON-2009, Department of Anaesthesiology and Intensive Care, Gian Sagar Medical College and Hospital, Ram Nagar, Banur, 24–25 October 2009.
4. 'Role of simulator base teaching in medical practice', Golden Jubilee Celebrations, Banaras Hindu University, Varanasi, 18 March 2010.

### **Professor Ravinder Kumar Batra**

1. ‘Anaesthesia for Cleft-lip and palate surgery’, ISA (Delhi Branch), 4 April 2009.
2. ‘Ketamine as an Adjunct with Bupivacaine in Paravertebral Analgesia for Breast Surgery’, NYSORA World Anesthesia Congress, Dubai, 7–12 March 2010.

### **Professor S. Rajeshwari**

1. AOA IInd International Conference, Chandigarh (18th to 20th Sept. 2009): Delivered lecture on “Labor Analgesia – Anesthesiologist’s Perspective”.
2. ISAZAC 2009 Conference, Puri, Orissa (9th -11th Oct. 2009): Delivered lecture on “Anesthetic Management of Pheochromocytoma”.
3. Patient with HIV infection. Lecture deliver at the 2nd Annual Conference of Association of Obstetric Anaesthesiologists held from 18-20 September, 2009 at PGIMER, Chandigarh.

### **Professor Anjan Trikha**

1. Perioperative pain management – when do we start, where do we end, South Zone ISA conference 2009, Hyderabad, 25 September 2009.
2. In obstetric analgesia what to do when epidural fails or is inadequate?, 2nd National Conference of Association of Obstetric Anesthesiologists, PGIMER, Chandigarh.
3. A mega-multicentre trial is not necessarily good scientific methodology, Annual Conference of RSACPCON-2009, Army Hospital, New Delhi.

### **Dr. V. Rewari**

1. DVT Prophylaxis in Trauma, Second International Conference of the Indian Society for Trauma and Acute Care (ISTAC8) TRAUMA 2009, JPN Apex trauma Centre and AIIMS, New Delhi, 12–15 November 2009.

## **RESEARCH**

### **Departmental Research**

#### *Ongoing*

1. Safety and efficacy of low dose spinal anesthesia in patients undergoing laparoscopic hernia repair.
2. Comparison of BIS and entropy for assessment of sedation in critically ill patients.
3. Evaluation of stroke volume variation as predictor of fluid responsiveness using pulse contour analysis device (Floreac/Vigileo) in mechanically ventilated patients.
4. Incidence of accidental venous cannulation during epidural catheter placement after prior epidural injection of normal saline and head down position.
5. To evaluate the efficacy of Tranexamic Acid in reducing perioperative blood loss and its effect on shunt patency in Lieno Renal Shunt surgery – a prospective randomized double blind placebo control study.



6. Endotracheal Intubation with ILMA, C-Trach TM and Cobra PLA TM in Stimulated Cervical Spine Injury patients – A Comparative study.
7. Comparison of oxygenation with pressure controlled ventilation versus volume controlled ventilation during laparoscopic bariatric surgery and the effects of alveolar recruitment on oxygenation.
8. Evaluation of the Entropy for assessment of sedation in the intensive care unit.
9. To study the analgesic efficacy and safety profile of add-on bupivacaine by paravertebral route for adults undergoing percutaneous nephrolithotomy.
10. Quantitative estimation of indices for components of balanced anesthesia using electroencephalographic signals from sub-human primates.
11. Development of an anesthesia delivery work station.

### **Completed**

1. A study to assess quality of sleep and factors affecting sleep in hospitalized patients.
2. Comparison of two doses of intrathecal morphine for postoperative pain relief in pediatric patients undergoing thoracic and spine surgery.
3. Equivalence randomized controlled trial of bioresorbable plates and titanium plates in the osteosynthesis of mandibular fracture. A pilot study.
4. Lamotrigine versus pregabalin in the management of trigeminal neuralgia refractory to carbamazepine. An open label, randomized active comparator controlled cross over trial.
5. Comparison of chronic groin pain, testicular functions and quality of life after open and laparoscopic inguinal hernia repair. A prospective randomized controlled trial.
6. To study the efficacy and safety of glossopharyngeal nerve block in the management of glossopharyngeal neuralgia

### **Collaborative Research**

1. Comparison of long term outcome and quality of life following laparoscopic repair of incisional and ventral hernias with tacker or suture mesh fixation. A prospective randomized controlled study (Department of Surgery).
2. A prospective randomized trial comparing chronic groin pain and quality of life in lightweight vs. heavyweight mesh in laparoscopic inguinal hernia repair (Department of Surgery).
3. Chronic groin pain in laparoscopic hernia repair in TEP vs. TAPP – a randomized controlled trial (Department of Surgery).
4. A study to assess the physical and psychological stresses of patient weaned off from mechanical ventilation in ICU (College of Nursing).
5. To evaluate postoperative pain and other postoperative variables/complications with different surgical techniques of Tonsillectomy. (Department of ENT).
6. Outcome of laparoscopic sleeve gastrectomy in morbidly obese patients (Department of Surgery).

7. Assessment of factors affecting safety in patients undergoing operations in general surgery (Department of Surgery).
8. Feasibility and comparison of the technique of Ultrasound guided Central Venous Catheter placement via internal jugular vein in three different patient position – conventional (15° Trendelenburg), semi sitting (30° head up) and left lateral position (Centre for Biomedical Engineering, Indian Institute of Technology, Delhi and Central Scientific Instruments Organizations Chandigarh).
9. Evaluation of entropy for assessment of sedation in the intensive care unit. (Centre for Biomedical Engineering, Indian Institute of Technology, Delhi and Central Scientific Instruments Organizations Chandigarh).
10. A study of fenotypic and phenotypic characterization of Asian Indian Children with craniosynostosis. (Department of Paediatric Surgery).

## PUBLICATIONS

1. Chhabra A, Sinha R, Subramaniam R, Chandra P, Narang D, Garg SP. Comparison of sub-Tenon's block with i.v. fentanyl for paediatric vitreoretinal surgery. *Br J Anaesth* 2009;103:739–43.
2. Darlong V, Senthil V, Pandey R. Peter's anomaly–anaesthetic management. *Indian J Anaesthesiol* 2009;53:501–3.
3. Elakkumanan LE, Chhabra A, Bose S, Sharma K. Granular cell myoblastoma of tongue: A rare cause of unanticipated difficult intubation. *M.E.J. Anesth* 2010;20:573–6.
4. Garg R, Singh G, Dehran M. Marshall Smith syndrome–Anaesthetic considerations. *Anaesth Clin Pharmacol* 2010;26:105–6.
5. Pandey R, Darlong V, Punj J. Anaesthetic concerns for Interventional Radiology. *Internet J Anaesthesiol* 2009;19 (1).
6. Pandey R, Garg R, Chandralekha, Darlong V, Punj J. Eisenmenger's syndrome in pregnancy: Use of proseal LMA and epidural analgesia for elective cesarean section. *Acta Anaesthesiol Taiwanica* 2009;47:204–7.
7. Pandey R, Garg R, Chandralekha, Darlong V, Punj J. Laryngoscope and bougie aided correct placement of DLT in difficult airway. *J Cardiothoracic Vascular Anaesthesia* 2009;23:583–4.
8. Pandey R, Garg R, Darlong V, Punj J. Radial artery cannulation –Prevention of pain and techniques of cannulation: Review of literature. *Internet J Anaesthesiol* 2009;19 (1).
9. Ponniah V, Batra RK, Anand RK. Anaesthesia with Montgomery T-tube in Situ. *J Anaesth Clin Pharmacol* 2009;25:357–8.
10. Punj J, Pandey R, Darlong V. One lung ventilation in tracheostomised patient. *J Anaesth Clin Pharmacol* 2009;25:111–12.
11. Rewari V, Ramachandran R, Trikha A. Lingual traction: A useful maneuver to lift the epiglottis in a difficult oral fibreoptic intubation. *Acta Anaesthesiol Scand* 2009;53:695–6.

12. Sharma P, Kulka A, Gadia R, Chhabra A, Dehran M. Evaluation of single-stage adjustable strabismus surgery under conscious Sedation. *Indian J Ophthalmol* 2009;57:121–5.
13. Sinha R, Subramaniam R, Chhabra A, Pandey R, Nandi B, Jyoti B. Comparison of topical lignocaine gel and fentanyl for perioperative analgesia in children undergoing cataract surgery. *Paediatr Anaesth* 2009;19:371–5.
14. Sinha R, Subramaniam R, Khanna P, Ponniah V. Use of sheath of ureteric stent as a tube exchanger during bronchoscopy. *Paediatr Anaesth* 2009;19:648.
15. Thangaswamy CR, Rewari V, Trikha A, Dehran M, Chandrlekha. Dexamethasone before total laparoscopic hysterectomy: A randomised controlled dose-response study. *J Anesth* 2010;24: 24-30.
16. Trikha A. Acutely ill patients rapid sequence intubation with etomidate or ketamine. *Natl Med J India* 2009;22:308–9.

## HOSPITAL SERVICES

### PATIENT CARE

The following facilities are available in the department.

1. Pre-anaesthesia clinic (PAC): 3 days in a week (Monday/Wednesday/Friday), 2 pm–5 pm
2. Pain Clinic: 3 days in a week (Monday/Wednesday/Friday), 2 pm–5 pm.
3. Interventional pain management procedures are done in the operation theatre once in a week on Thursday.

### Operations/Procedures

#### 1. Main Operations Theatre

• General Surgery	2715
• Gastrointestinal Surgery	459
• Urology	1154
• Otorhinolaryngology	987
• Gynaecology	1137
• Paediatric Surgery	1506
• Dental Surgery	125
• RPCentre (Routine+ emergency+MAC)	6103

#### 2. Peripheral Operation Theatres

• Maternity	1976
• Orothopaedics	2140
• IVF	121

**3. Interventional Pain Management Procedures 335**

**4. Procedures done under GA in peripheral areas**

• Modified ECTs (Psychiatry OPD)	204
• CECT	1456
• MRI	439
• Lithotripsy	7
• Paediatric USG (RPC)	193
• Other radiological procedures	56
• Ultrasound (RPC)	198

**AB8-ICU**

• Total number of patients admitted	361
• Number of patients discharged	224
• Number of deaths	27

**AB-8 Emergency duty**

• Emergency operations done	7429
• Emergency calls attended (From wards, peripheral ICUs, casualty)	2380

**SPECIAL CLINICS: Total number of patients attended the clinic**

• Pre-anaesthesia clinic	9463
• Pain Clinic	3250

**AB-8 Recovery Room**

• Cases done under Local Anaesthesia	4322
• Cases done under General Anaesthesia	7310

**Anaesthesia services for surgical workshops**

Urology Workshop April 3-4, 2009

ENT Workshop May 1, 2009

Orothopaedics Arthroplasty workshop August 22-23, 2009

ENT – Head & Neck Cancer update November 1-2, 2009

Endosurg-2010 by the Deptt.of Surgery March 26-28th, 2010

**SIGNIFICANT EVENTS**

**Professor Chandralekha**

- Executive Member to Bureau of Indian Standards (BIS) and Chairperson of Anaesthetic, resuscitation and allied equipment sectional committee MHD-11.

- Chairperson, Academic Committee of Indian College of Anaesthesiologists.
- Trust member of board of trustees of Indian College of Anaesthesiologists.
- Governing Council Member of Centre of Social Research (CSR) – a NGO.

#### **Professor Ravinder Kumar Batra**

- Member Expert Groups: (i) Decision of Thesis cases DNB in Thesis Review Committee, (ii) Review teaching and training activities for DNB candidates at Accredited Hospitals, (iii) Counselling through virtual class room for DNB candidates, (iv) Examination Ethics Committee, (v) Working Group Committee, (vi) Modification of NBE curriculum and criteria for recognition of Hospitals for DNB, (vii) Accreditation of Institution for FNB course in Critical Care, (viii) Aptitude test and Interview for ‘Fellows in Cardiac Anesthesia’, and (ix) Committee looking into issues of working hours for Resident Doctors, National Board of Examinations.
- Member, Expert Group Meeting on National Essential Medicine List, Central Drugs Standards Control Organization, Ministry of Health, Govt. of India and Department of Pharmacology, AIIMS.
- Member, Expert Group for formation of training programme for Medical Officer posted at Primary Health Centres for pesticide poisoning, MOH, Govt of India.
- Member, Expert group TOT for Training of MB,BS doctors in Life Saving Anesthetic skills for Emergency Obstetric Care for MOH, Chattisgarh and Hyderabad, Andhra Pradesh.
- Member, Expert group member of orientation workshop for the Master Trainers on the course and Curriculum developed in Anaesthesia and OBG training for MOs and its implementation for the UT of Lakshadweep.
- Member of Board of Speciality in Anesthesiology, MCI, Delhi to give opinion on guidelines for conscious sedation in Pediatric Dentistry

#### **Professor Maya**

- Provided Voluntary medical community services at Bhati Centre in Radha Swami Satsang for 17 days.
- Provided first aid services, resuscitation and critical care until the patient is shifted to AIIMS, New Delhi or Safdarjang Hospital.
- Provided medical services at the OPD of the dispensary at Bhati Centre, New Delhi on all Sundays of the year.

## 9.2 Anatomy

### Professor and Head

Rani Kumar

### Professors

Shashi Wadhwa

R.D.Mehra

T.S.Roy

### Additional Professor

A.Shariff (on leave)

Pushpa Dhar

S.B.Ray

### Associate Professor

T.K.Das  
(Electron Microscopy)  
Dr.Renu Dhingra

Rima Dada  
Dr.T.C. Nag  
(Electron Microscopy)

Arundhati Sharma  
(Genetics)  
Ritu Sehgal

## EDUCATION

### Undergraduate

The department conducts M.B.B.S., B.Sc. (Hons) Nursing, B.Sc. Nursing (Post Certificate), B.Sc. Ophthalmic and B.Sc. Radiographic technique courses. **For M.B.B.S. students, a** modified curriculum has been introduced which has greater integration with other basic preclinical departments. Formative tests involving multiple choice questions and case studies have been prepared on various topics in gross anatomy, microanatomy, developmental anatomy and neuroanatomy for the undergraduate students. Five MBBS students undertook various short-term research projects. Four of these students were awarded the Kishore Vaigyanik Protsahan Yojana (KVPY) fellowship from the Department of Science and Technology (DST) on the basis of these projects. Three of these students worked on neuroanatomy and one on “Mutation analysis in Congenital Glaucoma and Diagnostic significance of Yq microdeletions in men opting for ART”. Under summer fellowship program one MBBS student was trained for research techniques.

### Postgraduate

Besides training M.D., M.Sc. and Ph.D. anatomy students, the department conducted course on Human Genetics for the PG students of the Department of Biotechnology, AIIMS. The faculty taught human genetics (both practical and theory) to these students. The faculty delivered series of lectures to M.Sc. students of Jiwaji University Gwalior on neuroscience, medical genetics and embryology. Faculty delivered series of lectures at TERI University on routine and advanced techniques in electron Microscopy. The faculty also delivered lectures on anatomy for postgraduates during teleconference (held at IGNOU on Gyan Darshan) organized by National Board of Examination. The departmental e-Learning facility was used by the Post Graduate and PhD Students for scientific literature search and activities related to their thesis and research.

## Short and long term training

Under IASc-INSA-NASI fellowship programme, one student received 8 weeks training in immunohistochemical and electronmicroscopic techniques. Besides, he also learnt to write research projects and the procedure for accessing scientific literature using internet.

Two M.Sc. students from Cochin university of Science and Technology underwent training in neuroanatomical and genetics techniques. Four students of B.Tech and M.Sc. Biotechnology from Amity University worked on basic genetic techniques and Histological and embryological aspects of human reproductive system. One student each of B.Sc.( Biotech), M.Sc. and M. Pharm. courses of AMITY University, Noida, Chinmaya College, Haridwar, H.N.B. Garhwal University and J.S.S. University, Mysore received training on Immunohistochemistry, insitu hybridization and Western blotting, Histological and Image Analysis Techniques.

One student from Dept. of Human Molecular Genetics, Jiwaji University Gwalior worked on Basic cytogenetic techniques and Genetics of Turner Syndrome. Two students from B.Tech Biotechnology, Amity University worked on Basic cytogenetic techniques, Molecular techniques in eye disorders. The department provided training to two WHO fellows in genetics. One WHO trainee received training for a period of three months in molecular genetic techniques, basic cytogenetics and prenatal diagnostic techniques for detection of chromosomal disorders using CVS, amniotic fluid and cord blood samples. One WHO trainee from Mynamar was trained for plastination techniques for a period of one month.

## CME (Continuing Medical Education)

The department organized two Cadaver-based arthroscopic surgery workshops in collaboration with the department of orthopaedics.

## Lectures delivered

### Prof. Rani Kumar

Delivered lectures on Plastination in a CME programme organized by PGI Chandigarh and on 'Plastination: A newer alternative for preservation of biological material for teaching purposes' in the Workshop on Embalming, plastination and organ donation in present day scenario at the Maulana Azad Medical College, New Delhi. Also delivered lecture on 'Embryology of Genitourinary System' in a "Mock Examination" for MCh. and DNB PG Students organized by Department of Urology, AIIMS 22<sup>nd</sup> March, 2010.

### Prof. Shashi Wadhwa

Chaired a session on Plastination and participated in a round table discussion on how to write a grant in the Workshop on embalming, plastination and organ donation at the Maulana Azad Medical College, New Delhi. Delivered a guest lecture on "Cadaver use for developing hands on skills in endoscopic procedures" in the CME held at PGIMER, Chandigarh. Delivered an invited lecture on "Cellular and molecular changes in the chick hippocampus following prenatal sound stimulation" during the Workshop on Applications of Bioinformatics and Proteomic Techniques in Neurobiology held from September 07-21, 2009 at the Centre of Advanced Study, Department of Zoology, Banaras Hindu University, Varanasi.



**Prof. R. D. Mehra**

Delivered invited lecture in the Workshop on ‘Applications of Bioinformatics and Proteomic Techniques in Neurobiology’, Sept., 2009 at Banaras Hindu University, Varanasi entitled “Proteomics : A novel approach to understand neurodegenerative disorders”. Dr. Mehra also attended Workshop organized by CPCSEA in their National Conference, New Delhi, Jan.2010. She also chaired the session on Plastination and Round Table discussion on how to write a research grant in the workshop on the Embalming plastination and organ donation held at the Maulana Azad Medical College, New Delhi, March, 2010.

**Prof. T. S. Roy**

Delivered a lecture on “Setting up of an embalming unit and museology in the Workshop on embalming, plastination and organ donation” at the Maulana Azad Medical College, New Delhi, 26-27 March,2010.

**Dr.Pushpa Dhar**

Delivered invited lecture on Teaching-Learning Media during Teachers Training Workshop in Anatomy at Central Council of Homeopathy - CCH-Delhi (June 2009). Also delivered guest lectures on ‘Assessment Strategies’ at Reorientation Training Programme, Module II at the Kamaxidevi Homeopathic Medical College & Hospital, Goa (July 2009) and on ‘Planning a lesson’ at CCH, Delhi (Nov.2009). Dr. Dhar was invited to deliver a lecture on ‘Arsenic Toxicity – a global problem’ in Reorientation Training Programme of AYUSH, Deptt. of MHWF, Govt. of India, held at Deptt. of Anatomy, Faculty of Medicine, Jamia Hamdard University, Delhi (January, 2010).

**Dr Taposh K Das**

Attended workshop on “Imaging in Nanoscale” at IIT, Mumbai.

**Dr Rima Dada**

Delivered lecture on “Role of Paternal Factors- Sperm DNA damage and oxidative stress in Recurrent Spontaneous abortion” in a CME on Recent Advances in Management of Recurrent Spontaneous Abortions Organised by Dept of Obstetrics and Gynaecology and Genetics and Fetal Medicine Committee (October, 2009).

**Dr. A. Sharma**

Invited to conduct a Pre-Conference “Workshop on Cytogenetics and Molecular genetics” in the XVIII National Conference of Indian Association of Oral and Maxillofacial Pathologists, held at India Habitat Centre, New Delhi from 27th -29th November 2009. Invited talk on “Role of Genetics in Oral Cancer and Dental Anomalies-A Bird’s eye view” at the XVIII National Conference of Indian Association of Oral and Maxillofacial Pathologists, held at India Habitat Centre, New Delhi. Invited talk on “Molecular, Histopathological and Clinical Examination for Genotype-Phenotype Correlation in Patients with Macular Corneal Dystrophy” at the International Symposium on Role of Genomics in Clinical Practice and 35th Annual Conference of the Indian Society of Human Genetics (ISHG’2010), held at SGPGIMS, Lucknow (6-8 March, 2010). Invited lecture on “Prenatal, Cytogenetics and Molecular Analysis of Genetic Disorders” in Reorientation Training Program of AYUSH, Dept of MHFW, Govt of India, held at Department of Anatomy, Faculty of Medicine, Jamia Hamdard University, New Delhi.



## **Renu Dhingra**

Worked as resource faculty in “National workshop on Assessment Methods for learning Evaluation in Basic medical Sciences” at AIIMS , New Delhi.

Prof. R. Kumar, Dr. T. S. Roy, Dr. Renu Dhingra and Dr. Ritu Sehgal delivered lectures on various topics in gross and developmental anatomy during teleconference (held at IGNOU on Gyan Darshan) organized by National Board of Examination.

## **National and International Conferences**

### **Prof Shashi Wadhwa**

Attended and delivered a talk in a nanosymposium at the 39<sup>th</sup> Annual Meeting of the Society for Neuroscience at Chicago, Illinois, USA from 17<sup>th</sup> to 21<sup>st</sup> October 2009.

### **Prof. R. D. Mehra**

- Visited Semmelweis University Budapest under the Indo-Hungarian Collaborative Research Project of DST-NKTH, Aug-Sept., 2009 and delivered an invited lecture entitled “Neurotrophic and neuroprotective role of estrogen in hormone depleted and aged rat hippocampus” in the symposium on “Brain aging and geriatrics”, of the ‘Hungarian Physiology Congress’, Budapest, August 2009.
- Participated and presented two papers in 11<sup>th</sup> Congress of the Asian Society of Transplantation (CAST 2009), Beirut, Lebanon, October 2009.
- Delivered invited lecture entitled” Estrogen mediated neuroprotection in aging rat brain” in the Symposium on ‘Brain aging and cancer: Molecular causes and control’, of the IAN conference, Jaipur, December, 2009.

### **Prof. T. S. Roy**

- Participated and presented a poster in the “Neuroscience 2009”. 39<sup>th</sup> Annual Meeting of the Society for Neuroscience, Chicago, IL, Oct 17<sup>th</sup> to 21<sup>st</sup>, 2009.

### **Dr. P. Dhar**

- Participated and presented the papers - Sodium arsenite exposure during early postnatal period induces morphological and morphometric alterations in rat testis at 29<sup>th</sup> Annual Conference of Society of Toxicology;
- Presented paper entitled “ Early postnatal exposure to sodium arsenite alters calcium binding protein (CaBP) expression in Purkinje cells of rat cerebellum” at 27<sup>th</sup> Conference of Indian Academy of Neurosciences.
- Presented a paper entitled “Evaluation of alpha lipoic acid supplementation in ameliorating the arsenic induced oxidative stress in rat hippocampus” at Annual Conference of Anatomical Society of India and Chaired scientific session - Embryology, Morphology and Teratology

### **Dr. S. K. Basu Ray**

Presented paper at the symposium on “Chemical and Neuronal sensitivity: Multiple targets and risk dimensions” organized by the Indian Academy of Neurosciences.

### **Dr. Rima Dada**

Delivered invited lecture on “Role of Genetic Factors in male fertility regulation” at School of Environmental Sciences JNU, New Delhi on National Symposium on Nanotechnology: Implications and Solutions Also chaired a session on Nanoparticles: Role in medicine on Theory and Applications at National Symposium on Nanotechnology: Implications and Solution. Delivered talk on Mitochondrial DNA Analysis in Primary Congenital Glaucoma at ISHG, Lucknow. Attended meeting on Advances in Genomic technology at AIIMS it was organized by International conference on Birth Defects and Disabilities. Delivered invited lecture on “Oxidative stress? Does it have a role in reproductive disorders” at International Conference on reproductive health at Jaipur, organized by Indian Society of Research in Reproduction. Delivered invited lecture on Sperm DNA damage- Can it be diagnosed on routine semen analysis at Reproductive Biomedicine meeting at 15<sup>th</sup> Annual meeting of Congress of Society of Andrology. Delivered Invited lecture on Role of Genetic Factors in male infertility: Implications in management in Conference on Technology in Fertility regulation organized by Department of Biomedical Engineering IIT, Kharagpur . Delivered invited lecture on “Scope of Genetic Research in Medicine” in Reorientation Training Program of AYUSH, Dept of MHFW, Govt of India, held at Department of Anatomy, Faculty of Medicine, Jamia Hamdard University, New Delhi.

### **Dr. Arundhati Sharma**

Attended the

- 4th International Conference on Birth Defects and Disabilities (ICBDD) in the Developing World, held at the Le-Meridien Hotel, New Delhi on 4th-7th October, 2009 and the
- 1st Biennial Meeting of Indian Society for Pediatrics and Adolescent Endocrinology (ISPAE’2009) held at Indian Habitat Center, New Delhi from 13th-15th November’2009.

### **Dr.T.C.Nag**

- Delivered lectures on: Selective vulnerability of cones in aging human retina, at National Brain Research Centre, Manesar.
- Delivered lectures on:Electron microscopy and immunohistochemistry in biological research, at Winter School on Molecular Medicine and Biotechnology at PGIMS, Rohtak, February 10, 2010.
- Participated and presented an oral paper at 27th Annual Meeting of the Indian Academy of Neurosciences, Jaipur, December 18-20, 2009.
- Attended IBRO-APRC Advanced School in Neurosciences, National Institute of Physiological Sciences, Okazaki, Japan, February 15-26, 2010.

### **Dr.Renu Dhingra**

- Presented a talk on “development of limbs and embryological basis of triskelion” for a case of triskelion during CGR held by department of Orthopaedics (September, 2009).
- Delivered lecture on “Surgical anatomy of hip region” in AIIMS cadaver arthroplasty course organized by department of Orthopaedics

## RESEARCH

### Funded Projects

#### *Ongoing*

Influence of prenatal chronic noise exposure on brain stem auditory nuclei, hippocampus and spatial memory in chicks. Dr Shashi Wadhwa, Funded by DBT ( 2008-2011) Funds: 65.49 lakhs

Studies on ovariectomy induced anatomico-chemical changes in rat cerebellum and their response to estradiol and tamoxifen therapies.(PI Dr.R.D.Mehra, Funded by ICMR (2008-2011) Funds : .5,64,000 Lakhs.

Prenatal Development and Maturation of Human Inferior Colliculus. PI Dr.T.S.Roy, Funded by DST, (2007-2010) Funds : 23,88,000 Lakhs.

A stereological study of age related morphological and neurochemical changes in the human cochlear nucleus.,PI Dr.T.S.Roy.,Funded by ICMR (2010-2013) Funds 29.28 lakhs.

To study the effects of antioxidant supplementation on neuronal populations of rat hippocampus following sodium arsenite exposure during early postnatal period. PI Dr.Rima Dada, Funded by AIIMS (2009=2019) Funds : 70,000 Lakhs.

A study on the novel analgesic effect of intraspinal loperamide in a murine model of postsurgical pain. PI Dr. S.B.Ray. Funded by ICMR (2008-2011) Funds: 30.10 lakhs.

Genetic and DNA fragmentation study in infertile couples opting for ART and couples experiencing recurrent IVF/ICSI failure. PI Rima Dada . Funded by ICMR (2008-2011) Funds : 5.0 lakhs.

Role of circulating angiogenetic factors in the pathogenesis of preeclampsia Principal investigator : Dr Renu Dhingra , Co investigator : Prof Rani Kumar, Dr Neerja Bhatla and Dr Kalpana Luthra. Funded by AIIMS (2008-2010) Funds : 1.5 lakhs.

#### *Completed*

Influence of prenatal auditory stimulation on the development of synaptic proteins, brain derived neurotrophic growth factor and spatial memory in chick hippocampus. PI Shashi Wadhwa, Funded by DBT (2006-2009) Funds: 18.43 lakhs.

Brain aging and neurodegeneration: Neuroprotective and biomodulatory roles of estrogens and glucocorticoids (Indo-Hung. Collaborative research project) PI Dr. R.D. Mehra, Funded by DST (2007-2009) Funds: Rs.3.90 lakhs.

Analysis of Mitochondrial DNA Mutations in pathogenesis of spermatogenetic arrest PI. Rima Dada, Funded by ICMR. (2007-2010) Funds: 4.33,617 lakhs.

Photoreceptor changes in the aging human retina and their possible link with oxidative stress. PI: TC Nag. Funded by DBT(2008 -2009). Funds: Rs 10.0 lakhs.

## **Collaborative**

### **Ongoing**

European Commission funded “ASSIST” Project, EU-FP6 (with Prof. N.K.Mehra as the Principal investigator, HLA Deptt. duration- 2007-2010).

Role of TNF- $\alpha$  in the pathogenesis of experimental acute pancreatitis and the effect of anti-TNF- $\alpha$  therapy in attenuating the severity of pancreatitis and in the subsequent regeneration of the pancreas (with department of Gastroenterology). Funded by ICMR (2009-2011) Funds: Rs29.81 lacs.

Comparison of administration of bone marrow mononuclear (BMMNCs) in combination with melatonin versus BMMNCs alone in middle cerebral artery occlusion model of stroke in rats. (with department of Neurology). Funded by DBT (2009-2012). Funds :29.7 lakhs.

Mutation analysis in congenital and developmental glaucoma and development in North Indian Population. With RP Center, Funded by DBT (2007-2010) Funds : 11.69 lakhs.

Phase III clinical trial with intravasal injectable Male contraceptive RISUG- With Biochemistry, 2008-2011, Funded by ICMR (2008-2011)

“Feasibility study of a novel intraosseous access device for emergency vascular access” along with department of cardiac radiology supported by Stanford India Biodesign in collaboration with IIT and Stanford university.

Congenital Adrenal hyperplasia – genotype phenotype correlation – with Department of Endocrinology and Metabolism. Funded by DBT (2008-2011) Funds : 30.0 lakhs.

### **Completed**

Prenatal auditory sound stimulation: effect on spatial memory and expression of synaptic proteins in chick hippocampus. (Collaborative: Co PI, funded by CSIR (2006-2009) Funds 15 : lakhs.

Mutational analysis of corneal dystrophies in north Indian patient population. Arundhati Sharma Co-PI with Rajendra Prasad Centre for Ophthalmic Sciences, funded by Department of Biotechnology, (2006-2009) Funds : 36 lakhs.

Screening of Von-Hippel Lindau gene for germline mutations in intracranial aneurysms. A prospective study. – Arundhati Sharma, Co-PI, with Department of NeuroSurgery AIIMS Funded, Rs 1.5 lakhs, (2008-2010)

## **Departmental Projects**

### **Ongoing**

Expression of calcium binding protein - calbindin in the chick hippocampus following prenatal excessive sound stimulation.

Effects of prenatal chronic noise exposure on the morphology of auditory cortex in chick.

Molecular studies of the excitatory and inhibitory synapses of the auditory cortex in developing chick exposed to prenatal chronic noise.

Hippocampal regulation of immune mechanism.

Development of the human auditory system

Age changes in the human cochlear nerve

Morphology of the fetal and adult human pancreatic duct system

Effects of lipoic acid as an antioxidant supplement on arsenic induced toxicity in developing rat hippocampus.

Effects of perinatal Arsenic Exposure on rat testis : A morphological study

Effect of sodium arsenite exposure during perinatal period on rat testis

Effect of antioxidants on sodium arsenite induced neurotoxicity in the developing rat cerebellum

Cytogenetic and Molecular study in Coloboma

Effect of raloxifene on cardiac morphology in ovariectomized rats

Effect of estrogen & estrogen like compounds on cerebellum of adult female rat ; A histochemical and molecular study

Glial changes in aging human optic nerve

### **Inter Departmental projects**

#### **Ongoing**

Effect of arsenic exposure on rat liver during early postnatal period

Genetic Studies in Myelodysplastic syndrome-with Haematology

Clinical, radiological and genetic study in Blepharophimosis-with RP Centre

Genetic Studies in Myelodysplastic syndrome-with Haematology

Genetic Parameters of Neuroblastoma: A study on Fine Needle Aspiration Cultures. with Department of Pediatric Surgery funded by AIIMS (2008-2010) Funds : Rs 2.0 Lakhs.

To evaluate possible presence of mutations in VSX1 gene in Keratoconus –with Rajendra Prasad Centre for Ophthalmic Sciences, Funded by AIIMS (2008-2010) Funds : 2.0 Lakhs.

Clinical, radiological and genetic study in Blepharophimosis-with RP Centre

Investigation of genetic variations in CH13L1 and effect of YKL-40 production in Indian Asthmatic patients with Biophysics

Molecular analysis in Congenital cataract with RP centre

Evaluation of Reflexology as an adjunctive therapy in patients with Lennox Gastaut Syndrome, Mutation screening of GPR-65 in LGS. With Biophysics

#### **Completed**

Measurement of the depth of the terminal ductolobular units from the dermis in modified radical mastectomy specimens in carcinoma of breast to arrive at an optimum thickness of the skin flap

### **PUBLICATIONS**

#### **Papers**

Biswas A, Puri T, Goyal S, Kumar S, Sharma A, Paliwal P, Suri V, Jain A, Julka PK and Rath GK. Spinal Myxopapillary Ependymoma With Down Syndrome: Exploring an Unusual Association. *J Pediatr Hematol Oncol* 2010; 32: 38-41.

- Chaudhury S, Wadhwa S. Prenatal auditory stimulation alters the levels of CREB mRNA, p-CREB and BDNF expression in chick hippocampus. *Int J Dev Neurosci*. 2009 27: 583-90.
- Dhingra R, Talwar KK Chopra P, Dhingra M and Kumar R. Induction of non-specific aortoarteritis in mouse using various aortic antigens. *J. Anat. Soc. India* 2009; 58: 115-25.
- Gupta R, Sharma A, Mahanta PJ, Jacob TG, Agarwal SK, Roy TS, Dinda AK. Focal segmental glomerulosclerosis in idiopathic membranous glomerulonephritis: a clinico-pathological and stereological study. *Nephrol Dial Transplant* 2010; 25: 444--49.
- Kataria S, Roy TS. Unusual combination of musculotendinous variations in the plantar musculature *Clin Anat* 2009; 878-80.
- Kumar R, Venkatesh S, Kumar M, Tanwar M, Shamsi MB, Kumar R, Gupta NP, Sharma RK, Talwar P, Dada R. Oxidative stress and sperm mitochondrial DNA mutation in idiopathic oligoasthenozoospermic men *Indian J Biochem Biophys* 2009;46: 172-77.
- Kumar S, Sood S, Enjamoori R, Jaiswal A, Dinda, AK, Roy TS and Maulik SK. Method for Enhanced Separation of Cardiac Myosin Heavy Chain Isoforms by Nongradient SDS-PAGE. *Analytical Letters* 2009;42: 2311–18,.
- Moorthy G, Agarwala S, Sharma A, Iyer VK, Srinivas M, Bajpai M, Bhatnagar V, Gupta DK. Cytogenetic evaluation of neuroblastoma using fine needle aspiration cultures. *Pediatr Surg Int* 2009; 25: 939-43.
- Neerja R, Dhingra R, Bhatla N, and Kumar R. Morphological and histological changes in placentas of pre-eclamptic patients. *Annals of NAMS* 2009;45: 221-32 .
- Paliwal P, Singh A, Tandon R, Titiyal JS, Sharma A. A novel VSX1 mutation identified in an individual with keratoconus in India. *Mol Vis* 2009;15: 2475-90.
- Paliwal P, Gupta J, Tandon R, Sharma A, Vajpayee RB. Clinical and Genetic profile of Avellino corneal dystrophy in two families from North India. *Arch Ophthal* 2009; 127: 1373-76.
- Paliwal P, Singh A, Tandon R, Titiyal JS, Sharma A. A novel VSX1 mutation identified in an individual with keratoconus in India. *Mol Vis* 2009; 15: 2475-90.
- Shamsi MB, Venkatesh S, Tanwar M, Kumar M, Arora S, Arya DS, Dada R. Effect of tobacco and psychotropic substance smoking on reproductive health of men. *Asian J Androl* 2009; 11: 48.
- Shamsi MB, Venkatesh S, Kumar R, Gupta NP, Malhotra N, Sing N, Mittal S, Arora S, Arya DS, Talwar P, Sharma RK, Dada R. Antioxidants levels in blood and seminal plasma and their impact on sperm parameters in infertile men. *Indian J Biochem Biophys* 2010; 47: 38-43.
- Shamsi MB, Venkatesh S, Kumar M, Kavish E, Sharma K, Dada R. Affect of Reactive Oxygen Species on semen quality in males of couples experiencing Recurrent Spontaneous Abortion. *Asian J Androl* 2009; 11: 152.
- Sharma A, Paliwal P, Dadhwal V, Sharma Y and Deka D. Rare finding of 2n/4n mixoploidy in mother and fetus with severe immune hydrops. *Cytogenetic and Genome Research* 2009; 124: 90-93.
- Sharma V, Nag TC, Wadhwa S, Roy TS. Temporal distribution of mRNA expression levels of various genes in the developing human inferior colliculus. *Neurosci Lett* 2009; 461: 229-34.



- Sharma S, Ray B, Bhardwaj D, Dwivedi AK, Roy TS. Age changes in the human oculomotor nerve - a stereological study. *Ann Anat* 2009 ;191: 260-66.
- Tanwar M, Dada T, Sihota R, Dada R. Mitochondrial DNA analysis in primary congenital glaucoma *Mol Vis* 2010;16 : 518-33.
- Tanwar M, Dada T, Sihota R, Yadav U, Das TK, Dada R. Mutation spectrum of CYP1B1 in North Indian congenital glaucoma patients. *Mol Vis* 2009;15: 1200-09.
- Varughese B, Dhingra M, Kumar R, Dhingra R. Pre-eclampsia and associated risk factors. *Journal of postgraduate medical education, training and research* 2009; IV 1-5 :21-26.
- Varughese B, Dhingra M, Kumar R, Dhingra R. Etiological role of angiogenetic factors in pre-eclampsia. *Journal of Postgraduate Medical Education, Training and Research* 2009;6: 87-91.
- Venkatesh S, Riyaz AM, Shamsi MB, Kumar R, Gupta NP, Mittal S, Malhotra N, Sharma RK, Agarwal A, Dada R. Clinical significance of reactive oxygen species in semen of infertile Indian men *Andrologia* 2009; 41: 251-56.
- Venkatesh S, Shamsi MB, Dada R. "Re: Attenuation of oxidative stress after varicocelectomy in subfertile patients with varicocele: S.-S. Chen, W. J. Huang, L. S. Chang and Y.-H. Wei. *J Urol* 2008; 179: 639-642". *J Urol.* 2009 181:1964-65.
- Venkatesh S, Shamsi MB, Kumar R, Gupta NP, Dada R. Oxidative stress: Role of seminal plasma in infertile men. *Obs & Gyn Today* 2009;14: 417-19.
- Venkatesh S, Singh G, Gupta NP, Kumar R, Dada R. Sperm morphology and oxidative stress- useful predictors in male infertility Iranian. *J Reprod Med* 2009; 29-34
- Venkatesh S, Shamsi MB, Kumar M, Tanwar M, Kumar R, Gupta NP, Dada R. Novel protamine2 (PRM2) mutation and transitional protein (TP) gene single nucleotide polymorphisms (SNPs) affect sperm DNA integrity and motility in infertile men. *J Androl (Suppl)* 2010; 56.
- Wappler EA, Felszeghy K, Szilagyi G, Gal A, Skopal J, Mehra RD., Nyakas C. and Nagy Z: Neuroprotective effects of estrogen treatment on ischemia-induced behavioural deficits in gerbils at different ages. *Behav. Brain Res* 2010;209: 42-48.

## Abstracts

- Dhar P, Mehra RD: Morphological and morphometric features of rat hippocampus following Arsenic exposure during rapid brain growth period (RBGP). *J. Anat. Soc. India* (2009) 58 (1): 49.
- Dhar P, Dixit S, and, Mehra RD : Alpha lipoic acid supplementation Ameliorates Sodium Arsenite induced toxicity in rat hippocampus. *J. Anat. Soc. India* 58 (1): 55 (2009).
- Dhar P, Dixit S, Mehra RD (2009) : Alpha lipoic acid supplementation ameliorates sodium arsenite induced toxicity in rat hippocampus. *J. Anat. Soc. India* 58(1) Pg 16
- Dixit S, Kaushal P, Mehra RD. : Early postnatal exposure to Sodium Arsenite alters calcium binding protein (CA BP) expression in purkinje cells of rat cerebellum. *Ann. of Neurosci.* 16 (Suppl.): (2009) 42.
- Dixit S, Dhar P, Mehra RD: Morphological and biochemical evidence of protective role of A-Lipoic acid (ALA) in arsenic induced developmental neurotoxicity. *Ann of Neurosci.* 16 (Suppl.) 2009 : 116.

- Ihtisham K, Venkatesh S, Shamsi MB, Kumar R, Gupta NP, Mittal S, Malhotra N, Dada R. ROS: causal role of DNA damage in varicocele. (2009) *Asian J Androl* 11 (5 Suppl) Oct, 156
- Kataria S, Varshney MK, Kumar P, Dhar P and Mehra RD : Estrogen facilitates synaptogenesis and neurotransmission in rat neocortex, allocortex and transition zone subiculum through p-CREB and ERK1 pathways. *Ann. of Neurosci.*, 16 (Supp.), 2009.
- Kaler S, Dhar P and Mehra RD. (2009) Morphological and morphometric features of rat hippocampus following arsenic exposure during rapid brain growth period. *J. Anat. Soc. India*, 58(1): 5-6.
- Kaushal P, Pandey J and Dhar P. (2009) Anomalous pattern of extensor tendons of hand: A case report. *J. Anat. Soc. India* 58(1): 112
- Kaler S, Dhar P and Mehra RD. (2009) Morphological and morphometric features of rat hippocampus following arsenic exposure during rapid brain growth period. *JASI*, 58(1): 5-6 (Abstr)
- Kaushal P, Pandey J and Dhar P. (2009) Anomalous pattern of extensor tendons of hand: A case report. *JASI*, 58(1) Pg 112 (Abstr)
- Kaushal P, Dhar P and Mehra RD : Postnatal administration of sodium arsenite in rats affects testicular morphology. Paper presented in CME-cum-workshop and 4th annual meet of NSEASI at MMIMSR, Mullana, Ambala, Oct.2009.
- Kumar P, Varshney MK, Nyakas C and Mehra Raj : Neuroprotection of ovarian steroid hormone estrogen may be mediated through mitochondria. *J. Anat. Soc. India* 58 (1) : 104 (2009).
- Mehra RD: Estrogen mediated neuroprotection in aging rat brain. *Ann. of Neurosci.* 16 (Suppl.):20 (2009).
- Mehra RD: Experimental evidence of therapeutic relevance of estrogen and estrogen like compounds post-menopause. *J. Anat. Soc. India*, ( 2009).97 58 (1):
- Pandey J, Kaushal P and Dhar P. Anomalous Termination of Brachial Artery: A Case Report. *JASI*, (2009) 112 58
- Pandey J, Kaushal P and Dhar P. Anomalous Termination of Brachial Artery: A Case Report. *JASI*, 2009 112 58(1).
- Pathak D, Tanwar M, Dada T, Sihota T, Dada R. Sturge-Weber syndrome with CYP1B1 mutations and severe trabecular dysgenesis) *ASHG*, 685. 2009
- Ray SB, Rai HIS, Kumar R) Calcitonin gene-related peptide (CGRP) expression increases in the dorsal horn of the spinal cord after plantar incision in rats, *Indian J Neurosci* , 2009 16, 12.
- Sharma S, Roy TS. Three-Dimensional Reconstruction of the Cochlear Nuclear Complex in Humans. *Annals of Neuroscience* (Suppl) 2009, 16: AS-4, P:34-35.
- Singh H, Kumar M, Tanwar M, Venkatesh S, Dada R. Novel 1q31-32 deletion in a patient with ocular coloboma *ASHG*, 399. 2009
- Singh S, Shariff A, Roy TS. Morphological Maturation of the Developing Human Sigmoid Myenteric Plexus. *Annals of Neuroscience* (Suppl) 2009, 16: PS-I40, P:86-87.
- Varshney MK, Nyakas C and Mehra RD: Neuroprotection by estrogen in the cerebellum: The mitochondrial ATPase a presumed therapeutic target. *Ann. of Neurosci.* 16 (Suppl.), 2009



Varshney MK, Kumar P, Nyakas C, Mehra Raj: Cyclic Response Element Binding (CREB) protein phosphorylation mediated neuroprotection in ovariectomized rat cerebellum. *J. Anat. Soc. India* 58 (1): 64 (2009).

Venkatesh S, Ammini AC , Tandon N, Goswami R, Dada R. A novel 10, 11 translocation in an azoospermic man. *Asian J Androl* 11 (5 Suppl) Oct, 156 (2009)

Venkatesh S, Kumar M, Tanwar M, Shamsi MB, Kumar R, Gupta NP, Dada R. Analysis of protamine & transitional protein gene mutations in infertile Indian men. *Asian J Androl* 11 (5 Suppl) Oct, 155. (2009)

### Books/Chapters in Books

Dada R. Recurrent Prgnancy Loss: Male Factor. In: An introduction to genetics& Fetal medicine. Eds Deepika Deka and Narendra Malhotra, A Federation of Obstetrics and Gynaecology Societies of India publication. Printed by Jaypee Brothers Medical publishers, N Delhi, 27-37, 2010

Dada R. Morphological Changes and cryofreezing in Assisted Reproductive Techniques. In: Frozen Life A comprehensive manual of Cryobiology for assisted Reproduction and Stem cells Eds. P Talwar. Printed by Jaypee Brothers Medical publishers , N Delhi, 31-46, 2009

Dada R. Cytogenetic and molecular techniques in diagnostic workup in infertility. In: Step by Step Andrology Laboratory Manual. Ed A Agarwal. Printed by *Jaypee Brothers Medical publishers* , N Delhi, 2010;144-156,

Wadhwa S. Neuroanatomy. In: Neurosciences in India. Eds. BN Dhawan and PK Seth. *Indian Academy of Neurosciences and Council of Scientific and Industrial Research Publication*, Printed by Maruti Scanners, Lucknow, 2009.; pp. 19-48

### PATIENT CARE

#### GENETIC DIAGNOSTIC and COUNSELLING SERVICES

1. Chromosome analysis/karyotyping	375
2. Amniotic fluid/CVS/cord blood/ skin biopsy/abortus material	100
3. Cytogenetic analysis / Karyotyping	410
4. Yq microdeletion analysis by PCR	88
5. ROS estimation	64

#### Fluorosis diagnostic Lab

1. Fluoride estimation	108
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#### Embalming of dead bodies

1. For transportation	666
2. For teaching	10

### AWARDS and HONOURS

Dr.Rani Kumar served as Advisory panel member for election of fellow of *National Academy of Medical Sciences*, 2009.

Prof. Shashi Wadhwa served as Expert Committee member for selection of awardees to the prestigious Shanti Swarup Bhatnagar Prize of *CSIR in Medical Science and DST BOYSCAST* Fellows for 2009.

She also served as Advisory Panel member for election of NAMS Fellows in Anatomy for 2009. She was nominated observer by NAMS to the CME organised by Department of Anatomy, PGIMER, Chandigarh, 2009. She was nominated as member of project review committee (PRC) on Neurological Sciences at ICMR.

Mehra N.K., Mehra Raj D., Siddiqui J. et al.: Clinical relevance of cytokine gene polymorphism on renal allograft outcome : Indian experience . Paper presented in *11<sup>th</sup> Congress of the Asian Soc.of Transplantation (CAST 2009)* (Received best abstract presentation award).

Dr. P. Dhar was conferred the fellowship of *Society of Toxicology of India 2009* ‘Fellow – STOX’ at Annual Conf. of STOX held at NIN, Hyderabad

Dr. P.Dhar was awarded “IMA National President Appreciation Award” for the year by *Indian Medical Association (IMA)* ; 2009

Dr. S.K. Basu Ray was admitted to the membership of the *National Academy of Medical Sciences, N.Delhi*. He received the “Favourite Teacher Award” from the IInd Year M.B.B.S. students on 5<sup>th</sup> September, 2009

Dr Rima Dada received ICMR international fellowship for young Biomedical scientist for the year 2009-2010 and was visiting scientist at *Cleveland Clinic at centre for reproductive medicine* from March 2009 to July 31<sup>st</sup> 2009. During her stay at *Cleveland Clinic at centre for reproductive medicine* she was adjudged an excellent mentor for summer internship course from June 1 to July 24<sup>th</sup> 2009.

## **SIGNIFICANT EVENTS**

### **Prof. R Kumar**

Invited as Expert Member of Selection Committee for interviewing candidates for the post of Assistant Professor (Anatomy) at University of Health Sciences, Rohtak. She was an Expert Member of Inspection Committee for increase of seats in PG Course in Anatomy at Maulana Azad Medical College, New Delhi. Invited as Expert Member of Selection Committee for interviewing candidates for the post of Assistant Professor (Anatomy) at Maulana Azad Medical College, New Delhi. She was also invited as Expert Member of Selection Committee for interviewing candidates for the post of Lecturers/Assistant Professor (Anatomy) at Chhatrapati Shahuji Maharaj Medical University UP, Lucknow.

### **Prof. S Wadhwa**

Prof. Shashi Wadhwa attended the Planning and Monitoring Board meeting and as expert member for SRF interview at National Brain Research Centre at Manesar, Haryana. She served as examiner for DNBE in Anatomy at Lady Hardinge Medical College and was invited as moderator for DNBE in Anatomy at the NBE, Dwarka, New Delhi. She acted as external examiner for M Phil dissertation of a student in Life Sciences at JNU, New Delhi. She participated in the Editorial Board meeting of J Biosciences at Hyderabad. Prof Wadhwa also served as an observer for NAMS in the CME held at PGIMER, Chandigarh. She attended the committee meeting of project review committee (PRC) on Neurological Sciences at ICMR. Shashi Wadhwa continued to serve on various committees of AIIMS: as Chairperson of research subcommittee and teaching schedule committee; as member of Deans’ committee, Institutional committee for stem cell research and therapy, patent committee, subcommittee for institute travel grant and implementation committee for AIIMS extension at Jhajhar, Haryana..

She reviewed the book on “Early life origins of human health and disease” edited by Newnham and Ross, 2009 for IJMR. She reviewed research papers submitted to Neuroscience Letters, Developmental Neuroscience, IJMR, NAMS J., J. Biosciences and J. Anatomical Society of India. She also reviewed neuroscience research projects and annual project reports for ICMR, DST and DBT. She continued to be a member of the editorial board of J. Anatomical Society of India.

**Prof. R. D. Mehra**

Reviewed neuroscience research projects for ICMR, DBT, DST, CSIR and manuscripts for publication in Brain Research, Neurosciences Letters, *International journal of Sciences and Life Science*. Nominated as member of Annual Report Editing Committee, Research Committee and Animal Ethics Committee of AIIMS. Dr. Mehra also continued to be member of the Chronic Disease Biology (Neuroscience, biomarkers and neuro engineering) Task Force of DBT. She was member of expert committee for faculty selection of several Public Service Commissions and institutions.

**Prof. T. S. Roy**

Prof. T.S. Roy continued to be a member of the editorial board of Pancreas. He reviewed manuscripts for the journal, Clinical Anatomy, Pancreas, National Medical Journal of India and Neuroscience Letter. Prof. T.S. Roy was member of the expert committee for faculty selection at various national research institutions and universities. He reviewed projects on Neurosciences for ICMR and DST. Served in the expert committee for setting questions for National Board of Examination.

**Dr. P Dhar**

Dr. P Dhar visited Deptt of Human & Clinical Anatomy (Sultan Qaboos University, Oman) as a Visiting Consultant. Dr. Dhar reviewed manuscripts submitted to IJDN. She continued to be *Member-Curriculum Committee* for U.G. (AIIMS), She is Vice President of A.I.B.A., Life Member of Jagruti Kiran Foundation (recognized by Ministry of Environment and Forests, Govt. of India). She was Conferred Membership of IMA (Indian Medical Association) and worked as ad-hoc reviewer (International Journal for Dev. Neurosciences).

**Dr Taposh K Das**

Was nominated as member Governing Body of Kalindi College (Delhi University) for 2009-2010.

**Dr. Rima Dada**

Reviewed articles submitted to Indian Journal of Medical Research, Andrologia, Fertility and Sterility, Mitochondrian, BMJ case report, Andrologia, J of Paediatric Neurology and J of Paediatric Biochemistry, Indian Journal of Urology,. She also reviewed projects submitted to DBT, ICMR, Indo US technology Forum and Wellcome Trust. Member Organising committee of AIIMS-DBT joint initiate for collaborations with Wellcome Trust UL. She continued to be on the editorial board for J of Paediatric Neurology and J of Paediatric Biochemistry, The open Andrology Journal.

Invited to be a member of Editorial Board of Journal of Paediatric Biochemistry and open Andrology Journal and Online Journal of Health and Allied Sciences. Chaired session in 3 conferences National symposium on Nanoscience at JNU, Conference on Reproductive Biomedicine Jaipur and Appeared on TV for NDTV, Star Plus, Sahara NCR and India TV on show to increase public awareness about Role of Genetic factors in Infertility and effect of lifestyle factors in fertility regulation and genetic factors how do they lead to disease. Dr Rima Dada was awarded the Best Poster award at 4<sup>th</sup>

International Symposium on Genetics of Male Infertility at Salt Lake City Utah, USA for the poster Role of Oxidative stress and DNA damage in Varicocele: Beneficial Effect of Varicocelectomy.

**Dr. Arundhati Sharma**

External expert on the Post Graduate Board of Studies in Biochemistry and Genetics (P.G. BOS) of M. D. University, Rohtak, was invited to conduct a Pre-Conference “Workshop on techniques in Cytogenetics and Molecular genetics” for the Faculty, under and post graduates of Oral and Maxillofacial Pathology, to train them in the contemporary techniques of molecular biology and provide them with a fundamentals of Genetics and its role in the various oral and maxillofacial disorders, held at India Habitat Centre, New Delhi.

**Dr. R. Dhingra**

Appointed as member of editorial board 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, committee for rules for student conduct .Article on plastination printed in Dainik jagran, External examiner BPT in GNDU Amritsar. Reviewed research papers submitted to International journal of plastination. Reviewed research project submitted to ICMR. Evaluated one MD thesis.

**Visiting scientist**

Dr. Klara Felszeghy and Dr. Edina Wappler of Semmelweis University Budapest visited the Department under Indo-Hungarian collaborative research project, March,-April 2009.

Hatim Zariwala, research scientist, Mouse Genetics. Allen Institute for Brain Science, Seattle, Washington. Delivered a lecture on “From mouse brain atlas to cortical function: The neurobiology of cortical cell types”.

## 9.3 Biochemistry

### Professor and Head

Subrata Sinha

### Professors

Neeta Singh

D.N. Rao  
S.S. Chauhan

Nibhriti Das

### Additional Professor

M.R. Rajeswari

### Associate Professors

P.P. Chattopadhyay

Kalpana Luthra

### Assistant Professors

Alpana Sharma

Kunzang Chosdol

N.C. Chandra\*

## EDUCATION

### Undergraduate

The department continues with its undergraduate UG teaching programmes which include MB,BS (two semesters), Nursing (one semester) and B.Sc. (Hons) Nursing (one semester). Student's feedback on the teaching-learning of Biochemistry and feedback on examinations to the students had been regularly incorporated in the Biochemistry teaching schedule for the medical undergraduates. New problem-based modules had been introduced for the second semester to strengthen the concepts in immunology and water electrolyte balance along with. Bench level exercises in basic immunological techniques.

### Postgraduate

These include Seven M. Sc. (Ist year and IIIrd year) students and seven M. D. students. The department also has 43 Ph. D. students.

### Short- term training

Summer training in research was provided to MBBS students from AIIMS. Fifteen MBBS (1<sup>st</sup> year) students have conducted projects work for the KVPY Scheme of the DST in different laboratories of the department and four students have been awarded the fellowships. Fifteen students from India received short- term training. The Department also imparted short- term training (one onth) to two M.Sc. students from BPKIHS, Dharan, Nepal in molecular biology and advanced immunological techniques..

### Continuing Medical Education

**Dr. Neeta Singh** delivered the following lectures on: “Cell signaling and therapeutics”, at Venkateshwar College, New Delhi; on 11<sup>th</sup> November 2008; HPV and cervical cancer”, at Venkateshwar College, organized by Women Development Cell, New Delhi; on 2<sup>nd</sup> December

2008. Dr Singh chaired a session at the 77<sup>th</sup> Annual Meeting of SBC on and ‘Impact of basic and translation research in medicine agriculture and industry, SBC, Chennai, held from 18<sup>th</sup> – 20<sup>th</sup> December 2008; at Chennai., Chaired a session at the International Symposium on ‘Novel strategies for targeted prevention and treatment of cancer’, held at JNU, New Delhi, from 19<sup>th</sup> – 20<sup>th</sup> December 2008; ‘.,”HPV and cervical cancer”’, at SRM Medical College, Chennai, held on 10<sup>th</sup> January 2009; at Chennai., Chaired a session at 28<sup>th</sup> Annual Convention of Indian Association for Cancer Research and on ““Emerging challenges and approaches in cancer biology””, Bangalore, held from 21<sup>st</sup> – 24<sup>th</sup> February 2009; at Bangalore. , Chairperson for a session at the ““Ovarian Cancer””, AIIMS, New Delhi, Symposium held from 27<sup>th</sup> – 28<sup>th</sup> March 2009 at AIIMS, New Delhi.

**Dr Nibhriti Das** delivered lectures at National Workshop on Assessment Methods for Learning Evaluation in Basic Medical Sciences, 22--24 September, 2008 organized by the Departments of Basic Sciences at the AIIMS workshop on ‘assessment strategies in medical education’ organized by KL Wig CMET, AIIMS on 18 October, 2008.

### **National and International Conferences**

#### **Dr Subrata Sinha**

- delivered the invited lectures on ‘Molecular Analysis of gliomagenesis’, in the International Symposium on ‘Perspectives in cell signalling and molecular Medicine’, Kolkata; on 29<sup>th</sup> November 2009.

#### **Dr Neeta Singh**

- delivered the following invited talks on ““HPV and cervical cancer pathogenesis (Poster)””, at the Annual AACR meeting- 2008, held at San Diego, USA; from 12<sup>th</sup> – 16<sup>th</sup> April 2008.
- ‘(Poster),”Induction of apoptosis by curcumin and its therapeutic efficacy in human squamous cell lung carcinoma H520 cells”’, at the Cancer Congress of UICC (Poster), held from 27<sup>th</sup> – 31<sup>st</sup> August 2008 at Geneva, Switzerland.; 27–31 August 2008 (Poster),
- ““Biochemical risk factor determinants””, at the 21st Round Table Conference on ‘Life Sstyle and Cancer’, of Ranbaxy Science Foundation, AIIMS, New Delhi; held on 28<sup>th</sup> November 2008.
- Analysis of HPV-16 E6/E7 and L1 mutations in cervical cancer isolates from different regions of India’,” at the International Symposium on ‘HPV associated cancer; translating research into cancer prevention and medicine’, held at Trivandrum; from 1<sup>st</sup> – 3<sup>rd</sup> November 2008
- ‘Effect of curcumin on cisplatin and radiotherapy in human cervical cancer cells’,” at the 77<sup>th</sup> Annual Meeting of SBC and impact of basic and translation research in medicine agriculture and industry’, Chennai; held from 18<sup>th</sup> – 20<sup>th</sup> December 2008.
- ““Evaluation of therapeutic role of curcumin in cervical and lung cancer””, at the International Symposium on ‘Novel strategies for targeted prevention and treatment of cancer’, held at JNU, New Delhi; from 19<sup>th</sup> – 20<sup>th</sup> December 2008.

#### **Dr D.N. Rao**

- delivered following invited talks during IIS Annual conference, held at Bhubaneshwar 2008., XIX national Congress of Veterinary Parsitology; 2008.,

- Biotechnology meet at Andhra University, Vishakapatnam, Srivenketeshwara University, Tirupati and Utranchal University, Dehradun and Indo-Brazil DST meeting, held at Rio-Brazil. November,

#### **Dr Nibhriti Das**

- Invited talks on ‘Expression and significance of complement receptor 1 in SLE’, delivered the following invited talks at the University of Maryland. USA; June 11, 2008.
- Expression and significance of complement receptor 1 in SLE and papers presented in Federation of Clinical Immunology Society 2009, San Francisco; June 11—14 June, 2009.
- XV International Symposium on Atherosclerosis 2009, Boston, MA USA; June 14-18, 2009.
- XXI International Complement Workshop; Basel, Switzerland; 28 September – 2 October 2008.
- Keystone Symposia on ‘Molecular and Cellular Biology’, Alpbach, Austria; 8–13 June 2008.

#### **Dr M R Rajeswari** delivered invited lectures on

- ‘Cell-free circulating DNA in plasma in health and neurological disorders SCA-12 and FRDA’, at International Conference Neurocon- 2009, 8<sup>th</sup> Feb, 2009 at Kolkata.
- ‘Deoxy-oligonucleotides as therapeutics in cancer’, Golden Jubilee Celebrations & National symposium on ‘Recent trends in organic and Medicinal Chemistry’, at National Institute of Technology, Warangal; 16 January 2009.
- ‘Proteomics in medicine’, Current trends in Bioinformatics teaching and research; 18<sup>th</sup> February, 2009.

#### **Dr Kalpana Luthra**

- delivered Invited lectures at workshop on ‘How to plan a research project and write a proposal’ for PG students, AIIMS, New Delhi; October 2008.,
- ‘MCQs— as assessment tool’ for residents and PGs in department of Physiology, AIIMS, New Delhi’, Aug 20, 2008.
- Resource faculty for National workshop on ‘Assessment methods for learning evaluation in Basic Medical Sciences’; September 2008.

#### **Dr Alpana Sharma**

delivered invited talk on ‘Problem Based Learning’, at National Workshop on ‘Teaching, learning Methods in Health Professions’ Education’, at AIIMS, New Delhi and in IACR 2009 conference at Bangalore.

#### **Dr N. C. Chandra**

Poster presented at 7<sup>th</sup> International Symposium on ‘Multiple risk factors in cardiovascular diseases: — prevention and intervention — health policy. Venice Convention Center, Venice, Lido, Italy; 22–25 October 2008.



## RESEARCH

### Funded Projects

#### Completed

1. Ligand based selection from combinatorial libraries for generating recombinant antibodies to the Placental (oncofetal isozyme of Alkaline Phosphatase; characterization and validation in clinical cancers. Subrata Sinha. Funded by DBT for 3 years (2005 –2008). Funds: Rs. 25.63 lakh.
2. Mitochondria in apoptosis and human cancer. Neeta Singh. Funded by ICMR for 3 years (2005--2008). Funds: Rs. 9.43 lakh.
3. Development of a HPV candidate vaccine/s preparation of clinical trial site/cohort for vaccine testing. Neeta Singh, Funded by DBT for 3 years (2005 –2008). Funds: Rs. 84.98 lakh.
4. Developing new generation peptide based vaccine using F1 and V antigen of Y. pestis., D .N. Rao. Funded by DST (2005--2008). Funds: Rs. 24 lakh.
5. To evaluate the correlation between levels of cytokines (IL-6, IL-8, IL-10) in seminal plasma in different groups of infertile men and correlation with sperm morphology, functions and bacterial infection in semen. D.N. Rao. Funded by ICMR for 3 years (2005--2008). Funds: Rs. 15 lakh.s
6. Expression and modulation of Complement Receptors: Significance in the pathophysiology and prognosis of autoimmune disorders. Nibhriti Das. Funded by CSIR for 3 years (2005--2008). Funds: Rs. 14.52 lakh.s
7. Characterization of the Positive Regulatory Region of the first exon of Human Cathepsin L gene. S.S Chauhan. Funded by DST for 3 years (2005--2008)., Funds: Rs. 22.30 lakh.
8. Hypoxia and CpG island methylation of selected loci in tumor cell genome: modulation of methylation and subsequent effect on cell proliferation and chemotherapeutic response P. Chattopadhyay. Funded by ICMR for 3 years (2005--2008). Funds : Rs.: 19 lakh.
9. Effect of tumour specific Hsp90 inhibitor geldanamycin, on CpG island methylation and survival of hypoxic glial tumor cell lines. P. Chattopadhyay. Funded by CSIR for 3 years (2005--2008). Funds : Rs.: 9.0 lakh
10. Differential cell response of goat granulosa cells to LH or hCG stress in cell culture system: To analyze the signaling transduction pathway in the two. Kalpana Luthra. Funded by ICMR for 3 years (2005--2008). Funds: Rs: 11.49 lakh.
11. Genetic polymorphism of cholesterol ester transfer protein in hyperlipidemic patients: Aa case control study. Kalpana Luthra. Funded by ICMR for 3 years (2006--2009). Funds: Rs.: 13.13 lakh.
12. To study the role of insulin, Estradiol and Epidermal growth factor on the transcriptional regulation of LDL-receptor (LDLR). N.C. Chandra. Funded by AIIMS (2005--2008). Funds: Rs. 1.0 lakh

#### Ongoing

1. Therapy of infectious and chronic diseases: Targeted gene delivery and long-term specific modulation of gene expression. Subrata Sinha. Funded by DBT for 5 years (2006 –2011). Funds: Rs. 101.89 lakh.



2. Funds for Improvement of S and T Infrastructure in Universities and Higher Educational Institutions (FIST). Subrata Sinha. Funded by DST for 5 years (2005 –2010). Funds: Rs. 115 lakh.
3. Development of a Human Papillomavirus Vaccine prototype. Neeta Singh. Funded by DBT for 3 years (2005 –2009). Funds: Rs. 36.49 lakh.
4. A study of molecular & biological factors in pathogenesis of ovarian cancer. Neeta Singh. Funded by ICMR for 3 years (2007– 2009). Funds: Rs.: 14.68 lakh
5. Chronic immune activation associated with leprosy: role of hypo-responsiveness and anergy. D. N. Rao. Funded by CSIR for 3 years (2007–2010). Funds: Rs.15 lakh.
6. Immuno capture based diagnostic assay for the detection of *Plasmodium falciparum* HRP-2 and LDH antigens. D. N. Rao. Funded by ICMR for 3 years (2007–2010). Funds: Rs. 13 lakh.s
7. Developing defensins as a mucosal adjuvant /microbicide with peptide antigens of HIV D. N. Rao . Funded by DBT, for 3 years (2007–2010). Funds: Rs. 25 lakh.
8. T Reg cells and other negative regulatory elements of IL-2 in leprosy patients. D. N. Rao. Funded by ICMR for 2 years (2007–2009). Funds: ; Rs .13 lakh.
9. Multiple antigen peptide approach (MAP) incorporating B-T constructs of F1 and V antigens of *Y. pestis* in nanoparticles of plague vaccines. D.N. Rao. Funded by DBT for 2 years (2008– 2010). Funds: Rs. 40.2 lakh.
10. A study to assess the effects of long term obstruction of epididymus on the morphology, functional and chromatin status of epididymat spermatozoa in men. D.N. Rao. Funded by ICMR (2008– 2010). – Funds: Rs.10 lakh.
11. Phase III clinical trials with an intranasal injectable male contraceptive RISUG. D.N. Rao. Funded by ICMR (2008–2010). Funds: Rs. 10 lakh.
12. Evaluation of the role of free radical homeostasis, cell adhesion molecules, Nitric Oxide, HDL and associated gene polymorphisms in relation to the risk and severity of Coronary Artery Disease. Nibhriti Das. Funded by ICMR for 3 years (2006– 2009). Funds: Rs.: 20.50 lakh.
13. Paraoxonase (PON 1) activity and its genetic determinants (PON1 gene polymorphisms, in coding region at codon 55, 192 and in promoter region at position -108) in relation to coronary artery disease (CAD). Nibhriti Das. Funded by AIIMS for 2 years (2007– 2010) Funds: Rs.: 1.50 lakh.
14. Mechanism (S) of Regulation of Human Dipeptidyl Peptidase III Expression in Tumor Cell Lines S.S Chauhan Funded by Defence Research and Development Organization, Governmentt. of India for 3 years (2008– - 2011). Funds: Rs. 50.86 lakh.
15. Neurological Disorders Friedreich’s Ataxia (FRDA) and Spinocerebellar Ataxia (SCA) Associated with DNA Trinucleotide Repeats: Identification and Development of Protein Biomarkers and Circulating DNA for Clinical Diagnosis”. M.R. Rajeswari. Funded by ICMR for 3 years (2007–2010)., Funds: Rs. 19.35 lakh.s
16. Characterzation of HIV-1 subtypes in Indian subjects” , a nested part of RO1 project. Kalpana Luthra. Funded by NIH, USA ““ Design & use of HIV V3 mimetic immunogens”” for 5 years (2005–2010) . Funds: Rs. 39.00 lakh.

17. SDF-1 and DC-SIGNR polymorphisms & Expression in HIV-1 infection. Kalpana Luthra. Funded by ICMR for 3 years (2007—2010). Funds: Rs 19 lakh.
18. Telomerase activity and telomere length in T-cells in patients of Parthenium induced contact dermatitis and its correlation with disease severity. Alpana Sharma. Funded by DBT for 3 years (2008-2011) Funds: Rs 31 lakh.
19. Role of angiogenic factors and cyclooxygenase in multiple myeloma. Alpana Sharma. Funded by ICMR for 3 years (2009—2012). Funds: Rs 22 lakh.
20. Assessment of beta  $\gamma$  2 microglobulin, IL-6 and IL-2R as prognostic factors in Indian patients of multiple myeloma. Alpana Sharma. Funded by AIIMS for 3 years (2006—2009). Funds: Rs. 2.75 lakh.
21. An *in-vitro* study of the role of FAT, a Drosophila tumor suppressor gene homologue, in human glial tumorigenesis. Kunzang Chosdol. Funded by DRDO (2008—2011). Funds: Rs. 46.41 lakhs.
22. Distribution of cancer susceptibility modifying polymorphisms (MDM2 SNP309 and p53 codon72) in Indian population groups. Kunzang Chosdol. Funded by AIIMS (2007—2009). Funds: Rs. 2.0 lakh.
23. An *in vitro* model study of hyperlipoproteinemia on the degree of LDL receptor expression in placental trophoblast cells: Correlation with oral steroid contraceptive induced hyperlipoproteinemia. N.C. Chandra. Funded by ICMR (2006—2009). Funds: Rs. 18.0 lakh.
24. Studies on SREBP-mediated regulation of low-density lipoprotein receptor ( LDLR ), low-density lipoprotein receptor-related protein ( LRP ) and receptor-associated protein ( RAP ). N.C. Chandra. Funded by DST (2006—2009). Funds: Rs. 23.29 lakhs.
25. An *in vitro* silencing of endogenous oxidized-LDL-receptor (LOX) gene by siRNA: Study of NF-kB activated expression of proinflammatory cytokines and related atherogenic proteins—its evaluation against anti-inflammatory cytokines mediated responses. N.C. Chandra. Funded by DBT (2007—2010). Funds: Rs. 33.75 lakh.
26. A comparative study on expression and/or transcription between LDL receptor (LDLR) and tumor suppressor proteins (p<sup>53</sup>, p<sup>RB</sup>) in presence of insulin, thyroxin and benzo-(á)-pyrene. N.C.Chandra. Funded by AIIMS (2008—2009). Funds: Rs .1.25 lakhs.
27. Deregulate initiation of translation in oral carcinogenesis? Jatinder Kaur. Funded by DST (2007—2010). Funds: Rs. 13.5 lakhs.
28. To study the immune response of T cell dominant synthetic peptides derived from HPV 16, using different adjuvants in a mouse model of cervical cancer. Neeta Singh. (Co-PI) Funded by DBT for 3 years (2008 –2011). Funds: Rs. 25.27 lakh.s
29. Detection of HPV in malignant ocular lesions., Seema Sen (PI), Dr. Neeta Singh (Co-Investigator) under ICMR, (2008 –2009). Funds: Rs. 11.70 Llakh.
30. Effect of curcumin on advanced human cervical carcinomas. Dr. Neeta Singh. (Co-PI), Funded by under DBT (2006 – 2009). Funds: Rs. 59 lakh.
31. Phase II/III randomized placebo controlled clinical trial of curcumin in resectable Stage III and IV squamous head and neck cancers (oral cancers). Dr. Alok Thakar (PI), Dr. Ranju Ralhan (Co-PI), Funded by under DBT (2006–2010). Funds: Rs. 62.85 lakh.

32. Investigations of genetic basis, and gene-lifestyle interactions in generalized and regional obesity, insulin resistance and diabetes in Asian Indians. Dr.Kalpna Luthra. (Co-PI) Funded by DBT (2006–2009).: Funds: Rs. 46.79 lakh.
33. Molecular analysis of gene markers in urine cytology and tissue histology specimens of Indian patients with superficial and muscle invasive TCC of urinary bladder. Dr. Alpana Sharma (Co-Investigator) under ICMR (2007–2009). Funds: Rs. 9.99 lakh.
34. Comparison of efficacy of transplantation of basal cell layer enriched epidermal suspension in patients with stable vitiligo vulgaris and segmental vitiligo. Dr. Alpana Sharma. (Co-Investigator) Funded by IRG, AIIMS (2007–2009). Funds: Rs. 2.0 lakhs.

## Departmental Projects

### Completed

1. Evaluation of efficacy of curcumin as an adjuvant along with radiotherapy & chemotherapy in advanced cases of cervical carcinoma.
2. Mitochondria in apoptosis and human cancer.
3. Molecular insights into the pathogenesis of human cervical cancer— Aan *in-vitro* study
4. Expression of leukocyte Complement Receptor 1, its modulation and significance in the pathophysiology of systemic lupus erythematosus (SLE).
5. Role of eNOS gene polymorphisms in coronary artery disease in the Indian Subjects
6. Signal transduction and modulation of LDL receptor expression in cultured cells.
7. Role of LDL receptor, LDL uptake and thyroxin on HepG2 cell proliferation under serum starvation

### Ongoing

- 1 Effect of Curcumin on advanced human cervical cancer
- 2 Molecular detection and genotyping of HPV in uterine cervix – A population based study
- 3 Development of HPV-16 candidate vaccine prototype
- 4 A study of molecular and biological factors in pathogenesis of ovarian cancer
- 5 Targeting apoptotic pathways for the treatment of primary epithelial ovarian cancer
- 6 Paraoxonase and its gene polymorphism in relation to CAD.
- 7 Elucidation of the expression of complement regulatory proteins in relation to the pathophysiology and severity of SLE.
- 8 Role of complement receptors in cell signaling and microbicidal properties of macrophages in relation to mycobacterium tuberculosis.
- 9 Complement Receptor 1 and its gene polymorphism in relation to the pathophysiology and susceptibility to severe malaria
- 10 Expression and modulation of leukocyte complement receptor 1 and CD59 (protectin) in relation to rheumatoid arthritis
- 11 Expression of Ang1 and 2 in multiple myeloma

- 12 A pilot study to evaluate the inter-relationship of insulin, insulin receptor and LDL receptor in patients of Type 1 diabetes mellitus.
- 13 Leptin and associated plasma risk factors in human Obesity.
- 14 Role of Leptin in the regulation of LDL- and oxidized LDL- receptors in cultured cells.
- 15 Modulation of oxidized-LDL-receptor and its effect on pro- and anti-inflammatory cytokines

### **Collaborative Research**

#### *Completed*

1. Culture of limbal stem cells for ocular surface reconstruction in stem cell deficiency disorders, (with R.P Centre , AIIMS).
2. Computational Studies and Structure Based Rational Drug Design for Flaviiral Envelope Proteins” ( with School of Bioinformatics, JNU).
3. MRI studies on murine skin tumors (NMR Departmentt., AIIMS)
4. Histopathological investigations on murine skin tumors (Histopathology Dept., AIIMS).

#### *Ongoing*

1. Elucidation of the role of the hypermethylation in cancer (HIC-1) gene in glial tumorigenesis (with Dept. of Pathology and Neurosurgery ,AIIMS).
2. Role of p and 19q loss of heterozygosity in human gliomas (with Dept. of Pathology and Neurosurgery,AIIMS).
3. DNA fingerprinting methods for study of genetic alterations in gliomas (with Dept. of Pathology and Neurosurgery,AIIMS).
4. MRI studies on murine liver tumours (with NMR Departmentt., AIIMS)
5. Proteomic analysis of host parasite interactive proteins of Cryptosporidim” , (with Dept of Microbiology, AIIMS).
6. Characterization of Salmonella Enterica Serotype Typhi strains from north India, (with Dept of Microbiology, AIIMS).
7. Biophysical studies on interactions of membrane proteins of *Acinetobacter baumannii* and its resistant strains with various antibiotics (with Dept. of Microbiology. AIIMS).
8. Role of cobalt chloride induced hypoxia on MA10 cells (Dept of Reproductive Biology, AIIMS).
9. Isolation and analysis of the outer membrane proteins , beta lactamases of Acinatobacter Baumanii (Dept of with Microbiology, AIIMS).
10. Levels of interleukin-1-â in GCF during retention after successful orthodontic treatment (Dept of with Dental Surgery, AIIMS).
11. Neurological disorders Freidreich’s ataxia and spiniocerebellar ataxia associated with DNA trinucleotide repeats: Iidentification and development of protein biomarkers and Circulating DNA for clinical diagnosis (with Dept of Neurology, AIIMS).
12. A prospective study of oxidative stress markers and antioxidant levels in patients with pre-eclampsia (with Dept. of Obstetrics & Gynecology,AIIMS)

13. A pilot study to evaluate the inter-relationship of insulin, insulin receptor and LDL receptor in patients of Type 1 diabetes mellitus (with Endocrinology and Metabolism and Cardiology, AIIMS).
14. A case control pilot study on LDL receptor expression and serum lipid profile in cancer patients (with Obstetrics and Gynecology and Surgery, AIIMS).
15. T-cell response in Parthenium induced contact dermatitis (with Dermatology and Venereology, AIIMS).
16. Role of T helper cytokines in skin autoimmune disorder Pemphigus vulgaris. (with Dermatology and Venereology, AIIMS).
17. Study of Inflammatory markers as prognostic factors in COPD cases (with Dept. of Medicine).
18. Genetic diversity of *Entamoeba histolytica* isolates and identification of genotype-clinical phenotype correlations. (with Collaborative department: Gastroenterology).
19. Immunohistochemical and Molecular Studies on Wnt/ $\beta$ -catenin Signaling Pathway in Sebaceous Cell Carcinoma of the Eye Lid. Collaborative department: (with Dr. R.P. Centre).
20. Association of COMT catechol-O-methyltransferase gene polymorphism G158A in obsessive compulsive disorder in Indian subjects. Collaborative department: (with Dept. Psychiatry).
21. Study of gliomagenesis: Possible involvement of CNS developmental pathway. Collaborative department: (with Dept. Pathology).
22. To evaluate the endometrial and sub endometrial blood flows in the prediction of pregnancy during In-Vitro Fertilization Treatment . Collaborative department: (Obstetric and Gynecology)
23. The role of insulin and insulin receptor on LDL receptor functioning. (with Endocrinology & Metabolism and Cardiology).

## Publications

### Journals

1. Ahmad Y, Bhatia MS, Mediratta PK, Sharma KK, Negi H, Chosdol K, Sinha *Set al.* Association between the ionotropic glutamate receptor Kinase3 (GRIK3) Ser310Ala polymorphism and schizophrenia in the Indian population. *World J Biol Psychiatry*. 2009 , Jan **23**:1–4.[Epub ahead of print].
2. Badjatia N, Satyam A, Singh P, Seth A, Sharma A. Altered antioxidant status and lipid peroxidation in Indian patients with urothelial bladder carcinoma. *Urologic Oncology*; 2009 , Jan 24. [Epub ahead of print].
3. Bhushan B, Guleria R, Misra A, Luthra K, Vikram NK. TNF-alpha gene polymorphism and TNF-alpha levels in obese Asian Indians with obstructive sleep apnea.. *Respir Med*. 2009; Mar;**103**(3):386–92.
4. Bhushan B, Guleria R, Misra A, Pandey RM, Luthra K, Vikram NK. Obstructive sleep apnoea correlates with C-reactive protein in obese Asian Indians. *Nutr Metab Cardiovasc Dis*. 2009 Mar;**19** (3):184-9.
5. Chaudhary O, Bhasin R, Luthra K. DC-SIGN and DC-SIGNR polymorphic variants in Northern Asian Indians.. *Int J Immunogenet*. 2008 Dec;**35**(6):475–9.

6. Chaudhary O, Rajsekar K, Ahmed I, Verma R, Bala M, Bhasin R, Luthra K. Polymorphic variants in DC-SIGN, DC-SIGNR and SDF-1 in high risk seronegative and HIV-1 patients in Northern Asian Indians.. *J Clin Virol.* 2008; **43(2)**:196–201.
7. Chauhan S.S , Seth P, & Katara R. Expression of cloned cDNAs in mammalian cells from a cryptic promoter upstream to T7 in p GEM4Z cloning vector. *Mol. Cell Biochemistry* , 2009; **322**: 119–125.
8. Chosdol K, Misra A, Puri S, Srivastava T, Chattopadhyay P, Sarkar C, Mahapatra AK, Sinha Set al. Frequent loss of heterozygosity and altered expression of the candidate tumor suppressor gene ‘FAT’ in human astrocytic tumors. *BMC Cancer* 2009; **9**:5.
9. Das SK, Varadhan S, Gupta G, & Rao DN., Time-dependent effects of ethanol on blood oxidative stress parameters and cytokines. *Indian. J. Biochem. & Biophys.* 2009 : **46**: 116–121.
10. Dutta R, Mondal AM, Arora V, Nag TC, & Das N. Immunomodulatory effect of DDT (bis[4-chlorophenyl]-1,1,1-trichloroethane) on complement system and macrophages.. *Toxicology.* 2008;. **252 (1-3)**: 78–85.
11. Garg S, Chauhan S S, Singh N, Sharma Y D. Immunological response to a 39.8 kDa Plasmodium vivax tryptophan— rich antigen (PvTRAg39.8) among humans. *Microbes Infect*, 2008; **10**: 1097–1105.
12. Goswami R, Mondal AM, Tomar N, Ray D, Chattopadhyay P, Gupta N, Sreenivas Vet al. Presence of 25(OH)D deficiency and its effect on vitamin D receptor mRNA expression. *Eur J Clin Nutr* ,2009; **63(3)**:446–9.
13. Gowsami B, Sharma, M, & Sharma, A. Inflammation: Its role and interplay in the development of cancer, with special focus on gynecological malignancies. *Inter J of Gynecol Cancer*; 2008; **18(4)**:591–599.
14. Goel R, Misra A, Kondal D, Pandey RM, Vikram NK, Wasir JS, Dhingra V, Luthra Ket al. Identification of insulin resistance in Asian Indian adolescents: classification and regression tree (CART) and logistic regression based classification rules.. *Clin Endocrinol (Oxf).* 2009; , **70(5)**:717–24.
15. Gupta R, Mirdha BR, Guleria R, Mohan A, Kabra SK, Kumar L, Agarwal SK, Luthra Ket al. Use of different primer directed sequence amplification by polymerase chain reaction for identification of Pneumocystis jirovecii in clinical samples.. *Indian J Chest Dis Allied Sci.* 2008; **50(4)**:321–7.
16. Isharwal S, Arya S, Misra A, Wasir JS, Pandey RM, Rastogi K, Vikram NK, Luthra K, Sharma Ret al. Dietary nutrients and insulin resistance in urban Asian Indian adolescents and young adults.. *Ann Nutr Metab.* 2008; **52(2)**:145–51.
17. Khan SN, Islam, B, Rajeswari M.R, Usmani H, Khan AU., Characterizing the interaction of anesthetic supplement thiopental with human serum albumin. *Acta Biochim. Pol.*, 2008; **55**: 399–409.
18. Khera R, & Das N. Complement Receptor 1: Disease association and therapeutic implication. *Mol. Immunol.* 2008; **46**: 761–772.



19. Mehndiratta M, Palanichamy JK, Ramalingam P, Pal A, Das P, Sinha S. and Chattopadhyay *P et al.* Fluorescence acquisition during hybridization phase in quantitative real-time PCR improves specificity and signal-to-noise ratio. *BiotTechniques* 2008;, **45(6)**: 625—634.
20. Pathak S, Sharma C, Jayaram HN, Singh N. Apoptotic signaling induced by benzamide riboside: an in vitro study. *Mol Cell Biochem.* 2009. Mar 5.[ DOI – 10.1007/s11010-009-0075-8.]
21. Pillai MR, Hariharan R, Babu JM, Lakshmi S, Chiplunkar SV, Patkar M, Tongaonkar H, Dinshaw K, Jayshree RS, Reddy BKM, Siddiqui M, Roychoudury S, Saha B, Abraham P, Gnanamony M, Abraham P, John S, Ram TS, Dey B, Sharma C, Jain SK, Singh N. *Jet al.* Cancer. 2009. Molecular variants of HPV-16 associated with cervical cancer in Indian Population. *Intl. J. Cancer.* 2009. 125(1):91-103; 2009.
22. Pun PB, Bhat AA, Paranjape R.S., & Rao D.N., Intranasal administration of peptide antigens of HIV with mucosal adjuvant CpG ODN coentrapped in microparticles enhances the mucosal and systemic immune responses. *Int. J Immunopharmacol.* 2009: **9**: 468—477.
23. Ralhan R, DeSouza LV, Matta A, Tripathi SC, Ghanny S, Datta Gupta S, Thakar A., Chauhan S.S. & Siu KWM., iTRAQ— multidimensional liquid chromatography and tandem mass spectrometry based identification of potential biomarkers of oral epithelial dysplasia and novel networks between inflammation and premalignancies. *J proteome Res:* 2009;, **8**:300—309.
24. Sharma A, & Rajeswari MR., Over-expression of High Mobility Group (HMG) B1 and B2 proteins directly Ccorrelates with the Pprogression of squamous cell carcinoma in skin. *Cancer Investigation,* 2008;, **26**:, 843—851.
25. Sharma A, Tripathi M, Satyam A, Kumar L. Antioxidant levels in patients with multiple myeloma. *Leukemia and Lymphoma.* 2009, March 4 [Epub ahead of print].
26. Singh M, Singh N. Molecular mechanism of curcumin induced cytotoxicity in human cervical carcinoma cells. *Mol Cell Biochem.* 2009. Feb 4. [DOI – 10.1007/S11010-009-00125-5].
27. Singhal G, & Rajeswari MR. Interaction of Actinomycin D with promoter element of c-met and its inhibitory effect on the expression of c —Met., *J. Biomol. .Struct. & Dyn.* 2009;, **26**:, 625—636.
28. Singhal G, & Rajeswari MR., Preferential Bbinding of Aanticancer Ddrug Aadriamycin to the *Sp1* binding site in *c-met* promoter region: A spectroscopic and molecular modeling study., *J. Mol. Struct.* 2009;, **920**:, 208—213.
29. Sinha S, Misra A, Rathi M, Kumar V, Pandey RM, Luthra K, *et al.*, Jagannathan NR Proton magnetic resonance spectroscopy and biochemical investigation of type 2 diabetes mellitus in Asian Indians: observation of high muscle lipids and C-reactive protein levels.. *Magn Reson Imaging.* 2009 ;**27(1)**:94—100.
30. Tiwari A, Datta D, Khanna N, Acharya SK, Sinha S. Generation and characterization of high affinity humanized Fab against Hepatitis b surface antigen. *Mol Biotechnol* 2009 (epub ahead of print) [DOI 10.1016/S12033-009-9165-9 PMID:19326261]
31. Tiwari A, Khanna N, Acharya SK, Sinha S. Humanization of high affinity anti-HBs antibody by using human consensus sequence and modification of selected minimal positional template and packing residues. *Vaccine* 2009. [(epub ahead of print) DOI 10.1016/J.vaccine. 2009.02.019]

32. Tripathi V, Verma R, Dinda A, Malhotra N, Kaur J, Luthra K. Differential Expression of RDC1/CXCR7 in the Human Placenta.. *J Clin Immunol.* 2008. [Oct 28( DOI 10.1007/s10875-008-9258-4)]
33. Tyagi AK, Mirdha BR, Guleria R, Mohan A, Luthra K, Singh UB. Study of dihydropteroate synthase (DHPS) gene mutations among isolates of *Pneumocystis jiroveci*. *Indian J Med Res.* 2008; , **128(6)**:734–9.
34. Vikram NK, Misra, Pandey RM, Luthra K, Bhatt SP. Distribution and cutoff points of fasting insulin in Asian Indian adolescents and their association with metabolic syndrome. *J Assoc Physicians India.* 2008 Dec;**56**:949–54.

## Abstracts

35. Anand D, Biswas B, Aror V, Kumar U, & Das N. Effect of IFN-g and immune complex on Neutrophil-CR1 transcript and its relationship with CR1 density polymorphism.. *Molecular Immunology* 2008;, **45**:,4178.
36. Chosdol K, Misra A, Puri S, Srivastava T, Chattopadhyay P, Sarkar C, Mahapatra A, Sinha S Low expression of FAT, a human homologue of drosophila tumor suppressor gene FAT, in human astrocytic tumors. *Clin Neuropathol*, 2008;, **27 (3)**: 208.
37. Das N, Arora v, Marwah V, Verma J, Gover R , Kumar A, Anand D, Biswas B Kumar U et al. Cytokine imbalance and cross talks among cytokines, immune complexes and genetic factors on Complement Receptor 1 (CR1) expression in health and disease (Systemic Lupus Erythematosus). *Molecular Immunology* 2008;, **45**:,4176.
38. Jha P, Suri V, Sharma MC, Chosdol K, Chattopadhyay P, Sinha S, Gupta D, Sinha S, Sarkar C Loss of Heterozygosity (LOH) for 1 and 19q Astrocytic and Oligodendroglial tumors. *Clin Neuropathol*, 2008;, **27 (3)**: 207.
39. Ramakrishnan G, & Chandra NC. Regulation of low density lipoprotein receptor activity by insulin and steroids in model cell culture system. *J. Clin. Lipidology* 2008;. **2** (Suppl 5S):, abstract no 144.,
40. Sen S, Sharma C, Pal A, Kar R, Chattopadhyay, Singh N. Antioxidant activity of curcumin facilitates its cancer chemotherapeutic potential in squamous cell lung carcinoma in vitro. *Annals of Oncology.* 2008;. **19** (Suppl.. 8).
41. Seth A, Singh P, Satyam A, Sharma A, Gupta NP. Cytokine levels in patients of transitional cell carcinoma of urinary bladder. . ( Abstract) *Urology*; 2008; **Vol-72**, 5A (Suppl.- 1);, p-S68.
42. Sharma S, Singh UB,. Prasad HK, Sharma P, and Das N. Interaction of Mycobacterium tuberculosis secretory antigens ESAT-6 and CFP-10 on complement receptors,calcium signaling and antimicrobial functions of macrophages. 2008. *Molecular Immunology* 2008;. **45**:.,4149.
43. Singh A, Singh N. HPV and cervical cancer pathogenesis. *Proc. American. Assoc. Cancer Res.:* 2008;, **49**:.
44. Srivastava T, Chosdol K, Sarkar C, Mahapatra AK, Sinha S. Heterozygosity analysis at mismatch repair gene loci reveals frequent LOH at hMLH1 in low grade astrocytoma. *Clin Neuropathol*, 2008;, **27 (3)**: 208.



## PATIENT CARE

Marker tests for pregnancy and prostate cancer:

PSA : 282 samples

Àeta- hCG : 264 samples

Indian patents have been applied for the following:

1. A novel small interfering RNA (siRNA) targeting the Human Papilloma Virus – 16 enhancer region leading to down regulation of the expression of viral oncogenic mRNA's E6 and E7 in a human Papilloma Virus – 16 (HPV-16) positive cervical carcinoma cell line, and its novel genomic target.
2. A novel small interfering RNA (siRNA) directed against ME 1a1 binding region in the P2 promoter of proto-oncogene c-myc results in its transcriptional gene silencing.

## AWARDS & AND HONORS

**Dr. Subrata Sinha** was Awarded ICMR International Fellowship for Senior Biomedical Scientists. He was a Membership of the Guha Research Conference.

**Dr. Neeta Singh** was appointed as a Executive Ccommittee Mmember of Indian Association for Cancer Research and Editorial Board member of IACR Newsletter; Secretary (Delhi Chapter) of Indian Association for Cancer Research.

**Dr. D.N. Rao** was appointed Secretary, Indian Immunology Society; Editor Indian Journal of Biochemistry & Biophysics.

## SIGNIFICANT EVENTS:

**Dr. Subrata Sinha** was selected as a Member of following Committees: Scientific Advisory Committee (SAC) of Rajiv Gandhi Centre of Biotechnology, Thiruvananthapuram; SAC of Institute of Pathology, New Delhi; SAC of School of Medical Sciences, University of Hyderabad; Review Committee for Biology Projects, Indian Statistical Institute (2009); Project Review Committee (PRC), Chronic Diseases, Dept of Biotechnology (DBT) (2005–2007); PRC, Biotechnology Products and Process Development, DBT, (2005 –till date); PRC, Cell and Molecular Biology, ICMR, (2005); Special Committee, Centre for Molecular Medicine, JNU, 2001 till date.; Special Committee, Centre for Biotechnology, 2000 till date, JNU; Member of the Institutional Biosafety Comittee and Ethical Committee of the National Institute of Immunology (2000– -till date); Institutional Ethics Committee of the Jawaharlal Nehru University (2001- till date); Academic Committee, JNU-Center for Cellular and Molecular Biology (2006-08); Sectional Committee, Medical Sciences, INSA; Chairman, Committee for Biochemistry Curriculum (UG & PG) , MCI.

**Dr. Neeta Singh** was selected as a Member of experts committee on evaluating the effect of RFR on human health of ICMR;, Member of subject expert – Life Sciences Committee of Women Scientists Scheme of DST;, Member of B. B. Dixit Library Committee, AIIMS.. He Continues to be member of International Union Against Cancer (UICC), American Association for Cancer Research (AACR), Indian Society of Cell Biologists, Indian Women Scientists Association, Indian Society of Lung Cancer and Indian Society for Free Radicals Research in India. He was also a Member of the Research Advisory Committee and Program Advisory Committee of ICMR;, Member of Scientific

Advisory Committee of DRDO; Participated at Annual AACR meeting 2008 held at San Diego, USA, (12—16) April 2008. Participated at Cancer Congress of UICC at Geneva, Switzerland (27-31) August 2008; Member Project Review Committee of DBT, DST, ICMR. He was appointed as Reviewer for *Ind. J. Med. Res.*, *Intl. J. of Cancer*, *Ind. J. of Clin. Biochem.*, *Acta Biochemica & Biophysica Sinica*, *Intl. J. Gynecol. Cancer*, *Intl. J. Biochemistry and Cell Biology*, *Molecular Vision*, *Oncogene*, *Molecular Biology Reports*, Editorial Board Member of *Indian Journal of Clinical Biochemistry*. He was a External examiner for Rajasthan University., Mumbai University., Delhi University., Chennai University., *Jamia Hamdard University.*, PGI Chandigarh, Kerala University, BHU, DNB, BBKIMS., Nepal.

**Dr. D.N. Rao** was selected as Member of Technical Advisory Committee of ICMR; Member of Core Committee for Selection ICMR; ICMR Selection Committee for SRF; Member board of Studies of Biochemistry of Jamia Hamdard University & Aligarh Muslim University; Member of JNU-CCMB Academic Committee; UGC member for Biotechnology Programme in India; DST-Industry project Committee Member; Member of Ethical Committee; Project review Committee of DBT, DST, CSIR and ICMR.

**Dr. Nibhriti Das** was appointed as a Member of the International Complement Society; Professional Member American Heart Association; Member of the Executive Committee of NESARA and ISAR.

**Dr M. R. Rajeswari** was elected as a Member of Project Review Committee (Neurochemistry ) ICMR and CSIR –NET evaluation committee (Life sciences);. Member Selection committee at National Accreditation Board for Testing and calibration Laboratories, DST; UGC faculty selection committee meeting , University of Hyderabad (Andhra Pradesh); Nominated member of a number of UGC expert committee meetings held regarding : sanction of Deemed status to of Indian universities and XI plan review of 5 National universities

Reviewer for *J. Mol. Structure* , Melanoma Research, *J. Phys. Chem*, *Am chem. Soc.*, *DNA & Cell Biology Ind. J Biochem. Biophys.*, & *Ind. J Clin. Biochem*; Reviewed research proposals from ICMR, & DST;

Ph. D. student (Mr Vishnu Swarup ) received Best Poster award for “Protein Biomarkers for FRDA”, “Neurocon—2009”, in Feb, 2009 at Kolkata.

**Dr. Kalpana Luthra** was selected as Member of cultural program committee of Institute Day Sept 2008; Member of stores Negotiation Committee; Member of Project Advisory Committee of ICMR for Nephrology.

**Dr. Alpana Sharma was selected** as a Member American Association of Cancer Research (AACR); Member Specification committee of Instruments at VMMC and Safdarjung Hospital; Reviewer for *Int J Gynecological Cancer*, *Int J Cancer*, *Am. J Reprod. Immunol.*, *Ind J Clin. Biochem.*, *Evidence Based Complementary and Alternative Medicine*.

## 9.4 Biomedical Engineering

### Professor and Head

Alok R. Ray

### Professors

Dinesh Mohan

Sneh Anand

Harpal Singh

### Associate Professor

Veena Koul

### Assistant Professor

Ashutosh Mishra

### Principal Scientific Officer-I

Nivendita K. Gohil

### Senior Design Engineer

S.M.K.Rahman

### Scientist

J.C. Bhardwaj

## EDUCATION

The department participates in Ph.D. programme.

## RESEARCH

1. Development of low cost rapid biosensor for identification of pathogenic bacteria .Harpal Singh, funded by DBT (2008-2010) Funds: Rs. 39.00 lakhs
2. Development of biodegradable polymeric dendrimers/nanoparticles for cancer diagnostics and treatment. Harpal Singh Lockheed Martin, USA(.2008- 2011) Funds: Rs 40.00 lakhs.
3. Development of polymeric dendrimers /nanoparticles for detection of pathogenic bacteria (likely to continue till 2011) Harpal Singh, Funded by Lockheed Martin, USA (2008 – 2011) Funds: 20.00 lakhs (Phase I budget ) 6 months
4. Analysis of autonomic nervous system correlates and health benefits of rhythmic breathing techniques. Sneh Anand, funded by AYUSH, MHFW (2007-2010), Funds: Rs 29.63 lakhs.
5. Stanford- India Biodesign Program A.R. Ray, Funded by DBT (2007-2012) Funds: Rs.100.64 lakhs.
6. Development of implant and medical devices. A.R. Ray. Funded by DBT (2007-2011) Funds: Rs. 22.20 lakhs.
7. Development of biodegradable scaffold for tissue engineering of blood vessels. A.R. Ray, (Co-PI), Dr. B. Gupta-PI, funded by DBT (2007-2010) Funds: Rs.26.86 lakhs.

8. Scaffold-based control of chondrocyte phenotype: towards engineering of in vertebral disk tissue. A.R. Ray (Co-PI), Dr. S. Ghosh-PI, Indo-Swiss joint Research project. Funded by DST (2009- 2011) Funds: Rs.27.54 lakhs.
9. Development of nanosilver nanohydrogels for biomedical applications A.R. Ray (Co-PI) Dr. B. Gupta-P funded by DBT, (2009- 2011) Funds :Rs. 83.11 lakhs.
10. D-expansion and differentiation of mesenchymal stem cell into osteoblast for bone tissue engineering on biocomposite scaffold. A.R. Ray, Funded by ICMR (2010-2013) Funds : 20.12 lakhs
11. Phytochemical based multifunctional polymeric hydrogel dressing for superficial burn wounds V. Koul Funded by CSIR (2007- 2009). Funds : 91.00 lakhs
12. Smart macromolecular thrapeutics, design synthesis and evaluation of tailor made anti-cancer drug conjugates and local hyperthermia for selective lysis of cancer cell V. Koul, LSRB, Ministry of Defence ( 2006-2009). Funds : 18.62 lakhs
13. Process optimization. Veena Koul (Co-PI) funded by DBT (2007-2009) Funds:17.17 lakhs.
14. Pre-clinical trails of a portable electrically enhanced transdermal drug delivery system (RP 01890) S. Anand funded by DST ( 2008-2010) Funds :18.18 lakhs
15. To develop an external counter pulsation device (RP01913) S. Anand. Funded by Dept. of Information & Technology (2008-2011) Funds : 57.60 lakhs
16. Development of instant ECG (i-ECG), with telemetric capability and a software for ecg analysis. S. Anand. Funded by DBT (2007-2011) Funds: 33.27 lakhs
17. Reversibility of injectable intravasal contraceptive for male technology development and multicentric non-human primates study". J.C. Bhardwaj. Funded by MOH & FW (2008-2010) Funds: 6.27 lakhs.
18. Injection of polymer assembly as an implant in vasdeferens lumen for prostate cancer prevention and contraceptive efficacy. J.C. Bhardwaj I.I.T. Kharagpur (2010-2011) Tewelve Months Funds : 1, 09, 613/-
19. Interaction of endothelial cells with advanced glycation end products. N.K. Gohil. Funded by CSIR (2009- 2011) Funds : Rs.10.20 lakhs
20. Clinical Trial of Hb-AGE as a novel long term glycemic index using its autofluorescence N.K. Gohil. Funded by DBT, (2007- 2010) Funds:.36.62 lakhs

### **Technology transfer and Patents**

- Sneha Anand, Manoj Soni, S. Maji, A Pneumatic Damper Controlled AK Prosthesis(886/DEL/2009)
- Sneha Anand, Abhinav, Meghna, Zig-G, A Wireless ECG system (683/DEL/2009)
- Nivedita K. Gohil, A test Kit and Method for measurement of metals in biological fluids (PCT/IN2009/000696)

## Major facilities/ equipment commissioned

Ultracentrifuge, Mammalian tissue lab and Gel permeation chromatography.

## PUBLICATIONS

1. Jain S, Jackeray R, Chattopadhyay S, and Singh H, Surface modification of polyacrylonitrile fiber for immobilization of antibodies and detection of analyte. *Analytica Chimica Acta*, 654 (2009) 103-110.
2. Gupta B, Grover N and Singh H Radiation induced grafting of acrylic acid onto polyethylene terephthalate fabric *J Appl Polym Sci* 2009; 112: 1199-1208.
3. Jackeray R, Jain S, Chattopadhyay S, Singh H Surface modification of nylon membrane by glycidyl methacrylate graft copolymerization for antibody immobilization *J. Appl. Polym. Sci* 2010; 116:1700-09.
4. C.K.V. Abid Z, Chattopadhyay S, Mazumdar N, Singh H Synthesis and characterization of quaternary ammonium PEGDA dendritic copolymer networks for water disinfection *J. Appl. Polym. Sci* 2010; 116: 1640-49.
5. Gupta B, Grover N, Mohanty S, Jain KG and Singh H Radiation induced grafting of acrylic acid/n-vinyl pyrrolidone onto polyethylene terephthalate fabric and growth of HMSC *J Appl Polym Sci* 2010; 115: 116-26.
6. Sharma M and Karmakar GN Interaction of azotobactin with blocking and mobilizing agents in NTBI assay. *Molecular Biosystems*. 2010; DOI:10.1039/c004840b
7. Sharma M and Karmakar GN Optical features of the fluorophore azotobactin : applications for iron sensing in biological fluids. *Engineering in Life Sciences* 2010; DOI : 10.1002/else.201000038.
8. Avasthi DK, Mishra YK, Singhal R, Kabiraj D, Mohapatra S, Mohanta B, Karmakar GN and Singh N. Synthesis of plasmonic nanocomposites for diverse applications. *Journal of NanoScience and NanoTechnology* 2010; 10: 2705–12.
9. Sharma M, Saxena R and Karmakar GN Fluorescence assay of non-transferrin bound iron in thalassemic sera using bacterial siderophore. *Analytical Biochem* 2009; 394 : 186 -191.
10. Ray AR, Das A, Mehndiratta M, Chattopadhyay P, Prolonged zero-order BSA release from pH-sensitive hydrogels of poly(AAc-co-DMAPMA) having rich nano through micro scale morphology *J Appl Polym Sci* 2010; 11: 393–403.
11. Ray AR, Saxena S, Gupta B Graft polymerization of acrylic acid onto polypropylene monofilament by RF plasma *J Appl Polym Sci* 2010; 116: 2884
12. Saxena S, Ray AR Mindemart J, Hilborn J, Gupta B Plasma-induced graft polymerization of acrylic acid onto polypropylene monofilament- characterization. *Plasma Processes & Polymers* 2010; 7: 610.
13. Nayak B, Panda AK, Ray P, Ray AR Formulation, characterization and evaluation of rotavirus encapsulated PLA and PLGA particles for oral vaccination *Journal of Microencapsulation* 2009; 26(2), 154-65.

14. Joshi D, Mishra A, Anand S LVQ based speed adaptive swing and stance phase detection: an alternate to foot switch *J Advance soft Comput Appl* 2010; 2(1) : 2074-85.
15. Khare V, Santhosh J, Anand S, Bhatia M “Performance comparison of three artificial neural network methods for classification of electroencephalograph signals of five mental tasks. *J Biomedical Science and Engineering* 2010, 3, 200-05.
16. Abhinav, Sareen M, Kumar M, Santhosh J, Salhan A, Anand S Nadi Yantra: a robust system design to capture the signals from the radial artery for assessment of the autonomic nervous system non-invasively *J Biomedical Science and Engineering* 2009; 2: 471-79.
17. Rastogi R, Anand S, Koul V. Flexible polymerosomes – An alternative vehicle for topical delivery. *Colloid Interface B* 2009; 72 (1):161-66.
18. Selvaraj N, Jaryal AK, Santhosh J, Deepak KK, Anand S Influence of respiratory rate on the variability of blood volume pulse characteristics, *J Medical Engineering & Technology* 2009; DOI:10.1080/03091900802454483.
19. Rastogi R, Anand S, Khar RK, Dinda AK, Koul V, Studies on in vitro and in vivo transdermal flux enhancement of methotrexate by a combinational approach in comparison to oral delivery. *Drug Development and Industrial Pharmacy* 2009; 35(11): 1281 - 92.
20. Rastogi R, Anand S, Koul V Polymerosomes of PCL and PEG demonstrate enhanced therapeutic efficacy of insulin. *Curr Nanosci* 2009; 5 (4): 409-16.
21. Rastogi R, Anand S, Koul V. Evaluation of pharmacological efficacy of ‘insulin-surfoplex’ encapsulated polymer vesicles. *Int. J. Pharm.* 2009; 373 (1-2): 107-15.
22. Mohamed R, Choudhary V, Koul V. Synthesis and characterization of biodegradable interpenetrating polymer networks based on gelatin and divinyl ester synthesized from poly(caprolactone diol). *J Appl Polym Sci* 2009; 111 (3): 1478-87.

#### **National and International Conferences/Seminars/Workshops attended by the Faculty.**

**Prof. Alok R. Ray** participated in the conference and workshop on “Bionanotechnology at Puri from Deceember 9 -11,2009.

#### **Prof. D. Mohan**

- Present a paper entitled “Seat Belt Law and Road Traffic Injuries in Delhi, India at the 8<sup>th</sup> Eastern Asia Society for Transportation Studies (EASTS) Conference, Surabaya, Indonesia from November 16- 19, 2009.
- To deliver the Golden Jubilee Oration at Guwahati Medical College, on 14/12/2009
- To attend CAN Network workshop and UN Habitat World Urban Forum at Rio de Janeiro, Brazil and to chair the workshop session “Cycling Inclusive Urban Planning: Setting the Scene for Research in CANII’ from March 22-26, 2010.

#### **Prof. Sneha Anand**

- Attended International Conference on Safe communities “Community safety policies as an axis for development” in Cali Colombia August 10-13, 2009.

- Delivered an invited talk at HEPAP'09 in workshop at Thapar University, Patiala, Punjab on October 30, 2009.
- Delivered a talk in conference at PDM, Bahadurgarh on November 12, 2009
- Attended conference at NIT, Jalandhar on January 15, 2010.

**Prof. Harpal Singh**

- Attended the Indo Russia Joint Workshop and to give invited lecture at Moscow State University, Moscow from August 24-27, 2009.

**Prof. Veena Kaul**

Attended an international conference at Jaipur on August 22, 2009.

**Dr. J.C.Bhardwaj** attended the following work shop/conferences

- Training Course on “Application of Research Techniques in Reproductive Biomedicine” from May 2-5, 2009; at MIET, Meerut (U.P)
- 36 National Conference of “Association of Clinical Biochemist of India” ACBI Con -09, from November 5-7, 2009, at Amrita Institute of Medical Sciences, Kochi, Kerala.
- CPCSEA National Conference-2010, on January 15, 2010, at India Habitat centre, New Delhi organized by Ministry of Environment and Forest, Govt. of India
- “Workshop on Technology in fertility Regulation” from February 3-4, 2010, at AIIMS, New Delhi, , jointly organized by of I.I.T. Kharagpur and A.I.I.M.S.



## 9.5 Biophysics

### Associate Professor and Head

Krishna Dalal

### Associate Professor

A. Srinivasan

Punit Kaur

Savita Yadav

Sujata Sharma

### Senior Scientific Officer

Sharmistha Dey

### Senior Technical Officer

S. Baskar Singh

Asha Bhushan

### EDUCATION

The faculty of the department participated in and delivered 36 lectures in continuing medical education programmes and symposia, national and international conferences during the year.

### CME

#### National and International Conferences

The department organized an international workshop “From Crystals to Structures: CCP4 Workshop cum Seminar” from Feb 15 -19, 2010.

### RESEARCH

#### Funded Research

##### Ongoing

1. Structural and functional studies of lactoperoxidase, Dr. Sujata Sharma, Funded by DST(2008-2011) Funds: Rs.19.9 lakhs,.
2. Isolation, purification and structural and functional characterization of new proteins from seminal plasma. Dr. Savita Yadav. Funded by DST(2008-2011) Funds: Rs 22.0 lakhs, ,
3. Purification, biochemical and functional characterization of heparin binding proteins in human seminal plasma. Dr. Savita Yadav. Funded by DBT(2008-2011) Funds: Rs 27.0 lakhs,
4. Biomedical Informatics Centres of ICMR, Dr. Punit Kaur, ICMR (2006-2011) Funds: 35.0 lakhs
5. Structural and functional studies of pepidoglycan recognition proteins, Dr. Punit Kaur. Funded by DST(2006-2011) Funds: 32.5 lakhs,

##### Completed

1. A Randomized clinical trial on the role of reflexology in the management of diabetic neuropathy, Dr Krishna Dalal, Funded by ICMR (2006 –2009) Funds: Rs 21.00 lacs,.

2. Infrastructure Facility for Clinical Proteomics at AIIMS, Dr. A. Srinivasan, Funded by DBT( 2004-2009) Funds: Rs. 4.50 Crore,

### **Departmental Research**

1. Purification, crystallization and structure determination of prostate specific antigen from human seminal plasma.
2. Three-dimensional structure determination of cobra venom factor and its three independent subunits from the venom of Indian cobra by x-ray diffraction method and its structural and functional relationship with complement protein C3.
3. Structure – Function relationship of Alzheimer related proteins.
4. Determination of efficacy of reflexology in treating patients suffering from diabetic nephropathy with hypertension and evaluating a possible biomarker
5. Evaluation of reflexology as an adjunctive therapy in children with west syndrome
6. Evaluation of reflexology as an adjunctive therapy in children aged 3 to 18 years with intractable epilepsy and mutation screening in GPR56 gene in Lennox-Gastaut syndrome patients
7. Evaluation of reflexology as an adjunctive therapy in children with cerebral palsy
8. Investigation of genetic variation in chi311 and effect on YK40 production in India asthmatic patients
9. Estimation of the level of cartilage oligomeric matrix protein (COMP) in osteoarthritis and designing of an inhibitor to control the progression of Osteoarthritis
10. Relationship of ACE coding and promoter region gene polymorphisms with GDM
11. Purification of the protein from the leaf gel of Aloe vera

### **Collaborative Projects**

1. Functional analysis and clinical significance of novel molecular targets in Cytoskeleton reorganization and Locoregional Spread of Oral Cancer using Proteomics.
2. Identifying proteomic mass fingerprints predictive of disease flares in systemic lupus erythematosus.
3. Proteomics of hepatitis virus infections.
4. Proteomics of human body fluids and tissues: structural characterization of proteins and target identification for new drug discovery.
5. Proteomic mass fingerprinting of patients with gall stone disease and gall bladder cancer: putative pathogenic links.
6. Proteomics in muscular dystrophies.

### **PUBLICATIONS**

#### **Journals**

1. Alam M, Mahajan M, Raziuddin M, Singh TP, Yadav S. Proteomics-based approach for identification and purification of human phosphate binding apolipoprotein from amniotic fluid. *Genet Mol Res* 2009; 8: 929-37.

2. Varshney A, Ahmad B, Rabbani G, Kumar V, Yadav S, Khan RH. Acid-induced unfolding of didecameric keyhole limpet hemocyanin: detection and characterizations of decameric and tetrameric intermediate states. *Amino Acids* 2010 Mar 7; . [Epub ahead of print]
3. Hariprasad G, Saravanan K, Singh SB, Das U, Sharma S, Kaur P, Singh TP, Srinivasan A. Group III PLA2 from the scorpion, *Mesobuthus tamulus*: Cloning and recombinant expression in *E. coli*. *Elect. J Biotech* 2009; 12: 3.
4. Kumar V, Hassan MI, Tomar AK, Kashav T, Nautiyal J, Singh S, Singh TP, Yadav S. Proteomic analysis of Heparin Binding Proteins from Human Seminal Plasma: a step towards identification of molecular markers of male fertility. *J Biosci* 2009; 34: 899-908.
5. Kumar V, Roske Y, Singh N, Heinemann U, Singh TP, Yadav S. Purification and preliminary X-ray crystallographic studies of beta-microseminoprotein from human seminal plasma. *Acta Crystallogr. Sect. F*. 2009; 65:518-21.
6. Kumar S, Singh N, Sinha M, Kaur P, Srinivasan A, Sharma S, Singh TP. Isolation, purification, crystallization and preliminary crystallographic studies of amaryllin, a plant pathogenesis-related protein from *Amaryllis belladonna*. *Acta Crystallogr.* 2009; F65: 635-637.
7. Mir R, Singh N, Vikram G, Kumar RP, Sinha M, Bhushan A, Kaur P, Srinivasan A, Sharma S, Singh TP. The structural basis for the prevention of nonsteroidal antiinflammatory drug-induced gastrointestinal tract damage by the C-lobe of bovine colostrum lactoferrin. *Biophys J.* 2009; 97 : 3178-3186.
8. Mishra P, Kumar P, Ethayathullah AS, Singh N, Sharma S, Perbandt M, Betzel C, Kaur P, Srinivasan A, Bhakuni V, Singh TP. Hot spots in the polysaccharide binding site in hyaluronate lyase : Crystal structures of native phage-encoded hyaluronate lyase and its complexes with ascorbic acid and lactose. *FEBS J* 2009; 276: 3392-3402.
9. Sharma P, Singh N, Sinha M, Sharma S, Perbandt M, Betzel C, Kaur P, Srinivasan A, Singh TP. Tryptophan as a three way switch in regulating the function of the secretory signaling glycoprotein (SPS-40) from mammary glands : structure of SPS-40 complexed with 2-methylpentane-2,4-diol at 1.6 Å. *Acta Crystallogr.* 2009; D65: 375 - 378.
10. Sheikh IA, Singh AK, Singh N, Sinha M, Singh SB, Bhushan A, Kaur P, Srinivasan A, Sharma S, Singh TP. Structural evidence of substrate specificity in mammalian peroxidases: Structure of the thiocyanate complex with lactoperoxidase and its interactions at 2.4Å resolution. *J. Biol. Chem.* 2009; 284: 14849 - 14856.
11. Singh AK, Kumar RP, Pandey N, Singh N, Sinha M, Bhushan, A., Kaur P, Sharma S, Singh TP. Mode of binding of the tuberculosis prodrug isoniazid to heme peroxidases: binding studies and crystal structure of bovine lactoperoxidase with isoniazid at 2.7 Å resolution. *J. Biol. Chem.* 2010; 285:1569-1576.
12. Singh AK, Singh N, Sinha M, Bhushan, A., Kaur P, Srinivasan A, Sharma S, Singh TP. Binding modes of aromatic ligands to mammalian heme peroxidases with associated functional implications: crystal structures of lactoperoxidase complexes with acetylsalicylic acid, salicylhydroxamic acid, and benzyhydroxamic acid. *J. Biol. Chem.* 2009; 284 : 20311-20318
13. Singh N, Kumar P, Kumar S. Sharma S. Mir R, Kaur P, Srinivasan A, Singh TP. Simultaneous inhibition of anti-coagulation and inflammation : crystal structure of phospholipase A2 complexed

with indomethacin at 1.4 Å resolution reveals the presence of the new common ligand binding site. *J. Mol. Recognit.* 2009; 22: 1 - 9.

14. Singh AK, Singh N, Sharma S, Shin K, Takase M, Kaur P, Srinivasan A, Singh TP. Inhibition of lactoperoxidase by its own catalytic product: crystal structure of the hypothiocyanate-inhibited bovine lactoperoxidase at 2.3-Å resolution. *Biophys. J.* 2009; 96: 646 - 654.
15. Dalal K, Kumar H, Sharma KG, Tripathi, M and Elanchezhyan. An integrated management of Intractable epilepsy through reflexology and AEDs (abstract) pg 132, *Epilepsia.* 2009; 50(suppl. 11) pg 132.

### **PATIENT CARE**

The following services are provided by the department for patient care:

1. Characterization and Analysis of Kidney/Gall Stones using X-ray Diffraction techniques. More than 61 stones have been analyzed by this technique in the current year.
2. Protein N-terminal sequencing.
3. Characterization of biomolecules using MALDI-TOF.
4. Receptor-ligand binding studies - Biocore
5. Peptide synthesis.
6. X-ray Intensity data collection for small molecules.
7. X-ray Intensity data collection for macromolecules.

### **AWARDS / HONOURS**

Dr Krishna Dalal has been awarded with the Health Education and Development (HEAD) award by the Health Summit 2010, world congress on drugless therapies. Dr. S. Baskar Singh, was awarded prestigious INSA fellowship (under International Collaboration /Exchange Programme for Indian Scientists) to work with Prof. Reinhard Bredehorst, Department of Biochemistry and Molecular Biology, University of Hamburg, Hamburg, Germany. Ms. Asha Bhushan attended the CCP4 Study Weekend (6th - 8th January 2010), Nottingham, UK, International conference on Neutron scattering', Grindelwald, Switzerland and Interdisciplinary Science Conference-2009 'in Jamia Milia, New Delhi.

### **SIGNIFICANT EVENTS**

The department is involved in the Clinical Proteomics programme supported by DBT. The department contributed the largest number of protein structure coordinate sets to the protein data bank (PDB) from Asia-Australia region.

### **VISITING SCIENTISTS**

Dr. D. Velmurugan, Chennai, Dr. S. Mande, Hyderabad

## 9.6 Biostatistics

### Professor and Head

R.M. Pandey

### Additional Professor

S.N. Dwivedi

*(On Extraordinary Long Leave)*

### Associate Professor

V. Sreenivas

### Scientists

R.K. Ahuja

Guresh Kumar

M. Kalaivani

### Statisticians

Ombir Singh

Kulwant Singh Kapoor

### Statistical Assistants

Bhupender Kumar

Ashish Datt Upadhyay

## EDUCATION

The department was actively involved in regular teaching of “Biostatistics and Essentials of Research Methods” for the undergraduate, paramedical and postgraduate courses, viz. MBBS, B.Sc. (Hons) in Medical Technology in Radiology, M. Biotech, B.Sc. & M.Sc. Nursing and MD (Community Medicine). The department organised a series of fourteen evening classes on “Essentials of Biostatistical Methods and Research Methodology” for the new residents, Ph.D. students and other researchers in the Institute. On request, for statistical methods in specific areas of medical research, departmental faculty members delivered series of lectures for the residents, Ph.D. students and faculty members in several departments in the Institute, through out the year. Also, departmental faculty and scientists delivered invited talks outside the institute throughout the country. On request, the faculty and scientists also participated in departmental scientific presentations in most of the departments in the Institute. Besides guiding Ph.D. students in the department, faculty members contributed to the academic activities of other departments in the Institute as Co-Guides for Ph.D. and DC Members of Ph.D. students. Both faculty members and Scientists contributed to the academic activities of most of the departments as co-guides for MD/MS, DM, MCH students.

During the year under report, four persons (three from the Indian Institute of Public Health (IIPH), Hyderabad; and, one from Society for Applied Studies (SAS), New Delhi, underwent three months of short-term hands on training in practical applications of advanced statistical methods used in the field of health research.

## Continuing Medical Education

### Lectures Delivered

#### Professor R.M. Pandey

- Invited to conduct a workshop on “Biostatistical Methods and Research Methodology” organized by the South East Asia Region (SEAR) of the International Epidemiological association (IEA), at M.L.B. Medical College, Jhansi, from 1-2 April 2009.
- Invited faculty during the seminar on Clinical trials, at the Indian Institute of Public Health, Hyderabad, from 23-26 April, 2009
- Invited to conduct a Research Methodology workshop for the junior faculty and students at the Guru Nanak Dev University, Amritsar, on 28<sup>th</sup> May 2009.
- Invited to conduct one day pre-conference workshop on Research methodology and Biostatistics, during the Annual National Conference of Post Graduate students of Dental Sciences, at K.D. Dental College, Mathura, on 24<sup>th</sup> July 2009.
- As a member of the Data Safety Monitoring Board (DSMB) of the WHO for Drugs for Neglected Diseases Initiative (DNDi) clinical trial of combination drug treatment for visceral leishmaniasis in India, attended the DSMB meeting at the London School of Hygiene and Tropical Medicine, London, from June 29-30 2009.
- Invited to conduct a two days Capacity Building Workshop on Logistic Regression, organized by the Indian Clinical Epidemiology Network (IndiaCLEN), at the Govt Medical College, Thiruvananthapuram, from 2-3 August 2009.
- Invited faculty for the Clinical Trials Protocol writing workshop NIPER, (Ministry of Petroleum), at Mohali, on 25<sup>th</sup> August 2009.
- Invited faculty for the ICMR organized workshop on Research Methodology and Biostatistics for the scientists and young researchers from North Eastern Region, at Govt. Medical College, Guwahati, from 3-5<sup>th</sup> September 2009.
- *Invited faculty for the training workshop organized by the centre for Chronic Diseases and Control and the CDC Atlanta, USA, for the junior faculty from all over the country, held at Hyderabad, from 5-8<sup>th</sup> October 2009*
- *Invited as an Expert to attend the following two meetings: (1). McGill World Platform Think Tank on Health and Economic Convergence; and, (2). System Sciences and Childhood Obesity workshop, at McGill University, Montreal, Canada, from 12-19 November 2009.*
- Invited to deliver the Annual Guest Lecture at the Department of Biostatistics, Kasturba Medical College, Manipal University, Manipal, on 1<sup>st</sup> August, 2009.

#### Dr. V. Sreenivas

- Invited to deliver a talk on Planning, Organizing, Monitoring of Multi-center trials and management of clinical trial data during the workshop on Project writing and Preparation of Scientific Report, 18<sup>th</sup> March, 2009 at the Central Council For Research in Unani Medicine, Dept. of AYUSH, Ministry of Health & Family Welfare, Janakpuri, New Delhi.

- Invited at CEU AIIMS for the following: (1). to act as a facilitator for two group discussions in the workshop on “Evidence Based Medicine”, organized by the Clinical Epidemiology Unit (CEU), AIIMS, from 16-17 March, 2010; (2). to deliver a talk on Criteria for Causation during the workshop on Research Methodology, Clinical Epidemiology Unit, AIIMS, from 25-26, April 2009; and, (3). to deliver a talk on “Causation in Epidemiology”, in the workshop on Designing Clinical Research, organized by the Clinical Epidemiology Unit, AIIMS, New Delhi, from 22-23 January 2010.
- Invited to deliver two lectures on Statistical tests to the Faculty, Residents and students, Dept. of Gastroenterology, AIIMS in February 2010.

#### **Dr. Guresh Kumar**

- Delivered a lecture on “Application of SPSS” in one day pre-conference workshop on Research methodology and Biostatistics, during the Annual National Conference of Post Graduate students of Dental Sciences, at K.D.Dental College, Mathura, on 24<sup>th</sup> July 2009.
- Resource person for the workshop on “Educational Research Methodology & Data Analysis through SPSS” held at National Institute of Physical Education, Dadri, UP, on 21<sup>st</sup> March 2010.

#### **Ms. M. Kalaivani**

- Delivered a lecture on “Application of statistical methods by SPSS” for the Ph.D. students in nursing, through video conferencing on 20 August 2009 at the Indian Nursing Council, New Delhi.

### **National and International Conferences**

#### **Professor R. M. Pandey**

- Invited speaker for the pre-conference during the International Biometric Conference, held at Kasturba Medical College, Manipal, Karnataka, from 11-13 February 2010.

#### **Dr. V. Sreenivas**

- Invited speaker on “Clinical trials in the Young Clinicians’ Program of the Indian Society for Gastroenterology, from 29-30 August, Agra.
- Invited speaker on Basics of Statistical Inference, 33<sup>rd</sup> Annual Conference of the Australasian and South East Asian Tissue Typing Association, from 12-18 November 2009, New Delhi.

### **RESEARCH**

#### **Funded Projects**

##### *Ongoing*

- Newborn Screening for congenital hypothyroidism and congenital adrenal hyperplasia, a multicentric study; Data Coordinating Centre; R.M.Pandey; Funded by: ICMR (2007-2011) Funds: Rs 11.5 lakhs.
- Multicentric Randomized Controlled Trial of Adefovir, Adefovir + Lamivudine and combination o Adefovir and Glycyrrhizin in HBV related decompensated Cirrhosis (Investigator for National coordination: V. Sreenivas. Funding agency: ICMR( 2007-2011) Funds: Rs. 18.0 lakhs



- Hepatitis C – The Indian Face (Investigator for National coordination: V. Sreenivas, funding agency: Bristol Myers Squibb Foundation (2009-2011) Funds: Rs. 12.0 lacs

### *Completed*

- A Study on primary, secondary and tertiary delays for prevention and treatment to breast, oral and esophagus cancer patients Funding Agency: ICMR; Funds: One SRF for three years (2007-2010)
- Comparison of multivariate statistical methods of classification: Logistic Regression, classification and Regression Tree, and Artificial neural network (SRF under R.M.Pandey, Funding Agency: ICMR; Funds: one SRF for one year)

### **Departmental projects**

#### *Ongoing*

- Trends, differential and determinants of neonatal, infant and under five mortality in Empowered Action Group States

#### *Completed*

- A Comparison of Cox proportional Hazards model, Parametric Proportional Hazards model and Accelerated Failure Time models in the survival of Acute Liver Failure.

### **Collaborative Projects**

#### *Ongoing*

Evaluation of Chikunguniya in Children and Adults in India” (Collaborative Department of Peadiatrics)  
H1N1 in Indian Scenario (Collaborative Department: Microbiology Department)

A Study of Family Psychopathology in Children with Somatoform Disorder and Development of an Intervention Module (Department of Psychiatry)

Development and Validation of an Instrument to Evaluate Quality of Life in Parkinson’s Disease (Department of Neurology)

Effect of malnutrition and HIV-TB co-infection on pharmacokinetics of anti tuberculosis drugs in children (Department of Paediatrics)

Evaluation of Reflexology as an adjunctive therapy in children with spastic cerebral palsy (Department of Biophysics)

Molecular Epidemiology of extensively drug resistance TB (XDR-TB) and development of a rapid diagnostic technique (Department of Microbiology)

Identification & Evaluation of mycobacterium tuberculosis antigens as biomarkers in clinical samples from tuberculosis patients (Department of Microbiology)

Effect of trans-cranical and spinal cord magnetic stimulation in patients recovering from spinal cord injury (Department of Physiology)

## PUBLICATIONS

1. Misra A, Wasir JS, Vikram NK, Pandey RM, Kumar P. Cutoffs of Abdominal Adipose Tissue Compartments as Measured by Magnetic Resonance Imaging for Detection of Cardiovascular Risk Factors in Apparently Healthy Adult Asian Indians in North India. *Metab Syndr Relat Disord* 2010. [Epub ahead of print].
2. Bhatt K, Roychoudhury A, Bhutia O, Trikha A, Seith A, Pandey RM. Equivalence Randomized Controlled Trial of Bioresorbable Versus Titanium Miniplates in Treatment of Mandibular Fracture: A Pilot Study. *J Oral Maxillofac Surg* 2010. [Epub ahead of print].
3. Aboobakur M, Latheef A, Mohamed AJ, Moosa S, Pandey RM, Krishnan A, et al. Surveillance for non-communicable disease risk factors in Maldives: results from the first STEPS survey in Male. *Int J Public Health* 2010. [Epub ahead of print].
4. Rathore PK, Kumari Sodhi P, Pandey RM. Topical mitomycin C as a postoperative adjunct to endonasal dacryocystorhinostomy in patients with anatomical endonasal variants. *Orbit* 2009; 28(5):297-302.
5. Gupta R, Deepanjali S, Kumar A, Dadhwal V, Agarwal SK, Pandey RM, et al. A comparative study of pregnancy outcomes and menstrual irregularities in northern Indian patients with systemic lupus erythematosus and rheumatoid arthritis. *Rheumatol Int* 2009. [Epub ahead of print].
6. Dhingra B, Sharma S, Mishra D, Kumari R, Pandey RM, Aggarwal S. Normal Values of Liver and Spleen Size by Ultrasonography in Indian Children. *Indian Pediatr* 2009. [Epub ahead of print].
7. Vikram NK, Pandey RM, Misra A, Goel K, Gupta N. Factor analysis of the metabolic syndrome components in urban Asian Indian adolescents. *Asia Pac J Clin Nutr* 2009; 18(2):293-300.
8. Gupta A, Swaroop C, Agarwala S, Pandey RM, Bakhshi S. Randomized controlled trial comparing oral amoxicillin-clavulanate and ofloxacin with intravenous ceftriaxone and amikacin as outpatient therapy in pediatric low-risk febrile neutropenia. *J Pediatr Hematol Oncol* 2009; 31(9):635-41.
9. Tandon A, Suri A, Kasliwal MK, Mahapatra AK, Mehta VS, Garg A, et al. Assessment of endocrine abnormalities in severe traumatic brain injury: a prospective study. *Acta Neurochir (Wien)* 2009; 151(11):1411-7.
10. Misra A, Chowbey P, Makkar BM, Vikram NK, Wasir JS, Chadha D, et al. Consensus statement for diagnosis of obesity, abdominal obesity and the metabolic syndrome for Asian Indians and recommendations for physical activity, medical and surgical management. *J Assoc Physicians India* 2009; 57:163-70.
11. Gupta R, Misra A, Vikram NK, Kondal D, Gupta SS, Agrawal A, et al. Younger age of escalation of cardiovascular risk factors in Asian Indian subjects. *BMC Cardiovasc Disord* 2009; 9:28.
12. Bajaj S, Nigam P, Luthra A, Pandey RM, Kondal D, Bhatt SP, et al. A case-control study on insulin resistance, metabolic co-variates & prediction score in non-alcoholic fatty liver disease. *Indian J Med Res* 2009; 129(3):285-92.

13. Mukherjee S, Tripathi M, Chandra PS, Yadav R, Choudhary N, Sagar R, et al. Cardiovascular autonomic functions in well-controlled and intractable partial epilepsies. *Epilepsy Res* 2009; 85(2-3):261-9.
14. Pandey RM, Madhavan M, Misra A, Kalaivani M, Vikram NK, Dhingra V. Centiles of anthropometric measures of adiposity for 14- to 18-year-old urban Asian Indian adolescents. *Metab Syndr Relat Disord* 2009; 7(2):133-41.
15. Kanakamani J, Ammini AC, Gupta N, Dwivedi SN. Prevalence of microalbuminuria among patients with type 2 diabetes mellitus—a hospital-based study from north India. *Diabetes Technol Ther* 2010;12(2):161-6.
16. Dwivedi SN. Understanding of small, minimum and large sample size and its clinical implications. *Journal of Postgraduate Medical Education, Training & Research* 2009; IV (1-5): 1-2.
17. Goswami R, Mondal AM, Tomar N, Ray D, Chattopadhyay P, Gupta N, Sreenivas V. Presence of 25(OH)D deficiency and its effect on vitamin D receptor mRNA expression. *Eur J Clin Nutr* 2009; 63(3): 446-9.
18. Reddy EV, Kadiravan T, Mishra HK, Sreenivas V, Handa KK, Sinha S, et al. Prevalence and risk factors of obstructive sleep apnea among middle-aged urban Indians: A community-based study. *Sleep Med* 2009;10(8): 913-8.
19. Makharia GK, Seith A, Sharma SK, Sinha A, Goswami P, Aggarwal A, et al. Structural and functional abnormalities in lungs in patients with achalasia. *Neurogastroenterol Motil* 2009; 21(6):603-8.
20. Goel A, Sreenivas V, Bhatnagar S, Lodha R, Bhatla N. Risk of birth defects increased in pregnancies conceived by assisted human reproduction. *Fertil Steril* 2009; 92(1): e7.
21. Acharya SK, Bhatia V, Sreenivas V, Khanal S and Panda SK. Efficacy of L-Ornithine L-Aspartate in Acute Liver Failure: A Double-Blind Randomized, Placebo-Controlled Study. *Gastroenterol* 2009; 136: 2159-2168.
22. Vajpayee M, Mojumdar K, Raina M, Mishra S, Sreenivas V. HIV voluntary counseling and testing: an experience from India. *AIDS Care* 2009; 21(7): 826-33.
23. Sharma SK, Singla R, Sreenivas V, Kumar S, Jha B, Rathore J et al. Acute viral hepatitis as a confounding factor in patients with antituberculosis treatment induced hepatotoxicity. *Indian J Med Res* 2009; 130:200-201.
24. Kumar P, Nath K, Rath B, Sen MK., Vishalakshi P, Chauhan DS., et al. Visual Format for Detection of *Mycobacteriumtuberculosis* and *M. bovis* in Clinical Samples Using Molecular Beacons. *Journal of Molecular Diagnostics* 2009; 11 (5): 430–438.
25. Bajpai J, Gamanagatti S, Sharma MC, Kumar R, Sreenivas V, Khan SA, et al. Noninvasive Imaging Surrogate of Angiogenesis in Osteosarcoma. *Pediatr Blood Cancer* 2010; 54(4): 526-31.
26. Bajpai J, Sharma M, Sreenivas V, Kumar R, Gannagatti S, Khan SA, et al. VEGF expression as a prognostic marker in osteosarcoma. *Pediatr Blood Cancer* 2009; 53(6): 1035-9.

27. Gadepalli R, Dhawan B, Kapil A, Sreenivas V, Jais M, Gaiind R, et al. Clinical and molecular characteristics of nosocomial methicillin-resistant *Staphylococcus aureus* skin and soft tissue isolates from three Indian hospitals. *J Hosp Infect* 2009; 73(3): 253-63.
28. Bhatla N, Dar L, Patro AR, Kumar P, Kriplani A, Gulati A, et al. Can human papillomavirus DNA testing of self-collected vaginal samples compare with physician-collected cervical samples and cytology for cervical cancer screening in developing countries? *Gravitt Cancer Epidemiology* 2009; 33(6): 446-50.
29. Batam A, Gupta MA, Rastogi P, Garg S, Sreenivas V, Puliye JM. Calculating prevalence of hepatitis B in India: Using population weights to look for publication bias in conventional meta-analysis. *Ind J Pediatr* 2009;76:1247-1257.
30. Makharia GK, Srivastava S, Das P, Goswami P, Singh U, Tripathi M, et al. Clinical, Endoscopic, and Histological Differentiations Between Crohn's Disease and Intestinal Tuberculosis. *Am J Gastroenterol* 2010; 105(3): 642-51.
31. Rastogi PK, V Sreenivas V, Kumar N. Validation of CRIB II for Prediction of Mortality in Premature Babies. *Ind Pediatr* 2010; 47: 1-3.
32. Thulkar J, Kriplani A, Agarwal N, Sreenivas V. Aetiology & risk factors of recurrent vaginitis & its association with various contraceptive methods. *Indian J Med Res* 2010; 131: 83-87.
33. Sharma SK, Singla R, Sarda P, Mohan A, Makharia G, Jayaswal A, et al. Safety of 3 Different Reintroduction Regimens of Antituberculosis Drugs after Development of Antituberculosis Treatment-Induced Hepatotoxicity. *Clin Infectious Dis* 2010; 50: 833 – 839.
34. Sharma SK, Dhooria S, Prasad KT, George N, Ranjan S, Gupta D, et al. Outcomes of antiretroviral therapy in a northern Indian urban clinic. *Bulletin of the World Health Organization* 2010; 88 (3): 161-240.
35. Sharma [My paper]M, Rajappa M, Kumar G, Sharma A. Oxidant-antioxidant status in Indian patients with carcinoma of posterior one-third of tongue. *Cancer Biomarkers* 2009; 5 (6):253-60.
36. Sharma V, Kumar B, Kumar G, Saxena R. Alpha globin gene numbers: an important modifier of HbE/beta thalassemia. *Hematology* 2009; 14 (5): 297-300.
37. Choudhry S, Bagga A, Hari P, Sharma S, Kalaivani M, Dinda A. Efficacy and safety of tacrolimus versus cyclosporine in children with steroid-resistant nephrotic syndrome: a randomized controlled trial. *Am J Kidney Dis* 2009;53(5):760-9.
38. Saha A, Jha N, Dubey NK, Gupta VK, Kalaivani M. Swine-origin influenza A (H1N1) in Indian children. *Ann Trop Paediatr* 2010; 30(1):51-5.
39. Karthikeyan G, Math RS, Mathew N, Shankar B, Kalaivani M, Singh S, et al. Accelerated infusion of streptokinase for the treatment of left-sided prosthetic valve thrombosis: a randomized controlled trial. *Circulation* 2009; 22;120(12):1108-14.
40. Sankar MJ, Paul VK, Kapil A, Kalaivani M, Agarwal R, Darmstadt GL, et al. Does skin cleansing with chlorhexidine affect skin condition, temperature and colonization in hospitalized preterm low birth weight infants?: a randomized clinical trial. *J Perinatol* 2009; 29(12):795-801.

41. Marwaha RK, Tandon N, Agarwal N, Puri S, Agarwal R, Singh S, et al. Impact of Two Regimens of Vitamin D Supplementation on Calcium Vitamin D PTH Axis of Schoolgirls of Delhi. *Indian Pediatr* 2010. [Epub ahead of print].
42. Marwaha RK, Tandon N, Desai A, Kanwar R, Mani K. Iodine Nutrition in Upper Socioeconomic School Children of Delhi. *Indian Pediatr* 2009. [Epub ahead of print].
43. Marwaha RK, Tandon N, Shivaprasad C, Kanwar R, Mani K, Aggarwal R, et al. Peak bone mineral density of physically active healthy Indian men with adequate nutrition and no known current constraints to bone mineralization. *J Clin Densitom* 2009;12(3):314-21.
44. Bharaj P, Sullender WM, Kabra SK, Mani K, Cherian J, Tyagi V, et al. Respiratory viral infections detected by multiplex PCR among pediatric patients with lower respiratory tract infections seen at an urban hospital in Delhi from 2005 to 2007. *Virology* 2009; 26;6:89.
45. Seth A, Marwaha RK, Singla B, Aneja S, Mehrotra P, Sastry A, et al. Vitamin D nutritional status of exclusively breast fed infants and their mothers. *J Pediatr Endocrinol Metab* 2009; 22(3):241-6.
46. Sankar MJ, Saxena R, Mani K, Agarwal R, Deorari AK, Paul VK. Early iron supplementation in very low birth weight infants—a randomized controlled trial. *Acta Paediatr* 2009; 98(6):953-8.

## Books

**Dr S.N.Dwivedi and Dr V Sreenivas**, from the department, co-authored a book, “Medical Statistics Principles & Methods”, B.I. Publications Pvt. Ltd. New Delhi. 2010. ISBN: 978-81-7225-319-6.

## AWARDS AND HONOURS

**Dr. R.M. Pandey** INCLIN liaison person to develop joint academic and research activities with the International Epidemiological Association (IEA) under the INCLIN-IEA MOU; Member, Institutional Ethics Committee, Public Health Foundation of India; Member, Group to develop course curriculum for various course at all the five Institutes of Public Health; and Reviewer of the manuscripts submitted to almost all major medical journals in the country.

**Dr. V. Sreenivas** was reviewer for the following medical journals: Indian Journal of Medical Research and Indian Journal of Paediatrics; and Statistical Consultant to the Journal of Indian Association for Child and Adolescent Mental Health (JIACAM).

**Dr. Guresh Kumar** was the reviewer of Indian Journal of Medical & Paediatric Oncology.

## SIGNIFICANT EVENTS

**Dr. R. M. Pandey** was a Member, Research Committee, All India Institute of Medical Sciences; Member of the several Data Safety Monitoring Board, Task Force, and Proposal/Project Review committees of the DBT, DST, INCLIN and the ICMR; Member, Research Committee, National Institute of Health and Family Welfare; Member, National Nutritional Monitoring Bureau, National Institute of Nutrition, Hyderabad; Member, Scientific Advisory Committee, Centre of Entomological Research, Madurai; Member, Data Safety Monitoring Board of the multi country trial on neglected diseases in India, being conducted by the London School of Hygiene and Tropical Medicine and

Member of the DSMB of UMPIRE drug trial in India and Europe coordinated by University of Cambridge and CCDC, India.

**Dr. V. Sreenivas** continues to be a Member, Expert Group, for the study “Nevirapine Cohort Analysis in Andhra Pradesh and Karnataka, UNICEF, Hyderabad; Member Secretary, Data and Safety Monitoring Board (DSMB) for 3 research projects sponsored by the Department of Biotechnology, Govt. of India; Chairman/ Member of the Screening/ Selection Committee, Indian Council of Medical Research, New Delhi and Advisor to the Journal of Neonatology, India.

## 9.7 Biotechnology

### Professor and Head

Y.D. Sharma

### Professors

J.S. Tyagi

H.K. Prasad

### Additional Professor

S.N. Das

### Assistant Professor

Anushree Gupta

## EDUCATION

### Post Graduate Teaching

The department continues with its 2 years post graduate program in Medical Biotechnology leading to M. Biotech degree. The teaching program includes theory and practical classes, seminar presentations and research project (dissertation) on frontier area of medical research. Students are given individual attention and hands on experience in practical classes. The infrastructural facilities were expanded with the acquisition of new computer soft-wares and hard-wares to make available one computer to each student during bioinformatics practical exercise. Experts are invited from JNU, IGIB, ICGEB, NII and NIIT besides AIIMS faculty from various specialties to provide insight to the students in their respective areas of research and developments related to biotechnology, bioinformatics, molecular medicine, genomics, proteomics etc.

The department continues conducting Ph. D program in the area of Medical Biotechnology.

### Short-term Training

The faculty of the department provided summer training to 22 students from various universities like University of Delhi, Maharshi Dayanand University, Rohtak, Kurukshetra University, Kurukshetra and institutions such as Career Institute of Technology & Management, Faridabad, Amity Institute of Technology, Noida, Manipal Institute of Technology, Manipal, Institute of Applied Medicine & Research, Ghaziabad.

## National and International Conferences

### Lectures delivered

#### Dr Y.D. Sharma

- “Molecular epidemiology of drug resistance malaria in India” Invited speaker at National Congress on Parasitology at Punjab University, Chandigarh, 14 November, 2009.
- Participated in vivax malaria meeting held at Bangkok in October, 2009.
- “Molecular markers for drug resistance malaria” Invited speaker at M.D. University, Rohtak, November, 2009.



- “Post-tsunami changes in drug resistance marker genes of falciparum malaria” Invited speaker at National conference held at Bareilly, October, 2009.
- Plenary talk on “Molecular epidemiology of drug resistant malaria” at Behrampur University, Orissa, March, 2010.

#### **Dr. J.S. Tyagi**

- “Unravelling secrets of a sleeping microbe: The curious case of the TB pathogen.” Invited speaker at Platinum Jubilee Meeting of the Indian Academy of Sciences, Bangalore, 12-14 November, 2009.
- “Dormant M. tb: Challenges and opportunities”. Invited speaker at International conference on ‘Understanding and managing pathogenic microbes’, IMTECH Chandigarh, 22-24 January, 2010.
- “TB research: Challenges and solutions”. Invited speaker at National Symposium on Infectious Diseases: Basic and Applied Research Bhaskaracharya College of Applied Sciences, New Delhi, February 3, 2010.
- “Value of sputum microscopy in TB diagnosis and methods of improving its sensitivity and that of extrapulmonary TB diagnosis”. Invited speaker at XI Sir Dorabji Tata Symposium “Diagnostics In Infections”, Bangalore, 10-11 March, 2010.

#### **Workshops attended:**

1. EMBO World Practical Course on DNA Microarray: Analysis and Applications at Rajakamangalam, Tamil Nadu, 16<sup>th</sup> -20<sup>th</sup> August, 2009.

#### **Dr. H.K. Prasad**

- “Polymorphism at the –237position of the IL-12Rb2 promoter region and its functional implication related to susceptibility or resistance to tuberculosis”, 36th Indian Immunology Society Meeting, National Institute of Mental Health and Neurosciences, Bangalore, Karnataka, 16-19, December 2009.
- “Dynamics of tuberculosis immune response”, Guha Research Conference-2009, organized by Indian Institute of Science, Bangalore held at Ullal, Mangalore, Karnataka, 19-23, December 2009.
- “Recent Advances in molecular techniques for diagnosis of tuberculosis”, 6th Annual Conference of Association of Medical Microbiologists - UP Chapter, MICROCON 2010 and CME on Newer Molecular Tools for Diagnosis and Management of Tuberculosis & Other Mycobacterial Diseases, National JALMA Institute for Leprosy & Other Mycobacterial Diseases (ICMR), Taj Ganj, Agra, 13-14, March 2010.

## **RESEARCH**

### **Funded Projects**

#### **Ongoing**

1. Malaria vaccine related field studies in Jabalpur. Y.D. Sharma. Funded by ICMR (2005-2010) Funds: Rs.77 lakhs.

2. Post Graduate Training Program in Biotechnology with special application to Biomedicine. Y.D. Sharma. Funded by DBT (2009-2014). Funds: Rs. 22.58 lakhs per year.
3. Biotechnology Informatics System. Y.D. Sharma. Funded by DBT (2008-2013). Funds: Rs.75 lakh.
4. Reconstructing Cellular Networks: Two-Component Regulatory Systems. Dr. J.S. Tyagi. Funded by DBT (2007-2010). Funds: Rs.363 lakhs.
5. Development of vaccine for control of bovine tuberculosis. Dr. H.K. Prasad. Funded by DBT (2007-2010). Funds: Rs.22.04 lakhs.
6. Functional Characterization of Rv2986c, a DNA Binding Protein of *M. tuberculosis*. Dr. H.K. Prasad. Funded by DST (2007-2010). Funds: Rs.23.0 lakhs.
7. Analysis of genomic variants of Mycobacterial tuberculosis complex isolates using large scale parallel sequencing: preliminary studies. Dr. H.K. Prasad. Funded by DBT (2009-2010). Funds: Rs.11.56 lakhs.
8. Molecular switch in Th1-Th2 response by SMAR1: Its implications in *Mycobacterium tuberculosis* infection. Co-Investigator: Dr. H.K. Prasad. Funded by DBT (2007-2010). Funds: 19.50 lakhs.
9. Detection of Mycobacterial pathogens in patients with Crohn's disease. Co-Investigator: Dr. H.K. Prasad. Funded by DBT (2007-2010). Funds: 3.0 lakhs.
10. Comprehensive Proteomics profiling of CSF proteins from patients of different meningitis infections for biomarker discovery. Co-Investigator: Dr. H.K. Prasad. Funded by DBT (2008-2011). Funds: 4.50 lakhs.
11. Development and characterization of autologous NKT cell-based dendritic cell vaccine for oral squamous cell carcinoma. Dr. Satya N. Das. Funded by DBT (2008-2011). Funds: Rs.23.0 lakhs.
12. Studies on FAS (CD95) and FAS L (CD95L) gene polymorphism and their association with tobacco related oral carcinomas. Dr. Satya N. Das. Funded by ICMR (2008-2011). Funds: Rs.6.0 lakhs.
13. Polymorphisms in genes of the Endothelin system in patients undergoing coronary artery bypass grafting surgery and having a concomitant diagnosis for diabetes. Dr. Anushree Gupta. Funded by ICMR (2008-2010). Funds: Rs.24.12 lakhs.

### **Completed**

1. Effects of administering 10 mg of zinc orally to young infants aged 7 days and up to 4 months with possible serious bacterial infection on survival and function of peripheral blood mononuclear cells. Co-Principal Investigator: Dr. H.K. Prasad. Funded by DBT (2007-2009) extended for 6 months.

## Departmental Projects

### Ongoing

1. Innate immunity to *Mycobacterium tuberculosis*.
2. Human immune response to *Mycobacterium tuberculosis*
3. Diagnosis of tuberculosis in humans and cattle
4. Studies on mTOR Signaling in Oral Cancer.
5. Studies on PI 3 Kinase in Oral Cancer.
6. TH-2 Cytokine (IL-4, IL-10) gene polymorphism in Oral Cancer.

### Completed

1. Studies on Beclin 1 in Oral Cancer.
2. Genetic polymorphism in *COX-2* genes in Oral Cancer patients.
3. Genetic polymorphisms in *COX-2* genes in Breast Cancer patients.
4. Studies to evaluate neo-adjuvant chemotherapy followed by post operative chemotherapy and assess the expression of multi-drug resistance gene and cell cycle specificity in locally advanced gastric and gastro-oesophageal function adenocarcinoma.

## Collaborative Projects

### Ongoing

1. Computational design and development of inhibitors for the treatment of tuberculosis. Dr. J.S. Tyagi, Funded by DBT SBIRI (2008-2010) Funds: Rs.21.98 lakhs.
2. Comprehensive proteomics profiling of CSF proteins from patients of different meningitis infections for biomarker discovery. Dr. J.S. Tyagi, Funded by DBT(2008-2011) Funds: Rs.64.31 lakhs.
3. Deciphering the transcriptional profile of dormant and replicating tubercle bacilli within THP-1 human macrophages. Dr. J.S. Tyagi, Tata Innovation Fellowship research grant, DBT,( 2009-2012) Funds: Rs.22.20 lakhs.
4. Development and clinical validation of methods for the diagnosis of tuberculosis and bacterial drug resistance by smear microscopy, culture and polymerase chain reaction using processed clinical samples and kit thereof (Phase I). Co-investigators Dr. J.S. Tyagi, Dr. H.K. Prasad, Funded by DBT SBIRI (2009-2011) Funds: Rs.7.06 lakhs.

## PUBLICATIONS

1. Lumb V, Das MK, Mittra P, Ahmed A, Kumar M, Kaur P, Dash AP, Singh SS, Sharma YD. Emergence of an unusual sulfadoxine-pyrimethamine resistance pattern and a novel K540N mutation in dihydropteroate synthetase in *Plasmodium falciparum* isolates obtained from Car Nicobar Island, India, after the 2004 Tsunami. *J Infect Dis* 2009; 199: 1064-73

2. Lumb V, Das MK, Singh N, Dev V, Khan W, Sharma YD. Characteristic of genetic hitchhiking around *Plasmodium falciparum* dihydrofolate reductase (dhfr) gene associated with pyrimethamine resistance, in India. *Antimicrob Agents Chemother*; 2009;53: 5173-80 .
3. Goswami R, Goel S, Tomar N, Gupta N, Lumb V, Sharma YD. Prevalence of clinical remission in patients with sporadic idiopathic hypoparathyroidism. *Clin Endocrinol* 2010; 72: 328-33.
4. Tomar N, Bora H, Gupta N, Kaur P, Sharma YD, Goswami R. Presence and significance of a R110W mutation in the DNA binding domain of GCM2 gene in patients with sporadic idiopathic hypoparathyroidism and their family members. *Eur J Endocrinol*. 2009;162: 407-21 .
5. Bora H, Das MK, Ahmed A, Sharma YD. Variations in the mitochondrial DNA markers in the *Anopheles (Cellia) sundaicus* population from the Andaman and Nicobar Islands, India. *Acta Trop* 2009; 112: 120-24.
6. Mehndiratta PL, Bhalla P, Ahmed A, Sharma YD. Molecular typing of methicillin-resistant *Staphylococcus aureus* strains by PCR-RFLP of SPA gene: a reference laboratory perspective. *Indian J Med Microbiol* 2009; 27: 116-22.
7. Valecha N, Srivastava P, Mohanty SS, Mittra P, Sharma SK, Tyagi PK, Pradhan K, Dev V, Singh R, Dash AP, Sharma YD. Therapeutic efficacy of artemether-lumefantrine in uncomplicated falciparum malaria in India. *Malar J* 2009; 8: 107.
8. Majumdar SD, Sharma D, Vashist A, Kaur K, Taneja NK, Chauhan S, Challu VK, Ramanathan VD, Balasangameshwara V, Kumar P, Tyagi JS. Co-expression of DevR and DevR<sub>N</sub>-Aph proteins is associated with hypoxic adaptation defect and virulence attenuation of *Mycobacterium tuberculosis*. *PLoS ONE* 2010; 5(2): e9448. doi:10.1371/journal.pone.0009448.
9. Chauhan S, Singh A, Tyagi, JS. A single nucleotide mutation in the -10 promoter region inactivates the *narK2X* promoter in *Mycobacterium bovis* and *Mycobacterium bovis* BCG and has application in diagnosis. *FEMS Microbiol Lett* 2010; 303: 190-6 .
10. Gupta RK, Thakur TS, Desiraju GR, Tyagi JS. Structure-based design of DevR inhibitor active against non-replicating *Mycobacterium tuberculosis* *J Med Chem* 2009; 52: 6324-34.
11. Chauhan S, Tyagi JS. Powerful induction of divergent *tgsl-Rv3131* genes in *Mycobacterium tuberculosis* is mediated by DevR interaction with a high-affinity site and an adjacent cryptic low-affinity site. *J Bacteriol* 2009; 191: 6075-81.
12. Kumar P, Nath K, Rath B, Sen MK, Vishalakshi P, Chauhan DS, Katoch VM, Singh S, Tyagi S, Sreenivas V, Prasad HK. Visual format for detection of *Mycobacterium tuberculosis* and *Mycobacterium bovis* in clinical samples using molecular beacons. *J Mol Diagn* 2009; 11: 430-8.
13. Chauhan S, Kumar A, Singhal A, Tyagi JS, Prasad HK. CmtR, a cadmium-sensing ArsR-SmtB repressor, cooperatively interacts with multiple operator sites to auto-repress its transcription in *Mycobacterium tuberculosis*. *FEBS J* 2009; 276: 3428-39.
14. Bansal P, Das SN. Study of anti proliferative activity of *Tinospora cordifolia* extracts in normal and malignant cells. *J. Pharmac. Res.*, 3, 382-5 (2010).

15. Kapoor V, Singh AK, Dey S, Sharma SC, Das SN. Circulating cyclooxygenase-2 in patients with tobacco-related intra-oral squamous cell carcinoma and evaluation of its peptide inhibitors as potential anti tumour agent. *J. Cancer Res. Clin. Oncol. Mar 6 [DOI 10.1007/s00432-010-0837-4]* (2010).

## AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Prof. Y.D. Sharma** is a Fellow of all the three National Science Academies. He continues to be Member of Sectional Committee of Indian National Science Academy (INSA); Member, Project Advisory Committee of CSIR for Biotechnology; Member, DBT Task Force Sub-committee on Human Resources Development; Member of Course Curriculum Committee for PG program in Biotechnology of DBT; Member, "Tata Innovation Fellowship and Ramalingaswami Fellowship" Committee of DBT; Member, DBT-JRF examination committee; Research Advisory Committee on Parasite Biology of NIMR, Delhi; Member, Board of Research Studies of NICD-IP University; Academic Committee of Guru Nanak Dev University, Amritsar; Member, Board of Studies of Biotechnology at Jawaharlal Nehru University, New Delhi; UGC-Science Advisory Panel for Centre for Molecular Medicine at JNU, New Delhi; Interdisciplinary Biotechnology Unit at Aligarh Muslim University, Aligarh; Expert Member; Board of PG Studies in Biotechnology of Vanasthali Vidyapeeth; Expert Member, Teaching Advisory Committee of Devi Ahilya University, Indore; Expert Member, Teaching Advisory Committee of Banaras Hindu University, Varanasi; Member, Himachal University, Shimla; Member, Board of Studies, University of Delhi at South Campus, Delhi; Member, Board of Studies, Manipal Sikkim Institute of Medical Sciences, Gangtok; Member, Editorial Board of 'J. Vect Borne Dis.'; Member, International Reviewer Panel of 'Medical Science Monitor'; Member, Editorial Board of 'Biotechnology'; Member, NML Book Selection Committee; Member, Research Committees of AIIMS; Member, Store Purchase Committee of AIIMS; Vice-Chairman of Negotiation Committee of AIIMS; Member, Committee for Continuing Medical Education & Technology at AIIMS; Chairman, Patent Cell of AIIMS; Chairman, Central Recruitment Committee of Research staff in projects in AIIMS; Member, Facility for Nanotechnology at AIIMS; Member, Selection Committee for Scientists for RMRC, Jabalpur; CCS Agriculture University, Hissar; Expert member of Biosafety Committee of Univ. College of Medical Sciences (UCMS), Delhi.

**Dr. J. S. Tyagi** was awarded the Tata Innovation Fellowship by Department of Biotechnology, Government of India. She is a member of Scientific Advisory Committee, Tuberculosis Research Centre, Chennai; RAP/SAC, National Institute of Immunology, New Delhi; Selection Committee, S.P. Mukherji Fellowship of CSIR, 2009; Selection Committee, NASI-SCOPUS YOUNG SCIENTIST AWARDS 2009; AIIMS Patent Committee, AIIMS Research Committee and Chairperson of AIIMS Institutional Biosafety Committee.

**Dr. H.K. Prasad** is a Member, Expert Group of the Technical Committee of ICMR; Expert Member, Selection Committee of ICMR; Translational Health Science and Technology Institute (THSTI); Institute of Life Sciences, Bhubaneswar; Member, Medical Biotechnology Sectional Committee (MHD-20), Bureau of Indian Standards; Expert, Panel Inspection for M.Sc. Biotechnology Course, Dr. B.R. Ambedkar University, Agra; Member, Editorial Board of Indian Journal of Leprosy.

**Dr. S.N. Das** continues to be Fellow, International Academy of Biological Therapy; Member, National Academy of Medical Sciences, India; Life Member, Indian Immunology Society; Member, American Association for Cancer Research, USA; Member, DKFZ Alumni Association, Heidelberg, Germany;

Life Member, The Cytometry Society, India; Member, Task Force Group on Cancer Cervix, DBT, Govt. of India; Member, Terry Fox Run Grant Committee on Cancer Research; Member, Technical Committee, Institute of Pathology (ICMR) New Delhi; Member, Bioethics Committee for Recombinant DNA research, AIIMS; Member, Negotiation Committee, AIIMS; Member, Selection Committee for posts' - under sponsored projects, AIIMS; Member, Selection Committee for PGT in Biotechnology, Kendriya Vidyalaya Sangathan, New Delhi; PhD Examiner: University of Madras, Dr. Bhimrao Ambedkar University Agra, Devi Ahilya Vishwavidyalaya, Indore; Member, Editorial Board: Open Journal of Toxicology, International Journal of Osteoporosis and Metabolic Disorders; Referee, Cancer Immunology and Immunotherapy, Cancer Letters, Clinical Reviews and Opinion, International Journal of Medicine and Medical Sciences, International Journal of Immunogenetics, International Journal of Human Genetics, Indian Journal of Medical Research, Journal of Cellular and Molecular Medicine, Journal of oral Pathology and Medicine, Oral Oncology, The Anatomical Record.

### **GUEST LECTURE**

1. Dr. Jeff Whitmore, Cell Biosciences CA, USA, topic 'New insight in Protein function: Unique window into cell signaling process within tiny biological sample.' (9.3.2010).

### **OTHER ACTIVITIES**

#### **Bioinformatics Centre**

The bioinformatics resource centre of the department provides database and bibliographical search facility, DNA and protein sequence, search and retrieval, e-mail, Internet services, training and assistance to students in graphics, statistics and data presentation. This facility is being widely used by students and faculty of this Institute as well as other neighbouring institutes. The department has a 512 kbps leased line from VSNL for internet services.

#### **Liquid Nitrogen Plant**

**The department's liquid nitrogen plant** supplied liquid nitrogen to users from several departments at AIIMS on request.

## 9.8 Centre for Community Medicine

### Professor and Head

C. S. Pandav

### Professors

Bir Singh \*

Shashi Kant

Sanjeev Gupta

### Additional Professor

Kiran Goswami

### Associate Professors

K. Anand  
Baridalyne Nongkynrih

Sanjay K. Rai

Puneet Misra

### Assistant Professor

Y. S. Kusuma Kumari

\* Dr Bir Singh was away from AIIMS for about 05 months [September 2009 to January 2010] on an assignment with UNICEF India as HIV/AIDS Manager.

### EDUCATION

B.Sc Nursing and Post-certificate Nursing Students

No change.

### Undergraduate

Rural posting: The duration of the programme remains the same as five weeks in the VII Semester. It is a residential posting and the focus is on learning practical skills for working as a doctor at primary and secondary level of health care. The activities included Orienting Undergraduates to Community Health (OUCH), Health System visits, Epidemiological exercises and Clinical sessions. Teaching techniques like small group studies, case studies, video films, problem based learning are used. The feedback of the students has been very positive.

### Interns

The programme remains unchanged. The interns are posted for 6 weeks at Ballabgarh hospital and six weeks at either Primary Health Centre, Dayalpur or Chhainsa.

### Postgraduates

The postgraduates of Community Medicine are posted in the rural areas for 18 months. This gives them adequate time to gain the necessary experience both at referral hospital and at Primary Health Centres. They are encouraged to take active participation in decision making. Their teaching has a higher focus on learning practical aspects of running, PHCs, addressing public health issues, working with district level officials etc.

Ms. Purva Dwivedi and Mr. Ravinder Bisla worked as INDEPTH Fellow at Ballabgarh to support our demographic and data management activities.



## Continuing Medical Education:

The Centre for Community Medicine organizes guest lectures, which are of public health relevance and importance. During 2009-10 the department has organized the following guest lectures.

1. Dr. Yogesh Jain from Jan Swasthya Sahayog (People's Health Support Group) delivered a lecture on "Primary Health Care - A Front Line View" on 27<sup>th</sup> April, 2009.
2. Dr. Renu Lal from Centre for Disease Control and Prevention (CDC), USA and Dr. Randeep Guleria, Professor of Medicine, All India Institute of Medical Sciences, New Delhi delivered an updated lecture on Influenza: "The novel H1N1" on 29<sup>th</sup> May, 2009.
3. Dr. J. N. Sahay from National Health Systems Resource Centre (NHSRC) delivered a lecture on "Quality Systems in NRHM" on 17<sup>th</sup> September, 2009.
4. Dr. Tej Paul Ahluwalia, Scientist-F from Indian Council of Medical Research (Head Quarters), New Delhi delivered a lecture on "Health Systems Research – Operational Research" on 24<sup>th</sup> September, 2009.
5. Prof. Peter Byass, from Epidemiology and Global Health, Dept. of Public Health and Clinical Medicine, Umea University, Sweden delivered a lecture on "Epidemiology without Borders" on 10<sup>th</sup> November, 2009.
6. Dr. Ravi Narayan, from Centre for Public Health and Equity, Society for Community Health, Awareness, Research and Action (SOCHARA), Bangalore delivered a lecture on "National & International Policy Review & Primary Health Care" on 15<sup>th</sup> December, 2009.
7. Dr. Raj Kumar, Senior Programme Manager, Global Alliance for Vaccine Initiative (GAVI), Geneva delivered a lecture "An Introduction to GAVI" on 7<sup>th</sup> January, 2010.
8. Ms. Shubhadarshini Singh, Director of Crown Communications, New Delhi delivered a lecture on *Medicine and Art* on 9<sup>th</sup> February, 2010.
9. Prof. J. D. Agarwal, Professor of Finance and founder chairman of Indian Institute of Finance delivered a lecture "Union Budget 2010: What it means to health sector" on 11<sup>th</sup> March, 2010.

## RESEARCH

### Funded

### Ongoing

1. Antenatal care: Utilization, perceptions and expectations of migrant women in Delhi – a mixed methods study. PI – Dr. Y. S. Kusuma. AIIMS Research Grant. Duration: two years (2008-2010). Total funds: Rs. 99,950
2. Expenditure on non-communicable diseases-related risk behaviours among adults in urban and rural India. PI – Dr. Baridalyne N. AIIMS Research Grant. Duration: one-year (2009-2010). Total funds: Rs.84,000.
3. Evaluation of Atraumatic Restorative Technique for dental caries in geriatric patients in a resettlement colony of Delhi AIIMS Research Grant (2008-2010) Total funds: Rs. 300,000.

4. Validation of a short Adult verbal Autopsy tools. K. Anand, Intramural research Grant, AIIMS . (2009-2010) Total funds: Rs. 70,000
5. Prevalence of metabolic syndrome and its selected socio-behavioral determinants among females aged more than 20 years residing in a rural area of Haryana (Dr Puneet Misra) Intramural research Grant, AIIMS. (2009-2010). Total funds : Rs 100,000 .
6. Prevalence of Coronary Heart Disease and its Risk Factors in Residents of Urban and Rural Areas of NCR – A Repeat Survey K. Anand ICMR (2009-2011 ). Total funds : 1.3 crores
7. Development of a model for strengthening of existing health system to address non communicable diseases in India . K. Anand, ICMR( 2007-2010 ). Total funds: Rs. 18 lacs.

### **Collaborative**

#### **Completed**

1. “HIV epidemiological profiling of 21 districts of Uttar Pradesh using data triangulation”. AIDS Prevention and Control Project, Chennai provided the funds for the activity (2008-2009).
2. Study on prevalence of tuberculosis in District Faridabad. Department of Medicine, AIIMS (2008-2009).
3. Antenatal care: utilization, perceptions and expectations of migrant women in Delhi-a mixed methods study. Dr. Y. S. Kusuma. Funded by All India Institute of Medical Sciences, New Delhi for 2008-10.
4. A study of cardiovascular risk factors among AIIMS administrative employees and their family members. College of Nursing, AIIMS (2008-2009)..
5. Pilot Study on Menstrual Hygiene and practices of rural women and their willingness to pay for low cost sanitary pads. (2008-2009). Funded by DST, Government of India.

#### **Ongoing**

1. “HIV epidemiological profiling of districts and sub-district level of Uttarakhand using data triangulation”. AIDS Prevention and Control Project, Chennai is providing funds for the activity (2009-2010).
2. Causes and consequences of domestic violence: A study on sexual health among women in Andhra Pradesh. Dr. Y. S. Kusuma (Co-PI). Funded by University Grants Commission, New Delhi for 2009-12. Collaborative Department: Department of Anthropology, Andhra University, Visakhapatnam.
3. “Concurrent evaluation of Mukhya Mantri Janani Shishu Swasthya Abhiyan (MJSSA) - Janani Suraksha Yojana (JSY) in Jharkhand, funded by INCLEN (2009 – 2010).
4. Development of an integrated predictive model for evidence-based eye care. Department of Community Ophthalmology, Dr. R. P. Centre for Ophthalmic Sciences, AIIMS (2009-2010).
5. Evaluation of quality of life in patients with glaucoma. Dr. R. P. Centre for Ophthalmic Sciences, (2009-2010).

6. A study to assess knowledge about newborn danger signs among mothers of infants in rural and urban areas. College of Nursing, AIIMS (2009-2010).
7. Indoor air pollutants and Behaviour Assessment of rural community to reduce health effects (2009-2010). Funded by TERI. Total Funds : Rs 300,000.

## Departmental

### Ongoing

1. Association of blindness and hearing impairment with mortality among the elderly in a rural area.
2. Study of selected chronic conditions among elderly in an urban slum of Delhi.
3. Study of gender differentials in health among households of rural Ballabgarh by using life-course approach.
4. Study on oral health problems among elderly in an urban resettlement colony.
5. Prevalence of metabolic syndrome and its selected socio-behavioral determinants among females aged more than 20 years residing in an urban resettlement colony, South Delhi.
6. Prevalence of Non-Alcoholic Fatty Liver Disease in an adult population living in a rural community of Haryana.
7. HIV risk behavior and prevalence of self reported sexually transmitted diseases among men who have sex with men, registered with selected non-governmental organizations in Delhi “
8. Implementing & monitoring healthy settings approach for prevention of Non-Communicable Diseases in Middle schools of rural Ballabgarh (block), District Faridabad, Haryana, India.
9. A study of hygiene behavior and water treatment practices of the residents of the slums in North India in the context of an on going behavior change intervention.
10. Evaluation of ASHA Scheme under NRHM in Faridabad District of Haryana.

## PUBLICATIONS

1. Singh B. Combating the H1N1 Influenza (Swine Flu) Epidemic: What Should India do? Indian Journal of Public Health. 2009; 53:190-191.
2. Somdatta P, Reddaiah VP, Singh B. Prevalence of anaemia in the Postpartum Period: a Study of a North Indian Village. Tropical Doctor. 2009;39:211-5
3. Yadav K, Singh B, Goswami K. Unmet Family Planning Need: Differences and Levels of Agreement Between Husband-Wife, Haryana, India. Indian Journal of Community Medicine 2009; 34:188-91
4. Yadav K, Rai S.K, Aditya V., Pandav C.S., “Intensified pulse polio immunization: Time spent and cost incurred at a primary healthcare centre”, The National Medical Journal of India, 2009; 22.

5. Lal V, Rai SK: The Culture of Bottle-feeding. *Indian J Community Med.* Jul 2009; 34: 247-8.
6. Chaturvedi Sanjay, Dasgupta Rajeev, Vivekadhis S, Ganguli Kalyan K, Rai SK, Sushant L and Arora NK: Deconstructing Social Resistance to Pulse Campaign in Two Northern Indian Districts. *Indian Pediatrics* 2009; 46:963-74.
7. Erick Boy, Venkatesh Mannar, Chandrakant Pandav, Bruno De Benoist, Fernando Viteri, Olivier Fontaine and Christine Hotz, “Achievements, challenges, and promising new approaches in vitamin and mineral deficiency control”, *Nutrition Reviews*, 2009;67 (Suppl.1):S24-S30.
8. Bahl D, Kataria I, Bakshi N, Aslesh O P, Goswami A, Yadav K, Pandav C S, Karmarkar M G, “Knowledge and practices of salt retailers about Iodized salt and the iodine content of salt sold in an urban resettlement colony, New Delhi”, *Indian Journal of Nutrition and Dietetics.* 2010;47: 71-5.
9. Banerjee D, Vikram N, Misra P, Bhatt R., Prakash S, and Misra A. Correlation of a [13C]Glucose Breath Test with Surrogate Markers of Insulin Resistance in Urban and Rural Asian Indians, *METABOLIC SYNDROME AND RELATED DISORDERS*, 2009;10:1–6
10. Krishnan A., Baridalyne N., Kapoor SK., Pandav CS. A role for INDEPTH Asian sites in translating research to action for non-communicable disease prevention and control: a case study from Ballabgarh, India. *Global Health Action.* 2009; (Suppl 1): 76-83.
11. Jerzy Leowski, Krishnan A Capacity to Control Noncommunicable Diseases in the Countries of South-East Asia. *Health Policy.* 2009;92:43-8.
12. Aboobakur M, Latheef A, Mohamed AJ, Mossa S, Pandey RM, Krishnan A, Prabhakaran D. Surveillance for non-communicable disease risk factors in Maldives: Results from the first STEPS Survey in Male’. (*International J Pub Health*) 2010 Jan 9. [Epub ahead of print]
13. Adkoli B.V., Gupta V., Sood R., Pandav C.S., “From Reorientation of Medical Education to Development of Medical Educators”, *Indian Journal of Public Health*, 2009;53.
14. Agarwal J., Pandav CS, Karmakar MG, Nair S. “Community monitoring of the National Iodine Deficiency Disorders Control Programme in the National Capital Region of Delhi. *Public Health Nutr.* 2010;1;1-4.
15. Baridalyne N, Anand K, Pandav C S, Kapoor S K. “Introducing regular behavioural surveillance into the health system in India: Its feasibility and validity” *National Medical Journal of India.*2010;23: 13-7.
16. Y.S. Kusuma, Gupta S K , Pandav C S . Migration and hypertension: a cross-sectional study among neo-migrants and settled-migrants in Delhi, India. *Asia Pac J Public Health* 2009;21: 497-507.
17. Y.S. Kusuma. Perceptions on hypertension among the migrants in Delhi, India: a qualitative study. *BMC Public Health* 2009; 9: 267-275.

18. Y.S. Kusuma, Babu B.V, Naidu J.M. Association of alcohol consumption and blood pressure in some low socioeconomic groups from Andhra Pradesh, India. *Coll Anthropol* 2009; 33: 417–22.
19. Y.S. Kusuma, Gupta S. K , Pandav C.S. Knowledge and perceptions about hypertension among neo- and settled-migrants in Delhi, India. *CVD Prevention and Control* 2009; 4: 119-129.
20. Khanduja S, Jhanji V, Sharma N, Vashist P, Murthy GV, Gupta S, Satpathy G, Tandon R, Titiyal JS, Vajpayee RS. Rapid assessment of trachoma among children living in rural northern India. *Ophthalmic Epidemiol.* 2009;16:206-211.
21. Singh R, Gupta SK. Smoking and mortality: Data from India. *The National Medical Journal of India.* 2009; 22;133-134.

### **Chapter in Books**

1. Singh Bir. Role of Paramedical Staff (Health Workers and Health Volunteers). *Substance Use Disorders - A Manual for paramedical staff.* Editors : Rakesh Lal and Atul Ambekar. Publishers : National Drug Dependence Treatment Centre, All India Institute of Medical Sciences. Sponsors : WHO (India) and Ministry of Health and Family Welfare, Govt. of India. 2010. Pp 63-67.
2. Xirasagar, S., Misra, Puneet. *Global health and Health Systems, India's Health System,* in Johnson, J.A. and Stoskopf C.H. (Editors) *Comparative Health Systems, global Perspective.* Jones and Bartlett Publishers, Sudbury, Boston, MA. – published 2009, pages 237-258.

### **Article for public education**

1. Singh Bir: “ Saans se Phelta Virus(H1N1 Influenza). *Public Agenda ( fortnightly Magazine).* Vol 2, No.8-9. 27 May to 10 June 2009.Pg.77
2. Murthy GVS, Gupta S, Bachani D, Vashist P. *Samudayik Netra Vigyan. Hamari Aankhen.* 2009; 34: 13-15.

## Radio and TV programmes on Health

Dr Bir Singh : Radio Programmes conducted: 13

1.	06 April, 2009	World Health Day theme	Live Phone-in Programme	All India Radio
2.	20 April, 2009	Cancers of Female Genital Tract	Live Phone-in Programme	All India Radio
3.	04 May, 2009	Bronchial Asthma	Live Phone-in Programme	All India Radio
4.	10 June, 2009	Kidney Failure	Live Phone-in Programme	All India Radio
5.	24 June, 2009	Diseases of the Thyroid Gland	Live Phone-in Programme	All India Radio
6.	15 July, 2009	Dengue, Malaria and Mosquito-borne diseases	Live Phone-in Programme	All India Radio
7.	03 August, 2009	Swine Flu	Live Phone-in Programme	All India Radio
8.	24 August, 2009	Infertility	Live Phone-in Programme	All India Radio
9.	October 2009	Management of Respiratory Infections in Children	Discussion	All India Radio
10.	15 February, 2010	Epilepsy & Stroke Programme	Live Phone-in	All India Radio
11.	12 March, 2010	Assam Public Health Bill and its Implications	Live Phone-in Programme	All India Radio
12.	15 March, 2010	Adult & Childhood Immunization	Live Phone-in Programme	All India Radio
13.	24 March, 2010	Tuberculosis	Live Phone-in Programme	All India Radio

Dr. Bir Singh: T.V. Programmes: 36

1.	20-04-2009	Health Problems in Summer season	Doordarshan Channel	Expert
2.	28 April, 2009	Swine Flu	D.D. News	Expert
3.	04 May, 2009	Swine Flu	CNN-IBN	Expert
4.	03 May, 2009	Swine Flu	Sahara T.V.	Expert
5.	8 June, 2009	Swine Flu	NDTV 24X7 Channel	Expert
6.	08 June, 2009	Swine Flu	CNN-IBN Channel	Expert
7.	08 June, 2009	Swine Flu	NDTV – India	Expert

8.	08 June, 2009	Swine Flu	D.D.News	Expert
9.	09 June, 2009	Swine Flu	CNN-IBN	Expert
10.	12 June, 2009	Swine Flu	NDTV India	Expert
11.	14 June, 2009	Swine Flu	D.D. News	Expert
12.	04 August, 2009	Swine Flu	CNN-IBN	Expert
13.	04 August, 2009	Swine Flu	News X	Expert
14.	04 August, 2009	Swine Flu	NDTV India	Expert
15.	04 August, 2009	Swine Flu	D.D. News	Expert
16.	05 August, 2009	Swine Flu	NDTV India	Expert
17.	07, August, 2009	Swine Flu	Zee News	Expert
18.	07, August, 2009	Swine Flu	ETV	Expert
19.	09 August, 2009	Swine Flu	D.D. News	Expert
20.	09 August, 2009	Swine Flu	CNN-IBN	Expert
21.	09 August, 2009	Swine Flu	Zee News	Expert
22.	10 August, 2009	Swine Flu	NDTV India	Expert
23.	10 August, 2009	Swine Flu	Aaj Tak Channel	Expert
24.	10 August, 2009	Swine Flu	Headlines Today	Expert
25.	11 August, 2009	Swine Flu	DD News	Expert
26.	11 August, 2009	Swine Flu	NDTV India	Expert
27.	11 August, 2009	Swine Flu	Indiatimes Live	Expert
28.	12 August, 2009	Swine Flu	CNN-IBN	Expert
29.	12 August, 2009	Swine Flu	News 24	Expert
30.	14 August, 2009	Swine Flu	Zee News	Expert
31.	17 August, 2009	Swine Flu	NDTV 24x7	Expert
32.	20 August, 2009	Swine Flu	NDTV 24x7	Expert
33.	22 September, 2009	Swine Flu	CNN-IBN	Expert
34.	31 January, 2010	Adult & Childhood Immunization	D.D. News	Expert
35.	16 February, 2010	Health and the General Budget	D.D. News	Expert
36.	28 March, 2010	Tuberculosis	D.D. News	Expert

### Paper presentations in National and International Conferences

1. Dr. Bir Singh presented a paper “Pre-Marriage Orientation Counselling Course for Happy Married Life” at International Conference on Sex and Relationship Education at Birmingham, U.K. in September, 2009.



2. Presentations made by Ballabgarh HDSS in 9<sup>th</sup> INDEPTH Annual General and Scientific Meeting
- Purva Rai Dwivedi, Ravinder Bisla, K. Anand. Teenage Pregnancy: Risk and Consequences among Adolescence Women in Rural Haryana
- Kapil Yadav, Alka Aggarwal, Vaman Kulkarni Sanjay K. Rai K. Anand. Trends and Causes of under 5 mortality over three decades at Ballabgrah Demographic Surveillance Site, India
- Ravinder Bisla Purav Dwivedi, Guresh Kumar, Anand Krishnan. Challenges and Issues in Database management in Ballabgrah HDSS.
- C. Palanivel, Kapil yadav, Vivek Gupta, Stalin P., Vaman Kulkarni, Anand K. Causes of Death in Rural Adult Population of North India(2002-2007), using Verbal Autopsy Tool.
- Kapil Yadav, Anil Goswami, Aslesh OP, Bir Singh, Chandrakant S Pandav “Involvement of Medical Schools in delivering health care services in Urban Slums: The All India Institute of Medical Sciences (AIIMS) experience from India” in the “International Conference on Urban Health 2009” on 21<sup>st</sup> Oct. 2009 at Nairobi, Kenya

### Lectures Delivered

#### Dr Bir Singh

- Delivered a Guest Lecture on “Swine Flu” at Lady Shri Ram College, New Delhi (15 September, 2009).
- Delivered a Guest Lecture on “Swine Flu” at Hamdard University, New Delhi [02 February, 2010].
- Delivered a Guest Lecture on “Preventive of Mosquito-borne diseases” for NDMC Health Staff at New Delhi [25 February, 2010].
- Delivered an Invited Lecture on “Dengue Fever” during a workshop for Private Medical Practitioners, organized by the Municipal Corporation of Delhi & the Indian Medical Association [04 March, 2010].

#### Dr Shashi Kant

- Acted as a resource person for the HIV/AIDS Plenary Session at 37<sup>th</sup> National Annual Conference of IAPSM and delivered a talk on Dried Blood Spot in HIV sentinel surveillance
- Delivered lecture at Orientation workshop organized by Academic Section of AIIMS for new post graduate student
- Delivered lecture as resource person at Chhatrapati Sahuji Maharaj Medical University (CSSMU), Lucknow, for Capacity building workshop for district level officers of Uttar Pradesh.

#### Dr K Anand

- Delivered a lecture on Health Systems for the Master of Public Health Program at National Institute of Epidemiology Chennai
- Teleconference teaching for PGDMCH-Health, IGNOU

- Facilitated a workshop on STEPs approach to NCD Surveillance at a meeting organized by Madras Diabetes Research Foundation in Chennai on 20<sup>th</sup> March 2009.
- Delivered a lecture on Economic Considerations in Health Care at the National Institute of Health and Family Welfare, September 2009

### **Dr Anil Goswami**

- Delivered a lecture for “Ahead” a NGO’s field staff on: “Working in the Communities” on 09.06.2009 at Centre for Community Medicine AIIMS.
- Delivered a lecture on “Swine Flu” with Dr. Roopa and Dr. Rahul at Arya Smaj Mandir, Defence Colony, New Delhi (250 Participants).
- Delivered a Lecture on “Prevention of Malaria, Dengue and Chikungunya” at two MCD Schools of Dakshin Puri Extention, Dr. Ambedkar Nagar on 19.09. 2009. (800 Participants)
- Delivered a Lecture on “HIV/AIDS” for National Cadets Corps (NCC) in Delhi Cant, New Delhi on 26.09.2009.

### **PATIENT CARE**

This has been divided into five broad categories.

1. C.R.H.S. Project Ballabgarh
2. Urban Health Programme
3. National Service Scheme Unit, AIIMS
4. Sex & Marriage Counseling Clinic
5. AIDS Education & Training Cell
6. Health Promotion and Health Communication unit
7. Social Services

#### **1. C.R.H.S. Project, Ballabgarh:**

This has been divided into two broad categories:

- 1.1 Referral Hospital, Ballabgarh  
Community Health services
- 1.1. Referral Hospital Ballabgarh

#### **A. Outpatient clinic-**

138894 patients were provided treatment in various outpatient clinics. 77315 of who were new patients.

Morning Outpatients clinic

Speciality	Frequency	New Male Patients	New Female Patients	Total New Patients
Medicine	Daily	15260	16200	31460
Gynecology	Daily	-	6831	6831
Surgery	Daily	1500	833	2333
Dental surgery	Daily	1451	1100	2551
Ophthalmology	Daily	1398	1300	2698
Pediatrics	Daily	13498	9131	22629
Physical Medicine and Rehabilitation	Twice (Mon/Thu)	2349	2100	4449
Psychiatry	Once (Wed)	224	300	524
ENT	Twice (Wed/Sat)	1840	2000	3840
Total	-	37091	40224	77315

Afternoon Outpatient clinics

Clinic	Frequency	Number of new cases	Total Visits
Antenatal clinic	Thrice (Mon/Wed/Fri)	5368	—
Non-communicable diseases clinic	Once (Thurs)	375	5463

**B. Inpatients services:**

	Male	Female	Total
The number of beds 24	26	50	
Total admissions including births	2027	4409	6436
Number of Hospital births	788	748	1536
Bed Occupancy rate	-	-	47.2%
Average duration of stay(in days)	-	-	1.3
Admissions			
-via emergency			3627
-via OPD			1273
-newborn			1536

### Distribution of Inpatients by specialty

Specialty	Male	Female	Total
Medicine	657	719	1376
Surgery	120	89	209
Obstetrics and Gynaecology	-	2409	2409
Paediatrics	1157	1063	2220
Ophthalmology	93	129	222
Total	2207	4409	6436

### C. Emergency services:

Number of patients registered	19998
Number of medico-legal cases	3683

### D. Surgical Procedures

Total number of surgical procedures performed (Sex wise)

Male	520
Female	1192
Total	1712

### Surgery performed by Discipline

Speciality	Male	Female	Total
General Surgery	193	215	408
Paediatric Surgery	224	54	278
Obstetrics and Gynaecology	-	810	810
Ophthalmology	103	113	216
Total	520	1192	1712

### E. Laboratory services

Laboratory test	Number
Hematology test	29882
Biochemistry	25099
Urine test	14074
Stool test	158
CSF analysis	16
Semen test	55
Sputum for Acid-fast bacilli	8354
Peripheral Smear for Malarial parasite	2354
Total	79992

## F. Counseling Services

### Tobacco Cessation Clinic (TCC)

TCC clinic was started on 02/06/2009. Initially, it was run once a day on Tuesday forenoon; later it was expanded to run on Tuesday and Thursday.

#### Profile of TCC attendees

Characteristics	Frequency
Sex	
Male	
Female	63 5
Type of tobacco used	
Smokeless	
Smoked	
Both	25367

Four clients quit use of tobacco, while 10 reduced the amount of tobacco consumption.

#### Integrated Counseling and testing Centre

Service	Male	Female	Total
Counseling	1281	2249	3530
HIV testing	572	821	1393
No. of Positives	7	4	11
Positivity rate	-	-	0.79%

#### Revised National Tuberculosis Control Programme (RNTCP)

Ballabgarh hospital is a Tuberculosis Unit under the Revised National Tuberculosis Control Programme and has 4 (four) Microscopy Centres under it. Total cases treated at Ballabgarh Hospital in 2009 was 504.

#### Break-up of cases treated at Ballabgarh Microscopy Centre

Category I	280
Category II	103
Category III	121
Total	504

## Community Health Services

### Intensive Field Practice Area (IFPA)

This comprises of the two Primary Health Centres: -Dayalpur & Chhainsa. Outpatient, domiciliary & referral services are being provided.

Provisional Demographic indicators as on 31.12.2009

Population	87106
Birth Rate per 1000 population	23.4
Death Rate per 1000 population	7.1
Neonatal Mortality Rate per 1000 live births	27
Infant Mortality Rate per 1000 live births	54
Maternal Mortality Rate per 100,000 live births	344

### Load of OPD patients at various centres in IFPA

Name of PHC	New Cases	Repeat visits	Total
Dayalpur	10986	9859	20845
Chhainsa	9822	8307	18129

### Delivery Hut

PHC	No. of deliveries conducted
Dayalpur	311
Chhainsa	43

### Laboratory Services

Laboratory test	PHC, Chhainsa	PHC, Dayalpur
Slide for malaria parasite	4932	5763
Sputum for Acid-fast bacilli	54	390
Hemoglobin estimation	1516	1137
Blood sugar	341	240
Urine for albumin and sugar	751	640
Urine pregnancy test	321	68
Blood grouping and Rh typing	1267	1025

## Family Welfare & Maternal Child Health

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

(i) Total AN cases (new registration)	2313
(ii) Pregnant women receiving antenatal care	100%
(iii) Complete TT coverage of registered cases	93%
(iv) Deliveries conducted by staff or hospital	1350
(v) Eligible couple protection rate	56%
(vi) Family planning acceptors	1873
- Tubectomy	337
- Vasectomy	10
- Condom	904
- Intrauterine devices	261
- Oral contraceptive pills	36

### Expanded Programme on Immunization

Coverage of 12 to 23 month of age

BCG	100%
OPV (3 doses)	99.9%
DPT (3 doses)	99.9%
Measles	98.9%

### Other Activities

#### I. Malaria

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

Total number of slides collected	10695
Total number of positive cases	5

Indices

(i) Annual blood examination rate	12.3
(ii) Annual parasite incidence rate	0.06/1000 population
(iii) Slide positivity rate	0.06%

#### 2. Tuberculosis

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

Category 1	81
Category 2	24
Category 3	19
<hr/> Total	<hr/> 124



## **Integrated Disease Surveillance Project (IDSP)**

Integrated Disease Surveillance Project is implemented in Primary Health Centre and weekly report is being sent to District hospital. A diarrhea outbreak was reported in Village Jaya in Chhainsa PHC and appropriate control measures were initiated.

### **Demographic and behavioural surveillance**

The census of the villages under both Primary Health Centres was carried out between 1<sup>st</sup> December 2009 and 31<sup>st</sup> December 2009. Data were collected for various demographic indicators; focus of this year was migration. Data entry was completed by 20<sup>th</sup> January and final census report was published by 31<sup>st</sup> January which was subsequently discussed with stakeholders.

No. of births registered at Primary health Centres : Dayalpur- 503; Chhainsa- 538

No. of births registered at Primary health Centres : Dayalpur- 235; Chhainsa- 208

### **Special Activities**

- a. Outreach Maternal and Child Health (MCH) Camps- 41 and 56 outreach MCH camps were held in Dayalpur and Chhainsa PHC respectively. A comprehensive package of reproductive and child health services including ANC check-ups, laboratory examination, immunization, physical examination of children as well as health education is being provided at these camps. 1016 patients were attended to during these camps in PHC, Chhainsa. 136 high risk pregnancies were screened, referred and followed up during these camps.
- b. Gramin Swasthya Samaroh (GSS) – Three GSS were held in PHC, Chhainsa in village Chhainsa, Atali and Fatehpur Billoch. A comprehensive package of health care services including general health check-up, antenatal check up, immunization, screening for non-communicable diseases, laboratory services, health talk, screening of health education movies etc. were provided. Well baby show were also organized during all three GSSs. All antenatal women were given a gift packet containing materials for safe delivery. A total of 421 patients attended GSS.
- c. Village Health Day- All the female multipurpose workers along with Anganwadi workers and ASHA conducted Village Health Days as per the planned schedule. These days were utilized for providing antenatal care, adolescent health, immunization and notification of vital events. A total of 280 Village Health Days were held in Dayalpur PHC; while in PHC Chhainsa 288 Village Health Days were held.
- d. Village Health Talk- All the nursing students had to deliver health talk on selected topics in various villages as a part of their assessment. The village and the topic was decided by the MO I/C. They were supported by the health workers during the talks. A total of 58 health talks were held in Dayalpur PHC.

### I.E.C. Activities under CRHSP (AIIMS), Ballabgarh

1. Exhibition :
  - Total: 16
  - Topics included: Sex discrimination, institutional delivery, tobacco de-addiction, breast feeding, PEM & weaning, antenatal care, anemia, tuberculosis, diarrhea, non communicable diseases, HIV/AIDS and general health topics.

2. Major Health Activities (Health Day Celebrations):
  - World No T.B. Day- 24/03/09
  - World Health Day- 07/04/09
  - Inauguration of “Tobacco cessation Clinic” on 30/05/09 and rally against tobacco use with students of “Navjyoti Public School”.
  - World No Tobacco Day celebration.
  - World Asthma day
  - International Women’s Day
  - Breast feeding awareness week (01/08/09- 07/08/09)
  - World AIDS Day.
  - IEC activities includes: Health Talk, film shows, poster display, group & individual counseling.
3. Counseling in ward before discharge
  - Time: 2pm to 4pm
  - Individual counseling of mother regarding exclusive breast feeding and Kangaroo mother care.
  - Individual and group counseling regarding new born care, immunization and post natal care.
  - Total counseling: Post natal mother- 1670  
Antenatal mother- 490
4. Planned Group Health Talk:
  - Total: 84
  - Topics: Breast feeding, weaning, antenatal care, high risk factors in pregnancy, institutional delivery, female discrimination, diarrhea & dehydration, pneumonia, scabies, tobacco de-addiction, malaria & dengue, swine flue, immunization, NCD (diet, physical activities & yoga), PIH, HIV/AIDS, care of new born, PEM, eye health, etc.
5. Short Film Shows:
  - Child Welfare Centre- 31
  - General OPD- 133
  - PHC Dayalpur- 10
  - PHC Chhainsa- 07
6. Activities under U.G. Programm:
  - FGD & Intervention: 04
  - Topics: NCD (Tobacco de-addiction, diet & physical activities), Nutrition, Tuberculosis, and female discrimination.

**Urban Health Programme:** The UHP is located at Dakshinpuri Extension Extension [Dr. Ambedkar Nagar] in South Delhi and apart from providing health care to the inhabitanyts, acts as a training & teacher centre for UGs, PGs Nursing and other students. It has two components:

Mobile Health Clinic

Domiciliary Health Services

a.	Total number of Patients seen at Dakshin Puri Extention, Dr. Ambedkar Nagar	: 23,712
b.	Total number of Referrals	: 1247
c.	Total number of Health talks given on different health topics at: Dr. Ambedkar Nagar	: 110
d.	<u>Immunizations</u>	
	O dose OPV	: 90
	BCG	: 208
	DPT I	: 492
	DPT II	: 497
	DPT III	: 495
	DPT B	: 439
	OPV I	: 492
	OPV II	: 497
	OPV III	: 495
	OPV B	: 439
	DT I + OPV	: 86
	DT II + OPV	: 31
	DT (Booster) + OPV	: 325
	Measles	: 494
	M.M.R	: 571
	TT I (ANC)	: 205
	TT II (ANC)	: 160
	TT (Booster)	: 65
	B TT Others + above 6 years	: 136
	Hepatitis	
	O dose	: 02
	I dose	: 542
	II dose	: 529
	III dose	: 528
	Typhoid	: 541
	<u>Vitamin A</u>	
	I dose	: 306
	Folifer (Adult)	: 1740x30
	Folifer (Paedatric)	: 29 x30
	<u>Family Planning Acceptors:</u>	
	Nirodh	: 3700
	Oral Contraceptive Pills	: 66 Cycles

### Laboratory Services:

Blood smear for M.P.	: 173
Hemoglobin	: 984
Urine routine & microscopic examination	: 147
Urine Pregnancy Test	: 66

### National Service Scheme (N.S.S.) Unit, AIIMS

The N.S.S. Unit of AIIMS is located at Centre for Community Medicine. Dr. Bir Singh continued to be its Programme Coordinator and Dr. Anil Goswami & Mrs. Kiran Singh continued to be the Programme Officers of this unit. Despite receiving no grants from the government, the unit continued to be active in the year under review. Dr. Anil Goswami, Ms Neena Chawla & the Field Staff organized these events as part of the Urban Health Programme and NSS activities:

#### *Organization of events / exhibitions*

- T.B. posters displayed on notice boards of CCM, AIIMS : 01.04.2009
- Organized an Exhibition on **“World Health Day”** & **“World Water Day”** Exhibition at Dakshin Puri Extension  
Dr. Ambedkar Nagar (120 participants) : 07.04.2009
- An Exhibition on **“World No Tobacco Day”** was held at Dakshin Puri Extension Dr. Ambedkar Nagar (105 Participants) : 31.05.2009
- Dengue Posters Displayed at Centre for Community Medicine & 20 other prominent places at AIIMS : 05.06.2009
- **“World Population Day”** was observed in the form of Exhibition & a talk at Dakshin Puri Extension  
Dr. Ambedkar Nagar (95 Participants) : 10.07.2009
- New Batch of MBBS Students briefed about Centre’s activities : 04.08.2009
- Participated in **“Institute Day Health Exhibition”** at AIIMS : 25.09.2009 -  
(14 Posters) : 26.09.2009
- Participated in **“Walkathon”** on the eve of “International Day for the Older Persons” organized by HelpAge India at Raj Path India Gate (With 3 PGs) : 01.10.2009
- Organized an Mini Exhibition on the **“Tobacco and its ill Effects”**  
In front of AIIMS Foyer : 01.10.2009 –  
12.10.2009
- A Film Shown to CCM staff on **“Institute of Naturopathy & Yogic Sciences Bangalore”** : 30.10.2009

- Organised a “**Health Camp/ Health Exhibition**” at Mobile Crech (NGO) at Dakshin Puri Extension Dr.Ambedkar Nagar : 25.11.2009
- Organised a Mini Exhibition on HIV/AIDS at AIIMS : 01.12.2009  
10.12.2009
- Two “Blood Donation Camp” were organized for HDFC at Kasturba Gandhi Road & Gurgaon with Colloboration of CNC Blood Bank & CNC Blood Bank on 12.12.2008 : 12.12.2009
- Organized & Co-ordinated MIS training programme for the Urban Health Centre staff with Dr. Kapil & Dr. Kiran : 06.03.2010-  
09.03.2010
- Organised an exhibition on “**World Water Day**” at Dakshin Puri Ext, Dr. Ambedkar Nagar (125 Participants) : 23.03.2010
- Organised an exhibition on “**World T.B. day**” at Dakshin Puri Ext, Dr. Ambedkar Nagar (120 Participants) : 26.03.2010

### **Sex and Marriage Counselling Clinic ( SMCC), AIIMS Hospital**

(located in Room No. 38 in the main AIIMS Hospital , operates on 3 days a week. Dr. Bir Singh is the Faculty Incharge of this clinic).

New Patients seen : 2669  
Old Patients seen : 2128  
Total Patients seen : 4697

#### **Investigations:**

Hormone Analysis : 631  
Blood Sugar : 101  
Semen Analysis : 489  
C/S, VDRL, HIV : 43  
Urine (R/M) : 50  
Blood hemoglobin : 51  
FNAC : 133  
USG Doppler : 283  
X-Ray : 02

### **AIDS Education & Training Cell**

Prof. Bir Singh is the coordinator of this Cell and Prof. C.S. Pandav is the Chairperson. Ms.Sosamma Shyam and Ms Manju Sidhu are other functionaries. **The following activities were organized by the Cell in 2009-10:**

- The telephone helpline on HIV/AIDS, Sex related issues and contraception (“Shubhchintak”) continued to be operated with usual popularity, attracting a good number of calls daily.

- The Internet based helpline “E-shubhchintak” on HIV/AIDS, sex related issues and contraception continued to be operated with usual popularity. On an average, 1-2 requisitions for IEC materials apart from queries on HIV/AIDS, sexual problems, STDs, Contraception etc are received daily.
- The Cell produced and disseminated educational material on HIV/AIDS to general public in 2009-2010 also.
- About 85 NEW patients were given personal counselling on HIV/ AIDS apart from repeat patients.
- Organized a mini-Exhibition on HIV/ AIDS at AIIMS on the World AIDS Day on December 1, 2009.
- Organized a Public Lecture on HIV/ AIDS for BSF Jawans & Officers at BSF Signal Training Centre, Delhi (July, 2009).

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

The “Health Promotion and Health Communication ( HPHC ) unit” carried out the following activities in the field as well as the AIIMS in the year under review.

- Continued its series of the innovative program “Pre-Marriage Orientation & Counselling for Happy Married Life” in 2009-2010 also. Two courses were organized.
- Started a series of regular, monthly lecture discussions on health topics for general public (“HELPS”) at AIIMS. The first HELP was organized on “Hypertension & Heart Attack” [17 April, 2009]; the second one on “Diabetes [21 May, 2009]; the third one on “Stroke” [26 June, 2009]; the fourth one on “Kidney Failure & Kidney Transplant” [31 July, 2009]; the fifth one on “Swine Flu” [13 August, 2009] & the sixth one on “Epilepsy” [19 March, 2010]. These HELPS were well attended by a large audience.
- Continued to provide audio-visual and print support for various health education activities & programmes.
- Fifteen film shows were conducted under various teaching and training programmes.
- Four role-plays were performed in the community on HIV/ AIDS, Alcoholism, Drug-addiction, Family Planning, Polio, Personal Hygiene, Obesity, Mother and Child Health and Gender Bias.

IEC Material Development (Dr. Bir Singh / Dr. Anil Goswami / Mr. R.B. Pokale)

Posters on “Dengue” were displayed at three places i.e. Dengue screening OPD, AIIMS and at CCM & CRHSP Ballabgarh, Faridabad, Haryana.

S. No.	Posters Developed / Modified and Designed on	No.
1.	Health Education Lecture for People (HELP) Posters	10
2.	Health Education Lecture for People (HELP) Banners	12
3.	Field Data Poster	02
4.	Team work Works	01
5.	Pre-Marriage Orientation Course for Happy Married Life Posters	02
6.	Pre-Marriage Orientation Course for Happy Married Life Banners	02
7.	Week at Glance notice maintained	42
8.	Guest Lecture Posters	09
9.	Shall Be Away Posters	12
10.	Organogram of ACCHA	01
11.	A Poster on Blood Pressure	01
12.	Tobacco Rally Posters	06
13.	CRHSP at a Glance Poster	01
14.	Immunization Chart for Ballabgarh	01
15.	A Chart of published articles	01
16.	Posters on Breast Feeding, Weaning, Diarrhea for Ballabgarh	10
17.	Swine Flu posters	02
18.	Road Safety Poster	01
19.	Designed banners on HIV/ Cards	04
20.	Designed banner and poster on “Regional Training on Laboratory & Quality Control/ Assurance Procedures for Universal salt Iodization Programme”	02
21.	Designed Route Map of Old OT Block	01
22.	Designed Logo on ACCHA, SMCC, AIAMSWP, State Chapter of IAPSM	04
23.	Designed certificates for “Pre-Marriage Orientation Course for Happy Married Life”, Orientation Training Course on “Health and Human Rights”	02
24.	Designed banners on Iodized Salt	04
25.	Designed Poster for Enrollment of NSS volunteers for Commonwealth Games 2010 Programme	01
26.	Poster on “Save the Girl Child”	01
27.	Designed a poster for IAPSM Conference Ranchi	01
28.	Designed a banner for “Health and Human Rights Course”	01
29.	Designed a banner on ICCIDD	01



30.	Designed a poster on” HIV Prevalence and NDR T.B. attenders in a rural area of Haryana, India	01
31.	Designed pamphlets on Swine Flu, a Booklet on Happy Married Life,	02
32.	Designed Cover pages for Endemic Goitre in Delhi, Training manual on ICCIDD, Background Document on Health and Human Right, Introductory Document on Health and Human Right and Private Practitioner and the Health of the Urban Poor: The case study of a Slum in Delhi”.	06

Five Film shows were conducted under various teaching and training programmes. Thirty four teaching sessions were projected and forty one sessions were photographed.

Four role-plays by Medical Students and Nine by Nursing Students were performed in the community on Alcoholism, Drug-addiction, Family Planning, Polio, Personal Hygiene, Obesity, Mother and Child Health and Female Infanticide, Accidents, Healthy life style, Gender Bias, Small family norms, Eye Donations and Swine flu .

### **Social Services**

(Dr. Anil Goswami & Mrs. Neena Chawla)

More than 3,600 patients / clients were identified and provided medical social services. This included a variety o services such as counselling, helping them to get medical and financial help and referral to various social welfare institutions/ organizations.

### **AWARDS AND HONOURS**

#### **Dr C.S.Pandav**

- Elected as President of The Indian Public Health Association of (IPHA) for the year 2010-2012.

#### **Dr Bir Singh**

- Elected as the Secretary General of the Indian Association of Preventive and Social Medicine for 2<sup>nd</sup> term (2010-2013) in a pan-India election.
- Awarded and delivered “Harcharan Singh Oration” during the 37<sup>th</sup> National Annual Conference of Indian Association of Preventive & Social Medicine at Ranchi. [February 2010].

#### **Dr Shashi Kant**

- Awarded WHO Fellowship on “Information, Education and Communication for Health” in Thailand.

### **SIGNIFICANT EVENTS**

#### **Prof. C.S. Pandav**

Was Invited as a Member of the Indian Public Health Standards (IPHS) Task Force for Sub-Centres, Primary Health Centres, Community Health Centres, Sub-districts / Sub-divisional Hospitals and District Hospitals; conducted Ph.D. Viva-Voce on 8<sup>th</sup> May, 2009 at the Indira Gandhi Institute of Development Research, Mumbai; Attended the National Consultative Meet on Nutrition Policy on

4<sup>th</sup> June, 2009 at Women & Child Development & Social Justice Deptt. Mantralaya, Vallabh Bhawan, Bhopal, M.P. Attended workshop on “Improving Public Education and Training in Public Health Education Institutions, India from July 29-31, 2009 at the Institute of Health Management Research, Jaipur. Attended Second IRB Meeting organized by IndiaCLEN at Chennai from 24-25 September, 2009. Attended the 9<sup>th</sup> INDEPTH Network Annual General & Scientific Meeting at Vadu, Pune from 26-29 October, 2009. Attended the 54<sup>th</sup> Annual National Conference of Indian Public Health Association (IPHA) at the Department of Community Medicine, Andhra Medical College, Vishakhapatnam, Andhra Pradesh from 22-24 January, 2010. Conducted the 3<sup>rd</sup> Annual Health Mela at Gidhour, Jamui, Bihar under National Rural Health Mission from 28<sup>th</sup> January, 2010 to 1<sup>st</sup> February, 2010. Attended the 37<sup>th</sup> Annual National Conference of Indian Association of Preventive & Social Medicine (IAPSM) held at RIMS, Ranchi, Jharkhand from 22-24 February, 2010. Participated in the Tracking Progress Towards Sustainable Elimination of Iodine Deficiency Disorders in Bangkok, Thailand – External Evaluation from 28 March, 2009 to 5<sup>th</sup> April, 2009. Undertook Temporary International Professional (TIP) assignment for “Strengthening Iodine Deficiency Disorders Prevention and Control Program in Democratic Peoples’ Republic of Korea” with WHO from 16 – 30 May, 2009. Participated in the “9<sup>th</sup> International Symposium on Salt 2009” in Beijing, China from 4-6 September, 2009. Participated in the 19<sup>th</sup> International Congress of Nutrition – 2009, Bangkok, Thailand from 4-9 October, 2009. Conducted the Assessment of the System for implementing the USI &IDD Elimination Program in Tashkent, Uzbekistan from 11-22 October, 2009. Attended the “Regional Meeting of Teaching of Public Health in Medical Schools” at Bangkok, Thailand from 8-10 December, 2009; Participated in the Tracking Progress Towards Sustainable Elimination of Iodine Deficiency Disorders in Sri Lanka – External Evaluation from 7<sup>th</sup> to 14<sup>th</sup> June, 2009; Conducted the MD (Community Medicine/Community Dentistry) Part I & II Examinations held from 15-19 February, 2010 at University of Colombo, Colombo, Sri Lanka

### **Prof Bir Singh**

Started a series of innovative, regular, monthly lecture discussions on health topics for general public (“HELPS”) at AIIMS. The first HELP was organized on “Hypertension & Heart Attack” [17 April, 2009]; the second one on “Diabetes [21 May, 2009], the third one on “Stroke” [26 June, 2009], the 4<sup>th</sup> one on “Renal Failure and Kidney Transplant” [31 July, 2009], the 5<sup>th</sup> one on “Swine Flu” [August, 2009] and the 6<sup>th</sup> on “Epilepsy” [18 March, 2010]. These HELPS were well attended by a large audience; Organized the Fourth “Pre-Marriage Counselling Course for Happy Married Life” at AIIMS [27-28 May, 2009] and the fifth “Pre-Marriage Counselling Course for Happy Married Life” at AIIMS [16-17 March, 2010]; Continued to be a Reviewer for the National Medical Journal of India; Participate as an Expert in a meeting of the Council for Scientific & Industrial Research (CSIR) for selection of Senior Research Associates at New Delhi [27 April, 2009]; Participated and chaired a session in “EpiDays-2009” at National Institute of Communicable Diseases, New Delhi [4-5-6 May, 2009]; Invited as a Member of the Indian Public Health Standards (IPHS) Task Force for Sub-Centres, Primary Health Centres, Community Health Centres, Sub-districts / Sub-divisional Hospitals and District

Hospitals: was an Examiner for M.D. Examination at Aligarh Muslim University [11-12 May, 2009]; Was an Examiner for M.D. Examination at Govt. of Medical College, Srinagar [15-16 May, 2009]; Was a Resource Person and delivered a lecture on “HIV-AIDS PPTCT Evaluation” at a UNICEF meeting in Kolkata [17-18 June, 2009]; Participated as an Invitee in the “National Consultation on Public Health Work Force in India” organized by WHO India and Ministry of Health & Family Welfare, Govt. of India at New Delhi [24-25 June, 2009]; Participated as an Invitee Resource Person in the “National Consultation on Ayurvedic approaches to H1 N1 Influenza Pandemic” organized by Deptt of AYUSH, Ministry of Health & Family Welfare, Govt. of India at New Delhi (31 August, 2009); Participated in organization of the AIIMS stall in the World Book Fair at Pragati Maidan, New Delhi [February, 2010]; Participated in the Workshop on “Human Rights and Health” at AIIMS, New Delhi [05 February, 2010]; Has been elected as the Secretary General of Indian Association of Preventive & Social Medicine (IAPSM) for the three years term 2010-2013; Delivered a Guest Lecture on “Preventive of Mosquito-borne diseases” for NDMC Health Staff at New Delhi [25 February, 2010]; Delivered an Invited Lecture on “Dengue Fever” during a workshop for Private Medical Practitioners, organized by the Municipal Corporation of Delhi & the Indian Medical Association [04 March, 2010]; Continued to be a panelist for health related websites “doctornDTV.com”; “healthyindia.org” and “arogya.com” and a columnist for “Jagran Sakhi” – a monthly magazine; continued to be a member of the Scientific Advisory Committee of the Desert Medicine Research Centre (ICMR).

- Institutional Responsibilities at AIIMS
  1. Co-Chairman, Gymkhana Committee
  2. Member, Raj Bhasha Committee
  3. Member, Selection Committees and DPCs
  4. Member of the Research Sub-Committee of AIIMS to select Community Based Research Studies.
- Research related:
  1. Member, Doctoral Committee of Dr. Manish Jain, Reproductive Biology Department of AIIMS.
  2. Co-guide for a Ph.D. student in Deptt. of Biostatistics, AIIMS.
  3. Member of the Research Sub-Committee of AIIMS to select Community Based Research Studies

### **Prof Shashi Kant**

Identified as Nodal Person by National AIDS Control Organization (NACO) to provide supervision of HIV sentinel surveillance in the states of Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, and Delhi; The National AIDS Control Organization, nominated him as member of National Technical Team (NTT) for HIV data Triangulation; I facilitated in the development of protocol for HIV data triangulation in India; Served as member of Institutional Review Board for IndiaCLEN. Acted as cluster head of Strategic Information System segment of Request for Proposal submitted by IndiaCLEN to Centres for Disease Control, Atlanta, USA.; was invited him to serve as expert for selection of faculty

members at CSSMU.; Acted as Faculty in-charge of Telemedicine facility at AIIMS. On the invitation of Ministry of External Affairs, Government of India. Attended a meeting of Pan-Africa e-network Project, held at Delhi. Facilitated regular Continued Medical Education (six lectures per month) for African countries that were part of Pan-Africa e-network Project.; was invited by Ministry of Health and Family welfare as resource person for expanding telemedicine in India during the remaining period of eleventh five-year plan.; served as member of Ethics sub-committee of All India institute of Medical Sciences and reviewed research proposal submitted to it; Served as member/Chairperson of various Departmental Promotion Committees of AIIMS. Organized a workshop at Delhi for representatives of 21 districts of Uttar Pradesh for Capacity building in HIV data triangulation. Organized a workshop at Delhi for districts level officials of Uttarakhand for Capacity building in HIV data triangulation. Member of the organizing committee of International Workshop on Micronutrients and Child Health, held at Delhi. Also chaired some of the scientific sessions of this workshop. Attended “Training of trainers’ workshop on operations research” that was held in New Delhi. This workshop was organized by Department of Reproductive Health and Research, WHO, Geneva. Presented a scientific paper at 14<sup>th</sup> International Congress on Infectious diseases’ held at Miami, Florida, USA.

### **Prof Sanjeev Kumar Gupta**

Dr. Sanjeev Kumar Gupta was a co-author of the paper entitled “Work capacity and surgical output for cataract in the National Capital Region of Delhi and neighboring districts of North India” published in the Indian Journal of Public Health, Volume 52, No. 4, year 2008. This paper was adjudged as the best paper for the “R. N. Roy best paper award” (November 2009; member the sub-committee for reconsideration and restructuring of the document, i.e. nomenclature, qualification, pay, etc. for the research staff at the AIIMS; member of the Stores Purchase Committee of the Centre for Dental Education and Research; reviewer for the Indian Journal of Community Medicine; member of the Doctoral Committee in respect of a Ph.D. Thesis in the Department of Community Ophthalmology, Dr. R. P. Centre, AIIMS; member of the Technical Working Group for further strengthening the Institute’s participation in the National Missions of Public Health; member of the committee constituted to discuss the contingency action plan for AIIMS regarding emergency preparedness for the influenza A – H1N1 infection patients; May 2009; member of the Departmental Promotion Committee for the post of Health Assistant at the AIIMS; advised the Union Public Service Commission, New Delhi in making the selection to the post of Public Health Specialist, Grade-II on 9 December 2009.

### **Dr Kiran Goswami**

Member of the Central Coordinating team at INCLIN for studies “socio cultural factors influencing under nutrition in under 5 children in India” and JSY evaluation in Jharkhand; Chairperson of committee to finalise tools for neonatal deaths audit at health facility and community levels constituted by the MOHFW.

### **Dr. Anand Krishnan**

Member of the technical team from Centre for Community Medicine, which was asked to review the evidence on determinants of Healthy and active Ageing, identify best practices for promotion of healthy and active ageing and to prepare the draft Regional Strategy for Health and Active Ageing in South-East Asia; took up assignment as Temporary Adviser and to attend the WHO/SEARO’s SEANET-

NCD meeting Chandigarh; was the external examiner for Post Graduate certificate course in hospital management NIHF, New Delhi; attended 54th Annual national conference of Indian Public Health Association Vishakapattinam,; attended Influenza Burden of disease workshop and vaccine effectiveness meeting organized by Center for Diseases Control, Atlanta at Bangkok, Thailand ; attended the Annual General Meeting of INDEPTH Network in Pune; attended International symposium on prioritizing chronicity: An agenda for public health research on chronic disease for sub-saharan Africa Kuala Lumpur, Malaysia;

Visited Umea University Sweden to explore collaborative research and academic activities; Was a Member Board of Trustees of INDEPTH Network till October 2009

Member of the Project Review Committee of Indian Council of Medical Research and Media Lab Asia (Dept. of Information Technology).

### **Dr Sanjay Rai**

Member of AIIMS Core committee for DOTS therapy in Tuberculosis and attended Revised National Tuberculosis Control Programme – Core Committee Meeting on 5<sup>th</sup> May 2009 AIIMS; Organized “ Post round review meeting of HIV Sentinel surveillance 2009 (Central Zone)” from 17<sup>th</sup> to 18<sup>th</sup> July 2009 at New Delhi; Participated in “State Level Meeting on Facilitation of Planning Process under NRHM” held on 21<sup>st</sup> October 2009 at Panchkula, Haryana; Reviewer for “Health & Population Perspective and Issues”, Indian Journal of Public Health, Indian Journal of Community Medicine etc; Attended 9<sup>th</sup> INDEPTH Annual General Scientific Meeting (AGM) at Pune from 26<sup>th</sup> to 29<sup>th</sup> October 2009; Nominated by Punjab University as a member of the Board of Examiners in community medicine for 2009 -2010 and was external examiner for MBBS examination at Government Medical College & Hospital Chandigarh from 7<sup>th</sup> to 8<sup>th</sup> December 2009; Organized Health Mela under NRHM in Jamui & Banka District of Bihar from 29<sup>th</sup> January 2010 to 2<sup>nd</sup> February 2010; Conducted several supervisory field visits of Bihar, Jharkhand, Delhi and UP to monitor HIV Sentinel Surveillance of India as a central team member; Nominated by Institute to Supervise All India PG Entrance Examination test at Chennai on 10<sup>th</sup> January 2010; Organized “Capacity Building Workshop on HIV Data Triangulation for health officials” of Uttar Pradesh and Uttarakhand On 6<sup>th</sup> to 8<sup>th</sup> October 2009 and 4<sup>th</sup> to 6<sup>th</sup> March 2010 respectively at Delhi; elected “Joint Secretary” (north zone) of Indian Public Health Association for the year 2010 – 2012.

### **Dr Puneet Misra**

Member of Program Advisory Council Member, Department of science and Technology; member Telemedicine Committee, AIIMS; Assessment of projects for DST, Govt of India; Best Poster Award at XIth International Health Conference in California, USA; Conference on Traditional Medicine, Bhutan; Examiner at National Institute of Health and Family Welfare for Post Graduate certificate course in hospital management NIHF, New Delhi; Member Expert committee for HIV Data Triangulation, NACO; Organized Post round meeting for HIV Sentinel Surveillance; MBBS examiner Gorakhpur; Teaching MPH students from National Institute of Epidemiology; signed a memorandum with Imperial College London for BOLD study in Feb 2010, Working on Burden of Obstructive Lung Disease, BOLD with Imperial College, London

Organized Capacity building for HIV Data triangulation for Uttarakhand and UP; Working with TERI on indoor air pollution and health. Attended DST, Govt of India, meeting as an expert panelist for

data release on Nutrition April 5, 2009. Attended XI<sup>th</sup> International Health Conference in California, USA, Conference jointly organized by UC Berkeley, UC Davis, UC San Francisco, Stanford University and Touro University; Conference on Traditional Medicine, Bhutan; Attended 54<sup>th</sup> Annual national conference of Indian Public Health Association Vishakapatnam; Attended International Conference of Medical Negligence and Litigation in Medical Practice from 24<sup>th</sup> to 26<sup>th</sup> January 2010 at Kodiakanal.

### **Dr Baridalayne Nongkynrih**

Attended a meeting of Subgroup on IPHS proposal on urban health in MOHFW, Nirman Bhawan in April 2009; Training course in “Human rights and Health” in NIHFW in August 200; attended Expert Group meeting on management of PSM/Community Medicine for Undergraduate medical education. WHO/SEARO; Attended the 37<sup>th</sup> Annual National Conference of Indian Association of Preventive & Social Medicine (IAPSM) held at RIMS, Ranchi, Jharkhand from 22-24 February, 2010; Attended South East Asia Regional Conference on Epidemiology in New Delhi in March 2010; continues to be Joint Secretary of Indian Association of Preventive and Social Medicine for the 2<sup>nd</sup> term; Reviewer for the Indian Journal of Community Medicine.

### **Dr. Anil Goswami**

Participated in One day “Expert Group Consultation Meeting on Enhancing Quality of Life of Senior Citizens : Review of Programme and Action Strategies” in Collaboration with DWARF & International Network for Prevention of Elder Abuse, National institute of Social Defence and Ministry of Social Justice and Empowerment at India International Centre Annexes, Lodhi Road, New Delhi. Attended a NSS meeting in Shashtri Bhawan with Director Youth Affairs & Advisor, National Service Scheme (NSS) on the “Involvement of NSS Volunteers in the Commonwealth Games 2010” to be held at New Delhi. Attended a Training Course on “Health and Human Rights” organized by National Institute of Health and Family Welfare, Munirka, New Delhi w.e.f. 24<sup>th</sup> to 28<sup>th</sup> August 2009. Participated in a “Multipartnership Meeting” Organized by Economic & Commercial Office of the Embassy of Spain and Spanish Institute for Foreign Trade (ICEX) on “Public Private Partnership (PPPs) progress in Spanish Health Care Sector” on 25.09.2009. Organized a National Human Rights Commission sponsored training course on “Health & Human Rights” at AII India Institute of Medical Sciences on 05<sup>th</sup> & 06<sup>th</sup> February 2010 ; Attended “54<sup>th</sup> National Conference of Indian Public Health Association” 22<sup>nd</sup> - 24<sup>th</sup> January 2010 at Andhra Medical College, Vishakhapatnam, A.P.; Attended “37<sup>th</sup> Annual National Conference of “Indian Association of Preventive & Social Medicine” 22<sup>nd</sup> – 24<sup>th</sup> February, 2010 at Rajindra Institute of Medical Sciences, Ranchi, Jharkhand.; Week at Glance (a day to day activity plan of the centre) was maintained mentioning all important teaching & training activities of the centre during 2009-2010; Continued to be the Treasurer of Indian Association of Preventive and Social Medicine during for a second consecutive term.



## 9.9 Dermatology & Venereology

### Professor and Head

V.K. Sharma

### Professors

Neena Khanna

KK Verma

### Additional Professor

M Ramam

### Associate Professors

Binod K Khaitan

Sujay Khandpur

G Sethuraman

### Assistant Professor

Somesh Gupta

## EDUCATION

Three candidates completed MD Dermatology and Venereology training, one candidate from Sri Lanka underwent long term training (6 months) and six candidates took short term training from 2-4 weeks from different countries like Afghanistan, Qurayat, USA, Sweden and Canada

## NATIONAL AND INTERNATIONAL CONFERENCES

### Lecture delivered

#### Dr. V.K. Sharma

1. "Patch testing": Common sensitisers in New Delhi; A study of 620 Patients' at American Society of Contact Dermatitis March 4, 2010, Miami, Florida USA
2. Attended Editorial Board Meeting of Journal "Dermatitis" on March 5, 2010, Miami, Florida, USA
3. Chaired session "Dermatology in India" and present paper entitled "Prevalence of sexually transmitted infections in India" European Academy of Dermatology & Venereology at ICC-Berlin Germany on October 7-11, 2009
4. "Stevens Johnson Syndrome (SJS), Toxic Epidermal Necrolysis (TEN) in children – A Study from India" 11<sup>th</sup> World Congress of Pediatric Dermatology at Bangkok Thailand on November 17-19, 2009.
5. "Drug Reactions in Children" at Pediatric Dermatology Update at Gandhi Medical College Secunderabad by IADVL – A.P. State Branch on July 12, 2009.
6. "Role of Immunosuppressive in Pemphigus" at 3<sup>rd</sup> National Conference of Pulse Therapy in Dermatology Jabalpur on September 12-13, 2009.
7. Attended Central Scientific Committee of DERMACON-2010 as President of IADVL at Lucknow on Oct. 1, 2009.



8. Attended 2<sup>nd</sup> DERMAZONE (North ) of IADVL & 35<sup>th</sup> Annual Conference of IADVL (Punjab-Chandigarh) for “Chairing a Session and inauguration as President IADVL” on October 30 & 1<sup>st</sup> November, 2009
9. Attending VII Annual Conference of Indian Society for Pediatric Dermatology at Chennai on November 7-8, 2009
10. ‘Management of difficult Urticaria’ at DERMAZONE WEST-2009, Ist Biennial Conference of IADVL, West at Ahmedabad on December 4-6, 2009.
11. Inaugurated as Chief Guest Ist Annual State Conference of IADVL (Jharkhand Chapter) at Ranchi on December 19-20, 2009 and deliver lecture on “Plant Dermatitis”
12. Attended (DERMACON-2010 ) 38<sup>th</sup> National Conference of IADVL officiating as President, IADVL on January 7-10, 2010 and panel discussion on “Contact Dermatitis”.

**Dr. M Ramam**

1. ‘Cutaneous tuberculosis- an Indian perspective and overview’. 10th International Congress of Dermatology, Prague, May 20-24, 2009. Chicago October 1-4, 2009
2. ‘Cutaneous adverse drug reactions. CME of the IMA’, Gwalior, July 25, 2009.
3. Ramam M, Bhat R, Jindal S, Kumar U, Sharma VK, Sagar R, Chadda RK. Patient-reported multiple drug reactions: clinical profile and results of challenge testing . 89<sup>th</sup> Annual Meeting of the British Association of Dermatologists, Glasgow, July 7-11, 2009.

**Dr. Binod Khaitan**

1. A Cross-sectional study to assess the curative and cosmetic outcomes of surgical modalities and radiotherapy for the treatment of basal cell carcinoma.. Gaurang Krishna, Somesh Gupta, Binod K Khaitan. Presented at National Workshop-cum-conference of Association of Cutaneous Surgeons of India held at Srinagar on 23-24 October 2009.
2. Chaired the session “Facial rejuvenation” at National Workshop-cum-conference of Association of Cutaneous Surgeons of India held at Srinagar on 23-24 October 2009.
3. I “Characterization of patterns of segmental vitiligo: evolving an insight” in 3<sup>rd</sup> Asian Society for Pigment cell Research held on 11-13 June 2009 at Seoul, South Korea.
4. Chaired the session “Treatment of Vitiligo” in 3<sup>rd</sup> Asian Society for Pigment cell Research held on 11-13 June 2009 at Seoul, South Korea.
5. “OMP in vitiligo” in the International Conference organized by South African Society for Dermatological Surgery (SASDS) and Vitiligo Society of South Africa held on 7-9 August 2009 at Franschoek, South Africa.
6. Conducted the workshop as guest faculty on “Punch grafting and suction blister for vitiligo surgery” in the International Conference organized by South African Society for Dermatological Surgery (SASDS) and Vitiligo Society of South Africa held on 7-9 August 2009 at Franschoek, South Africa.

7. “Onychomycosis-a clinician’s perspective” at 8th National conference of Indian Human and Animal Mycologists (SIHAM) held at New Delhi on 4-March, 2010.
8. Chaired the session “Innovations in Dermatosurgery” in IADVL-DSB & ACSI CME held on 14<sup>th</sup> March, 2010 at Safdarjung Hospital at New Delhi.
9. “Approach in a patient with alopecia” in CME organized by IMA, Gwalior on 21<sup>st</sup> March, 2010 at Gwalior.
10. On course faculty in CME at 38<sup>th</sup> National Conference of Indian Association of Dermatologists Venereologists & Leprologists (Dermacon-2010) held on 7<sup>th</sup> January, 2010 at Lucknow.
11. “Challenges in management of SJS-TEN” at 38<sup>th</sup> National Conference of Indian Association of Dermatologists Venereologists & Leprologists (Dermacon-2010) held on 7-10 January, 2010 at Lucknow.

#### **Dr. Sujay Khandpur**

1. “Sclerotherapy in Venous Malformation” guest lecture presented at Sister Society meeting of IADVL at 10<sup>th</sup> International Congress of Dermatology, Prague, Czech Republic, May 20-23, 2009.
2. “Comparison of Clinical Efficacy and Cost-Effectiveness of PUVA versus PUVAsol in Extensive Plaque Psoriasis” at 10<sup>th</sup> International Congress of Dermatology, Prague, Czech Republic, May 20-23, 2009
3. “A study of utility of sclerotherapy with 3% sodium tetradecylsulphate in vascular malformations” at 10<sup>th</sup> International Congress of Dermatology, Prague, Czech Republic, May 20-23, 2009
4. “Systemic involvement in Leprosy” at 27<sup>th</sup> Biennial Conference of Indian Association of Leprologists
5. ‘Immunosuppressive therapy –Friend or Enemy’ at 38<sup>th</sup> National Conference of Indian Association of Dermatologists, Venereologists and leprologists, Lucknow, January 7-10, 2010.

#### **Dr. G Sethuraman**

1. ‘An unusual inflammatory and psoriasiform lichenscrofulosorum: (Tuberculid),’. World Congress of Pediatric Dermatology. Bangkok, Thailand, November 17-19, 2009

#### **Dr. Somesh Gupta**

1. Chaired a session in 18th International Society for Sexually Transmitted Diseases Research (ISSTD) Congress in association with British Association of Sexual Health Conference, held in London, UK, from 28 June to 1 July 2009
2. ‘Management of Genital HPV infection’ in 16th International Union against Sexually Transmitted Infections (IUSTI) Asia-Pacific Congress at Bali, Indonesia, 4-6 May, 2010
3. “Sexually Transmitted Diseases (STDs) – Epidemic of the Era” Conference held in Mukalla, Yemen, on 1st – 4th February 2010

4. "Health related Quality of Life in Indian patients with three viral STIs HIV, HSV and HPV" at IUSTI World Congress, Cape Town, 9-12 Nov. 2009

## PUBLICATIONS

1. Khan R, Satyam A, Gupta S, Sharma VK, Sharma A. Circulatory levels of antioxidants and lipid peroxidation in Indian patients with generalized and localized vitiligo.. Arch Dermatol Res 2009;301:731-7.
2. Satyam A, Khandpur S, Sharma VK, Sharma A. Involvement of Th1/Th2 cytokines in the pathogenesis of pemphigus vulgaris. Immunol Invest 2009; 38: 1-12.
3. Kubba R, Bajaj AK., Sharma VK. Indian Acne Alliance (IAA). Indian J Dermatol Venereol Leprol 2009;75 suppl1:1-62.
4. Khandpur S, Chaturvedi P, Sharma VK. Mucocutaneous deposits. In: 100 interesting cases in Dermatology, Lahiri K eds, 2009; 36-41.
5. Parida DK, Verma KK, Rath GK. Total skin electron irradiation treatment for mycosis fungoides with new alternate daily treatment schedule to minimize radiation associated toxicity: a preliminary experience. Clin Exp Dermatol 2009;34: e37-39.
6. Mohapatra S, Xess I, Swetha JV, Tanveer N, Asati D, Ramam M, Singh MK. Primary cutaneous aspergillosis due to *Aspergillus niger* in an immunocompetent patient. Indian J Med Microbiol. 2009; 27:367-370.
7. Ramam M, Ramesh V. Trial of antitubercular therapy in the diagnosis of cutaneous tuberculosis. Am J Dermatopathol 2010 Feb 5. [Epub ahead of print]
8. Kumar D, Ramesh V, Verma S, Ramam M, Salotra P. Post kala azar dermal leishmaniasis (PKDL) developing after treatment of visceral leishmaniasis with amphotericin B and miltefosine. Ann Trop Med Parasitology 2009; 103: 727-730.
9. Ramesh V, Ramam M, Capoor MR, Sugandhan S, Dhawan J, Khanna G. Subcutaneous zygomycosis: Report of 10 cases from two institutions in North India . J Eur Acad Dermatol Venereol 2010 Feb 25. [Epub ahead of print]
10. Khandpur S, Pahwa P. Conflict of Interest. Indian J Dermatol Venereol Leprol 2009;75(3):225-8.
11. Khandpur S, Singh S, Sharma VK, Gupta R, Singh MK. Linear Morphea With Secondary Mucinosis. Indian J Dermatol Venereol Leprol 2009;75:388-90.
12. Khandpur S, Chandra S, Sharma VK, Kaushal S, Safaya R. Giant Nevus Lipomatosus Cutaneous Superficialis. Indian J Dermatol Venereol Leprol 2009;75:407-8
13. Khandpur S, Sharma VK. Utility of Intralesional Sclerotherapy in Superficial Vascular Malformations. Dermatol Surg 2010;36:340-6
14. Khandpur S, Pathria G, Sharma VK, Sharma A, Satyam A. Comparison of ELISA Test versus Immunoblot Assay in the Diagnosis of Pemphigus in Indian patients. Indian J Dermatol Venereol Leprol 2010;76:27-32

15. Khandpur S, Sharma VK. Chronic Tophaceous Gout with Severe Deforming Arthritis. *Indian J Dermatol Venereol Leprol* 2010;76:69-71
16. Sethy PK, Khandpur S, Sharma VK. Randomized Open Comparative Trial of Dexamethasone-Cyclophosphamide Pulse and daily Oral Cyclophosphamide versus Cyclophosphamide Pulse and daily Oral Prednisolone in Pemphigus Vulgaris. *Indian J Dermatol Venereol Leprol* 2009;75:476-82
17. Khandpur S, Kathuria SD, Gupta R, Singh MK, Sharma VK. Hyperkeratotic pitted plaques on palms and soles. *Indian J Dermatol Venereol Leprol*. 2010;76:52-5
18. Dhawan J, Khandpur S. Emerging trends in viral sexually transmitted infections in India. *Indian J Dermatol Venereol Leprol*. 2009;75:561-5.
19. Sethuraman G, Richards KA, Hiremagalore RN, Wagner A. Effectiveness of pulsed dye laser in the treatment of recalcitrant warts in children. *Dermatol Surg* 2010; 36:58-65.
20. Sethuraman G, Mancini AJ. Familial auriculotemporal nerve (Frey) syndrome. *Pediatr Dermatol*. 2009 ;26:302-5.
21. Lai-Cheong JE, Parsons M, Tanaka A, Ussar S, South AP, Gomathy Sethuraman et al. Loss-of-function FERMT1 mutations in kindler syndrome implicate a role for fermitin family homolog-1 in integrin activation. *Am J Pathol*. 2009;175:1431-41.
22. Gupta S, Malhotra AK, Ajith C. Lichen sclerosus: role of occlusion of the genital skin in the pathogenesis. *Indian J Dermatol Venereol Leprol*. 2010;76:56-8.
23. Gupta S. Stability in vitiligo: why such a hullabaloo? *J Cutan Aesthet Surg*. 2009;2:41-2.
24. Khan R, Satyam A, Gupta S, Sharma VK, Sharma A. Circulatory levels of antioxidants and lipid peroxidation in Indian patients with generalized and localized vitiligo. *Arch Dermatol Res*. 2009;301:731-7..

## BOOKS

1. Sharma VK. Editor in Chief – 2nd Edition of IASSTD & AIDS” Textbook Sexually Transmitted Diseases & AIDS”, 2009 Hard Cover, Viva Book.
2. Sharma VK. Editor in Chief Guidelines for Vitiligo, Stevens-Johnsons Syndrome & Toxic Epidermal Necrolysis and Psoriasis (IADV&L), 2009
3. Sharma VK. Editor in Chief – ‘Hand Book of Urticaria’ soft cover pp 90, color illustration 16. Massey Art Press, New Delhi, 2008.
4. Ramesh V, Ramam M. Cutaneous tuberculosis. In: Inamdar A, Sacchidanand S, Editors, Textbook of Pediatric Dermatology, New Delhi, Jaypee Brothers Medical Publishers (P) Ltd., 2009, p.237-246.
5. Sharma VK, Jerajani HR, Srinivas CR, Kanwar AJ, Premlatha S, Sengupta SR, Gupta R, Srinivas P, Valia A, Khandpur S. National Therapeutic Guidelines for Vitiligo,
6. Morrel D, Sethuraman G, Burkhart C, Lowell A Goldsmith, Papier A, Green B, Dasher D. Visual Dx Essential Pediatric Dermatology. Lippincott Williams & Wilkins. New York. 2010

## *Research*

### **Funded Project**

#### **Dr. Vinod K Sharma**

1. Evaluation of cyclophosphamide pulse therapy as adjuvant in the management of pemphigus  
Funding agency, ICMR  
Duration and year Three years  
Funding Agency ICMR  
Duration 2007-2010, Amount 6.5 lacs
2. To Study Genetic and Immunological Associations and Examine Melanocyte Keratinocyte Network in Vitiligo  
Duration and year Three years  
Funding agency DBT  
Duration 2008-2010, Amount 21 lacs

### *Departmental Research projects*

1. Clinical profile of photodermatoses at AIIMS
2. Evaluation of cyclophosphamide pulse in treatment of pemphigus
3. Desmoglein 1 and 3 antibodies in pemphigus and correlation with activity of disease
4. Development of phototesting protocols.
5. Nd Yag laser in the treatment of N. Ota lentiginos.
6. To study of effectiveness of 15 mg weekly methotrexate in inducing remission in chronic idiopathic urticaria resistant to antihistamines.
7. Comparative efficacy of 40 mg betamethasone monthly and equivalent doses of biweekly pulse in treatment of alopecia areata

#### **Dr KK Verma**

Title of project: Randomized clinical trial of azathioprine weekly pulse versus daily azathioprine for treatment of Parthenium dermatitis.

- II. Duration and years: 4 years
- III. Amount of Funding: 18.24 lacs
- IV. Funding agency: ICMR

### *Departmental Projects*

Evaluation of effectiveness and safety of oral acyclovir 1g twice a day versus 1g once a day for 5 days in genital herpes.

Evaluation of effectiveness of weekly azathioprine pulse therapy for chronic plaque psoriasis.

### **Dr. Binod Khaitan**

1. Dexamethasone – cyclophosphamide pulse therapy in pemphigus.
2. A study to characterize segmental vitiligo.
3. A descriptive study to define the specific clinical features of segmental vitiligo as compared to non-segmental vitiligo and to study the prevalence of co-existent organ specific (TPO) and non-organ specific (ANA) autoimmunity in these patients.
4. A study of knowledge and attitude towards leprosy in people with and without leprosy and measurement of debilitation in leprosy patients.

### **Dr. Sujay Khandpur**

1. Comparison of efficacy of PUVA versus PUVASOL in vitiligo
2. Comparison of topical PUVASOL versus steroid-coal tar combination in palmoplantar psoriasis
3. Histological evaluation of palmoplantar psoriasis
4. Comparison of Daivobet ointment versus coal tar in chronic plaque psoriasis.
5. Utility of ELISA testing in establishing the activity of pemphigus vulgaris.
6. Clinico-histopathological study of erythematous tender nodules over extremities.

### **Dr. G Sethuraman**

#### ***Funded Projects (Ongoing)***

- 1) Vasculitis: A clinicopathological and Etiological correlation  
Duration: 3 years; Funding agency: AIIMS, Amount Rs 1 lakh.

#### ***Departmental projects***

- 1) Prevalence of Vitamin D Deficiency in patients with congenital ichthyosis and erythroderma  
Clinicopathological study of Epidermal Nevi

### **Dr Somesh Gupta**

1. Title of project: A comparative study of effectiveness of Immunotherapy with intralesional injection of killed Mycobacterium w Vaccine and imiquimod cream in clinical resolution of External Anogenital Warts and reduction of viral load: A randomized trial.

Duration and years: Three Years- 2008-2011

Amount of Funding: 38 lacs

Funding agency: Department of Biotechnology, Govt. of India

2. Title of project: “Comparison of Hair Follicle Stem Cells to Melanocytes and Keratinocytes from Grey and Pigmented Hair Follicle”

Duration and years: Two Years- 2010-2012

Amount of Funding: 9 lacs

Funding agency: Indian Association of Dermatologists, Venereologists and Leprologists (IADVL)

3. Title of project: Comparison of efficacy of transplantation of basal cell layer enriched epidermal suspension in patients with stable vitiligo vulgaris and segmental vitiligo.

Duration and years: 3

Amount of Funding: 100,000/- per year, extendable till 3 years

Funding agency: AIIMS

## **AWARDS/HONOURS/SIGNIFICANT EVENTS**

### **Dr. Vinod K Sharma**

1. Expert member on Selection Committee to conduct interview for the post of Assistant Professor in the Shyam Shah Medical College & G.M. Hospital & S.S. Medical College Society, Rewa (M.P.) on June 11, 2009.
2. Expert member 8<sup>th</sup> meeting of Monitoring Committee of NMITLI Project on “Clinical Studies of an Oral Herbal Formulation for treatment of Psoriasis-Phase-IIb & Phase III Clinical Trials” by CSIR on September 1, 2009 at CSIR Headquarters, Anusandhan Bhavan, Rafi Marg, New Delhi.
3. Conducted MCI Inspection of the Physical and the other teaching facilities available at Vydehi Institute of Medical Institute of Medical Science & Research Centre Centre, Bangalore on September 22, 2009.
4. Conducted MD Dermatology examination JIPMER, Puducherry on March 29, 2010
5. Awarded fellowship of International Medical Sciences Academy and International Medical Sciences Academy September 22, 2009.
6. Awarded Sukumar Ghosh Memorial Oration to deliver lecture “Derma-Allergology” at Institute of Allergic and Immunologic Skin Diseases at Calcutta on Oct. 21, 2009 on “Plant Dermatitis”
7. National President, Indian Association of Dermatologists, Venereologists & Leprologists In the year 2009
8. Editorial Board Journal of European Society of Contact Dermatitis named “ Contact Dermatitis”.
9. Editorial Board of Journal of American Society of Contact Dermatitis named “Dermatitis”.

### **Dr KK Verma**

- On deputation as advisor, Govt. of India, BPKIHS, Nepal, March 2008-Nov 2009.
- President CODFI 2008-10.
- Vice-President Pemphigus and Pulse Therapy foundation of India 2007-09.
- Hon. Secretary- IUSTI Asia Pacific 2008-10.



**Dr. M Ramam**

1. Dr Senthamil Selvi Award 2010 for best paper in mycology.

**Dr. Binod Khaitan**

1. On course faculty and member, organizing committee of 5th International CME on Dermatopathology held on 6-8 November, 2009.
2. Member, Editorial Board, Indian Journal of Cutaneous and Aesthetic surgery.

**Dr. Sujay Khandpur**

1. Dr. LN Sinha Memorial Award 2009 by IADVL for overall contribution to the field of Dermatology in India
2. International Society of Dermatology Scholarship to attend International Congress of Dermatology 2009, Prague, Czech Republic
3. Assistant Editor, Indian Journal of Dermatology, Venereology and Leprology
4. Deputy Editor, Indian Journal of Cutaneous and Aesthetic surgery
5. Treasurer, Dermatopathology Society of India
6. Member Dermato-Therapeutic and Dermatosurgery Guidelines Committee of IADVL
7. International Fellow American Academy of Dermatology
8. Reviewer of British Journal of Dermatology, Dermatology, Indian Pediatrics, Indian Journal of Dermatology.
9. Joint Secretary, IADVL (Delhi State Branch).

**Dr. G Sethuraman**

1. Scientific committee member of the Asian Global Dermatology Symposium. IX International Congress of Pediatric Dermatology, Prague, Czech Republic, May 2009
2. Reviewer in Archives of Dermatology, JEADV, Indian J Pediatrics

**Dr. Somesh Gupta**

1. Membership Secretary of International Union against Sexually transmitted Infections (IUSTI)-World
2. Co-Chair of 12th International Union against Sexually transmitted Infections (IUSTI) World Congress to be held in New Delhi from 2-5 Nov. 2011.
3. Associate Editor of Sexual Health, an official journal of IUSTI-Asia-Pacific (Published from Australia, indexed in Medline/PubMed)
4. Associate Editor of Journal of Cutaneous and Aesthetic Surgery
5. Nominated as Chair of Spring Meeting of International Society for Dermatologic Surgery, to be held in New Delhi in March 2012.

## 9.10 Endocrinology and Metabolism

### Professor and Head

A.C. Ammini

### Professor

N. Tandon

### Additional Professor

N. Gupta

### Associate Professor

R. Goswami

### Assistant Professors

V.P. Jyotsna

R. Khadgawat

## EDUCATION

### Undergraduate, Postgraduate, Paramedical Training

Dept. was actively involved in regular undergraduate and nursing students while Postgraduate students from MD Internal Medicine comes for one month posting in the department of endocrinology & metabolism

### Long & Short term Training

- Two candidates completed their DM and Three new candidates joined the department for DM course.
- Two student joined PhD (Endocrinology).
- Six students joined the Dept. for short term training of six months training.

### National and International Conferences

#### Lectures Delivered

#### Dr N. Tandon

Lecture on “Diabetes Epidemiology and Management” for Medical Officers training program at Public Health Foundation of India at Delhi on 8th April 2009.

Public Lecture on ‘Diabetes’ at AIIMS on 5th May 2009.

“Osteoporosis-when, how and how long to treat” at JLN Auditorium, AIIMS on 9<sup>th</sup> August 2009.

“Hypovitaminosis – an Indian Experience” at the Bangalore International Conference of Endocrinology on 29<sup>th</sup> August 2009 at Bangalore.

“ADA/EASD glycemic guidelines in the Indian Perspective” at the A.P.I. Noida Chapter, Delhi On 30<sup>th</sup> August 2009.

“Body composition and bone session” at the 6<sup>th</sup> Indo-Australian Biotechnology Conference, which is being co-hosted by National Institute of Nutrition, Hyderabad and KEM Hospital, Pune at Hyderabad on 2<sup>nd</sup> Sept. 2009 .

“Childhood growth and adult diseases covering Delhi Cohort” at the 6<sup>th</sup> Indo-Australian Biotechnology Conference, which is being co-hosted by National Institute of Nutrition, Hyderabad and KEM Hospital, Pune at Hyderabad on 4<sup>th</sup> Sept. 2009.

“Early life origin of the dymetabolic state” at the International Conference organized by the Institute of Life Sciences, Hyderabad (University of Hyderabad Campus) on “Type 2 Diabetes – from Molecular Insights to Therapeutic Interventions” between 18<sup>th</sup> – 20<sup>th</sup> September 2009.

“Bone Mineral Density in Indian Children” at the 5<sup>th</sup> Annual Conference of the Indian Society for Bone & Mineral Research (ISBMR) at Udaipur on 8<sup>th</sup> Oct. 2009.

“Vitamin D deficiency: Epidemiology, Implication, Replacement strategies – Indian Context” at the 39<sup>th</sup> Annual Conference of the Endocrine Society of India (ESICON) at Udaipur from 9<sup>th</sup> – 11<sup>th</sup> Oct. 2009.

“Do all Vertebral fractures warrant evaluation” on 25<sup>th</sup> Oct. 2009 at Delhi Orthopedics Forum.

‘Self management and embedding diabetes care in communities’ – in Expert consultation on Chronic Disease and Management in India on 27<sup>th</sup> Oct. 2009 at Delhi.

“Early Life Influence on adult non-communicable diseases” Dr. B.N. Sengupta Oration of 16<sup>th</sup> Annual Conference of API, West Bengal Branch on 1<sup>st</sup> Nov. 2009 at Kolkata.

‘Burden of Diabetes in India’ in the MRC/ICMR workshop on chronic Disease’ on 4<sup>th</sup> Nov. 2009 at Delhi.

“ICMR Young Diabetes Registry – Current Status” at the Annual Conference of the Research Society for the Study of Diabetes in India (RSSDI) at Ahmedabad on 6<sup>th</sup> Nov. 2009.

‘Vitamin D in Pregnancy, lactation, infancy and childhood.- Indian Perspective’ at the Indo-US Conference on Latest Scientific Developments in Vitamin D and Health, on 14 Nov. 2009 at Hyderabad.

‘Micro biota and Obesity’ in a Conference on Probiotics at Delhi on 22<sup>nd</sup> Nov. 2009.

‘Centre for Cardio Metabolic risk reduction in South Asia’ at the Global Steering Committee meeting of the Centers of Excellence, NHLBI at Bethesda, Washington on 16<sup>th</sup> Dec. 2009.

‘Immune mediated thyroid disease’ at the Annual Conference of the Association of Physician of India at Jaipur on 7<sup>th</sup> Jan. 2010

‘Medical management of Osteoporosis’ in the Annual Conference of the Delhi Orthopedic Association on 9<sup>th</sup> Jan. 2010 at AIIMS.

“Diabetes” at the Annual Medical Seminar cum CME on 11<sup>th</sup> Jan. 2010 at Conf. Hall, FHQ BSF, Block No. 10, CGO Complex, Lodhi Road, New Delhi.

“Epidemiology of Adolescent Obesity in India” at the Workshop on “Adolescent Obesity and type 2 Diabetes” organized by Indian Council of Medical Research (ICMR) on 10<sup>th</sup> – 11<sup>th</sup> Feb. 2010 at Hyderabad.

Talk on “Nutrition, Chronic Disease and obesity: Can the industry respond to scientific knowledge and public health needs?” in a workshop and panel discussion organized by Public Health Foundation of India on 5th Feb. 2010 at Delhi.

Talk on ‘Vitamin D deficiency in India’ in a Conference on Protective Micronutrients organized by Deptt. of Biotechnology, AIIMS on 24th Feb. 2010.

Talk on “Emerging public health challenges from Diabetes and other life style diseases” in a meeting on Health Literacy organized by the Public Health Foundation of India on 18th March 2010 at Delhi.

Dr R. Goswami

Vitamin D deficiency and its significance in India” in the Endocrinology Update at the 12 Annual Conference of Allahabad Medical Association and state conference of Academy of Medical Specialties on 3<sup>rd</sup> and 4<sup>th</sup> October 2009.

Vitamin D beyond Bones: Indian Pediatric Nephrology Annual Conference held at Indian Habitat Center, Delhi on 7<sup>th</sup> December 2009

Paradox of vitamin D deficiency in Sunny India and its significance and remedial measures: 79 Annual Session of the National Academy of Sciences, Allahabad, India be held at Kolkata from December 14<sup>th</sup> to 16<sup>th</sup> 2009 Vitamin D deficiency and hypocalcaemic disorders.

Hypocalcemic disorders in India-a state of the art update” at the Indian College of Physicians CME during APICON-2010 at Jaipur Rajasthan held on 7<sup>th</sup> January 2010

Dr V. Jyotsna

Guest Lecture in Indian Thyroid Society conference Feb-15 on “Myxoedema coma when to suspect and optimal management.

Paper presented at Indian Thyroid Society Conference Annual Conference 2010, Varanasi

## **RESEARCH**

### **Projects funded**

#### **Dr. A. C. Ammini**

b-cell dysfunction versus insulin resistance in polycystic ovary syndrome in Indian women. ICMR funding (2008-2011). Funds Rs 14,000

Congenital adrenal hyperplasia: genotype phenotype correlation. DBT funding (2008-2011). Rs 13 lakhs.

A phase III randomized, placebo-controlled clinical trial to assess the safety and efficacy of Odanacatib (MK-0822) to reduce the risk of fracture in osteoporotic postmenopause women treated with vitamin D and calcium. Funded by Merk & Co. Inc. USA (2009-2014). Rs 25 lakhs.

#### **Dr N. Tandon**

To establish a Center of excellence for prevention and control of Cardio-metabolic diseases in South Asians-basic, applied research and training (NIH) (Jointly held by PHFI, AIIMS and MDRF. (2009-2014). Overall funds US\$109.407.

The application submitted by our network was one of 10 to be selected globally to plan, create and execute chronic disease related activities, including surveillance, training and a translation trial to evaluate diabetes care. Role: PI of a Network partner institution.

“Identifying variants causal for type 2 diabetes in major human populations; NIDDK GRANT NUMBER [UO1DK085545]. This grant funded by the National Institute of Diabetes, Digestive and Kidney Diseases, National Institutes of Health, USA. 2009-2014 PI, US\$40,500

Prevention of type 2 diabetes in women with gestational diabetes in India-a feasibility study (International Diabetes Federation, IDF, US\$65,000)

Diabetes mellitus- New drug discovery R & D, molecular mechanisms and genetic & epidemiological factors. Funded as a Task Force project by the Council for Scientific and Industrial Research, Government of India (2008-2013). This project aims to identify disease associated genes in Indian patients with type 2 diabetes and its complications. Rs 15 crores

Genomic analysis of HLA and non-HLA genes in Type 1 diabetes in Indian population. Funded by the Indian Council of Medical Research, Government of India (2007-2009). The aim of this study is to evaluate the immunogenetic association of type 1 diabetes in India, and extends upon our earlier work showing significant variation in disease associated haplotypes at HLA and non-HLA loci compared with other Caucasian populations. Rs 27 lakhs.

Registry of people with diabetes in India with young age at onset. Funded by the Indian Council of Medical Research, Government of India (2006-2011). This study has been planned to study the natural history and clinical profile of patients with type 1 diabetes in India. Rs 35 lakhs

Type 1 diabetes genetics consortium (T1DGC)– an international effort. Funded by the NIH and Juvenile Diabetes Research Foundation (2006-2009). The T1DGC is an international effort to study disease associated genes (HLA and non-HLA locus) in patients with type 1 diabetes belonging to different ethnic groups. Funds US\$ 75,000

To redefine T3, T4 and TSH referral range in disease free pediatrics population after iodization programme in India; funded by INMAS, Defence Research and Development Organisation, Government of India (2004-2009). This is an epidemiological study which aims to establish referral ranges of thyroid hormone levels in children in the post salt iodization state. Rs 4, Crores.

### **Dr R. Goswami**

Pattern and significance of single nucleotide polymorphism at select sites in two important candidate genes i.e. Vitamin D receptor and parathormone genes in subjects with osteoporosis. Funding agency: DRDO, New Delhi, Ministry of Defence. Duration: Three years funding: 9.75 lakhs.

Role of oral vitamin D as an adjunct therapy in Category I Pulmonary Tuberculosis long with assessment of immunological parameters”: Randomized double Blind Trial funding agency: Department of Biotechnology, Govt of India, Duration: three years funding 98 lakhs.

Prevalence and significance of celiac disease in patients with type-1 diabetes Funding agency: ICMR, New Delhi, Duration: Three years funding: 19.7 lakhs.

## Dr V. Jyotsna

Effect of glycemic control, depression and quality of life in patients of diabetes mellitus with rhythmic breathing (sudashan kriya yoga and pranayam) in addition to standard treatment of diabetes. ICMR for three years, Funds: 2009-2010 is Rs. 9,80,099 lakhs.

### PUBLICATIONS

1. Kulshreshtha B, Khadgawat R, Eunice M, Ammini AC. Congenital adrenal hyperplasia: Results of medical therapy on appearance of external genitalia. *J Pediatr Urol*. 2010 Jan 28. [Epub ahead of print].
2. Kanakamani J, Ammini AC, Gupta N, Dwivedi SN. Prevalence of microalbuminuria among patients with type 2 diabetes mellitus—a hospital-based study from north India. *Diabetes Technol Ther*. 2010;12(2):161-6.
3. Paliwal P, Sharma A, Sahoo J, Ammini AC. An unusual association of hypospadias with partial deletion of chromosome 1q. *Fertil Steril*. 2010 Jan 14. PubMed PMID: 20079893.
4. Kulshreshtha B, Philibert P, Eunice M, Audran F, Paris F, Khurana ML, Ammini AC et al. Phenotype, hormonal profile and genotype of subjects with partial androgen insensitivity syndrome: report of a family with four adult males and one child with disorder of sexual differentiation. *Andrologia*. 2009;41(4):257-63.
5. Kriplani A, Savithrisowmya S, Agarwal N, Garg P, Maheswari D, Ammini AC et al, A rare case of large epididymal cyst in androgen insensitivity syndrome removed laparoscopically. *J Minim Invasive Gynecol*. 2009;16(4):504-6.
6. Chaturvedi D, Khadgawat R, Kulshreshtha B, Gupta N, Joseph AA, Dwivedi S, Ammini AC. Type 2 diabetes increases risk for obesity among subsequent generations. *Diabetes Technol Ther*. 2009;11(6):393-8.
7. Sachdev HPS, Osmond C, Fall CHD, Lakshmy R, Ramji S, Dey Biswas SK, Prabhakaran D, Tandon N et al. Predicting adult metabolic syndrome from childhood body mass index: Follow-up of the New Delhi birth cohort. *Arch Dis Child*. 2009 ; 94:768-74..
8. Seth A, Marwaha RK, Singla B, Aneja S, Mehrotra P, Sastry A, Khurana ML, Mani K, Sharma B, Tandon N. Vitamin D nutrition status of exclusively breast fed infants and their mothers. *J Pediatr Endocrinol Metabolism*. 2009; 22: 241-246.
9. Marwaha RK, Tandon N, Desai A, Kanwar R, Grewal K, Aggarwal R et al. Normal thyroid function in school age children in India. *Clin Biochem* 2010 ;43:51-6.
10. Desai A, Jha O, Iyer V, Dada R, Kumar R, Tandon N. Reversible hypogonadism in Bardet-Biedl syndrome. *Fertil Steril*. 2009 ;92: 391.
11. Mahajan A, Tabassum R, Chavali S, Dwivedi OP, Bharadwaj M, Tandon N, Bharadwaj High-sensitivity C-reactive protein levels and Type 2 Diabetes in urban North Indians. *J Clin Endocrinol Metab*. 2009;94(6):2123-7.
12. Desai A, Tandon N. Challenges in Prevention and Management of Diabetes Mellitus and Metabolic syndrome in India. *Current Science* 97: 356-366.

13. Marwaha R K, Tandon N, Desai A, Kanwar R, Aggarwal R, Singh S et al. Iodine nutrition in upper socioeconomic school children of Delhi. *Indian Pediatrics* 2009 Jul 1. pii: S097475590800546-2.
14. Marwaha RK, Tandon N, Shivaprasad C, Kanwar R, Mani K, Aggarwal R et al. Peak bone mineral density of physically active healthy Indian men with adequate nutrition and no known current constraints to bone mineralization. *J Clin Densitom.* 2009 ;12:314-21.
15. Mehrotra P, Marwaha RK, Aneja S, Seth A, Singla BM, Ashraf G, Sharma B, Sastry A, Tandon N. Hypovitaminosis D and Hypocalcemic Seizures in Infancy. *Indian Pediatr.* 2009; 14. pii: S097475590800286-1.
16. Marwaha RK, Tandon N, Agarwal N, Puri S, Agarwal R, Singh S et al. Impact of Two Regimens of Vitamin D Supplementation on Calcium Vitamin D PTH Axis of Schoolgirls of Delhi. *Indian Pediatr.* 2010 Jan 15. pii: S097475590900056-1.
17. Tabassum R, Mahajan A, Chauhan G, Dwivedi OP, Ghosh S, Tandon N et al. Evaluation of DOK5 as a susceptibility gene for type 2 diabetes and obesity in North Indian population. *BMC Med Genet.* 2010;11:35.
18. Mahajan A, Tabassum R, Chavali S, Dwivedi OP, Chauhan G, Tandon N et al. Obesity-dependent association of TNF-LTA locus with type 2 diabetes in North Indians. *J Mol Med.* 2010; Feb 23. [Epub ahead of print].
19. Sharma A, Chavali S, Tabassum R, Tandon N, Bharadwaj D. Gene prioritization in Type 2 Diabetes using domain interactions and network analysis. *BMC Genomics.* 2010;2;11:84.
20. Tomar N, Bora H, Singh R, Gupta N, Kaur P, Chauhan SS, Sharma YD, Goswami R. Presence and significance of a R110W mutation in the DNA-binding domain of GCM2 gene in patients with isolated hypoparathyroidism and their family members. *Eur J Endocrinol.* 2010;;162(2):407-21.
21. Kanakamani J, Tomar N, Kaushal E, Tandon N, Goswami R. Presence of a deletion mutation (c.716delA) in the ligand binding domain of the vitamin D receptor in an Indian patient with vitamin D-dependent rickets type II. *Calcif Tissue Int.* 2010; 86(1):33-41.
22. Gupta A, Gupta N, Singh N, Goswami R. Presence of impaired intestinal calcium absorption in chronic hypovitaminosis D and its change after cholecalciferol supplementation: assessment by the calcium load test. *J Hum Nutr Diet.* 2010;23(1):54-60.
23. Goswami R, Goel S, Tomar N, Gupta N, Lumb V, Sharma YD. Prevalence of clinical remission in patients with sporadic idiopathic hypoparathyroidism. *Clin Endocrinol (Oxf).* 2010;72(3):328-33.
24. Israni N, Goswami R, Kumar A, Rani R. Interaction of vitamin D receptor with HLA DRB1 0301 in type 1 diabetes patients from North India. *PLoS One.* 2009 Dec 2;4(12):e8023.
25. Goswami R, Marwaha RK, Gupta N, Tandon N, Sreenivas V, Tomar N et al. Prevalence of vitamin D deficiency and its relationship with thyroid autoimmunity in Asian Indians: a community-based survey. *Br J Nutr.* 2009;102(3):382-6.



26. Ray D, Goswami R, Gupta N, Tomar N, Singh N, Sreenivas V. Predisposition to vitamin D deficiency osteomalacia and rickets in females is linked to their 25(OH)D and calcium intake rather than vitamin D receptor gene polymorphism. Clin Endocrinol (Oxf). 2009;71(3):334-40.
27. Madhusudhan KS, Seith A, Khadgawat R, Das P, Mathur S. Tuberculosis of the thyroid gland: magnetic resonance imaging appearances. Singapore Med J. 2009;50(7):e235-8.

## HONOURS AND AWARDS

### **Dr. A. C. Ammini**

1. Member General Council of International Endocrine Society
2. Chairperson Infectious diseases division, Life Sciences Research Board, Defence Research and Development Board (2008-2009).
3. Member Life Sciences Research Board, DRDO (2009-10).
4. Member of National Assessment and Accreditation Council of UGC.
5. External expert for Armed Forces Medical Research Council (2007-2009).

### **Dr N. Tandon**

1. Member of the Technical screening committee SIBIRI, DBT
2. Member of the Technical screening committee BIPT, DBT
3. Member of the Task for Chronic disease biology of the DBT
4. Member of the Task for Bioengineering, DBT
5. Delivered Dr BR Sen Gupta Oration of the API West Bengal Chapter of API.

### **Dr R. Goswami**

1. Member of the committee for selection for the Senior Research Fellow and Research Associates by the ICMR from 2007 to date
2. Member of the selection committee for awarding MD, DM and MCh thesis financial grant by The Indian Council of Medical Research 2009 to date.
3. Member of the expert group for the selection of 'Ramalingaswamy Fellowship' and 'Tata Innovation Award' by the DBT India for the year 2009.
4. Member of the Task For Chronic disease biology of the DBT 2007 to date

### **Dr Viveka Jyotsna**

1. Bone health in Graves': A two year follow up study: Received the Best Paper Award at the Indian Thyroid Society Conference Annual, 2010, Varanasi

## ANNUAL PATIENT CARE

### April 2008 to March 2009

#### Endocrine OPD

Month	New Cases	Old cases	Total
April 2009	709	1348	2057
May 2009	811	1365	2176
June 2009	769	1295	2064
July 2009	801	1354	2155
August 2009	781	1321	2102
September 2009	794	1301	2095
October 2009	814	1395	2209
November 2009	812	1364	2176
December 2009	790	1351	2141
January 2010	825	1348	2173
February 2010	869	1329	2198
March 2010	902	1391	2293
<b>Total</b>	<b>9677</b>	<b>16162</b>	<b>25839</b>

#### OPD activity

Department have OPD on all six working days with two specialty clinics, Pediatric & Adolescent Endocrinology clinic, PAEC (Every Monday, 2-5 pm) and Diabetes of Young clinic, DOY (Every Saturday 9-1 pm ).

#### Laboratory Investigations

The total no. of Hormone assays and biochemical test done during this period in the metabolic lab of the Dept is given below.

Biochemical investigations done in the Metabolic Laboratory

Investigation	Number of Samples
1) Blood sugar	9670
2) Glycated haemoglobin	7044
5) Urine pH	125
6) Osmolality	35

No	Hormone	Tube assays done
1	T4	7333
2	TSH	11, 287
3	TPO	2267
4	LH	1420
5	FSH	1582
6	PRL	1604
7	TESTOSTERONE	1552
8	CORTISOL	2913
9	17 OH PROGESTERONE	1414
10	DHEAS	526
11	ACTH	1464
12	25 OH VIT D	2409
13	PTH	2555
14	INSULIN	3223
15	C – PEPTIDE	1260
16	GAD ANTIBODY	1120
17	ANTI INSULIN ANTIBODY	300
18	GROWTH HORMONE	813
19	FREE T4	683
20	T3	1
21	FERRITIN	279
	TOTAL	46, 004

## 9.11 Forensic Medicine

### Professor and Head

T.D. Dogra

### Additional Professors

O.P.Murty

D.N.Bhardwaj

### Associate Professors

S.K.Gupta

Millo Tabin

### Assistant Professors

Sanjeev Lalwani (JPNATC)

Adarsh Kumar (JPNATC)

### Scientist

Anupuma Raina

### Chemist

A.K. Jaiswal

## EDUCATION

The department is actively engaged in undergraduate and postgraduate teaching with nine postgraduate (MD) students and four Ph D student enrolled in the department at the moment. The department is also imparting training in DNA Fingerprinting and Toxicology to B.Sc/M.Sc students from other Indian Universities all over India.

## CONTINUING MEDICAL EDUCATION

- i) Workshop on “age estimation” was organized in collaboration with Sports Authority of India.
- ii) Workshop on “ Knee arthroplasty cadaver training” in collaboration with Department of Orthopaedics.
- iii) Workshop on “First Live surgery and cadaveric hands on Minimal Access Spinal Surgery” in collaboration with JPN Trauma Centre.

## LECTURES

The departmental faculty/officers participated in training programmes organised by the National Institute of Criminology & Forensic Sciences(NICFS),Amity Institute, Faculty of Law, Delhi University, Delhi Medical Association, Academy of Central Bureau of Investigation(CBI), Delhi Police & Delhi Judicial Academy. Lectures and demonstrations were held for CBI officials, police officers, judicial officers, medical officers and Forensic Science experts from all over country.

Prof. T.D.Dogra delivered guest lecture on an experience in Forensic Medicine at Regional Institute of Medical Sciences(RIMS),Imphal on 19.3.2010.

Dr.Sanjeev Lalwani delivered guest lecture on “Implantation of human organs, medical ethics and medico-legal issues” at NIHFW . He also delivered lecture on “Health and Forensic related issues related in Human Trafficking “ in seminar on “Organized crime and Human Trafficking”.

Dr. Adarsh Kr. delivered special public lecture in Hindi on “Medico-legal investigation” organised by Hindi Sansthan, Bhopal. He also delivered guest lecture on “Medico-legal cases and postmortem examination – know how? In workshop for doctors, pharmacists & police officials at NOIDA.

## **RESEARCH**

### **Departmental Projects**

#### *Completed*

1. Inferring genetic diversity and molecular relatedness among the Indian Saraswat Community at various short tandem repeat (STR) loci.
2. Comprehensive study of unnatural deaths in children and women.
3. Comprehensive study of skeletal injuries in fatal road traffic accidents.
4. Auditing of asphyxial deaths.
5. Comprehensive study of fatal poisonings in South Delhi.

#### *Ongoing*

1. Qualitative & quantitative assessment of Aluminium & Zinc in fatal poisoning cases, reported at AIIMS mortuary using trace metal analyser.
2. Qualitative & quantitative extraction of DNA from decomposed tissues.
3. Influence of exposure to combination of pesticide (Cypermethrin & Endosulfan) on subcellular changes in viscera of wistar rats.

### **Collaborative Projects**

#### *Completed*

1. Plastination of knee region using Silicon (S-10) Technique.
2. Plastination of embalmed and freshly preserved human lungs using Silicon (S—10) technique.

#### *Ongoing*

1. Histopathological and morphometric evaluation of surgically excised specimen of aortic aneurysm.
2. Evaluation of vitreous humour as a biomatrix for the quantification of drugs and chemicals in postmortem forensic investigation.

## **PUBLICATIONS**

1. Aggarwal A, Murty OP, Jain M, Fine needle aspiration cytology in Cysticercosis cases. Asian Pacific J Trop Med 2009; 2(1): 49-53

2. Bedi S, Arya S, Sharma DK, Singh S, Lathwal A, K Adarsh. Hospital support services outsourcing The know how. *Int J Med Toxicol & Legal Med* 2009; 12(2): 13-19
3. Behra C, Rautji R, Raina A, Dogra TD. Alcohol in suicide victims: A study from South Delhi *Ind Internet J For Med & Toxicol* 2(2) on line. WWW.ICFMT. Org/index 2 htm
4. Behra C, Rautji R, Dogra TD. Pattern of injury seen in deaths from accidental falls down a stair case: a study from South Delhi. *Med Sci Law* 2009; 49(2):127-31
5. Behra C, Rautji R, Dogra TD. Fatal accidental fall from height in infants and children: a study from South Delhi. *Med Sci Law* 2010; 50(1): 22-24
6. Bhardwaj DN. Medicolegal aspects of clinical genetics. *Ind Med J* 2008; 102(9): 314-5
7. Chaturvedi D, Suri A, Kasliwal NK, Mahapatra AK, Mehta VS, Sridhar V, Garg A, Sarkar C, Dogra TD et al.. Factors affecting the development of hypothalamus and pituitary lesions in fatal closed head injury: A prospective study. *J Trauma* 2009 Dec. 15 Epub
8. Dhingra V, Sharma PK, K Adarsh. Biomedical waste hazards and their management in Forensic Labortory - An overview in Indian context. *Int J Med Toxicol & Legal Med* 2009;12(1): 13-7
9. Jaiswal AK, K Adarsh, Dhingra V. Detection and identification of profenophos – An Organophosphorus insecticide in autopsy material. *J Ind Acad Forensic Med* 2009; 31(4): 368-70
10. Jaiswal AK. Determination of chlorpyrifos in viscera using high performance thin layer chromatography plate. *J Institution of chemists* 2009; 81(3): 73-6
11. Jaiswal AK, Millo T, Murty OP. Toxicology manual series, Article VI. Screening/spot test for volatile poisons. *Int J Med Toxicol & Legal Med* 2009; 11(3): 20-7
12. Jaiswal AK, Millo T, Murty OP. Thin layer chromatography(TLC) an important tool for Forensic Scientists/Toxicologists – A review. *J Forensic Med & Toxicol* 2009; 26(1): 21-23
13. Jaiswal AK, Millo T, Murty OP. Toxicology manual series-VII Screening/spot test for metallic poisons. *Int J Med Toxicol & Legal Med* 2009; 11(4): 28-37
14. Jaiswal AK, Ramtek VB, Millo T, Murty OP. Forensic application of uv visible spectrophotometer- A review. *J Forensic Med & Toxicol* 2009,26(2):47-60
15. Jaiswal AK, Millo T, Murty OP. Toxicology manual series: Article – VIII. Screening/spot test for toxic anions. *Int J Med Toxicol & Legal Med* 2009;12(1): 23-32
16. Jha M, Jaiswal AK, Millo T, Gupta M. Snake bite poisoning – A Forensic review. *Ind Police J* 2009; LVI(2): 38-50
17. K Adarsh, K Arvind, Kumath M. Fatality due to sodium fluoride ingestion – Suicide or accident? *J Can Soc For Sci* 2009;2(1): 69-74
18. Leenaars AA, Dogra TD, Girdhar S, Dattagupta S. Leenaars L. Menustration and suicide; a histopathological study *Crisis* 2009; 30(4): 202-7
19. Millo T, M Sunay, Jaiswal AK. Fatal LPGcylinder blast accident – a case report. *J Ind Acad Forensic Med* 2009; 31(1): 54-9
20. Murty OP. Maid abuse. *J Forensic Leg Med* 2009 Jul; 16(5):290-96

21. Murty OP. Cystic tumor of papillary muscle of heart: a rare finding in sudden death. *Am J Forensic Med Pathol* 2009; 30(2): 201-3
22. Murty OP. Tyre blast injuries. *J Forensic Leg Med* 2009; 16(4): 224-7
23. Murty OP. Diabetic artifacts in Forensic Practice. *J Forensic Leg Med* 2009; 16(4):218-23.
24. Murty OP, Mun K, Gopinath N, Wong KT. Choking on food: a rare case of alexander leukodystrophy and choking. *Am J Forensic Med Pathol* 2008; 29(4): 364-7
25. Murty OP. Lightning fatality with blast, flame,heat and current effects: a microscopic view. *J Forensic Leg Med* 2009; 16(3): 162-7
26. Murty OP. Condom murder. *J Forensic Leg Med* 2009; 16(1): 35-9
27. Murty OP. Giant cell myocarditis with cardiac temponade: a rare combination. *Am J Forensic Med Pahol* 2008; 29(3): 245-8
28. Murty OP. Unusual self electrocution simulating judicial electrocution by an adolescent. *Am J Forensic Med Pathol* 2008; 29(2): 167-9
29. Murty OP, Mun KS, Hussain H. Silent bony calcification of coronaries in an adolescent – an unusual case. *J Forensic Leg Med* 2008; 15(1): 37-41
30. Murty OP. Male genital ornaments: penis pearls. *J Forensic Leg Med* 2008; 15(2): 96-100
31. Murty OP, Rautji R,Deraman ABH, Lau HC,Yahaya N, Abidin SBZ. Choking accidents: A autopsy review. *J Forensic Med & Toxicol* 2009; 25(1): 45-9
32. Murty OP, Chong TS,Lai NC, Aggarwal A Sudden death due to myocardial infarction and ethnicity: A Malaysian perspective. *Int J Med Toxicol & Leg Med* 2008; 10(2): 45-54
33. Raina A, Yadav B, Dogra TD. The population data for North Indian Saraswat Brahmins on 17 Y–STR marker on line to YHRD, Berlin. HP://www.yhrd.org/ya003550
34. Raina A,Lalwani S, Dogra TD. Dr.TD Dogra’s expert evidence in trial of assassination of late Mrs Indira Gandhi, Prime Minister of India. *Ind Internet J For Med & Toxicol*; 7(4):134-59
35. Raina A, Yadav B, Bhat KV, Dogra Tirath D. Genetic polymorphism at 15 STR loci in Delhi’s(India)population. *Ind Internet J For Med & Toxicol*; 7(1)-www.ICFMT.org/index 2 htm
36. Rautji R, Behra C,Dogra TD. An unusual fatal construction site injury in India: A case report *Med Sci Law* 2009; 49(3): 222-3
37. Tandon A, Suri A,Kasliwal MK, Mahapatra AK, Mehta VS,Garg A, Sarkar C, Dogra TD, Pandey RM. Assessment of endocrine abnormalities in severe traumatic brain injury: A prospective study. *Acta Neurochir(Wien)* 2009; 151(11): 1411-7
38. Tripathy RM, K Adarsh. A 5 yr comparative study of fatal poisoning cases at Chandigarh region of India. *Int J Med Toxicol & Legal Med* 2009; 11(3): 28-34

## PATIENT CARE

**Casualty Services:** The department continued to provide round the clock coverage to the casualty in medico-legal cases in injury, sexual offences, poisoning and other complicated medico-legal cases. The department is attending all the calls pertaining to medical examination in police & judicial custody.



### **Medicolegal Postmortem performed: 1414+939 JPNATC=2353**

Doctors of the department also participated in board postmortems constituted by competent authorities including exhumation. At Trauma centre 939 autopsies were conducted.

### **Court attendance by the members of the department: 750**

Doctors of the department also attended court in CBI cases as experts.

### **Clinical Forensic Medicine**

The department examined cases of age estimation, medical examination, marriage disputes, potency, DNA fingerprinting etc referred by honourable courts, CBI and other investigating agencies. 47 such cases were dealt in 2009-10.

### **DNA Fingerprinting**

The department is providing training to the candidates of various universities. It is performing DNA Fingerprinting test in selected medico-legal cases. 75 such tests were done during 2009-10.

### **Medical Toxicology**

Tests for various poisons e.g. heavy metals, opiates, benzodiazepines and alcohol were done in toxicology laboratory. 754 such tests were done during 2009-10.

### **Community services**

The department participated in training programme for CBI officials, police officers, medical officers, judges public prosecutors and Forensic Science experts from all over country.

### **Awards & honours**

- i) Dr. Adarsh Kumar was elected as general secretary of Indian Academy of Forensic Medicine.
- ii) Dr. A.K. Jaiswal, Chemist & Dr. Adarsh Kumar, Asstt. Professor were awarded certificate of merit for research paper 'Determination of quinolphos by HPTLC' in Dr. P.D. Sethi Annual award ceremony 2008-09.

## 9.12 Gastroenterology and Human Nutrition Unit

### Professor and Head

S.K. Acharya

### Professors

Y.K. Joshi

Umesh Kapil

Anoop Saraya

### Associate Professors

Pramod Garg

Vineet Ahuja

Govind K. Makharia

### EDUCATION

Undergraduate, postgraduate, PhD and paramedical training programme remained the same.

#### Short- and long-term training

Twenty candidates underwent training during 2009–10 for a period of 3 months to 6 months. Thirteen DM candidates and seven PhD candidates underwent long-term training.

#### Continuing Medical Education

The department organized

1. An 'International Workshop on Micronutrients and Child Health', AIIMS, New Delhi, 20–23 October 2009.
2. A 'National Consensus Workshop on Management of SAM Children through Medical Nutrition Therapy' 26–27 November 2009.

#### National and International Conferences

The department faculty delivered 42 lectures at international and national conferences/meetings.

### RESEARCH

#### Funded projects

##### Completed

1. Double blind placebo controlled randomized trial of L-ornithine-L aspartate among patients with acute liver failure. S.K. Acharya. Funded by Intas Pharmaceutical for 3 years. Funds: Nil (company supplies drug and placebo).
2. Advanced Centre for liver diseases (institute and different projects in liver diseases). Projects include (i) acute liver failure in pregnancy. Is the prognosis really worse? (ii) Anti-tuberculosis therapy induced acute liver failure (iii) clinical features, aetiology and therapeutic outcome of primary liver cancer in India. S. K. Acharya. Funded by ICMR (2005–2010). Funds: Rs 2 crore.
3. Effect of glutamine supplementation on the structure and function of the intestine in patients with inflammatory bowel disease. Y. K. Joshi. Funded by ICMR (2005–2009). Funds: Rs 18.5 lakhs.

4. Comparison of single dose SPD 476 with mesalamine. Vineet Ahuja. Funded by Shire Pharma Ltd, Multicentre International trial (2005–09). Funds: Rs 10 lakhs.
5. Efficacy and tolerability of probiotics in microscopic colitis. Vineet Ahuja. Funded by CD Pharma Ltd (2006–09). Funds: Rs 5 lakhs.
6. Efficacy of curcumin enemas in patients with mild to moderate ulcerative colitis. Vineet Ahuja. Funded by Himalaya Drug Company Ltd (2007–09). Funds: Rs 5 lakhs.
7. A pilot study to estimate the community prevalence of celiac disease. Govind Makharia. Funded by ICMR for 1 year (2008–09). Funds: Rs 14.5 lakhs.
8. Efficacy and safety of mesalamine delayed-release Tablets (1.2 g), par Pharmaceutical (Test Drug) in the treatment of active mild to moderate ulcerative colitis: A Double Blind, Double Dummy, Multicentre Randomized Phase III, Comparison with Placebo and Lialda® (1.2 g) Mesalamine Delayed-Release Tablets, Shire US Inc (Reference drug)-292-07. Govind Makharia. Funded by Lambda for 1 year (2008–9). Funds: Rs 4 lakhs.
9. A phase 2/3 multicenter, randomized, placebo-controlled, double-blind study to evaluate the safety and efficacy of golimumab induction therapy, administered subcutaneously, in subjects with moderately to severely active ulcerative colitis. Govind Makharia. Funded by Centocor (2008–10). Funds: Rs 6 lakhs.
10. A phase 3 multicenter, randomized, placebo-controlled, double-blind study to evaluate the safety and efficacy of golimumab maintenance therapy, administered subcutaneously, in subjects with moderately to severely active ulcerative colitis. Govind Makharia. Funded by Centocor for 4 years (2008–11). Funds: Rs 6 lakhs.

### **Ongoing**

1. Identification of biomarker (s) for differentiation of Crohn's disease from intestinal tuberculosis using proteomics. S.K. Acharya. Funded by DBT for 3 years (2008-11). Funds: Rs 43 lakhs.
2. An open label responses adaptative study of telbivudine in adults with HBeAg compensated chronic hepatitis B. S.K. Acharya. Funded by Novartis for 3 years (2008-11). Funds: Rs 11.11 lakhs.
3. An open label responses adaptative study of telbivudine in adults with HBeAg negative chronic hepatitis B. S.K. Acharya. Funded by Novartis for 3 years (2008-11). Funds: Nil (company supports supply of drugs and investigations).
4. Advanced Centre for liver diseases (institute and different projects in liver diseases). Projects include (i) hepatic venous outflow tract obstruction: etiology and results of angioplasty, (ii) probiotics for spontaneous bacterial peritonitis, (iii) neutrophilic function studies in acute liver failure, (iv) randomized control trial of percutaneous acetic acid and radio frequency ablation in HCC, (v) sepsis in acute liver failure, (vi) seizures in acute liver failure, (vii) adipokines and oxidative stress in patients with non-alcoholic fatty liver disease. S. K. Acharya. Funded by ICMR. Funds: Rs 2 crore.
5. A multicentric randomized controlled clinical trial of adefovir, adefovir+lamivudine and combination of adefovir and glycyrrhizin in HBV-related decompensated cirrhosis. S.K. Acharya. Funded by ICMR for 3 years. Funds: Rs 18.47 lakhs.

6. Assessment of intestinal permeability in chronic liver disease and its consequences. Y. K. Joshi. Funded by ICMR for 3 years (2006–10). Funds: Rs 29 lakhs.
7. Health related quality of life in patients with chronic liver disease and effect of probiotics in the treatment of minimal hepatic encephalopathy and health related quality of life. Y. K. Joshi. Funded by ICMR for 3 years (2009–12). Funds: Rs 32 lakhs.
8. Efficacy of daily iron folic acid supplementation in correction of iron deficiency anemia in children aged 3–5 years. Umesh Kapil. Funded by ICMR for 2 years (2009–10). Funds: Rs 14.46 lakhs.
9. Resolution of Bitot's spots after administration of mega-dose of vitamin A in a cohort of children in 1–5 years of age with Bitot's spot. Umesh Kapil. Funded by ICMR for 2 years (2010–12). Funds: Rs 16.58 lakhs.
10. Validity of spot testing kits in the assessment of iodine content of salt—A multicentric study. Umesh Kapil. Funded by MBI kits for 1 year (2009–10). Funds: Rs 4.98 lakhs.
11. Is chronic pancreatitis a pre-malignant disease? Pramod Garg. Funded by ICMR for 3 years. Funds: Rs 14 lakhs.
12. A study of mutational and histopathological risk factors for gallbladder cancer in patients with gallstones. Pramod Garg. Funded by DBT for 3 years. Funds: Rs 32 lakhs.
13. Role of TNF- $\alpha$  in the pathogenesis of experimental acute pancreatitis and the effect of anti-TNF- $\alpha$  therapy in attenuating the severity of pancreatitis and in the subsequent regeneration of the pancreas. Pramod Garg. Funded by ICMR for 3 years. Funds: Rs 29 lakhs.
14. A Phase 3, randomised, placebo-controlled, blinded, multicentre study of the induction and maintenance of clinical response and remission by MLN0002 in patients with moderate to severe ulcerative colitis. Vineet Ahuja. Funded by Millenium Pharma, Boston, MA for 2 years (2009–10). Funds: Rs 5 lakhs.
15. A Phase 3, open-label study to determine the long-term safety and efficacy of MLN0002 in patients with ulcerative colitis (UC) and Crohn's disease (CD). Vineet Ahuja. Funded by Millenium Pharma, Boston, MA for 3 years (2009–12). Funds: Rs 5 lakhs.
16. A Phase 3, randomized, placebo controlled, blinded, multicenter, multiple dose study to determine the efficacy and safety of MLN0002 for the induction and maintenance of clinical response and remission in patients with active Crohn's disease. Vineet Ahuja. Funded by Millenium Pharma, Boston, MA for 3 years (2009–12). Funds: Rs 5 lakhs.
17. Detection of mycobacterial pathogens in patients with Crohn's disease. Govind Makharia. Funded by DBT (2007–10). Funds: Rs 35.4 lakhs
18. 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. Funded by Central TB Division, Ministry of Health and Family Welfare, Government of India for 4 years (2008–12). Funds: Rs 57 lakhs.
19. Characterization of tight junction proteins in patients with Crohn's disease and celiac disease. Govind Makharia. Funded by DST for 3 years (2009–11). Funds: Rs 24.5 lakhs.

## Departmental projects

### Completed

1. Acute viral hepatitis in diabetics: Evaluation of natural course.
2. Three month treatment of chronic hepatitis C with interferon a2b and ribavirine.
3. Association of *SPINK1* gene mutation and *CFTR* gene polymorphisms in patients with pancreas divisum presenting with idiopathic pancreatitis.
4. Idiopathic chronic pancreatitis in India: Phenotypic characterization and strong genetic susceptibility due to *SPINK1* and *CFTR* gene.
5. A prospective randomized trial comparing two-stage versus single-stage management of patients with gallstone disease and common bile duct stones.
6. Dose ranging study of steroid (oral and intravenous) in patients with moderate to severe ulcerative colitis.
7. 30 day steroid response predicts long term natural history in patients with ulcerative colitis.
8. Efficacy and tolerability of curcumin enemas in patients with ulcerative proctitis.
9. Natural history of distal colitis: A long term follow up study.
10. Prevalence and predictive factors of GERD in a high altitude area: A population based study.
11. Colonic mucosal bacterial flora in ulcerative colitis patients.
12. Differentiation of Crohn's disease and intestinal tuberculosis: Therapeutic trial of anti-tuberculous therapy.
13. Prevalence of celiac disease in irritable bowel syndrome and dyspepsia.

### Ongoing

1. Hepatitis B e antigen negative chronic hepatitis B. Magnitude, viral and host characteristics.
2. Immunotolerant chronic HBV infection: Natural course.
3. Role of HVPG in portal hypertension.
4. Endoscopic biliary drainage versus conservative treatment for patients with inoperable cancer of the gallbladder with obstructive jaundice: A randomized controlled trial.
5. Role of MRI in the evaluation of infected pancreatic necrosis for conservative treatment including non-surgical drainage.
6. Factors predictive of relapse in patients with Ulcerative colitis in remission : A long term follow up study.
7. Differentiating Intestinal tuberculosis from Crohn's Disease : Biomarker search.
8. Dynamics of differential T regulatory cell expression in inflammatory bowel disease and intestinal tuberculosis.
9. Retinoic acid is the microenvironmental cue determining disease activity in patients with ulcerative colitis.

10. Genome wide gene expression analysis for target genes to differentiate patients with intestinal tuberculosis and Crohn's disease and discriminative value of FOXP3 mRNA expression.
11. Prevalence and clinicopathological correlation of chronic gastritis in a high altitude area in India.
12. Response to antitubercular therapy in patients with Crohn's disease: Predictive factors.
13. Plasma citrulline as a marker estimation of enterocytes mass in patients with celiac disease and other malabsorption syndromes.
14. Prevalence of celiac disease in first degree relatives of patients with celiac disease.
15. Prevalence of irritable bowel syndrome in community

### **Collaborative Research Projects**

#### ***Completed***

1. A comparison of metabolites in the involved and non-involved segment of the colon in patients with inflammatory bowel disease using MR spectroscopy (Nuclear Magnetic Resonance).
2. PET-CT-colonography: A new technique for evaluation of activity and extent of ulcerative colitis (Nuclear Medicine).
3. PET-CT-colonography: Evaluation of terminal ileal disease.
4. Prevalence of celiac disease in high risk group such as seizure, short stature, metabolic bone disease.
5. Brain activation in response to visual and auditory cues in patients with irritable bowel syndrome.
6. Reintroduction of anti-tubercular drugs in ATT induced hepatitis: Randomized controlled trial.
7. A study of emerging parasitic agents intestinal coccidia and microsporidia in etiology of malabsorption syndrome (Microbiology).
8. Short and long term outcome after cardiomyotomy in patients with achalasia cardia (**Surgery**).

#### ***Ongoing***

1. Role of surface promoter mutations in hepatitis B surface antigen production and secretion in occult hepatitis B virus infection (Pathology).
2. HBV mutants among patients with acute and chronic liver disease (Pathology).
3. Cellular and humoral immunity studies among patients with acute hepatitis E virus infection (Pathology).
4. HCV quantitation assay and HEV quantitation assay development and their relevance (Pathology).
5. A randomized trial of endoscopic versus laparoscopic removal of common bile duct stones in patients with gallstones and CBD stones (**Surgery**).
6. Comparative evaluation of PET CT scan and EUS in patients with suspected pancreatic malignancy (Nuclear Medicine)
7. Randomised trial of endoscopic stenting versus cholecystojejunostomy in patients with peri-ampullary cancer with obstructive jaundice. (**GI Surgery**).

8. Role of TNF- $\alpha$  in the pathogenesis of experimental acute pancreatitis and the effect of anti-TNF- $\alpha$  therapy in attenuating the severity of pancreatitis and in the subsequent regeneration of the pancreas (Anatomy).
9. Role of EUS in assessing respectability of periampullary tumours: Comparison with diagnostic laparoscopy (Surgery).
10. Derivation of a risk score to predict risk of advanced colorectal cancer (Collaborative study, Asia Pacific Colorectal Cancer Study Group).
11. Attitude towards colorectal cancer (Collaborative study, Asia Pacific Colorectal Cancer Study Group).
12. Prevalence of celiac disease in autoimmune diseases (autoimmune thyroid diseases, rheumatoid arthritis, systemic lupus erythematosus, progressive systemic sclerosis, juvenile arthritis) (Endocrinology and Medicine).
13. Detection, identification and molecular characterization of intestinal coccidia and microsporidia in patients with chronic diarrhoea and malabsorption syndrome (Microbiology).
14. Effect of treatment (laparoscopic cardiomyotomy and pneumatic dilatation) on structural and functional abnormalities of the lungs in achalasia (Surgery).
15. Genetic study of *Giardia lamblia* (Microbiology).
16. Detection of metabolic signature of patients with celiac disease using *in-vitro*  $^1\text{H}$  magnetic resonance spectroscopy.
17. Prevalence of celiac disease in patients with nutritional anaemia.
18. Prevalence of celiac disease in patients with type I diabetes mellitus.
19. Expression of tight junction markers in colonic Crohn's disease, ulcerative colitis and intestinal tuberculosis.
20. A multicenter (country wide) prospective data collection of patients with inflammatory bowel disease under Indian Society of Gastroenterology Task Force on Inflammatory Bowel Disease.
21. Effect of addition of short course of prednisolone to gluten free diet and gluten free diet alone in the recovery of clinical, histological and immunological features in naive adult patients with celiac disease: A pilot randomized controlled trial.

## PUBLICATIONS

### Journals

1. Acharya SK, Bhatia V, Sreenivas V, Khanal S, Panda SK. Efficacy of L-ornithine L-aspartate in acute liver failure: A double-blind, randomized, placebo-controlled study. *Gastroenterology* 2009;136:2159–68.
2. Benjamin J, Singh N, Makharia GK. Enteral nutrition for severe malnutrition in chronic intestinal pseudo-obstruction. *Nutrition* 2009 Dec 15.
3. Chalamalasetty SB, Madan K, Javvaji S, Singh KK, Vijayaraghavan M, Mathur S, *et al.* Anaplastic large cell lymphoma presenting as liver abscess and portal vein thrombosis. *Indian J Cancer* 2009;46:240–1.



4. Das CJ, Makharia GK, Kumar R, Kumar R, Tiwari RP, Sharma R, *et al.* PET/CT colonography: A novel non-invasive technique for assessment of extent and activity of ulcerative colitis. *Eur J Nucl Med Mol Imaging* 2010;37:714–21.
5. Das K, Ghoshal UC, Dhali GK, Benjamin J, Ahuja V, Makharia GK. Crohn's disease in India: A multicenter study from a country where tuberculosis is endemic. *Dig Dis Sci* 2009;54:1099–107.
6. Garg PK, Khajuria R, Kabra M, Shastri S. Association of *SPINK1* gene mutation and *CFTR* gene polymorphisms in patients with pancreas divisum presenting with idiopathic pancreatitis. *J Clin Gastroenterol* 2009;43:848–52.
7. Garg PK. Genome wide association studies: Way forward or work backwards? *Trop Gastroenterol* 2009;30:61–6.
8. Goenka H, Garg PK, Sharma R, Sharma B. Spontaneous fracture of an uncovered enteral stent with proximal migration of fractured segment into cervical esophagus: First report. *Endoscopy* 2009;41:E204–E205.
9. Gupta P, Tayal R, Durgapal H, Rath S, Acharya SK, Panda SK. Development of highly sensitive Bicistronic vector based non-radioactive antigen-specific cytotoxicity assay. *J Immunol Methods* 2009;349:28–37.
10. Gupta R, Mathur SR, Gupta SD, Durgapal P, Iyer VK, Das CJ, *et al.* Hepatic epithelioid hemangioendothelioma: A diagnostic pitfall in aspiration cytology. *Cytojournal* 2010;6:25.
11. Gupta R, Reddy DN, Makharia GK, Sood A, Ramakrishna BS, Yachha SK, *et al.* Indian task force for celiac disease: Current status. *World J Gastroenterol* 2009;15:6028–33.
12. Kamalkumar BS, Agarwal SK, Garg PK, Dinda A, Tiwari SC. Acute pancreatitis with CMV papillitis and cholangiopathy in a renal transplant recipient. *Clin Exp Nephrol* 2009;13:389–91.
13. Kamath R, Bhat V, Rao RS, Acharya D, Kapil U, Kotian MS, *et al.* Prevalence of goitre among school children in Belgaum district. *Indian J Pediatr* 2009;76:825–8.
14. Kapil U. Multiple micronutrient supplements will not reduce incidence of low birthweight. *Indian J Community Med* 2009;34:85–6.
15. Kapil U. Ready to use therapeutic food (RUTF) in the management of severe acute malnutrition in India. *Indian Pediatr* 2009;46:381–2.
16. Kapil U. WHO indicators for valid assessment of iodine deficiency disorders. *Indian J Community Med* 2009;34:268.
17. Kumar A, Panda SK, Durgapal H, Acharya SK, Rehman S, Kar UK. Inhibition of hepatitis E virus replication using short hairpin RNA (shRNA). *Antiviral Res* 2010;85:541–50.
18. Madhusudhan C, Saluja SS, Pal S, Ahuja V, Saran P, Dash NR, *et al.* Palliative stenting for relief of dysphagia in patients with inoperable esophageal cancer: Impact on quality of life. *Dis Esophagus* 2009;22:331–6.
19. Makharia GK, Seith A, Sharma SK, Sinha A, Goswami P, Aggarwal A, *et al.* Structural and functional abnormalities in lungs in patients with achalasia. *Neurogastroenterol Motil* 2009;21:603-8.

20. Makharia GK, Singh UB. In the search of a cause of Crohn's disease. *Indian J Gastroenterol* 2009;28:165–8.
21. Makharia GK, Srivastava S, Das P, Goswami P, Singh U, Tripathi M, *et al.* Clinical, endoscopic, and histological differentiations between Crohn's disease and intestinal tuberculosis. *Am J Gastroenterol* 2010;105:642–51.
22. Ooi CJ, Fock KM, Makharia GK, Goh KL, Ling KL, Hilmi I, *et al.*; Asia Pacific Association of Gastroenterology Working Group on Inflammatory Bowel Disease. The Asia-Pacific consensus on ulcerative colitis. *J Gastroenterol Hepatol* 2010;25:453–68.
23. Paul SB, Chalamalasetty SB, Vishnubhatla S, Madan K, Gamanagatti SR, Batra Y, *et al.* Clinical profile, etiology and therapeutic outcome in 324 hepatocellular carcinoma patients at a tertiary care center in India. *Oncology* 2009;77:162–71.
24. Paul SB, Manjunatha YC, Acharya SK. Palliative treatment in advanced hepatocellular carcinoma: Has it made any difference? *Trop Gastroenterol* 2009;30:125–34.
25. Sharma P, Makharia GK, Ahuja V, Dwivedi SN, Deepak KK. Autonomic dysfunctions in patients with inflammatory bowel disease in clinical remission. *Dig Dis Sci* 2009;54:853–61.
26. Sharma SK, Singla R, Sarda P, Mohan A, Makharia G, Jayaswal A, *et al.* Safety of 3 different reintroduction regimens of antituberculosis drugs after development of antituberculosis treatment-induced hepatotoxicity. *Clin Infect Dis* 2010;50:833–9.
27. Singhal M, Makharia G, Bakhshi S. Childhood chronic myeloid leukemia with celiac disease. *Pediatr Blood Cancer* 2010;54:177.
28. Sood A, Midha V, Makharia GK, Ahuja V, Singal D, Goswami P, *et al.* The probiotic preparation, VSL#3 induces remission in patients with mild-to-moderately active ulcerative colitis. *Clin Gastroenterol Hepatol* 2009;7:1202–9.
29. Tiwari A, Dutta D, Khanna N, Acharya SK, Sinha S. Generation and characterization of high affinity humanized fab against hepatitis B surface antigen. *Mol Biotechnol* 2009;43:29–40.
30. Tiwari A, Khanna N, Acharya SK, Sinha S. Humanization of high affinity anti-HBs antibody by using human consensus sequence and modification of selected minimal positional template and packing residues. *Vaccine* 2009;27:2356–66.
31. Verma R, Ahuja V, Paul J. Frequency of single nucleotide polymorphisms in NOD1 gene of ulcerative colitis patients: A case–control study in the Indian population. *BMC Med Genet* 2009;10:82.

### Chapters in Books

1. Acharya SK, Kumar R, Kumar A, Gulati G. Hepatic outflow tract obstruction. In: Das AK (eds). *Postgraduate medicine. Vol. XXIV, 2010.* Indian College of Physician; 2010:255–63.
2. Acharya SK, Paul SB. Hepatocellular cancer. In: Das AK (eds). *Postgraduate medicine. Vol. XXIV, 2010.* Indian College of Physician; 2010:287–310.
3. Ahuja Vineet, Sharma OP. Geriatric medicine: Gastrointestinal system. In: Sharma OP (ed). *A guide to elderly care.* 2009:113–88.

## PATIENT CARE

### Special clinics

Name of the clinic	New cases	Old cases
Liver	1089	8936
Pancreas	455	1387
IBD and ulcer	294	2079
Interventional	432	288

### Routine clinic

New cases	16,447
Old cases	22,544

### Procedures

Diagnostic and therapeutic endoscopy	12600
Diagnostic and therapeutic colonoscopy	1500
Diagnostic sigmoidoscopy	1540
Endoscopic sclerotherapy and variceal ligation	3200
Side viewing endoscopy	170
Endoscopic retrograde cholangiopancreatography	1000
Endoscopic ultrasound (diagnostic and therapeutic)	288

### Tests done in the department

1. Serum ceruloplasmin	539
2. Serum copper	531
3. 24 hours urinary copper	549
4. TNF- $\alpha$	400
5. IL-6	400
6. IL-1 $\beta$	100
7. Adeponectin	100
8. Insulin	100
9. Lipid peroxidation	400
10. Free radical antioxidant potential	400
11. Vitamin C	400
12. Leptin	100
13. Superoxide dismutase	400
14. TtG-1GA	3200
15. Nitric oxide	400
16. Neutrophil function test	315
17. Melatonin	320
18. 1L-1 $\alpha$	320
19. IL-8	320
20. IFN- $\gamma$	320

21. HBV-DNA (PCR)	1204
22. HBV-DNA (Real Time PCR)	750
23. HCV-RNA (PCR)	600
24. HEV-RNA (PCR)	100
25. Plasma glutamina (HPLC)	260
26. K-ras mutation (PCR)	45
27. Pancreatic tissue DNA	20
28. Matrix metalloproteinase-1	180
29. Matrix metalloproteinase-2	320
30. Matrix metalloproteinase-8	320
31. Matrix metalloproteinase-9	320
32. IgG4	25
33. LOH (PCR)	40
34. FFPE tissue section DNA	200
35. Plasma renin activity	200
36. Myeloperoxidase activity	315
37. L-Cathepsin	100
38. HBV Genotyping (PCR)	100
39. HBV BCP (PCR)	60
40. HBV Precore mutant (PCR)	50
41. HCV RNA Real time PCR	150
42. HBV DNA sequencing	20
43. Tumor suppressor gene (Fragment analysis)	40
44. Cationic trypsinogen exon2 (sequencing)	30
45. Cationic trypsinogen exon 3 (sequencing)	30
46. HCV Genotyping	10
47. p53 (PCR)	10
48. D-xylose	486
49. Faecal chymotrypsin	110
50. Faecal fat	155
51. Hydrogen breath test	147
52. Blood ammonia	280
53. Prothrombin time	1970

## AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Dr S. K. Acharya** was elected Fellow of Indian National Science Academy (INSA) and was conferred FNA in December 2009; awarded P.N. Chuttani Oration by Indian Society of Gastroenterology 2009, delivered the Oration, 12 December 2009, Science city, Kolkata during 50th Annual Conference of the Indian Society of Gastroenterology, 11–14 December 2009; awarded ‘S.R. Naik Oration’ by the Indian National Association for Study of the Liver (INASL), delivered the Oration, 14 March 2010, Bhubaneswar during INASL Annual Conference, 12–14 March 2010.

**Dr Umesh Kapil** delivered prestigious ‘Dhanavantari Oration’ of Indian Association of Preventive and Social Medicine, India during 37th Annual National Conference of IAPSM, Ranchi, 22–24

February 2010; delivered prestigious ‘Harbhagwan Kumar Memorial Oration’, Indian Academy of Pediatrics during 47th National Conference of IAP, Hyderabad, 7–10 January 2010.

**Dr Pramod Garg** awarded Membership of National Academy of Sciences, India (NASI).

**Dr Vineet Ahuja** awarded ISG-WIN-Medicare Plenary Session Award 2009 for best plenary session paper, presented second best poster in large intestine session and presented best oral paper in luminal gastroenterology session in 50th Annual Meeting of ISG at Kolkata, December 2009; nominated Course Coordinator for ‘Gastroenterology Young Masters’ meeting, New Delhi, February 2010.

**Dr Govind Makharia** nominated member of the Guidelines Committee: Asia Pacific guidelines for management of ulcerative colitis, Asia Pacific Association of Gastroenterology; nominated Secretary, Management of irritable bowel syndrome, Asia Guidelines on Irritable bowel syndrome, Asian Neurogastroenterology and Motility Association; nominated Editorial Board Member, *Indian Journal of Gastroenterology*; nominated Member, Indian Society of Gastroenterology Task Force on Irritable Bowel Syndrome; elected Governing Council member, Indian Society of Gastroenterology; nominated Coordinator, Indian Society of Gastroenterology Task Force on Inflammatory Bowel Disease; nominated Member, Task Force on Celiac disease, Indian Council of Medical Research; nominated Course Coordinator for Young Clinician’s Program, Indian Society of Gastroenterology.

### VISITING SCIENTISTS

1. Professor Rajiv Jalan and Professor Scott Harris, USA, 25 July 2009.
2. Dr Priya Grewal, Mt. Sinai School, New York, USA, 7 September 2009.
3. Professor Anil Rustgi, University of Pennsylvania, USA and Professor Ashok Saluja, University of Minnesota, USA, 14 December 2009.
4. Professor Sanjay V. Malhotra and Professor Shivaani Kumar, National Cancer Institute, USA, 5 January 2010.
5. Professor Sanjeev Arora, Professor of Hepatology, University of New Mexico, USA, 19 February 2010.
6. Dr Vinod Rustgi, Hepatologist, Georgetown University Medical Center, USA, 4 March 2010.

## 9.13 Gastrointestinal Surgery

### Professor and Head

Tushar Kanti Chattopadhyay

### Professor

Peush Sahni

### Assistant Professors

Sujoy Pal

Nihar Ranjan Dash

### EDUCATION

The department faculty is involved in the didactic teaching programme for undergraduates, surgical postgraduates and postdoctoral trainees. The department offers 3 year superspecialty training in gastrointestinal surgery leading to the award of MCh in Gastrointestinal Surgery.

### Continuing Medical Education

#### Lectures

The faculty delivered 12 continuing medical education (CME) lectures at various regional/national medical fora of the country.

### RESEARCH

#### Funded projects

#### Ongoing

1. Multicenter trial of medical syringe pump developed by AIIMS for production know-how. Peush Sahni. Funded by Department of Information Technology, Government of India, 2009–11. Funds: Rs 24 lakhs.
2. Corrosive strictures of oesophagus: Resection of oesophagus or bypass? A prospective randomized controlled pilot study. Nihar Ranjan Dash. Funded by AIIMS. Funds: Rs 85,000.

#### Completed

1. Identification of novel esophageal squamous cell carcinoma genes by using a combination of array-based CGH and gene expression microarrays. Murali Dharan Bashyam, CDFD, Hyderabad (PI), TK Chattopadhyay, Siddhartha Duttgupta and Sujoy Pal (Co-PIs). Funded by Department of Biotechnology, Ministry of Science and Technology, Government of India for 36 months. Funds: Rs 73.26 lakh.
2. Design development and commercialization of an indigenous syringe pump. Peush Sahni. Funded by Department of Information Technology, Government of India (2005–08). Funds: Rs 28 lakhs.

## Departmental projects

### *Completed*

1. Short-term outcome of three-field lymphadenectomy for carcinoma oesophagus
2. Quality of life following restorative proctocolectomy in patients with refractory ulcerative colitis
3. Quality of life following transhiatal oesophagectomy in patients with carcinoma oesophagus.
4. Study of gastric emptying following classical Whipple's pancreatoduodenectomy and pylorus-preserving pancreatoduodenectomy using scintigraphic techniques after randomizing them to antecolic or retrocolic gastrojejunostomy or pylorojejunostomy
5. A prospective randomized trial comparing preoperative radiotherapy and transhiatal oesophagectomy vs. transhiatal oesophagectomy alone for squamous cell cancer of the lower third of oesophagus
6. Prospective evaluation of the outcome following management of oesophageal perforations
7. Evaluation of long term outcome following oesophageal resections for cancer of oesophagus.

### *Ongoing*

1. A randomized controlled trial of resection versus bypass procedure for the treatment of corrosive stricture of oesophagus
2. Long term follow up of lienorenal shunt procedure in patients with extrahepatic portal vein obstruction
3. Prospective evaluation of choledochoscopy for various biliary tract disorders
4. Prospective evaluation of the role of intraoperative enteroscopy in the management of obscure gastrointestinal bleeding
5. A prospective randomized study to compare hand-sewn and stapled oesophagogastric anastomoses following transhiatal oesophagectomy
6. Quality of life following operations for corrosive strictures of oesophagus
7. Assessment of the problem of mucocoele following bypass procedure for corrosive strictures of oesophagus.
8. A prospective randomized trial comparing preoperative radiotherapy and transhiatal oesophagectomy vs. transhiatal oesophagectomy alone for squamous cell cancer of the middle third of oesophagus.
9. Role of intraoperative ultrasound in GI malignancies
10. Long term functional outcome after ileal pouch anal anastomosis
11. Assessment of health related quality of life of patients with ulcerative colitis after ileal pouch anal anastomosis
12. Role of neck ultrasound, CT and PET scan in assessment of cervical lymph node metastasis in middle third oesophageal carcinoma



13. Wound infection after ileostomy closure: A prospective randomized study comparing primary versus circumferential subcuticular closure techniques

## Collaborative Projects

### Ongoing

1. A randomized controlled trial of proximal lienorenal shunt versus sequential endoscopic variceal ligation and endoscopic sclerotherapy for patients with extrahepatic portal venous obstruction (with Gastroenterology).
2. Role of neoadjuvant chemoradiotherapy in adenocarcinoma of gastro-oesophageal junction (with Radiotherapy).
3. Prospective study on the effect of lienorenal shunt on pericholedochal collaterals causing portal hypertensive biliopathy (with Gastroenterology).
4. A randomized controlled clinical trial of preoperative cholecystojejunostomy versus endoscopic stenting in surgical obstructive jaundice due to periampullary carcinoma (with Gastroenterology).
5. The role of endoscopic ultrasound in the evaluation of periampullary tumours (with Gastroenterology).
6. A randomized controlled trial comparing surgery versus endoscopic treatment for chronic pancreatitis (Gastroenterology).

## PUBLICATIONS

### Journals

1. Khiria LS, Pal S, Peush S, Chattopadhyay TK, Deval M. Impact on outcome of the route of conduit transposition after transhiatal oesophagectomy: A randomized controlled trial. *Dig Liver Dis* 2009;41:711–16.
2. Kapoor S, Pal S, Sahni P, Chattopadhyay TK. Thromboelastographic evaluation of coagulation in patients with extrahepatic portal vein thrombosis and non-cirrhotic portal fibrosis: A pilot study. *J Gastroenterol Hepatol* 2009;24:992–7.
3. Sharma JB, Gupta P, Kumar S, Roy KK, Malhotra N, Chattopadhyay TK. Esophageal carcinoma during pregnancy: A case report. *Arch Gynecol Obstet* 2009;279:401–2.
4. Madhusudhan C, Saluja SS, Pal S, Ahuja V, Saran P, Dash NR, *et al.* Palliative stenting for relief of dysphagia in patients with inoperable esophageal cancer: Impact on quality of life. *Dis Esophagus* 2009;22:331–6.
5. Pal S, Sahni P. Extrahepatic portal venous obstruction: Is the knife irrelevant? *Indian J Gastroenterol* 2009;28:198–200.
6. Drazen JM, Van Der Weyden MB, Sahni P, Rosenberg J, Marusic A, *et al.* Uniform format for disclosure of competing interests in ICMJE journals. *N Engl J Med* 2009;361:1896–7. Epub 2009 Oct 13. (This article has been published simultaneously in *Ann Intern Med* 2010;152:125–6; *N Z Med J* 2009;122:12–14; *Med J Aust* 2009;191:475–6. *Ugeskr Laeger* 2009;171:3065–6; *Croat Med J* 2009;50:427–8; *Lancet* 2009;374:1395–6; *JAMA* 2010;303:75–6; *CMAJ* 2009;181:565; *BMJ* 2009;339:b4144).

7. Chava SP, Singh B, Pal S, Dhawan A, Heaton ND. Indications for combined liver and kidney transplantation in children. *Pediatr Transplant* 2009;13:661–9. Epub 2009 Jun 30.
8. Sharma A, Mohanti B, Raina V, Shukla N, Pal S, Dwary A, *et al.* A phase II study of gemcitabine and oxaliplatin (Oxigem) in unresectable gall bladder cancer. *Cancer Chemother Pharmacol* 2010;65:497–502. Epub 2009 Jul 3.
9. Madhusudhan KS, Srivastava DN, Dash NR, Gupta C, Gupta SD. Case report. Schwannoma of both intrahepatic and extrahepatic bile ducts: a rare case. *Br J Radiol* 2009;82:e212–e215.
10. Nag VL, Dash NR, Pathak A, Agarwal SK. Need for syphilis screening and counselling in HIV counselling and testing centres: A curtain raiser study from north India. *Aust J Rural Health* 2009;17:102–6.

### Books

1. Chattopadhyay TK, Sahni P, Pal S (eds). *GI Surgery Annual, Volume 16*. New Delhi:Indian Association of Surgical Gastroenterology; 2009.

### Chapters in Books

1. Chattopadhyay TK. Advances in Gastrointestinal Surgery. In: Chattopadhyay TK, Sahni P, Pal S (eds). *GI Surgery Annual, Vol. 16*. New Delhi:Indian Association of Surgical Gastroenterology; 2009:192–239.
2. Pal S, Dash NR, Sahni P, Chattopadhyay TK. Pancreaticoduodenectomy. In: Chattopadhyay TK, Sahni P, Pal S (eds). *GI Surgery Annual Supplement Vol. 16*. New Delhi:Indian Association of Surgical Gastroenterology; 2009:21–8.

## PATIENT CARE

### OPD and specialty clinics

Please *see* Chapter 6 (Hospital), Appendix VI

Total number of new patients seen	1855
Total number of old patients seen	5184

### Special laboratory facilities

Anal manometry

Oesophageal manometry

24-hour ambulatory oesophageal pH monitoring

### Inpatients

Please *see* Chapter 6 (Hospital), Appendix III

Total number of inpatient admissions (January 2009–December 2009)	756
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### Surgical procedures

Please *see* Chapter 6 (Hospital), Appendix V

Total number of operations performed	574
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Elective operations	423
Emergency operations	151
<b>Number of operations performed (Special interest areas)</b>	
Surgical jaundice	126
Portal hypertension	41
Oesophageal cancer	79
Carcinoma gall bladder	37
Corrosive strictures	32
Ulcerative colitis	24
Upper GI haemorrhage	12
Lower GI haemorrhage	17
Acute pancreatitis	14
Chronic pancreatitis	7
Liver resections	33
Cadaveric liver retrievals	3
Orthotopic liver transplant	2

### **AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Dr Peush Sahni** is presently Representative of the World Association of Medical Editors (WAME) at the International Committee of Medical Journal Editors (ICMJE). He is also the Editor of *The National Medical Journal of India*.

### **VISITING SCIENTISTS**

1. Dr Sumit Mittal, Department of Surgery, Creighton University Medical Center, Omaha, Nebraska, USA.
2. Dr Dinesh Sharma, Consultant Liver transplant and Hepatobiliary surgeon, Royal Free Hospital, London, UK
3. Professor John Windsor, Professor of Surgery, University of Auckland, New Zealand.

## 9.14 Haematology

### Professor and Head

R. Saxena

### Professor

H.P. Pati

### Associate Professor

S. Tyagi

M. Mahapatra

### Assistant Professor

Tulika Seth

Pravas Mishra

### Scientist

S. Sazawal

### EDUCATION

The Department has DM courses in Clinical Hematology and in Hematopathology. This year, two candidates passed DM Clinical Hematology and one passed the DM Hemato-pathology examination. Eight residents are undergoing training for DM Clinical Hematology and six for DM Hemato-pathology during the current academic year. Five students are registered for Ph.D in Hematology, which is ongoing.

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

### Short and Long Term Training

The department has provided training in the field of clinical and laboratory hematology to fourteen doctors from other institutions for periods varying from 1 to 6 months. Fifty five M.Sc. students also undertook short-term training in molecular hematology for periods varying from 1 to 6 months during this year.

### CME

#### Organized by department

1. Workshop on Hemogram under the aegis of ISHTM 19th November 2009.
2. Workshop on Stem Cell Transplantation under the aegis of ISHTM 19th November 2009.

### Lectures delivered

#### Dr. R. Saxena

1. Carrier Detection and Prenatal Diagnosis of Hemophilias at CME- National Update on Transfusion Medicine-AFMC, Pune. 11-12 April 2009.

2. Ethics in Medical Research at Symposium on Bioethics Symposium on Bioethics Indian Council of Medical Indian Council of Medical Research , Ansari Nagar, New Delhi.
3. Molecular Genetics in Inherited Bleeding Disorders at Symposium : Diagnosis & management of bleeding disorders - Role of pathologist during APCON 2009 (21.12.2009)
4. Platelet Function Defects at Symposium: Diagnosis & management of bleeding disorders - Role of pathologist during APCON 2009 (21.12.2009).
5. Molecular Genetics in Inherited Bleeding Disorders at ISHTM November 2009 held at AIIMS.
6. Prenatal diagnosis for inherited bleeding disorders at XVIth National CME in Haematology & Haemato-Oncology Bombay Hospital Institute of Medical Sciences, Mumbai, January 2010
7. D-Dimer test in haematology at XVIth National CME in Haematology & Haemato-Oncology Bombay Hospital Institute of Medical Sciences, Mumbai, January 2010.
8. Hemophilia : The disorder at CME organized by Hemophilic Federation of India in Delhi in 2010.
9. Diagnosis of ITP Recent concepts & pitfalls at CME on Update on ITP organized by NRS Medical College Kolkata, October 2009.
10. DIC - diagnosis and management in trauma patients in CME “TRAUMA 2009” organized by Trauma Centre, AIIMS November 2009.
11. MDS: Diagnosis and Classification at First International hematologic Malignancies Conference ‘Bridging the Gap: 2010’ in Singapore on February 5-7, 2010.
12. Leukemia at CME on Techniques in Hematology and Hemostasis organized by DIPAS in November –December 2009.
13. Diagnosis of Hemophilia” at CME on Capacity Building in Hemophilia organized by Sir Ganga Ram Hospital, Delhi in December 2009.
14. Ethics in Human Research in workshop on Designing clinical research 23-24th January 2010 organized by Clinical Epidemiology Unit (CEU), AIIMS.
15. Role of ethics in governance: A case of AIIMS, National Seminar on ‘Ethical Dimensions of Governance’ 15th & 16th February 2010, India International Centre, Lodi Road , New Delhi .
16. Hemolytic Anemia – Overview & advances, Hematology CME organized by SMS Medical College, Jaipur, March 2010.
17. APLA- All that you need to know, Hematology CME organized by SMS Medical College, Jaipur, March 2010.

**Dr. HP Pati**

1. Sampling approach for the deep seated lymphomas. International Update on Non-Hodgkin’s Lymphoma, SCB Medical College, Cuttack. 5th Sept 2009.
2. Interpretation of peripheral blood examination. Guwahati Medical College, Guwahati 24th Oct 2009.

3. Interpretation & role of Hb HPLC in the diagnosis of hemoglobinopathies, Guwahati Medical College, Guwahati, 24th Oct 2009.
4. Congenital thrombocytopenia at XVIth National CME in Haematology & Haemato-Oncology Bombay Hospital Institute of Medical Sciences, Mumbai, January 2010.
5. Refractory Iron deficiency anemia, at CME organized by NRS Medical College 28th March 2010, Kolkata.

**Dr M Mahapatra**

1. Post-graduate Hematology Training in India. Guest lecture at XVIth National CME in Haematology held at Bombay Hospital, Mumbai, January 2009.
2. Bleeding Disorders in Tropics. Guest lecture at CME on What's New in Tropical Medicine held at Command Hospital, Udhampur India on 24-25 Oct 2009.
3. Approach to Management of Adult ITP. Guest lecture at CME on Update on ITP held at Kolkata, India on 14th October 2009.
4. Adult- Aplastic Anemia. At Asia pacific transplant forum organized by Malaysia society of Hematology held at Kuala Lumpur, Malaysia on 12-13 September 2009.

**Dr Tulika Seth**

1. Case Discussion Anemias, XVI th CME on Hematology, held at Bombay Hospital, Mumbai, January 2010.
2. Palliative care in children. 9th Annual Foundation course in Palliative care, India International Centre, New Delhi, 23-24 January 2010.
3. Designing a prognostic study using a cohort design. Clinical Epidemiology Unit (CEU), Workshop on Designing Clinical research, 23-24 Jan, 2010..
4. Chronic myeloid leukemia- Imatinib resistance, molecular mechanism and clinical implications - Symposium -current advances in CML 20th June 2009, New Delhi.
5. Co organized Hematology Nursing workshop, Dept of Hematology-July 2009.
6. Clinical Epidemiology Unit (CEU) –QUIZ - Data analysis workshop held on 19-20th Sept, 2009. AIIMS, New Delhi
7. Designing a predictive study using a cohort design. Clinical epidemiology workshop-25-26th April, 2009, AIIMS, New Delhi
8. Interpretation of CBC (Case Scenarios) panel discussion. Apollo Centre for Advanced Pediatrics–ACAP, International update on Cancer and Blood Diseases in Children and Adolescents. 6th & 7th Feb 2010, Venue: Indraprastha Apollo Hospital, Sarita Vihar, New Delhi.
9. Current management of CML in India .CML Update, Feb 14, 2010, , New Delhi.
10. Hemoglobinopathies HPLC and clinical correlates, Pediatric Hematology Update, Dept of Pediatrics AIIMS -24-10-09.
11. Presented AIIMS data on BMT at the Indian Bone Marrow Transplant registry meeting in Vellore, March 2010.

### **Dr Pravas Mishra**

1. Hematology Education at AIIMS. XVI National CME in Hematology. Mumbai January 2010.
2. Delhi Society of Hematology. Panel discussion on ITP. Ganga Ram Hospital. March 2010.
3. Faculty. Hemophilia Update . Government Medical College. Srinagar , July 2009.
4. Indo American Cancer Association Fellowship: Delivered talk regards my experiences at City of Hope Hospital at their annual meetings during ASCO 2009.
5. Faculty. International update on Expanding Vistas in Chronic Myeloid Leukemia.
6. CML 2009, TMH Mumbai, August 2009, TMH Mumbai, August 2009.  
Panel discussion. CME on stem cell transplant. Manipal Hospital, Bangalore September 27, 2009.

### **National and International Conferences**

#### **Organised by department**

Golden Jubilee Conference of Indian Society of Hematology and Transfusion Medicine, November 19-22, 2009.

#### **Lectures delivered**

#### **Dr. R. Saxena**

1. How do I investigate for thrombophilia ? APICON-2009, Jan 2009.
2. Interpretation of automated counter. APICON-2009, Jan 2009.

#### **Dr HP Pati**

1. Quality Control in blood film in Hematological diagnosis. Pre-conference workshop. 50th Golden Jubilee Conference of Indian Society of Hematology & Transfusion Medicine, 19th Nov 2009, New Delhi.
2. Myelodysplastic syndrome, diagnosis & differential diagnosis, 50th Golden Jubilee Conference of Indian Society of Hematology & Transfusion Medicine, 20th Nov 2009, New Delhi

#### **Dr M Mahapatra**

1. Short and long term outcomes of allogenic hematopoietic stem cell transplant performed in non-HEPA filtered single rooms: A single center experience from India at 36th Annual meeting of the European Group for Blood and Marrow Transplantation (EBMT) held at Vienna, Austria on 21-24 March 2010.
2. Outcome of Aplastic anemia treated with Anti-thymocyte globulin therapy and cyclosporine: A single center study from India at 65th Annual conference of Physicians of India held at Jaipur on 7th 10th Jan 2010.
3. Aplastic anemia: Issues in Management. Guest lecture at Golden Jubilee conference of ISHTM 2009 held at New Delhi on 19-22 November 2009.



## **Dr Tulika Seth**

1. 47th National conference of Indian Pediatrics Hyderabad-Pedicon 2010. Presentation-Bleeding Disorders In Children: Diagnosis, Severity And Outcome. T Seth, Sanjeev Verma, Nitin Gupta, R Kapoor, Pravas Misra, R Saxena
2. 47th National conference of Indian Pediatrics Hyderabad-Pedicon 2010.Presentation-The Changing Spectrum Of Pediatric Hemoglobinopathies: Data From A Large North Indian Tertiary Care Hospital . T Seth, B Dhingra, Sanjeev Sharma, N. Rathod, S Rathi, M Mahapatra, HP Pati.
3. ISHTM-GOLDCON, New Delhi,19-22 November 2009. Immunotherapy in hemato-poietic stem cell transplantation.
4. ISHTM-GOLDCON, New Delhi,19-22 November 2009.Bone marrow failure syndromes.

## **Dr Pravas Mishra**

1. Poster presentation: Peripheral blood stem cell transplantation is comparable to Bone marrow transplantation in Aplastic anemia. European society of Hematology Annual Conference, Vienna March 19-24, 2010
2. Classical Hodgkin Lymphoma: First line therapy: Golden Jubilee conference of the ISHTM , 19-22 November 2009
3. Case based discussion. Transplant workshop. ISHTM conference .19 November 2009

## **RESEARCH**

### **Funded Research**

#### *Ongoing*

1. Modulation of genes to understand the biology of stage progression in chronic myeloid leukemia patients  
Name of PI : Dr. R. Saxena  
Duration : 2008 - 2011  
Funding Agency : ICMR  
Sanctioned Amount : Rs. 8,90,000/- for 1st year
2. Evaluation of molecular parameters affecting biology of chronic lymphocytic leukemia in India.  
Name of PI : Dr. R. Saxena  
Duration : 2009 - 2012  
Funding Agency : ICMR  
Sanctioned Amount : app. Rs.6,00,000 for 1st year
3. Phase II Study of NRX 195183 Therapy For Patients With Relapsed Or Refractory Acute Promyelocytic Leukemia  
Name of PI : Dr. R. Saxena  
Duration : 2009-10  
Funding Agency : NuRx Pharmaceuticals Inc., US  
Sanctioned Amount : Depending on number of patients recruited

4. Molecular Characterization and treatment of Acute Lymphoid Leukemia on protocol modified MCP 841. International Network for Cancer Treatment and Research  
 Name of PI : Dr. R. Saxena  
 Duration : 2001 - 2009  
 Funding Agency : INCTR  
 Sanctioned Amount : Rs. 4.5 lakhs per year
5. Quality assessment in Hemogram  
 Name of PI : Dr. R. Saxena  
 Funding Agency : ISHTM  
 Duration : 2003-2008  
 Sanctioned Amount : Rs. 1.5 lakhs/ year
6. Role of Nitric oxide in the development of stroke 2008-2011  
 Name of PI : Dr. R. Saxena  
 Funding Agency : DST  
 Duration : 2008-2011  
 Sanctioned Amount : Rs. 20 Lakhs
7. Evaluation of Platelet Receptor Polymorphism In Patients With Coronary Artery Disease.  
 Name of PI : Dr. R. Saxena  
 Funding Agency : ICMR  
 Duration : 2007-2010  
 Sanctioned Amount : Rs. Rs.23 lakhs
9. Name of the project: Community based planned intervention for the change in perception and health seeking behaviour of cancers in Delhi. A pilot study  
 Name of PI : Dr Tulika Seth  
 Funding Agency : ICMR  
 Duration : Three Years  
 Sanctioned amount : Rs 11,18,025

### **Completed**

1. Validation of Haemoglobin Colour Scale for Hemoglobin estimation :a multicentric study  
 Name of PI : Dr. R. Saxena  
 Duration : 2008 - 2009  
 Funding Agency : WHO  
 Sanctioned Amount : app. Rs.4,00,000

### **Departmental Research**

#### **Completed**

1. Molecular Genetics underlying Inherited Deficiencies of Factors VIII ,IX, X and XIII 2006 – 2009.
2. Effect of Modulating Factors on Indian HbE patients 2006 – 2009.
3. Role of PG3 antibody in detection of PML Rara in APL 2007-2009.

### *Ongoing*

1. Effect of glucocorticoids on vWF levels and its correlation with vWF gene promoter polymorphism 2008-2010
2. Role of alpha thalassemia in patients with iron refractory microcytosis and normal HbA2 2009-11
3. Role of FCM immunophenotyping in CLPD 2009-11
4. Role of nitric oxide and the enzymes controlling its level, in the development of ischemic stroke in young Indians 2007-2010.
5. Detection of mutations underlying Gleevec resistance in CML 2006-2010
6. Role of Molecular studies in pathogenesis of (MDS) in Indian patients 2005 – 2010
7. Prognostic implications of sCD138 (SYNDECAN-1) in B-Chronic lymphocytic leukemia
8. Role of CD 34 and CD 3 counts in predicting the GVHD in stem cell transplantation in hematological disorders
9. To evaluate the role of induction day 14 bone marrow aspirate and biopsy in acute myeloid leukemia
10. Imaging guided lung biopsy in immunocompromised patients with possible fungal pneumonia and its clinical implications
11. Flow cytometry in diagnosis of Auto Immune hemolytic anemia
12. Multiple myeloma: diagnosis in marrow biopsy by immuno histo-chemistry
13. Iron deficiency anemia: Prevalence of refractory IDA and response to iron in IDA.
14. Flow cytometric Characterization of Blasts in myelodysplastic syndrome.
15. Flow cytometric study of granulocyte and red cells in PNH
16. Clinical and lab evaluation of isolated thrombocytopenia in patients > 30 years of age.
17. Angiogenesis in bone marrow biopsy in myelofibrosis. With CD34 immuno-histochemistry.

### **Collaborative Research**

#### *Completed*

1. Prevalence of DVT/ Pulmonary embolism in critically ill medical patients (Medicine, since 2006-2009)
2. Prothrombotic Factors in Patients with Newly Diagnosed Multiple Myeloma – an observational Study.(IRCH 2007 to 2009)
3. Prevalence of Thrombophilia in patients with adverse pregnancy outcome. (Obstetrics and Gynae 2007 to 2009).

#### *Ongoing*

1. Correlation of erythropoietin levels and serum transferrin receptor levels with other Haematological indices in patients with iron deficiency anaemia in the third trimester of pregnancy (Obstetrics and Gynae 2009 to 2011).

2. To evaluate the efficacy of tranexamic acid in reducing perioperative blood loss and its effect on shunt patency in Lieno Renal Shunt surgeries – a prospective, randomized double blind, placebo control study ( Anaesthesia 2009 to 2011).
3. Zinc as an immunomodulator in the treatment of possible serious bacterial infections in infants more than 7 days and up to 4 months of age (Pediatrics)
4. Evaluation of Platelet Receptor Polymorphism and Thrombogenic Mutation in Patients with Coronary Artery Disease. (Dept. of Cardiology).

## PUBLICATIONS

1. Aggrawal DK, Bhargava R, Dolai TK, Singhal D, Mahapatra M, Rathi S, et al. An unusual presentation of eosinophilic variant of chronic myeloid leukemia (eoCML). *Ann Hematol.* 2009; 88:89-90.
2. Ahmad F, Kannan M, Biswas A, Saxena R. Impact of 789Ala/Ala genotype on quantitative type of von Willebrand disease. *Ann Hematol.* 2009;88:479-83.
3. Ahmad F, Kannan M, Kishor K, Saxena R. Coinheritance of Severe von Willebrand Disease With Glanzmann's Thrombasthenia. *Clin Appl Thromb Hemost.* 2010 Feb 10.
4. Ahmad F, Kannan M, Yadav V, Biswas A, Saxena R. Impact of Thrombogenic Mutations on Clinical Phenotypes of von Willebrand Disease. *Clin Appl Thromb Hemost.* Dec 2 2009.
5. Akhter MS, Biswas A, Ranjan R, Sharma A, Kumar S, Saxena R. The nitric oxide synthase 3 gene polymorphisms and their association with deep vein thrombosis in Asian Indian patients. *Clin Chim Acta.* Jan 28. 2010
6. Anand H, Bakhshi S, Saxena R. Transient leukemia. *Indian J Pathol Microbiol.* 2009;52:257-9.
7. Anand H, Mir R, Saxena R. Hemoglobin color scale a diagnostic dilemma. *Indian J Pathol Microbiol.* 2009;52:360-2.
8. Asthana B, Sharma P, Ranjan R, Jain P, Aravindan A, Chandra Mishra P, Saxena R. Patterns of acquired bleeding disorders in a tertiary care hospital. *Clin Appl Thromb Hemost.* 2009;15:448-53..
9. Bhatla N, Kaul N, Lal N, Kriplani A, Agarwal N, Saxena R, Gupta SK. Comparison of effect of daily versus weekly iron supplementation during pregnancy on lipid peroxidation. *J Obstet Gynaecol Res.* 2009;35:438-45.
10. Biswas A, Ranjan R, Meena A, Akhter MS, Yadav BK, Munisamy M, Subbiah V, Behari M, Saxena R. Homocystine levels, polymorphisms and the risk of ischemic stroke in young Asian Indians. *J Stroke Cerebrovasc Dis.* 2009;18:103-10.
11. Biswas A, Ranjan R, Meena A, Akhter S, Sharma V, Yadav BK, Behari M, Saxena R. Prothrombotic factors and the risk of acute onset non-cardioembolic stroke in young Asian Indians. *Thromb Res.* 2009;124:397-402.
12. Biswas A, Tiwari AK, Ranjan R, Meena A, Akhter MS, Yadav BK, Behari M, Saxena R. Prothrombotic polymorphisms, mutations, and their association with pediatric non-cardioembolic stroke in Asian-Indian patients. *Ann Hematol.* 2009;88:473-8. 26:

13. Chaubey R, Sazwal S, Mahapatra M, Mir R, Saxena R. P15(INK4B) gene methylation in patients with Myelodysplastic syndromes: AIIMS experience. . Indian J Hematol Blood Tranfus 2009; 25(4): 147.
14. Chopra A, Pati H, Mahapatra M, Mishra P, Singh S, Kumar R. Evaluation of normal myeloid maturation by 5-color flow cytometry. . Indian J Hematol Blood Tranfus 2009; 25(4): 154.
15. Choudhary DR, Naithani R, Mahapatra M, Kumar R, Mishra P, Saxena R. Intracranial hemorrhage in childhood immune thrombocytopenic purpura. *Pediatr Blood Cancer*. 2009;52: 529-31..
16. Choudhary DR, Naithani R, Panigrahi I, Kumar R, Mahapatra M, Pati HP et al. Effect of wheat grass therapy on transfusion requirement in beta-thalassemia major. *Indian J Pediatr*. 2009;76: 375-6.
17. Dhingra B, Naithani R, Mahapatra M, Pati H, Mishra P, Saxena R. Efficacy of Dapsone in Management of patients with chronic immune thrombocytopenic purpura. *Indian J Hematol Blood Tranfus* 2009;25:141.
18. Dolai T, Mahapatra M, Kumar R, Mishra P, Seth T. Outcome of Aplastic anemia treated with Anti-thymocyte globulin therapy and cyclosporine: A single center study from India. *Indian J Hematol Blood Tranfus* 2009;25: 132.
19. Dolai TK, Bhargava R, Mahapatra M, Mishra P, Seth T, Pati HP et al. Is imatinib safe during pregnancy? *Leuk Res*. 2009;33:572-3.
20. Gazula Suhasini, Pawar DK , Seth T, Bal CS , Bhatnagar V. Extrahepatic portal venous obstruction: The effects of early ligation of splenic artery during splenectomy. *J Indian Assoc Pediatr Surg*. 2009;14:.194-99.
21. Gupta A, Seth T, Gupta A. Successful use of terbutaline in persistent priapism in a 12-year-old boy with chronic myeloid leukemia. *Pediatr Hematol Oncol*. 2009;26:70-3.
22. Gupta N, Gupta SK, Jain A, Mahapatra M, Pati H, Sarkar C. Extramedullary haematopoiesis in lymph node in a patient of T cell leukemia. *Eur J Haematol* 2009; Dec 17 (Epub ahead of print).
23. Gupta N, Gupta SK, Rathi S, Sharma SK, Mahapatra M, Seth T et al. Acute lymphoblastic leukemia presenting as non-oliguric renal failure and hypertension. *Leuk Res*. 2010 Jan 18.
24. Gupta N, Kapoor R, Rath S, Seth T, Mishra P, Mahapatra M et al. Lenalidomide in low risk myelodysplastic syndrome: A single center experience. *Indian J Hematol Blood Tranfus* 2009; 25:146.
25. Gupta N, Sharma P, Rathi S, Pati H, Mahapatra M. Bone marrow aplasia in two MDS patients treated with Lenalidomide. *Indian J Hematol Blood Tranfus* 2009;25: 170-71.
26. Gupta SK, Rao S, Kar R, Tyagi S, Pati HP. Congenital sideroblastic anemia: a report of two cases. *Indian J Pathol Microbiol*. 2009;52(3):424-6.
27. Kannan M, Ahmad F, Yadav BK, Kumar R, Choudhry VP, Saxena R. Molecular defects in ITGA2B and ITGB3 genes in patients with Glanzmann thrombasthenia. *J Thromb Haemost*. 2009;7:1878-85.

28. Kannan M, Chatterjee T, Ahmad F, Kumar R, Choudhry VP, Saxena R. Acquired Glanzmann's thrombasthenia associated with Hairy cell leukaemia. *Eur J Clin Invest.* 2009; 39(12): 1110-1.
29. Kannan M, Saxena R, Adiguzel C, Fareed J. An update on the prevalence and characterization of H-PF4 antibodies in Asian-Indian patients. *Semin Thromb Hemost.* 2009; 35(3):337-43.
30. Kannan M, Saxena R. Glanzmann's thrombasthenia: an overview. *Clin Appl Thromb Hemost.* 2009 Mar-Apr;15(2):152-65.
31. Kannan M, Yadav BK, Ahmad F, Biswas A, Saxena R. Modulation of clinical phenotype of Glanzmann's thrombasthenia by thrombogenic mutations. *Clin Chim Acta.* 2009; 403(1-2): 156-8.
32. Kapoor R, Gupta N, Mahapatra M. Cyclosporin and menabol combination in aplastic anemia. *J Assoc of physician India* 2009; 57:
33. Kapoor R, Mahapatra M, Pati HP, Mishra P. To study the efficacy and safety of low dose Rituximab in chronic immune thrombocytopenic purpura. *Indian J Hematol Blood Transfus* 2009; 25(4):141.
34. Kar R, Dutta S, Tyagi S. Primary Autoimmune myelofibrosis- A report of Three Cases and Review of the Literature. *Turk J Hematol* 2009; 26: 146-50.
35. Kar R, Rao S, Saxena R. Myelodysplastic syndromes: classification and prognostic scoring systems and their applicability in Indian scenario-experience from a tertiary care center. *Hematology.* 2009;14:145-9.
36. Kar R, Rao S, Srinivas UM, Mishra P, Pati HP. Clinico-hematological profile of hereditary spherocytosis: experience from a tertiary care center in North India. *Hematology.* 2009;14: 164-7.
37. Mahapatra M, Dolai T, Kumar R, Mishra P, Seth T. Outcome of Aplastic anemia treated with Anti-thymocyte globulin therapy and cyclosporine: A single center study from India. *J Assoc of physician India* 2009 Dec; 57:
38. Mahapatra M, Mishra P, Seth T, Rathod N, Rathi S, Saxena R. Short and long term outcomes of allogenic hematopoietic stem cell transplant performed in non-HEPA filtered single rooms: A single center experience from India. *Bone Marrow Transplantation* 2010;45(2): S185.
39. Mishra P, Rathod N, Mahapatra M, Seth T, Rathi S, Kapoor R, et al. Peripheral blood stem cell transplant is safe in heavily pre-transfused aplastic anemia patients without increased morbidity from chronic graft-versus-host disease. *Bone Marrow Transplantation* 2010;45: S170.
40. Mohammed SA, Biswas A, Ranjan R, Meena A, Yadav BK, Sharma A, Saxena R. Plasminogen Activator Inhibitor-1 (PAI-1) Gene 4G/5G Promoter Polymorphism is Seen in Higher Frequency in the Indian Patients With Deep Vein.Thrombosis. *Clin Appl Thromb Hemost.* 2010;16:184-8.
41. Naithani R, Kumar R, Mahapatra M, Seth T. Melanonychia after allogenic hematopoietic stem cell transplantation. *Indian J Pediatr* 2009;76: 1179-80.

42. Naithani R, Kumar R, Saxena R, Mahapatra M. Transformation of Myelodysplastic syndrome to T-cell acute lymphoblastic leukemia in young adult. *Pediatric Hematology and Oncology*.2009; 26: 100-102.
43. Naithani R, Mahapatra M, Kumar R, Mishra P, Saxena R. High dose dexamethasone therapy shows better responses in acute immune thrombocytopenia than in chronic immune thrombocytopenia. *Platelets*. 2010 Mar 11. *Pediatr Hematol Oncol*. 2009;26:70-3.
44. Naithani Rahul, Kumar R, Mahapatra M, Tyagi S, Mishra P. Efficacy and Safety of Anti-D for Immune Thrombocytopenic Purpura *Indian Pediatrics*, 2009 October 14. (E-pub ahead of print).
45. Naithani Rahul, Kumar R, Mahapatra M, Tyagi S, Saxena R. Efficacy and safety of anti-D for treatment of adults with immune thrombocytopenia. *Short communication Platelets*, November 2009; 20: 525–527.
46. Rao S, Kar R, Saxena R. Pseudo Chediak-Higashi anomaly in acute myelomonocytic leukemia. *Indian J Pathol Microbiol*. 2009;52:255-6.
47. Rao S, Saxena R, Deka D, Kabra M. Use of HbA estimation by CE-HPLC for prenatal diagnosis of beta-thalassemia; experience from a tertiary care centre in north India: a brief report. *Hematology*. 2009;14:122-4.
48. Rathi S, Mahapatra M, Mishra P, Gupta N, Kapoor R, Pati H. To study efficacy and toxicity of lenalidomide, cyclophosphamide and prednisolone combination in Multiple Myeloma. *Indian J Hematol Blood Transfus* 2009; 25: 147-8.
49. Rathod N, Dhingra B, Rathi S, Mishra P, Mahapatra M, Seth T. Castleman Disease: A report of two cases. *Indian J Hematol Blood Transfus* 2009; 25: 170.
50. Rathod N, Mahapatra M, Mishra P, Seth T, Saxena R. Experience of allogenic hematopoietic stem cell transplant in non-HEPA filtered single rooms. *Indian J Hematol Blood Transfus* 2009; 25: 142-3.
51. Rathod N, Mahapatra M, Mishra P, Seth T. Hematopoietic stem cell transplant in Aplastic Anemia: A single institution experience. *Indian J Hematol Blood Transfus* 2009; 25: 131.
52. Sankar MJ, Saxena R, Mani K, Agarwal R, Deorari AK, Paul VK. Early iron supplementation in very low birth weight infants—a randomized controlled trial. *Acta Paediatr*. 2009; 98:953-8..
53. Saxena A, Rai A, Raina V, Seth T, Mitra DK. Expression of CD13/ aminopeptidase N in precursor B-cell leukemia: role in growth regulation of B cells. *Cancer Immunol Immunother*. 2010;59:125-35.
54. Sazawal S, Bakhshi S, Raina V, Swaroop C, Saxena R. Detection and clinical relevance of BCR-ABL fusion gene in childhood T-lineage acute lymphoblastic leukemia: a report on 4 cases. *J Pediatr Hematol Oncol*. 2009;31:850-2.
55. Sengar M, Rai A K , Saxena A, Singh A, Raina V, Seth T, et al. Diagnosis improved by flow cytometry in addition to morphology. *Asia-Pacific J Clin. Oncology*. 2009;5: 55-65.
56. Seth T, Mohanty S, Nath K, Saini R, Dhingra B, Mahapatra M et al. Fanconi Anemia: a clinical and genetic study of Indian patients presenting with hematological manifestations. *Indian J Hematol Blood Transfus* 2009; 25: 189-190.



57. Seth Tulika. Control of Iron deficiency Anemia. Delhi Pediatrics, December 2009, vol XXVIII: 3:19-23.
58. Seth Tulika. Sequelae of cancer therapy. Delhi Pediatrics, October 2009, vol XXVII;3:19-21.
59. Sharma M, Saxena R, Gohil NK. Fluorescence assay of non-transferrin-bound iron in thalassemic sera using bacterial siderophore. Anal Biochem. 2009;394(2):186-91.
60. Sharma P, Asthana B, Tyagi S. Triphenotypic acute leukemia with TRAP- positive blasts: A pathological rarity. Leuk Res. 2009;33(7):e83-4.
61. Sharma P, Kar R, Dutta S, Pati H P, Saxena R. Nieman pick disease, Type B with TRAP-positive storage cells and Secondary Sea Blue Histiocytosis. Eur J Hematol 2009;53:151-54.
62. Sharma P, Kar R, Dutta S, Pati HP, Saxena R. Niemann-Pick disease, type B with TRAP-positive storage cells and secondary sea blue histiocytosis. Eur J Histochem. 2009;53:183-6.
63. Sharma SK, Gupta V, Kadiravan T, Banga A, Seith A, Kumar A et al. A prospective study of risk factor profile & incidence of deep venous thrombosis among medically-ill hospitalized patients at a tertiary care hospital in northern India. Indian J Med Res. 2009.; 130(6):726-30.
64. Sharma V, Kumar B, Kumar G, Saxena R. Alpha globin gene numbers: an important modifier of HbE/beta thalassemia. Hematology. 2009;14:297-300.
65. Sharma V, Kumar B, Saxena R. Glutathione S-transferase gene deletions and their effect on iron status in HbE/beta thalassemia patients. Ann Hematol. 2010;89:411-4.
66. Sharma V, Madhu S, N P, M G, Jaiswal V, Saxena R. A Comparison of the Biological Activity of 2 Formulations of Enoxaparin in 12 Healthy Volunteers. Clin Appl Thromb Hemost. 2009 Aug 10.
67. Sharma V, Saxena R. Effect of alpha-gene numbers on phenotype of HbE/beta thalassemia patients. Ann Hematol. 2009;88:1035-6.
68. Singh AK, Dhingra B, Mahapatra M, Seth T, Mishra P. Cardiac Tamponade in a child with Acute lymphoblastic leukemia: A case report. . Indian J Hematol Blood Transfus 2009; 25(4): 155-156.

### Chapters in Books

1. Renu Saxena. Prenatal diagnosis in Hematological Disorders.in An Introduction genetics and Fetal Medicine. Editors Dr. Deepika Deka and Dr. Narendra Malhotra published by Jaypee Brothers 2010, 99 – 110
2. Sanjeev Kumar Gupta, Prashant Sharma, Renu Saxena. The Fragment D-dimer and its Interpretation. Hematology Today 2010. 551-524 published by Dr. M.B. Agarwal, Mumbai.
3. Prashant Sharma and R Saxena. Screening coagulogram, Hematology today 2010. 399-408 published by Dr. M.B. Agarwal, Mumbai..
4. R Saxena, VP Choudhry Von Willebrand Disease- Pathophysiology & Diagnosis (Ed. Anupams Sachdeva)

5. Tulika Seth. Prevalance and diagnosis of iron deficiency anaemia- Indian perspective chapter 11 pg1-17. Disorders of Iron Homeostasis, Editors Malay Kumar Ghosh, Maitreye Bhattacharyya, Tuphan Kanti Dolai. First Edition- March 2010, Published by:Ranbaxy Super Specialties.
6. Tulika Seth. Bone marrow failure syndromes. Chapter in the Education book of the 50th ISHTM, November 2009.
7. S.Tyagi , P. Sharma . Hematology Chronic Myeloid leukemia:Cytogenetics and Molecular abnormalities (From Pathobiology to clinical applications).Hematology Today,edited by MB Agarwal. 2010.
8. P. Mishra. Classical Hodgkin Lymphoma. Chapter in the Education book of the 50th ISHTM, November 2009.
9. P.Mishra. Parenteral Iron Therapy. Disorders of Iron Homeostasis, Editors Malay Kumar Ghosh, Maitreye Bhattacharyya, Tuphan Kanti Dolai. First Edition- March 2010, Published by:Ranbaxy Super Specialties.
10. Mahapatra M, Rathi S. Polycythemia: An Overview. Hematology Today 2010. Edited by. MB Agarwal; Chapter 13: 113-117.
11. Rathod N, Mahapatra M, Bhargav R, Das J. Thrombopoietin Analogues: Current Status. Hematology Today 2010. Edited by MB Agarwal; Chapter 44: 389-398.
12. Mahapatra M, Rathod N. Aplastic Anemia: Issues in Management. Hematology- 2009. Edited by Mahapatra M, Mishra P, Seth T; Chapter 5: 16-19.
13. Mahapatra M, Rathod N. Oral Iron Therapy. Disoredrs of Iron Hemostasis. Edited by Ghosh M. Chaper 9:67-74.
14. “Congenital thrombocytopenia” Haematology Today 2010 editor Prof. M.B. Agarwal, Mumbai
15. H.P. Pati. MDS, Laboratory Diagnosis. Haematology -2009. Educational Porgram Book. Editors: Dr. M., Mahapatra, T. Seth, P. Mishra, Department of Haematology, AIIMS, New Delhi, 2009.

## **AWARDS AND HONOURS**

### **Dr. R Saxena**

Kshanika oration award by ICMR for outstanding woman scientist in biomedical sciences 2009.

### **Dr HP Pati**

Continues as General Secretary, Indian Society of Hematology & Blood Transfusion

### **Dr M Mahapatra**

1. Elected as the Treasurer of Indian Society of Hematology and Transfusion Medicine (ISHTM).
2. Organizing Secretary of Golden Jubilee Conference of Indian society of Hematology and Transfusion medicine (ISHTMGOLDCON 2009).
3. Became a Fellow of Indian Society of Hematology and Transfusion Medicine (FISHTM)

### **Dr Tulika Seth**

1. Best poster award at PEDICON-2010, Hyderabad, 47th National IAP conference. The Changing Spectrum Of Pediatric Hemoglobinopathies: Data From A Large North Indian Tertiary Care Hospital. T Seth, B Dhingra, Sanjeev Sharma, N. Rathod, S Rathi, M Mahapatra, HP Pati
2. U C CHAKROVORTY AWARD PAPER presented at IAPSCON 2009, Lucknow Extrahepatic portal venous obstruction: The effects of early ligation of splenic artery during splenectomy, Suhasini Gazula, DK Pawar, T Seth, CS Bal, V Bhatnagar

### **Dr Pravas Mishra**

1. Fellowship: IACA Travelling fellowship for 2009: 2 weeks Clinical Observership at the City of Hope Hospital, Los Angeles, USA. September 2009

### **SIGNIFICANT EVENTS**

#### **Dr Renu Saxena**

- Hon. Editor European Journal of Medicine since 2009.
- Became member Editorial Board Clinical and Applied Thrombosis & Hemostasis since 2009.
- Elected President, Indian Society of Hematology and Transfusion Medicine November 2009 to November 2010.
- Member, Education council of International society of Thrombosis and Hemostasis 2009 onwards
- Member Secretary - Institution Ethics Committee, AIIMS w.e.f. August 2008.
- Member, Medical Advisory Board, HFI since 2005.
- Member, ICMR project review committee for Genetics, hematology, anatomy since 2005.
- Coordinator ISHTM-AIIMS EQAP. Since 2003.

#### **Dr M Mahapatra**

1. Elected as the Treasurer of Indian Society of Hematology and Transfusion Medicine (ISHTM).
2. Organizing Secretary of Golden Jubilee Conference of Indian society of Hematology and Transfusion medicine (ISHTMGOLDCON 2009).

### **Laboratory services**

**The department has a full-fledged hematology laboratory and conducted the following tests**

#### **Tests for anaemia**

Test	No.
HPLC	1879
Sickling	56
G6PD	890
S Iron	1985
Coombs	946
PNH Gel card CD55/CD59	190
PNH (Ham's test)	84
Plasma Hemoglobin	183

Urine hemosiderin	193
Osmotic Fragility/Incubated osmotic fragility	394
Heinz bodies	21
Methemoglobin	3
Cryoglobulins Cold agglutinins	03
Hb electrophoresis	18
Auto hemolysis	5
Serum Ferritin	352

### Haemogram and Biopsy

Hemogram	3972
Reticulocyte count	4550
Bone marrow aspirate	2588
Biopsy	2028
Reticulin special stain	113

### Tests for Haemostasis

Short screening coagulogram	6400
Factor assay	700
Inhibitors screening	400
Factor inhibitors assay	8
INR	7300
Lupus anticoagulant	2000
Platelet Function Test	1630
D. Dimer	1500
Fibrinogen	800
Proglob C	1000
Protein C	429
Protein S	459
APCR	440
AT-III	256
P2GP	700
S. Homocysteine	85
VWD	193
DNA Parental detection	16
DNA : Carrier detection	48

FV Leiden	85
MTHFR	9
P2010	25
Thalassemia molecular test	52

### Tests for Leukemia

Molecular studies for leukemias (BCRABL, 315 mut, t15;17,t8;21,Inv16,FIT3, JAK)	701
Cytochemistry	720
LAP	164

### Flow cytometry

<b>Acute leukemia</b>	<b>CLPD</b>	<b>CD34</b>	<b>PNH</b>	<b>GT</b>	<b>Total</b>
380	60	24	99	10	573

## PATIENT CARE

### In Patient Treatment

The hematology department has treated an increasing number of patients of leukemias, aplastic anemia, idiopathic thrombocytopenic purpura, lymphomas, myelodysplastic syndrome, hemophilia, multiple myeloma and various other hematological disorders as indoor patients. In the past year, 20 allogeneic transplants were performed successfully. The department also has a Day Care Centre for chemotherapy, procedures and blood product transfusions for hematological patients.

### Inpatients census

General ward patients	<b>928 (C2, Hematology ward and others)</b>
Private ward patients	<b>434</b>
<b>TOTAL</b>	<b>1362</b>

### Hematology Day Care Centre

#### Census of April 2009 to March 2010 of Hematology Day Care Centre

Month	Blood Transfusions	Bone Biopsy & Bone Marrow Aspirates	Chemo-therapy	IT	Phlebotomy	Total Admission
April 2009	286	118	143	23	7	575
May 2009	310	119	177	29	4	644
June 2009	361	131	189	29	6	719
July 2009	341	129	190	31	8	769
August 2009	345	131	156	31	3	666
September 2009	343	114	140	12	5	614
October 2009	359	97	137	20	10	603

November 2009	306	107	182	29	5	629
December 2009	361	83	192	33	12	681
January 2010	374	106	171	20	3	674
February 2010	322	105	160	39	7	633
March 2010	306	108	210	34	2	660
<b>TOTAL</b>	<b>4014</b>	<b>1348</b>	<b>2047</b>	<b>330</b>	<b>72</b>	<b>7867</b>

### Clinical Apheresis Procedures

Single Donor Platelets (SDP)	1573
Peripheral blood stem cell (PBSC) collection	25

### OPD

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

### CENSUS OF HEMATOLOGY OPD – APRIL 2009 TO MARCH 2010

General Hematology				Special clinics							Total Grand
Male	Female	Total (H)	HO	HC	HA	CML	HS	HT	HL		
<b>Old cases</b>	16240	7202	23442	10000	3400	2042	3300	2000	1500	1200	<b>46884</b>
	Male	Female	Total (H)	HO	HC	HA	CML	HS	HT	HL	Grand Total
<b>New Cases</b>	2222	1200	3422	1320	660	440	223	197	30	65	<b>5278</b>

### External Haematology Proficiency Testing Programme

External Quality Assurance Programme in complete blood counts, red cell indices and peripheral blood smear is being conducted in the department of hematology along with Indian Society of Hematology and Transfusion Medicine with Dr. R Saxena as its coordinator. There are about 700 participating labs at present availing services of this programme. The EQAP programme is conducted on the basis of ISO-IEC guide- 43 and W.H.O. guidelines. All the specimens are prepared in the department and sent for analysis to the participating labs. Their results are evaluated by us and communicated to the participating labs so they could take corrective steps in case their performance is out of acceptable range.

## COMMUNITY SERVICES

The department of hematology provided consultative services to patients of thalassemia, in coordination with National Thalassemia Welfare Society. Care to hemophilia was provided in coordination with Hemophilia Federation of India.



## 9.15 Hospital Administration

### Professor and Head

Shakti Kumar Gupta

### Professor

D.K. Sharma

### Additional Professor

Siddhartha Satpathy

### Associate Professor

J.B. Singh

Sanjay Arya

Aarti Vij

### EDUCATION

The Department of Hospital Administration offers a 2 year postgraduate programme viz. MHA (Masters in Hospital Administration) which is in its 44<sup>th</sup> year after inception. It was officially started in February, 1966, for the first time in India and has since been recognized as a distinct post-graduate discipline. The residency programme in hospital administration focuses on “hands on” training, where resident administrators man the “Control Room” of the hospital, round the clock as “Duty Officers”, and coordinate all the activities of the hospital after routine duty hours.

The Department introduced a paradigm shift in its academic programme by launching Integrated Learning Modules from the 1<sup>st</sup> of January, 2008. This includes lectures, discussions, problem based learning, case studies, journal club, seminars etc. Various guest lectures were organized in the department so as to increase the horizon of teaching.

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

### **Training of students from different institutes has also been carried out throughout the year 2009-2010**

- One trainee from Amrita Vishwa Vidyapeetham University for a period of 4 months from December, 2009 to March, 2010.
- Delegation from Stanford University, USA in December, 2009
- Fourteen students of MD (Community Health Administration) from National Institute of Health and Family Welfare, New Delhi in November, 2009
- Four students of MD (Hospital Administration) from A.F.M.C., Pune in November, 2009

### CONTINUING MEDIAL EDUCATION

The Department of Hospital Administration organised the following conferences, CMEs, workshops:

- ***‘Healthcare Executive Management Development Programmes’*** for senior Healthcare Executive Professionals, organized by Department of Hospital Administration, AIIMS in collaboration with WHO – India office at Goa from 19<sup>th</sup> to 24<sup>th</sup> April, 2009.

- **“Healthcare Executive Management Development Programmes”** for senior Healthcare Executive Professionals, organized by Department of Hospital Administration, AIIMS in collaboration with WHO – India office at Bhutan from 4<sup>th</sup> to 10<sup>th</sup> October, 2009.
- National Seminar cum Workshop on **“Operations Research in Hospital Administration”** organized by Department of Hospital Administration, AIIMS in collaboration with WHO – India office at AIIMS from 7<sup>th</sup> & 8<sup>th</sup> August, 2009
- Workshop on **“National Initiative on Patient Safety”** organized by Department of Hospital Administration, AIIMS in collaboration with WHO – India office and INCLIN Trust at India Habitat Centre from 14<sup>th</sup> to 16<sup>th</sup> September, 2009
- CME on **“Concepts in Financial Management for Medical Administrators”** organized by Department of Hospital Administration, AIIMS in collaboration with WHO – India office at AIIMS from 30<sup>th</sup> September & 1<sup>st</sup> October, 2009
- CME on **“Managing Quality in Hospital Services”** organized by Department of Hospital Administration, AIIMS in collaboration with WHO – India office at AIIMS from 6<sup>th</sup> & 7<sup>th</sup> November, 2009
- Workshop on **“Integrating hospitals safe from Disasters”** organized by Department of Hospital Administration in collaboration with WHO India office, Ministry of Health, Govt. of Jammu & Kashmir, WHO-India Office and the National Disaster Management Authority from 21<sup>st</sup> to 23<sup>rd</sup> December, 2009 at Jammu.

## LECTURES DELIVERED

### Dr. Shakti Kumar Gupta

**“Management of H1N1 Influenza – a Hospital Administrator’s perspective” at 2<sup>nd</sup> India Disaster Management Congress** organized by Ministry of Home Affairs, Govt. of India and National Institute of Disaster Management, New Delhi from 4<sup>th</sup> to 6<sup>th</sup> November, 2009.

**“Emergency Medicine – Need for specialty”** Focus on India - Global Healthcare Summit organized by American Association of Physicians of Indian Origin & Indian Medical Association held on 2<sup>nd</sup> & 3<sup>rd</sup> January, 2010 at Maurya Sherton, New Delhi

**“Futuristic Geriatric Hospital – A Model”** in the CME held on 21<sup>st</sup> March, 2010 at Military Hospital, Agra.

**“Quality Dimensions in Hospital Infection Control”** in STERICON-2009 held on 4<sup>th</sup> July, 2009 organized by Directorate of Medical Education & Training, Govt. of U.P.

**“Managing Quality in Hospital Services-an Overview”** in CME on Managing Quality in Hospital Services, organized by Department of Hospital Administration, AIIMS held at AIIMS on 6<sup>th</sup> & 7<sup>th</sup> November, 2009

**“Managing Quality in Accident & Emergency Services”** in CME on Managing Quality in Hospital Services, organized by Department of Hospital Administration, AIIMS held at AIIMS held on 6<sup>th</sup> & 7<sup>th</sup> November, 2009

### **Dr. D.K. Sharma**

Actively involved in teaching and training hospital administration residents and delivering lectures in various training programmes/workshops organised by the department sponsored by Ministry of Health, HRD, personnel etc. and has also been invited by various govt. and public sector organizations and professional associations to deliver lectures on various topics in the speciality of Hospital Administration.

### **Dr. Sidhartha Satpathy**

- i. Lecture on “Quality Healthcare” on 17<sup>th</sup> April, 2009 during Hospital Management Programme for senior doctors of Indian Railways at Railway Staff College, Vadodra.
- ii. Lectures on various topics in Hospital Administration from 21<sup>st</sup> April, 2009 to 23<sup>rd</sup> April, 2009 during 4<sup>th</sup> HxMDP Programme organized by Dept. of Hospital Administration in collaboration with WHO India Office at Goa.
- iii. Lecture on “Planning and Management of Lab Services” on 14<sup>th</sup> July, 2009 during 82<sup>nd</sup> Training Course on Hospital Administration for senior hospital administrators at NIHFWS, New Delhi.
- iv. Lecture on “Accreditation of Hospitals and Clinical Audit” on 21<sup>st</sup> July, 2009 during programme on Hospital Management and CME on Diabetes and Hypertension at Power Management Institute, NTPC, Noida.
- v. Lecture on “Planning and Management of Indoor Services” on 28<sup>th</sup> July, 2009 during Hospital Management Training Programme for senior doctors at Railway Staff College, Vadodara.
- vi. Lecture on “Housekeeping in hospitals – modern approach” on 28<sup>th</sup> August, 2009 during Executive Development Programme on “Latest Trends in Hospital Construction and Maintenance” at Hotel Radisson, New Delhi.
- vii. Delivered lectures on various topics in Hospital Administration and conducted Organizational Behavior Lab during special training programme on Hospital Management and administration for Medical Superintendents, GDMOs and non specialists of Coal India at IICM from 4<sup>th</sup> to 9<sup>th</sup> January, 2010.
- viii. Lecture on “Consumer Protection Act – cases in Hospitals” on 22<sup>nd</sup> January, 2010 during Training Programme on Hospital Administration for senior doctors at NIHFWS, New Delhi.

### **Dr. Sanjay Arya**

1. Invited as resource faculty to deliver lecture on “Public Private Partnership & Outsourcing in Hospitals” in a CME on Hospital Administration held on 7<sup>th</sup> April, 2009 at Thiruvananthapuram.
2. Delivered lecture on 16<sup>th</sup> June’2009 on Hospital Evacuation Plan & Disaster Plan at National Institute of Disaster Management (Ministry of Home Affairs).
3. Delivered lecture on “Hospital Infection Control and continuous improvement” on 20<sup>th</sup> July, 2009 at Power Management Institute, Noida.
4. Delivered lecture on “Hospital Waste Management” at a conference on “Latest Trends in Hospital Construction and Maintenance Management” on 27<sup>th</sup> & 28<sup>th</sup> August, 2009 at Hotel Radisson, NH-8, Mahipalpur.

5. Visited Ranchi as resource faculty for delivering lectures in a special programme on “Hospital Management & Administration” from 11<sup>th</sup> to 15<sup>th</sup> January, 2010.

### **Dr. Aarti Vij**

1. Co-chairperson in the Session on Operations Research in Hospital Administration in the National Seminar Cum Workshop conducted by Deptt of Hospital Admn in collaboration with World Health Organisation on 7 & 8<sup>th</sup> August 2009 at New Delhi.
2. Panelist in the session on “How to make required request – a Hospital Policy” in the 24<sup>th</sup> National Eye Donation Fortnight organized by Dr. RP Centre for Ophthalmic Sciences, AIIMS on 25<sup>th</sup> August 2009.
3. Invited Lecture on “Awareness on Organ & Body Donation” at India International Centre organized by Deptt of Anatomy, MAMC & Dadhichi Dehdan Samiti and moderated by Senior Officials from Delhi Government on 26<sup>th</sup> August 2009.
4. Guest Lecture on Managing Quality in in-patient Services on 6<sup>th</sup> November 2009 at Ramalingaswamy Board Room, AIIMS organized by Dept. of Hosp. Administration.
5. Delivered lecture on Organ Preservation & Packing Body Disposal – Normal and Medico Legal Cases in the Certificate Course on Transplant Co-ordination by National Deceased Donor Transplantation Network (NDTN) at India International Centre on 22<sup>nd</sup> September 2009.
6. Delivered lecture on **Tissue Donation – Retrieval, Preservation, Sterilization, Packing and Uses**” in the Certificate Course on Transplant Co-ordination by National Deceased Donor Transplantation Network (NDTN) at India International Centre on 22<sup>nd</sup> September 2009.
7. Delivered talk on “**Legal, Ethical and Administrative issues in Organ Donation – Current Scenario**” in the Plenary Session on Scope of Organ Donation at Trauma Centres in the International conference TRAUMA 2009 at JPNATC, New Delhi on 15<sup>th</sup> November 2009 organized by Indian Society for Trauma and Acute Care (ISTACR).
8. **Guest Lecture on Organ & Tissue Donation & Retrieval**” in the two days workshop on “Embalming Plastination & Organ Donation in Present Scenario” organized by Maulana Azad Medical College, New Delhi on 26 & 27<sup>th</sup> March 2010.
9. **Panelist** in the session on “**Current Status of Transplantation and Organ Donation**” in the two days workshop on “Embalming Plastination & Organ Donation in Present Scenario” organized by Maulana Azad Medical College, New Delhi on 26 & 27<sup>th</sup> March 2010.

### **CONFERENCES, SEMINARS, WORKSHOPS**

#### **Dr. Shakti Kumar Gupta**

- Attended 4<sup>th</sup> **Healthcare Executive Management Development Programme (HxMDP)** organized by Department of Hospital Administration, AIIMS from 19<sup>th</sup> to 24<sup>th</sup> April, 2009 at Goa.
- Attended 7<sup>th</sup> **Meeting of the Institutional Advisory Authority (IAA)** of the B.P. Koirala Institute of Health Sciences (BPKIHS) in May, 2009.

- **Attended as Member, the final meeting of Health Review Committee (HRC)** of the Punjab Health Systems Corporation, State Institute of Health & Family Welfare under the chairmanship of Prof. J.S. Bajaj, Hon'ble Vice Chairman, Planning Board cum Chairman Review Committee on 19.9.2009 at Chandigarh.
- Attended **National Consultation on Public Health Workforce in India** from 24<sup>th</sup> to 25<sup>th</sup> June, 2009 at New Delhi organised by Ministry of Health & Family Welfare, Govt. of India and World Health Organisation.
- Participated as a **Panelist in the Opening Session in eHEALTH India-2009** organized by Centre for Science, Development and Media Studies (CSDMS) in associated with Department of Information Technology, Govt. of India and Dept. of Communications and IT, Govt. of Andhra Pradesh from 25<sup>th</sup> to 27<sup>th</sup> August at Hyderabad International Convention Centre at Hyderabad.
- Participated as a **Panelist** and delivered a lecture on “National Initiative on Patient Safety” in the **Conference on “PASSION-2009- Patient and Staff Safety : An Inescapable Organizational Necessity”** organized by AFMC, Pune from 23<sup>rd</sup> to 24<sup>th</sup> October, 2009.
- Participated as a panelist at **2<sup>nd</sup> India Disaster Management Congress** organized by Ministry of Home Affairs, Govt. of India and National Institute of Disaster Management, New Delhi from 4<sup>th</sup> to 6<sup>th</sup> November, 2009.
- Participated as a **Panelist** in Health Conclave-2009 “Managing Challenges of 21<sup>st</sup> Century in Healthcare Organizations” organized by IIMMR, Delhi in collaboration with WHO-India Office, IBM, National health System, New Delhi held at Indian Habitat Centre, New Delhi on 18<sup>th</sup> & 19<sup>th</sup> November, 2009.
- Co-chair the Session on “Emergency Medicine & Trauma” at Focus on India - Global Healthcare Summit organized by American Association of Physicians of Indian Origin & Indian Medical Association held on 2<sup>nd</sup> & 3<sup>rd</sup> January, 2010 at Maurya Sherton, New Delhi

#### **Dr. D.K. Sharma**

- Attended National Workshop-cum-Conference on “Environment, Energy, Occupational Health & Safety (EEOHS) as Guest of Honour.
- Attended National Conference on “Quality Management in Hospital Operations” organized by the Academy of Hospital Administration, New Delhi

#### **Dr. Sidhartha Satpathy**

- K. Shalini; Gupta S.K; Satpathy S; Mahapatra M; “Costing of allogenic bone marrow transplant procedure in patients admitted at a public tertiary care hospital in New Delhi” during 50<sup>th</sup> Golden Jubilee Conference of Indian Society of Hematology & Transfusion Medicine, Nov. 19-22, 2009 at New Delhi.
- Programme co-ordinator, training programme on Hospital Management and Administration for Medical Superintendents, GDMOs & non specialists of Coal India from 4th January 2010 to 6th February, 2010 at IICM, Ranchi.

### **Dr. I.B. Singh**

- Attended 2009 Happy Science International Retreat Seminar held in Tokyo, Japan from 7<sup>th</sup> to 15<sup>th</sup> April, 2009 organized by the Institute for Research in Human Happiness, Tokyo, Japan.
- Attended National Seminar cum Workshop on “Operations Research in Hospital Administration” organized by Department of Hospital Administration, AIIMS, New Delhi in collaboration with World Health Organization from 7<sup>th</sup> to 8<sup>th</sup> August, 2009.
- Presented paper on “Managing Quality in CSSD” in the “CME on Managing Quality in Hospital Services” from 6<sup>th</sup> November to 7<sup>th</sup> November, 2009 organized by Department of Hospital Administration in collaboration with World Health Organization India office.

### **Dr. Sanjay Arya**

1. Chaired a CME on Hospital Administration held on 7<sup>th</sup> April, 2009 at Thiruvananthapuram.
2. Co-chaired the session “National Seminar cum workshop on Operations Research in Hospital Administration” on 7-8<sup>th</sup> August, 2009 at Dr. Ramalingaswamy Board Room at AIIMS.
3. Conducted workshop on Bio-medical Waste Management for Paramedics and waste handlers of first referral units of Jharkhand on 11<sup>th</sup> & 12<sup>th</sup> August, 2009.
4. Participated in a panel discussion on Equipment Maintenance at workshop on “Medical Equipment Maintenance” for 27<sup>th</sup> & 28<sup>th</sup> August, 2009 organized by Christian Medical Association of India at St. Stephen’s Hospital.
5. Attended “National Workshop to Develop Communication Strategy for Safe Injection Practices in India” at New Delhi on 29<sup>th</sup> August, 2009.
6. Attended conference titled “National Initiative on Patient Safety (NIPS) from 16<sup>th</sup> to 18<sup>th</sup> September, 2009.
7. Attended CME on Financial Management organized by Dept. of Hospital Administration on 30<sup>th</sup> September and 1<sup>st</sup> October, 2009.
8. Attended 5<sup>th</sup> Healthcare Executive Management Development Programme (HxMDP) at Thimphu, Bhutan from 4<sup>th</sup> October, 2009 to 10<sup>th</sup> October, 2009 as resource faculty.
9. Attended Convention for Patient Safety from 27<sup>th</sup> to 29<sup>th</sup> November, 2009 at Indian Confederation for Healthcare Accreditation (ICHA), New Delhi.
10. Visited Jammu as resource faculty in the workshop on “Integrating hospitals safe from disaster” held from 21<sup>st</sup> to 23<sup>rd</sup> December, 2009.
11. Participated as one of the panelist in panel discussion “Health Care – Providing Quality Healthcare at the Grassroots” in Gram Sabha 2010, organized by Welinghar Institute of Management, Mumbai on 4<sup>th</sup> February, 2010.
12. Participated and chaired one scientific session in the Management Development Programme on Quality Assurance in Medical Care in Hospital and Health Centres from 25<sup>th</sup> to 26<sup>th</sup> February, 2010 at Rajiv Gandhi Indian Institute of Management, Shillong.



## **Dr. Aarti Vij**

1. Attended the **10<sup>th</sup> ISODP and 16<sup>th</sup> ETCO Organ Donation Congress** from 4-6<sup>th</sup> October 2009 at **Berlin**.
2. Attended 3 days workshop on “**National Initiative on Patient Safety (NIPS)**” at Habitat Centre organized by Dept. of Hospital Administration, AIIMS on 14-16 September 2009.

## **RESEARCH**

### **Departmental Projects**

#### *Completed*

1. To study system of Empanelment of private hospitals on CGHS panel
2. Costing of Neuro-Surgery ICU at AIIMS
3. Cost Analysis of Bone Marrow Transplant (allogenic) at AIIMS
4. To study economics of Health Care Associated Infection (HAI) in operated surgical cases in AIIMS main hospital
5. Costing of Bio-Medical Waste Management System at AIIMS
6. Costing of Renal Transplant at AIIMS

#### *Ongoing*

1. A comparative study of Operation Theatre disinfection and sterilization practices in select hospitals in Delhi
2. A study to evaluate the Trauma Care System for Delhi Metropolis
3. A study to evaluate competencies of Indian Healthcare Leaders
4. A study of Process of outsourcing of services in select hospitals of Delhi
5. A study of inpatient medical records at AIIMS hospital as prerequisite for accreditation
6. Study of Fire Safety System of AIIMS with a view to identify potentially hazardous areas along with gaps and to suggest measures for improvement.
7. Costing of Gastroenterology & Endoscopy Procedures at AIIMS
8. Security Management and Preparedness at AIIMS
9. Equipment Management System of sophisticated electromedical equipment with reference to utilization at IIMS
10. Faculty time utilization for research, education and patient care at AIIMS

## **PUBLICATIONS**

### **Journals**

1. Amit Lathwal, Sanjay Kumar Arya, I.B. Singh, D.K. Sharma, “Study of the universal precautions practices in high risk areas of a super-specialty tertiary care hospital: A Case Study; Journal of



the Postgraduate Medical Education, Training and Research, Vol.I. IV, no.6, November – December, 2009, no.71-75.

2. Sona Bedi, Sanjay Kumar Arya, **D.K. Sharma**, Sanju Singh, Amit Lathwal, Adarsh Kumar, “Hospital Support Services Outsourcing – The Know How; International Journal of Medical Toxicology & Legal Medicine: October-December, 2009; Vol. XII, no.2; 13-20.

### Books

1. **D.K. Sharma**, R.C. Goyal – Hospital Administration and Human Resource Management; PHI Learning Private Limited, Year, Jan. 2010
2. **Satpathy S.**, Guide book to NABH standards for hospitals; 2<sup>nd</sup> edition – April,2009

### PATIENT CARE

The Department of Hospital Administration, AIIMS 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 of Hospital Administration 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 up-gradation of support services has been done.

### PATIENT CARE

#### C.N. Centre

Patient care in C.N. Centre is closely associated with the provision of administrative support to various departments for delivery of patient care and control of costs in the hospital services and bringing quality care standards in patient care services.

- ***Patient Safety Initiative:***

Following has been implemented as Patient Safety programme at C.T. Centre; (a) Conformity to Patient’s identification Bands for all admissions (b) Incidents Reporting (c) Implementation of Surgical Safety Check List (d) Patient falls report & (e) Bed sores.

- ***Bio Medical Waste Management:***

An initiative to streamline bio medical waste management process and monitoring was started in C.N. Centre. This was achieved by the means of a check list which brought out the various problems and meetings were held to sought solutions to these.

- (i) ***OPD Renovation plans & programme, (ii) OPD Computerization, (iii) Renovation of NS-2, NS-3, 4 and Cath Lab & other areas of C.N. Centre, (iv) Renovation of NS ICUB, (v) Renovation of Cafeteria, (vi) CT-2, CCU ward, (vii) Member of various committees for selection of staff in C.N. Centre & AIIMS & (vi) Co-ordination for VVIP care at C.N. Centre***

#### ***Organ Retrieval Banking Organization (ORBO)***

- **Organ Retrieval Banking Organization (ORBO)** coordinates Organ & Tissue donations and transplantation. In addition, **10 whole bodies** were also donated through ORBO to facilitate

medical education in last one year **2223** persons pledged for organ donation on motivation of ORBO. Awareness activities with various NGO's, School, and Colleges etc were conducted. Collaboration with various NGOs to promote the noble cause of organ & tissue donation. Training was imparted to Grief counselors. Orientation Programme on Organ Donation & Transplant Coordination was imparted to M.Sc. Nursing students.

- **Organized a Workshop “Cadaver Donation Process-III” at Trauma Centre on 25<sup>th</sup> August 2009.**

Organized a training workshop on Cadaver Donation Process on 25<sup>th</sup> August 2009 at Trauma Centre, AIIMS. More than 60 nursing staff from different hospitals of Delhi working in Intensive Care, Emergency services, Neurosciences depts. & Hospital Administration attended the workshop. The focus of the training workshops was (1) Diagnosis of death by brain death, (ii) Donor selection, (iii) Certification of brain death, (iv) Donor maintenance & (v) Family counseling and consent etc. The knowledge, attitude and practice level of medical professionals were also assessed.

## **AWARDS AND HONOURS**

**Dr. Shakti Kumar Gupta** appointed as WHO Consultant for the preparation of “Module for Implementation of Electronic Medical Records” in specialty hospitals in India, nominated as a **Member of the Task Force on Health Sector Reforms for the state of J & K** constituted by Govt. of Jammu & Kashmir under the chairmanship of Hon’ble Chief Minister, J & K, **nominated as a Member** of the Advisory Board of Welingkar Institute of Management Development and Research, Mumbai, **elected as President, Academy of Hospital Administration, Awarded as fellow of Academy of Hospital Administration, Elected as Fellow of the National Academy of Medical Sciences (India)**

**Dr. D.K. Sharma** served as Chairman/Member of various intra as well as extra mural policy making and decision making committees of AIIMS as well as other organizations including Ministry of Health and Family Welfare, Central Pollution Control Board, Govt. of NCT of Delhi etc., Invited as Chief Guest/Guest of Honour/ Guest Faculty etc. in various National and International Symposia, workshops and conferences. Nominated as Chairman/Principal Member of various Committees of Bureau of Indian Standards (BIS), India on hospital planning, medical equipments, surgical instruments, disposables & dressings.

### **Dr. Sidhartha Satpathy**

- Editor of Journal of Academy of Hospital Administration (JAHA)
- Member of Technical Committee, National Accreditation Board for Hospitals & Healthcare providers (NABH), under aegis of Quality Council of India (QCI). Conducted pre and final assessment of various applicant hospitals for NABH accreditation; and finalized the NABH guide book (2<sup>nd</sup> edition).
- Member of Bureau of Indian Standards (MHR-14) involved in preparation/review of Indian Standards on Health Care Facilities. Completed review and re-drafting of Standards on “Matrix of Services for Hospitals”.
- Expert member of National Accreditation Board for Certification Bodies (NABCB) under aegis of QCI.

- Expert member of National Accreditation Board for Personnel & Training (NRBPT) under aegis of QCI. Conducted office assessment of several organizations to determine compliance with prescribed standards.
- Member of Technical Committee for preparation of Detailed Project Report (DPR) on behalf of Educational Consultants of India (Ltd.) for setting up a Medical College at Mizoram University, Aizawl.
- External Examiner for Post graduate Certificate Course in Hospital Management for 13<sup>th</sup> Batch at National Institute of Health & Family Welfare from 31<sup>st</sup> July to 4<sup>th</sup> August, 2008.
- Member of Accreditation Committee, National Accreditation Board for Hospitals and Healthcare Providers (NABH) under aegis of Quality Council of India, QCI.
- Member of “Task Force on Public Private Partnership in Health Care” constituted by Federation of Indian Chambers of Commerce and Industry (FICCI).
- Member of Sectional Committee on Bio-medical Waste Management (MHD-22) at Bureau of Indian Standards (BIS).

#### **Dr. I.B. Singh**

- Co-investigator for the research “To study and review the system of empanelment of private hospitals and diagnostic centres at Central Government Health Scheme”
- External Examiner for the final examination of Master in Hospital Administration Course held in December, 2009 in the Department of Hospital Administration, AIIMS, New Delhi.
- External Examiner for evaluation of thesis (MHA programme) sent from PGI, Chandigarh.
- External Examiner for evaluation of thesis (MD Hospital Administration) sent from Nizam’s Institute of Medical Sciences, Hyderabad
- External Examiner for evaluation of thesis (MD Hospital Administration) sent from Maharashtra University of Health Sciences, Nashik

#### **Dr. Sanjay Arya**

- Member of expert team for making on the spot assessment for establishment of a 50 bedded AES at Assam Medical College, Dibrugarh, Assam.
- Invited as external examiner for final examination of Post Graduate Certificate Course in Hospital Management through Distance Learning at NIHFV from 18th August to 21st August, 2009.

#### **Dr. Aarti Vij**

1. **Chief Guest** in the **20<sup>th</sup> Organ Donation Festival** organized by Dadhichi Deh Dan Samiti on 6<sup>th</sup> September 2009.

#### **Visiting Scientist**

1. Mr. Rupert Holborow, New Zealand High Commissioner to India in January, 2010
2. Delegation from Stanford University, USA in December, 2009.

## 9.16 Laboratory Medicine

### Professor and Head

A.K. Mukhopadhyay

### Professors

M. Irshad

Sarman Singh

### Associate Professor

Subhadra Sharma

### Scientists

A.K. Srivastava S-IV

Vandita Vasudev S-III

## EDUCATION

### Short Term Training

12 Trainees, one from I.P. College, Bulandshar, U.P., one from L.N. Mithila University, Darbhanga, one from Bundelkhand University, Jhansi, one from Jamia Hamdard, N. Delhi, one from LHMC, N. Delhi, one from Sam Higginbottom Inst. Of Agriculture, Technology & Sci., Allahabad, two from Jiwaji University, Gwalior; three from C.C.S University, Meerut; one from Dr. B.R. Ambedkar University Agra; underwent short term training in the Department in different sections. The last 6 trainees opted for training only in Cl. Microbiology Section.

### Lectures delivered in National and International conference

#### Dr. AK Mukhopadhyay

1. "Introducing Psychosomatic Medicine in Indian Perspective" In the OTP Program in Yoga for Medical Doctors at Doctor Harisingh Gour University, Saugar on 13.03.2010
2. "Three Questions, Three Consciousness, Three Sciences" In the OTP Program in Yoga for Medical Doctors at Doctor Harisingh Gour University, Saugar on 12.03.2010
3. "Future of Human Species" In the Bhundelkhand Medical College, Doctor Harisingh Gour University, Saugar on 12.03.2010
4. "The Psyche and the Health" In the Conference, Towards the Wellness of Body, Mind and Self at ITM, Navi Mumbai on 19.02.2010
5. "On the landscape of human possibilities: Tendencies of Homo sapiens to become Homo spiritualis" In the Conference, Science & Spirituality Quest at MNIT, Allahabad on 15.01.2010
6. "Dissection of Human Psyche, Relevance in Yoga & Psychotherapy" In the Conference, Psychotherapy Science and Yoga Traditions at Chandigarh on 06.01.2010
7. In the panel of Expert in the Workshop on Hematology at Goa, 31<sup>st</sup> July-1<sup>st</sup> August 2009
8. Chairing a session during Trauma Conference, 2009. At Jai Prakash Narayan Apex Trauma Centre on 14<sup>th</sup> November 2009 at JPNATC, New Delhi

## **Dr. Sarman Singh**

1. Delivered lecture on Opportunistic Infections in AIDS patients: Indian Perspective, at NIH, Bethesda, USA as Visiting Professor, March 5, 2010.
2. Delivered an invited lecture in Hindi on “Swine Flu” its epidemiology and Prevention” at ICMR Head quarters, New Delhi, September 16, 2009.
3. Delivered a lecture on Perinatal Infections, Diagnosis, Management & Vaccines: Perspectives from a developing country, 4th International Conference on Birth Defects and Disabilities in the Developing World, New Delhi, India, October 4-7, 2009.
4. Chaired a Scientific Session and delivered a lecture on TORCH infections during the North Zone Yuva FOGSI Congress at Gwalior on 13<sup>th</sup> to 14<sup>th</sup> November 2009
5. Delivered a guest lecture on Toxoplasmosis in India during the Third National Conference of Tropical Parasitology (TROPACON) held at PGIMER Chandigarh from 17<sup>th</sup> to 18<sup>th</sup> November 2009.
6. Delivered an invited lecture on Controlling Kala-azar by ameliorating the soil pH with Zinc Sulfate in house hold plastering materials during the National Symposium on Weather, Climate and Sustainable Development, Organized by Ministry of Earth Science, Government of India, New Delhi, December 17, 2009.
7. Delivered a guest lecture on “Toxoplasmosis” during the IAMM- AP Chapter Conference of at SV Institute of Medical Sciences, Tirupati, AP, February. 6-7, 2010.
8. Delivered a guest lecture on “Deworm the World” (USA) health and family welfare Government of at Patna, Bihar on 23-24<sup>th</sup> February 2010.

## **Conferences attended**

### **Dr. Sarman Singh**

1. International conference of Infections Disease Miami, USA, March 9-12, 2010
2. Tropacon 3 at PGIMER, Chandigarh, November 17-18, 2009
3. IMSACON at Chandigarh Medical College, October 24-25, 2009

## **RESEARCH**

### **Funded projects**

#### *Completed*

1. Optimization of carbohydrate protein conjugate as vaccine for prevention of enteric fever. (Chief Investigator : Dr. M. Irshad, DBT, 2004-07) [36.58 lacs].
2. Development of rapid diagnostic test for detection of autoantibodies in Myasthenia Gravis by plate and Dot blot ELISA. (Chief Investigator : Dr. M. Irshad, ICMR, 2004-07) [8.0 lacs].
3. Prevalence and significance of transfusion transmitted virus (TTV) in various forms of liver diseases. (Chief Investigator : Dr. M. Irshad, ICMR, 2005-08) [25.0 lacs].

4. Transmission of Drug Resistant Hepatitis B Virus close family contacts of HBV- Related Chronic Liver Disease Patients, Dr.Sarman Singh, funded by DST for 3 years. [2006-2009] [12.10 lacs]

### Ongoing

1. Assessment of risk factor associated with Alzheimer's disease and Vascular dementia (Chief Investigator: Dr. AK Mukhopadhyay, ICMR, 2007-10)
2. Study of oxidative stress risk factors in Alzheimer's disease and vascular dementia in Geriatric patients (Chief Investigator: Dr. AK Mukhopadhyay, ICMR, 2008-11)
3. Effect of Yoga on Serum Interleukin Levels in Adolescents with Depression. (Chief Investigator: Dr.AK Mukhopadhyay, CCRYN, 2008-11)
4. The role of neurotrophins, cytokines and genetic polymorphisms in clinical manifestation of depression in adolescents. (Chief Investigator: Dr. AK Mukhopadhyay, DBT, 2010-13)
5. Cloning, sequencing and expression of different genomic regions of transfusion transmitted virus (TTV) prevalent in Indian populations. (Chief Investigator: Dr. M. Irshad, ICMR, 2008-10)
6. Role of Hepatitis C virus (HCV) core protein in diagnosis and pathogenesis of HCV infection. (Chief Investigator: Dr. M. Irshad, ICMR, 2008-10).
7. To develop assays for HCV genotyping and establish a relation between genotypes and HCV core expression (Chief Investigator : Dr. M. Irshad) funded by UGC (Fellowship), 2009-2012.
8. Identification of *Leishmania donovani* reservoir(s) in various animal species of endemic areas using species-specific antibodies and PCR technique. (Chief Investigator : Dr. Sarman Singh, funded by DST, 2008-2010)
9. Genotypic characterization of *Mycobacterium tuberculosis* in clinical isolates from Pulmonary tuberculosis by using spoligotyping and IS 6110 RFLP analysis. (Chief Investigator: Dr. Sarman Singh, funded by UGC (Fellowship), 2004-2010)
10. Proteomics analysis of *M. tuberculosis* during the stage of acquisition of resistance to Isoniazid and Rifampicin, (Chief Investigator: Dr. Sarman Singh, funded by DBT, 2006-2011)
11. Detection of Hepatitis A, E, Salmonella, *E.histolytica* and *Giardia lamblia* from drinking water samples using novel multiplex PCR. (Chief Investigator: Dr. Sarman Singh, funded by DBT, 2007-2010)
12. To study the molecular mechanism (s) of miltefosine induced drug resistance in *Leishmania donovani*. (Chief Investigator: Dr. Sarman Singh, Funded by CSIR, 2004-2009).
13. A Novel multiplex PCR Assay for simultaneous detection and differentiation of mycobacterium tuberculosis, *M. avium* complex and other *Mycobacterium* species directly from clinical samples of suspected tuberculosis cases. (Chief Investigator: Dr. Sarman Singh, Funded by DBT, 2007-2010).
14. Isolation and purification of active compounds with anti-leishmanial activity of Unani Medical Plants. (Chief Investigator: Dr. Sarman Singh, Funded by CCRUM, 2008-2011).

15. Zinc Supplementation In Childhood TB Patients in Delhi for. (Chief Investigator: Dr. Sarman Singh, funded by university of Bergen Norway 2008-2011)
16. Doctors office diagnostic instrument for detection of M.tuberculosis under in the field conditions adapted for use by unskilled personnel (Chief Investigator: Dr. Sarman Singh, funded by DBT, 2009-2012)
17. Identification of Biomarkers and Pathogen Regulated Targets for Tuberculosis Infection (Chief Investigator: Dr. Sarman Singh, funded by ICGEB, 2010-2011).

### Departmental Projects

#### Dr. A.K. Mukhopadhyay

1. Role of Interleukin -1, 6 & 10 and TNF-a along with NFK-b and isoprostane in Acute Pancreatitis.
2. Evaluation of Coagulation Profile in Traumatic Brain Injury.
3. Book Project: The new Science for Consciousness. The Mandate and the Agenda.

#### Dr. M. Irshad

1. To assess the impact of viral hepatitis on steatosis of liver.
2. Role of TTV in renal failure patients.
3. Epidemiological studies on CRF in Indian Communities.
4. Cloning, sequencing and expression of TTV related polypeptides.
5. Genotyping of TTV in Indian population.
6. Effect of HCV core expression on oxidative status.
7. Real time PCR for sero detection of HCV genotypes.
8. Significance of HCV-genotypes in Cirrhosis/HCC.

#### Dr. Sarman Singh

1. Transmission rate of HBV and HCV in family members of dually infected patient (with Deptt. of Gastro).
2. Hepatitis B viral load monitoring in patients undergoing Anti-HBV therapy using Quantitative Real-Time PCR (with Deptt. of Gastro).
3. Comparative evaluation of various PCR primers for the rapid and sensitive diagnosis of tuberculosis.
4. Standardization and evaluation of Multiplex PCR for the species specific diagnosis of various Mycobacterial infections.
5. To study reintroduction of anti-tuberculosis drugs and risk factors for anti-tuberculosis treatment induced hepatotoxicity (with Deptt. of Medicine).
6. Study of Mycobacteremia in Patients with milliary and extrapulmonary and tuberculosis (with Deptt. of Medicine).
7. To study the immune response in acute Toxoplasmosis using Western Blot Method.



8. Comparative evaluation of Smear, LJ Culture, MGIT-960 Bactec Culture and Bactericophage tests for the diagnosis of Tuberculosis
9. Comparative evaluation of various TORCH test kits
10. Blood borne infections after needle prick injury in Health Care workers of AIIMS
11. *Toxoplasma gondii* IgG avidity assays in pregnant women attending AIIMS.
12. Sequence based diagnosis of Mycobacterial isolates from HIV positive and HIV negative patients.
13. Nested polymerase chain reaction for the diagnosis of congenital CMV infection.
14. Opportunistic infections in AIDS patients attending AIIMS.

## PUBLICATIONS

1. Gupta, N., Sharma, S., Mukhopadhyay, A.K. (2009). Coagulation Factor Level most Important Variable in Triaging Hepatitis B Induced Acute Liver Failure Patients For Liver Transplantation. *International Journal of Laboratory Hematology*, Vol.31 (Suppl.1), 2009, p. 62.
2. Irshad M, Kawatra M. Evolutionary changes in diagnosis of hepatitis C: A brief review of Laboratory diagnosis. *Indian Journal of Practicing Doctors* (2009): Vol. V:62-66.
3. S. Sukhbir, M. Irshad, Badhal S, Yadav K. Acute on Chronic pancreatitis masking falciparum malaria: A case report. *Global Journal of Health Sciences* (2009): Vol.I; 123-125.
4. Sarda P, Sharma SK, Mohan A, Makharia G, Jayaswal A, Pandey RM *et al.* Role of acute viral hepatitis as a confounding factor in antituberculosis treatment induced hepatotoxicity. *Indian J Med Res.* 2009;129: 64-67.
5. Akhtar P, Singh S, Bifani P, Kaur S, Srivastava BS, Srivastava R. Variable-number tandem repeat 3690 polymorphism in Indian clinical isolates of *Mycobacterium tuberculosis* and its influence on transcription. *J Med Microbiol.* 2009; 58:798-805.
6. Sharma U, Singh S. Immunobiology of Leishmaniasis. *Indian J Exp Biology.* 2009; 47: 412-23.
7. Mandal S, Maharjan M, Ganguly S, Chatterjee M, Singh S, Buckner FS *et al.* High Throughput screening of amastigotes of *Leishmania donovani* clinical isolates against drugs using a colorimetric  $\beta$ -lactamase assay. *Indian J Exp Biology.* 2009 ; 47 (6): 475-79.
8. Gopinath K, Singh S. Urine as an adjunct specimen for the diagnosis of active pulmonary tuberculosis. *Int J Infect Dis* 2009; 13 (3): 374-379.
9. Gopinath K, Singh S. Multiplex PCR Assay for Simultaneous Detection and Differentiation of *Mycobacterium tuberculosis*, *M. avium* Complexes, and Other Mycobacterial Species Directly from Clinical Specimens. *J Applied Microbiol*, 2009; 107: 425-35.
10. Dey A, Kumar U, Sharma P, Singh S. Immunogenicity of candidate chimeric DNA vaccine against tuberculosis and leishmaniasis. *Vaccine*, 2009; 27: 5152–5160.
11. Dey A, Singh S. Progress of Science from Microscopy to Microarrays. (Part 1): Diagnosis of Parasitic Diseases. *J Lab Physic*, 2009; 1 :2-6

12. Goswami R, Somvanshi R, Singh SM, Singh S. A preliminary survey on incidence of helminthic and protozoal diseases in rats. *Indian J Vet Pathol*, 2009; 33: 90-92.
13. Kumar P, Nath K, Rath B, Sen MK, Vishalakshi P, Chauhan DS *et al.* Visual Format for Detection of *Mycobacterium tuberculosis* and *M. bovis* in Clinical Samples Using Molecular Beacons. *J Mol Diagn*, 2009; 11: 430-438.
14. Sharma SK, Singla R, Sreenivas V, Kumar S, Jha B, Rathore J *et al.* Acute viral hepatitis as a confounding factor in patients with antituberculosis treatment induced hepatotoxicity. *Indian J Med Res.* 2009; 130:200-201.
15. Sankar MM, Kumar P, Munawwar A, Singh J, Parashar D, Singh S. Recovery of *M. tuberculosis* from sputum treated with Cetyl Pyridinium Chloride. *J Clin Microbiol.* 2009; 47(12):4189-90.
16. Sharma S, Chanana B, Gulati S, Venkatesh P, Singh S. Acute bilateral vision loss as the presenting feature of subacute sclerosing panencephalitis. *Indian J Pediatr.* 2009;76: 952-3.
17. Kumar V, Hassan M I, Tomar A K, Kashav T, Nautiyal J, Singh S *et al.* Proteomic analysis of heparin-binding proteins from human seminal plasma: a step towards identification of molecular markers of male fertility; *J. Biosci.* 2009 34: 899–908.
18. Singhal V, Bora D, Singh S. Hepatitis B in Health Care Workers: Indian Scenario. *J Lab Physic* 2009; 1 (2): 41-48.
19. Singh S, Munawwar A. Human toxoplasmosis: A food borne Parasitic Disease. *Proc. Nat Acad Sci. India.* 2009; 79 (suppl): 207-220 (review).
20. Mandal S, Maharjan M, Singh S, Chatterjee M, Madhubala R. Assessing Aquaglyceroporin Gene Status and Expression Profile in Antimony- Susceptible and Resistant Clinical Isolates of *L. donovani* from India. *J Antimicrob Chemo.* 2010, Mar;65(3):496-507
21. Sharma SK, Singla R, Sarda P, Mohan A, Makharia G, Jayaswal A *et al.* Safety of different reintroduction regimens of antituberculosis drugs after development of antituberculosis treatment-induced hepatotoxicity. *Clin Infect Dis.* 2010 Mar 15;50(6):833-9.
22. Kumar D, Nath L, Kamal MA, Varshney A, Jain A, Singh S *et al.* Genome-Wide Analysis of the Host Molecular Network that regulates Intracellular Survival of *Mycobacterium tuberculosis*. *Cell* 2010 Mar 5;140(5):731-743.
23. Gupta S, Singh S. Occult Hepatitis B Virus infection in ART-Naive HIV-Infected Patients seen at a Tertiary Care Centre in North India. *BMC Infect Dis.* 2010 Mar 7;10 (1):53.

### **Chapter in Books**

1. Mukhopadhyay AK. The Psyche and the Health - In, Towards the Wellness of Body, Mind and Self. Ed. Jayanti Ranganathan Chavan. Published by Institute of Science and Religion, Navi, Mumbai, pp.15-20 (2010).
2. Mukhopadhyay AK. The Self and its Memes and Genes: Genes, Memes, Self (Brain), Information and Consciousness. In, History of Science and Philosophy of Science. A Historical Perspective of the Evolution of Ideas in Science. Project History of Indian Science, Philosophy

and Culture (PHISPC). Vol. XI, Part VI, Chapter 21. Ed. Pradip Sengupta. Pub. Pearson, New Delhi, pp. 481-558, (2010).

3. Mukhopadhyay AK. On the Landscape of Human Possibilities – Tendencies of Homo Sapiens to become Homo Spiritualis. In, Bridging Science and Spirituality Ed. Subhash C. Mishra, Arun B. Samaddar, Sudipto Ghosh. Published jointly by Bhakti Vedanta Institute, Kolkata and Motilal Nehru Institute of Technology, Allahabad, pp.69-87(2010).

## PATIENT CARE

**TOTAL TESTS PERFORMED: 76,61,589**

### CENTRALISED COLLECTION CENTRES BLOOD COLLECTION

#### Collection

##### No. of Specimen

Cl. Heamatology Section	:	55478
Cl. Chemistry Section	:	55230+
(Sugar PP)	:	13647
Cl. Microbiology Section	:	5333

#### Others

##### No. of Specimen

Blood Bank	:	4036
CNC	:	4437
Microbiology	:	14913
HIV	:	4535
Different Clinic	:	15466

#### Investigation

##### No. of Specimen

BT	:	1090
CT	:	1090
PT	:	9600
<b>Total</b>	:	<b>184855</b>

## EMERGENCY LABORATORY SERVICE (Round the clock)

### CRITICAL CARE LAB.

#### CLINICAL BIOCHEMISTRY

Test	Number
ABG+Electrolyte+	11,664
Metabolite	
Amylase	20,743
Bilirubin (Total)	61,498
Calcium (Total)	1,04,270
Calcium (Ionized)	1,04,270
Chloride	1,04,270
Creatinine	98,701
CSF (Protein)	9,030
Glucose	19,506
pH	1,04,270
Potassium	1,04,270
Sodium	1,04,270
Urea	1,05,278
<b>Total</b>	<b>9,52,040</b>

#### HEMOGRAM & BODY FLUID

Test	Number
Hb	99,228
TLC	99,228
Platelets	99,228
Proth Time	29,446
M.P.	3,020
CSF Cells	8401
Urine	1700
Micro.Blood Culture	7062
Micro. CSF	3030
Gram Stain	300
Slide Stain, Giemsa	1,594
Stool. Hanging Drop	433
MCV	99,228
MCH	99,228
MCHC	99,228
PCV	99,228
RBC	99,228
<b>Total</b>	<b>8,48,810</b>

Note: Arterial blood gas (ABG) includes, pH, pCO<sub>2</sub>, pO<sub>2</sub>, BE, BE<sub>ecf</sub>, BB, HCO<sub>3</sub>, st HCO<sub>3</sub>, TCO<sub>2</sub>, st. pH, CH<sup>+</sup>, O<sub>2</sub> saturation, A-aDO<sub>2</sub>, RQ, dBE/dTHb, all measured as a single test within the same time frame

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

**GRAND TOTAL : 18,00,850**

#### CLINICAL BIOCHEMISTRY

TEST	BLOOD	URINE	FLUID
Sugar	1,24,534	518	2,201
Urea	2,39,316	321	—
T. Protein	2,19,316	—	2,201
Albumin	2,19,354	—	2,201
24h Albumin	—	19,070	—
Bilirubin			
i) Total	2,11,773	—	—
ii) Conj.	2,11,773	—	—
Alk. Phosphatase	2,09,595	—	—
Cholesterol	49,426	—	—
Na <sup>+</sup>	1,76,877	3,482	—
K <sup>+</sup>	1,76,877	3,482	—

Calcium	:	1,53,353	5,621	—
Phosphate	:	1,47,142	5,586	—
Uric Acid	:	1,63,632	5,692	—
Amylase	:	Nil	—	—
Creatinine	:	2,04,482	9,758	—
SGOT	:	2,13,652	—	—
SGPT	:	2,13,652	—	—
ABG	:	9,051	—	—
pCO <sub>2</sub>	:	9,051	—	—
pH	:	9,051	—	—
pO <sub>2</sub>	:	9,051	—	—
HCO <sub>3</sub>	:	9,051	—	—
CO <sub>2</sub>	:	9,051	—	—
AsDO <sub>2</sub>	:	9,051	—	—
O <sub>2</sub> sat.	:	9,051	—	—
BE	:	9,051	—	—
<b>Total</b>	:	<b>30,16,213</b>	<b>53,530</b>	<b>6,603</b>

**(B) Tests on request**

**OTHER INVESTIGATIONS**

<b>Test</b>		<b>Number</b>
HBsAg	:	300
IgM anti HBc	:	300
HBeAg	:	100
Anti HCV	:	300
Anti HEV	:	300
IgM Anti HDV	:	300
IgM Anti HAV	:	100
HCV- RNA	:	60
TTV-DNA	:	210
Superoxide dismutase	:	115
T.Antioxidant	:	115
Apoprotein A	:	115
Apoprotein B	:	115
Lp(a)	:	115
CK	:	115
LDH	:	115
GGT	:	115
TG	:	115
LDLC	:	115
HDLC	:	115
<b>TOTAL</b>	:	<b>3,235</b>
<b>GRAND TOTAL</b>	:	<b>30,79,581</b>

**SERVICE FROM ROOM NO. 18 (UNDER HOD).**

Adenosine Deaminase Assay (ADA) : 1440

NCC Neurocysticercosis IgG-Antibody (Elisa) : 140

**TOTAL : 1580****HEMATOLOGY SECTION**

<b>Test</b>	<b>OPD</b>	<b>Ward</b>
Hb	76470	76129
TLC	76470	76129
PCV	76470	76129
DLC	76470	76129
ESR	76470	42320
D/M	76470	16322
PLT	76470	76129
Retic Count	12072	10065
ABS Count	24137	6212
MP	48507	11153
Thic Smear	—	4255
MCV	76470	76129
MCH	76470	76129
MCHC	76470	76129
RBC	76470	76129
BT	—	—
CT	—	—
PT	9600	11564
B/C	1225	724
Others*	14412	11000
<b>Total</b>	<b>951123</b>	<b>798776</b>

**GRAND TOTAL : 17,49,899**

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

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

## MICROBIOLOGY SECTION

### A. Routine Investigations

#### 1. Urine

Name of the Tests	O.P.D	WARD	TOTAL
Medical board			9280
Routine	66180	46646	112826
Microscopic	93930	72420	166350
pH	31310	24124	55434
Specific gravity	31310	24124	55434
Acetone	31310	24124	55434
Bile pigment/salt	31310	24124	55434
Urobilinogen	31310	24124	55434
Blood	31310	24124	55434
Bence Jones Protein	210	280	490
Chyluria	114	192	306
Porphobilinogen	38	40	78
Myoglobinuria	3	5	8
Microalbumin	2	—	2
Urine Cultures	13170	—	13170
Strain identifications tests	8540	—	8540
Antibiotic Sensitivity	2195	—	2195
<b>Subtotal</b>	<b>372242</b>	<b>264327</b>	<b>645849</b>

#### 2. Stool Investigations

Wet mount saline	14512	5042	19554
Wet Iodine stain	14512	5042	19554
Occult blood in stool	2284	1281	3565
Fat globules	406	392	798
Special stains for stool Z-N stain, Modified Z-N stain, Trichrome and chrnotope	1416	1794	3210
<b>Subtotal</b>	<b>33130</b>	<b>13551</b>	<b>46681</b>



### 3. Semen analysis

Routine	11859	—	11859
Morphology	3239	—	3239
Fructose	714	—	714
<b>Subtotal</b>	<b>15812</b>	<b>—</b>	<b>15812</b>

### 4. TB Laboratory

Z-N Staining for AFB	13090	10526	23616
AR Staining for AFB			213
LJ medium culture			5411
BACTEC MGIT 960			5592
Drug susceptibility testing by MGIT			1415
Drug susceptibility testing by Agar Proportionate method			73
Tetrazolium Microplate assay:			50
Cultures cryo preserved			330
<b>Subtotal</b>	<b>13090</b>	<b>10526</b>	<b>36700</b>

## B. Specialised Investigations

### Serology & Molecular Biology

NAME OF THE TESTS	TOTAL
<b>TORCH</b>	<b>13850</b>
Toxoplasma gondii IgG	2015
Toxoplasma gondii IgM	1980
Rubella IgG	1205
Rubella IgM	1095
Cytomegalo virus IgG	2088
Cytomegalovirus IgM	2119
Herpes Simplex virus IgG	960
Herpes Simplex virus 2 IgG	960
Herpes Simplex virus (1+2) IgM	900
Toxoplasma gondii IgG avidity	20
Rubella IgG avidity	88
Cytomegalovirus IgG avidity	60
Parvo virus B19 IgG	180

Parvo virus B19 IgM	180
<b>Viral Marker &amp; HIV</b>	<b>63068</b>
Anti HAV IgM	1725
HBsAg	20235
Anti HBcIgM	985
HBeAg	2290
Anti HBe	1115
Anti HBs	1514
Anti HCV antibody	15256
HEV IgM	2596
HIV (1+2) ELISA	16416
HIV Spot Test	256
HIV Western blot	10
HBsAg (spot)	670
<b>Others Serology</b>	<b>1194</b>
Measles IgG	300
Measles IgM	200
Mumps IgG	96
Mumps IgM	76
Varicella IgG	80
Varicella IgM	58
EBV IgG	192
EBV IgM	192
<b>PCR Tests</b>	<b>20626</b>
Toxoplasma gondii PCR	15
Cytomegalo virus PCR	250
Leishmania PCR	1000
TB PCR	7219
HHV-6 PCR	15
EBV PCR	20
HSV (192) PCR	25
CMV (RT PCR)	250
PCR(Giardia Lamblia)	<b>250</b>
PCR (E.histolytica)	
PCR (Salmonella spp.)	

PCR (HAV)	
PCR (Hepatitis E)	
HBV DNA Quantative	750
HCV RNA Quantative	325
Miscellaneous	182
DNA isolation	10325
<b>Others</b>	<b>900</b>
Culturing of Salmonella	120
Gel Electrophoresis	690
Sequencing	90
<b>NASBA</b>	<b>144</b>
HIV Viral Load	96
CMV NASBA	48
<b>Grand Total for the Section</b>	<b>8,44,824</b>

## AWARDS AND HONOURS

### Dr. A.K. Mukhopadhyay

1. Dr. A.K..Mukhopadhyay is a member of the Nominating Council of Infosys Science Foundation Awards, 2010.
2. Dr. A.K..Mukhopadhyay is a member of the Nominating Council of 2010 BBVA Foundation Frontiers of Knowledge Awards, Spain.
3. Dr. A.K.Mukhopadhyay is Chairperson of the course curriculum Committee (National Task Force under Director General Health Service, Ministry of Health, Govt. of India) for all Medical Laboratory Technology course in National and Regional Institutes of Paramedical Sciences.
4. Nominated as the reviewer for the articles of Blackwell Publishers & Elsevier Publishers.
5. Honorary Member of Editorial Board of *International Journal of Biological Science & Technology (IJBLST)*, *International Journal of Bio Sciences, Psychiatry and Technology (IJBSPT)* & *International Journal of Bio Sciences, Alternative and Holistic Medicine (IJBSAHM)*.

### Dr. M. Irshad

1. Nominated as the reviewer for the articles of Blackwell Publishers & Elsevier Publishers.
2. Honorary Member of Editorial Board of *International Journal of Biological Science & Technology (IJBLST)*, *International Journal of Bio Science, Psychiatry and Technology (IJBSPT)* & *International Journal of Bio Sciences, Alternative and Holistic Medicine (IJBSAHM)*

### Dr. Sarman Singh

1. Nominated for Padma Shri Award 2010

2. Honored with fellowship of International Medical Sciences Academy
3. Nominated Chairman Institutional Ethics Committee, CARE Foundation, Chennai
4. Nominated Member, Kala-azar Elimination Committee, Govt. of India.
5. Nominated Member Model Rural Health Research Unit (MRHRU), Department of Health Research, Government of India.
6. Government of India nominated Prof. Sarman Singh as its representative for Institutional Animal Ethics Committee for National Institute of Malaria Research, New Delhi; Army Medical College, New Delhi; IGIB, New Delhi and Delhi University.
7. Nominated Expert Committee member for the Task Force of DST, Govt. of India, SERC Division, Fast Track projects.
8. Nominated member of Expert Committee of ICMR for Junior Research Fellowship.
9. Abstract Reviewer for the International AIDS Society – World AIDS Conference 2010.
10. Manuscript Reviewer for Lancet, CID, JMM and other reputed journals.
11. Continuing as Editor-in-chief of Journal of Laboratory Physician.
12. Continues to be the Editor Clinical Medicine insights, Dermatology, Libortas Academy, Australia.

### **VISITING SCIENTISTS**

Prof. Hirosh Kida, Director, Research Centre for Zoonosis control, Japan and Prof. Kamili Saleem from CDC, USA visited the Department.

## 9.17 Medicine

### Professor and Head

S.K. Sharma

### Professors

Rita Sood  
G. C. Khilnani

Randeep Guleria

A. B. Dey

### Associate Professors

Naveet Wig  
Sanjeev Sinha

Ashutosh Biswas  
Naval K. Vikram

Uma Kumar  
Anant Mohan

## EDUCATION

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

### Prof. Rita Sood

- Conducted & moderated a Panel discussion for undergraduates, along with four senior faculty members from Pediatrics, Surgery & Gynae & Obstetrics - How to be a good doctor? (14<sup>th</sup> August'09)
- Coordinated Combined Grand Round (CGR) on medical education- Improving Effectiveness of Teaching-learning Methods (9<sup>th</sup> Feb.10)

### Dr. Sanjeev Sinha

- Involved in writing of undergraduate curriculum. Taken ward and OPD teaching of undergraduate, postgraduate and PhD students. Taken lectures for undergraduate and nursing students.

### Dr. Anant Mohan

- Regular undergraduate and post graduate theory lectures and clinical bedside case discussions as per roster

## CME

**Prof. S. K. Sharma** organized the following:

- Chairperson for the Medicine Update 2009 in association with Association of Physicians of India (API) Delhi State Chapter at All India Institute of Medical Sciences on August 9<sup>th</sup>, 2009.

### Prof. Rita Sood

- Course faculty for the Second Advanced Workshop for medical teachers, MUHS, Pune April'09. Conducted sessions on Student assessment, Giving effective feedback, One-minute preceptor.

- Third PSG-FAIMER regional institute faculty development program at PSG Medical College, Coimbatore in April'09. Conducted sessions on Student feedback and Project management.
- Resource faculty for GSMC-FAIMER regional institute program 12-14<sup>th</sup> June,09 at GSMC & KEM hospital, Mumbai. Facilitated Poster session and 'One-minute preceptor'.
- Key-note address on 'Quality in Medical Education' during the inaugural function of Teachers' training workshop at Army medical college, Delhi on 21.8.09.

#### **Dr. Sanjeev Sinha**

- Organized Medicine Update-2009 held in August, 2009 at AIIMS, New Delhi. (Organizing Secretary).
- Member of organizing committee of Brainstorming Research initiative on "Translational Medicine & Strengthening Biomedical Research in Medical School System in India". The Research initiative is organized by the AIIMS, DBT & Wellcome Trust, U.K.

#### **Dr. Anant Mohan**

- Clinical Tutor / Faculty at the "Basic Bronchoscopy Course" at Royal Preston Hospital, UK, 4<sup>th</sup> March 2009.
- Member, Organizing Committee of "Medicine Update" in August 2009, AIIMS.

### **NATIONAL AND INTERNATIONAL CONFERENCES**

#### **Lectures delivered**

#### **Prof. S. K. Sharma**

- Dr. Rabindranath Tagore Oration (2010) - ICP, titled "A decade of original research on obstructive sleep apnoea in India" delivered at the 65<sup>th</sup> Joint Annual Conference of Association of Physicians of India (APICON 2010), Jaipur on 7<sup>th</sup> January 2010.

#### **Prof. Rita Sood**

- Invited as judge for free paper session to confer Smt. Meena Dhamija award during API, Delhi chapter conference in Nov'09.
- Chaired a session on 'Controversies in the management of Malaria, Medicine Update, AIIMS, 9.8.09.
- Presented a paper on 'Structured Internship orientation program' at International Conference of AMEE (Association Medical Education in Europe) at Malaga, Spain 29<sup>th</sup> Aug.-2<sup>nd</sup> Sept.09. Also participated in three workshops during this conference- Leadership and management, learning in a clinical environment and MedEd World Synchronous transnational collaborative learning.
- Participated in DAFFRI (Directors and Faculty of FAIMER Regional Institutes) seminar organized by FAIMER, Philadelphia at Malaga, Spain from 26-27<sup>th</sup> Sept'09.
- Moderated panel discussion on "Role of educational units in advancing health professions' education" during National Conference on Health Professions' education (NCHPE) at Pune in Dec.09.

- Resource person for workshops on ‘Work Based Assessment’ & ‘Standard Setting in Assessment’ during NCHPE, Pune, Dec.09.
- Conducted a PG clinic during CME “An unusual case of fever with splenomegaly” during APICON’ 2010 at Jaipur in Jan.10.
- Participated in Conference on ‘Globalization and medical education’ at Bangkok, Thailand along with the Executive Committee Meeting of SEARAME (South east Asian regional Association for Medical Education) on 27-29<sup>th</sup> March.10.

### **Prof. Randeep Guleria**

- Invited to attend the 3<sup>rd</sup> International conference “Influenza Vaccines for the world – IWV 2009” to be held at Cannes, France from 27-30<sup>th</sup> April 2009.
- Invited as resource person and delivered lectures in the short term training in “Tropical & Infectious Diseases” workshop being organized by the BP Koirala Institute of Health Sciences, Dharan, Nepal from 12<sup>th</sup> to 15<sup>th</sup> May 2009.
- Attended the Asia Pacific Speaker’s Forum on “Zero Tolerance to Asthma Attacks” with Dr. Jean Bousquet (Professor of Pulmonary Medicine University Monepellier/Hospital Arnoud D Villeneuve Montpellier, France) and Dr. Nan-Shan Zhong (Professor, Guangzhou Institute of Respiratory Diseases Guangzhou, China) in Shanghai, China on 4<sup>th</sup> and 5<sup>th</sup> July 2009.
- Invited to attend a workshop as a resource person in the New Delhi on 23<sup>rd</sup> and 24<sup>th</sup> July on Pandemic H1N1 flu organized by the Ministry of Health & Family Welfare, Govt. of India, New Delhi.
- Invited to deliver a lecture at the National Media Communication Workshop on Pandemic Influenza and delivered a lecture on “Case Management and Infection Control” on 24<sup>th</sup> July 2009 at New Delhi organized by Ministry of Health & Family Welfare, Govt. of India.
- Invited to chair a session on “Nuts and Bolts of Management of Bronchial Asthma” at the Medicine Update 2009 at AIIMS, New Delhi held on 9<sup>th</sup> August 2009.
- Invited to deliver a lecture on “Management of Asthma Exacerbations” at the National Respiratory Update – INSPIRE organized Chest Research Foundation from 27<sup>th</sup> to 29<sup>th</sup> August 2009 at Singapore.
- Invited to deliver a lecture on “Managing Bird Flu and Chickunguniya” at the NIHFW, New Delhi on 31<sup>st</sup> August 2009.
- Invited to participate and deliver a lecture in an International workshop on “Justification of Medical Exposure in Diagnostic Imaging” being jointly organized by the International Atomic Energy Agency (IAEA) and European Commission (EC) in Brussels, Belgium from 2<sup>nd</sup> to 4<sup>th</sup> September 2009.
- Invited to deliver a lecture in symposium organized by Ranbaxy Research Foundation on “Is Influenza a serious Disease”? Patient Management” at the IHC, New Delhi on 19<sup>th</sup> September 2009.



- Invited to chair a session during a seminar on “Multi-Drug Resistant Tuberculosis (MDR –TB) and Lessons Learned from the Epidemic” organized by Indian Medical Association on 15<sup>th</sup> October 2009.
- Invited as faculty to attend the 24<sup>th</sup> Annual Pulmonary and Critical Care Update at PGIMER, Chandigarh on 25<sup>th</sup> October 2009.
- Invited to attend Indo-UK Collaboration in Chronic Diseases organized by the MRC-ICMR, New Delhi from 4-5<sup>th</sup> November 2009 and deliver a lecture on “Chronic Obstructive Pulmonary Disease, Indian perspective”.
- Invited to deliver a lecture on “Clinical Spectrum of Influenza – like illness” at Mumbai on 14<sup>th</sup> November 2009
- Invited to deliver a talk in the scientific program on “Increasing medical education and awareness amongst the Consultants in area of Chest Medicine from 21<sup>st</sup> to 23<sup>rd</sup> November 2009 at Goa.
- Invited to attend the 1<sup>st</sup> Influenza External Experts Speaker’s Bureau (EESB) held at New York, from 1-2<sup>nd</sup> December 2009 organized by the leading International Symposia for the Medical Research Communities.
- Invited to deliver a talk on “Current status of H1N1 – overview” in APICON 2010 at Jaipur, Rajasthan from 7<sup>th</sup> January 2010.
- Invited to attend and deliver a talk on Sarcoidosis at the CME 2010 organized by the Association of Physicians of India, Meerut Branch on 23<sup>rd</sup> January 2010.
- Invited to deliver a talk at the CME on Emergencies in Respiratory Medicine on 30-31<sup>st</sup> January 2010 at Military Hospital, Namkum Ranchi.

### **Dr. Sanjeev Sinha**

- Evidence-Based clinical practice guidelines on adult Immunization. API, 2009. Member of expert group.
- UCLA School of Medicine, Los Angeles, USA (June, 2009). Management of HIV & TB. A Lecture.
- Workshop on ASHA at UCLA, Los Angeles, USA (June, 2009).
- NAMSCON – 2009, Lucknow (Oct, 2009). A presentation & receiving of Membership of NAMS.
- NAPCON – 2009, Calicut (Nov, 2009). Chaired the session on Pulmonary diseases.
- WORLD AIDS DAY SYMPOSIUM, AIIMS, New Delhi (Dec, 2009). Lecture on HIV Drug Resistance: AIIMS Update.
- Seminar on “Emerging trends in the Diagnosis & experimental Chemotherapy of Tuberculosis”, at NIPER, Mohali (Dec, 2009). Lecture on Management of HIV/TB.
- Rheumatology Update– 2009, AIIMS, New Delhi. Chaired a session.
- APICON – Jan 2010, Jaipur. Chaired a session on HIV Symposium.

- APICON – Jan 2010, Jaipur. Moderated a case on Management of HIV.
- BRONCOCON 2010, Agra (Feb, 2010). Lecture on Bronchoscopy in HIV/AIDS.

### **Dr. Anant Mohan**

- Clinical Tutor / Faculty at the “**Basic Bronchoscopy Course**” at Royal Preston Hospital, UK, 4<sup>th</sup> March 2009.
- Paper presentation on “**Effect of concomitant chronic obstructive pulmonary disease on quality of life and respiratory profile in newly diagnosed patients with lung cancer**”, World Cancer Congress, Beijing, June 11<sup>th</sup>-15<sup>th</sup>, 2009.
- Chairperson at Broncocon, Agra, 5-7<sup>th</sup> February 2010.
- Lecture on “**Non resolving Pneumonia**” at National Seminar on Pneumonia, VP Chest Institute, N. Delhi, 13<sup>th</sup> February 2010.
- Faculty lecture on “**Acute Severe Asthma**” at the Workshop on Allergy and Asthma at VP Chest Institute, March 11<sup>th</sup>, 2010.

## **RESEARCH**

### **Funded Research**

#### *Completed*

1. A multicenter survey on the prevalence of tuberculosis in India. Prof SK Sharma. Funded by Central TB Division, Ministry of Health and Family Welfare, Nirman Bhavan, Govt. of India, New Delhi for 2007-2010. Funds: Rs. 89.58 lakh.
2. Study of the prevalence of respiratory virus infections in hospitalized patients with acute exacerbation of chronic obstructive pulmonary disease and bronchial asthma and their impact on morbidity and mortality. Anant Mohan. Indian Council for Medical Research, New Delhi. 3 years (2007-2010). Funds: Rs. 12.64 lakh.

#### *Ongoing*

1. Efficacy and safety of immunomodulator (*Mycobacterium w*) as an adjunct therapy in Cat II pulmonary tuberculosis long with assessment of Immunological parameters (Double blind, randomized, Placebo controlled, Multicentre Clinical Trial). Prof SK Sharma. Funded by Department of Biotechnology, Ministry of Science & Technology, Government of India and Cadila Pharmaceuticals Ltd for 6 years from 2004-2010. Funds; Rs. 1, 31, 32,000.00
2. Antiretroviral Treatment (ART) Center for free treatment of HIV/AIDS patients [National AIDS Control Organization (NACO); Ministry of Health and Family Welfare; Govt. of India]. Prof SK Sharma. Funded by Delhi State AIDS Control Society from 2005 till date. Funds: Rs 4.50 lakhs.
3. Nodal Center for free treatment of TB. Prof SK Sharma. Funded by Revised National TB Control Programme of NCT of Delhi through the area District TB Centre from 2005 till date. Funds: Rs 4.32 lakhs.
4. Efficacy of thrice weekly intermittent short course antituberculosis chemotherapy in tuberculosis patients with and without HIV infection. Prof SK Sharma. Funded National AIDS Control

Organization (NACO); Ministry of Health and Family Welfare; Govt. of India for 5 years from 2006- 2011. Funds: Rs. 45.42 lakhs.

5. Role of oral vitamin D as an adjunct therapy in Category I Pulmonary Tuberculosis along with assessment of immunological parameters (Double-blind, Randomized, Placebo-Controlled, Clinical Trial). Prof SK Sharma. Funded by Department of Biotechnology, Ministry of Science and Technology, Govt. of India for 5 years from 2006-2011. Funds: Rs. 90.90 lakhs.
6. Efficacy of oral zinc administration as an adjunct therapy in Category I Pulmonary Tuberculosis along with assessment of immunological parameters (Double-blind, Randomized, Placebo-Controlled, Multicenter Clinical Trial). Prof SK Sharma. Funded by Department of Biotechnology, Ministry of Science and Technology, Govt. of India for 5 years from 2006-2011. Funds: Rs. 63.38 lakhs.
7. Efficacy and safety of immunomodulator *Mw* as an adjunct therapy in category I pulmonary tuberculosis, along with assessment of immunological parameters (Double-blind, Randomized, Placebo-Controlled, Multicentre Clinical Trial). Prof SK Sharma. Funded by Department of Biotechnology, Ministry of Science and Technology, Govt. of India for 5 years from 2006-2011. Funds: Rs. 76.81 lakhs.
8. Evaluation of the efficacy of thrice weekly DOTS regimen in TB pleural effusion at six months (multicenter project). Prof SK Sharma. Funded by Revised National TB Control Programme NCT of Delhi for 4 years from 2006-2010. Funds: Rs. 14,36,615.00
9. Impact of HIV infection on latent TB among patients with HIV-TB co-infection (Facility has been designated as National Facility). Prof SK Sharma. Funded by Department of Biotechnology, Ministry of Science and Technology, Govt. of India for 4 years from 2007-2011. Funds: Rs. 219.96 lakhs.
10. Comparison of tuberculin skin test (TST) and interferon-release assay in latent TB infection and tuberculosis disease. Prof SK Sharma. Funded by Revised National TB Control Programme NCT of Delhi for 3 years from 2008-2011. Funds: Rs. 4,99,937.00
11. Sustaining research momentum over the coming decades: mentoring the next generation of researchers for tuberculosis. Prof SK Sharma. Funded by European Union Frame Programme 7 Work for 3 years from 2008-2011. Funds: Rs. 67.84 lakhs.
12. International, multi-centre, randomized, double blind study to compare the overall mortality in acutely ill medical patients treated with enoxaparin versus placebo in addition to graduated elastic stockings. Prof. S.K. Sharma. Funded by Reliance Clinical Research Services (P) Ltd for 3 years from 2008-2010. Funds: Rs 12,88,502.00
13. Prevalence of metabolic syndrome in obstructive sleep apnea and the effect of treatment with continuous positive airway pressure (CPAP) on metabolic syndrome. Prof SK Sharma. Funded by Pfizer India Ltd for 2 years and 6 months from 2008-2010. Funds: Rs. 16,20,384.00
14. A Phase II, placebo-controlled, double-blind, randomized trial to evaluate the anti-bacterial activity, safety, and tolerability of TMC207 in subjects with sputum smear-positive pulmonary infection with multi-drug resistant Mycobacterium tuberculosis (MDR-TB). Prof SK Sharma.

Funded by Tibotec BVBA, General De Wittelaan LIIB3, Mechelen, Belgium for 3 years from 2008-2011. Funds: Rs. 26,24,460.00

15. Association of OSA with metabolic syndrome, insulin resistance and TNF- $\alpha$ , IL6 and ACE polymorphism. Prof SK Sharma. Funded by Indian Council of Medical Research (ICMR) from 2010-2013. Funds: 46,67,424.00
16. "Design and development of Personal use respiratory devices for patients with respiratory failure" Funding Agency: Ministry of Communication & Information Technology. Duration of project: Till June 2009. Dr. Randeep Guleria.
17. Assessment of nutritional and antioxidant enzyme status in mechanically ventilated critically ill patients. Effects on mortality and strategies for improving nutritional support". Funding Agency: Department of Science & Technology Duration of project Till September 2009, Dr. Randeep Guleria.
18. "A randomized double-blind placebo controlled exploratory study to assess the safety and efficacy of multiple doses of ACZ885 in COPD" Funding Agency, Novartis India, Duration of project till June 2010, Dr. Randeep Guleria.
19. "An interventional Nutritional study in subjects with Newly Diagnosed Active Tuberculosis (TB), Funding Agency GSK India, duration of project till June 2010, Dr. Randeep Guleria.
20. "Clinical implication of Circulating DNA & Protein markers in lung cancer, Funding agency, ICMR, duration of project till November 2010, Dr. Randeep Guleria.
21. "Genetic, Metabolic and Hormonal Profile in Obstructive Sleep Apnea Syndrome, Funding agency, DST, duration of project till February 2011, Dr. Randeep Guleria.
22. "Serum leptin, nutritional status and inflammatory markers in chronic obstructive pulmonary disease, Relationship with dyspnea and severity of disease" Funding agency ICMR, duration of project till March 2011, Randeep Guleria.
23. "To evaluate the efficacy and safety of fixed dose combination of formoterol and fluticasone dry powder inhaler in the management of partly controlled and uncontrolled Asthma prospective study, Funding agency Novartis, duration of project till April 2009, Dr. Randeep Guleria.
24. "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, funding agency ICMR, duration of project till July 2012, Dr. Randeep Guleria.
25. "Double blind randomized placebo controlled trial of herbal compound MA-364 in patients with mild to moderate bronchial asthma" Funded by Maharishi Ayurveda. Duration of the Project till September 2010. Dr. Randeep Guleria.
26. "Enhance surveillance for pandemic H1N1 of Lineage multisite study Project Number 10-1100A-2010/RS. Funded by Centre for Disease Control, USA. Duration of the project till May 2011. Dr. Randeep Guleria.
27. "Dietary intake of micronutrients and their serum/plasma levels in association with severity Asthma. Funded by the ICMR. Duration of the project till October 2012. Dr. Randeep Guleria.

28. A Phase IIIB Multicenter, Randomized, Double-Blind, 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. Funding agency: British Meyer Squibb. Extended till 2011. Dr Uma Kumar.
29. “Genome Sciences and Predictive Medicine” in collaboration with University of Delhi. Funding agency: DBT till 2013. Dr Uma Kumar
30. Study of Early Versus Delayed Initiation of Antiretroviral Therapy for HIV Infected Patients with Tuberculosis on Antituberculosis Chemotherapy in Indian Subjects. Funded by NACO. (A collaborative UCLA, USA and AIIMS project). Dr. Sanjeev Sinha. April 2006-March 2011, Funds- 40 Lakhs.
31. Study of prevalence and types of baseline HIV drug resistance in the antiretroviral treatment-naive and previously treated HIV infected Northern India population. Funded by NACO. (A collaborative UCLA, USA and AIIMS project). Dr. Sanjeev Sinha. December 2006-December 2010, Funds- 65 Lakhs.
32. Nevirapine versus Efavirenz-based highly active antiretroviral therapy regimens in antiretroviral-naive patients with HIV and Tuberculosis infection in India. Funded by NACO. Dr. Sanjeev Sinha. January 2008-December 2011, Funds- 50 Lakhs.
33. ASHA HIV Health Promotion Intervention. Funded by NIH, USA. Dr. Sanjeev Sinha. January 2009-July 2011, Funds- 15 Lakhs.
34. Implementing PATH-India to reduce HIV risk among substance users in India: Assessing HIV risk among community clinic clients. Funded by NIH CFAR, USA. (A collaborative project between University of Pennsylvania, USA and AIIMS) Dr. Sanjeev Sinha. June 2010-May 2011, Funds- 15 Lakhs.
35. A Study of Patients in Resource-Limited Areas with Cancer who also have HIV. Funded by NCI, NIH, USA. Dr. Sanjeev Sinha, AIIMS January 2010-December 2011, Cost- 5 Lacs.
36. Mitochondrial DNA Mutations in Lung Cancer. Department of Biotechnology; Funds: 19.2 lakhs (2008-2011). Anant Mohan
37. Study of the variability in systemic inflammation in patients with chronic obstructive pulmonary disease due to smoking and non-smoking related causes. Indian Council of Medical Research; Funds: 28.0 lakhs (2009-2012). Anant Mohan

## **Departmental Research**

### ***Completed***

1. Study of Mycobacteremia in patients with extra pulmonary and disseminated tuberculosis. (Lab medicine)
2. “Assessment of quality of life in-patient with lung cancer”
3. “Predictors of mortality and morbidity in patients admitted with acute exacerbation of COPD
4. Cognitive dysfunction in systemic lupus erythematosus

5. Clinical and radiographic hand abnormalities in patients with systemic sclerosis and their correlation with systemic features of the disease
6. Endothelial dysfunction in systemic sclerosis.
7. Study of the prognostic utility of various inflammatory markers in patients with acute exacerbation of chronic obstructive pulmonary disease.

### *Ongoing*

1. Study of acute febrile illnesses with cytopenias (haematology)
2. Study of mycobacteremia in miliary tuberculosis (Lab Medicine)
3. "Lactate dehydrogenase and alkaline phosphates levels in Bronchoalveolar Lavage fluid of patients with sarcoidosis"
4. "Assessment of quality of life in COPD"
5. "Assessment of quality of life in Asthma patients"
6. Gastrointestinal manifestations in systemic sclerosis
7. A randomized controlled trial to compare the efficacy of different treatment regimens in early rheumatoid arthritis.
8. Determinants of Mortality and Morbidity in patients with Sepsis in the Medical ICU.

### *Collaborative*

#### *Completed*

1. Effect of IFN- $\delta$  and immune complex on neutrophil-CR1 transcript and its relationship with CR1 density polymorphism. (Collaboration with Biochemistry).

#### *Ongoing*

1. Preparation and Quality Control of  $^{188}\text{Re}$ -Labeled Tin Colloid for the Treatment of Refractory Inflammatory Arthritis in Collaboration with Nuclear Medicine.
2. Effects of Home Based Exercise Therapy on Spinal Mobility, Fatigue, Quality of life, Disease activity and Functional capacity in Patients with Ankylosing Spondylitis in Collaboration with Physical Medicine Rehabilitation (PMR).
3. A Study of the Clinico Histopathological Features of Erythematous tender Nodules Predominantly involving the extremities in collaboration with Dermatology.
4. Tacrolimus as induction therapy for proliferative lupus nephritis in collaboration with Nephrology.
5. Genetic Analysis of Psoriasis and Psoriatic Arthritis in Indian- Indo US project (collaboration with Dermatology)
6. Expression and modulation of complement receptors: significance in the pathophysiology and prognosis of autoimmune disorders. (Collaboration with Biochemistry).



## PUBLICATIONS

### Journals

1. Mabalirajan U, Aich J, Leishangthem GD, Sharma SK, Dinda AK, Ghosh B. Effects of vitamin E on mitochondrial dysfunction and asthma features in an experimental allergic murine model. *J Appl Physiol* 2009;**107**:1285-92.
2. Kadhiraivan T, Sharma SK. Images in clinical medicine. Giant congenital nevus. *N Eng J Med* 2009;**361**:e15.
3. Ellwood P, Williams H, Ait-Khaled N, Björkstén B, Robertson C and the ISAAC Phase III. Study Group. Translation of questions: the International Study of Asthma and Allergies in Childhood (ISAAC) experience. *Int J Tuberc Lung Dis* **13**:1174–82. [Professor SK Sharma was the Principal Investigator for the study from India (name listed in the Appendix in online supplement)]
4. Sharma SK, Singla R, Sarda P, Mohan A, Makharia G, Jayaswal A, *et al.* Safety of three different reintroduction regimens of antituberculosis drugs after development of antituberculosis treatment induced hepatotoxicity. *Clin Infect Dis* 2010;**50**:833-9.
5. Sharma SK, Dhooria S, Prasad KT, George N, Ranjan S, Gupta D, *et al.* Outcomes of antiretroviral therapy in a northern Indian urban clinic. *Bull World Health Organ* 2010;**88**:222–6.
6. Dheda K, Davids V, Lenders L, Roberts T, Meldau R, Sharma SK, *et al.* Clinical Utility of a Commercial LAM-ELISA Assay for TB Diagnosis in HIV-Infected Patients Using Urine and Sputum Samples. *PLoS ONE* 2010;**5**: e9848.
7. Sharma S, Rathored J, Ghosh B, Sharma SK. Genetic polymorphisms in TNF genes and tuberculosis in North Indians. *BMC Infect Dis.* 2010;**10**:165. [Epub ahead of print]
8. Ellwood P, Asher MI, Stewart AW and the ISAAC Phase III Study Group. The impact of the method of consent on response rates in the ISAAC time trends study. *Int J Tuberc Lung Dis* 2010;**14**:1059–65. [Professor SK Sharma was the Principal Investigator for the study from India (name listed in the Appendix in online supplement)]
9. Hull RD, Schellong SM, Tapson VF, Monreal M, Samama MM, Nicol P, *et al.* Extended-duration venous thromboembolism prophylaxis in acutely ill medical patients with recently reduced mobility. A randomized trial. *Ann Intern Med.* 2010;**153**:8-18. [Professor SK Sharma was the Investigator for the study from India (name listed in the Appendix)]
10. Sharma SK, Kadhiraivan T, Banga A. A clinical prediction rule to identify patients with tuberculosis at high risk for HIV co-infection. *Indian J Med Res* 2009;**130**:151-7.
11. Sharma SK, Singla R, Sreenivas V, Kumar S, Jha B, Singh S, *et al.* Acute viral hepatitis as a confounding factor in patients with antituberculosis treatment induced hepatotoxicity. *Indian J Med Res* 2009;**130**:200-1.
12. Kabra SK, Mukherjee A, Vani SA, Sinha S, Sharma SK, Mitsuyasu R, *et al.* Continuing medical education on antiretroviral therapy in HIV/AIDS in India: needs assessment and impact on clinicians and allied health personnel. *Natl Med J Ind* 2009;**22**:257-60.



13. Sharma SK, George N, Kadhiraavan T, Saha PK, Mishra HK, Hanif M. Prevalence of extensively drug-resistant tuberculosis among patients with multidrug-resistant tuberculosis: a retrospective hospital-based study. *Indian J Med Res* 2009;**130**:392-5.
14. Sharma SK, Gupta V, Kadhiraavan T, Seith A, Kumar A, Saxena R, *et al*. Risk factor profile and incidence of deep venous thrombosis among medically-ill hospitalized patients in a tertiary care hospital in northern India: a prospective study. *Indian J Med Res* 2009;**130**:726-30.
15. Sharma SK. Wake-up call for sleep disorders in developing nations! Editorial. *Indian J Med Res* 2010;**131**:115-8.
16. Lam JCM, Sharma SK, Lam B. Obstructive sleep apnoea: Definitions, epidemiology & natural history. *Indian J Med Res* 2010;**131**:165-70.
17. Sharma SK, Ahluwalia G. Epidemiology of adult obstructive sleep apnoea syndrome in India. *Indian J Med Res* 2010;**131**:171-5.
18. Sharma SK, Sreenivas V. Are metabolic syndrome, obstructive sleep apnea and syndrome Z sequential? – a hypothesis. *Indian J Med Res* 2010;**131**:455-8.
19. Relia N, Kavimandan A, Sinha S, Sharma SK. Disseminated histoplasmosis as the first presentation of idiopathic CD4+ T-lymphocytopenia. *J Postgrad Med* 2010;**56**:39-40.
20. Sharma SK, Dhooria S, Barwad P, Kadhiraavan T, Ranjan S, Miglani S, *et al*. A study of TB-associated immune inflammatory syndrome using the consensus case-definition. *Indian J Med Res* 2010;**131**:804-8.
21. Torka P, Sharma R, Sood R. Rodenticide poisoning as a cause of quadriparesis: a rare entity. *Am J Em Med* 2009;**27**(5):625e1-625e3.
22. Adkoli BV, Sood Rita. Faculty development and medical education units in India: A survey. *NMJI* 2009;**22**(1):28-32.
23. Menon V, Jain D, Saxena R, Sood R. Prospective evaluation of visual function for early detection of ethambutol toxicity. *Br J Ophthalmol* 2009 online June'09.
24. Adkoli BV, Gupta V, Sood R, Pandav CS. From Reorientation of Medical Education to Development of Medical Educators. *IJPH* 2009;**53**(4):218-22.
25. Sood R. Humanism in health care. *NMJI* 2009;**22**(6):335.
26. Kumar J, Seith A, Kumar A, Madan K, Guleria R. Chest wall and mediastinal nodal aspergillosis in an immunocompetent host. *Diagnosis Interventional Radiology* 2009 Sep;**15**(3):176-8.
27. Pandey A, Patni N, Singh M, Guleria R. Assessment of risk and prophylaxis for deep vein thrombosis and pulmonary embolism in medically ill patients during their early days of hospital stay at a tertiary care centre in a developing country. *Vasc. Health Risk Manag.* 2009;**5**:643-8.
28. Chandra S, Mohan A, Guleria R, Singh V, Yadav P. Delays during the diagnostic evaluation and treatment of lung cancer. *Asian Pac. J Cancer Prev.* 2009 Jul-Sep;**10**(3):453-6.
29. Singh VK, Chandra S, Kumar S, Pangtey G, Mohan A, Guleria R. A common medical error: lung cancer misdiagnosed as sputum negative tuberculosis. *Asian Pac. J Cancer Prev.* 2009 Jul-Sep;**10**(3):335-8.

30. Gupta R, Mirdha BR, Guleria R, Kumar L, Samantray JC, Agarwal SK, *et al.* Diagnostic significance of nested polymerase chain reaction for sensitive detection of *Pneumocystis jirovecii* in respiratory clinical specimens. *Diagn Microbiol Infect Dis.* 2009 Aug;**64**(4):381-8.
31. Chahar HS, Bharaj P, Dar L, Guleria R, Kabra SK, Broor S. Co-infections with chikungunya virus and dengue virus in Delhi, India. *Emerg. Infect Dis.* 2009 Jul;**15**(7):1077-80.
32. Hendee W, Mettler M Jr, Walsh M, Guleria R, Craven C, Sia S, *et al.* International Atomic Energy Agency (IAEA). Report of a consultation on justification of patient exposures in medical imaging. *Radiat Prot Dosimetry.* 2009;**135**(2):137-44.
33. Mohan A, Chandra S, Agarwal D, Guleria R, Broor S, Gaur B, *et al.* Prevalence of viral infection detected by PCR and RT-PCR in patients with acute exacerbation of COPD: A systematic review; *Respirology* 2010 Apr;**15**(3)536-42.
34. Kumar S, Guleria R, Singh V, Bharti AC, Mohan A, Das BC. Plasma DNA level in predicting therapeutic efficacy in advanced non-small cell lung cancer; *Eur Respir J.* 2010 Feb 25( Epub ahead of print).
35. Kumar S, Guleria R, Singh V, Bharti AC, Mohan A, Das BC. Efficacy of circulating plasma DNA as a diagnostic tool for advanced non-small cell lung cancer and its predictive utility for survival and response to chemotherapy; *Lung Cancer* , Feb 22, 2010 (Epub ahead of print).
36. Kumar S, Guleria R, Singh V, Bharti AC, Mohan A, Das BC. Plasma nucleosome levels might predict response to therapy in patients with advanced non-small cell lung cancer; *Clin Lung Cancer.* 2010 Jan;**11**(1):36-44.
37. Kumar S, Guleria R, Singh, Bharti AC, Mohan A, Das BC. Efficacy of plasma vascular endothelial growth factor in monitoring first-line chemotherapy in patients with advanced lung cancer; *BMC Cancer.* 2009 Dec 3;**9**:421.
38. Palaniswamy C, Selvaraj DR, Guleria R, Mohan A, Narang R. Airway hyper-reactivity in rheumatic mitral stenosis improves after balloon valvotomy; *Ther Adv Cardiovasc Disc.* 2009 Dec;**3**(6):423-7
39. Palaniswamy C, Selvaraj DR, Guleria R, Mohan A, Sugunaraj JP, Ramamurthy S, *et al.* Respiratory muscle strength in rheumatic mitral stenosis improves after balloon valvotomy; *J Cardiovasc Med (Hagerstown)* 2010 June;**11**(6):440-3.
40. Jagia P, Sharma S, Juneja R, Guleria R. Transcatheter treatment of pulmonary artery pseudoaneurysm using a PDA closure device; *Diagn Interv Radiol.* 2009 Sep 25 doi:104261/1305-3825. DIR.2657-09.1.
41. Kumar S, Mohan A, Guleria R. Prognostic implications of circulating anti-p53 antibodies in lung cancer a – review; *Eur J. Cancer Care (Engl.)* 2009 May;**18**(3)248-54, Review.
42. Kumar S, Singh V, Chandra S, Agarwal D, Mohan, Guleria R. Serum vascular endothelial growth factor is related to systemic oxidative stress in patients with lung cancer; *Lung Cancer.* 2009 Aug;**65**(2):254; author reply 254-5. Epub 2009 Apr 23.
43. Bhatt SP, Guleria R, Luqman-Arafath TK, Gupta AK, Mohan A, Nanda S, *et al.* Effect of tripod position on objective parameters of respiratory function in stable chronic obstructive pulmonary disease. *Indian J Chest Dis. Allied Sci.* 2009 Apr-Jun;**51**(2):83-5.

44. Guleria R. The H1N1 2009 pandemic: who is afraid of the big bad wolf? *Nat Medical Journal* 2010 Sept. –Oct.**22**(5):225-7.
45. Sharma S, Das M, Kumar A, Marwaha V, Shankar S, Singh P, *et al.* Purine biosynthetic pathway genes and methotrexate response in rheumatoid arthritis patients among north Indians. *Pharmacogenet Genomics* 2009 Oct;**19**(10):823-8.
46. U Kumar, N Verma, A. K Kumar, S Hari, R Yadav, V sreenivas, *et al.* Endothelial dysfunction in Indian patients with systemic sclerosis. *Ann Rheum Dis* 2010;**69**(Suppl3):692.
47. Sharma R, Sinha S, Danishad KA, Vikram NK, Gupta A, Ahuja V, *et al.* Investigation of hepatic gluconeogenesis pathway in non-diabetic Asian Indians with non-alcoholic fatty liver disease using in vivo ((31)P) phosphorus magnetic resonance spectroscopy. *Atherosclerosis*. 2009;**203**: 291-297.
48. Farooqui AA, Tahir M, Jaiswal A, Usmani N, Sinha S. Oculomotor Palsy Following Varicella in an Immunocompetent Adult. *Southern Medical Journal* 2009. [Epub ahead of print].
49. Tahir M, Sinha S, Sharma SK, Das CJ. Intracranial SOL in a newly diagnosed AIDS patient. *Journal of Clinical Neurosciences* 2009;**16**(2):284,354.
50. Tahir M, Sinha S, Sharma SK. Rifampicin induced severe headache in HIV-TB coinfectd patient. *J Postgrad Med.* 2009;**55**(2):154-5.
51. Sinha S, Rathi M, Kumar V, Jagannathan NR, Pandey RM. Proton MR Spectroscopy (MRS) and biochemical investigation of type 2 diabetes mellitus in Asian Indians: Observation of high muscle lipids and C-reactive protein (CRP) levels. *Magn Reson Imaging*. 2009;**27**(1):94-100.
52. Sinha S., Kumar V., Jagannathan N.R., Pandey R.M. Magnetic resonance spectroscopy of brain to study the cerebral metabolic abnormalities in COPD patients. A case control study in North India. *Indian J Chest Dis Allied Sci.* 2009;**51**(1):15-20.
53. Reddy EV, Kadiravan T, Mishra HK, Sreenivas V, Sinha S, Sharma SK, *et al.* Prevalence and Risk-Factors of Obstructive Sleep Apnoea among Middle Aged Urban Indians – A Community Based Study. *Sleep Med.* 2009. [Epub ahead of print].
53. Kabra S.K., Sinha S, Sharma S.K., Fahey J.L., Mitsuyasu R.T. Continuing medical education in HIV/AIDS: need assessment and impact of CME. *National Medical Journal of India.* 2009;**22**:188-192.
54. Gupta V, Gupta S, Sinha S, Dinda A.K., Sharam S.K., Tiwari S.C. HIV Associated Renal Disease – Indian Perspective. (Submitted *IJMR*, Jan 2010).
55. Sharma S K, Sinha S, Kadiravan T, Reddy V V, Sreenivas V, Wig, N, *et al.* Outcomes of antiretroviral therapy from a Northern Indian antiretroviral treatment centre. *Bulletin of the World Health Organization* 2010;**88**:222-226.
56. Nyamathi A., William R.R., Ganguly K.K., Sinha S. Perceptions about the Engagement of Lay Village Women in India to Provide Basic Care and Support to Rural Women Living with HIV. Manuscript submitted to *Journal of HIV/AIDS & Social Services* (In press).
57. Sharma S K, Sinha S, Sharma H, Misra H K, Kadiravan T, Reddy V V, *et al.* Pattern & correlate of neurocognitive dysfunction in Asian Indian adults with severe obstructive sleep apnea. *IJMR.* (In press)

58. Nyamathi A., Sinha S. , Ganguly K.K., William R.R. Challenges Experienced by Rural Women in India Living with HIV/AIDS. Manuscript submitted to Health Care for Women International (Accepted, 2010).
59. Sharma SK, Munjal YP, Agarwal AK, Singal RK, Agrawal A, Sinha S, et al. The Association of Physicians of India evidence-based clinical practice guidelines on adult immunization. *J Assoc Physicians India*. 2009;**57**:345-56.
60. Sharma S K, Sinha S, Sharma U, Danishad K A, Sharma H, Misra H K, et al. Proton Magnetic Resonance Spectroscopy of Brain in patients with Obstructive Sleep Apnea: A study in Northern Indian Asian Subjects. *IJMR* (in press).
61. S.Sinha, (2010). "Management of HIV/AIDS". Post Graduate Medicine, API. Vol 14,405-412.
62. AM Anandaiah, S Sinha, SK Sharma, N Kumar, K Luthra, M Bole, et al. Vitamin D Increases Apoptosis in Macrophages Exposed to Mycobacterium Tuberculosis. *Am. J. Respir. Crit. Care Med.*, Apr 2009;**179**:A5917.
63. NR Jagannathan, S. Sinha. Cerebral Metabolism in Obstructive Sleep Apnea: An In-Vivo Proton MRS Study. 17<sup>th</sup> ISMRS meeting, 18-24 April, 2009. Hawaii, USA.
64. Relia N., Amit K., Sinha S., Sharma S.K. Disseminated Histoplasmosis As The First Presentation of Idiopathic Cd4+ T-Lymphocytopenia. *J Postgrad Med*. 2010;**56**:39-40.
65. Singla R, Sharma SK, Mohan A, Makharia G, Sreenivas V, Jha B, et al. Evaluation of risk factors for antituberculosis treatment induced hepatotoxicity. *Indian J Med Res* 2010;**132**: 81-86.
66. S Chandra, A Mohan, R Guleria, V Singh, P Yadav. Delays during the diagnostic evaluation and treatment of lung cancer. *Asian Pacific J Cancer Prev* 2009;**10**:453-6.
68. VK Singh, S Chandra, S Kumar, G Pangtey, A Mohan, R Guleria. A Common Medical Error: Lung Cancer Misdiagnosed as Sputum Negative Tuberculosis. *Asian Pacific J Cancer Prev* 2009;**10**:335-8.
69. SS Kumar, V Singh, S Chandra, D Agarwal, A Mohan, R Guleria. Serum vascular endothelial growth factor is related to systemic oxidative stress in patients with lung cancer. *Lung Cancer* 2009;**65**(2):254; author reply 254-5. Epub 2009 Apr 23.
70. A Mohan, M Bhutani, S Chandra, S Naik, R Guleria. Small Cell Lung Cancer: Clinical Presentation and Diagnostic Modalities. In: In: Jonathon G. Maldonado et al (Eds). *Small Cell Carcinomas: Causes, Diagnosis and Treatment*. Nova Science Publishers, Inc. 2009;1-18.
71. Singh N, A Mohan. A rare presentation of prostatic rhabdomyosarcoma in a young male. *Cases Journal* 2009;**2**:7546.
72. S Chandra, A Mohan, R Guleria, P Das, C Sarkar. Images in Pulmonary Alveolar Microlithiasis. *BMJ-Case Reports* DOI: 10.1136/bcr.09.2008.0919.
73. C Palaniswamy, D Selvaraj, R Guleria, A Mohan, R Narang. Airway hyperreactivity in rheumatic mitral stenosis improves after balloon valvotomy. *Ther Advances Cardiovascular Dis* 2009;**3**(6):423-7.

74. S Kumar, R Guleria, V Singh, AC Bharti, A Mohan and BC Das. Efficacy of plasma vascular endothelial growth factor in monitoring first-line chemotherapy in patients with advanced non-small cell lung cancer. *BMC Cancer* 2009;**9**:421.
75. Behera B, Chaudhry R, Pandey A, Mohan A, Dar L, Premlatha MM *et al.* Co-infections due to leptospira, dengue and hepatitis E: a diagnostic challenge. *J Infect Dev Ctries* 2009;**4**(1):48-50.
76. A Mohan, S Chandra, D Agarwal, R Guleria, S Broor, B Gaur. Prevalence of Respiratory Viral Infections in Acute Exacerbation of Chronic Obstructive Pulmonary Disease: A Systematic Review. *Respirology* 2010;**15**:536-42.
77. S Kumar, R Guleria, V Singh, AC Bharti, A Mohan, BC Das. Plasma Nucleosome levels might predict response to therapy in patients with advanced Non Small Cell Lung cancer. *Clinical Lung Cancer* 2010;**1**:36-44.
78. SP Bhatt, TK Luqman-Arafat, A Mohan, R Guleria. Effect of tripod position on objective parameters of respiratory function in stable COPD. *Indian J Chest Dis Allied Sci* 2009;**51**: 83-5.

### Chapters in Books

1. Sharma SK, Ahluwalia G. Dengue fever in India: an overview. Rao MS (editor), Nadkar MY (executive editor) *Medicine Update* under the auspices of Association of Physicians of India 2010;**20**:657-9.
2. Ahluwalia G, Sharma SK. Obstructive sleep apnea syndrome-Indian experience of a decade compared with global scenario. Das AK (editor), Postgraduate medicine: *Contemporary Medicine – Challenges and Solutions* 2010;**24**:43-51.
3. Sharma SK, George N. Therapeutic challenges in the management of MDR and XDR tuberculosis. In: OP Sood, Sharma SK (editors). Challenges of MDR/XDR tuberculosis in India. New Delhi: Ranbaxy Science Foundation 2010;**22**:43-73.
4. Guleria R: Influenza is a serious illness? Management Issues; Round Table Conference Series Number 23 September, 2009, Pandemic Influenza Update, Ranbaxy Science Foundation, New Delhi India.
5. S. Sinha, G. Bhoveshwaranath, S. Gupta. Antiretroviral Drugs and Drug Therapy of HIV/AIDS. Text Book of Pharmacology. S.D. Seth, V. Seth (eds), 3<sup>rd</sup> edition 2009, Chap. 81, pp X 111-X121.
6. S. Sinha, Tahir M., Hafiz A. Opportunistic Infections in AIDS: The five common ones. *Medicine Update* 2009. Part II, Chap. 88, 663-669.

### Book Review

1. Sharma SK. Guidelines for the programmatic management of drug-resistant tuberculosis – Emergency update 2008 (World Health Organisation, Geneva) 2008. *Indian J Med Res* 2009;**130**:666-7.

## PATIENT CARE

### Chest Clinic (Friday 2:00 pm)

New Cases	1903
Old Cases	4245
<b>Total</b>	<b>6148</b>

### Infectious Diseases Clinic (Monday 2:00 pm)

New patients	157
Old patients	209
<b>Total</b>	<b>366</b>

### Antiretroviral center

Total registered till date	5339
ART started till date	2011
On ART and regular follow-up till date	1165
ART started 2009-2010	300

### AIIMS DOTS CENTRE

Total Patients on DOTS	147
CAT I	103
CAT II	33
CAT III	11

### Laboratories

#### (A) Respiratory laboratory

Spirometry procedures	7504
Diffusion capacity estimation	479
Body Box (Plethysmography) measurements	202
Oxymetries	1204
Maximum Voluntary Ventilation	291
Arterial Blood Gas Analysis	1655

#### (B) Bronchoscopy Laboratory

Fiberoptic bronchoscopy procedures	829
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#### (C) Sleep laboratory

Polysomnography studies	289
Continuous positive airway pressure (CPAP) titration	171

#### (D) ADA/ACE laboratory

Adenosine deaminase tests	280
Angiotensin Converting Enzymes ACE tests	170

#### (E) RNTCP

Sputum investigation performed	2856
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#### (F) DOTS PLUS

Drug Susceptibility Test	80
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## AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor SK Sharma** received following honors: Indian Council of Medical Research Basanti Devi Amir Chand prize in Clinical Research, First Prize of British Medical Association Medical Boom Awards for Davidson's Clinical Cases, Rabindranath Tagore Oration – 2010 of Indian College of Physicians (ICP) of the Association of Physicians of India (API).

He is a Fellow, Indian Academy of Sciences, Bangalore since January 2010. Professor SK Sharma continues to be a member of Indian Chest Society, American Thoracic Society, National Academy of Medical Sciences of India, Association of Physicians of India, International Union Against Tuberculosis and Lung Diseases, Indian Association of Sarcoidosis and other Granulomatous Disorders (IASOG), Indian Society of Critical Care Medicine, World Lung Health (initiative of International Union Against Tuberculosis and Lung Diseases IUATLD). He is the Vice President of Society for Tobacco Control (STC) of India since 2010.

He is editor of Indian Journal of Chest Diseases and Allied Sciences continuing *since 2001 till date*, Section editor of Lung India since 2010, Associate editor of Indian Journal of Tuberculosis (IJT) since 2006 till date. He is a member of Editorial Board of Indian Journal of Sleep Medicine since 2005 till date, Chest (American College of Chest Physicians) since 2006 till date, The Open Tropical Medicine Journal since 2008, Indian Journal of Medical Research since 2009.

He is a member of International Advisory Board, Davidson's Principles and Practice of Medicine (21<sup>st</sup> edition), Journal of Association Physician of India (Pulmonary Section), 2009.

Professor SK Sharma continues to be the reviewer for the following journals: The Lancet, The Lancet Infectious Disease, American Journal of Respiratory and Critical Care Medicine (Blue Journal), Chest (American College of Chest Physicians), Indian Journal of Tuberculosis, Indian Journal of Chest Diseases and Allied Sciences, Indian Journal of Medical Research, Infection Genetics and Evolution, World Journal of Surgical Oncology, Clinica Chimica Acta, Pharmacological Research, Respiration, Journal of Laboratory and Clinical Medicine, Biomedcentral Infectious Disease, Journal of Molecular and Cellular Proteomics, Cytokine, Respiratory Medicine, Respirology, Sleep Medicine, Expert Review of Respiratory Medicine, Allergologia et immunopathologica.

Professor SK Sharma continues to be the Member of Scientific Advisory Committee of Infectious Diseases, Indian Council of Medical Research since 2004; World Lung Health [initiative of International Union Against Tuberculosis and Lung Diseases (IUATLD)] since 2004; He has been appointed as a Co-ordinator of IMPACT (Indian Medical Professional Association's Coalition Against Tuberculosis) on behalf of the Association of Physicians of India (API) to fight jointly against tuberculosis by forming a coalition for a period of 5 years from year 2008.

He continues to be the Chairperson of National Task Force on Involvement of Medical Colleges in TB Control Programme of India, Ministry of Health and Family Welfare, Govt. of India; DOTS Plus Committee of Ministry of Health and Family Welfare, Govt. of India for MDR-TB; Central Standing Committee for Operational Research on RNTCP related project, Ministry of Health & Family Welfare, Govt. of India.

He is an Expert member for Drugs Technical Advisory Board (DTAB) to examine continued marketing of certain drug formulations reported to be prohibited or restricted in other countries, 2010. He was member of Selection process for ICMR awards, Indian Council of Medical Research, New Delhi,



2009. He continues to be a member of Board of study, H.P. University, Shimla since 2008 and the Governing body of Lala Ram Sarup Institute of Tuberculosis and Respiratory Diseases, Ministry of Health & Family Welfare, Govt. of India since 2008.

**Prof. Rita Sood** was invited as Global Faculty Advisor by FAIMER (Foundation for the Advancement of International Medical Education and Research), Philadelphia, USA during the FAIMER Institute Program in Oct.09. She was Nominated Policy group member of ASME (Association for Study of Medical Education), UK in Nov.09. She was invited as a expert for selection of faculty by Guru Gobind Singh University Sept'09. She was invited as 'Advisor' by UPSC for personality tests of candidates for combined civil services examination in Sept.09. She was a Member of Selection Committee for selection of faculty at UCMS, Delhi and Pt BD Sharma Institute of Medical sciences, Rohtak, in Aug.09.

She was an Expert for selection of DNB candidates, MAMC, New Delhi in Aug.09. She was a Member of expert group MCI for Development of curriculum for advanced course for Regional centre for faculty development in medical education July.09. She was a member of International Advisory board. She was a member of Executive committee of SEARAME. She was in Faculty council, Indian college of Physicians, API. She was a Member of Editorial board SEAJME, JIACM. She was a Member of Advisory board of JAPI & International Journal of Advances in Medical Education and Practice. She was a Reviewers of Medical Education, Medical teacher, PG Medical journal, JAPI, IJMR, and NMJI. She was a Chairperson for both final MBBS & MD Medicine examination at AIIMS May'09. She was an External examiner for oral defense of thesis for MHPE program at AGU, Bahrain, June, 09.

**Prof. Randeep Guleria** has been the External Examiner for M.D. (Medicine) PGIMER, Chandigarh on 2<sup>nd</sup> & 3<sup>rd</sup> May 2009. He has been the External Examiner for M.D. (Medicine) Institute of Medicine, Kathmandu on 10<sup>th</sup> & 11<sup>th</sup> May 2009. He was a Chairman of the Centralised Drugs Selection Committee of AIIMS. He was Member of the Hospital Stores Purchase Committee of AIIMS.

He has been the External Examiner for M.D. (Medicine) Institute of Medicine, Kathmandu from 14<sup>th</sup> to 16<sup>th</sup> September 2009. He has been appointed as an Inspector to carry inspection of physical and other teaching facilities available at Santosh Medical College, Ghaziabad for the purpose of recognition of MD (General Medicine) on 16<sup>th</sup> October 2009. He has been the External Examiner for M.D. (Medicine) Postgraduate Institute of Medical Education & Research, Chandigarh from 12-13<sup>th</sup> December 2009.

He has been nominated a member of the Scientific Advisory Committee (SAC) of National Institute of Virology. He has been nominated as a member of the UGC Expert committee to review the functioning of the Santosh University, Ghaziabad. He has been the External Examiner for MBBS final Practical examinations of Sher-I-Kashmir, Institute of Medical Sciences, held on 12<sup>th</sup> & 13<sup>th</sup> January 2010.

Dr. Randeep Guleria was invited to inaugurate the program "Orientation programme (OR-62)" from March 2<sup>nd</sup> to 30<sup>th</sup> March 2010 for University and college teachers at the Centre for professional development in higher studies, Institute of Life Long Learning, University of Delhi.

**Dr. Uma Kumar** was nominated on the planning & monitoring board of JSS University, Mysore, Karnataka by UGC. She was elected as a fellow of the IMSA WHQ in 2009. She was elected as a

fellow of the Indian Association of Clinical Medicine in 2009. She was also elected as Task force member by DGHS, Ministry of Health & Family Welfare to prepare operational guidelines on Chikungunya fever.

She was awarded WHO fellowship for the year 2009-2010. She was nominated on the advisory committee of D. Y. Patil University, Kolhapur Karnataka for three years by UGC. She was also nominated on the advisory board of Sri Balaji Vidyapeeth, Poduchery. She was Elected Honorary secretary of Delhi Rheumatology Association for year 2010-2012. She was invited to review the articles for the Journal "Clinical and Experimental Rheumatology". She was Awarded Smt. Pawan Kumari Jain Oration by Delhi Chapter of API.

**Dr. Sanjeev Sinha** was a member of Association of Physician of India. He was a Member of Indiaclen, Member of National Academy of Medical Sciences (MNAMS), Member of Indian Chest Society and Member of Indian Thyroid Society.

He was awarded "Membership Award for National Academy of Medical Sciences, New Delhi. He was Member of Medical Board Antarctica Expedition, Govt. of India, Goa. He was also a Member of scientific committee, NACO, Ministry of Health & FW, Govt. of India,

**Dr. Anant Mohan** was nominated and awarded "**Membership of the National Academy of Medical Sciences**", Nov, 2009. He continues to be reviewer for New England Journal of Medicine, Annals of Oncology, International Journal of Tuberculosis and Lung Disease, Postgraduate Medical Journal, Journal of Supportive Care in Cancer, Indian Journal of Medical and Pediatric Oncology.

## 9.18 Microbiology

### Professor and Head

J.C. Samantaray

### Professors

S. Broor

R. Chaudhry

A. Kapil

### Additional Professors

B.R. Mirdha

B.K. Das

L.Dar

### Associate Professors

B. Dhawan

M. Vajpayee

I. Xess

S. Sood

### Assistant Professor

U.B. Singh

### EDUCATION

- A. Department is involved in teaching for Undergraduate medical students, BSc Nursing students and M. Sc Biotechnology students. Also provides Postgraduate training for MD Microbiology.
- B. A total of 16 individuals worked in the Dept. of Microbiology from April 2009 to March 2010 as short term trainees for various periods from one month to 6 months.

### Continuing Medical Education (CME)

**Dr. Shobha Broor** organized a CME in collaboration with dept. of Medicine on ‘Pandemic Influenza’ on 29<sup>th</sup> May at AIIMS

**Dr. Rama Chaudhry** organized a Hands on Workshop on “Anaerobes- Cultivation and Identification” under the aegis of MICRO- D- CON 2010, 2<sup>nd</sup> Annual Conference IAMM Delhi Chapter on 12<sup>th</sup> March 2010.

**Dr. Arti Kapil** delivered a talk on “ Role of a Microbiologist in Infection Control” during a Hospital epidemiology workshop organized on 21<sup>st</sup> -23<sup>rd</sup> Sept, 2009 at CMC, Vellore in collaboration with SHEA, USA, “ Recent Advances in the Diagnosis of ICU Infections” “ during a CME on Critical Care organized on 21<sup>st</sup>, Nov ,2009 at SGPGI, Lucknow and “ Antimicrobial Resistance- from bench to Bedside” as a part of CME program of PAN-African e-network project on 18<sup>th</sup> March,2010.

**Dr. Lalit Dar** organized a pre-conference workshop session on PCR and reverse hybridization for HPV detection and genotyping during the Asia Oceania Research Organization on Genital Infections and Neoplasia (AOGIN) conference at New Delhi on 25 March 2010.

**Dr. B.R. Mirdha**, Executive Member of Indian Association of Medical Microbiology (Delhi Chapter) was the Co-organizer of 2<sup>nd</sup> Annual Conference of Indian Association of Medical Microbiologists on March 12 &13, 2010, Co-organizer of “3<sup>rd</sup> National Conference on Infectious Diseases” held at AIIMS in April, 2010.

**Dr. Madhu Vajpaye** organized a World AIDS Day Symposium “Antiretrovirals: Monitoring strategies and Emerging drug resistance”, 1<sup>st</sup> December 2009, organized a EQAS workshop for State Reference Laboratories, 26<sup>th</sup> March 2010

### **National and International Conferences**

XXIII Round Table Conference on “Pandemic Influenza Update”. Organized in collaboration with Ranbaxy Science Foundation on 19<sup>th</sup> September, 2009 at India Habitat Centre, New Delhi.

### **Lectures delivered**

#### **Dr. Shobha Broor**

1. ‘Role of viruses in respiratory infections’ during a CME on “Respiratory infections and Microbes on 28<sup>th</sup> August, 2009 at KMC, Manipal University, Manipal.
2. “International Scientific Symposium on Influenza Pandemic Response and Preparedness” held from 21<sup>st</sup> to 22<sup>nd</sup> August 2009 at Beijing, China.
3. XXIII Round Table Conference on “Pandemic Influenza Update” on 19<sup>th</sup> September, 2009 at India Habitat Centre, New Delhi.
4. “Round Table Consultation on Exploring and Building Consensus on Disease Control in India” from 26<sup>th</sup> to 28<sup>th</sup> October, 2009 at New Delhi.
5. Chaired the session during the XXXIII National Conference of Indian Association of Medical Microbiologists at JSS Medical College, Mysore from 3<sup>rd</sup> to 8<sup>th</sup> November, 2009.
6. CDC -WHO and South East Asia Region group meeting on influenza surveillance and pandemic influenza held at Kochi from 22 to 26<sup>th</sup> February 2010
7. 8<sup>th</sup> National Conference of Society for Indian Human and Animal Mycologists from 4<sup>th</sup> to 6<sup>th</sup> March, 2010 held at the All India Institute of Medical Sciences.
8. Basic and Applied Research on ‘Dengue Virus and its Diagnosis’ at the National Symposium on Infectious Diseases held in February 3<sup>rd</sup>, 2010 at Bhaskaracharya College of Applied Science, University of Delhi.
9. ‘Lower Respiratory Tract Infections-An Update’ at Pre-Conference CME held on 5<sup>th</sup> November, 2009 at Mysore.
10. Chaired the session on Swine Flu during the Daily Chapter meeting of IAMM held at Batra Hospital on 25<sup>th</sup> July, 2009.

#### **Dr. Arti Kapil**

1. Delivered a guest lecture on “Biomedical waste generation sources” during a National workshop-cum-conference held on 10<sup>th</sup> -11<sup>th</sup> Sept, 2009 in New Delhi by IIT-GOI.
2. Delivered a talk on “Patient safety against HAIs” during National Patient safety conference organized on 12<sup>th</sup> -13<sup>th</sup> Oct, 2009 at AIIMS, New Delhi.
3. Health care Associated Infections” during a short term training program for AFMC and NIHFV students held on 30<sup>th</sup> Oct 2009 at AIIMS, New Delhi.

4. “Recent Advances in the Diagnosis of ICU Infections” “ during a CME on Critical Care organized on 21<sup>st</sup>, Nov, 2009 at SGPGI, Lucknow.
5. Antimicrobial Resistance- from bench to Bedside” as a part of CME program of PAN-African e-network project on 18<sup>th</sup> March, 2010.
6. Planning and Organizing of Laboratory Services” during Training course of Hospital Administrators organized on 24<sup>th</sup> March, 2010 at NIHFV, New Delhi.

**Dr. B.R. Mirdha**

1. “Pneumocystis carinii to Pneumocystis jirovecii”: One hundred and one years of progress” on 19<sup>th</sup> March, 2010 at Sri Venketeswara Institute of Medical Sciences (SVIMS), Tirupati, Andhra Pradesh.

**Dr. B.K. Das**

1. ‘tPA - pneumolysin DNA construct as a vaccine candidate – An immune response study’ at the 7<sup>th</sup> International Symposium on Pneumococci and Pneumococcal Diseases Tel Aviv, Israel, March 14-18, 2010
2. Bacteria in cancer therapy: a novel experimental strategy. Journal of Biomedical Science 2010, 17:21

**Dr. Lalit Dar**

1. “Types of HPV DNA: Role of HPV Genotyping” during the AOGIN Conference at New Delhi on 26 March 2010.

**Dr. Immaculata Xess**

1. “Changing trends in blood stream Candida infections” CME under Society for Human and Animal Mycologists in RP Centre All India Institute of Medical Sciences New Delhi 10<sup>th</sup> of April 2009.
2. “CNS Aspergillosis” in 8<sup>th</sup> National conference Society for Human and Animal Mycologists in All India Institute of Medical Sciences New Delhi on 5<sup>th</sup> March 2010

**RESEARCH**

**Funded Projects**

*Completed*

1. An RNA interference based approach to study the simultaneous inhibition of RSV and hMPV. Broor S, Dar L. 2007-2009. Funded by DBT. Funds: Rs. 35.26 lacs
2. Acute respiratory viral infections in rural India. Broor S, Sullender WM, Fowler K, Pandav CS. 2007-2009. Funded by NIH (MCHDR) and ICMR. Funds : Rs 42 lakhs
3. Multisite monitoring of human influenza in India –phase I. Broor S, Dar L, Kabra SK. 2004-2009. Funded by DHHS (USA) and ICMR. Funds : 4 crores 64.7 lakhs
4. Noroviral infections in pediatric acute gastroenteritis and asymptomatic children” . Broor S. Funded by ICMR and CDC (USA). Funds : 5.34 lakhs

5. Detection and Identification of Thermophilic Campylobacter Spp. (*C. jejuni*, *C. coli*, *C. upsaliensis* and *C. lari*) and Molecular Sub-Typing of Campylobacter jejuni in Fecal Samples of Diarrheic Patients and in Food samples Using PCR, PCR-RFLP and PFGE". R. Chaudhry. 2007-2010 Funded by ICMR. Funds: 17 lakhs
6. Clinico- Epidemiologic and Molecular Characterization of Extended-Spectrum Beta Lactamase (ESBL) Producing *Klebsiella* spp., *E. coli* & *Enterobacter* spp causing Nosocomial and Community Infections. Kapil A. 2008-2010. Funded by ICMR. Funds: Rs. 5,35 lakhs
7. Expert Group on Antibiotic Susceptibility Testing (EGAST) 2008: Observational Plan . Kapil A. 2008-2009. Funded by Pfizer, Mumbai. Funds Rs- 2 lakhs.
8. Detection of *Ureaplasma urealyticum* and *Mycoplasma hominis* in patients with biovars with lower genitourinary tract infection by PCR assay: Association of *Ureaplasma urealyticum* biovars with clinical outcome. Dhawan B. 2006-2009. Funded by ICMR. Funds Rs. 10.88 Lakh.
9. Pneumococcal surface protein A ( Psa A) tPA DNA construct as vaccine Candidate against *Str. Pneumonia*. Das B.K. Funded by DST. Funds: Rs.23lakhs.

### Ongoing

1. Rapid Low Cost Molecular Detection of Influenza Virus Infections (Vaccine Action programme NIH, USA ). Broor S. 2009-2011. Funded by ICMR. Funds : 8.25 lakhs
2. Respiratory virus infections; rapid low cost molecular detections. (MCHDR-ICMR) Broor S. 2008-2011. Funded by ICMR. Funds :37.49 lakhs
3. Mechanisms of resistance to Ciprofloxacin in *Salmonella typhi* . Kapil A, 2008-2010. Funded by ICMR.. Funds: Rs. 12 lakhs
4. Study of Genetic diversity of *Pneumocystis jiroveci* isolates from patients with interstitial lung diseases, Mirdha B.R. 2008-2011. Funded by CSIR.: Funds:17 lakhs.
5. Study of genetic polymorphisms of dihydropteorate synthase (DHPS) gene in *Pneumocystis jiroveci* isolates and its correlation with treatment failure & clinical outcome in patients with *Pneumocystis carinii* pneumonia, Mirdha B.R. 2009-2012. Funded by :DST. Funds: Rs. 24 lakhs.
6. Detection and quantification of *Pneumocystis jiroveci* samples by Real-Time PCR for clinical management of *Pneumocystis carinii* pneumonia (PCP) in human immunodeficiency virus (HIV) infected and uninfected individuals. Mirdha B.R. 2009-2012. Funded by ICMR. Funds: 15 lakhs
7. Cloning and Expression of flagellin Gene of *Salmonella Typhi*: An immunodiagnostic approach. Chaudhry R. 2007- 2010. Funded by ICMR.; Funds: Rs 24 Lakhs
8. Congenital cytomegalovirus infection and hearing loss in rural Indian population. Dar L. 2010-2013. Funded by ICMR and NIH (USA) . Funds: Approx. Rs. 20 lakh/ year
9. Development of a DNA Biosensor for detection of *Neisseria gonorrhoeae* in clinical samples. Sood S. 2007- 2010. Funded by Min. of Science & Technology, DBT. Funds: Rs. 53.736 lakhs.

10. LAMP as Point-of-Care Test for Gonorrhoea. Sood S. 2009- 2010. Funded by Min. of Science & Technology, DBT. Funds: Rs. 14.05 lakhs.
11. Molecular Tracking of community –associated methicillin resistant *Staphylococcus aureus* strains disseminating in a tertiary hospital. Dhawan B. 2009- 2012. Funded by ICMR.. Funds: Rs.14.66 lakh.
12. Development and clinical evaluation of a real time PCR assay for detection of *Chlamydia trachomatis* in Indian women with Infertility. Dhawan B, 2010-2013. Funded by ICMR. Funds: Rs. 19.53 lakhs
13. Role of oral vitamin D as an adjunct therapy in Category I Pulmonary Tuberculosis along With assessment of immunological parameters. Singh UB. 2008-2011. Funded by DBT and DST. Funds Rs. 50 lakhs.
14. Comprehensive proteomics profiling of CSF proteins from patients of different meningitis infections for biomarker discovery. Singh UB. 2008-2011. Funded by DBT. Funds: Rs. 50 lakhs
15. Pneumolysin (Ply) -tpA DNA construct as a vaccine candidate against *Str.* pneumonia. Das B.K. 2007-2010. Funded by DST. Funds: Rs.20 lakhs

## Departmental Projects

### Completed

1. Antigenic and molecular characterization of human influenza virus strains from acute respiratory infections

### Ongoing

1. Study of inhibition of respiratory syncytial virus and human metapneumovirus multiplication by RNA interference in tissue culture and animal model
2. Cloning and expression of G protein gene of group B respiratory syncytial virus isolates from Delhi in bacterial and mammalian expression systems.
3. Genetic variability of human caliciviruses from cases of sporadic acute gastroenteritis.
4. Detection and genotyping of human cytomegalovirus from renal transplant recipients
5. Detection and typing of 37 human papillomavirus types by PCR and reverse hybridization Sequencing and phylogenetic analysis of dengue and chikungunya virus strains from Delhi.
6. Molecular characterization of *Giardia intestinalis* isolates and study of genotype - clinical phenotype correlation.

## Collaborative Research

### Completed

1. Administration of *Lactobacillus rhamnosus* GG for the prevention and treatment of *Clostridium difficile* infection and subsequent diarrhea in Indian population (with The Energy Research Institute [TERI] )



## Ongoing

1. Addressing Emerging Infectious Diseases in the republic of India : Influenza Disease ( with Community Medicine)
2. Enhanced surveillance for pandemic H1 N1 of swine lineage a multisite study (with Pediatrics and Internal medicine)
3. Direct and indirect protection by influenza vaccine given to children in India (with Community Medicine)
4. Multisite monitoring of human influenza in India –phase II (with Health human Services USA)
5. Cloning and expression of Respiratory syncytial virus G protein in bacterial and mammalian expression vector (with Jamia Millia Islamia)
6. Development of Nanosilver Nanohydrogels for Biomedical Applications (with Chemical Engineering, IIT)
7. A multicentric study of clinical and Microbiological profile of community- acquired pneumonia (CAP) in Indian patients (with Medicine)
8. A comparative study of effectiveness of immunotherapy with intralesional injection of Mycobacterium W vaccine in clinical resolution of external anogenital warts and reduction of viral load: A randomized trial (with Dermatology)
9. Determination of mechanisms of resistance to Diagnosis of genital tuberculosis in infertile women and the effect of antitubercular therapy (with Obstetrics and Gynaecology)

## PUBLICATIONS

### Journals

1. Broor S, Singh H, Chahar, Kaushik S. Diagnosis of influenza viruses with special reference to novel H1N1 2009 influenza virus. *Indian J of Microbiol* 2009; 49: 301-07.
2. Siebenga JJ, Vennema H, Zheng DP, Vinjé J, Lee BE, Pang XL *et al* , Norovirus illness is a global problem: emergence and spread of norovirus GII.4 variants, 2001-2007. *J Infect Dis.* 2009;200(5):802-12
3. Chahar HS, Bharaj P, Dar L, Guleria R., Kabra SK, Broor S. Co-infections with Chikungunya Virus and Dengue Virus in Delhi, India. *Emerg Infect Dis.* 2009; 15(7):1077-80.
4. Tiewsoh K, Lodha R, Pandey RM, Broor S, Kalaivani M, Kabra SK. Factors determining the outcome of children hospitalized with severe pneumonia. *BMC Pediatr.* 2009; 9:15.
5. Behera B, Chaudhry R, Pandey A, Mohan A, Dar L, Premlatha MM *et al*. Co-infections due to leptospira, dengue and hepatitis E: a diagnostic challenge. *J Infect Dev Ctries.* 2009 ;4(1):48-50.
6. Malik S, Dar L, Broor S, Gulati S, Salhotra A, Kalra V *et al*. Subacute Sclerosing Panencephalitis in a Tertiary centre in Post Measles vaccination era. *J Commun.Dis.* 2009;41:161-167.
7. Mohanty S, Sood S, Kapil A, Mittal S. Interobserver variation in the interpretation of Nugent scoring method fo diagnosis of bacterial vaginosis. *Indian J Med Res.* 2010 Jan;131:88-91.

8. Behera B, Mathur P, Das A, Kapil A, Gupta B, Bhoi S *et al*. Evaluation of susceptibility testing methods for polymyxin. *Int J Infect Dis*. 2009 Dec 30.
9. Vashist J, Tiwari V, Kapil A, Rajeswari MR. Quantitative profiling and identification of outer membrane proteins of beta-lactam resistant strain of *Acinetobacter baumannii*. *J Proteome Res*. 2010 Feb 5;9(2):1121-8.
10. Dhawan B, Gadepalli R, Rao C, Kapil A, Sreenivas V. Decreased susceptibility to vancomycin in methicillin-resistant *Staphylococcus aureus*: a 5 year study in an Indian tertiary hospital. *J Med Microbiol*. 2010 Mar;59(Pt 3):375-6.
11. Kabra SK, Pawaiya R, Lodha R, Kapil A, Kabra M, Vani AS *et al*. Long-term daily high and low doses of azithromycin in children with cystic fibrosis: a randomized controlled trial. *J Cyst Fibros*. 2010 Jan;9(1):17-23.
12. Gadepalli R, Dhawan B, Kapil A, Sreenivas V, Jais M, Gaiind R *et al*, Clinical and molecular characteristics of nosocomial methicillin-resistant *Staphylococcus aureus* skin and soft tissue isolates from three Indian hospitals. *J Hosp Infect* , Nov 2009; 73(3): 253-63.
13. Dhawan B, Gadepalli R, Kapil A. In vitro activity of daptomycin against *Staphylococcus aureus* and vancomycin-resistant *Enterococcus faecium* isolates associated with skin and soft tissue infections: first results from India. *Diagn Microbiol Infect Dis*. 2009 Oct; 65(2):196-8.
14. Sankar MJ, Paul VK, Kapil A, Kalaivani M, Agarwal R, Darmstadt GL *et al*. Does skin cleansing with chlorhexidine affect skin condition, temperature and colonization in hospitalized preterm low birth weight infants?: a randomized control trial. *J Perinatol*. 2009 Dec; 29(12):795-801.
15. Mitra S, Karthik R, Balaji V, George IA, Kapil A, Abraham OC. Quinolone-resistant *Salmonella enterica* Serovar typhi presenting as acute fulminant hepatitis. *J Assoc Physicians India*. 2009 Apr; 57:338-9.
16. Behera B, Mathur P, Das A, Kapil A. Ertapenem susceptibility of extended spectrum beta-lactamase-producing *Enterobacteriaceae* at a tertiary care centre in India. *Singapore Med J*. 2009 Jun; 50(6):628-32.
17. Behera B, Das A, Mathur P, Kapil A, Gadepalli R, Dhawan B. Tigecycline susceptibility report from an Indian tertiary care hospital. *Indian J Med Res*. 2009 Apr; 129(4): 446-50.
18. Vashist J, Vishvanath, Kapoor R, Kapil A, Yennamalli R, Subbarao N *et al*. Interaction of nalidixic acid and ciprofloxacin with wild type and mutated quinolone-resistance-determining region of DNA gyrase A. *Indian J Biochem Biophys*. 2009 Apr; 46(2):147-53.
19. Sharma MS, Vohra A, Thomas P, Kapil A, Suri A, Chandra PS *et al* Effect of risk-stratified, protocol-based perioperative chemoprophylaxis on nosocomial infection rates in a series of 31 927 consecutive neurosurgical procedures (1994-2006). *Neurosurgery*. 2009 Jun; 64(6): 1123-30;
20. Dadhwal V, Hariprasad R, Mittal S, Kapil A. Prevalence of bacterial vaginosis in pregnant women and predictive value of clinical diagnosis. *Arch Gynecol Obstet*. 2009 Apr 19.

21. Dahiya S, Kapil A, Kabra SK, Mathur P, Sood S, Lodha R *et al.* Pertussis in India. *J Med Microbiol.* 2009 May; 58(Pt 5):688-9.
22. Javed S, Chaudhry R, Passi K, Sharma S, K P, Dhawan B, Dey AB. Sero diagnosis of Legionella infection in community acquired pneumonia. *Indian J Med Res.* 2010 Jan; 131:92-6.
23. Joshy L, Chaudhry R, Dhawan B. Detection and characterization of Clostridium difficile from patients with antibiotic-associated diarrhoea in a tertiary care hospital in North India. *J Med Microbiol.* 2009 Dec; 58(Pt 12):1657-9.
24. Kalra V, Chaudhry R, Dua T, Dhawan B, Sahu JK, Mridula B. Association of Campylobacter jejuni infection with childhood Guillain-Barré syndrome: a case-control study. *J Child Neurol.* 2009 Jun; 24(6):664-8.
25. Varshney AK, Chaudhry R, Saharan S, Kabra SK, Dhawan B, Dar L, Malhotra P. Association of Mycoplasma pneumoniae and asthma among Indian children. *FEMS Immunol Med Microbiol.* 2009 Jun; 56(1):25-31.
26. Kalra V, Sankhyan N, Sharma S, Gulati S, Choudhry R, Dhawan B. Outcome in childhood Guillain-Barré syndrome. *Indian J Pediatr.* 2009 Aug; 76(8):795-9.
27. Kalra V, Sharma S, Sahu J, Sankhyan N, Chaudhry R, Dhawan B *et al.* Childhood acute transverse myelitis: clinical profile, outcome, and association with antiganglioside antibodies. *J Child Neurol.* 2009 Apr; 24(4):466-71.
28. Madhuri, Shireen T, Venugopal SK, Ghosh D, Gadepalli R, Dhawan B *et al.* In vitro antimicrobial activity of alpha-melanocyte stimulating hormone against major human pathogen Staphylococcus aureus. *Peptides.* 2009 Sep; 30(9):1627-35.
29. Gupta R, Mirdha BR, Guleria R, Kumar L, Samantaray JC, Agarwal SK, *et al.* Diagnostic significance of nested polymerase chain reaction for sensitive detection of Pneumocystis jirovecii in respiratory clinical specimens. *Diagn Microbiol Infect Dis.* 2009 Aug; 64(4): 381-8.
30. Bhatla N, Dar L, Patro AR, Kumar P, Kriplani A, Gulati A *et al.* Can human papillomavirus DNA testing of self-collected vaginal samples compare with physician-collected cervical samples and cytology for cervical cancer screening in developing countries? *Cancer Epidemiol.* 2009; 33: 446-50.
31. Bharaj P, Sullender WM, Kabra SK, Mani K, Cherian J, Tyagi V *et al.* Respiratory viral infections detected by multiplex PCR among pediatric patients with lower respiratory tract infections seen at an urban hospital in Delhi from 2005 to 2007. *Virology.* 2009; 6: 89.
32. Patro AR, Dar L, Bhatla N, Gulati A, Kriplani A, Pati SK *et al.* Human papillomavirus genotype distribution in northern India: Implications for vaccination. *Cancer Res* 2009; 69 (23 Suppl): C59.
33. Sharma SK, Dhooria S, Prasad KT, George N, Ranjan S, Gupta D, *et al.* Outcomes of antiretroviral therapy in a northern Indian urban clinic. *Bull World Health Organ.* 2010 Mar; 88(3):222-6.
34. Chauhan NK, Mendiratta S, Mojumdar K, Vajpayee M. Effect of mother to child transmission intervention strategies and clinical, hematological, immunological characteristics in children born to HIV-1 infected mothers in India. *J Pediatr Infect Dis.* 2010; 5(1).

35. Vajpayee M, Mojumdar K, Raina M, Mishra S, Sreenivas V. HIV voluntary counseling and testing: an experience from India. *AIDS Care*. 2009 Jul; 21(7):826-33.
36. Hasan F, Xess I, Wang X, Jain N, Fries BC. Biofilm formation in clinical *Candida* isolates and its association with virulence. *Microbes and infections* 2009; 11:753-76.
37. Jain N, Cook E, Xess I, Hasan F, Fries D, Fries BC. Isolation and characterization of senescent *Cryptococcus neoformans* and implications for phenotypic switching and pathogenesis in chronic cryptococcosis. *Eukaryotic cell* 2009; 8:858-866.
38. Saha DC, Xess I, Biswas A, Bhowmik D, Padma MV. Detection of *Cryptococcus* by conventional, serological and molecular methods. *J Med Microbiol* 2009; 58:1098-1105.
39. Verma R, Sood S, Manjubala, Kapil A and Sharma VK. Diagnostic approach to Gonorrhoea: Limitations. *Ind J Sex Transm Dis & AIDS*, 2009; 30(1): 61-64.
40. Bala M, John WT, Athena L, Sood S, Ray K. Experience with an external quality assurance scheme for antimicrobial susceptibility testing of *Neisseria gonorrhoeae* in India, 2001-2007. *Epidemiol. Infect* 2010; 138: 69-75.
41. G K. Makharia, S Srivastava, P Das, P Goswami, U. Singh, M Tripathi *et al.* Clinical, Endoscopic, and Histological Differentiations Between Crohn ' s Disease and Intestinal Tuberculosis. *The Am J Gastro*, March 2010, 105: 642-651.
42. Govind K. Makharia, U.B. Singh. In the search of a cause of Crohn's disease. *Indian J Gastroenterol* 2009(September–October): 28(5); 165–168
43. Arora J, Singh UB, Naga S, Rana T, Porwal C, Kaushik A *et al.*. Predominant *Mycobacterium tuberculosis* strains among different ethnic subpopulations of India. *Infect Genet Evol. Infection, Genetics and Evolution* 9 (2009) 832–839.
44. Das A, Arora J, Rana T, Porwal C, Kaushik A, Gaur G *et al.* Congenital tuberculosis: An entity– underestimated, laboratory support in aid of Cantwell criteria. *Anna trop pediatri*. 2008; 28: 137-141.
45. Nag HL, Neogi DS, Nataraj A.R., Kumar VA., Yadav CS, Singh UB. Tubercular Infection After Arthroscopic Anterior Cruciate Ligament Reconstruction. *The J Arthro and Rel Surg*. February 2009; 25(2); 131-136.

## Books

**Seema Sood.** *Microbiology for Nurses*. 2<sup>nd</sup> edition (reprint 2009) New Delhi: ELSEVIER; 1-399.

## Chapters in Books

1. Chaudhry R, Das A, Chowrasia BK: Mycoplasma. A book Chapter no. 41 published in “Molecular Detection of Bacterial Pathogens” CRC Press, USA.
2. Chaudhry R, Sharma N: Bacteroides. A book Chapter no. 43 published in “Molecular Detection of Bacterial Pathogens” CRC Press, USA.
3. Global warming and Impending diseases. Published in: Natural and manmade disasters: Vulnerability, preparedness and mitigation. MD Publications Pvt. Ltd. New Delhi 2010, pp 483-500.

4. Biological Terrorism and Use of Bio-weapons: A growing menace to the Society. Published in: Natural and manmade disasters: Vulnerability, preparedness and mitigation, MD Publications Pvt. Ltd. New Delhi 2010, pp 521-541.

## **PATIENT CARE**

### **Bacteriology**

#### **Bacteriology Laboratory**

Clinical samples	
Pus	28,500
Urine	28,560
Blood	39,891
Sputum/ Throat/Tracheal swabs	22,920
CSF	9,735
Stool	0 855
<b>Total</b>	<b>1,30,461</b>

#### **Antimicrobial susceptibility testing**

Urine	6,890
Blood	10,441
Throat swabs, Sputum, BAL, Tracheal secretions, ET tips etc.	11,772
Pus , Tissue, catheter tips, Wound swabs, etc	15,222
CSF & sterile fluids	780
Stool	120
<b>Total</b>	<b>45,225</b>

#### **Hospital Infection Control and Water testing Laboratory**

Water sample	1158
Environmental sterility test	7667
Air sampled (MSA)	4278
In-use test	1478
Samples received from Central sterile supply Department for sterility testing (CSSD)	1616
<b>Total No.</b>	<b>16,197</b>

#### **Serology Laboratory**

Widal	5966
VDRL	7942
ASLO	36
TPHA	68
<b>Total</b>	<b>14,012</b>

#### **Sexually Transmitted Disease**

##### ***Clinical samples***

High vaginal swabs (HVS)	281
Semen	465
Expressed prostatic secretions (EPS)	85

Urethral discharge	02
Cervical discharge	05
<b>Total</b>	<b>838</b>
<b>Antimicrobial susceptibility testing</b>	
HVS	71
Semen	36
EPS	15
Urethral discharge	-
Cervical discharge	-
<b>Total No.</b>	<b>122</b>
<b>Anaerobic Bacteriology</b>	
Anaerobic culture	618
Antimicrobial sensitivity	—
Stool culture for <i>C. difficile</i>	176
ELISA for <i>C. difficile</i> toxin	176
Leptospira culture	128
Leptospira serology for IgM antibodies	
By ELISA	128
<i>Campylobacter jejuni</i>	
Culture	42
<i>Legionella pneumophilla</i>	
By ELISA	20
<i>Polymerase Chain Reaction</i>	
for <i>Salmonella typhi</i>	132
for <i>Leptospira</i>	-
for <i>Legionella pneumophilla</i>	-
for <i>Campylobacter jejuni</i>	42
for <i>C.difficile</i>	50
<b>Mycoplasma</b>	
<i>Mycoplasma pneumoniae</i> IgM, IgG, IgA antibodies by ELISA	67
<i>Mycoplasma pneumoniae</i> culture	67
<i>Mycoplasma hominis</i> culture	281
<i>Ureaplasma urealyticum</i> culture	281
Antibiotic Susceptibility	
for <i>Mycoplasma hominis</i>	11
for <i>Ureaplasma urealyticum</i>	33
<b>Chlamydia pneumoniae</b>	
By ELISA	-
<i>Polymerase Chain Reaction</i>	
for <i>Mycoplasma pneumoniae</i>	289
for <i>Mycoplasma hominis</i>	281
for <i>Ureaplasma urealyticum</i>	281

for <i>C.trachomatis</i>	281
<b>Total</b>	<b>3377</b>

### **Parasitology Laboratory**

Serological Investigation	
<i>Toxoplasma gondii</i> serology for IgG antibodies by ELISA	14
Hydatid diseases serology by Indirect haemagglutination test	136
Amoebic serology of IgG antibodies by ELISA	173

### **Investigation for Malaria**

Fluorescent staining (Acridine Orange)	3201
Giemsa staining	3201
Quantitative Buffy Coat (QBC) Assay	1003
HRP-II Antigen Detection	516

### **Investigation for Kala-Azar**

Fluorescent staining (Acridine Orange)	97
Giemsa staining	97
Quantitative Buffy Coat (QBC) Assay	20
Kala-azar serology (rk-39)	334
Aldehyde test	334

### **Examination of fecal sample for Intestinal Parasitosis**

Direct and concentration	3151
Culture	20
Modified Acid-fast and special staining for intestinal coccidian	3151
Tissue specimens (homogenates)	36

### **Examinations of aspirates**

Sputum, pus and others	54
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### **Investigation for Filariasis**

Direct and Concentration	78
Acridine Orange	78
Thin & Thick Smear	78
Hetrazan provocative test	17

### **Other Investigations**

Broncho-alveolar lavage (BAL), Induced sputum, Tracheal aspirate, Nasopharyngeal aspirates for <i>Pneumocystis jiroveci</i> infection	208
Cerebrospinal fluid examination for free living amoebae	52

<b>Total</b>	<b>16,049</b>
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Tuberculosis Laboratory	
Samples processed for ZN Smear & Culture on LJ medium	9,900



Samples inoculated for Rapid Culture on BACTEC	3,185
Anti-tubercular Drug Sensitivity done on BACTEC	880
PCR for <i>Mycobacterium tuberculosis</i>	3,470
<b>Total</b>	<b>17,435</b>
Virology Laboratory including HIV laboratory	
<b>Culture and identification</b>	
HSV, Dengue, Chikungunya etc.	15
<i>Viral Serology</i>	
HSV and measles CFT (Serum and CSF)	118
Dengue ELISA	907
Chikungunya ELISA	14
<b>PCR</b>	
Dengue	10
HSV	156
CMV	136
<b>Real-Time PCR</b>	
Influenza (including novel H1N1)	2622
CMV Antigen detection (pp65)	10
Miscellaneous (Tzanck smear)	25
<b>Total</b>	<b>4013</b>
<b>Immunology Laboratory</b>	
HIV Diagnostic serology	4210
CD4/CD3 counts (referred from ART Clinic)	4336
CD4/CD8 counts (immunodeficiency cases):	135
HIV DNA PCR:	74
<b>Total</b>	<b>8755</b>
<b>Mycology and ICP Laboratory</b>	
BAL	1426
Urine	1848
CSF	594
Sputum	53
Swab	128
Pus	275
Miscellaneous	645
Tissue/Biopsy	229
Nail/Hair/skin	109
Bone Marrow	134
Blood	2008

## **Fungal serology**

Cryptococcus serology	201
Aspergillus serology	39
Histoplasma serology	17
<b>Total</b>	<b>7706</b>

## **Tuberculosis Laboratory**

Samples processed for ZN Smear & Culture on LJ medium	9,233
Samples inoculated for Rapid Culture on BACTEC	4,560
Anti-tubercular Drug Sensitivity done on BACTEC	880
PCR for <i>Mycobacterium tuberculosis</i>	3,070
<b>Total</b>	<b>17,743</b>

## **AWARDS and HONOURS**

1. **Dr. Shobha Broor** has been nominated for the fellow of Indian Virological Society. She is the member of the following national committees : Scientific Advisory Group on Communicable diseases ICMR, member of the Committee of ICMR for “ Establishment of New Virology Laboratories in the Country”, Committee for procurement of Kits of National vector Borne Disease Control Programme of Govt. of India, Member Joint Monitoring Group on Avian Influenza of Ministry of Health, Member Technical Screening Committee for Biotechnology Industrial Partnership Programme on Influenza Vaccine Development .
2. **DR. RAMA CHAUDHRY** was awarded the Dr. R Sengupta and Dr. A.M. Saoji Memorial Prize for Best paper in Immunology - Title: Cloning and expression of Mycoplasma pneumoniae P1 gene fragments and its role in cytoadherence”. B.K. Chourasia, R. Chaudhary, P. Malhotra, at the XXXIII National Conference of IAMM held in JSS Medical College, Mysore from 3-9<sup>th</sup> November 2009.
3. **Dr. Arti Kapil** was the member of the central technical committee of the NABL April 2009, Department of Science and Technology. She was nominated as a subject expert in the “expert group meeting on National Essential Drug List” by the Central Drugs Standards Control Organization, Ministry of Health, Govt. of India. Member of the working group on “Scientific Evaluation of Sterilization Practices in India” constituted by the Office of the Principal Scientific Adviser, Govt. of India.
4. **Dr. B.R Mirdha** was elected as Editorial Board member of the official Journal of Indian Academy of Tropical Parasitology, held at PGIMER, Chandigarh during 16<sup>th</sup> - 19<sup>th</sup> November, 2009, Dr. B. R. Mirdha was elected as the member of IndiaCLEN in March,2010.
5. **Dr. Lalit Dar** was invited as a Technical Expert by the International Atomic Energy Agency (IAEA), Vienna, for IAEA project- related meetings in Kenya, Thailand and Austria. Dr. Lalit Dar is a member of the following national committees: HIV Technical Resource Group (Laboratories) of the National AIDS Control Organization (NACO), Project Evaluation Committee of the Central Council for Research on Homoeopathy (CCRH), Department of AYUSH, Min. of Health and Family Welfare, Govt. of India, Ethics Committee of the National Brain Research Institute, Dr. Lalit Dar is a Lead Assessor for the National Accreditation Board for Testing and Calibration Laboratories (NABL).

## **VISITING SCIENTISTS**

Dr. Suresh Boppana, from University of Alabama at Birmingham, USA visited the department in 2009.

Dr. Suman Laal, Associate Professor of Pathology & Microbiology, Dept. of Pathology (Experimental) & Microbiology, New York University School of Medicine, New York. 10016, visited the lab.

## 9.19 Nephrology

### Professor and Head

S.K. Agarwal

### Professors Associate Professor

S. Gupta

D. Bhowmik

S. Mahajan

## EDUCATION

### Long Term Training

Department runs DM Nephrology, a 3-year degree course for post MD (Medicine) candidate, who get selected by AIIMS on the basis of merit by all India entrance examination. Three candidates were admitted to DM Course during this period. Postgraduates in internal medicine are posted on rotational basis for a short period of one to two months. At present the department has eleven DM students.

### Short Term Training

Department is providing short-term training for following:

1. Department is allowing doctors from Army hospital (R & R) for attending teaching schedule of the department.
2. Perfusionist trainees from Cardiovascular Anesthesia were exposed to dialysis to take care in part of patients in cardiovascular ICUs for dialysis.
3. Senior resident enrolled for M.Ch. urology are rotated in the department on regular basis for their exposure in nephrology as part of their curriculum for M.Ch.
4. Students from M.Sc. nursing in nephrology are given training in nephrology nursing in the department on regular basis.
5. Three WHO fellow Dr. RI Chol Jun, Dr. Jo Song Chol and Dr. Kim Ram Song were taken as observer in the department

### CME (Conferences, Seminars, Workshops)

#### Lectures delivered

#### Dr S.K. Agarwal

1. **“CKD in India”** during 4<sup>th</sup> National conference of Indian Academy of Nephrology on 24<sup>th</sup> and 25<sup>th</sup> April 2009 at Chennai.
2. **“Anaemia in CKD”** during annual CME of East Delhi Branch of Indian Medical Association held on 14<sup>th</sup> June 2009.
3. Plenary Lecture during ISN East Zone Annual conference on **‘HCV Management in Renal Replacement Therapy’** held at Patna on 7<sup>th</sup> and 8<sup>th</sup> Nov 2009

4. **“Renal Transplantation in India: AIIMS Experience”** during 33<sup>rd</sup> International Society conference of the Australian and South East Asian Tissue Typing Association, held in Delhi on 12<sup>th</sup> to 15<sup>th</sup> Nov 2009.
5. **“CKD Magnitude and Prevention in India”** during 65<sup>th</sup> annual conference of association of Physician of India held on 8<sup>th</sup> to 10<sup>th</sup> Jan 2010 at Jaipur.
6. **“ADPKD: How to reduce cyst burden”**. During Annual conference of Northern Chapter ISN 2010 held at Manesar, Gurgaon on 22<sup>nd</sup> to 24<sup>th</sup> Jan 2010.
7. **“Management of HCV patient in Renal Transplant”** during Transplant Update-2010 organised by Institute of Kidney Transplantation Ahmadabad between 12-14<sup>th</sup> Feb 2010.
8. **“CKD and its Management”** on CME Program of PAN-African e-network project on 8<sup>th</sup> March 2010 between 4-5 PM, from AIIMS telemedicine unit.

#### **Dr D. Bhowmik**

1. Acute Kidney Injury – Current Concepts at Eastern Command Hospital, Kolkata

#### **Dr S. Mahajan**

1. Automated peritoneal dialysis. The Annual Conference of Peritoneal Dialysis & West Zone ISN held at Goa in September 2009
2. Lupus Nephritis Facts and fiction. Rheumatology Update organized by department of Medicine, AIIMS, October 2009
3. Renal support in critically ill. Medicine Update organized by department of Medicine, Maulana Azad Medical College, December 2009
4. Drug induced acute kidney injury. Nephrology Update Organized by Delhi Nephrology Society, February 2010

## **RESEARCH**

### **Funded projects**

- A) Validation and development of predicting formula for measuring GFR in Indian adults (Ongoing)
 

Investigator :	Dr SK Agarwal (Principal Investigator)
Funding Agency :	ICMR, New Delhi
Total funding :	17 Lakhs
Duration of Project :	Aug 2006 – continuing
- B) Assessment of QuantiFERON test for the diagnosis of latent TB in renal replacement therapy (Ongoing)
 

Investigator:	Dr SK Agarwal (Principal Investigator)
Funding Agency:	ICMR, New Delhi
Total funding:	11 Lakhs
Duration of Project:	May 2007 – May 2010
- C) A Randomised double blind placebo controlled four arm parallel group multicentric multinational trial comparing weekly intravenous administration of Abetimus to weekly intravenous

administration of placebo in patients with a history of SLE related renal disease. Funded by Lajolla Pharmaceutical Company California, USA (Ongoing)

Investigator: Dr SK Agarwal (Principal Investigator)

Funding Agency: Lajolla Pharmaceutical Company  
California, USA

Total funding: 12 Lakhs

Duration of Project: Feb 2007 – Continuing

D) “Detection of HCV core antigen (HCVc-Ag) for Diagnostic Screening of HCV Infection in Patients on Maintenance Hemodialysis’ (Ongoing)

Investigator: Dr SK Agarwal (Principal Investigator)

Funding Agency: ICMR, New Delhi

Total funding: 27 Lakhs

Duration of Project: Nov 2007 – Nov 2010

E) “An open randomised prospective phase-III clinical trial to evaluate the efficacy and safety of cinacalcet versus Calcitriol in the treatment of secondary hyperparathyroidism (Ongoing)

Investigator: Dr SK Agarwal (Principal Investigator)

Funding Agency: Macleod India

Total funding: 30,000 + All facilities for drug and investigation

Duration of Project: Jan 2009 – June 2010

## **Departmental Projects**

### ***Completed***

1. Costing of hemodialysis procedure at AIIMS, New Delhi (Hospital administration).
2. Pegylated Interferon monotherapy in HCV positive patients on maintenance hemodialysis
3. Impact of HCV treatment in patients following renal transplantation
4. Effect of Donor Kidney weight/ recipient body weight mismatch on patient and graft outcome in live donor renal transplantation.
5. Role anti HLA antibodies in renal allograft dysfunction
6. Study of physiological parameters in living kidney donors – pre and post donation
7. Assessment of vascular functions in patients with chronic kidney disease
8. Study to assess interdialytic and intradialytic pain in patients undergoing hemodialysis
9. Quality of sleep in hemodialysis and renal transplant patients
10. Cognitive function in ESRD & transplant patients

### ***Ongoing***

1. Tuberculosis prophylaxis in patients on maintenance haemodialysis.
2. Clinicopathological correlation of HBV and HCV infection in patients on renal replacement therapy.

3. Tacrolimus as induction therapy for proliferative lupus nephritis
4. Assessment of vascular functions in patients with chronic kidney disease
5. Study to assess interdialytic and intradialytic pain in patients undergoing hemodialysis
6. Study of physiological parameters in living kidney donors – pre and post donation
7. Quality of sleep in hemodialysis and renal transplant patients

### **Collaborative Research**

1. Detection and genotyping of Human Cytomegalovirus from Neonates and Renal Transplant Recipients (Doctor of Philosophy in Microbiology).
2. Molecular detection and characterization of Pneumocystis jirovecii in respiratory samples from the patients both immunocompromised as well immunocompetent with suspected interstitial pneumonia and other chronic lung diseases (Microbiology).
3. Role of urinary cytology and immunocytochemistry in diagnosis and management of acute renal allograft dysfunction with department of Pathology.
4. Chemokine receptor expression on T cells in renal transplant recipient (Transplant immunology and immunogenetics).
5. Study of autologous stem cell therapy in reversing the progression of chronic kidney disease
6. Assessment of vascular functions before and after renal transplantation
7. Evaluation of systemic co-morbidity in patients with diabetic retinopathy
8. Prevalence of AKI in critically ill patients (with Dept of Medicine)
9. Study of Autologous stem cell therapy in reversing the progression of chronic kidney disease

### **PUBLICATIONS**

#### **Journals**

1. Agarwal SK, Lal C, Zaidi SH. Lupus activation with cerebritis following pegylated interferon in a hemodialysis patient. *Nat Rev Nephrology* 2009;5:599-603.
2. Agarwal SK. Prevalence and association of hepatitis C Viremia in hemodialysis patients at a tertiary care hospital *Indian J Nephrol* 2009; 19:172-173.
3. Agarwal SK, Tiwari SC. Efficacy and Tolerability of Lamivudine in Hepatitis B Infected Renal Transplant Recipient: Single Center Study from India. *Indian Journal Nephrology* 2009; 19: 91-95.
4. Gupta R, Mirdha BR, Guleria R, Kumar L, Samantaraya JC, Agarwal SK, Kabra SK, Luthra K. Diagnostic significance of nested polymerase chain reaction for sensitive detection of *Pneumocystis jirovecii* in respiratory clinical specimens. *Diagnostic Microbiology and Inf Disease.* 2009; 64:381-388.
5. Gupta R, Sharma A, Mahanta PJ, Jacob TG, Agarwal SK, Roy TS, Dinda AK. Focal Segmental Glomerulosclerosis in Idiopathic Membranous glomerulonephritis: A clinicopathological and sterological study *Nephrol Dial Transplant* 2009.



6. Mendonca S, Gupta S. Resistive index predicts renal prognosis in chronic kidney disease *Nephrol. Dial. Transplant.* 2010 25: 644
7. Gupta A, Singh B, Agarwal SK. Urinary sodium and Potassium excretion following karate competition. *Iranian J Kid Disease* 2009;3:178.
8. Gupta Ankur, Ignatius A, Khaira A, Agarwal SK. Swine Influenza Nephrologist perspective. *Iranian j Kid Disease* 2009;3:175-176.
9. Khaira A, Bagchi S, Sharma A, Mukund A, Mahajan S, Bhowmik D, Dinda AK Agarwal SK. Renal allograft tuberculosis: report of three cases and review of literature. *Clin Exp Nephrol.* 2009;13:392-294.
10. Khaira A, Upadhyay BK, Sharma A, Das P, Mahajan S Makhariya G, Dinda AK, Agarwal SK, Tiwari SC. Hepatitis B virus associated focal and segmental glomerular sclerosis: report of two cases and review of literature. *Clin Exp Nephrol.* 2009;13:373-377.
11. Khair A, Rathi OP, Gupta A, Mahajan S, Bhowmik D, Agarwal SK, Tiwari SC. Galactorrhoea and mastalgia in a renal transplant recipient on tacrolimus and amlodipine *Nephrology* 2009;14: 700-701.
12. Gupta A, Khaita A, Bhowmik D, Agarwal SK, Tiwari SC. Carotid body tumor and Amyloidosis: An uncommon association. *Saudi J Kidney Dis Transpl* 2010;21:337-338.
13. Gupta A, Dogra PM, Singh Bakshish, Agarwal SK. Ateriovenous Fistula Intimal Tear: Think before you sneeze. *Therapeutic Apheresis and Dialysis* 2010;14(1):124.
14. Bhowmik D, Dinda AK, Mahanta P, Agarwal SK. The evolution of the Banff Classification Schema for Diagnosing renal allograft rejection and its implications for clinicians. *Ind J Nephro* 2010;20:2-8.
15. Gupta A, Khaira A, Singh B, Bhowmik DM, Tiwari SC. Aliskiren as an antiproteinuric add-on therapy in primary membranous nephropathy. *Clin. Exp. Nephrol.* 2009 Aug;13(4):402-403.
16. Gupta A, Khaira A, Bhowmik DM, Tiwari SC. Arteriovenous shunt and its conversion to arteriovenous fistula: a relook. *Saudi J Kidney Dis Transpl.* 2010 Jan;21(1):148-149.
17. Gupta A, Bhowmik DM, Khaira A, Singh B, Tiwari SC. Dent's disease and Lowe's syndrome: a phenotypic spectrum of one gene. *Saudi J Kidney Dis Transpl.* 2010 Jan;21(1):155-156.
18. Saha DC, Xess I, Biswas A, Bhowmik DM, Padma MV. Detection of Cryptococcus by conventional, serological and molecular methods. *J. Med. Microbiol.* 2009 Aug;58(Pt 8): 1098-1105.
19. Gupta A, Lal C, Agarwal SK, Mahajan S, Bhowmik DM. Epididymal abscess in renal transplant: uncommon presentation of Klebsiella septicemia. *Clin. Exp. Nephrol.* 2010 Feb;14(1):97-99.
20. Gupta A, Bhatt AP, Khaira A, Bhowmik DM, Tiwari SC. Hyperkalemia presenting as wide-complex tachycardia in a dialysis patient. *Saudi J Kidney Dis Transpl.* 2010 Mar;21(2):339-341.
21. Khaira A, Khaira DD, Gupta A, Bhowmik D, Kalra OP, Tiwari SC. Tuberculosis of sternum: three cases with different presentations. *J Assoc Physicians India.* 2009 Aug;57:595-596.

22. Gupta A, Tiwari SC, Mahajan S, Khaira A. Pedal oedema: a rare side-effect of faropenem. Nephrology (Carlton). 2009 Oct;14(7):702.
23. Gupta A, Khaira A, Lal C, Mahajan S, Tiwari SC. Noonan syndrome: crossed fused ectopic kidneys and focal segmental glomerulosclerosis-a rare association. Clin Exp Nephrol. 2009 Oct;13(5):531-2. Epub 2009 May 14.

### Chapters in books

1. Agarwal SK. PTLD following renal transplants in India. In Posttranspalnt lymphoproliferative disease 2010. Agarwal MB (ed), p 40-43.
2. Agarwal SK. Renal transplantation: Current Practice. In Medicine Update. Agarwal AK, Jain DG, Yadav Pushpa (eds) Jaypee Brothers, 2009, pg785-795.
3. Agarwal SK. Physiological changes in the Kidney, assessment of proteinuria and GFR during pregnancy. In Pregnancy and Kidney Disease. Kher Vijay(ed), Elsevier Ltd, Delhi India. 2009. 1-19.
4. Mahajan S, Gupta A. Adynamic bone disease. In Disorders of bone & mineral metabolism. Tiwari SC (ed), Elsevier Ltd, Delhi India. 2009. 69-76
5. Mahajan S. Pathophysiology: Role of EB virus. In Posttranspalnt lymphoproliferative disease 2010. Agarwal MB (ed), p 10-12.

### PATIENT CARE

<b>1</b>	<b>Hemodialysis Related</b>	1. Hemodialysis	<b>6975</b>
		2. Plasmapheresis/Plasma Exchange	<b>115</b>
		3. Femoral vein catheterization	<b>704</b>
		4. Jugular & Subclavian Catheter Insertion	<b>194</b>
		5. AV Fistula	<b>21</b>
		6. AV Shunt	<b>2</b>
<b>2</b>	<b>ICU Related</b>	1. Continuous Renal Replacement Therapy including SLED	<b>36</b>
<b>3</b>	<b>Peritoneal Dialysis Related</b>	1. Intermittent acute peritoneal dialysis	<b>204</b>
		2. CO2	<b>35</b>
<b>4</b>	<b>Indoor Related</b>	1. Kidney Biopsy	<b>357</b>
		2. Indoor regular Admissions	<b>807</b>
		3. Indoor short admission	<b>413</b>
		4. Nephrology Consultations	<b>3075</b>
<b>5</b>	<b>Day care treatment</b>	1. IV Methylprednisolone therapy	<b>47</b>
		2. IV Iron therapy	<b>380</b>
		3. IV cyclophosphamide therapy	<b>31</b>
<b>6</b>	<b>Renal Transplant Related</b>	1. Evaluation for Living RT recipients and donors	<b>1275</b>

		2. Evaluation of Cadaver RT recipients	112
		3. Living Renal Transplant done	137
		4. Cadaver renal transplant done	10
7	<b>Renal Lab Related</b>	1. No. of patient blood sampling done	16098
		2. Biochemistry (Urea, Creat, Na and K)	44044
		3. Urine osmolality	288
		4. 24 Hr urine testing	3887
		5. Haemogram for transplant patients	6344
		6. Co2	301
		7. Iron, UIBC, TIBC, TSat	320
		8. Serum Ferritin	65
8	<b>OPD related</b>	1. Renal Clinic new patients	6610
		2. Renal Clinic old patients	22641
		3. RT Counseling Clinic (3 days per week)	1275
		4. Renal Transplant Clinic old cases	6928
		5. Renal transplant clinic new cases	142

## AWARDS AND HONOURS

### Dr S.K. Agarwal

1. Conferred Fellowship of “**American Society of Nephrology**”
2. **Prof. Hari Vaishnava Oration** of the Delhi State Chapter API in recognition of contribution to the field of Medicine.
3. Selected Member scientific committee, Northern Chapter, Indian Society of Nephrology for three years 2009-1012.
4. Chairman of Technical Advisory Committee for Nephrology and Related equipments for the department of critical care for Institute of Liver and Biliary Disease, New Delhi
5. Invited to be Member of Medical Death review Committee of the AIIMS, New Delhi
6. Public talk on Delhi Doordarshan on “Chronic Kidney Disease and its related issues” on 27<sup>th</sup> April, 8<sup>th</sup> July 2009, 15<sup>th</sup> July 2009 and 22<sup>nd</sup> July 2009
7. Plenary Lecture during ISN East Zone Annual conference on ‘**HCV Management in Renal Replacement Therapy**’ held at Patna on 7<sup>th</sup> and 8<sup>th</sup> Nov 2009
8. Silver Jubilee Lecture of Indira Gandhi National Open University on “CKD: A Hidden Tsunami” on 11<sup>th</sup> March 2010 on the occasion of World Kidney Day.

9. Invited as Chief Guest for Inauguration of Critical Care Nephrology wing in Sri Adichunchanagiri Shikshana Trust hospital in Bangalore on 5<sup>th</sup> Sep 2009.
10. Invited as expert in the meeting of National Accreditation and Assessment Council, University Grant Commission in Bangalore on 3-4<sup>th</sup> Feb 2010.
11. National Board Adviser on Nephrology Subject.
12. World Congress Nephrology Travel scholarship for attending conference held at Milan Italy on 22<sup>nd</sup> to 28<sup>th</sup> May 2009.
13. WHO scholarship for attending Organ Donation Congress held at Berlin, Germany on 4<sup>th</sup> to 7<sup>th</sup> Oct 2009.
14. Chief coordination for development of Course Curriculum for Dialysis Physician Training for standalone Dialysis unit for Government of India.
15. Chief Coordination for ICMR Task Force Project on “Prevalence of Chronic Kidney Disease in Urban India”

#### **Dr. Sanjay Gupta**

1. Member of Task Force on ‘Bioengineering’ Department of Biotechnology

#### **Dr. Sandeep Mahajan**

1. Awarded the young investigator grant by the International Society of Nephrology for the World Congress of Nephrology held in Milan May 2009
2. Awarded the International Speaker Award by the Japanese Society of Dialysis Therapy at 54<sup>th</sup> JSDT Congress held at Yokohama Japan June 2009

Dr. D. Bhowmik conducted Quiz at:

- a. Annual Conference of Indian Society of Nephrology
- b. Annual Conference on North-Zone Chapter of Indian Society of Nephrology

#### **VISITING SCIENTISTS**

1. **Prof. Praveen Singhal**, Chief of Nephrology, LIJ Medical Centre Albert Einstein University, U.S.A visited the department on 29<sup>th</sup> December 2009 and delivered talk on “**Role of p66shcA gene in the development and progression of**
  1. **Kidney disease” and “Stress Management in Medicine”**
  2. **Dr. Luc Noel**, coordinator, WHO HQ, Geneva visited the department in relation to renal transplant activities of the institute and also to discuss the issues related to 6<sup>th</sup> World Day of Organ Donation and Transplantation in India.
  3. **Dr. Sanjeev Sethi** Sr. Consultant and Associate Professor Senior Consultant and Associate Professor, Mayo Clinic, Deptt of Lab Medicine and Pathology, Rochester, USA visited the department on 22<sup>nd</sup> February 2010 and given a talk on “**MPGN: Clinico-pathological Issues”**.”

## 9.20 Nuclear Medicine

### Professor and Head

A. Malhotra

### Professors

G.P. Bandopadhyaya

C.S. Bal

### Associate Professor

Rakesh Kumar

Chetan D Patel (CNC)

### Scientist-IV

Sneh Lata

### EDUCATION

The faculty of the department participated in and delivered 26 lectures in continuing medical education programme, workshop, Symposia and annual conference during the year.

### RESEARCH

#### Completed

1. Comparison between  $^{99m}\text{Tc}$ -GHA specific and  $^{18}\text{F}$ -FDOPA PET/CT in patient with recurrent glioma.
2. Comparison between  $^{68}\text{Ga}$ -DOTANOC PET/CT and  $^{18}\text{F}$ -FDOPA PET/CT in patient with Neuroendocrine Tumours.
3. Role of  $^{131}\text{I}$ -MIBG Vs  $^{18}\text{F}$  DOPA in diagnosis of Pheochromocytoma.

#### Ongoing

1. Technetium  $^{99m}$  labelled hydroxypropyl beta cyclodextrin (Tc- $^{99m}$  HPâCD) as a ligand for bacterial membrane proteins and an imaging tool for vascular prosthesis infection.
2. Role of PET-CT in early response evaluation to chemotherapy in neuroblastoma & rhabdomyosarcoma.
3. Studies on formulation and characterization of alginate nano-spheres for targeted radionuclide therapy of Neuroendocrine tumours.
4. Evaluation of Prognostic Value of FDG-PET after One Cycle of Chemotherapy in Paediatric High Grade Lymphomas. funding agency DBT, New Delhi, (2007- till date).
5. To Evaluate Radiolabeling and Efficacy of Radiolabelled Beta-Cyclodextrin for Infection Imaging. funding agency ICMR, New Delhi (2006 – till date).
6. Cost effective differential diagnosis in lung cancer using PET generator based radiopharmaceuticals. funding agency International Atomic Energy Agency (IAEA), Vienna, Austria, (2008- 2011).

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. funding agency Indian Council of Medical Research (ICMR), Delhi, India, (2009- 2012).

## PUBLICATIONS

1. Shukla J, Sharma U, Kar R, Varma IK, Juyal S, Jagannathan NR, Bandopadhyaya GP : Tamoxifen-2-hydroxypropyl-beta-cyclodextrin-aggregated. Nanoassembly for non breast estrogen-receptor-positive cancer therapy. Nano-medicine (London), 2009 Dec; 4(8): 895-902.
2. Kumar R, Singh H, Jacob M, Anand SP, Bandopadhyaya GP. Production of nitrogen-13-labeled ammonia by using 11MeV medical Cyclotron : our experience . Hell J Nucl Med : 2009 Sep-Dec; 12(3): 248-50.
3. Santra A, Kumar R, Reddy R, Halanaik D, Kumar R, Bal CS, Malhotra A. FDG PET-CT in the management of primary breast lymphoma. Clin Nucl Med. 2009 Dec;34(12):848-53. Review. PubMed PMID: 20139815.
4. Dutta S, Venkataseshan S, Bal C, Rao KL, Gupta K, Bhattacharya A, Narang A. Novel use of somatostatin receptor scintigraphy in localization of focal congenital hyperinsulinism: promising but fallible. J Pediatr Endocrinol Metab. 2009 Oct;22(10):965-9. PubMed PMID: 20020586.
5. Santra A, Kumar R, Maharjan S, Bal C, Malhotra A. Traumatic bronchobiliary fistula diagnosed by 99mTc-mebrofenin hepatobiliary scintigraphy. Nucl Med Commun. 2009 Aug;30(8):652-3. PubMed PMID: 19584631.
6. Khadgawat R, Singh Y, Kansara S, Tandon N, Bal C, Seith A, Kotwal P. PET/CT localisation of a scapular haemangiopericytoma with tumour-induced osteomalacia. Singapore Med J. 2009 Feb;50(2):e55-7. PubMed PMID: 19296011.
7. Dupont P, Zaknun JJ, Maes A, Tepmongkol S, Vasquez S, Bal CS, Van Paesschen W, Carpintiero S, Lochareonkul C, Dondi M. Dynamic perfusion patterns in temporal lobe epilepsy. Eur J Nucl Med Mol Imaging. 2009 May;36(5):823-30. Epub 2009 Jan 13. PubMed PMID: 19139880.
8. Garg AK, Suri A, Sharma BS, Shamim SA, Bal CS. Changes in cerebral perfusion hormone profile and cerebrospinal fluid flow across the third ventriculostomy after endoscopic third ventriculostomy in patients with aqueductal stenosis: a prospective study. Clinical article. J Neurosurg Pediatr. 2009 Jan;3(1):29-36. PubMed PMID: 19119901.
9. Gazula S, Pawar DK, Seth T, Bal CS, Bhatnagar V. Extra-hepatic portal venous obstruction: The effects of early ligation of splenic artery during splenectomy. J Indian Assoc Paediatric Surg. 2009 Oct;14(4):194-9.
10. Tripathi M, Garg A, Gaikwad S, Bal CS, Chitra S, Prasad K, Dash HH, Sharma BS, Chandra PS. Intra-operative electrocorticography in lesional epilepsy. Epilepsy Res. 2010 Mar;89(1): 133-41.
11. Jindal B, Agarwala S, Bakhshi S, Jain V, Gupta AK, Kumar R, Bal CS, Iyer VK, Gupta SD. Bilateral primary renal lymphoma with orbital metastasis in a child. Pediatr Blood Cancer. 2009 Apr; 52(4):539-41.

12. Kumar R, Rani N, Patel C, Basu S, Alavi A. False-Negative and False-Positive Results in FDG-PET and PET/CT in Breast Cancer. *PET Clinics* 2009; 3:289-298.
13. Kumar R, Dhanapathi H, Basu S, Malhotra A. Application of PET-CT in cancer. *Ind J Cancer* 2010.
14. Kumar R, Jindal T, Kumar A, Dutta R. <sup>68</sup>Ga DOTA-TOC/NOC in bronchial carcinoids. *Nucl Med Commun.* 2009 Oct; 30(10):822; author reply 822-3.
15. Kumar R, Chawla M, Basu S, Alavi A. PET and PET-CT Imaging in Treatment Monitoring of Breast Cancer. *PET Clinics* 2010; 4:359-370.
16. Kumar A, Kumar R, Seenu V, Gupta SD, Chawla M, Malhotra A, Mehta SN. Role of <sup>18</sup>F-FDG PET-CT in evaluation of early response to neoadjuvant chemotherapy in patients with locally advanced breast cancer. *Eur Radiol* 2009;19(6):1347-57
17. Kumar A, Regmi SK, Dutta R, Kumar R, Gupta SD, Das P, Halanaik D, Jindal T. Characterization of thymic masses using (18)F-FDG PET-CT. *Ann Nucl Med.* 2009 Aug;23(6):569-77.
18. Kumar A, Jindal T, Dutta R, Kumar R. Functional imaging in differentiating bronchial masses: an initial experience with a combination of (18)F-FDG PET-CT scan and <sup>68</sup>Ga DOTA-TOC PET-CT scan. *Ann Nucl Med.* 2009 Oct;23(8):745-51.
19. Bajpai J, Sharma M, Sreenivas V, Kumar R, Gamnagatti S, Khan SA, Rastogi S, Malhotra A, Bakhshi S. VEGF expression as a prognostic marker in Osteosarcoma. *Pediatr Blood Cancer.* 2009 Dec;53(6):1035-9.
20. Santra A, Kumar R, Rammohan Reddy, Kumar R, Bal CS, Malhotra A. Role of PET-CT in primary breast lymphoma. *Clin Nucl Med.* 2009 Dec;34(12):848-53.
21. Bajpai J, Sharma M, Sreenivas V, Kumar R, Gamnagatti S, Khan SA, Rastogi S, Malhotra A, Bakhshi S. Non-invasive imaging surrogate of angiogenesis in osteosarcoma. *Pediatr Blood Cancer.* 2010;54:526-531.
22. Roses, RE, Kumar R, Alavi A, Czerniecki B. The Role of Lymphatic Mapping and Sentinel Lymph Node Biopsy in the Staging of Breast Cancer. *PET Clinics* 2009; 3:265-276.
23. Bahl S, Alavi A, Basu S, Kumar R, Czerniecki B. The Role of PET and PET/CT in the Surgical Management of Breast Cancer: A Review. *PET Clinics* 2009; 3:277-288.
24. Basu S, Kumar R, Mavi A, Alavi A. Exploring tumour biology with FDG PET in breast carcinoma. *PET Clinics* 2010; 4: 381-390.

## **BOOK CHAPTERS AND REVIEWS**

1. Kumar R, Shandal V, Shamim S. Radionuclide bone imaging in skeletal tuberculosis. In *Radionuclide and hybrid bone imaging*. 2010. Edi I Fogelman, G, Gnanasegaran and H Van-der Wall. Springer Link, London.
2. Kumar R, Halanaik D, Dahiya S. PET in Anti-Cancer Drug Development and Therapy. In *Frontiers in Anti-Cancer Drug Discovery*, 2010 Vol-I. Edi Atta-ur-Rahman / M. Iqbal Choudhary Eds Bentham Science Publishers.



3. Kumar R, Shandal V, Shamim SA, Malhotra A. Role of PET and PET-CT in Anticancer Drug Therapy Response Evaluation. Bentham Publishers Ebook, UAE.
4. Kumar R, Shandal V, Shamim SA. Positron Emission Tomography – Computed Tomography (PET-CT): Clinical Applications. API Textbook of Medicine, India.
5. Kumal L, Kumar R, Parkash G. Multiple Myeloma: An Update. Hematology today. Chapter 35. 2010
6. Kumar R, Jana S. Positron Emission Tomography (PET): Research to Clinical Practice. In Essential Bioimaging Methods. Editor: Michael Conn, Elsevier, Philadelphia, USA 2009

### Presentations at Scientific Meetings

1. Role of F<sup>18</sup>-FDG PET-CT in detecting recurrent disease in patients of gall bladder cancer with clinical suspicion of recurrence. Presented at “56<sup>st</sup> Annual Meeting of Society of Nuclear Medicine (SNM)”, held on June 13-17, 2009, Toronto, Canada.
2. <sup>18</sup>F-FDG-PET metabolic tumour volume as a predictor of early response to neo-adjuvant chemotherapy in locally advanced breast cancer patients. Presented at “56<sup>st</sup> Annual Meeting of Society of Nuclear Medicine (SNM)”, held on June 13-17, 2009, Toronto, Canada.
3. Role of F<sup>18</sup>-FDG PET-CT imaging in differentiating benign and malignant pancreatic lesions and its comparison with CT/MRI/EUS. Presented at 56<sup>th</sup> Annual Meeting of Society of Nuclear Medicine (SNM)”, held on June 13-17, 2009, Toronto, Canada.
4. F<sup>18</sup> FDG PET-CT in detecting recurrent disease in patients of Gall Bladder cancer with clinical suspicion of recurrence. Singapore Radiological Society & College of Singapore, 19<sup>th</sup> Annual meeting with SGH update, 25-28 Feb 2010, Singapore.

### PATIENT CARE

<b>Radionuclide Investigations</b>	<b>Number</b>
1. Radioactive Iodine Uptake (RAIU)	2352
2. Perchlorate Discharge Test	20
3. I- <sup>131</sup> Whole Body Scan	461
4. Dimercaptosuccinic Acid Scans	970
5. Ca-thyroid I- <sup>131</sup> Whole Body Scan	200
6. Thyrotoxicosis	373
7. DTPA/LLECT <sup>99m</sup> Tc renal dynamic scan	4275
8. Direct Radionuclide Cystourethrography	246
9. Gastro Esophagus Reflux	573
10. Golumlar Filtration Rate	1808
11. Bone Scan	1761
12. <sup>99m</sup> Tc HIDA (Hepatobiliary)	406
13. Thyroid Scan	756
14. Liver Scan	20
15. Meckel’s Study	56
16. Gastro Intestinal Bleed	20

17. Lymphoscintigraphy	32
18. MIBG (diagnostic and therapeutic)	120
19. <sup>153</sup> Samarium bone pain palliation	30
20. Cardiac Studies	1750
21. Myocardial Perfusion Study	932
22. Brain SPECT	345
23. PET-CT Whole Body (including Ga)	3792
24. Brain Gluocopheptonate (GHA)	114
25. Inpatient	660

## 9.21 Nuclear Magnetic Resonance

### Professor and Head

N.R. Jagannathan

### Associate Professor

Rama Jayasundar

### Assistant Professor

S. Senthil Kumaran

### Scientists

Uma Sharma

Sujeet Kumar Mewar

Pawan Kumar

## EDUCATION

### Postgraduate

The faculty participated in and delivered lectures for the course entitled “*Structural Biology and NMR Technology*” and “*Molecular Medicine*” of M. Biotech programme of the Dept. of Biotechnology, AIIMS.

### Short/ Long Term Training

Four persons from medical and science disciplines from various Institutes and Universities from all over India, B.Sc Radiography and B.Sc Nursing students, AIIMS, underwent training in MRI, fMRI and MRS techniques.

### Continuing Medical Education

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

Prof. Jagannathan was a co-organizer of the Weekend Program on “Cancer MRS”, *17<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM)*, Honolulu, USA, April 18-26, 2009.

Prof. Jagannathan was a co-organizer of the Plenary Session on “Prostate Cancer: What Every Man Need to Know”, *17<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM)*, Honolulu, USA, April 18-26, 2009.

### Lectures delivered by Prof. N.R. Jagannathan

- Evaluation of Breast Cancer with MRS. Weekend CME Program, *17<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM)*, Honolulu, USA, April, 2009.
- Diffusion and MR Spectroscopic Imaging in the Evaluation of Prostate Cancer: An Indian Perspective. Center for Prostate Disease and Research (CPDR), Washington, USA, July, 2009.

- Role of diffusion MRI, MR spectroscopy and MR Spectroscopic Imaging in the Assessment of Tumor Response of Breast Cancer Patients. National Cancer Institute (NIH), Washington, USA, July, 2009.
- Quantitative Estimate of in-vivo Metabolites in Breast and Prostate Tissues by MR Spectroscopy. *51<sup>st</sup> American Association of Physicists in Medicine (AAPM)*, Anaheim, California, USA, July, 2009.
- Role of NMR in Medicine: MRI and in-vivo MR spectroscopy. “*Symposium on Recent Trends in Biophysics & Workshop on Emerging Techniques of Biophysics*”, Banaras Hindu University, Varanasi, India, February, 2010.
- Biological Applications of Magnetic Resonance Imaging (MRI) and NMR. Jawaharlal Nehru University, New Delhi.
- NMR in Medicine. *15<sup>th</sup> Refresher Course in Life Sciences*. Jawaharlal Nehru University, New Delhi, January 2010.

#### **Lectures delivered by Dr. Rama Jayasundar**

- Quantum Logic in Ayurveda, National Brain Research Centre (NBRC), Manesar, Haryana, April 2009.
- Science of Ayurveda, Health Ministry, Govt. of India, Nirman Bhavan, May 2009.
- Quantum Logic in Ayurveda, India International Centre, May 2009.
- Quantum Logic in Ayurveda, Foundation for Revitalisation of Local health Traditions (FRLHT), Bangalore, Jun 2009.
- The Science of Ayurveda, National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore, Jun 2009.
- Ayurveda – a different perspective, Shri Shri Ravishankar College of Ayurveda, Bangalore, Jun 2009.
- Demystifying Ayurveda, *27<sup>th</sup> Annual Convention, American Association of Physicians of Indian Origin (AAPI)*, Orlando, Florida, Jun 2009.
- Understanding of disease and health in Ayurveda, Reorientation and Training Program, Foundation for Revitalisation of Local health Traditions (FRLHT), Bangalore. Jun 2009.
- Ayurveda – a different perspective, Sanjeevani Ayurveda and Yoga Centre, Chennai, Jun 2009.
- Ayurveda – its relevance for IT professionals, Compucrafters, Chennai, Jun 2009.
- Quantum Logic in Ayurveda, Sri Ramachandra Medical University, Chennai, July 2009.
- Ayurveda – importance of documentation, Annual Convention of AVTAR, Arya Vaidya Pharmacy, Coimbatore, July 2009.
- Science of Ayurveda, India Habitat Centre, New Delhi, July 2009.
- Quantum Logic in Ayurveda, Good Clinical Practice, Foundation for Revitalisation of Local health Traditions (FRLHT), Bangalore, July 2009.

- Indian Knowledge System : Ayurveda Centre for Sanskrit Studies, Jawaharlal Nehru University (JNU), New Delhi, August 2009.
- Research in Ayurveda, Shri Ravishankar College of Ayurveda, Bangalore, August 2009
- The contemporary relevance of Ayurveda, Centre of Social studies, Jawaharlal Nehru University, New Delhi, September 2009.
- Science of Ayurveda, Indian Foreign service (IFS) probationers, External Affairs Ministry, New Delhi, September 2009.
- Ayurveda : a distinctive approach to health and disease, *International Symposium on Medicinal and Nutraceutical Plants*, New Delhi, November 2009.
- Quantum Logic in Ayurveda, Institute of Postgraduate and Ayurvedic Research, Jamnagar, November 2009.
- Overview of Ayurveda, Indo-US Symposium on Ayurveda, New Delhi, November 2009.
- Ayurveda : a distinctive approach to health and disease, *International Conference on Integrative and Personalised Medicine*, Kolkata, December 2009.
- Demystifying Ayurveda, IIT, Kharagpur, December 2009.
- Ayurvedic kit for common eventualities, External Affairs Ministry, New Delhi, December 2009.
- Ayurveda : a distinctive approach to health and disease, Tattvaloka, Chennai, January 2010.
- Ayurveda : a distinctive approach to health and disease, Central Leather Research Institute, Chennai, January 2010.
- Nuclear Magnetic Resonance, Department of Chemistry, Stella Maris College, Chennai, January 2010.
- Traditional Healthcare System – Ayurveda, Department of Electrical Engineering, Indian Institute of Technology (IIT), Chennai, February 2010.
- Ayurveda – the science of well-being, Institute of Technology and Management, Mumbai, February 2010.
- Ayurveda : a distinctive approach to health and disease, Pillai Management School and Research Institute, Mumbai, February 2010.
- Demystifying Ayurveda, Indian Institute of Technology (IIT), Mumbai, February 2010.
- Ayurveda : a distinctive approach to health and disease, KEM Hospital, Mumbai February 2010.

#### **Lectures delivered by Dr. S. Senthil Kumaran**

- ‘Plasticity in the Brain: Evidence from Neuro and Ophthalmologic Disorders’, *Symposium on Recent Developments and Applications of Biomedical Magnetic Resonance and the 16<sup>th</sup> NMRS Meeting*, 21-24 February 2010. CBMR, SGPGI, Lucknow.

## RESEARCH

### Funded Projects

#### Ongoing

- (i) Magnetic Resonance Spectroscopic Imaging (MRSI) and diffusion-weighted MRI (DW-MRI) in the non-invasive detection, assessment of treatment response and tumor metabolism in breast cancer.

Principal Investigator : N. R. Jagannathan  
Period : June 2008 - May 2011  
Cost : Rs. 20.29 lakhs  
Funding Agency : Department of Science and Technology  
Govt. of India

- (ii) 700 MHz NMR Spectrometer for Biomedical Research.

Principal Investigator : N. R. Jagannathan  
Period : December 2007 - December 2012  
Cost : Rs. 842.6 lakhs  
Funding Agency : Department of Science and Technology  
Govt. of India

#### Departmental Research (Ongoing)

1. MRI and MRS study of animal model of demyelination.
2. Development of pulse sequence for *in vivo* simultaneous suppression of water and fat in breast cancer patients.

#### Collaborative research projects (Ongoing)

1. *In-vivo* and *in-vitro* MR spectroscopy studies of tissue extracts of prostate cancers (with Departments of Urology and Pathology).
2. *In-vitro* MR spectroscopy of colon tissue in patients of IBD (Dept. of GI Surgery).
3. *In vivo* MR spectroscopy study of human breast carcinoma (with Departments of Surgery, Radiotherapy and Pathology).
4. MRI studies of skin cancers (with Department of Biochemistry).
5. MRI study of liver cancer in animal model.
6. *In-vivo* MRS of brain in NIDDM patients (with Department of Medicine).
7. *In vitro* MR spectroscopy of immune cells from mice (with National Inst. of Immunology).
8. <sup>31</sup>P MRS study of skeletal muscle in normal subjects with vitamin D supplementation (with Department of Endocrinology).
9. MRI/MRS studies to evaluate brain metabolism in patients with diabetes melilitus (with Department of Medicine).

10. MRI for in-vivo tracking of iron oxide labeled embryonal stem cells in a rat model of heart failure (with Departments of Cardiology, Cardiac-radiology, Physiology and Stem Cell Facility).
11. MRI of iron oxide nanoparticle formulation (with Institute of Life Sciences, Bhubaneswar).
12. Analytical evaluation of ayurvedic bhasmas (with DST Unit of Nanoscience, Indian Institute of Science, Chennai).
13. Study of cognition and quality of life in chronic intractable epilepsy using fMRI.
14. Neuromapping of functional deficits associated with Parkinsonian disorders.
15. Neural mapping during stoop task of familiar faces (with Department of Physiology).
16. Mapping of neural correlates due to flickering Checker board pattern in Amblyopia using Functional MRI.

## PUBLICATIONS

### Journals

1. Magnetic resonance spectroscopic imaging: current status in the management of prostate cancer. Nayyar R, Kumar R, Kumar V, Jagannathan N. R, Gupta NP and Hemal A. K. *BJU Int.* 2009; 103, 1614-20.
2. Study of normal breast tissue by *in vivo* volume localized proton MR spectroscopy (MRS): Variation of water - fat (W-F) ratio in relation to the heterogeneity of the breast and the menstrual cycle. Sharma U, Kumar M, Sah R.G., and Jagannathan N. R. *Magn. Reson. Imaging*, 2009; 27: 785-791.
3. Potential of <sup>1</sup>H MR spectroscopic imaging to segregate patients who are likely to show malignancy of the peripheral zone of the prostate on biopsy. Kumar V., Jagannathan N. R., Kumar R., Nayyar R., Thulkar S., Gupta S. D., Dwivedi S.N, Hemal A.K., and Gupta N.P. *J. Magn. Reson. Imaging* 2009; 30: 842-8.
4. Effect of vineatrol in focal cerebral ischemia in rats. Briyal S, Sharma U, Jagannathan NR, Gupta YK. *Methods Find Exp Clin Pharmacol.* 2009; 31:505-1.
5. Tamoxifen-2-hydroxylpropyl-beta-cyclodextrin-aggregated nanoassembly for nonbreast estrogen-receptor-positive cancer therapy. Shukla J, Sharma U, Kar R, Juyal S, Jagannathan N. R. and Bandopadhyaya G. P. *Nanomedicine* 2009; 4: 895-902.
6. Assessment of therapeutic response of locally advanced breast cancer (LABC) patients undergoing neoadjuvant chemotherapy (NACT) monitored using sequential magnetic resonance spectroscopic imaging (MRSI). Danishad K. A., Sharma U., Sah R. G., Parshad R., Seenu V. and Jagannathan N. R. *NMR Biomed.* 2010; 23, 233-41.
7. Health and disease: distinctive approaches of biomedicine and ayurveda, Rama Jayasundar, Leadership Medica, 2009:15:6-21.
8. Ayurveda : a distinctive approach to health and disease, Rama Jayasundar Proc.Intl Soc Medicinal and Nutraceutical Plants, 2009:1:6.
9. The distinctive approach of ayurveda to health, disease and plants, Rama Jayasundar, Proc Intl Conf on Integrative and Personalized Medicine, 2009. 143-144.



10. Demystifying ayurveda, Rama Jayasundar, Health Section, Trinity Mirror, 2010:4.
11. Ayurveda and biomedicine: a comparison, Rama Jayasundar, Ayuh Srih, 2010:13-9.
12. Ayurveda: a distinctive approach to health and disease, Rama Jayasundar.

### Abstracts

1. Potential of choline SNR, tumor volume and diameter in the assessment of response of locally advanced breast cancer patients using sequential MRSI and MRI. K. A. Danishad, U. Sharma, R. G. Sah, V. Seenu, R. Parshad, and N. R. Jagannathan. *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 416.
2. Cerebral Metabolism in Obstructive Sleep Apnea: An In-Vivo Proton MRS Study. S. K. Sharma, S. Sinha, U. Sharma, K. A. Danishad, H. Sharma, H. K. Misra, H. Misra, T. Kathiravan, V. V. Reddy, V. Sreenivas, S. S. Kumaran, and N. R. Jagannathan. *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 1127.
3. Variation of the apparent diffusion coefficient measured from various regions of the normal breast tissue using diffusion weighted MRI as a function of various phases of the menstrual cycle. R. G. Sah, U. Sharma, R. Parshad, and N. R. Jagannathan. *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009)2096.
4. Sequential monitoring of fractional anisotropy (FA) and apparent diffusion coefficient (ADC) in an experimental model of demyelination by DTI and DWI. K. Balasubramanian, U. Sharma, S. Senthil Kumaran, S. Muthuraj, D. N. Prasad, and N. R. Jagannathan. *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 3256.
5. The potential of MRI and MRA in the evaluation of cerebral vasospasm in a rat model of subarachnoid hemorrhage. S. R. Ramdurg, A. Suri, D. Gupta, S. K. Mewar, U. Sharma, N. R. Jagannathan, and B. S. Sharma. *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 3263.
6. Therapeutic effect of bleomycin and doxorubicin on Skin tumors: Assessment by MRI. M. R. Rajeswari, U. Sharma, N. R. Jagannathan, and A. Sharma. *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 4177.
7. Clinical potential of absolute concentration of total choline in breast cancer patients using in-vivo proton MR spectroscopy: Assessment of early therapeutic response following neo-adjuvant chemotherapy. R. G. Sah, U. Sharma, R. Parshad, and N. R. Jagannathan. *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 4180.
8. Quantification of absolute concentration of choline for differentiation of malignant, benign and normal breast tissues by in-vivo proton MR spectroscopy. R. G. Sah, U. Sharma, R. Parshad, and N. R. Jagannathan. *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 4236.
9. Metabolism of abnormal and normal colonic mucosa of patients with ulcerative colitis (UC) and Crohn's disease (CD): An in-vitro proton MRS study. U. Sharma, R. R. Singh, V. Ahuja, G. K. Makharia, and N. R. Jagannathan. *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 4309.
10. Study of the characteristics of Normal Breast Tissue during Various Phases of Menstrual Cycle by in-vivo Volume. Localized Proton MR Spectroscopy (MRS). N. R. Jagannathan, M. Kumar, U. Sharma, and R. G. Sah. *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 4334.

11. Quantitative Estimate of in-vivo Metabolites in Breast and Prostate Tissues by MR Spectroscopy. *Med. Phys.* 36, (2009) 2768.
12. Biochemical and morphological characterization of Her2/neu positive and negative invasive ductal carcinoma of the breast cancer. R. G. Sah, U. Sharma, R. Parshad and N. R. Jagannathan. “*Symposium on Recent Trends in Biophysics & Workshop on Emerging Techniques of Biophysics*”, Banaras Hindu University, Varanasi, India, February, 2010.
13. Correlating volume of demyelination lesion with T2, apparent diffusion coefficient (ADC) and fractional anisotropy (FA) in an experimental model to study the pathophysiology of demyelination. Krithika Balasubramanian, Uma Sharma, S Senthil Kumaran and N.R. Jagannathan, “*Symposium on Recent Trends in Biophysics & Workshop on Emerging Techniques of Biophysics*”, Banaras Hindu University, Varanasi, India, February, 2010.
14. Early assessment of the therapeutic response of locally advanced breast cancer patients undergoing neo-adjuvant chemotherapy: sequential monitoring by tumor volume and total choline concentration. R .G. Sah, U. Sharma, R. Prasad, and N.R. Jagannathan. “*16<sup>th</sup> Conference on National Magnetic Resonance Society*”, February 2010.
15. Evaluation of fractional anisotropy (FA) changes in demyelination lesion and the surrounding edema in an experimental model. B. Krithika, U. Sharma, S. S. Kumaran and N. R. Jagannathan. “*16<sup>th</sup> Conference on National Magnetic Resonance Society*”, February 2010.
16. The Potential of MRI and MRA in The Evaluation of Effect of Papavarine on Subarachnoid Hemorrhage Induced Cerebral Vasospasm in Rats. Sujeet Mewar, Uma Sharma, N R Jagannathan, Shashank R Ramdurg, Ashish Suri, Bhavani S Sharma. “*16<sup>th</sup> Conference on National Magnetic Resonance Society*”, February 2010.
17. Demystifying ayurveda, *27<sup>th</sup> Annual Convention, American Association of Physicians of Indian Origin (AAPI)*, Orlando, Florida, USA.
18. Ayurveda – importance of documentation, Annual Convention of AVTAR, Arya Vaidya Pharmacy, Coimbatore.
19. Ayurveda: a distinctive approach to health and disease, *International Symposium on Medicinal and Nutraceutical Plants*, New Delhi.
20. Overview of ayurveda, *Indo-US symposium on ayurveda*, New Delhi.
21. Ayurveda: a distinctive approach to health and disease, *International Conference on Integrative and Personalised Medicine*, Kolkata.
22. Effect of dopaminergic drugs on motor and speech tasks in PD: an fMRI study, Mohit Saxena, S Senthil Kumaran, Sumit Singh, Vaishna Narang, *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 399.
23. An analysis of working memory in Parkinson’s disease with reference to deficiency of Dopamine: an fMRI study, Mohit Saxena, S Senthil Kumaran, Sumit Singh, Vaishna Narang, *Proc. Intl. Soc. Mag. Reson. Med.* 17 (2009) 399.

24. Articulatory Dysfunction in Parkinson's disease: An fMRI study . Mohit Saxena, S Senthil Kumaran, Sumit Singh, Vaishna Narang, Madhuri Behari. *2<sup>nd</sup> Asian and Oceanian Parkinson's Disease and Movement Disorders Congress February*, New Delhi, 15-17 (2009) 53..
25. Articulatory Dysfunction in Parkinson's disease: An fMRI study. Mohit Saxena. S. Senthil Kumaran., S. Singh, V. Narang and M. Behari. Symposium on Recent Developments & Applications of Biomedical Magnetic Resonance and the *16<sup>th</sup> Conference of National Magnetic Resonance Society. CBMR Lucknow*. February 21-23 (2010) 73.
26. Is dopaminergic administration in Parkinson's disease gender dependent?An fMRI study. Mohit Saxena. S. Senthil Kumaran, S. Singh, M..Behari. Symposium on Recent Developments & Applications of Biomedical Magnetic Resonance and the *16<sup>th</sup> Conference of National Magnetic Resonance Society. CBMR Lucknow*. February 21-23 (2010) 74.
27. Differentiating the different classes of Parkinsonism using bold imaging for a simple motor task. Mohit Saxena. S. Senthil Kumaran, S Singh, M Behari. Symposium on Recent Developments & Applications of Biomedical Magnetic Resonance and the *16<sup>th</sup> Conference of National Magnetic Resonance Society .CBMR Lucknow*.February 21-23 (2010) 75.
28. Effect of sad emotions on speech in depressed and non-depressed Parkinson's disease patients: An fMRI study. B. Ramteke, S. S. Kumaran, Mohit Saxena, S. Sood, R. Sagar and M. Behari Symposium on Recent Developments & Applications of Biomedical Magnetic Resonance and the *16<sup>th</sup> Conference of National Magnetic Resonance Society. CBMR Lucknow*. February 21-23 (2010) 67.

### Chapters in Books

1. Health : distinctive approaches of biomedicine and ayurveda, Rama Jayasundar Bridging Science and Spirituality, Motilal Nehru Institute of Technology (Allahabad) and Bhaktivedanta Institute (Kolkata), 167-178, 2010.
2. Ayurveda – the science of well-being, Rama Jayasundar Towards the wellness of body, mind and self, Institute of Science and Religion, Mumbai, 83-92, 2010.
3. Indian Medical System- Ayurveda, Rama Jayasundar, Encyclopedia on Hinduism, 2010.
4. Breast magnetic resonance spectroscopy (Breast MRS). Sharma U and Jagannathan N. R. In: *Encyclopedia of Magnetic Resonance*, eds. R. K. Harris and R. E. Wasylishen, John Wiley: Chichester. DOI: 10.1002/ 9780470034590. emrstm1167. Published 15<sup>th</sup> December 2009.
5. Breast magnetic resonance imaging (Breast MRI). Sharma U, Sharma R and Jagannathan N. R. *Encyclopedia of Magnetic Resonance*, eds. R. K. Harris and R. E. Wasylishen, John Wiley: Chichester. DOI: 10.1002/ 9780470034590. emrstm0045. Published 15<sup>th</sup> March 2010.

### PATIENT CARE

The department has two 1.5 Tesla and one 3.0 Tesla whole body MR scanners for patient care and research. The department provides twelve hours per day of patient care MRI services. The details of the number of patients scanned during the period April, 2009 to March, 2010 are:

Clinical Diagnostic MRI Scan	:	5076 patients
Research	:	327 patients and subjects

## OTHER EXPERIMENTAL FACILITIES

The department has one 4.7 Tesla Animal MR system and one 16.4 Tesla High Resolution NMR Spectrometer. Various MR imaging, diffusion MRI and MR spectroscopy from various projects are routinely being carried out on mice and rats. Using the 9.4 T (Bruker, DRX 400) and 16.4 T (Varian, 700 MHz) NMR spectrometers, large number of samples like serum/ plasma/CSF/ biopsy tissues was studied.

## AWARDS AND HONOURS

Prof N. R. Jagannathan is a member of the editorial board of “*MAGMA*” (*Magnetic Resonance Materials in Physics, Biology and Medicine*), (Springer); member of the editorial board of “*Magnetic Resonance Insights*” (Libertas Academica, USA); Deputy Editor of “*Neuroscience Imaging*”; member of the editorial board “*NMR Biomedicine (John Wiley & Sons)*”; member of the editorial board of “*Magnetic Resonance Imaging*” (*Elsevier*); member of the editorial board of “*Spectroscopy – Biomedical Applications*”(IOC Press, Netherlands); member editorial board of “*Biophysical Reviews*” (Springer); elected member of the executive council, International Union of Pure and Applied Biophysics (IUPAB) (2008-2011); member of the Annual Meeting Program Committee (AMPC), International Society for Magnetic Resonance in Medicine (ISMRM); member of the Education Committee, International Society for Magnetic Resonance in Medicine (ISMRM); member of the steering committee of Asian Biophysics Association (ABA); council member of the International Conference on Magnetic Resonance in Biological Systems (ICMRBS), USA; moderator of a scientific session, 17<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM), Honolulu, USA, April, 2009; weekend faculty at the CME program during the 17<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM), Honolulu, USA, April, 2009; co-organizer, Weekend Program on “Cancer MRS”, 17<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM), Honolulu, USA, 2009; co-organizer, Plenary Session on “Prostate Cancer: What Every Man Need to Know”, 17<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM), Honolulu, USA, 2009; member of the Program Advisory Committee (PAC), Section for Biochemistry, Biophysics and Molecular Biology, Department of Science and Technology (DST), Government of India; member of the Steering Committee of the Sophisticated Instruments facilities (SAIFs) of Department of Science and Technology (DST), Government of India; member of the FIST Committee of the Department of Science and Technology (DST), Government of India; coordinator of the expert panel on “Biomedical Devices and Bioengineering”, Life Sciences Research Board (LSRB), DRDO; member of the INSA committee for International Union of Pure and Applied Biophysics (IUPAB); member of the Program Advisory Committee (PAC), National Facility for High Field NMR, Tata Institute of Fundamental Research (TIFR), Mumbai; member of the Management Advisory Committee (MAC) of the Regional Sophisticated Instruments Facility (RSIC), Indian Institute of Technology (IIT), Chennai.

Dr. Rama Jayasundar was featured on the cover page of the European Journal “Leadership in Medica” for her contribution to ayurveda. She was also invited to contribute the lead article in that issue. She was invited to contribute an article on ayurveda for the 13 volumes Encyclopedia on Hinduism.

## SIGNIFICANT EVENT

Two new facilities namely, one 3.0 Tesla whole body human MR system (Achieva, Philips) and 16.4 Tesla High Resolution NMR Spectrometer (Varian) were inaugurated by **Dr. T. Ramasami**, Secretary, DST, Govt. of India in the presence of **Dr. R.C. Deka**, Director, AIIMS on 23<sup>rd</sup> March, 2010.

## 9.22 Obstetrics and Gynaecology

### Professor and Head

Suneeta Mittal

### Professors

Alka Kriplani

Sunesh Kumar

Deepika Deka

### Additional Professors

Neerja Bhatla

K.K. Roy

### Associate Professors

Neena Malhotra  
J.B. Sharma

Vatsla Dadhwal

Nutan Agarwal  
Neeta Singh

### Assistant Professor

Pradeep Garg (adhoc)

## EDUCATION

- Delhi Post Graduate Medical Education Forum (Deptt. of Obst. & Gynae.) is organizing monthly meetings for postgraduate training since 2001. These are to supplement training of postgraduates in clinical and surgical skills, problem oriented approach to Obstetrics & 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 post graduates.

## Short Term and Long Term Training

- The Department offers short and long term training in various subspecialty subjects like 'Gynae. Endoscopy Surgery', 'High Risk Pregnancy', 'Gynae. Oncology', and 'Gynae. and Obstetrics Ultrasonography' and 'Infertility'. During the year 2009-10 we had 14 long term fellows undergoing training in different subspecialty subjects and 8 short term trainees.

## CME

- The department organizes 'National CME in Obst. & Gynae' in collaboration with National Board of Examination, National Academy of Medical Sciences and World Health Organization every six months. It is a unique, innovative modular teaching programme in which the MD syllabus is covered in six modules over 3 years. Series 3, Module 1 was held 25-26<sup>th</sup> April, 2009 and Series 3, Module 2 was on 2<sup>nd</sup>-3<sup>rd</sup> January, 2010 at AIIMS, New Delhi. The CME modules are attended by more than 200 students as well as senior gynecologists and are accredited by Delhi Medical Council.

## CME, Workshops and Seminars organized by the Department

- CME on Gynae Endocrinology organized by Deptt. of Obst. & Gynae., AIIMS, 10 April 2009.

2. National CME in Obstetrics & Gynaecology (Module 1, series 3), 25-26 April, 2009 at AIIMS, New Delhi.
3. 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.
4. Workshop on Rationale use of Emergency Contraception in India, AIIMS, New Delhi 7<sup>th</sup> September, 2009
5. Fetal Medicine Procedures Workshop on Maternal Fetal Medicine organized by (Genetic Comm. FOGSI; Perinatal Med Comm. AOGD; AIIMS), 26<sup>th</sup> – 31<sup>st</sup> October, 2009, Deptt. of Obst. & Gynaecology, AIIMS.
6. CME on “Recent Advances in Management of Recurrent Miscarriages”, organized by (Genetic Comm. FOGSI; Perinatal Med Comm. AOGD; AIIMS), Deptt. of Obst. & Gynaecology, 31<sup>st</sup> October, 2009, LT-I, AIIMS.
7. 13<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae., AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> - 26<sup>th</sup> November, 2009.
8. CME “Prenatal Diagnosis of Down Syndrome”, organized by (Genetic Comm. FOGSI; Perinatal Med Comm. AOGD; AIIMS), Deptt. of Obst. & Gynaecology, 22<sup>nd</sup> November, 2009, LT-I, AIIMS.
9. Pre Congress Workshop on “Fetal Medicine”, 18<sup>th</sup> Jan, 2010 on at 53<sup>rd</sup> AICOG 2010 at Guwahati organized by the Deptt. of Obstetrics & Gynaecology, AIIMS.
10. 14<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst & Gynae., AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> – 11<sup>th</sup> February, 2009.
11. Workshop on Maternal Fetal Medicine organized by (Genetic Comm. FOGSI; Perinatal Med Comm. AOGD; AIIMS), 15<sup>th</sup> – 20<sup>th</sup> March, 2010, Deptt. of Obst. & Gynaecology, AIIMS.
12. National CME in Obstetrics & Gynaecology, 2-3<sup>rd</sup> January, 2010 at AIIMS, New Delhi.

### Lectures delivered

#### Dr. Suneeta Mittal

1. “Practice of Evidence Based Medicine. Concept of WHO RHL” on 25<sup>th</sup> April, 2009 during the National CME in Obstetrics & Gynaecology held at AIIMS, New Delhi from 25<sup>th</sup> – 26<sup>th</sup> April, 2009.
2. “Current status of endoscopic surgery in Gynae Practice” on 3<sup>rd</sup> August, 2009 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.
3. “Laparoscopic surgeries complications and management” on 6<sup>th</sup> August, 2009 during the 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.



4. "Current status of endoscopic surgery in Gynae Practice" on 16<sup>th</sup> November, 2009 during the 13<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> – 26<sup>th</sup> November, 2009.
5. "Laparoscopic surgeries complications and management" on 19<sup>th</sup> August, 2009 during the 13<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> – 26<sup>th</sup> November, 2009.
6. "Introduction to Reproductive Health Library & Evidence Based Health Care (EBHC)" on 2<sup>nd</sup> January, 2010 during the National CME in Obs & Gynae (Module-2), Series 3, Organised by Dept of Obst. Gynae., AIIMS, Delhi, 3<sup>rd</sup> January, 2010.
7. "Current status of endoscopic surgery in Gynae Practice" on 1<sup>st</sup> February, 2010 during the 14<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob. Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> to 11<sup>th</sup> February, 2010
8. "Laparoscopic surgeries complications & management" on 1<sup>st</sup> February, 2010 during the 14<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob. Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> to 11<sup>th</sup> February, 2010

**Dr. Alka Kriplani**

1. "Management of Hirsutism", CME on Gynae Endocrinology, Organized by Dept Obst. & Gynae, AIIMS, New Delhi, 18<sup>th</sup> April, 2009.
2. "Fibroids & infertility which ones to blame" CME, Organised by Navi Mumbai Obst. & Gynae. Society (NMOGS), Navi Mumbai, 3<sup>rd</sup> May, 2009.
3. "Fibroid & infertility" CME Nidus 2009, Organised by Coimbatore Obst. & Gynae. Society Kumarakam, 6<sup>th</sup> June, 2009.
4. "Abnormal Uterine bleeding" PG teaching CME/workshop, Organised by AOGD & FOGSI, Delhi, 12<sup>th</sup> July, 2009.
5. "Diabetes in Pregnancy" PG teaching CME/workshop, Organised by AOGD & FOGSI, Delhi, 12<sup>th</sup>, July, 2009.
6. Abnormal Uterine Bleeding" PG teaching CME , Organised by Raipur Obst. & Gynae. Society, Raipur, 25<sup>th</sup> July, 2009.
7. "Management of leiomyoma" CME-NIDUS 2009, Organised by Haldwani Obst. & Gynae. Society & USV Pharma, Nainital, 25<sup>th</sup> July, 2009.
8. "Abnormal Uterine Bleeding" (Case presentation), Twelfth practical course & CME, Organised by MAMC & LN Hospital, New Delhi, 4<sup>th</sup> August, 2009.
9. "Endoscopy in infertility" on the 5<sup>th</sup> August, 2009 during the 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. Gynae., AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.
10. "Endoscopy & Hysterectomy" on 10<sup>th</sup> August, 2009 during the 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.

11. "Mirena IUD, CME on Common Obstetrics & Gynaecological problems, Organised by East Delhi Gynaecology forum & Max Balaji Hospital, New Delhi, 18<sup>th</sup> August, 2009
12. "Laparoscopic Myomectomy, 9<sup>th</sup> Annual CME, Organised by NOIDA Obst. & Gynae. Society (NOGS), NOIDA, 30<sup>th</sup> August, 2009.
13. "Managing Abnormal Uterine Bleeding", PG CME, Organised by Rohtak Obst. & Gynae. Society, Rohtak, 4<sup>th</sup> September, 2009.
14. "Endoscopy & Hysterectomy" on 18<sup>th</sup> November during the 13<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> – 26<sup>th</sup> November, 2009.
15. "Endoscopy in infertility" on 25<sup>th</sup> November, 2009 during the 13<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> – 26<sup>th</sup> November, 2009.
16. "Role of micronized progesterone in Obstetrics", CME, Organized by South Delhi Gynae Forum in association with AOGD, Delhi, 28<sup>th</sup> November, 2009.
17. "Role of endoscopic surgery in management of infertility", National CME in Obs & Gynae (Module-2), Series 3, Organised by Dept of Obst. Gynae., AIIMS, Delhi, 3<sup>rd</sup> January, 2010.
18. "Endoscopy in infertility" on 3<sup>rd</sup> February, 2010 during the 14<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. Gynae., AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> to 11<sup>th</sup> February, 2010
19. "Primary Amenorrhoea" PG teaching CME OG QUEST 2010, Organised by Obst. & Gynae. Society of Southern India, Chennai & Sri Ramachandra Medical College & Research Institute, Sri Ramachandra University, Chennai on 5<sup>th</sup> February, 2010.
20. "Abnormal Uterine Bleeding" (Case discussion), PG teaching CME OG QUEST 2010, Organised by Ob Gyn Society of Southern India, Chennai & Sri Ramachandra Medical College & Research Institute, Sri Ramachandra University, Chennai on 5<sup>th</sup> February, 2010.
21. "Endoscopy & Hysterectomy" on 10<sup>th</sup> February, 2010 during the 14<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob. Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> to 11<sup>th</sup> February, 2010

**Dr. Sunesh Kumar**

1. "Forceps / Vacuum Applications (Demonstration):, 3<sup>rd</sup> August, 2009 at Twelfth Practical Course & CME in Obstetrics & Gynaecology at MAMC & LN Hospital, New Delhi.
2. "Laparoscopy-pt. positioning pneumoperitoneum safe first entry, selection of accessory ports indications/contraindications" on 4<sup>th</sup> August, 2009 during the 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.
3. "Laparoscopy-pt. positioning pneumoperitoneum safe first entry, selection of accessory ports indications/contraindications" on 17<sup>th</sup> November, 2009 during the 13<sup>th</sup> WHI Training course in

Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> – 26<sup>th</sup> November, 2009.

4. “Laparoscopy-pt. positioning pneumoperitoneum safe first entry, selection of accessory ports indications/contraindications” on 2<sup>nd</sup> January, 2010 during the 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> – 11<sup>th</sup> January, 2010.
5. “New FIGO Classification of carcinoma cervix, carcinoma endometrium and carcinoma vulva” on 3<sup>rd</sup> January, 2010 National CME in Obs & Gynae (Module-2), Series 3, Organised by Dept of Obst. Gynae., AIIMS, Delhi, 2<sup>nd</sup>-3<sup>rd</sup> January, 2010.

#### **Dr. D. Deka**

1. “Prenatal Diagnostic Procedures” at National CME in Obstetrics & Gynaecology, AIIMS, 26<sup>th</sup> April, 2009.
2. “Endoscopy in Pregnancy and Fetal Endoscopy” on 13<sup>th</sup> August, 2009 during the 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.
3. “Gurukul Gynae” CME which is initiative of Young Talent Promotion Committee” on 19<sup>th</sup> – 20<sup>th</sup> September, 2009 at Pune.
4. “Endoscopy in Pregnancy and Fetal Endoscopy” during the 13<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> – 26<sup>th</sup> November, 2009.
5. “Abortions, Recurrent Pregnancy Loss” at National CME in Obstetrics & Gynaecology, Organized by Deptt. of Obst. & Gynae, AIIMS, 2<sup>nd</sup> January, 2010.
6. “CME at Alwar Organized by Obst. & Gynae Society (AOGS) Alwar, 10<sup>th</sup> January, 2010
7. “Endoscopy in Pregnancy and Fetal Endoscopy” during the 14<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob. Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> to 11<sup>th</sup> February, 2010

#### **Dr. Neerja Bhatla**

1. “Endocrine disorders in pregnancy” during CME on Gynae Endocrinology organized by Deptt. of Obst. & Gynae., AIIMS, 10 April 2009.
2. “Role of HPV vaccine” during Colposcopy Workshop, Maulana Azad Medical College & Lok Nayak Hospital, New Delhi, 30 April 2009.
3. “Cervical Cancer Screening – Choosing the appropriate test” during 12<sup>th</sup> Practical Course and CME in Obstetrics & Gynaecology, Maulana Azad Medical College and Lok Nayak Hospital, New Delhi, 3 August, 2009.
4. “Laparoscopy in Gynae Oncology” on 9<sup>th</sup> August, 2009 during the 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.

5. “Laparoscopy in Gynae Oncology” on 21<sup>st</sup> November during the 13<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> – 26<sup>th</sup> November, 2009.
6. “Laparoscopy in Gynae Oncology” on 6<sup>th</sup> February, 2010 during the 14<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob. Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> to 11<sup>th</sup> February, 2010
7. “HPV Vaccine for Cervical Cancer Prevention – Current Status” during CME on Current Health Issues in Young Girls – An Update in Moolchand Medcity under the aegis of AOGD, New Delhi, 26 September, 2009.
8. “Hypertensive Disorders in Pregnancy” during National CME in Obstetrics & Gynaecology organized by Deptt. of Obst. & Gynae., AIIMS, New Delhi, 2-3 January, 2010.

**Dr. K.K. Roy**

1. “Intrauterine growth restriction” on 25<sup>th</sup> April, 2009 during the National CME in Obstetrics & Gynaecology organized by Deptt. of Obst. & Gynae., AIIMS, New Delhi on 25-26<sup>th</sup> April, 2009.
2. “Hysteroscopic surgeries for infertility” on 3<sup>rd</sup> January, 2010 National CME in Obs & Gynae (Module-2), Series 3, Organised by Dept of Obst. Gynae., AIIMS, Delhi, 2<sup>nd</sup>- 3<sup>rd</sup> January, 2010.

**Dr. Neena Malhotra**

1. “Abdominal and Vaginal Hysterectomy” on 26<sup>th</sup> April, 2009 during the National CME in Obstetrics & Gynaecology organized by Deptt. of Obst. & Gynae., AIIMS, New Delhi, 25-26<sup>th</sup> April, 2010.
2. “Prenatal diagnostic procedures-which are best, suited?” during the CME on Prenatal diagnosis of Down’s syndrome at AIIMS, 22<sup>nd</sup> November, 2009.
3. “Ovulation induction protocols in infertility practice” during the CME of Gurgaon society of Obstetrics and Gynecology 6<sup>th</sup> November, 2009.

**Dr. Vatsla Dadhwal**

1. “Reproductive Tract Infections” in National CME in Obstetrics & Gynecology on 25-26<sup>th</sup> April 2009, AIIMS, New Delhi
2. “Diagnostic/ Office hysteroscopy” during the 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.
3. “Diagnostic/ Office hysteroscopy” during the 13<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> – 26<sup>th</sup> November, 2009.
4. “Preterm labour, preterm premature rupture of membranes” on 2<sup>nd</sup> January, 2010 National CME in Obs & Gynae (Module-2), Series 3, Organised by Dept of Obst. Gynae., AIIMS, Delhi, 3<sup>rd</sup> January, 2010.

5. “Diagnostic/ Office hysteroscopy” during the 14<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> – 11<sup>th</sup> February, 2010.
6. “Pregnancy Induced Hypertension and its management” at CME cum conference of Moradabad Obstetrics & gynecology Society on 9<sup>th</sup> March 2010.

**Dr. Nutan Agarwal**

1. “Ectopic Pregnancy” on 26<sup>th</sup> April, 2009 during the National CME in Obstetrics & Gynaecology organized by Deptt. of Obst. & Gynae., AIIMS, New Delhi, 25-26<sup>th</sup> April, 2010.
2. “Interesting cases of primary amenorrhoea” during the CME on Gynae. Endocrinology, 18<sup>th</sup> April, 2009 at AIIMS, New Delhi.

**Dr. J.B. Sharma**

1. “Management of Genital Tuberculosis” and “Management of female stress urinary in continence” during the CME organized by the Dehardun Obstetrics & Gynaecological Society on 9<sup>th</sup> June, 2009
2. “Management drill of bladder injury” in CME on Enhancing Clinical Skills in Obstetrics on 25<sup>th</sup> July 2009 at LHMC New Delhi.
3. “Colposuspension / TVT in 9<sup>th</sup> annual CME 2009 of Noida Obst. & Gynae society Noida on 30<sup>th</sup> August 2009.
4. “Laparoscopy in Urogynaecology” during the 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.
5. “Laparoscopy in Urogynaecology” during the 13<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> – 26<sup>th</sup> November, 2009
6. “Genital Tuberculosis” on 3<sup>rd</sup> January, 2010 National CME in Obs & Gynae (Module-2), Series 3, Organised by Dept of Obst. Gynae., AIIMS, Delhi, 3<sup>rd</sup> January, 2010.
7. “Laparoscopy in Urogynaecology” during the 14<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> – 11<sup>th</sup> February, 2010.

**Dr. Neeeta Singh**

1. “Medications during pregnancy and teratogens” on 25<sup>th</sup> April, 2009 during the National CME in Obstetrics & Gynaecology held at AIIMS from 25-26<sup>th</sup> April, 2009.
2. “Approach to the patient with infertility” on 3<sup>rd</sup> January, 2010 during National CME in Obs & Gynae (Module-2), Series 3, Organised by Dept of Obst. Gynae., AIIMS, Delhi, 2<sup>nd</sup> - 3<sup>rd</sup> January, 2010.

## **Dr. Pradeep Garg**

1. “Laparoscopic Suturing and Knotting” during the 12<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Obst. & Gynae, AIIMS, UNU & Karl Storz Germany, Delhi, 3<sup>rd</sup> – 13<sup>th</sup> August, 2009.
2. “Laparoscopic Suturing and Knotting” during the 13<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 16<sup>th</sup> – 26<sup>th</sup> November, 2009.
3. “Laparoscopic Suturing and Knotting” during the 14<sup>th</sup> WHI Training course in Minimally Invasive Gynaecology, Organised by Dept Ob. Gyn, AIIMS, UNU & Karl Storz Germany, Delhi, 1<sup>st</sup> to 11<sup>th</sup> February, 2010

## **National and International Conferences**

### **Organized by the department**

1. WHO Expert Group Meetings of Integration & Technical Up-gradation of WHO-Medical Eligibility Criteria Wheel for Contraceptive use into Indian Standards, 16<sup>th</sup> September, 2009, 1<sup>st</sup> October, 2009 and 2<sup>nd</sup> November, 2009 at, New Delhi
2. 2<sup>nd</sup> Anniversary Symposium of IVF Facility on 20<sup>th</sup> February, 2010 at AIIMS.
3. Clinical Meeting of NARCHI at Sir Ganga Ram Hospital, New Delhi on 12<sup>th</sup> March, 2010.
4. Pre-Conference Hands-on Workshop on Cytology and HPV Testing, co-sponsored by DST, AIIMS, 24-25 March, 2010.

### **Lectures delivered**

#### **Dr. Suneeta Mittal**

1. “Mahilaon Mein Garbhashay Tatha Janana Ango Ke Cancer Aur Uske Upchaar” at Akashwani Bhawan, New Delhi on 20<sup>th</sup> April, 2009.
2. “Role of Clinicians in Research” during the Seminar on Translation Health Research : Pathway to Discovery on 28<sup>th</sup> April, 2009 at CSMM University, Lucknow.
3. “Teenage Pregnancy” on 30<sup>th</sup> July, 2009 at Lok Sabha TV, New Delhi.
4. “Changing Trends in Contraception” at Armed forces Medical College, Pune on 17<sup>th</sup> July, 2009.
5. “Contraceptive Scenario in India” during the Workshop of Resource Persons organized by the Indian Medical Association, 1<sup>st</sup> - 2<sup>nd</sup> August, 2009.
6. “Infertility” – Case Discussion on 1<sup>st</sup> August, 2009 during the Twelfth Practical Course in Obstetrics & Gynaecology organized by the MAMC & Lok Nayak Hospital, New Delhi.
7. “Mahilaon mein cancer” at All India Radio on 28<sup>th</sup> August, 2009 at New Delhi.
8. “Evidence based management of endometriosis in infertile women” during the session on Infertility : Common Queries Answered at the NARCHI Conference on 6<sup>th</sup> September, 2009 at AIIMS, New Delhi.



9. "Current Concepts in Termination of 2<sup>nd</sup> Trimester Pregnancy" during the Symposium on Making MTP Safer on 12<sup>th</sup> September, 2009 at New Delhi.
10. "Emergency Contraception" during the DNB Workshop – 2009 organized by the FOGSI at New Delhi on 21<sup>st</sup> September, 2009.
11. "Contraception Acceptance : Gaps and Promises" MOGS Dr. Hanuben Mahendra Nanavati Golden Jubilee Oration during the FOGSI – FPAI Dr. Avabai Wadia Memorial Conference on Contraception on 27<sup>th</sup> September, 2009 at Mumbai.
12. "Contraception for Special Population" at AOGD Annual Conference on 20<sup>th</sup> October, 2009 at New Delhi.
13. "Medical Abortion" at the launch of WHP-PSI-FOGSI Project for improving maternal health through longterm family planning and safe abortions, 24<sup>th</sup> October, 2009 at New Delhi.
14. "RHL, Research Methodology in High Risk Pregnancy during the Maternal Fetal Medicine Workshop on 28<sup>th</sup> October, 2009 at AIIMS, New Delhi.
15. "Endometriosis : Clinical perspectives" on 3<sup>rd</sup> November 2009 during the Indo-US Workshop on Endometriosis on organized by the Deptt. of Physiology at AIIMS, New Delhi on 3<sup>rd</sup> – 7<sup>th</sup> November, 2009.
16. "Hormonal optimum utilization of Combined oral Contraceptives" during the AOGD Annual Conference from 10<sup>th</sup> – 11<sup>th</sup> October, 2009 at New Delhi.
17. "Fetal Monitoring" at the Concurrent Symposium on Perinatology during the XXIX Annual convention of NNF on 12<sup>th</sup> December, 2009 at Ahmedabad.
18. "Emergency Contraception" in the symposia session on "Reproduction, contraception & strategies for Population council" during the International Conference on Reproductive Health-2010 & 20<sup>th</sup> Annual Meeting of the ISSRF on 8<sup>th</sup> February, 2010 at Jaipur.
19. "Hormone Contraception including Nuva Ring during the Endofert Workshop on 21<sup>st</sup> February, 2010 organized by the Sun Pharmaceutical Industries Limited, ICA Division at New Delhi.
20. "Contraceptive with advantages" on 6<sup>th</sup> March, 2010 during the Contraception & Beyond World Congress at Jaipur from 6<sup>th</sup> – 7<sup>th</sup> March, 2010.

**Dr. Alka Kriplani**

1. "Laparoscopy in infertility" 8<sup>th</sup> Annual Conference, Organised by Ranchi Obs. Gynae. Society, Ranchi, 5<sup>th</sup> April, 2009.
2. "Hysteroscopy in infertility" hysteroscopy workshop, Organised by Raipur Obs. Gynae. Society, Raipur, 24<sup>th</sup> July, 2009.
3. "Tackling large fibroids" National Conference on Enhancing Pregnancy Rates in Infertility, Organised by Fortis and AOGD, New Delhi, 2<sup>nd</sup> August, 2009.
4. "DUB, PG training programme – FOCUS 2009, Organised by Thrissur Obs. Gynae. Society, Thrissur, 27<sup>th</sup> August, 2009.



5. “Amenorrhoea”, PG training programme – FOCUS 2009, Organised by Thrissur Obs. Gynae. Society, Thrissur, 27<sup>th</sup> August, 2009.
6. “Surgical Management of Congenital Anomalies in adolescents”, 20<sup>th</sup> Karnataka State Obs & Gyn. Association Conference (KSOGA), Organised by KSOAGA & Bengalure Society of Ob Gyn (BSOG), Bengalure, 6<sup>th</sup> September, 2009.
7. “LNG-IUS:Non-contraceptive benefits”, World Congress on Recent Advances in Obstetrics & Gynaecology, Organised by FOGSI & Mumbai Obs. Gynae.Society (MOGS), Mumbai, 12<sup>th</sup> September, 2009.
8. “Management of Congenital malformations in Young Girls” XIX FIGO World Congress of Gynecology & Obstetrics, Cape Town, South Africa, 7<sup>th</sup> October, 2009.
9. “TLH Made Easy”, 31<sup>st</sup> Annual Conference of AOGD, Organised by AOGD, Delhi, 11<sup>th</sup> October, 2009.
10. “Laparoscopic hysterectomy”, Post-congress workshop, 31<sup>st</sup> Annual Conference of AOGD, Delhi, 12<sup>th</sup> October, 2009.
11. “Diabetes in pregnancy”, second workshop on Maternal Fetal Medicine, Organised by Genetic & Fetal Medicine Committee (FOGSI), AOGD & Dept Ob Gyn, AIIMS, Delhi, 26<sup>th</sup> October, 2009.
12. “Fibroid & Pregnancy”, 21<sup>st</sup> Annual Conference of UP Chapter of Federation of Obstetrics & Gynaecological Society of India (UPCON OBGYN 2009), Varanasi, 7<sup>th</sup> November, 2009.
13. “Congenital Malformations in young girls”, Annual Conference of OGSSI (Obstetric & Gynaecological Society of Southern India) organised by OGSSI, Chennai, 14<sup>th</sup> November, 2009.
14. “Hysteroscopy in infertility” at Gynecon-2009, Organised by Gurgaon Obs. Gynae. Society, Gurgaon, 21<sup>st</sup> November, 2009.
15. “Recent advances in the management of endometriosis”, 53<sup>rd</sup> AICOG, Organised by FOGSI, Guwahati, 20<sup>th</sup> January, 2010.
16. “Total laparoscopic hysterectomy” 9<sup>th</sup> National Conference and Workshop on Minimal Access Surgery, Organised by Indian Association of Gastrointestinal Endosurgeons (IAGES), Delhi, 10<sup>th</sup> February, 2010.
17. “TLH Made Easy”, XIIth Gynae Update 2010, Organised by IMA-Janakpuri under aegis of AOGD, Delhi, 21<sup>st</sup> February, 2010.
18. “Recent advances in Medical Management of AUB”, Silver Jubilee AICC RCOG Conference, Organised by AICC RCOG, Kolkata, 27<sup>th</sup> February, 2010.
19. “Hormones in Gynaecology – An Update” (Panelist), Silver Jubilee AICC RCOG Conference, Organised by AICC RCOG, Kolkata, 27<sup>th</sup> February, 2010.
20. “Maternal Fetal Implications of Medical Disorders in Pregnancy – Diabetes Mellitus, Thyroid Disorders”, 3<sup>rd</sup> Maternal Fetal Medicine Workshop program, Organised by Dept of Obst. & Gynae., AIIMS, Genetic Committee FOGSI, Perinatal Medicine Committee AOGD, Delhi, 15<sup>th</sup> March, 2010.

21. "AUB – diagnosis and management" (lecture & case discussion), FOGSI PG teaching CME, Organised by Surat Ob Gyn Society, Surat, 20<sup>th</sup> March, 2010.
22. "Laparoscopic radical hysterectomy", Precongress oncosurgical video workshop, 4<sup>th</sup> Biennial conference of the Asia Oceania Research organization on Genital Infections and Neoplasia , Organized by AOGIN 2010, Delhi, 26<sup>th</sup> March, 2010
23. "Laparoscopic surgery in gynaecologic oncology", 4<sup>th</sup> Biennial conference of the Asia Oceania research organization on Genital Infections and Neoplasia, Organized by AOGIN 2010, Delhi, 27<sup>th</sup> March, 2010.

**Dr. Sunesh Kumar**

1. "Role of Surgery in Endometrium and "Role of Surgery in Ovarian Carcinoma", 17<sup>th</sup> July, 2009 during the OnCon'09 (Ongoing Cancer Education) at BRAIRCH, AIIMS.
2. "Uterine Artery Embolization for Fibroid Uterus", 8<sup>th</sup> October, 2009 during the 12<sup>th</sup> Annual Conference of Conference of Indian Society of Vascular & Interventional Radiology at AIIMS, New Delhi.
3. "Endometriosis : Clinical Staging, 3<sup>rd</sup> November, 2009 during the Indo-US Workshop on Endometriosis at New Delhi.
4. "Colour Doppler Ultrasonography and 3D Ultrasonography", 18<sup>th</sup> February, 2010 during the IIIrd Maternal Fetal Medicine Workshop at AIIMS, New Delhi.

**Dr. D. Deka**

1. "Prenatal Diagnosis" at Quarterly meeting of Gynaecological Society of Northern India on 22<sup>nd</sup> August, 2009, Jalandhar
2. "Future of Foetal Medicine" at "5<sup>th</sup> FOGSI National Satellite Conference" on 29<sup>th</sup> – 30<sup>th</sup> August , 2009, Ahmedabad organized by Ahmedabad Obstetric and Gynaecology Society.
3. "Twin to Twin Transfusion" in "AOGD Annual Conference" on 10<sup>th</sup> October, 2009 at India Habitat Center, New Delhi
4. "Introduction to Maternal Fetal Medicine" and conduct Fetal Medicine Procedures in Workshop on Maternal Fetal Medicine organized by (Genetic Comm. FOGSI; Peinatal Med Comm. AOGD; AIIMS), 26<sup>th</sup> – 31<sup>st</sup> October, 2009, Deptt. of Obst. & Gynaecology, AIIMS.
5. "Prenatal Screening – Antenatal Diagnosis of Down's Syndrome" and chaired a session on "Management of TORCH Positive Patients during the 21<sup>st</sup> Annual Conference organized by Patiala Obs & Gynae Society, Patiala on 29<sup>th</sup> Nov., 2009"
6. "Fetal Therapy" at XXIX Annual Convention of NNF, NEOCON – 2009 organized by National Neonatology Forum, 12<sup>th</sup> Dec, 2009 at Ahmedabad.
7. "Fetal Assessment and Antenatal Diagnosis" in Perinatology Session a RAJNEOCON – 09, Organized by National Neonatology Forum Rajasthan Chapter and Deptt. of Pediatrics , Vasundhara Hospital & Fertility Research Centre, Jodhpur , 22<sup>nd</sup> – 24<sup>th</sup> January, 2010
8. "Introduction to Maternal Fetal Medicine" and Conducted Fetal Medicine Procedures in Workshop on Maternal Fetal Medicine organized by (Genetic Comm. FOGSI Perinatal Med Comm. AOGD; AIIMS), 15<sup>th</sup> - 20<sup>th</sup> March, 2010, Deptt. of Obst. & Gynaecology, AIIMS

**Dr. Neerja Bhatla**

1. “Role of HPV vaccine” during Colposcopy Workshop, Maulana Azad Medical College & Lok Nayak Hospital, New Delhi, 30 April 2009.
2. Invited Faculty for the Maternal Fetal Medicine Workshop at AIIMS. Demonstration of Procedures in Fetal Medicine OT, U/S for Multiple Pregnancy, biophysical profile, etc. and cases, 26-31 October, 2009.
3. “Cervical cancer prevention current success and future challenges” during FIGO Gynecologic Oncology Education Workshop at Khartoum, Sudan, 19-22 Feb 2010.

**Dr. Neena Malhotra**

1. “Ovulation induction” during the Quarterly meeting of Obstetrical and Gynecological Society of Northern India, Ludhiana, 22<sup>nd</sup> August 2009.
2. “Recurrent Pregnancy Loss” during the Uttaranchal state conference of Obstetrics and Gynecology, 20<sup>th</sup> September, 2009.
3. “Management of TORCH positive patients” during the 21<sup>st</sup> Annual conference of The Patiala Obstetrics and Gynecology Society, 29<sup>th</sup> November, 2009.
4. “Endometrium and PCOS” during the 5<sup>th</sup> Annual conference of Indian Fertility Society, 6<sup>th</sup> February, 2010.

**Dr. Vatsla Dadhwal**

1. “Thyroid disorders in pregnancy “at High Risk Obstetrics Workshop 6-7<sup>th</sup> March 2010 at Sant Parmanand Hospital, Delhi
2. “Ultrasound in 1<sup>st</sup> Trimester” at IIIrd maternal Fetal Medicine Workshop from 15-20<sup>th</sup> March 2010 at AIIMS, N delhi.
3. “Genetic Disorders and Prenatal Genetic Diagnosis” in Symposium on maternal and child health on 1<sup>st</sup> Dec 2009 at Hindu Rao Hospital.
4. “Thrombophilias and RPL” at clinical meeting of Delhi Society of Prenatal Diagnosis & Therapy on 2 May 2009, at AIIMS, N Delhi
5. “Obstetricians role in antenatal diagnosis” at a seminar on Thalassemia care and control org by National Thalessemia Welfare Society on 24 April 2009., N Delhi

**Dr. J.B. Sharma**

1. “Iron therapy in pregnancy, preparations and route of administration” during the AOGD meeting in Safderjung Hospital on 23<sup>rd</sup> May, 2009.
2. “Management of postpartum hemorange” on 21<sup>st</sup> June 2009 in New Delhi at Obst. & Gynae society.
3. “Recurrent pregnancy loss” at Faridabad Obst. & Gynae Society in 24<sup>th</sup> July, 2009.
4. “Anaemia during pregnancy” during the FOGSI post graduate workshop on 31st July 2009 at Safdarjung Hopsital New Delhi.

5. “Medical method of MTP” during 12<sup>th</sup> Practical Course in Obst. & Gynae at MAMC New Delhi from 3<sup>rd</sup> August 2009
6. “Biostatistics and Publication” during the North Zone YUVA FOGSI Congress 2009 Gwalior on 15<sup>th</sup> November 2009.
7. “Management of female genital TB” on 20<sup>th</sup> November, 2009.09 at LRS Institute TB and Respiratory Diseases for DNB course.
8. “Genital TB Gynaec aspect and current management of SUI’s during the Nobha Obstetric and Gynae Society and CME for postgraduates on 9<sup>th</sup> January 2010 at Medical College Patiala .
9. “Laparoscopy in Urogynaecology on 9<sup>th</sup> February 2010 during the 14<sup>th</sup> Training course in minimally invasive Gynaecology at AIIMS.
10. “Hypertension during pregnancy in Goa Obstetrics and Gynaecological society” during the meeting on 18<sup>th</sup> March 2010.
11. “Genital Tuberculosis Update” during the East Delhi Gynaecologist Forum in the East Delhi on 23<sup>rd</sup> March 2010.

**Dr. Pradeep Kumar Garg**

1. “Laparoscopic pelvic anatomy related to radical hysterectomy for carcinoma cervix” during the 4<sup>th</sup> Biennial Conference of Asia Oceania Research Organization on Genital Infections and Neoplasia. 26-28<sup>th</sup> March 2010, Delhi.
1. Panelist – Complications of laparoscopic surgery AICC RCOG 27<sup>th</sup> February 2010, Kolkata.
2. “Laparoscopic sacro colpopexy” during the SURGICON 20<sup>th</sup> November 2009, New Delhi.
3. “Laparoscopic radical hysterectomy for carcinoma cervix” during the 21<sup>st</sup> January 2010 AICOG, Guwahati.
4. “Laparoscopic sacro colpopexy for vaginal vault prolapse” during the USICON 2009, New Delhi.
5. “Laparoscopic pelvic anatomy” during the XVIII Annual Conference AGOICON 2009, Ludhiana.
6. “Laparoscopic myomectomy” during the NZIC (North Zone Infertility Conference) 1<sup>st</sup> November 2009, Meerut.
7. “Laparoscopic recanalization” during the AOGD Annual Conference, IHC 11<sup>th</sup> October 2009, Delhi.
8. “Laparoscopic myomectomy simplified” during the North Zone Yuva FOGSI 2010, Gwalior.
9. “Laparoscopic sacro colpopexy for POP” during the 2<sup>nd</sup> World Congress of Laparoscopic Surgeon, 14<sup>th</sup> & 15<sup>th</sup> February 2010, Gurgaon.

## RESEARCH

### Funded Projects

#### *Completed*

**Title:** Seroprevalence of Cytomegalovirus (CMV) Infection in pregnant women and prenatal diagnosis of Fetal CMV Infection.

Chief Investigator : Dr. D. Deka  
Funding Agency : ICMR  
Duration of Project : 2yrs. (2007-2009)  
Total funding : Rs.2,75,200/-

**Title:** Development of HPV candidate vaccine/s: preparation of clinical trial site/cohort for vaccine testing.

Chief Investigator : Dr. Neerja Bhatla  
Funding Agency : DBT  
Duration of Project : 2005-2009  
Total funding : Rs.84,98,000/-

#### *Ongoing*

**Title :** Prevention of Parents to Child Transmission of HIV

Chief Investigator : Dr. Suneeta Mittal  
Funding Agency : Delhi State AIDS Control Society  
Duration : Ongoing long project  
Total funding : Rs.50,000/-

**Title :** Phase I Clinical trial of once weekly administration of 50 mg Mifepristone as oral contraceptive

Chief Investigator : Dr. Suneeta Mittal  
Funding Agency : ICMR  
Duration : Ongoing long project  
Total funding : HRRC funds

**Title :** Phase III Multicentre clinical trial with subdermal single Rod contraceptive Implant -Implanon

Chief Investigator : Dr. Suneeta Mittal  
Funding Agency : ICMR  
Duration : Two years  
Total funding : HRRC funds

**Title :** An open label, single-arm, Non-comparative study to evaluate the efficacy and safety of iron sucrose (OROFER-S) Injection in the treatment of iron deficiency anaemia during pregnancy

Chief Investigator : Dr. Alka Kriplani  
Funding Agency : Emcure Pharmaceuticals Ltd.  
Duration : 2008-2010.

**Title :** Evaluation of Curcumin in the management of Advanced cancer cervix

Chief Investigator : Dr. Sunesh Kumar  
Funding Agency : DBT  
Duration : January 2006 to 2010

Total Funding : Rs. 51 lacs. (approx.)

**Title :** Comparative study of oral single dose of Metronidazole, Tinidazole, Secnidazole and Ornidazole in the case of Bacterial Vaginosis 2008-2011.

Chief Investigator : Dr. Alka Kriplani  
Funding Agency : Department of Science & Technology  
Duration : 2008-2011.

**Title :** Effectiveness and safety of 2 vs 3 doses of HPV vaccine in preventing cervical cancer: An Indian Multi-centre randomized trial.

Chief Investigator : Dr. Neerja Bhatla  
Funding Agency : WHO-IARC  
Duration : 2009-2014  
Total funding : US \$ 65,000.

**Title :** Evaluation of efficacy and anti-inflammatory action of Placentex™ in women with inflammatory Pap smears.

Chief Investigator : Dr. Neerja Bhatla  
Funding Agency : Albert David Ltd  
Duration : 2010-2011  
Total funding : Rs.2,50,000/-.

**Title :** 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).

Chief Investigator : Dr. Neerja Bhatla  
Funding Agency : MSD Pharmaceuticals Pvt. Ltd  
Duration : 2010-2011  
Total funding : Rs. 8,80,000/-.

**Title :** Perifollicular vascularity and follicular fluid vascular endothelial growth factor (VEGF) concentration in in-vitro fertilization (IVF) cycles

Chief Investigator : Dr. Neena Malhotra  
Funding Agency : AIIMS Research Grant  
Duration : 2008 – 2010  
Total Funding : Rs.2,00,000/-

**Title :** CORONIS – International study of caesarean section surgical techniques – a randomized factorial trial

Chief Investigator : Dr. J.B. Sharma  
Funding Agency : University of Oxford, U.K.  
Duration : March 2007 to March 2011  
Total Funding : Rs. 72,00,000/-

**Title :** Efficacy of DOTS treatment of Genital Tuberculosis

Chief Investigator : Dr. J.B. Sharma

Funding Agency : Central TB Division, Ministry of Health & F.W., Govt. of India  
Duration : March 2009 to March 2011  
Total Funding : Rs. 40,00,000/-

**Title :** Efficacy of DOTS treatment in Genital Tuberculosis

Chief Investigator : Dr. Neeta Singh  
Funding Agency : Central TB Division, Ministry of Health & F.W., Govt. of India  
Duration : March 2009 to March 2011  
Total Funding : 40,00,000/-

## **Departmental Research**

### ***Completed***

1. Role of middle cerebral artery peak systolic velocity in predicting fetal anemia in Rh. Isoimmunisation after previous intrauterine transfusions.
2. Hyperhomocystenemia : In unexplained Recurrent Pregnancy loss and therapeutic response to vitamin B6, B12 and folic acid.
3. Prospective randomized comparative study of total laparoscopic hysterectomy, laparoscopically assisted vaginal hysterectomy and non descent vaginal hysterectomy for the treatment of benign diseases of the uterus.
4. Use of letrozole versus clomiphene citrate combined with gonadotropin in superovulation and IUI cycles.
5. Evaluation of role of FDG-PET/CT in staging and management of ovarian malignancies.
6. To determine the correlation of stage and imaging of endometriosis with fertility outcome
7. Evaluation of positron emission tomography Scan (PET Scan) in preoperative assessment of cases of endometrial carcinoma.
8. Assessment of ovarian reserve in infertile woman with genital tuberculosis.
9. Relationship of fetal Doppler velocimetry to biophysical profile and fetal outcome in normal pregnancies and in pregnancies with intrauterine growth restriction.
10. Feasibility of virtopsy : minimally invasive autopsy using USG imaging and percutaneous organ biopsies as an alternative to open.

### ***Ongoing***

1. Sentinel Lymph node biopsy in endometrial carcinoma
2. A randomized comparative study of ovarian reserve following two different techniques of laparoscopic cystectomy in ovarian endometrioma
3. Correlation of erythropoietin levels and serum transferrin receptor levels with other haematological indices in patients with iron deficiency anaemia in late pregnancy
4. Gabapentin in management of postmenopausal symptoms
5. To evaluate the efficacy of dehydroepiandrosterone (DHEA) therapy in cases of premature ovarian failure with infertility



6. Evaluation of Efficacy of human placental extract and lycopene in clearing inflammatory cervical smears
7. Role of sperm DNA damage and oxidative stress on outcomes of assisted reproductive techniques
8. A randomized controlled study of minimal stimulation IVF with two different protocols in normal responders
9. A randomized comparison of misoprostol administered simultaneously versus 36-48 hours after mifepristone for first trimester abortion.
10. Analysis of pregnancy outcomes and fetal complications in women undergoing prenatal diagnostic tests.
11. To study the role of combined hormonal vaginal ring in the management of dysfunctional uterine bleeding.
12. A comparative evaluation of total laparoscopic hysterectomy versus laparoscopic supracervical hysterectomy.
13. Evaluation of dehydroepiandrosterone (DHEA) therapy as an adjunct to gonadotrophins for ovulation induction in premature ovarian ageing.
14. Weekly paclitaxel in combination with carboplatin every 3 weeks for advanced epithelial ovarian cancer : a pilot study.
15. Randomized comparative study of conventional minilaparoscopy versus modern minilaparoscopy in patients of infertility.
16. Evaluation of efficacy of tranexamic acid in reducing blood loss during and after caesarean section.
17. Prediction of preterm delivery by determination of fetal fibronectin in vaginal secretions
18. To study and compare the cost effectiveness of IVF minimal stimulation protocol versus the conventional protocol in a developing country hospital setup.
19. Role of Anastrozole for treatment of symptomatic leiomyoma in premenopausal women
20. A Clinical Trial comparing thermal balloon ablation and levonorgestrel intrauterine system in patients with dysfunctional uterine bleeding.
21. Nomogram of Fetal Nasal Bone Length at 11-14weeks of gestation.
22. Final protocol and Training manual – Manual for laboratory training on utility and operational feasibility of using the Haemoglobin Colour Scale (HCS) for haemoglobin estimation in the Indian setting
23. Evaluation of efficacy of human placental extract and lycopene in clearing inflammatory cervical smears
24. Screening for inherited thrombophilias in women with adverse pregnancy outcome.
25. Detection and quantification of fetomaternal hemorrhage (FMH) following deliveries in Rh-ve non immunized pregnancy by KBT, flow cytometry.

26. Comparison of harmonic scalpel with bipolar cautery in laparoscopic assisted vaginal hysterectomy.
27. A comparative study of VIA, cyto diagnosis, HPV testing and colposcopy as tools for cervical cancer screening .
28. Screening with cytology, visual inspection , acetic acid and Lugol's iodine for early detection of cervical neoplasia and comparative evaluation of single – versus double freeze cryotherapy technique in the treatment of cervical intraepithelial neoplasia.
29. Doppler assessment in various fetal vessels and fetal weight estimation using antenatal soft tissue thickness in intra uterine growth restriction with normal pregnancies.
30. Prevention of uterine atony during cesarean section : Randomized comparison of sublingual misoprostol versus syntocinon
31. Value of routine antenatal screening ultrasonography at 24-28 weeks of gestation.
32. Effect of intraperitoneal bupivacaine in reducing postoperative pain after laparoscopic gynaecological surgery.
33. Endometrial changes and ovarian function in women with early breast cancer
34. Prophylactic administration of micronized progesterone in prevention of preterm labour in women at increased risk.
35. Correlation of stage and imaging of endometriosis with fertility outcome.
36. Role of messenger RNA PCR in the diagnosis of genital tuberculosis in infertile women.
37. Comparison of uterine and radial artery flow changes detected by pulse Doppler in women undergoing stimulated intrauterine insemination for unexplained infertility.
38. To compare three different time regimen of vaginal misoprostol after oral Mifepristone for medical abortion
39. Transvaginal ultrasound markers for ovarian reserve and periovarian adhesions after laparoscopic ovarian drilling in patients with clomiphene citrate resistant polycystic ovarian syndrome.
40. Comparison of the effectiveness of single versus double intrauterine insemination in infertile couples
41. Role of PET in staging of ovarian malignancies
42. To compare BPP with Doppler in pregnant patients with IUGR in normal pregnancies
43. Ovarian function and endometrial changes in case of carcinoma breast
44. Comparative study between MRI and Ultrasound in prenatal diagnosis using autopsy or postpartum imaging as a standard of reference
45. Application of PET scan in preoperative evaluation of carcinoma endometrium
46. Effect of oral contraceptive containing ethinyl estradiol combined with drospirenone vs desogestrel on clinical and biochemical parameters in patients of PCOS
47. The Comparison between laparoscopic assisted vaginal hysterectomy with non descent vaginal hysterectomy for large large uteri - a randomized clinical trial

48. Role of MRI in evaluation of pelvic organ prolapse and its relationship with POPQ classification.
49. Comparing thermal balloon ablation and levonorgestrel intrauterine system in patients with dysfunctional uterine bleeding.
50. Role of direct fetal intravascular immunoglobulin therapy in Rhesus isoimmunized pregnancies.
51. Evaluation of anti-mullerian hormone as a marker of ovarian response in IVF cycles.
52. Sonographic placental investigation in early pregnancy : correlation with fetal and maternal outcome in singleton pregnancy.
53. Clinical, imaging, endoscopic and laboratory evaluation of female genital tuberculosis.
54. Evaluation of the Screen-and vaccinate strategy as a model for comprehensive cervical cancer prevention.
55. To evaluate endometrial and sub endometrial blood flows in the prediction of pregnancy during in-vitro fertilization treatment.

### **Collaborative Research**

#### ***Completed***

1. Role of mifepristone (RU 486) in the management of Uterine Leiomyoma. Indian Council of Medical Research
2. Role of circulating angiogenetic factors in the pathogenesis of Preeclampsia. Anatomy, AIIMS

#### ***Ongoing***

1. Development of Human Papillomavirus vaccine prototype/s – Molecular Epidemiology of HPV types prevalent in India and Identification of HPV-16 L1& E 6 variants. Department of Biochemistry, AIIMS
2. Apoptosis in placental membranes in pre-eclampsia: An immunohistochemical stud. Department of Anatomy, AIIMS
3. Role of sperm factors in recurrent spontaneous abortion. Department of Anatomy, AIIMS
4. PEARL study (post menopausal evaluation and risk reduction with lasofoxifene) Global research and development, Pfizer Ltd., Pfizer Ltd. Department of Endocrinology, AIIMS
5. The Generations trial. Effects of Arzoxifene on vertebral fracture incidence and on invasive breast cancer incidence in postmenopausal women with osteoporosis or with low bone density. Department of Endocrinology, AIIMS.
6. Sequence based identification of mycobacterium species isolated from extra-pulmonary tuberculosis cases., Lab. Medicine, AIIMS.
7. Establishment and characterization of human fetal liver hematopoietic stem cell line. Medical Oncology, IRCH, AIIMS.
8. To study the subset of Antiphospholipid syndrome defined by anti b2 glycoprotein 1 anti body. Lab. Medicine, AIIMS
9. Role of centchroman in benign breast disease. Department of Surgery, AIIMS

10. Epidural analgesia in labour. Department of Anaesthesiology .
11. Chromosome Aneuploidy and Mosaicism in preimplantation Embryo. Deptt. of Reproductive Biology, AIIMS.
12. Prenatal development and maturation of the human inferior colliculus. Deptt. of Anatomy, AIIMS.
13. Evaluation of ovarian function in female patients with multi-bacillary leprosy. Department of Dermatology & Venereology, AIIMS.
14. Biostatistical Aspects in Case control Studies on Unintended Pregnancies. Department of Biostatistics, AIIMS.
15. A study of molecular basis of endometrial receptivity for blastocyst implantation in primates. Department of Physiology, AIIMS.
16. Prevention of parent to child transmission of HIV. Deptt. of Paediatrics & Microbiology, AIIMS.
17. Efficacy of Phenobarbital on jaundice in babies  $\geq 32$  weeks presenting with Rh haemolytic disease of newborn : A randomized, double – blinded, placebo controlled trial.” Deptt. Of Pediatrics, AIIMS.
18. Diabetes mellitus and vulvo vaginal candidiasis : prevalence and its rational management. Department of Endocrinology, AIIMS.
19. Prevalence of bacterial vaginosis and other reproductive tract infections among symptomatic women (study in tertiary centre). Deptt. of Microbiology, AIIMS.
20. To study the effect of human chorionic gonadotrophin (hCG) on vascular endothelial growth factor (VEGF) expression by human mid-secretary endometrial cells grown on rat-tail collagen matrix. Deptt. of Physiology, AIIMS.
21. Effect of progesterone on hsp 27 expression in human, mid-secretary stage endometrial cells grown on collagen matrix in vitro. Deptt. of Physiology, AIIMS.
22. Elucidation of endometriosis based on transcript profiling. Deptt. of Physiology, AIIMS.
23. To study the prevalence of vitamin D deficiency in pregnant women at first and third trimester during the routine care. Deptt. of Endocrinology, AIIMS.
24. Correlation between first trimester glucose screening & serum insulin levels with development of gestational diabetes mellitus in pregnancy. Deptt. of Endocrinology.
25. An in vitro model study of hyperlipoproteinemia on the degree of LDL receptor expression in placental trophoblast cells: correlation with oral steroid contraceptive induced hyperlipoproteinemia. Indian Council of Medical Research.
26. Comparative evaluation of neo adjuvant chemotherapy vs primary debulking surgery in the management of advanced epithelial ovarian cancer. IRCH, AIIMS
27. p16INK 4a and E-cadherin expression profile in pre-cancerous lesions of cervix and cervical carcinomas. Deptt. of Pathology, AIIMS.
28. Validation of Strategies for Rapid Prenatal Detection of Aneuploidies. Deptt. of Genetics, AIIMS.
29. 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. Deptt. of Genetics, AIIMS.
30. Non invasive prenatal diagnosis of Beta Thalassemia and fetal RhD status. Deptt. of Paediatrics, AIIMS.
31. Establishment & characterization of human fetal liver hematopoietic stem cell line. Deptt. of Medical Oncology, IRCH, AIIMS

32. Endothelial progenitor cells as biomarker of disease activity in multiple myeloma. Deptt. of Oncology, AIIMS
33. Use of Hb A<sub>1c</sub> estimation by HPLC for prenatal diagnosis of b-thalassemia in fetal blood samples during second trimester pregnancies. Deptt. of Haematology, AIIMS.
34. Delineation of molecular basis of trophoblast invasion. National Institute of Immunology.
35. Implantation of human retinal pigment epithelial (RPE) cells in the 6-OH DA lesioned rat model of Parkinson's disease. Deptt. of Neurology, AIIMS.
36. Insights into the role of one-carbon metabolism in progression of cervical carcinogenesis. Department of Biochemistry
37. Effects of estrogen and estrogen-like compounds on female rat cerebellum: A histochemical and molecular study. Department of Anatomy.

## PUBLICATIONS

1. Ambat S, Mittal S, Srivastava DN, Misra R, Dadhwal V, Ghosh B. Uterine artery embolization versus laparoscopic occlusion of uterine vessels for management of symptomatic uterine fibroids. *Int J Gynaecol Obstet.* 2009;105:162-5.
2. Agarwal N, Seth A, Kulshrestha V, Kochar S, Kriplani A. Spontaneous vesicovaginal fistula caused by genitourinary aspergillosis. *Int J Gynaecol Obstet.* 2009;105:63-4.
3. Agarwal N, Kulshrestha V, Lal S, Kriplani A, Thulkar J, Bhatla N. Recurrent spontaneous ovarian hyperstimulation syndrome in pregnancy with hypothyroidism. *Indian Medical Gazettee,* 2009;CXLIII(9):366-8.
4. Agarwal N, Kulshrestha V, Kriplani A. Weekly 70mg oral alendronate therapy in postmenopausal osteopenic women. *Int J Gynecol Obstet* 2009;107(S2):S555.
5. Agarwal N, Kriplani A, Sowmya S, Maheshwari D, Kulshrestha V. Clitoroplasty in cases with virilization at puberty. *Int J Gynecol Obstet* 2009;107(S2):S397.
6. Arora M, Sharma JB, Roy KK, Kumar S, Mittal S, Seth A. Incidence of various urogynaecological and Bowel problems in women. *Int J Gynae Plastic Surgery.* Vol.1(1); 2009
7. Bahadur A, Malhotra N, Mittal S, Singh N, Gurunath S. Second look laparoscopy after anti-tubercular treatment in infertile women with Genital Tuberculosis undergoing in vitro fertilization". *Int J Gynecol Obstet* 2009;8:3
8. Bhatla N, Dash BB, Kriplani A, Agarwal N. Myomectomy during pregnancy: A feasible option. *J Obstet Gynaecol Res* 2009;35(1):173-5.
9. Bhatla N, Gulati A, Mathur SR, Rani S, Anand K, Muwonge R, Sankaranarayanan R. Evaluation of cervical screening in rural North India. *Int J Gynaecol Obstet.* 2009;105(2):145-9.
10. Bhatla N, Moda N. The clinical utility of HPV DNA testing in Cervical Cancer Screening strategies. *Indian J Med Res* 2009;130:261-65.
11. Bhatla N, Joseph E. Cervical cancer prevention and the role of human papillomavirus vaccines in India. *Indian J Med Res,* 2009;130:334-40.

12. Bhatla N, Maheswari ND. HPV screening for cervical cancer in rural India: do we have an answer? *Natl Med. J. India* 2009; 22(4):183-4.
13. Bhatla N, Suri V, Basu P, Shastri S, Datta SK, Dan Bi, Descamps DJ, Bocks LH and the Indian HPV Vaccine Study Group. Immunogenicity and safety of human papillomavirus-16/18 AS04-adjuvanted cervical cancer vaccine in healthy Indian women. *J Obstet Gynaecol Res*, 2010;36(1):123–132.
14. Dadhwal V, Bahadur A, Gupta R, Bansal S, Mittal S.. Peripheral neuroectodermal tumor of the vulva: a case report. *J Low Genit Tract Dis*. 2010 Jan;14(1):59-62.
15. Dadhwal V, Gupta N, Bahadur A, Mittal S. Flare-up of genital tuberculosis following endometrial aspiration in a patient of generalized miliary tuberculosis. *Arch Gynecol Obstet*. 2009 ;280(3): 503-4
16. Dadhwal V, Deka D, Ghosh B, Mittal S. Successful management of live ectopic pregnancy with high beta-hCG titres by ultrasound-guided potassium chloride injection and systemic methotrexate. *Arch Gynecol Obstet*. 2009; 280(5):799-801
17. Dadhwal V, Gupta N, Gupta B, Deka D, Mittal S. Laparoscopic management of isolated fallopian tube torsion in a premenarchal 13-year-old adolescent girl. *Arch Gynecol Obstet*. 2009; 279(6):909-10.
18. Dash BB, Kriplani A, Agarwal. Pregnancy in patients with non-cirrhotic liver disorders. *Int J Gynecol Obstet*. 2009;107(S2):S438.
19. Datta P, Bhatla N, Dar L, Patro AR, Gulati A, Kriplani A, Singh N. Prevalence of human papillomavirus infection among young women in North India. *Cancer Epidemiol*. 2010;31: 157-61.
20. Datta P, Bhatla N, Dar L, Patro AR, Gulati A, Kriplani A, Singh N. Prevalence of human papillomavirus infection among young women in North India. *Cancer Epidemiol*. 2010; 34: 157-161.
21. Datta SK, Bhatla N, Burgess MA, Lehtinen M, Bock HL. Women and vaccinations: From smallpox to the future, a tribute to a partnership benefiting humanity for over 200 years. *Hum Vaccin*. 2009;5(7):450-4.
22. Eunice M, Kulshrestha V, Kriplani A, Dada Rime, Agarwal S, Kucheria K, Karak AK, Gupta SD, Ammini AC. Familial Pure Gonadal dysgenesis with 46 XY Karyotype in three siblings and gondoblastoma in the youngest sibling. *Int J Hum Genet*, 2009;9(2): 123-126.
23. Garg KB, Ganguli I, Kriplani A, Lohiya NK, Thulkar J, Talwar GP. Metabolic properties of lactobacilli in women experiencing recurring episodes of bacterial vaginosis with vaginal PH .e” 5, *Eur J Clin Mircobiol Infect Dis*. 2010;29(1);123-125.
24. Ghosh B, Dadhwal V, Deka D, Ramesan CK, Mittal S. Ectopic pregnancy following levonorgestrel emergency contraception: a case report. *Contraception*. 2009; 79(2):155-7
25. Goel A, Sreenivas V, Bhatnagar S, Lodha R, Bhatla N. Risk of birth defects increased in pregnancies conceived by assisted human reproduction. *Fertil Steril*. 2009;92(1):e7.



26. Gupta.N, Singh Neeta, Mittal.S, Misra R, Dadhwal.V”Intrauterine retention of fetal bones: An unusual cause of pelvic pain” J Obstet Gynaecol Ind 2009; 59:6.
27. Gupta P, Sharma R, Kumar S, Gadodia A, Roy KK, Malhotra N, Sharma JB. Role of MRI in fetal abdominal cystic masses detected on prenatal sonography. Arch Gynecol Obstet. 2009 Aug
28. Gupta P, Kumar S, Roy KK, Sharma JB, Singh N. Parasitic ovarian dermoid stuck to the anterior abdominal wall managed laproscopically. Arch Gynecol Obstet. 2009 Aug 8
29. Gupta S, Malhotra N, Sharma D, Chandra A, Agarwal A. Oxidative stress and its role in female infertility and assisted reproduction: Clinical implications. Int J Fertil and Steril.2009; 2(4): 147-64.
30. Pushplalta K, Sharma JB, Kumar S, Kumar L, Singh N. “Prevalence of urinary and Bowel problems in Gynaecologic malignancies-A cross sectional study”, Journal of International continence society October 2009
31. Kriplani A, Savithrisowmya S, Agarwal N, Garg P, Maheswari D, Ammini AC, Rajan KD. A rare case of large epididymal cyst in Androgen Insensitivity Syndrome removed laparoscopically. J Minim Invasive Gynecol. 2009;16(4):504-6.
32. Kriplani A, Periyasamy AJ, Agarwal N, Kulshrestha V, Kumar A, Amini AC. Effect of oral contraceptive containing Ethinyl Estradiol combined with Drospirenone vs Desogestrel on clinical and biochemical parameters in patients of polycystic ovarian syndrome. Int J Gynecol Obstet. 2009;107(S2):S233.
33. Kriplani A, Sareen N, Agarwal N, Kulshrestha V, Thulkar J. Long term use of the Levonorgestrel Intrauterine System (LNG-IUS) in abnormal uterine bleeding (AUB): Five years experience. Int J Gynecol Obstet 2009;107(S2):S679.
34. Kriplani A, Kulshrestha V, Agarwal N. Efficacy and safety of ormeloxifene in management of menorrhagia. A pilot study. J Obstet Gynecol Res. 2009;35(4):746-52.
35. Kulshrestha V, Kriplani A, Agarwal N, Singh U, Rana T. Diagnosis of genital tuberculosis in infertile women and the effect of anti-tubercular therapy on fertility outcome. Int J Gynecol Obstet. 2009;107(S2):S235.
36. Kulshrestha V, Agarwal N, Kochar S, Lal S, Kriplani A. Clinical significance of TORCH titres in high risk pregnancy. Int J Gynecol Obstet. 2009;107(S2):S567.
37. Kumar P, Shah NP, Singhal A, Chauhan DS, Katoch VM, Mittal S, Kumar S, Singh MK, Gupta D, Prasad HK. Association of tuberculous endometritis with infertility and other gynaecological complaints of women in India. J Clin Microbiol, 2008; 46(12) :4068-4070.
38. Kumar N, Das P, Kumar D, Kriplani A, Ray R. Pelvic actinomycosis mimicking: an advanced ovarian cancer. Indian J Pathol Microbiol. 2010;53(1):164-5.
39. Kumar S, Malhotra N, Chanana C, Lal S. Psoas abscess in obstetrics. Arch Gynecol Obstet. 2009; 279(2):247-9.
40. Lal S, Kriplani A, Kulshrestha V, Sharma M, Agarwal N. Efficacy of mifepristone in reducing intermenstrual vaginal bleeding in users of the levonorgestrel intrauterine system. Int J Gynaecol Obstet. 2010;109(2):128-30.



41. Lunkad A, Kriplani A. Contraception and conception in HIV-positive women. *Asian J of Obs & Gynae Practice* 2009 3:41-43.
42. Lyngdoh BT, Kriplani A, Garg P, Maheswari D, Bansal R. Post hysterectomy menstruation – a rare phenomenon, *Arch Gynecol Obstet.* 2010;281(2):307-9.
43. Lyngdoh B, Kriplani A, Lunkad A. Management and outcome of patients with congenital mullerian anomalies. *Int J Gynecol Obstet.* 2009;107(S2):S251.
44. Mahey R, Dash BB, Kriplani A. Gestational Diabetes Mellitus. *Asian J of Obs & Gynae Practice*, 2010;2:7-10.
45. Maheshwari D, Kriplani A, Agarwal N, Singh UB, Bhatla N. Role of RNA-PCR in diagnosis of genital tuberculosis in infertile women. *Int J Gynecol Obstet.* 2009;107(S2):S253-254.
46. Mahey R, Agarwal N, Kriplani A, Garg P, saraya A. To evaluate the role of serum bile acids in diagnosis of intrahepatic cholestasis of pregnancy and to study the effect of ursodeoxycholic acid in patients with ICP. *Int J Gynecol Obstet.* 2009;107(S2):S444-445.
47. Shamsi MB, Malhotra N, Singh N, Mittal S, Dada R. “DNA integrity and Semen quality in men with low seminal anti-oxidant levels” *Mutation Research /Fundamental and molecular mechanisms of mutagenesis.*665, Issues1-2, June 2009, 29-36
48. Shamsi MB, Venkatesh S, Kumar R, Malhotra N, Singh N et al” *Antioxidant levels in blood and seminal plasma and their impact on sperm parameters in infertile men” Ind J Biochem Biophys.* 2009; 46
49. Mittal S. ‘Role of GnRH analogs in gynecology’ in *Gynecologic Endocrinology.* Kher S Ed. Elsevier 2010. P142-77.
50. Mittal S, Gupta N. ‘Vaginal Birth after previous caesarean delivery’ in *Selected Topics in Obstetrics & Gynaecology-5 for postgraduates and practitioners.* Daftary SN, Desai SV Eds. BI Publications 2009. P17-25.
51. Mittal S, Mathur A. ‘The health situation of women in India: Policies and programmes’ in *Partnerships for Women’s Health Striving for the Best Practice within the UN Global Compact.* Timmermann M, Kruesmann M Eds. United Nations University Press 2009. P155-84.
52. Mittal S. Surgical outcome in women with vaginal agenesis : A retrospective analysis. *Int J Gynae Plastic Surgery.* Vol. 1(1); 2009.
53. Mittal S, Gurunath S, Bahadur A, Singh N, Malhotra N. Sociodemographic profile of infertile couples requesting assisted reproduction in a low resource setting in India. *Int J Gynecol Obstet* 2010 (in press)
54. Neerja R, Dhingra R, Bhatla N, Kumar R. Morphological and histological changes in placentas of pre-eclamptic patients. *Annals of NAMS* 2009;45(3):221-32 .
55. Singh N, Vaid A, Mittal S, Dadhwal V. “Successful pregnancy outcome in case of a huge incisional hernia by elective Caesarean delivery and herniorrhaphy by Mayo Overlap technique “*Indian Journal of Surgery Ref.: Ms. No. IJOS-D-09-00381R1*

56. Nejatizadeh A, Stobdan T, Malhotra N, Pasha MA The genetic aspects of pre-eclampsia: achievements and limitations..*Biochem Genet.* 2009 Aug;46(7-8):451-7
57. Pandey N, Yadav RJ, Kriplani A, Mahapatra SC. Peritoneal fluid leptin and adiponectin levels in infertile patients of endometriosis. *Indian J Physiol Pharmacol*, 2009;53(5S):392.
58. Patro RK, Dar L, Bhatla N, Gulati A, Kriplani A, Pati SK, Kumar P, Broor S. Human papilloma virus genotype distribution in Northern India : Implications for vaccination. *Cancer Res* 2009;69(23 S):C59.
59. Rahman SMR, Malhotra N, Kumar S, Roy KK. A randomized controlled trial comparing the effectiveness of Single versus double intrauterine insemination in unexplained infertility. *Fertility Sterility*, 2010 (in press).
60. Rao S, Saxena R, Deka D, Kabra M. Use of HbA estimation by CE-HPLC for prenatal diagnosis of beta-thalassemia; experience from a tertiary care centre in north India: a brief report. *Hematology*. 2009; 14(2):122-4.
61. Roy KK, Singla S, Baruah J, Kumar S, Sharma JB, Karmakar D. Reproductive outcome following hysteroscopic septal resection in patients with infertility and recurrent abortions. *Arch Gynecol Obstet.* 2009;
62. Roy KK, Baruah J, Sharma JB, Kumar S, Kachawa G, Singh N Reproductive outcome following hysteroscopic Adhesiolysis in patients with infertility due to Asherman's syndrome, *Arch Gynecol Obstet.* 2009;
63. Roy KK, Baruah J, Sharma A, Sharma JB, Kumar S, Kachava G, Karmakar D. A prospective randomized trial comparing the clinical and endocrinological outcome with rosiglitazone versus laparoscopic ovarian drilling in patients with polycystic ovarian disease resistant to ovulation induction with clomiphene citrate. *Arch Gynecol Obstet.* 2009;.
64. Sehgal R, Mittal S, Aruna J. Medical Termination of Pregnancy and Concurrent Contraceptive Adoption in a Tertiary Referral Hospital in Delhi. *Ind J Pub Health.* 2009; 53, 4:
65. Sharma A, Paliwal P, Dadhwal V, Sharma Y, Deka D Rare finding of 2n/4n mixoploidy in mother and fetus with severe immune hydrops..*CytogenetGenome Res.* 2009;124(1):90-3.
66. Sharma JB, Jain SK, Pushparaj M, Roy KK, Malhotra N, Zutshi V, Rajaram S. Abdomino-peritoneal tuberculosis masquerading as ovarian cancer: a retrospective study of 26 cases. *Arch Gynecol Obstet.* 2009 Dec 1
67. Sharma JB, Aruna J, Kumar P, Roy KK, Malhotra N, Kumar S. Comparison of efficacy of oral drotaverine plus mefenamic acid with paracervical block and with intravenous sedation for pain relief during hysteroscopy and endometrial biopsy. *Indian J Med Sci.* 2009;63(6):244-52.
68. Sharma JB, Mohanraj P, Roy KK, Jain SK. Increased complication rates associated with laparoscopic surgery among patients with genital tuberculosis. *Int J Gynaecol Obstet.* 2010.
69. Sharma N, Deka D, Dadhwal V, Mittal S. Identification of Fetal Anemia Due To Rh-isoimmunization by Middle cerebral artery peak systolic velocity (MCA – PSV) Doppler Measurements. *Perinatology* 2009, 11 (1) : 9 - 14

70. Sharma S, Mittal S, Aggarwal P. Management of infertility in low resource countries. *Int J Gynaecol Obstet.* 2009; 116(1) : 77-83.
71. Shamsi MB, Venkatesh S, Tanwar M, Talwar P, Sharma RK, Dhawan A, Kumar R, Gupta NP, Malhotra N, Singh N, Mittal S, Dada R. DNA integrity and semen quality in men with low seminal antioxidant levels. *Mutat Res.* 2009 Jun 1;665(1-2):29-36.
72. Singh A, Datta P, Jain SK, Bhatla N, Dutta Gupta S, Dey B, Singh N. Human papilloma virus genotyping, variants and viral load in tumors, squamous intraepithelial lesions, and controls in a north Indian population subset. *Int J Gynecol Cancer* 2009;19(9):1642-8.
73. Singla S, Kumar S, Roy KK, Sharma JB, Kachhawa G. Severe hydrops in the infant of a Rhesus D-positive mother due to anti-c antibodies diagnosed antenatally: a case report. *J Med Case Reports.* 2010 Feb 18;4:57.
74. Thulkar J, Kriplani A, Agarwal N. Profile of women with recurrent vaginitis at tertiary centre. *Obs & Gynae Today,* 2009;XIV(9):382-4.
75. Thulkar J, Kriplani A, Agarwal N. Probiotic and metronidazole treatment for recurrent bacterial vaginosis. *Int J Gynecol Obstet.* 2010;108(3):251-2.
76. Thulkar J, Kriplani A, Agarwal N, Vishnubhatla S. Aetiology and risk factors of recurrent vaginitis & its association with various contraceptive methods. *Indian J Med Res.* 2010;131: 83-7.
77. Thulkar J, Kriplani A, Agarwal N. Utility of pH test and Whiff test in syndromic approach of abnormal vaginal discharge. *Indian J Med Res.* 2010;131:445-8.
78. Tripathi V, Verma R, Dinda A, Malhotra N, Kaur J, Luthra K. Differential expression of RDX1/CXCR7 in the human placenta. *J Clin Immunol.* 2009; 29(3):379-86
79. Vaid A, Dadhwal V, Mittal S, Deka D, Misra R, Sharma JB, Vimla N. A randomized controlled trial of prophylactic sublingual misoprostol versus intramuscular methyl-ergometrine versus intramuscular 15-methyl PGF<sub>2</sub>alpha in active management of third stage of labor. *Arch Gynecol Obstet.* 2009 280(6): 893-897
80. Venkatesh S, Riyaz AM, Shamsi MB, Kumar R, Gupta NP, Mittal S, Malhotra N, Sharma RK, Agarwal A, Dada R. Clinical significance of reactive oxygen species in semen of infertile Indian men. *Andrologia.* 2009;41(4):251-6.
81. Yadav RK, Pandey N, Kriplani A, Mahapatra SC. Peritoneal fluid leptin level in pelvic endometriosis. *J Physiol Sciences* 2009;59S(1);363.

## Book

Kriplani A, Purandare CN, Agarwal N, Sowmya S, Maheshwari ND. *FOGSI Focus on Endometriosis, an enigma*, 1<sup>st</sup> edition, FOGSI Publication, Mumbai, 2010.

## Chapters in Books

1. Agarwal N, Dr. Kulshrestha V. Etiopathogenesis of endometriosis in *FOGSI Focus on endometriosis an enigma* 2009, 6-10.

2. Deka D. Strategies for Management of Intrauterine Rubella Infection. In Congenital Intrauterine Infections, Pub. JP Brothers 2009; 102-109,
3. Deka D. Introduction – Congenital and Perinatal Infections. In Congenital Intrauterine Infections, Pub. JP Brothers, 2009; xiii - xxxii,
4. Deka D. Ultrasound Guided Procedures in Prenatal Diagnosis of Congenital Infections. In Congenital Intrauterine Infections, Pub. JP Brothers 2009; 236 - 249,
5. Deka D. Illustrative Cases – TORCH Infections. In Congenital Intrauterine Infections, Pub. JP Brothers 2009; 275 - 283,
6. Deka D, Malhotra N. An Introduction to Fetal Medicine. “An Introduction to Genetics & Fetal Medicine” Second Edition, Pub. JP Brothers 2010;3-12
7. Deka D, Singh A. Periconceptional Care. “An Introduction to Genetics & Fetal Medicine” Second Edition, Pub. JP Brothers 2010;21-26,
8. Deka D, Vaid A. Fetal Blood Sampling. “An Introduction to Genetics & Fetal Medicine” Second Edition, Pub. JP Brothers 2010;88-94,
9. Deka D. Fetal Infections. “An Introduction to Genetics & Fetal Medicine” Second Edition, Pub. JP Brothers 2010;121-128,
10. Deka D. Fetal Medicine. Recent Trends in Neonatology. Pub. National Neonatology Forum, 62-86
11. Deka D, Kabra M. Genetic Counseling for Obstetricians. Selected topics in Obstetrics and Gynaecology– 6 for Postgraduates and Practitioners. Shirish N Daftary, Shyam V Desai. Published by BI Publications Pvt. Ltd. 2010; 82-90
12. Denny L, Bhatla N, Wittet S. Human papillomavirus and cervical cancer: prevention and treatment with emphasis on low-resource settings. UICC World Cancer Campaign 2010.
13. Kriplani A, Dash BB, Vijayasree D. Tumor markers in ovarian cancer. In: K. Chitrathara, Shalini Rajaram, Amita Maheshwari Eds. Ovarian cancer-comprehensive and contemporary management. Ist Ed. New Delhi: Jaypee Brothers Medical Publishers, 2009;4:26-30.
14. Kriplani A, Sumana G. Repair of tears : vaginal, parineal and cervical. In:Randhir Puri, Narendra Malhotra Eds. Operative Obstetrics and Gynaecology. 1<sup>st</sup> Ed.New Delhi : Jaypee Brothers Medical Publishers, 2009;22:187-194.
15. Kriplani A Maheswari ND. Endometriosis and Infertility: Current Surgical Management. FOGSI FOCUS on endometriosis, an enigma , January 2010; 27-32.
16. Kriplani A, Lunkad A. Antiphospholipid antibody syndrome in pregnancy. FOGSI FOCUS on Medical Disorders in Pregnancy,2009 – 10;84-87.
17. Kriplani A, Kushwah B. Prevention of Cancers in Menopause. FOGSI FOCUS on the Menopause, January 2010;121-124.
18. Kulshreshtha V, Agarwal N. Bladder endometriosis in FOGSI Focus on endometriosis an enigma 2009, 73-76.

19. Maheswari ND, Kriplani A. Levonorgesterol IUD and Endometriosis. FOGSI FOCUS on endometriosis, an enigma , January 2010;62-64.
20. Mittal S, Sharma JB. “Dilemmas in Diagnosis of Female Genital Tuberculosis”. Mukherjee GG, Tripathy S, Tripathy SN, Ganguly RN (eds) Foundation, Jaypee Brothers Medical Publishers (P) Ltd, New Delhi, pp. 83-91, First Ed. 2010
21. Mittal S. “Gynaecological Disorders” and “Hormone Replacement Therapy”. Editor Dr. O.P. Sharma. A guide to Elderly Care. WHO Country Office to India, pp.471-480
22. Mittal S. Contributed to the chapter on “Medical Sciences” Editors H.Y. Mohan Ram & P.N. Tandon. Science in India – Achievements and Aspirations, INSA, First Ed. 2010
23. Savithrisowmya S, Kriplani A. Mifepristone in Endometiosis. FOGSI FOCUS on endometriosis, an enigma, January 2010 ;68-70.
24. Sharma JB, Karmakar D, Sexually Transmitted Disease in Pregnancy, Saving the Fetus. In Deka D (eds) Congenital Intrauterine Infection 1<sup>st</sup> eds. Jaypee Brothers Medical Publishers (P) Ltd New Delhi, 2009, P 168-182

## PATIENT CARE

Hospital care : Facilities available with department includes special clinic and special laboratory facilities besides the regular Gynaecology outdoor which is held everyday. The following special clinics are held.

Clinics		Number of Patients Attended		
1.	General OPD	6/ week	New – 30,644	Old – 50,214
2.	High risk pregnancy clinic	3/week	New – 2241	Old – 12457
3.	Gynae Endocrine clinic	3/week	New – 48	Old – 77
4.	Gynaecological cancer clinic	2/week	New – 311	Old – 677
5.	Post natal clinic	3/week	New – 48	Old – 07
6.	Medical termination of pregnancy	6/week	New – 813	Old – 200 clinic
7.	Family Welfare clinic	6/week	New – 2830	Old – 1120

## Operations Performed

### Gynaecological:

Major :	
Surgery for benign diseases	- 1500
Oncology Surgery	- 230
Infertility	- 730
Endoscopy surgeries : Laparoscopy	- 2000
Hysteroscopy	- 160
Plastic surgery	- 100

Minor :		
D&C/EA	-	2880
Colposcopy/cryo/LEEP	-	120
Diagnostic hysteroscopy	-	1440
MTP	-	813
Pap's smear	-	1500
Cervical biopsies	-	380

**Obstetrics:**

Major :		
LSCS	-	557
Minor :		
Operative vaginal deliveries : Forceps	-	94
Vaginal deliveries	Normal	- 798

**Fetal Medicine :**

Cordocentesis	-	168
Chorionic Villus Sampling	-	240
Amniocentesis	-	210
In-Utero Infusion	-	180
High risk Obstetrics		
- Obstetric ultrasound	-	3000
- NST	-	1100
- BPP	-	1200
Gynae Ultrasound	-	2000
Ovarian cyst aspirations	-	80

**Laboratory Investigations :**

Urine Pregnancy test	-	1100
Haemoglobin	-	1600
Blood Groups	-	1200
Urine Alb./ Sug.	-	3000

**IVF Facility :**

1.	IVF	124
	ICSI	24
	Antagonist	55
	Agonist	61
	IUI	71
2.	Cycles cancelled	13
	Reasons for cancellation	
	Failure to respond	2
	Fertilization failure	8
	Severe OHSS	-
	Converted to IUI	2
	EHS	12
3.	Frozen Embryo cycles	49
4.	PESA	11
5.	Total number of Pregnancies	24
	Ongoing	6
	Delivered	8
	Abortions	10
	Ectopic	-
6.	Andrology	
	Semen Analysis	356
	Semen wash for IUI	69+14(Donor IUI)=83
	Semen preparation for IVF	160
7.	Ultrasounds	1553
	IVF cycles	148
	Follicle monitoring	444+IUI(160)
	Day 2 AFC & Day 21 ET	700+693
	Total	1553
8.	OPD registrations (Old & New)	

**POST PARTUM PROGRAMME**

The Post Partum Programme (PPP) is a maternity centred hospital based approach to family welfare programme by providing a package of RCH and family welfare services in the vicinity of the



hospital as well as in the field practice areas. It is run as an integrated multidisciplinary exercise where the department of Obstetrics and Gynaecology coordinates with departments of Paediatrics, Community Medicine, Surgery and Anaesthesiology.

### **Achievement of different Family Planning Methods, Post Partum Programme**

<b>Methods</b>	<b>Performance</b>
CuT	608
Oral Pills (13 cycles=1 user)	cycles /145 patient + 389 pkts
Conventional Contraceptives (72 pieces=1 user)	104000 pieces (3674 patients)
<b>Sterilisation</b>	
(a) Tubectomy	995
(b) Vasectomy	43

Note : Family Planning Methods are free of target.

### **Maternal and Child Health (MCH) Performances**

#### **Post Partum Programme**

<b>Services</b>	<b>Performance</b>
<b>Pregnant Women</b>	
TT(Mothers)(2 <sup>nd</sup> or Booster)	Ist – 1595      IInd - 1704
<b>Children (0-1) Year</b>	
DPT (3 <sup>rd</sup> Dose)	M + F = 622/420
Polio (3 <sup>rd</sup> Dose)	M + F = 1211/1109
BCG	1331 + 1189
Measles	696 + 725
<b>Children under five years</b>	
DT	455 + 400

#### **Community Services/Camps**

The Faculty of the department participated in community awareness programmes through public education talks in radio, phone-in programmes and panel discussions on AIR and allied T.V. channels.

1. Camp at BICODEP, Janakpuri in collaboration with Rotary Club, Dec 2009.
2. Reproductive Child Health camps organized by the Directorate of Family Welfare at different hospitals of Delhi Govt.

## AWARDS AND HONOURS

### Dr. Suneeta Mittal

1. Editor - Reproductive Health Library, WHO
2. Vice-President - North Zone, ISOPARB
3. Fellow of Royal College of Obstetricians & Gynaecologists, London
4. Vice-President, Indian Society for Study of Reproduction & Fertility
5. Short Term Consultant for Technical assistance to WHO on Safe abortion in DPRK
6. Member – WHO Fertility Regulation Group.
7. Member – WHO Task Force on Post-Ovulatory Methods of Contraception.
8. Member – International Clinical Epidemiology Network (INCLEN)
9. Member – Indian Clinical Epidemiology Network (IndiaCLEN)
10. Member – Global Network for Perinatal & Reproductive Health (GNPRH)
11. Member – Asia Pacific Network for Promotion of Emergency contraception (APNEC).
12. Member – International Consortium for Medical Abortion (ICMA)
13. Member – Core Assessment committee, ICMR, Delhi.
14. Member – Regional Technical Advisory Group (RTAG) on Adolescent Health Development (AHD) of the World Health Organization.
15. Member – Editorial Board for Asian Journal of Obst. & Gynaec; Obstetrics & Gynaecology today; Samachar, MOHFW, Govt. of India; Scientific Communications in Obstetrics & Gynaecology.
16. Appointed as a Consultant in the panel of consultants/experts to extend medical advice to the Vice President of India.
17. Chairperson Project Review Group on Reproductive Health of Indian Council of Medical Research.
18. Member, Expert Committee to review marketing of Letrozole for Induction of ovulation in anovulatory infertility constituted by the Directorate General of Health Services.
19. Member Technical Advisory Group (TAG) of PATH.
20. Member – Committee of ASSOCHAM and Planning Commission to make this country a better place to live and pay tribute to womanhood and motherhood.
21. Member – Expert Committee to examine issues related to the advertisement of Emergency Contraceptive (EC) Pills in the media of DGHS.\
22. Member – IC-SCRT for Medanta - The Medicity.
23. Reviewer for the Journal of Obstetrics and Gynaecology Research JOGR-2009-0451.
24. Reviewer – National Journals

- a. Indian Journal of Medical Research, ICMR, 1997-onwards;
  - b. Indian Journal of Pediatrics, 1998 onwards;
  - c. National Medical Journal of India, 1999 onwards
  - d. Journal of Obstetrics & Gynaecology of India
  - e. Annals of National Academy of Medical Sciences, since 2005
  - f. Indian Journal of Community Medicine
25. Reviewer – International Journals
- a. International Journal of Obstetrics & Gynaecology of India, 2000 onwards,
  - b. Archives in Obstetrics & Gynaecology, since 2006
  - c. Reproductive Health, since 2001
  - d. Reproductive Health Matters, 2005 onwards
  - e. British Biomedical Central Journal of Pregnancy & Childbirth, 2007 onwards

**Dr. Alka Kriplani**

1. Member Tele medicine Executive Body, AIIMS , 2008-2010.
2. Member – Sub-Committee for Research Proposals, AIIMS, 2009-2010.
3. Member-Committee dealing with complaints regarding sexual harassment of women at AIIMS, 2009-2012.
4. Chairperson, Surgical Death Review Committee, AIIMS, 2009.
5. Member – Anti-Ragging Squad – 2009.
6. Member – Committee for ‘Out Reach OPD programme’ at AIIMS II, Jhajjar, Haryana, 2009.
7. Member – Committee for promoting Hindi at AIIMS, 2009.
8. Member – Hospital Store Purchase Committee, AIIMS, 2009.
9. Special Invitee – Advisory Council of AIIMS Student’s Union Elections, 2010
10. Member – Committee for inspecti for Hindi usage, AIIMS, 2010
11. “Chief Guest” for installation ceremony of Navi Mumbai Ob & Gyn Society office bearers, Organized by Navi Mumbai Obs Gyn Society (NMOGS), Navi Mumbai, 3:5:2009.
12. Editor – Asian Journal Obs & Gynae Practice.
13. Elected Member: For Governing Council of ICOG (Indian College of Obstetricians & Gynaecologists) – 2009-2011.
14. Vice President, NARCHI (National Association for Reproductive & Child Health of India) : 2009
15. Chairperson, Endoscopy Committee, AOGD. – 2009-2011.
16. Co-ordinator, North Zone, Medical Education Committee of FOGSI, 2010-2011.
17. Awarded FOGSI Dr. Nimish Shelat Research Prize for the year 2009 in Reproductive Endocrinology for the year 2009 for the best thesis on the subject of Reproductive Endocrinology

on “Effect of oral contraceptive containing Ethinyl estradiol combined with Drospirinone vs. Desogestrel on clinical and biochemical parameters in patients of polycystic ovarian syndrome”, at 53<sup>rd</sup> AICOG, Guwahati, Jan 2010.

18. Chief guide for the thesis, Use of clomiphene versus letrozole combined with gonadotrophin in superovulation IUI cycles. Awarded FOGSI- Mrs. Indumati Jhaveri Prize for the best presentation on official theme of congress at 53<sup>rd</sup> AICOG, Guwahati, Jan 2010. (Dr. Amol Lunkad

### **Dr. Sunesh Kumar**

Member – Project Advisory Committee on “Screening for Common Cancers in three districts of Himachal Pradesh being conducted by ICMR

### **Dr. Deepika Deka**

1. Chairman – Genetics & Fetal Medicine Committee (FOGSI)-(2007-2010)
2. Chairman - Perinatal Medicine Committee Assoc. Obst. & Gynae of Delhi (AOGD)
3. Executive Member of following Committees of FOGSI :
  - a. Imaging Sciences Committee
  - b. International Exchange Committee
4. UNFPA - Technical Advisory Committee Member for Maternal Morbidity.
5. Peer Reviewer :
  - a. Journal of Obstetrics & Gynaecology of India
6. Editorial Board Member of Journals :
  - a. Obs & Gynae Today
7. AIIMS – Member of the Staff Council for the Year 2006-2007.
8. Department of O & G, AIIMS
  - a. Consultant in charge - Fetal Medicine OT
  - b. Consultant in charge - Obst. & Gynae OPD
9. UG & PG Examiner for Delhi Univ., Gau. University, MAHE, Calcutta Univ. also (PhD), Bharti Vidhyapeeth - Pune, National Board of Examinations , AMU , Faridkot , Utkal Univ. etc.

### **Dr. Neerja Bhatla**

1. Fellowship of National Academy of Medical Sciences.
2. Fellowship of International Medical Sciences Academy.
3. Elected as Vice President AOGIN for 2<sup>nd</sup> Term.

### **Dr. Neena Malhotra**

1. Corion Research Award (senior category) – by the Federation of Obstetrics and Gynecological societies of India (FOGSI) for research paper “ Peritoneal fluid IL-8 and Leptin levels in women

with Endometriosis". Presented at the 53<sup>rd</sup> All India Congress of Obstetrics and Gynecology, Guwhati, January 2010.

2. Overseas Research Fund- by the Royal College of Obstetricians and Gynecologists, UK, to visit Assisted Conception units at Guy' Hospital, London and Aberdeen Maternity Hospital, Aberdeen, U.K.

**Dr. Vatsla Dadhwal**

1. Fellowship of Indian College of Obstetricians & Gynaecologists

**Dr. Nutan Agarwal**

1. Organizing Secretary for CME on Gynae. Endocrinology held on 18<sup>th</sup> April, 2009 at AIIMS, New Delhi.
2. Co-editor of FOGSI Focus on 'Endometriosis an Engima'
3. International Medical Excellence Award by IFS.
4. Silver Medal for poster on weedy 70 mg oral alendronate therapy in postmenopausal osteoporosis women presented at CME on Gynae. Endocrinology organized by Deptt. of Obst. & Gynae. AIIMS under agis of FOGSI, ICOG, AOGD, April, 2009 (Dr. Vidushi Kulshreshta) (Dr. Nutan Agarwal, Principal Investigator).

**Dr. J.B.Sharma**

1. UG and PG Examiner in Delhi University and Dehradun.
2. MRCOG Examination Coordinator for Delhi for last 6 years
3. In-charge of postpartum program of AIIMS for last 4 years actively participating in Family Welfare Programs of Govt. of India.
4. Editor of Obs & Gyne Today and Associate Editor of 3 other Journals :
  - a. Int. J. Gynae. Obstet India
  - b. Asian J Obstet Gynae
  - c. Int J Gynae Plastic Surgery
  - d. Journal Pediatrics Obstetrics Gynaecology
  - e. Ind J Gynae Endoscopy
5. Developed Sharma's Modified Leopold maneuvers and Sharma's Right & Left Lateral Maneuvers for abdominal for abdominal palpation during late pregnancy
6. Reviewer for : a) Internatinal Journal of Gynaecology and Obstetrics
  - b) Int J Gynae Obstet India
  - c) Archives in Obstetrics & Gynaecology
  - d) BMC
  - e) Journal of Obstet Gynecol Res.

- f) Ind J Med Research
- 7. Awarded Ranjana Sharma's best Urogynaecology Award for best video presentation on urogynaecology at 24<sup>th</sup> AICC-RCOG Conference, 28<sup>th</sup> February – 2<sup>nd</sup> March, 2009 at New Delhi.
- 8. PG Forum Co-ordinator

### **SIGNIFICANT EVENTS**

- 1. Established Endoscopy Centre for Training Course on Minimally Invasive Gynaecology under Women's Health Initiative
- 2. Construction of ART Centre at the Department of Obst. & Gynae.

### **VISITING SCIENTISTS**

- 1. Dr. P.C. Ho
- 2. Dr. Helena von Hertzen
- 3. Dr. Allan Templeton
- 4. Dr. Kristina Emzell-Danisson
- 5. Dr. Michael T Mbizvo
- 6. Dr. Katherine Ba Thike

## 9.23 Orthopaedics

### Professor & Head

Prakash P. Kotwal

### Professors

Shishir Rastogi

Arvind Jayaswal

Rajesh Malhotra

### Additional Professor

Hira Lal Nag

### Associate Professors

Ravi Mittal

Chandrashekhar Yadav

Shah Alam Khan

### Assistant Professor

Vijay Kumar

## EDUCATION

### Undergraduate and Postgraduate

The department had several doctors from various parts of the country and Afro-Asian region for short-term training in various aspects of Orthopaedics which include spine surgery, hand surgery, arthroscopy, arthroplasty and trauma surgery.

The department holds regular undergraduate and postgraduate teaching in the form of lectures, bedside teaching, assessment and clinicopathology seminars.

## CONTINUING MEDICAL EDUCATION

### Dr. P.P. Kotwal

1. Chaired a Panel discussion session on Hand during the Annual Conference of Delhi Orthopaedic Association, January 2009.
2. Chairman, Workshop on Locking Compression plate during the Annual Conference of the Delhi Orthopaedic Association, January 2009.

### Dr. S. Rastogi

1. AIIMS cadaver Arthroplasty course 2009, Co-Chairman from 2-3<sup>rd</sup> May 2009.
2. Current concept in arthroplasty Aug 2009 at AIIMS.

### Dr. H.L. Nag

1. Workshop on "Meniscal Injury" was organized by the Deptt. Of Orthopaedics on 18<sup>th</sup> April, 2009 at Conference Hall at AIIMS.
2. A "Cadaver Workshop on Shoulder" was organized by the Department of Orthopaedics during DOACON-2010 on 10<sup>th</sup> Jan., 2010 at Anatomy Dissection Hall, AIIMS.



**Dr. C.S. Yadav**

1. AIIMS cadaver arthroplasty course 2009, 2<sup>nd</sup> & 3<sup>rd</sup> May at AIIMS as Course Director.
2. AIIMS cadaver arthroplasty course 2010, 20<sup>th</sup> & 21<sup>st</sup> March at AIIMS as Course Director.
3. Organized lectures of Prof Wilkins, Prof Sullivan, Prof Elizabeth on 1<sup>st</sup> August 2009 at AIIMS.
4. 12<sup>th</sup>Sep 2009, Basic arthroplasty course, Ganga Ram Hospital, Delhi., Moderated live demonstration surgery done by Prof. Nagi
5. Demonstrated hands on workshop over THR on 12<sup>th</sup>Sep 2009, Basic arthroplasty course, Delhi.
6. Live demonstration surgery over THR on 14<sup>th</sup> June, at IGIMS, Patana, CME organized by Bihar Orthopaedics Association.

**Dr. Ravi Mittal**

1. Co-organizing secretary of symposium on meniscus injuries at AIIMS on 18 April 2009

**Dr. Vijay Kumar**

1. Co-Organising Secretary of Current Concepts in Arthroplasty -2009: Arthroplasty in the young and active, held at AIIMS, 22-23 August 2009

**Lectures delivered****Dr. S. Rastogi**

1. “Current trends in management of giant cell tumors of bone” in 28<sup>th</sup> Annual Conference of North Zone Indian Orthopaedics Association held at PGIMS, Rohtak from 13-15<sup>th</sup> Feb.2009 (NZIACON 2009).
2. “Allograft reconstruction in bone tumors- role of bone bank”, in symposium on limb salvage in malignant bone tumors in Aligarh Muslim university, J.N.Medical College.
3. “Indications of replacement arthroplasty in osteoarthritis” First Congress of Indian Orthopaedics Rheumatology Association, LLRM Medical College, Meerut on 4-5<sup>th</sup> July 2009.
4. “Current concepts in diagnosis & management of Osteosarcoma.in the MIDCON 2009 conference at Safdarjung Hospital on 2<sup>nd</sup> August 2009.
5. “Bone Tumors of foot & ankle” on Indian Foot & Ankle Society annual meet on 4-6<sup>th</sup> Sept.2009, at Allahabad.
6. “Current concepts in osteosarcoma” in Midterm symposium 2009, Ghaziabad Orth., club from 12-13<sup>th</sup> Sept.2009.
7. “Limb preservation strategies in osteosarcoma” in National Conf. of Indian Association of Surgical Oncology.2009 at Kolkata from 18-20<sup>th</sup> Sept.2009.
8. “Pathological fractures “on 4<sup>th</sup> Oct.’09 in the MIDCON ’09 at Haldwani. Uttaranchal chapter of IOA.

9. "Non Prosthetic reconstruction of limb in Benign and Malignant bone tumours" Joint annual meeting of Central zone & MP chapter of IOA. Bhopal. 30<sup>th</sup> Oct- 1st Nov.2009.
10. "On orthopaedic Management of Charcot Joint" in Annual Conference of Indian Podiatry Association on 22<sup>nd</sup> Nov.2009.
11. "Bone banking & allografts in Orthopaedic diseases IOACON 2009 Bhuvaneswar on 23<sup>rd</sup>-26<sup>th</sup> Nov.2009.
12. "Examination of Bone Tumors", BHU Varanasi – PG course organized by Varanasi Orth.Club on 12<sup>th</sup> Dec.2009.
13. "Changing scenario in orthopaedics" in the Annual conf.Bangalore Orth.Society (BOSCON 2010 )on 24<sup>th</sup> Jan.2010 at Bangalore.
14. "Recent advances in the management of fracture neck of femur" Dubai Bone & Joint Centre Orthopaedic Update 2010 held on 4<sup>th</sup> Feb.2010 at UAE.
15. "Recent advances in the management of distal radial fractures". Dubai Bone & Joint Centre Orthopaedic Update 2010 held on 4<sup>th</sup> Feb.2010 at UAE.
16. "Allografts in tumour surgery", NZIOACON 2010 annual conf. at Jammu: 19<sup>th</sup>-21<sup>st</sup> Feb.2010
17. "Osteosarcoma" in NZIOACON 2010 annual conf. at Jammu: 19<sup>th</sup>-21<sup>st</sup> Feb.2010.
18. "Megaprosthesis in Bone Tumors" in West Bengal Ortho.association at Siliguri, on 12-14<sup>th</sup> Feb.2010
19. "Why hemiarthroplasty fail" UPORTHOCON conf. on 18.2.10 at Allahabad.
20. "Pelvic Tumours" at Sikkim, XXII Annual Conference of North East Orth.Society (NEOSCON 2010) from 10-12<sup>th</sup> March 2010 at Lachung, Sikkim.
21. "Stiff elbow" in Symposium on Paediatric orth. Organized by Muzaffar Nagar Orth.Society on 21<sup>st</sup> March 2010.
22. "Role of surgery in limb preserving approaches for bone and soft tissue sarcomas of extremities." RGCON 2010 at India habitat centre, New Delhi from 26-28<sup>th</sup> March2010 organized by Rajiv Gandhi Cancer Institute & Research Centre, New Delhi

**Dr. R. Malhotra**

1. "Classification of pelvic ring injuries - A clinical perspective" in AO Advance Course held at India Habitat Center, New Delhi, on April 16 - 18, 2009.
2. "Classification of Pelvis Fractures" in AO Advance Course held at India Habitat Center, New Delhi, on April 16 - 18, 2009.
3. "MIS: Angel or Devil" in Delhi Knee Symposium held at Sant Parmanand Hospital, New Delhi, on April 25, 2009.
4. "Technique of Femoral Cementing" in NOVACON 2009 held at Essex Farms, New Delhi on April 26, 2009."Exercises for Osteoporosis" on the occasion of release of Book on Exercises for Bone Health at AIIMS, On 16.06.2009."Total Hip Replacement in Patients with Severe Osteoporosis" in Symposium on Osteoporosis held at Hotel Taj Krishna, Hyderabad on 28.06.09.

5. "Current Status of Injectable Bisphosphonates in the Treatment of Osteoporosis" in South Delhi Orthopaedic Society Monthly Meet in New Delhi on 09.07.2009.
6. "Total Hip Arthroplasty in Severe Osteoporosis" in West Delhi Orthopaedic Club Monthly Meet in New Delhi on 11.07.2009.
7. "Total Hip Replacement in patients with severe osteoporosis" – in Symposium on Osteoporosis held at Hotel Le Meridien, Cochin on 06.09.2009.
8. "Zoledronic Acid: Why, When and How"? In Hotel Le Meridien, New Delhi on 12.09.2009.
9. "Approaches to the distal humerus fixations" in Academia Orthopaedics 2009 held at Jamnagar (Gujarat) on October 9-11, 2009.
10. "Indirect reduction methods in fracture fixations" in Academia Orthopaedics 2009 held at Jamnagar (Gujarat) on October 9-11, 2009.
11. "Multiple cannulated cancellous screws, less invasive, more rewarding" in Academia Orthopaedics 2009 held at Jamnagar (Gujarat) on October 9-11, 2009.
12. "Proximal Femoral Osteotomies" in Academia Orthopaedics 2009 Held at Jamnagar (Gujarat) on October 9-11, 2009.
13. "Osteoporosis – All that you need to Know" in Indo-French Technical Association Meeting in Orient Hall, Asiad Village, on Oct 24, 2009.
14. "Anabolic Treatment for Vertebral Fractures" in, Symposium on Osteoporosis held at Hotel Shangri La, New Delhi, on Oct 25, 2009.
15. "Osteoporotic hip fractures" in Baroda Orthopaedic Association Annual Meeting on 8th Nov. 2009, at Baroda.
16. "Challenges of Osteosynthesis in Osteoporotic Bones" delivered in symposium on "Optimising Osteoporosis Treatment" held at The Retreat, Erangal Beach, Mumbai on (Sunday) 06.12.09.
17. "Musculoskeletal Challenges in Patients on Steroid Therapy" on 7<sup>th</sup> Jan 2010 at Jawahar Lal Nehru Auditorium, AIIMS, New Delhi during Annual National Conference & Workshop "Physical Therapy 2010–Theme: Vision 2020" organized by Department of Orthopaedics, AIIMS, New Delhi.
18. Revision Total Hip Replacement – a saga of a decade of challenges and trials" in Annual Conference of Delhi Orthopaedic Association (DOACON 2010), New Delhi, Jan 9-10, 2010.
19. "Kinematics of the Replaced Knee – How Does it Differ from the Normal" in 4<sup>th</sup> Joint Replacement State of Art at Indian Habitat Centre, New Delhi on February 6-7, 2010.
20. "Evaluation the Unhappy TKR Patient" in 4<sup>th</sup> Joint Replacement State of Art at Indian Habitat Centre, New Delhi on February 6-7, 2010.
21. "Evaluation of Painful THR" in 4<sup>th</sup> Joint Replacement State of Art at Indian Habitat Centre, New Delhi on February 6-7, 2010.
22. "BMHR – Tips & Tricks" in XXIX<sup>th</sup> NZIOACON 2010, on February 20-21, 2010 at Jammu.

**Dr. H.L. Nag**

1. Is meniscus a vestigial structure” at Workshop on Meniscus Injury at AIIMS, 18<sup>th</sup> April,2009.
2. Clinical Examination of the Knee Joint” at Indian Arthroscopy Society Cadaver Workshop at Safdarjung Hospital, 12<sup>th</sup> July,2009.
3. “Clinical assessment of ACL deficient knee joint” at CME, Guwahati Medical College, Assam, 26<sup>th</sup> August,2009.
4. “Arthroscopic assisted ACL reconstruction” at CME, Guwahati Medical College, Assam, 26<sup>th</sup> August,2009.
5. “Clinical Examination of the knee joint” at CME, Indian Arthroscopy Society Cadaver Workshop at Safdarjung Hospital, 20<sup>th</sup> September,2009.
6. “How to read the MRI of knee joint” at CME, Indian Arthroscopy Society Cadaver Workshop at Safdarjung Hospital, 20<sup>th</sup> September,2009.
7. Pitfalls of Double Bundle ACL Reconstruction at CME, Maulana Azad Medical College Sports Injury and Arthroscopy Update, 13<sup>th</sup> December,2009.
8. “PCL injury when to operate and when not to operate” at CME, 6<sup>th</sup> Sports Medicine and Arthroscopy Workshop at Sir Ganga Ram Hospital, New Delhi, 7<sup>th</sup> March,2010.
9. “Cruciate ligament injury of knee joint and its managements”, at CME program of PAN-African e-network project of AIIMS, 24<sup>th</sup> November,2009.
10. “Osteochondral injuries of joints and its managements”, at CME program of PAN African e-network project of AIIMS, 24<sup>th</sup> November,2009.

**Dr. C.S. Yadav**

1. 14<sup>th</sup> June, at IGIMS, Patana, CME organized by Bihar Orthopaedic Association, Did live demonstration surgery over THR.
2. 9<sup>th</sup> Jan., Table instructor TKR Workshop, DOACON-2010.

**Dr. Ravi Mittal**

1. Principles of using LCP at LCP symposium at Sriganaganagar on 28 March 2009
2. Distal femoral LCP at LCP symposium at Sriganaganagar on 28 March 2009
3. Table Instructor at AO course on advances in operative fracture management at New Delhi on 16-18 April 2009
4. Meniscus repair techniques at symposium on meniscus injuries at AIIMS on 18 April 2009
5. Stiff elbow at elbow symposium organized by South Delhi Orthopedic Society on 29.8.09
6. Shoulder X-ray and MRI- what to see at DITO on 8.11.09
7. Imaging of ACL graft at MAMC sports injury and arthroscopy update on 13.12.09
8. Recent trends in fracture management using LCP at Sanjay Gandhi memorial hospital New Delhi on 19.12.09

9. Distal femoral LCP at Sanjay Gandhi memorial hospital New Delhi on 19.12.09
10. Recent advances in long bone nonunion at DBAJ Orthopaedic update 2010 in Dubai on 4.2.10
11. Double bundle ACL reconstruction at DBAJ Orthopaedic update 2010 in Dubai on 4.2.10
12. Recent advances in non unions of long bone at the meeting of West Delhi Orthopedic Club on 13.2.10
13. Frozen shoulder at Delhi Shoulder Course at ISIC on 6.3.10
14. Imaging of cruciates at sports injury and arthroscopy update at Gangaram Hospital on 7 March 2010
15. Double bundle tibial inlay method of PCL reconstruction at sports injury and arthroscopy update at Gangaram Hospital on 7 March 2010

## **NATIONAL AND INTERNATIONAL CONFERENCES**

### **Dr. S. Rastogi**

1. Annual conference on DOACON-2009 as Co-Chairman.

### **Dr. Ravi Mittal**

1. Part of the organizing committee of annual conference of IFSM on 6-8 Nov.,2009.
2. Organising Secretary of DOACON-2009 at AIIMS on 9-10 January,2010

## **Lectures delivered**

### **Dr. P.P. Kotwal**

1. "Role of LCP in fractures of the proximal humerus" at the "Workshop on Locking Compression Plate" held during the Annual Conference of the Delhi Orthopaedic Association, January 2009.
2. "Role of LCP in fractures of the distal radius" at the "Workshop on Locking Compression Plate" held during the Annual Conference Delhi Orthopaedic Association, January 2009.
3. "Intra-Articular fractures of the Hand" during the Annual Conference Delhi Orthopaedic Association, January 2009.
4. "Role of surgery in Rheumatoid Hand" at the AIIMS Rheumatology Update held in, Feb. 2009.
5. "Evaluation of Hand" at the Basic Hand Course organized under the aegis of Indian Society for Surgery of the Hand at Ludhiana in, March 2009.
6. "Acute Flexor Tendon Injuries" at the Basic Hand Course Organized under the aegis of Indian Society for Surgery of the Hand at Ludhiana, March 2009.
7. "Fractures of the Scaphoid" at the Basic Hand Course organized under the aegis of Indian Society for Surgery of the Hand held at Ludhiana, March 2009.
8. "Management of Nerve Injuries" at the Basic Hand Course organized under the aegis of Indian Society for Surgery of the Hand held at Ludhiana, March 2009.
9. "Partial Thickness Skin Grafting" at the Basic Hand Course organized under the aegis of Indian Society for Surgery of the Hand held at Ludhiana, March 2009.

10. "Instruments in Hand Surgery" at the Basic Hand Course organized under the aegis of Indian Society for Surgery of the Hand held at Ludhiana, March 2009.
11. "Fractures of the middle and proximal phalanx" at the Basic Hand Course organized under the aegis of Indian Society for Surgery of the Hand held at Ludhiana, March 2009.
12. "Reduction Techniques" at the AO Introduction Course at Raipur, May 2009.
13. "Old and New Millennium" at the AO Introduction Course at Raipur, May 2009.
14. "Articular Fractures" at the AO Introduction Course at Raipur, May 2009.
15. "Roll of Hand Surgery in Rheumatoid Arthritis at the AIIMS Rheumatology Update, 2009.
16. "Microvascular Fibular Diaphyseal Transplant for congenital pseudoarthrosis of tibia" at MIDCON 2009 at Delhi Orthopaedic Association held at New Delhi, August 2009.
17. "Common Painful condition of the upper limb" at the Hand CME at Indore, August 2009.
18. "Elbow Arthroplasty" at the Elbow symposium organized by South Delhi Orthopaedic Society, August 2009.
19. "Flexor Tendon Injuries" at the Maulana Azad Medical College PG Course, New Delhi, September 2009.
20. "Hand Injuries" at the Conference on "Wound Healing" at the Gauhati Medical College, Guwahati in October 2009.
21. "Acute Tendon Injuries" at the Conference on "Wound Healing" at the Gauhati Medical College, Guwahati in October 2009.
22. "Fractures of the Proximal Humerus" at AO Experts Forum on Upper Extremity Organized under the aegis of AO Education, Switzerland held at Mumbai, November 2009.
23. "Fractures of the Distal Radius" at AO Experts Forum on Upper Extremity Organized under the aegis of AO Education, Switzerland held at Mumbai, November 2009.
24. "Neglected Injuries of the DRUJ" at the CME Programme of the Annual Conference of the Indian Orthopaedic Association held at Bhubaneswar in November 2009.
25. "Congenital Radioulnar Synostosis" at the Annual Conference of the Indian Orthopaedic Association held at Bhubaneswar in November 2009.
26. "Distal Radius Fracture" at the Annual Conference of the ISSH (Indian Society for Surgery of the Hand), New Delhi, December 2009.
27. "Radial Club Hand" at the Annual Conference of the ISSH (Indian Society for Surgery of the Hand), New Delhi, December 2009.
28. "GCT MCP Joints" at the Annual Conference of the ISSH (Indian Society for Surgery of the Hand), New Delhi, December 2009.
29. "Proximal Humeral Locking Plate – Trips & Pearls" at the Pre-Conference Workshop on "Fractures of the Proximal Humerus" organized during the 36<sup>th</sup> Annual Conference of the Bihar Orthopaedic Association held at Supaul, Bihar; February 2010.

30. "Tuberculosis – An Enigma" at the Pre-Conference Workshop on "Fractures of the Proximal Humerus" organized during the 36<sup>th</sup> Annual Conference of the Bihar Orthopaedic Association held at Supaul, Bihar; February 2010.
31. "Shoulder Arthroplasty in Proximal Humeral Fractures" in the Delhi Shoulder Course; March 2010.
32. "Carpal Instabilities: Treatment Options" at the Annual Conference of Indian Orthopaedic Association held at Bhubaneswar in November 2009.
33. "Classification of Multi National Injuries" at the Annual Conference of Indian Orthopaedic Association held at Bhubaneswar in November 2009.
34. Co-Chairman, A.O. Advanced Course, New Delhi, April 2009.
35. Chaired a scientific session at the A.O. Advanced Course, Organized under the aegis of A.O. Education, Switzerland, and held at New Delhi, April 2009.
36. Co-Chairman of the A.O. Advanced Course, Organized under the aegis of A.O. Education, Switzerland, and held at New Delhi, April 2009.
37. "Proximal humeral fractures" at the Advanced A.O. Course on Principles in operative fracture management, organized under the aegis of AO Education, Switzerland at New Delhi, April 2009.
38. "Fractures of the distal radius" at the Advanced A.O. Course on Principles of Operative, Switzerland at New Delhi, April 2009.
39. "Medicine and Research at the Indian Station in Antarctica" at a Workshop on Antarctic Research held at National Institute of Polar Research, Tokyo, Japan, August 2009.
40. "Studies on Psychological Aspects" at a Workshop on Antarctic Research held at National Institute of Polar Research, Tokyo, Japan, August 2009.
41. "Skin Changes" at a Workshop on Antarctic Research held at National Institute of Polar Research, Tokyo, Japan, August 2009.
42. "Management of Osteoporotic Fractures of the Distal Radius" at the International AO Advanced Symposium on Fixation of Osteoporotic Fractures held at New Delhi, September 2009.
43. Governor, of a practical exercise on fractures of the distal radius during the A.O. Advanced Course, organized under the aegis of A.O. Education, Switzerland and held at New Delhi, 2009.
44. "Sports Injuries of the Hand and Wrist" at the "Sports Medcon" organized by the Sports Federation of India, at New Delhi, November 2009
45. "Surgical Anatomy of the hand" at the 12<sup>th</sup> Asian Federation of Sports Medicine Congress held at Amritsar, December 2009.
46. "Policisation" at the 12<sup>th</sup> Asian Federation of Sports Medicine Congress held at Amritsar, December 2009.



47. “Surgical Reconstruction of the Wrist drop” at the 12<sup>th</sup> Asian Federation of Sports Medicine Congress held at Amritsar, December 2009.
48. “Management of Pilon Fractures” at the Arab Health Congress held at Dubai, UAE, Jan. 2010.
49. “Foot Drop” at the Arab Health Congress held at Dubai, UAE, Jan. 2010.
50. “Flexor Tendon Injuries in Hand” at Gulf Medical University Medical College, Ajman, UAE, Jan 2010.
51. Chairman Workshop on Stem Cell Potentials in Renal Repair and Regeneration Clinical and Experimental Aspects, AIIMS, New Delhi, December 2009.
52. Chairman 33<sup>rd</sup> Annual Conference of ISSH 2009, New Delhi, December 2009.
53. Chaired a Scientific discussion Session on Paediatric Orthopaedic during the Annual Conference of the Delhi Orthopaedic Association, January 2010.
54. “Sport Injuries of Hand and Wrist” at the DOACON 2009, New Delhi, January 2010.
55. “Replacement in Upper Humeral fractures – pearls and pit falls” at the Delhi Shoulder Course, March 2010.
56. “Fractures of the Upper end of Humerus” at the “Symposium on Complex Fracture Management” held at Amritsar, March 2010.
57. “Acute Flexor Tendon Injuries” at the ISSH Basic course in Hand Surgery held at Sir Gangaram Hospital, New Delhi; April 2010.
58. “Middle and Proximal Phalanx fracture” at the ISSH Basic Course in Hand Surgery held at Sir Gangaram Hospital, New Delhi; April 2010.

**Dr. R. Malhotra**

1. Hemant Warhatkar, Anoop Chawla, Sudipto Mukherjee, Rajesh Malhotra, ” Experimental Study of Variation between Quasi-Static and Dynamic Load Deformation Properties of Medial Collateral Knee Ligaments” Paper 2009-01-0392, SAE World Congress, Detroit April 2009.
2. Kumar Vijay, Garg Bhavuk, **Malhotra R.** Results of Total Hip arthroplasty following Acetabular fracture. In, 10th Annual Meeting of The European Federation of National Associations of Orthopaedics and Traumatology (EFORT) Congress at Vienna on June 3-6, 2009.
3. A Chawla, S Mukherjee, H Warhatkar, R Malhotra, “Dynamic characterization of bovine medial Collateral ligaments” IRCOBI Conference Proceedings. 2009 International IRCOBI Conference on the Biomechanics of Impact, York, United Kingdom, 9 - 11 September 2009, pp 109-113.
4. “Femoral head vascularity after surface arthroplasty of the hip” presented at Sixth SICOT/SIFOT Annual International Conference at Pattaya on 1.11.2009.
5. “The use of Tranexamic acid to reduce blood loss in primary cementless total hip arthroplasty” presented in American Academy of Orthopedic Surgeons Annual meeting 2010 on 9-13 March, at New Orleans.

**Dr. C.S. Yadav**

1. LMWH for DVT – Deadly weapon on 22<sup>nd</sup> Aug in IAACON, 09 at Chennai
2. Lecture on Periprosthetic fracture after TKR IOACON on 22<sup>nd</sup> Aug in IAACON, 09 at Chennai
3. Surface Arthroplasty – Boon or Bane on 26<sup>th</sup> Nov IOACON 2009 at Bhuvneshwar
4. Changing trends in arthroplasty (hip & knee) on 8<sup>th</sup> Jan, Annual National Physiotherapy conference at AIIMS, Delhi.
5. Over view of Total hip arthroplasty on 14<sup>th</sup> June, at IGIMS, Patna, organized by Bihar Orthopaedics Association.
6. Over view of Total knee arthroplasty on 14<sup>th</sup> June, at IGIMS, Patna, organized by Bihar Orthopaedics Association.
7. Implant & Material selection in TKR on 12<sup>th</sup> March, ISIC- Basic knee & shoulder arthroplasty course.
8. Contemporary designs in total hip arthroplasty on 20<sup>th</sup> March in AIIMS cadaver arthroplasty course 2010.
9. Indian experience with Accolade stem on 11<sup>th</sup> Sep 2009 in Basic arthroplasty course at Ganga Ram Hospital, Delhi.
10. Surface arthroplasty – boon or bane on 12<sup>th</sup> Sep in Basic arthroplasty course at Ganga Ram Hospital, Delhi.
11. Soft tissue balancing in TKR on 13<sup>th</sup> Sep in Basic arthroplasty course at Ganga Ram Hospital, Delhi,
12. Periprosthetic after TKR in filiarisis on 12<sup>th</sup> Sep in Basic arthroplasty course at Ganga Ram Hospital, Delhi
13. Lecture through teleconferencing at IGNOU, Delhi, 24<sup>th</sup> Dec., 2009.
14. Bone cuts – Whose jobs ( Jigs& Surgeons ) in TKR Workshop on 9<sup>th</sup> Jan in DOACON 2010 at AIIMS.
15. What is new in TKR, Symposium on tips & tricks of revision arthroplasty on 12<sup>th</sup> of Feb 2010 at Apollo hospital
16. THR/Arthroplasty in fracture upper end of femur on 21<sup>th</sup> Feb, UPCON at Allahabad,
17. Advanced physiotherapeutic intervention, Overview of Arthroplasty & Arthritis on 14<sup>th</sup> March IAP- CME over Hip & knee arthroplasty
18. What is new in TKR in Symposium on knee arthroplasty on 15<sup>th</sup> March at Artemis Hospital Gurgaon.
19. Contemporary designs in Total Hip Arthroplasty in AIIMS Cadaver Arthroplasty Course on 20<sup>th</sup> March, 2010.
20. Approaches in TKR on 12<sup>th</sup> March, Indian Spinal Injury Centre, Delhi

21. MOM – THR on 4<sup>TH</sup> Feb 2010, Dubai, DBAJ Update.
22. TKA – Whose job – Jigs or Surgeon on 4<sup>th</sup> Feb, IOA , Dubai chapter meeting

**Dr. Ravi Mittal**

1. Complications of ACL reconstruction at knee arthroscopy workshop at NAIIOACON at Jammu on 19.2.10.

**Dr. Vijay Kumar**

1. Uses of Cadaveric Allografts: Guest lecture at Madras Orthopaedic Society meeting at Chennai on 09th Dec 2009
2. Viscosupplementation in Osteoarthritis –Guest Lecture at DOACON 2009, New Delhi 10 Jan 2010
3. Indications and Design Rationale of Mid Head Resection Hip Prosthesis. Guest Lecture at NZIOACON 20 Feb 2010
4. Use of Viscosupplementation in Treatment of Knee Osteoarthritis, Guest Lecture at UP Arthroplasty Course 2010, Kanpur, 20-21 March 2010
5. Vijay Kumar, Rajesh Malhotra: Results of Total Hip arthroplasty Following Acetabular fracture : Oral Presentation at 10th EFORT Congress, Vienna, Austria, 3rd -6th June 2009
6. Vijay Kumar, Rajesh Malhotra,; Short Metaphyseal stems; Short Term Results. Presented at IOACON 2010, Bhubneshwar 25-27th Nov 2009.
7. Vijay Kumar, Dharmesh Khatri, Rajesh Malhotra, Revision THR for infected hips using an Antibiotic impregnated cement spacer; .Presented at IOACON 2010, Bhubneshwar 25-27th Nov 2009
8. Vijay Kumar, Rajesh Malhotra: Acetabular Revision using Total Acetabular Allograft: Presented at IOACON 2010, Bhubneshwar 25-27th Nov 2009
9. Rajesh Malhotra, Arun K, Kumar V, Bal C. “Femoral head vascularity after surface arthroplasty of the hip” at Sixth SICOT/SIFOT Annual International Conference at Pattaya on 1.11.2009.
10. Rajesh Malhotra, Vijay Kumar, Bhavuk Garg “The use of Tranexemic acid to reduce blood loss in primary cementless total hip arthroplasty” lecture delivered in AAOS 2010 on 9-13 March, at New Orleans.

**RESEARCH**

**Funded Projects**

Title: “A new hip hemiarthroplasty option based on femoral stem design suitable for the morphology of proximal femur of elderly Indian population”

Funding Agency : CSIR  
Principal Investigator : Prof. Rajesh Malhotra  
Co-Investigator : Dr. Vijay Kumar

Duration : 5 years (26.05.2005 – 25.05.2010)

Funds : Rs. 30.33 Lakhs

**Title: “Some medico-technical – i. Determining Mechanical properties of ligaments and ii. Development of stereo-cameras for operative / anatomic video-sequences” funded by ICMR.**

Funding Agency : ICMR

Principal Investigator : Prof. Rajesh Malhotra

Co-Investigator : Dr. Vijay Kumar, Dr. Anoop Chawla, Dr. S.Mukherjee

Duration : 3 years (1.10-2006 – 30.09.2009)

Funds : Rs. 23.33 Lakhs

**Title: “Evaluation of efficacy of platelet concentrates in the treatment of non-union of fracture of long bones”**

Funding Agency : ICMR

Principal Investigator : Prof. Rajesh Malhotra

Co-Investigator : Dr. Vijay Kumar

Duration : 3 years (2.01.2008 – 1.01.2011)

Funds : Rs. 27.49 Lakhs

**Title: “An Observational Study to Assess Back Pain in Patients with Severe Osteoporosis Treated with Teriparatide Versus Antiresorptives”**

Funding Agency : Eli-Lilly Company Pvt. Ltd.

Principal Investigator : Prof. Rajesh Malhotra

Co-Investigator : Dr. Vijay Kumar

Duration : 2 year (9.05.2008 – 9.05.2010)

Funds : Rs. 4.20 Lakhs

**Title: “A phase III randomised, parallel group, double-blind, active controlled study to investigate the efficacy and safety of oral 220 mg dabigatran etexilate (110 mg on the day of surgery followed by 220 mg once daily) compared to subcutaneous 40 mg enoxaparin once daily for 28-35 days in prevention of venous thromboembolism in patients following primary elective total hip arthroplasty (RE-NOVATE II)”**

Funding Agency : SIRO Clinpharm Pvt. Ltd.

Principal Investigator : Prof. Rajesh Malhotra

Co-Investigator : Dr. Vijay Kumar

Duration : 1 ½ years (6.12.2008 – 6.06.2010)

Funds : Rs. 25.50 Lakhs

**Title: “Evaluation of cytokines in patients undergoing total hip replacement and their correlation with osteolysis”.**

Funding Agency : ICMR  
Principal Investigator : Prof. Rajesh Malhotra  
Co-Investigator : Dr. Vijay Kumar, Dr. Kalpana Luthra  
Duration : 3 years (30.10.2009 – 30.10.2012)  
Funds : Rs. 20 Lakhs

**Thesis Supervised:**

1. “Assessment of profile of patients with osteoporotic vertebral compression fracture and comparison of conservative invasive and minimally surgery” Dr. Ramparsad.
2. “Evaluation of various modalities for management of pain following total hip arthroplasty” Dr. Tushar.
3. Co-Guide in “Role of <sup>18</sup>F-Fluoride Pet-CT and <sup>18</sup>F-FDG Pet-CT scan in differentiating aseptic loosening from septic loosening in patients with hip replacement” Dr. Rajender Kumar (Nuclear Medicine).

**Dr. H.L. Nag**

- Development of dual growth factor delivery systems for tissue engineering application”, Dr. H.L. Nag. Funded by Department of Biotechnology (November, 2006 – November, 2009).

Funds : Rs. 39.25 Lacs

**Departmental Research**

**Dr. H.L. Nag**

*Completed*

- Clinical prognostic factors in osteosarcoma.
- Evaluation of arthroscopic Bankart repair of recurrent traumatic anterior shoulder dislocation.
- Plastination of knee region using silicon (S-10) technique.

*Ongoing*

- International autologous bone marrow stem cell injectin in avascular necrosis of femoral head and evaluation of outcome using MRI, PET Scan, and bone scan.
- MR evaluation of chronic internal derangements of knee.  
Two bundle ACL recon. assessment

**Dr. Ravi Mittal**

1. Arthroscopic elbow synovectomy in rheumatoid arthritis – Its effectiveness and MRI correlation

2. Evaluation of different modes of treatment in lateral epicondylitis of elbow

### **Dr. Vijay Kumar**

1. Clinico-Radiological Evaluation of Total Knee Arthroplasty .A Short term Retrospective and Prospective Study
2. Study of Clinical ,Radiological and Functional outcome of management of Congenital Scoliosis.
3. Comparison of Post operative pain relief by Combined Local Periarticular Wound infiltration and post operative single Short Intra-Articular injection of Bupivacaine with continuous Epidural Analgesia after Total Hip Arthroplasty.
4. Role of F18 Fluoride PET CT and F18 FDG PET CT in painful hip prosthesis to rule out septic versus aseptic loosening.
5. Low Dose Hyperbaric Bupivacaine in combination with Intrathecal Clonidine for Unilateral Knee Arthroplasty.
6. Preparation and quality control of <sup>188</sup>RE-labelledTIN Colloid for the treatment of Refractory Inflammatory Arthritis.

### **Collaborative Research**

### **Dr. Ravi Mittal**

1. Comparison between 3 phase Tc MDP bone scan with SPECT/CT and PET/CT scan in skeletal tuberculosis

### **PUBLICATIONS**

1. Kotwal P.P., Carpal tunnel Syndrome: A Review. News Letter of South Delhi Orthopaedics Society. 2009, 1: 1 – 4.
2. Kotwal P.P., Varshney M.K. Carpal Tunnel Syndrome: Controversies and Consensus, Punjab Journal of Orthopaedics, 2009, 11 (1): 32 – 37.
3. Garg B, Kotwal P.P. Advances in Proximal Humeral Fractures. Orthopaedics Today. 11: 153 – 159; 2009.
4. Kotwal P.P., Khan S.A. Tuberculosis of Hand, Clinical Presentation and Functional Outcome. **J Bone Joint Surg.:** 2009; 91 – B : 1054 – 1057.
5. Neogi DS, Kumar A, Khan SA, **Rastogi S**, Yadav CS. Total hip replacement in active tuberculosis of hip: Myth or reality. Accepted for publication in **CORR** May 2009.
6. Khan SA, Kumar A, Inna P, Bakhshi S, **Rastogi S**. Endoprosthetic replacement for giant cell tumour of the proximal femur. Journal of Orthopaedic Surgery 2009; 17(3):280-3.
7. **Rastogi S**, Kumar A, Khan SA. Do locking plates have a role in Orthopaedic oncological reconstruction Accepted for publication in **Archive of Orthopaedics & Trauma Surgery** 2010 Feb 18 [Epub ahead of print].

8. **Rajesh Malhotra**, Lalit Sharma, Vijay Kumar. Giant Cell Tumor of Patella treated with Patella-Patellar Tendon- Tibial Tuberosity Allograft. **Knee Surgery, Sports Traumatology, Arthroscopy** 2010 Feb; 18(2):167-169. epub2009 September 26.
9. Dharmesh Khatri, Vijay Kumar, **Rajesh Malhotra**, H L Nag, Lalit Kumar. Large post-traumatic subarticular cystic lesion following avulsion injury of PCL mimicking tumor. **Archives Orthop Trauma Surg.** 2009 Sep 24 (Epub ahead of publication)
10. Soni A, Chawla A, Mukherjee S, **Malhotra R**. Response of tonic lower limb FE model in various real life car-pedestrian impact configurations: a parametric study for standing posture. **Int. Journal of Vehicle Safety** 2009, Vol 4; No. 1; 14-28.
11. Soni A, Chawla A, Mukherjee S, Malhora R, Response of lower limb in full scale car-pedestrian low speed lateral impact- Influence of muscle contraction, international Journal of Crashworthiness, Vol. 14, No. 4, August 2009, 339–348.
12. Aditya V Maheshwari, **Rajesh Malhotra**, Deepak Kumar, J David Pitcher Jr. Rupture of iliopsoas tendon after a total hip arthroplasty: an unusual cause of radiolucency in lesser trochanter simulating a malignancy. **Journal of Orthopaedic Surgery and Research** 2010 Feb 5; 5:6.
13. Dua A, Eachempati KK, **Malhotra R**, Bhan S. Acetabular Reconstruction using Fresh Frozen Bone Allograft - A study of 72 Total Hip Replacements. Accepted for publication in **Hip International**.
14. Nag H.L., Dev Datta S.N., Nataraj AR, Ajay Kumar, Yadav C.S., Singh U., : Tubercular infection after anterior cruciate ligament reconstruction. *Arthroscopy* 2009; 25:131-136.
15. Nag H.L., Karthik SM, Chandran PSM, Mohan MR, Das RB, : Little Leaguers' elbow is an adolescent cricket player – case report : *Europ J Ortop Trauma* 2009; 19(2):97.
16. Nag HL, Karthik SM, Chandran PSM, Mohan MR, Das RB, : Little Leaguer's elbow in an adolescent cricket player – A case report. *European J. Orthop Surg Trauma.* 2009: 19(2): 97-99.
17. Sameer N, Kotwal PP, Shamsheery P, Gupta V, Nag HL, : Percutaneous fixation of selected scaphoid fractures by dorsal approach. *Int. Orthop. (SICOT)* 2009; DOI 10.1007/S00264-009-0891-1.
18. Sameer N, Shamsheery P, YadavCS, Gupta V, Nag HL, : Diagnostic trochanteric flip osteotomy and surgical dislocation of hip in the management of acetabular fractures. *Acta Orthop Trauma Surg.* 2009; DOI,10:1007/s00402-009-0873-1.
19. Neogi DS, Jain S, Mishra KK, Trikha V, Nag HL. An unusual cause of Wartenberg's syndrome: tuberculosis of brachioradialis muscle, case report. *Eur J Orthop Surg Traumatd.* 2010;20:335-338.
20. Neogi DS, Jaimean A, Yadav CS, Nag HL, : Recurrent Chest Pain, an unusual cause – rib exostosis! *J Postgrad Med.* 2009; 55 (4):267-268.
21. Yadav CS, Rohilla N. etal. Soft tissue rheumatism. *J of Ajamgarh medical academy* 2009;2 (5).



22. Laxman Rijal, Hemant Manandhar, Pravin Nepal, Md Tahir Ansari, C.S.Yadhav. Instrument fails, but surgeon should not. Surgical technique for retrieval of broken intramedullary reamer from tibia. *Eur J Orthop Surg Traumatol* DOI10.1007/s00590-010-0591-y.
23. Kumar A, Neogi DS, Khan SA, Logani V, **Yadav CS**. Illizarov External Fixator for Bilateral Severe Flexion Deformity of the Knee in Haemophilia: Case report Accepted for publication in *Archive of Orthopaedic Trauma & Surgery* 2010; 130(5): 621-625.
24. Neogi DS, Kumar A, Singh S, **Yadav CS**. Delayed tuberculous infection in total knee replacement arthroplasty – Is conservative treatment possible: Case Report. *Acta Orthopaedica Belgica*. 2009 Feb; 75 (1): 136-140.
25. Kumar A, Varshney MK, Khatri Dharmesh, Khan SA, **Yadav CS**, Rastogi S. Painless osteoid osteoma of tibia in a fifteen-month-old child: a rare case report. *EJOST* 2010 ;DOI10.1007/s00590-009-0578-8.
26. Neogi DS, Yadav CS, Vonnum PM. *Rifampicin use in MRSA infections. Will it add on to emergence of multidrug resistant tuberculosis in developing countries*. *J Infect Chemother*. 2009 Jun;15(3):203-4; author reply 205. Epub 2009 Jun 25.
27. Naranje S, Shamschery P, Yadav CS, Gupta V, Nag HL. Diagonal trochanteric flip osteotomy and surgical dislocation of hip in the management of acetabular fractures. *Arch Orthop Trauma Surg*. 2009 Apr 17. [Epub ahead of print]
28. Neogi DS, Trikha V, Mishra KK, Rohilla N, Yadav CS. Biological plate fixation of comminuted subtrochanteric fractures with the dynamic condylar screw: a clinical study; *Acta Orthop Belg*. 2009 Aug;75(4):497-503.
29. Neogi DS, Yadav CS, Ashok Kumar, Khan SA, Rastogi S. Total hip arthroplasty in patients with active tuberculosis of the hip with advanced arthritis. *Clin Orthop Relat Res*. 2010 Feb;468(2):605-12. Epub 2009 Jun 30.
30. Neogi DS, Jaiman A, Yadav CS, Nag HL. Recurrent chest pain: a unusual cause. *J Postgrad Med*. 2009 Oct-Dec;55(4):275.
31. Rohilla N, Jain S, Naranje S, Neogi DS, Yadav CS, Kotwal PP. Post traumatic completely embedded ring –A Case Report. **EJOS** 19(4)2006; 10.1007/s00590-009-0429-
32. Laxman Rijal, Tahir Ansari, Yadav CS. Uncommon injury - in a school punished child". *The Internet Journal of Orthopedic Surgery* 2009 : 13 (1).
33. Laxman Rijal, Tahir Ansari, Yadav CS Birth injuries in caesarian sections - an enigma fracture femur after caesarian section". *The Internet Journal of Orthopedic Surgery* 2009: Volume 13 Number 1
34. S Naranje, R Mittal, A Kumar, AR Nataraj. Haemorrhagic prepatellar bursitis: a rare case report and review of literature. *Eur J Orthop Traumatol* 2009; 19:281-284
35. S Naranje, R Mittal. Cirsoid aneurysm of synovium of knee: a very rare pathology. *Arch Orthop Trauma* 2009; 129(8): 1081-1083

36. S Naranje, R Mittal. Chronic closed talus dislocation: a rare presentation and treatment dilemma. *Orthopedics* 2010; 33(2): 123-125
37. Khatri D, Malhotra R, Bhan S, Kumar V, Eachempati KK. Comparison of total knee arthroplasty in stiff knees and knees with good preoperative range of motion. *J Knee Surg.* 2009 Oct;22(4):305-9. PubMed PMID: 19902725.
38. Malhotra R, Kumar V. Acetabular revision using a total acetabular allograft. *Indian J Orthop.* 2009 Apr;43(2):218-21. PubMed PMID: 19838376; PubMed CentralPMCID: PMC2762262.
39. Malhotra R, Sharma L, Kumar V, Nataraj AR. Giant cell tumor of the patella and its management using a patella, patellar tendon, and tibial tubercle allograft. *Knee Surg Sports Traumatol Arthrosc.* 2009 Sep 26. [Epub ahead of print] PubMed PMID: 19784634.
40. Kumar V, Khatri DL, Malhotra R, Nag HL, Sharma L. Large post-traumatic subarticular cystic lesion following avulsion injury of PCL mimicking tumour. *Arch Orthop Trauma Surg.* 2009 Sep 24. [Epub ahead of print] PubMed PMID: 19777248
41. Neogi DS, Kumar V, Malhotra R. Femoral allograft in the management of osseous hydatidosis presenting as femoral shaft non-union. *Arch Orthop Trauma Surg.* 2009 Dec;129(12):1627-32.

#### Abstract

1. **Kumar A**, Jha RK, Yadav CS, Khan SA, Bakhshi S, Rastogi S. Lytic Lesion in Pelvis: Tuberculosis or Malignancy in the Souvenir of 22<sup>nd</sup> Annual meeting of the European Musculoskeletal oncology Society (**ESMOS**) on 14- 15<sup>th</sup> May 2009 at **Stuttgart, Germany**.
2. **Kumar A**, Javed A, Yadav CS, Khan SA, Rastogi S. Rare Periarticular Ossifying Lipomas Masquerading as Malignant Soft Tissue Tumors in the Souvenir of 22<sup>nd</sup> Annual meeting of the European Musculoskeletal oncology Society (**ESMOS**) on 14- 15<sup>th</sup> May 2009 at **Stuttgart, Germany**

#### Chapter in books

1. Kotwal P.P.: “Neglected Fractures and Dislocations of the Hand” in “**Neglected musculoskeletal injuries**”. Ed. Anil Jain, 2010, pp 398-410.
2. Kotwal P.P., Gupta Vikas : “Neglected Tendon Injuries of Hand” in “**Neglected Musculoskeletal Injuries**”. Ed. Anil Jain, 2010, pp 411-424.
3. R. Malhotra, S. Bhan: “Tibial component – all polyethylene or metal back?” in “**Update on Knee Arthroplasty- Total Knee Replacement: Trends** “ Ed. S K S Marya ECAB Clinical Update:Orthopaedics, page no. 7-27 (Elsevier).
4. **R. Malhotra**: “MIS Techniques for Total Hip Replacement” in ECAB Clinical Update: Orthopaedics, **Total Hip Replacement: Spectrum**. Ed. S K S Marya page no. 134-148; Elsevier, New Delhi.
5. Amite Pankaj, **Rajesh Malhotra**: THA after Acetabular fracture; in **Acetabular Fractures** Ed. Lalit Maini, Anuj Dogra. Chapter 12; Page no. 63-70; 2009.

6. **Malhotra R**, Amite Pankaj: Total Knee Arthroplasty in Varus Deformity. In, Mastering Orthopaedic Techniques-**Total Knee Arthroplasty**. Ed. Rajesh Malhotra. Chapter 3; Page no. 25-42. JayPee Brothers Medical Publishers, St. Louis, N. Delhi, 2010.
7. **Malhotra R**, Vijay Kumar, Surya Bhan: Total Knee Arthroplasty in Flexion Deformity. In, Mastering Orthopaedic Techniques-**Total Knee Arthroplasty**. Ed. Rajesh Malhotra. Chapter 5; Page no. 57-70. JayPee Brothers Medical Publishers, St. Louis, N. Delhi, 2010.
8. **Malhotra R**, E Krishna Kiran: Total Knee Arthroplasty for the Stiff Knee. In, Mastering Orthopaedic Techniques-**Total Knee Arthroplasty**. Ed. Rajesh Malhotra. Chapter 6; Page no. 71-80. JayPee Brothers Medical Publishers, St. Louis, N. Delhi, 2010.
9. **Malhotra R**, Bhavuk Garg, Vijay Kumar: Management of Tibial Defects in Primary Total Knee Arthroplasty. In, Mastering Orthopaedic Techniques-**Total Knee Arthroplasty**. Ed. Rajesh Malhotra. Chapter 8; Page no. 93-104. JayPee Brothers Medical Publishers, St. Louis, N. Delhi, 2010.
10. **Malhotra R**, Vijay Kumar: Mobile Bearing Unicondylar Knee Arthroplasty. In, Mastering Orthopaedic Techniques-**Total Knee Arthroplasty**. Ed. Rajesh Malhotra. Chapter 15; Page no. 165-180. JayPee Brothers Medical Publishers, St. Louis, N. Delhi, 2010.
11. **Malhotra R**, Vijay Kumar, Surya Bhan: Two Stage Revision for Infected Total Knee Arthroplasty. In, Mastering Orthopaedic Techniques-**Total Knee Arthroplasty**. Ed. Rajesh Malhotra. Chapter 18; Page no. 201-216. JayPee Brothers Medical Publishers, St. Louis, N. Delhi, 2010.

## Books

1. **Malhotra R**.:Mastering Orthopaedic Techniques-Total Knee Arthroplasty. JayPee Brothers Medical Publishers, St. Louis, N. Delhi, 2010.

## PATIENT CARE

### Dr. H.L. Nag

1. “Sports Clinic” is held once in a week on Thursday afternoon at OPD of Department of Orthopaedics to cater the needs of the injured athletes and sports personnels.
2. “Health Camp” at District Civil Hospital at Leh, Jammu & Kashmir, 10-13<sup>th</sup> September,2009.
3. “Health Camp” at District Hospital at Kargil, Jammu & Kashmir, 14-17 Sept.,2009.

## AWARDS, HONOURS

### Dr. P.P. Kotwal

- Padma Bhushan Dr. S.K. Mukherjee Memorial “Chikitsa Sewa Award” given by Satkar Kala Kendra of Indore, March 2010.
1. Delivered the “Dr. B. Mukhopadhyaya Oration” of the Bihar Orthopaedic Association at the 36<sup>th</sup> Annual Conference of the Bihar Orthopaedic Association held at Supaul Bihar; February 2010.

## **Dr. S. Rastogi**

1. Prestigious Prof.T.P.Srivastava Oration on “Giant Cell Tumors of Bone”. UPORTHOCON 2009 held at Lucknow on 6-8<sup>th</sup> Jan.2009.

## **Dr. R. Malhotra**

1. Awarded Annual Oration of Baroda Orthopaedic Association on 8th Nov. 2009 in Baroda for “Cadaveric Bone Banking in India-The road traveled”.
2. **Regional Advisory Board Member** – Orthopaedics Hyperguide – A web based global interactive Orthopedics learning Resource
3. Adjunct Faculty CMET, AIIMS.
4. Editor: “**Orthopaedics Today**”: An orthopaedic journal with nationwide circulation.
5. Reviewer for **Journal of Bone and Joint Surgery (British), Indian Journal of Orthopedics, Journal of Pediatric Health (U.K.), Indian Journal of Pediatrics, National Medical Journal of India, Clinical Anatomy 2007, 2008, 2009, 2010.**
6. Member Editorial Board: **Neurology India**
7. Reviewer for Applications for funding submitted to **National Institute of Health Research and Research for Patient Benefit Program (NIHR & RFPB) of NHS, UK, Indian Council of Medical Research, Department of Biotechnology, Department of Science & Technology, Govt. of India.**
8. Member of working group for “ICMR-WHO Workshop on Development of a feasibility Modules on Road Traffic Injury Surveillance”, New Delhi.
9. Member of “Advisory Group for Research in Accidents and Injuries (AGRAI) of ICMR-”, New Delhi.
10. Expert for the Golden Triangle Partnership (GTP)- a scheme between the department of AYUSH-CCRAS, ICMR and CSIR. Advisor for the Project on Osteoporosis under the scheme.
11. Member Advisory Group on Determination of Musculoskeletal Burden in Indian Population.
12. Member Advisory Group on Determination of Normative Laboratory Parameters in Indian Population.
13. Member Expert Group for ICMR Task Force on Cancer Management Guidelines
14. Member Expert Group for ICMR Task Force on Osteoporosis.
15. Expert/Chairman Project Review Committee of ICMR for funding of projects in the field of NCD, BMS and Biomedical Engineering since 1994.
16. Expert for Project Review Committee on Bio-engineering of ICMR for funding of projects in ICMR Headquarters on 30.11.2009.
17. Expert for the committee constituted by UGC towards the evaluation assessment of the research papers submitted by College Teachers concerning travel grant assistance to attend International Conferences abroad on 15. 06.2009.

**Dr. H.L. Nag**

1. Invited as an expert by Delhi Doordarshan for the live T.V. Program on Health – “Total Health” for ‘Sports Injuries’ on 14<sup>th</sup> June,2009.
2. Nominated as University Grants Commission Committee member to review functioning of Datta Meghe Institute of Medical Sciences, Wardha, Maharashtra, 22-24 July,2009.
3. Attended meeting with official delegates of World Anti Doping Agency (WADA) on 8<sup>th</sup> October,2009 for Commonwealth Games 2010.
4. Organizing Secretary for ‘Sports Medcon 2009’ – The International Congress of Sports Medicine, New Delhi, 5-8 November,2009.
5. As an expert, delivered lecture under CME Program of PAN – African e-network project of PAN – African e-network project AIIMS, 24-25 November,2009.
6. As an expert, nominated by National Board of Examination for live TV and Radio teaching program for DNB students, at IGNOU, 24 November,2009.
7. As Chairperson for Arthroscopy Section and Treasurer for DOACON-2010, AIIMS, 9-10 January,2010.
8. As an expert on Live Lok Sabha Channel – “Healthy India” on talk on ‘Knee Injuries” Parliament Annexy, 6<sup>th</sup> February,2010.
9. As an expert for Editorial Referee – for Indian Journal of Orthopaedics.
10. As Faculty at Workshop on Meniscal Injury AIIMS, 18 April,2009.
11. As special invitee, Tender Evaluation committee for procurement of sports science equipment, SAI, J.L.N. Stadium, 23-24 June,2009.
12. As faculty at IAS Cadaver workshop at S.J. Hospital, 12 July,2009.
13. As faculty at MIDCON-2009 of DOA and Chaired arthroscopy section, 2 August,2009.
14. As visiting faculty at Guwahati Medical College, Assam, 25-29 August,2009.
15. As expert member of Health Camp at Leh and Kargil, 10-17 September,2009.
16. As faculty at IAS Cadaver Workshop, Delhi, 20 September,2009.
17. As faculty at 8<sup>th</sup> Annual Congress of IAS, Ahmedabad, 1-3 October,2009.
18. As member, Departmental Promotion Committee for the post of Librarian Grade II, AIIMS, 8<sup>th</sup> August,2009.
19. As faculty incharge, AIIMS – PG Entrance Examination, Mumbai Centre, 15<sup>th</sup> November,2009.
20. As faculty at MAMC Sports Injury and arthroscopy update and chaired one session, 12 December,2009.
21. As an expert for Teleconferencing session of National Board of Examination at IGNOU, 24 December,2009.
22. As faculty at ‘Physical Therapy 2010’, AIIMS, 8 January,2010.

23. As faculty at DOACON-2010 Cadaver Shoulder Workshop, AIIMS, 9 January,2010.
24. As faculty at Sports Seminar, Agartala, 20-21 March,2010.
25. As faculty at 6<sup>th</sup> Sports Medicine and Arthroscopy Workshop, Sir Ganga Ram Hospital, New Delhi, 7 March,2010.

**Dr. Ravi Mittal**

1. IOA foreign fellowship at Dartmouth Hitchcock medical centre for 4 weeks from September 7, 2009
2. Cleared the ATLS provider course on 21-23 January 2010

**Dr. Vijay Kumar**

1. Fellowship in Traumatology and Orthopedics , Katharine Hospital, Stuttgart ,Germany .04<sup>th</sup> May – 28<sup>th</sup> May 2009.
2. Indian Orthopaedic Association Inland Fellowship ,30<sup>th</sup> Nov-23<sup>rd</sup> Dec 2009
3. Fellow of International Medical Sciences Academy
4. Member of Asian Association for Dynamic Osteosynthesis

**SIGNIFICANT EVENTS**

**Dr. P.P. Kotwal**

1. Nominated as Member, Board of Studies in the Department of Rehabilitation Sciences for 2 years w.e.f. June 2009, by the Hon'ble Vice Chancellor of Jamia Hamdard University, New Delhi.
2. Nominated as Member, Academic Council of the Pt. Bhagwat Dayal Sharma University of Health Sciences, Rohtak, 2008 – to date.
3. Nominated as a Member of the Planning Board of the Pt. Bhagwat Dayal Sharma University of Health Sciences by His Excellency, the Governor – Chancellor of the University for Two years W.e.f. Feb. 2010.
4. Appointed by the National Board of Examinations as an Expert Member of a Committee to evaluate the disability of a candidate, March 2010.
5. Appointed by the National Board of Examinations as an Expert Members to select Candidates for DNB in Emergency Medicine, March 2010.
6. Chairman AO Advanced Symposium on Fixation of Osteoporotic Fractures, New Delhi September 2009.
7. Appointed as an external examiner of H, N, Bahuguna Garhwal University, Dehradun, July 2006, May 2009.
8. Appointed as an external examiner of Baba Faridkot University of Health Sciences, Faridkot (Punjab), April 2009.
9. Appointed as an external examiner of National Board of Examinations, New Delhi, September 2009.

10. Appointed as an external examiner of Devi Ahilya University, Indore, 2009, June-2010.
11. Chairman, Project Review and Monitoring Committee of Ortho CAD Project under the office of the Principal Scientific Advisor to the Prime Minister of India, New Delhi; 2007-2010.
12. Chairman, Vidyalaya Management Committee of Kendriya Vidyalaya, INA Colony, New Delhi; 2005-2010.
13. Invited Special Member, of Ethical Committee VMCC, Safdarjung, 2009.
14. Expert Member, Nominated by Indian Council of Medical Research, New Delhi, for the Expert Group Meeting, September 2009.
15. Member, Committee Constituted by the Central Drugs Standard Control Organisation, DGHS, Min of H & FW to examine issues relating to regulatory requirement for exercising control over medical devices under the Drugs and Cosmetics Act, 1940; 2009-2010.
16. Expert member to evaluate a research proposal submitted to the National Research Development Corporation, New Delhi; 2009.
17. Expert member to evaluate a research proposal submitted to the National research Development Corporation, New Delhi: 2010.
18. **Chairman**, Hospital Store Purchase Committee, AIIMS, 2009.
19. **Chairman**, Selection committee for Recruitment to the post of Junior Physiotherapists/ Occupational Therapist at AIIMS, September 2009. Nominated as an Expert Member on the Selection Committee of the CSIR to selected Sr. Research Associates (Pool Officer) in Orthopaedics; April 2009.
20. Expert Member Selection Committee, Gandhi Medical College, Bhopal to Select Assistant Professor of Orthopaedics, June 2009.
21. Nominated as an Expert Member by the Chhattisgarh Public Service Commission, Raipur to Select Assistant Professor in Orthopaedics, February 2010.
22. Nominated as an Expert Member of a Selection committee Thermal Power Corporation, New Delhi to select Senior Orthopaedic Surgeons, March 2010.
23. Chairman of the Governing Body of Kendriya Vidyalaya, INA Colony, New Delhi, 2003 - to date.
24. Member of the Governing Body of The Automobile Association of Upper India, 2000 - to date.
25. Professor-Incharge, Computer Facility, AIIMS w.e.f. 26.3.2010.

**Dr. S. Rastogi**

1. MCI inspection at Vydehi Insttt, Bangalore on 17.2.2010.
2. Attended the DNB programme trainees selection panel, as expert member for selecting candidate for the deptt. Of Orthopaedics on Friday, the 29<sup>th</sup> Jan., at Sir Ganga Ram Hospital, Delhi.
3. Visited Vydehi Institute of Medical Sciences & Research, Bangalore on 30<sup>th</sup> Sept. for inspection (Medical Council of India)



4. Vienna from 18-22<sup>nd</sup> May 2009. review & finalize training material for the draft version of the training CD on radiation protection for doctors using fluoroscopy at the IAEA headquarters in Vienna

**Dr. R. Malhotra**

1. “Challenges Facing Medical Professional” on 106.4 FM Gold on Doctor’s day (1<sup>st</sup> July 2009) 2.30 PM (Mid Day Bulletin).
2. Backache- Causes and Remedies” in - Uthiye Achhe Swasthya Ke Sath - on All India Radio, Indraprastha Channel, 819 KHz ( 366.3Meters) Medium Wave on Oct 28, 2009.
3. Live program on TV Interactive Show on “Knee Pain - Total Knee Replacement” in VAMA telecast on Sahara Uttar Pradesh on 15<sup>th</sup> April 2009, 12:30 PM – 1:00 PM.
4. Expert in live TV Interactive Show on “Knee Pain & Knee Transplant” in VAMA telecast on Sahara Uttar Pradesh on (Wednesday) 10<sup>th</sup> June 2009, 12:30 PM – 1:00 PM.
5. Live Phone-in-Program on “Backache” on Sahara TV on 02.08.09, 12:30 PM – 1:00 PM.
6. Live Phone-in-Program “VAMA” on “Exercises for Osteoporosis” on Sahara TV on 30.09.2009, 12:30 PM – 1:00 PM.
7. Phone in Live program on IBN7 Health program – “Joint Pains in Winters” on 30/10/2009, 2.00 PM to 2.30 PM.
8. Live program on TV Interactive Show on “Knee Transplant” in VAMA telecast on Sahara Uttar Pradesh on 24<sup>th</sup> March 2010, 2:30 PM –3:00 PM.
9. Member of Committee on Tele Medicine, Hospital Infection Control Committee, Staff Council, Advisory Committee for Central Workshop (Orthopedic Implants & Devices), Department Store Purchase Committee, Drug Selection Committee, OT Users Committee at AIIMS, New Delhi.
10. Vice President of Delhi Orthopaedics Association (DOA) 2009-2010.
11. Member of the DPC Technical Officer for the Department of PMR (Physical Medicine & Rehabilitation) 26.06.2009.
12. Expert for selection of Asstt. Professor (Orthopaedics) JIPMER at Puducherry on 13 November, 2009.
13. Member of AO Council for AO Trauma as Leader for Education, Central India.
14. Won Prize in Hindi Debate during Hindi Week on September 9-11, 2009 at Conference Hall, AIIMS, New Delhi.
15. Judge for Hindi Kavita Pratiyogita (Poetry Competition) during Hindi Week on September 9-11, 2009 at Conference Hall, AIIMS, New Delhi.
16. Invited by Commandant, Army Hospital to perform **Total Acetabular Allograft** surgery for reconstruction following the excision of an acetabular tumor at Army Hospital (R & R), Delhi Cantt on 20 Oct 2009.
17. Became the first surgeon in India to successfully perform Carpometacarpal replacement arthroplasty of the thumb on 18<sup>th</sup> Jan 2010.

18. Became the first orthopedic surgeon to successfully use trabecular metal for the Revision hip replacement in India, in March 2010.
19. Expert for the selection of Pool Officers under the Senior Research Associate scheme of the CSIR at the CSIR Headquarters, New Delhi on 31.03.2010.
20. Board Examiner for the Ph. D Thesis (Evaluation) of Mr. Karthikeyan B. entitled “Characterization of the Compressive Impact Response of Muscles” on 28.05.2009 in Indian Institute of Technology, New Delhi. Reviewed Thesis – Ph.D 28.05.2009 Thesis defence 13.08.09.
21. Examiner for IIT for M. Tech thesis (Evaluation) for Mr. Kranthi Teja Ch, entitled “SHPB for Bones” on 28.05.2009 in Indian Institute of Technology, New Delhi.
22. Examiner for IIT for M. Tech thesis (Evaluation) for Priti Yadav, entitled “Finite element analysis of knee joint prostheses” on 28.05.2009 in Indian Institute of Technology, New Delhi.
23. Examiner for IIT for M. Tech thesis (Evaluation) for Mr. M. Hossein Alaei, entitled “Design and development of low cost prosthetic knee joint for above knee amputees using polymeric composites” on 28.05.2009 in Indian Institute of Technology, New Delhi.

**Dr. H.L. Nag**

1. ‘Sports Clinic’ a special clinic has been started in the Department of Orthopaedics.
2. Nominated as member of the Therapeutic Use Exemption (TUE) Commission, by National Anti Doping Agency (NADA), Govt. of India, in compliant with World Anti Doping Agency (WADA).
3. Appointed as the Venue Medical Officer (VMO) at J.L. Nehru Stadium for the Commonwealth Games 2010.
4. One of our published papers (Naranje S et al in Arthroscopy 2008) was quoted as 5<sup>th</sup> Best (Out of 7 papers) evidence based article related to Sports Medicine in the Journal J Bone Joint Surg 2010; 92(A):250-263.
5. Elected as State representative for Indian Orthopaedic Association Executive Committee (2009-2011).

**Dr. Ravi Mittal**

1. Lecture on “Shoulder instability and its management” at Teleconferencing sessions at IGNOU, New Delhi on 24.12.09
2. External examiner for D.orth examination at Govt.Medical College at Patiala on 17.12.09
3. Our publication entitled “Naranje S, **Mittal R**, NagHL, Sharma R. Arthroscopic and magnetic resonance imaging evaluation of meniscus lesions in the chronic anterior cruciate ligament-deficient knee. Arthroscopy. 2008 Sep;24 (9): 1045-51 Epub 2008 May15” selected among the top Level I studies in the year 2008 by JBJS (American)- Nelson JD, Hogan MV, Miller MD. Specialty update- What’s new in sports medicine. JBJS (Am) 92A (1): 250-263

**Dr. Vijay Kumar**

1. Participated in Television program on Arthritis “Sangini” on Sahara Samay Channel.

## 9.24 Otorhinolaryngology (ENT)

### Director AIIMS and Professor of ENT

R.C. Deka

### Professor and Head

Suresh C. Sharma

### Associate Professors

Alok Thakar

Rakesh Kumar

### Assistant Professor

Venkata Karthikeyan C

### EDUCATION

The departmental faculty has actively participated in the academic activities of undergraduate, postgraduate and paramedical teaching

#### Short Term Training

- Dr. Ajit Nepal, Assistant Professor at the BP Koirala Institute of Medical Sciences, Dharan, Nepal visited for short term training for 3 months for training in Rhinoplasty.
- Dr. Joshi, Assistant Professor at the BP Koirala Institute of Medical Sciences, Dharan, Nepal visited for short term training for 3 months for training in Phonosurgery.
- Dr. Azhar Jan Battoo, Department of Head & Neck Oncology at the Amrita Institute of Medical Sciences, Kochi visited for short term training for 6 weeks for training in Skull Base Surgery and Head-Neck Oncology.
- Dr. Akash Dua, Department of Maxillofacial Surgery, Ragao Dental College & Hospital visited for short term training for 6 weeks for training in Head-Neck Oncology.

#### Continuing Medical Education

##### CME programmes organized

- Preconference (Annual conference of AOI Delhi state branch )Surgical CME on Skull Base Surgery, 1<sup>st</sup> May 2009.
- AOI monthly clinical meet, August 2009, AIIMS, New Delhi.
- “Larynx and Hypopharynx 2009” Head and Neck Cancer Update. 31<sup>st</sup> Oct-2<sup>nd</sup> Nov, 2009

##### Lectures delivered

##### Professor R.C. Deka

- Inaugural address as a chief guest at the Preconference (Annual conference of AOI Delhi state branch )Surgical CME on Skull Base Surgery, 1<sup>st</sup> May 2009.
- Inagural address in the inaguration ceremony of speech and hearing unit of Pt. JNM Medical College at Raipur on 30-08-2009

- Key-note address on deafness at the CME on Deafness in Pingalwara Charitable Society, at Amritsar on 11-10-2009.
- Inaugural address as a chief guest at the CME on “Larynx and Hypopharynx 2009” Head and Neck Cancer Update. 31<sup>st</sup> Oct-2<sup>nd</sup> Nov, 2009
- Address as guest of honour at the Opening of New Cardio Vascular Centre at Sardar Patel Medical College, Bikaner on 27-01-2010
- Inaugural address as a chief guest at the Anniversary celebrations of Down Town College of Allied Health Sciences, Guwahati on 14-02-2010.

#### **Prof S.C.Sharma**

- Conservation surgery in laryngeal cancer- 62<sup>nd</sup> Annual Conference of the Association of Otolaryngologists of India, Mumbai, January 7-10, 2010

#### **Dr Alok Thakar**

1. Endonasal endoscopic skull base surgery 2<sup>nd</sup> Otolaryngology CME, Sikkim Manipal Institute of Medical Sciences, Gangtok, May 2009.
2. Vertigo Demystified 2<sup>nd</sup> Otolaryngology CME, Sikkim Manipal Institute of Medical Sciences, Gangtok, May 2009.
3. Conservation Laryngectomy - “Larynx and Hypopharynx 2009” Head and Neck Cancer Update. 31<sup>st</sup> Oct-2<sup>nd</sup> Nov, 2009
4. Parotid Infections- Conventional Approach Workshop on Sialendoscopy, GTB Hospital, Nov 20-21, 2009.
5. ParaPharyngeal Space Tumors PG Teaching and Cadaveric Dissection Workshop in Head-Neck Surgery 2010, Base Hospital, Delhi Cant. Jan 2010
6. Treatment Guidelines in the Treatment of Early Carcinoma Larynx Amrita Head& Neck Teaching Program (AHEAD 2010), Kochi, February 2010
7. Endoscopic Anatomy of Skull base & prospects of its clinical application Amrita Head& Neck Teaching Program (AHEAD 2010), Kochi, February 2010
8. Cadaveric Demonstration- Total Laryngectomy Amrita Head& Neck Teaching Program (AHEAD 2010), Kochi, February 2010
9. Endonasal Endoscopic Skull Base Surgery Live Workshop on Advanced functional Endoscopic Sinus Surgery, organized by AOI Raipur and Pt. JNM Medical College Raipur, February 20-21, 2010.
10. The 3<sup>rd</sup> Window to the Inner Ear Clinical Case Presentation, AIIMS Academic meeting, January 2010

#### **Dr Rakesh Kumar**

- 1 ‘Artificial Ear for an absent ear’- Clinical combined round presented along with Dept of Prosthodontics, AIIMS, New Delhi.

- 2 Endoscopic management of angiofibroma -62<sup>nd</sup> Annual Conference of the Association of Otolaryngologists of India, Mumbai, January 7-10, 2010
- 3 Pinnaplasty with prosthetic implants – first successful implant in AIIMS. Delhi State AOI monthly clinical meet Aug 2009, Lecture theatre, AIIMS.

**Dr C.V. Karthikeyan**

- 1 Unusual case of subglottic carcinoid in a young female. Delhi state AOI monthly clinical meet in Aug -2009, AIIMS, New Delhi.
- 2 Radial forearm free flap in reconstruction of cheek defect. Delhi state AOI monthly clinical meet in Aug -2009, AIIMS, New Delhi.
- 3 Reconstruction after conservation laryngeal surgery. . “Larynx and Hypopharynx 2009” Head and Neck Cancer Update. 31<sup>st</sup> Oct-2<sup>nd</sup> Nov, 2009
- 4 Do we need to control the ever sprouting workshops? Association of otolaryngologists of India(Delhi Branch) Annual conference 2<sup>nd</sup> and 3<sup>rd</sup> May 2009, New Delhi
- 5 TEP in post laryngectomy voice rehabilitation- 62<sup>nd</sup> Annual Conference of the Association of Otolaryngologists of India, Mumbai, January 7-10, 2010

**NATIONAL AND INTERNATIONAL CONFERENCES**

**Lectures delivered**

**Prof RC Deka**

1. Inaugural address as a chief guest at the Annual conference of Pediatricians of Maharashtra state chapter, Pune on 14-11-2009.
2. Inaugural address as a chief guest at the BHU Golden Jubilee Celebration on 15-03-2010 at Varanasi
3. Convocation Address as a chief guest for the outgoing post graduate and under graduate students at the seventh convocation ceremony of B.P Koirala Institute of Health Sciences(BPKIHS), Dharan, Nepal on 22-01-2010.

**Prof S.C.Sharma**

“Balloon Sinuplasty” – Head and Neck conference at Raja Isteri Pengiran Anak Saleha Hospital (RIPAS), Brunei Darussalam 13-19 Dec-2009

“Carcinoma larynx”- Head and Neck conference at Raja Isteri Pengiran Anak Saleha Hospital (RIPAS), Brunei Darussalam 13-19 Dec-2009

“Treatment decisions in parotid surgery” Head and Neck conference at Raja Isteri Pengiran Anak Saleha Hospital (RIPAS), Brunei Darussalam 13-19 Dec-2009

“Paraganglioma “ Head and Neck conference at Raja Isteri Pengiran Anak Saleha Hospital (RIPAS), Brunei Darussalam 13-19 Dec-2009

### **Dr. Alok Thakar**

1. Surgical Treatment of Intracranial Angiofibroma. Invited Speaker, Festschrift, Royal College of Surgeons of England, London, UK, 6<sup>th</sup> July 2009.
2. Endoscopic optic nerve decompression for optic nerve injury and allergic fungal sinusitis. Instructional Course, 13<sup>th</sup> British Academic Conference in Otolaryngology, Liverpool, UK, 8-10 July 2009.
3. World Views on Ossiculoplasty- Panelist. Panel Discussion, 13<sup>th</sup> British Academic Conference in Otolaryngology, Liverpool, UK 8-10 July 2009.
4. Drop Attacks. 30<sup>th</sup> Annual Conference of the Neuro-Otological and Equilibriometric Society of India, Delhi, April 2009.
5. Crossfire- Vestibular Rehabilitation v/s Pharmacotherapy of Vertigo. 30<sup>th</sup> Annual Conference of the Neuro-Otological and Equilibriometric Society of India, Delhi, April 2009.
6. A new radiological sign for the diagnosis of bilateral abductor cord palsy. 32<sup>nd</sup> Annual Conference of the Delhi state chapter of Association of Otolaryngologists of India, May 2009.
7. “Conservation Laryngeal Surgery” in symposium on “What is hot, What is not, in Cancer Larynx and Hypopharynx”, Invited Lecture, NCR Oncology Forum, November 18, 2009.
8. Trans Oral Laser MicroSurgery in Cancer Larynx 62<sup>nd</sup> Annual Conference of the Association of Otolaryngologists of India, Mumbai, January 7-10, 2010
9. EXITing from CHAOS 62<sup>nd</sup> Annual Conference of the Association of Otolaryngologists of India, Mumbai, January 7-10, 2010
10. Dilatation of the ventricle as a sign of Bilateral Abductor Cord Palsy PHONOCON 2010, Trivandrum, January 15-17, 2010.
11. Conservation surgery in laryngeal cancers -how I do it. in RGCON- 2010 Strategies for Preservation of Organ Structure and Function in Cancer. March 25-27, 21 010

### **Dr Rakesh Kumar**

“Rhinoplasty”- Lecture for DNB students through teleconferencing via satellite infrastructure of IGNOU organized by National board of examination (Ministry of Health and Family welfare, Govt Of India ) on 22/01/2010

“Reconstructive surgery of head and neck”. Lecture for DNB students through teleconferencing via satellite infrastructure of IGNOU organized by National board of examination (Ministry of Health and Family welfare, Govt Of India ) on 22/01/2010

“Orientation for practical examination for DNB students”. Lecture for DNB students through teleconferencing via satellite infrastructure of IGNOU organized by National board of examination (Ministry of Health and Family welfare, Govt Of India ) on 22/01/2010

“Cochlear implantation – Indian experience”. Lecture for Pan African students through teleconferencing e-Pan African network Jan 2010

## **Dr C.V. Karthikeyan**

“Recent advances in Hearing rehabilitation”- Lecture for DNB students through teleconferencing via satellite infrastructure of IGNOU organized by National board of examination (Ministry of Health and Family welfare, Govt Of India ) on 22/01/2010

“Recent advances in surgery for carcinoma of larynx and voice rehabilitation”. Lecture for DNB students through teleconferencing via satellite infrastructure of IGNOU organized by National board of examination (Ministry of Health and Family welfare, Govt Of India ) on 22/01/2010

“Cochlear implantation – Indian experience”. Lecture for Pan African students through teleconferencing e-Pan African network Jan 2010

### **Residents and Research associates**

1. Perilymph fistula- the great imposter of balance disorders, K Sikka, A Thakar 32<sup>nd</sup> Annual Conference of the Delhi state chapter of Association of Otolaryngologists of India, 2-3 May 2009.
2. Oncologic and Functional results following Near Total Laryngectomy, R Vaish, A Thakar 32<sup>nd</sup> Annual Conference of the Delhi state chapter of Association of Otolaryngologists of India, 2-3 May 2009.
3. Conservation laryngeal surgery in surgical salvage following radiation failure. H B Nongrum. A Thakar 32<sup>nd</sup> Annual Conference of the Delhi state chapter of Association of Otolaryngologists of India, 2-3 May 2009. **Mukut Saharia Award for Best presentation**
4. Laryngotracheal stenosis- clinical profile & treatment. S.Pookamala, Rakesh Kumar. 32<sup>nd</sup> Annual Conference of the Delhi state chapter of Association of Otolaryngologists of India, 2-3 May 2009.
5. Bilateral Submandibular duct transposition and bilateral sublingual gland excision for drooling in children. Prem sagar 32<sup>nd</sup> Annual Conference of the Delhi state chapter of Association of Otolaryngologists of India, 2-3 May 2009.
6. Dr.Rohit Verma & Dr Kapil Sikka secured **First place in Temporal bone dissection** competition. 32<sup>nd</sup> Annual Conference of the Delhi state chapter of Association of Otolaryngologists of India, 2-3 May 2009.
7. Optic Nerve Decompression for Traumatic Visual loss. Trauma 2009, Nov, 2009; C. Preetam, A Thakar (**Best paper award**)
8. Posterior Cricoid split and rib cartilage interposition for Subglottic Stenosis. Trauma 2009, Nov 2009. Rajeev Kumar, A Thakar.
9. Hypothyroidism and its impact on Quality of Life in Survivors of Laryngeal and Hypopharyngeal Cancer Indian Head-Neck Cancer Congress, Kochi, Oct 2009, C. Preetam, A Thakar
10. Treatment Results of Nasopharyngeal Cancer Indian Head-Neck Cancer Congress, Kochi, Oct 2009, S Shyam Kumar, A Thakar.
11. Conservation laryngeal surgery in surgical salvage following radiation failure. Indian Head-Neck Cancer Congress, Kochi, Oct 2009, Henry Nongrum, A Thakar.



12. Short effects of intraoperative percochleostomy dexamethasone steroid injection on electrode impedance in cochlear implant patient and its impact on short term outcome result, 7<sup>th</sup> Annual conference of Cochlear Implant group of India, 7-8 Nov 2009, presented by Dr.Kapil Sikka.( **Best oral poster award**)
- 13 Dr. Chirom Amit Singh & Dr Rajeev secured **First place in Temporal bone dissection** competition, Delhi AOI Annual Conference,6-7 March 2010.
- 14 Otorhinologic & Head and Neck manifestations in individuals with HIV/AIDS, Rajeev Kumar, K.K.Handa. Delhi AOI Annual Conference, 6-7 March 2010, MAMC, NewDelhi. **Mukut Saharia Award for Best presentation**
- 15 Role of the CO2 laser in Cancer larynx. R Vaish, A Thakar Association of Otolaryngologists of India ( Delhi Branch) March 2010
- 16 SupraCricoid Laryngectomy- Video Presentation . Rohit Verma, A Thakar Association of Otolaryngologists of India ( Delhi Branch) March 2010
- 17 Naso Maxillary Swing- Video Presentation . C Preetam, A Thakar Association of Otolaryngologists of India ( Delhi Branch) March 2010
- 18 Type IV Thyroplasty for High Vagal Paralysis- Poster Presentation Kapil Sikka, A Thakar Association of Otolaryngologists of India ( Delhi Branch) March 2010 **Best Poster Award**
- 19 Poster presentation on Transoral laser surgery in carcinoma of base of tongue S.Pookamala, C.V.Karthikeyan. Delhi AOI Annual Conference, 6-7 March 2010, MAMC, NewDelhi.
- 20 Poster presentation on carotid body (Potato) tumor, Rajeev Kumar, S.C.Sharma Delhi AOI Annual Conference, 6-7 March 2010, MAMC, NewDelh. **Best Poster award**

## RESEARCH

### Funded Projects

#### *Completed*

1. Assessment of T, C levels and the resultant change in the dynamic range in cochlear implant users: To evaluate possible electrical stimulation induced damage to the neural elements? - Prof RC Deka, ICMR project, Rs. 11.67 lakhs, 3 years.
2. Role of bacterial and fungal colonization in patients with chronic rhinosinusitis and nasal polyposis with special emphasis on their superantigenicity and biofilm property'. Fellow: Dr Anurag Ramavat, Chief Guide: Prof RC Deka, CSIR project, 3 years.

#### *Ongoing*

1. Effect on hearing function in individuals with diabetes mellitus. Fellow: Dr.Gaurav Chaturvedy, Chief Guide: Prof RC Deka, CSIR project, 3 years
2. Phase II/III Randomized placebo controlled clinical trial of curcumin in resectable stage III & IV squamous head and neck cancers. Dr A. Thakar. DBT Project, 3 yrs.
3. Prevalence of Hypothyroidism following treatment of Head-Neck Cancer and its impact on Quality of Life. Dr A. Thakar, DST Project, 2007–2010.

## **Collaborative Research**

### ***Ongoing***

1. Stereological study of the age related morphological and neurochemical changes in the human cochlear nucleus—in collaboration with Department of anatomy
2. Comparison of conventional general anesthesia with total intra venous anesthesia in children undergoing cochlear implant surgery- in collaboration with Department of Anesthesiology.

### ***Completed***

To study the safety and efficacy of extra oral glossopharyngeal block in glossopharyngeal neuralgia- in collaboration with Dept of Anesthesiology.

## **Departmental Projects**

### ***Ongoing***

1. Oncologic efficacy and functional outcome of CO2 Laser microsurgery in early and moderately advanced laryngeal and hypopharyngeal cancer.
2. The effect of dexamethasone injection in the inner ear on hearing and NRT & it's outcome results in cochlear implant patients
3. Role of PET scan in diagnosing unknown primary in head and neck carcinoma with cervical neck node metastasis
4. To study the effect of cricoid split with costal cartilage rib grafting and lumen augmentation in cases of subglottic stenosis.
5. Study of patient profile with external nasal deformity requiring septorhinoplasty and its outcome.
6. Immunohistochemical characterization of JNA and radiological & histological evaluation of vidian canal involvement in JNA.
7. Evaluation of Neural Response Telemetry based MAPing (NRT) in post lingual cochlear implantees and its correlation with conventional behavioural list based MAPing.
8. Clinopathological changes in antral mucosa in cases of bilateral ethmoidal polypi.
9. Evaluation of voice changes before and after intracordal injection of autologous fat in cases of unilateral vocal cord palsy.
10. Evaluation of treatment results and patient satisfaction with upper eyelid loading in cases with facial paralysis.
11. Role of rTMS therapy in chronic tinnitus patient.
12. Comparative study of outcome of tympanoplasty using Hydroxyapatite and Titanium prosthesis.

### ***Completed***

1. Clinical profile of patients with laryngotracheal stenosis
2. Bilateral Submandibular duct transposition and bilateral sublingual gland excision for drooling in children

- 3 Comparison of various techniques of tonsillectomy in terms of post operative pain and other post operative variables

## **PUBLICATIONS**

1. Deka RC, Sikka K, Chaturvedy G, Singh C, Venkatarathikeyan C, Kumar R, Agarwal S. Cochlear Implantation in Waardenburg Syndrome : The Indian scenario. *Acta Otolaryngologica*, ISSN 1651-2251 online 2010. DOI 10.3109/00016481003713640
2. Anurag Ramavat, Rakesh Kumar, Venkatarathikeyan C, Ayushi Jain and Ramesh C Deka. Modified lateral rhinotomy for fronto-ethmoid schwannoma in a child: a case report *Cases Journal* 2010, 3:64doi:10.1186/1757-1626-3-64
3. A.Thakar , D. A. Tandon, A. K. Mahapatra. Surgery for Optic Nerve Injury- Should nerve sheath incision supplement osseous decompression? *Skull Base*, 2009; 19(4) :263-271.PMID: 20046594
4. Thakar A, Lal P.Delayed Cerebrospinal fluid leak following Septoplasty *Annals of Otolaryngology and Head-Neck Surgery* 2009 Sep;118(9):636-638
5. Sinha P, Bahadur S, Thakar A, Matta A, Macha M, Ralhan R, Datta Gupta SD. Significance of promoter hypermethylation of p16 gene for margin assessment in carcinoma tongue Head and Neck (2009) Nov;31(11):1423-30 PMID: 19431196
6. HB Nongrum, A Thakar, G Gupta, S Datta Gupta. Current Concepts in Juvenile Nasopharyngeal Angiofibroma *Journal of ENT Masterclass* (2009) , 2(1) : 88-95.
7. P. Lal, S. Dutta Gupta, A. Thakar.Sjogren's Syndrome masquerading as Nasopharyngeal Carcinoma *American journal of Otolaryngology* ( 2009) 30(3):209-211. PMID 19410128
8. Matta A, Tripathi SC, Desouza LV, Grigull J, Kaur J, Chauhan SS, Srivastava A, Thakar A, Shukla NK, Duggal R, Dattagupta S, Ralhan R, Michael Siu KW. Heterogenous Ribonucleoprotein K (hnRNPk) is a marker of Oral Leukoplakia and correlates with poor prognosis of Squamous Cell Carcinoma *International Journal of Cancer* (2009)125(6):1398-406 PMID: 19548310
9. Sharan CJ, Bahadur S., Handa KK, Thakar A, Pande JN. Changes in Ventilatory Function following surgical treatment of Bilateral Abductor Paralysis. *Indian Journal of Otolaryngology and Head and Neck Surgery* (2009) 61 :208-212.
10. Gadodia A, Seith A, Sharma R, Thakar A, Parshad R.Magnetic Resonance Sialography using CISS & HASTE sequence in inflammatory salivary gland diseases: comparison with digital sialography *Acta Radiologica* 2010 Mar;51(2):156-63 PMID: 19912075
11. Preetam C, Thakar A.Carcinoma Larynx: An overview of facts In-Recent Management in *Otolaryngology*, ed. R Ranga, Bhiwani, (2009); 113-118.

## **Chapters in Books**

Deka RC, Venkatarathikeyan C. Management of persistent maxillary sinusitis. In: Duncavage, Becker, *The Maxillary sinus*. New York, NY: Thieme publishers.2009

Nirav Trivedi, A. Thakar. Management of Salivary Gland Tumors In –Teaching Manual- Post Graduate Teaching and Cadaveric Dissection workshop in Head-Neck Surgery – 2010; pgs-.63-65. *published by* Department of ENT – HNS, Base Hospital, Delhi Cantt.

Nirav Trivedi, A. Thakar. Treatment Protocols in Laryngeal Cancer. In –Teaching Manual- Post Graduate Teaching and Cadaveric Dissection workshop in Head-Neck Surgery – 2010; pgs-189-193. *published by* Department of ENT – HNS, Base Hospital, Delhi Cantt.

### Abstracts

A. Thakar. Endoscopic optic nerve decompression for optic nerve injury and allergic fungal sinusitis. *Clinical Otolaryngology*. July 2009. Vol 34 Supplement 1. Page 46

### PATIENT CARE

The Department provides a state of art ENT service and equipped with the entire range of diagnostic and therapeutic facilities including a Cochlear Implant Lab, audiological facilities, Electronystagmographic facilities, Electro diagnostic Audiometry, Hearing Aid Analyzer, Ear mould Lab, speech therapy facilities, stroboscopy and computer aided speech analysis. The Rehabilitation Unit of Audiology and Speech Therapy function with the clinical department to provide supportive, diagnostic and rehabilitative services for the people with speech and hearing impairment.

The cochlear implantation (CI) program was started in All India Institute of Medical Sciences in 1996 under the chairmanship of Professor RC Deka and the first adult patient was successfully operated upon in February in 1997. Soon, the department started the Children Programme in 1998. Since then, 257 patients have been subjected to Cochlear implantation at AIIMS till March, 2009. Professor RC Deka has also done the country's first bilateral Cochlear implant successfully in an adult patient. The department has provided support in starting cochlear implant surgery programme in R.R. Hospital, Central Railway Hospital & also PGIMER, Chandigarh. The Department is an established centre for cochlear implantation and in the year under review, a total of 56 cases have had successful cochlear implantation. All such cases further continue to be on follow-up and are receiving post implantation speech therapy and training to maximize the benefit of cochlear implantation.

The Head and Neck cancer clinic of our department in the B.R. Ambedkar Institute Rotary cancer hospital, with the collaborative support of radiotherapists and medical oncologists, caters to large number of patients suffering from head and neck malignancies from all parts of the country. The departmental faculty provides their surgical expertise in the effective management of head and neck cancers apart from the management of general and complicated Otorhinolaryngology diseases and disorders. The Department also runs Speciality Clinics– (Vertigo, Audiology, Skull base, Rhinology, Voice clinics) and provide services to a large number of patients. The department has developed an undergraduate (MBBS) teaching manual and a post graduate log book. It provides short and long term training to national and international doctors and audiologists every year.

### OPD & Speciality Clinics

ENT OPD	–	New Cases: 36049
		Old cases: 40094

### Specialty Clinics

RUAS– Speech	:	New:1226, Old:1518
RUAS–Hearing	:	New:915, Old:1922
Head & Neck Clinic	:	New: 907, Old: 3713
Voice	:	848
Vertigo	:	133
Audiology & Skull base	:	233
Rhinology	:	109

### In– Patients

Admissions	–	1583
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### Surgical Procedures

Major	–	1349
Minor	–	1882
Minor OT	–	26929

### Special Investigations

Pure tone Audiometry	:	6105
BERA	:	1450
Electronystagmography	:	286

### Community Services/ Camps

- The department provides comprehensive ENT services at Primary Health Center at Ballabgarh, Haryana. In addition, Dr CV Karthikeyan renders his services in the OPD once a week at Deaf Center Gurgaon, under Haryana government.
- The department participates in the annual tertiary medical care camp at Ladakh and provides local support and referral support to the local ENT services at Ladakh.

### AWARDS, HONOURS AND SIGNIFICANT EVENTS

#### Professor R.C. Deka

*Professor Ramesh Chandra Deka is the Director of AIIMS with effect from 10<sup>th</sup> March 2009. Prof Deka was also the Dean of AIIMS from May2006 to March 2009.*

Professor R.C. Deka is the founder chairman of Indian Academy of Otolaryngology– Head Neck Surgery. He is an Inspector for Medical Council of India (MCI) and National Board of Examinations (NBE). He is the chairman of the Technical advisory group for the speech and hearing handicapped to the Ministry of Social Welfare. He is also the chairman of Sectional committee of ENT surgical instruments (MHR04) of Bureau of Indian standards

Professor RC Deka is the International Editorial Board Member of:

- Acta–Otolaryngologica (Stockholm).
- Otolaryngology– Head and Neck Surgery (USA).
- Otology–Neurotology (USA).
- Pakistan Journal of Otology.

He is the Editorial Chief of Indian Journal of Otology.

He is the Editorial Chief of Vertigo view point.

Professor R.C. Deka was the Guest of Honor in the inauguration ceremony of speech and hearing unit of Pt. JNM Medical College at Raipur on 30-08-2009

He was the chief guest at the Annual conference of Pediatricians of Maharashtra state chapter, Pune on 14-11-2009.

He was the Guest of Honor at inaugural function of the opening of new Cardiovascular centre at Sardar Patel Medical College, Bikaner on 27-01-2010.

He was the Chief Guest at the Golden jubilee celebrations at BHU, Varanasi on 15-03-2010.

He was invited as a guest of honor and as a member at the Dedication ceremony of NEIGRIHMS to the nation at Shillong on 05-03-2010.

Prof RC Deka is the member of National Advisory committee meeting of Kishore Vaigynaik Prosthath Yojana (KVPY) which was held on 09-03-2010 at Bangalore..

He is the member of Standing purchase committee meeting of PGI-Chandigarh which was held on 27-03-2010 at Chandigarh

He was the chief guest at the BHU Golden Jubilee Celebration on 15-03-2010 at Varanasi

Prof RC Deka was the chief guest at the seventh convocation ceremony of B.P Koirala Institute of Health Sciences(BPKIHS), Dharan, Nepal which was held on 22-01-2010 which was presided over by the Honorable Prime Minister of Nepal as a Chancellor. Prof Deka delivered the convocation address for the outgoing post graduate and under graduate students.

The country's first successful launch of State of the art advanced Nucleus 5 Cochlear Implant for use in Cochlear Implant surgery in public sector setting in India was performed by the team of doctors of the Department of ENT under the supervision of Prof RC Deka.

### **Prof S.C.Sharma**

*Prof SC Sharma is the Head of the Department of Otolaryngology and Head & Neck Surgery w.e.f October 2009.*

He is the moderator for the Panel discussion on Treatment option for cancer-Hypopharynx. "Larynx and Hypopharynx 2009" Head and Neck Cancer Update. 31<sup>st</sup> Oct-2<sup>nd</sup> Nov, 2009

He demonstrated the surgical technique of Total Laryngectomy, partial pharyngectomy with patch pharyngoplasty and bilateral neck dissection to the national and international delegates during the conference

He is the moderator for the Panel discussion on Symposium on Oral cancer. 62<sup>nd</sup> Annual Conference of the Association of Otolaryngologists of India, Mumbai, January 7-10, 2010

Prof SC Sharma was the visiting faculty at University of Pennsylvania, Pittsburgh, USA and received Hands on Robotic surgery training from 6<sup>th</sup> to 19Mar-2010

### **Dr Alok Thakar**

Awarded the Indo-US Science and Technology Forum ( IUSSTF)) Travel Fellowship for training on Trans-Oral Robotic Surgery at Philadelphia, USA.

Invited International Faculty- British Academic Conference of Otolaryngology (BACO 2009)

Invited Faculty- Confluence 09- Meeting of the European Academy of Otolaryngology and HNS

Elected President Elect, The Neuro-Otological and Equilibriometric Society of India.

Elected Governing Body member, The Skull Base Society of India.

Elected Governing Body member, Association of Phono-surgeons of India.

Editorial Board Member, Otology India.

Editorial Board Member, Indian Journal of Otology

Editorial Board member, International Online Journal of Otorhinolaryngology

Member, Educational Committee - Foundation for Head and Neck Oncology

He is the moderator for the Panel Discussion on Cancer Larynx- Has chemo-radiation eclipsed surgery. 32<sup>nd</sup> Annual Conference of the Delhi state chapter of Association of Otolaryngologists of India, May 2009.

He is the Panelist on Parotid Tumors. 2<sup>nd</sup> Otolaryngology CME, Sikkim Manipal Institute of Medical Sciences, Gangtok, May 2009.

He is the Panelist for the panel discussion on Balloon Sinoplasty versus conventional FESS International Conference on Sinoplasty and Rhinoplasty, New Delhi, September 2009

He is the Moderator for the Panel Discussion- Cancer Larynx- Advances in Management South Zone conference of Association of Otolaryngologists of India, Chennai, October, 2009.

Dr Alok Thakar is the Organizing Chairman of “Larynx and Hypopharynx 2009” Head and Neck Cancer Update. 31<sup>st</sup> Oct-2<sup>nd</sup> Nov, 2009. He demonstrated the surgical technique of supracricoid partial laryngectomy with crico-hoido-pexy and the technique of Total laser cordectomy to the national and international delegates at the meeting

He demonstrated the surgical technique of Labyrinthectomy in the Skull Base CME at AIIMS, May 2009.

He is the Panelist for the panel discussion on Voice Disorders. Voice course, Research and Referral Hospital, Delhi, Nov 2009.

He is the Panelist for the panel discussion on Newer Techniques of Tonsillectomy Coblation in ENT, Sir Ganga Ram Hospital, Dec 22, 2009.



Laser Kashima's operation ; Instructor – Hands on Cadaveric Instructional course. PHONOCON 2010, Trivandrum, January 15-17, 2010.

Trans-Mandibular Approach to the Para Pharyngeal Space- Cadaveric Surgical Demonstration / Instructor

He is the instructor for PG Teaching and Cadaveric Dissection Workshop in Head-Neck Surgery 2010, Base Hospital, Delhi Cant. Jan 2010.

Dr. A Thakar visited the University of Pennsylvania, Pittsburgh, USA and received training for Trans Oral Robotic surgery from 6<sup>th</sup> to 19Mar-2010.

### **Dr Rakesh Kumar**

Co-member of Sectional committee of ENT surgical instruments-(Nasal instruments) (MHR04) of Bureau of Indian standards.

Appraiser for the DNB course at R&R Hospital, New Delhi.

Organizing Secretary of the live surgical workshop “Larynx and Hypopharynx 2009” Head and Neck Cancer Update. 31<sup>st</sup> Oct-2<sup>nd</sup> Nov, 2009. He demonstrated Laser cordectomy in ca glottis for the delegates. Examiner for M.S., (ENT) Examinations held at Delhi University, New Delhi.

He is the Panelist for the panel discussion on Emerging trends in ENT-Where are we heading? 33<sup>rd</sup> Delhi State AOI Annual Conference, 6-7 March 2010, MAMC, NewDelhi.

### **Dr. Venkata Karthikeyan**

Organizing Secretary -. “Larynx and Hypopharynx 2009” Head and Neck Cancer Update. 31<sup>st</sup> Oct-2<sup>nd</sup> Nov, 2009 .Surgical demonstrator of total laryngectomy along with tracheoesophageal puncture. “Larynx and Hypopharynx 2009” Head and Neck Cancer Update. 31<sup>st</sup> Oct-2<sup>nd</sup> Nov, 2009. He is the Assistant editor for Indian Journal of Otology. He is the Reviewer of Indian Journal of Pediatrics. He chaired session on Medico legal aspects in ENT practice. 62<sup>nd</sup> Annual Conference of the Association of Otolaryngologists of India, Mumbai, January 7-10, 2010.

## 9.25 Paediatrics

### Professor and Head

Dr Vinod K. Paul

### Professors

Dr Maharaj K. Bhan  
(On deputation)

Dr Ashok K. Deorari  
Sushil K.Kabra

Dr Arvind Bagga

### Additional Professor

Dr Madhulika Kabra

### Associate Professors

Dr Pankaj Hari

Sheffali Gulati

### Assistant Professors

Rakesh Lodha  
Vandana Jain

Rachna Seth

Ramesh Agarwal

### Scientists

Shinjini Bhatnagar  
Manju Ghosh

Pratima Ray  
Madhumita Roy Choudhary

Suman Vashisht  
Manju Saxena

## EDUCATION

**PhD Program:** Total PhD students: 12 (Pediatric Gastroenterology 6, Genetics 6, Pediatric Pulmonology 1)

**DM in Pediatric Neurology ongoing program**

**DM in Neonatology ongoing program**

The faculty of the Department also participates in the teaching of the MSc Pediatric Nursing, MSc Biotechnology and BSc Nursing programmes on a regular basis.

For the MD Pediatrics program, the Department introduced: a. Log book for postgraduates in the department of Pediatrics; b. Guidelines for thesis protocol; and c. structured internal assessment schema for periodic assessment of PG students in the domains of clinical skills, theory and thesis writing.

The Department conducted national Postgraduate Quiz in Pediatrics, Neonatology Quiz for Physicians and Nurses (zonal round) under the aegis of Indian Academy of Pediatrics and national Neonatology Forum, respectively.

## Short term training

A total of **25** short term trainees were trained in different super specialties in the department.

Genetics (13)

Neonatology: (11)

Nephrology	(2)
Nutrition & Dietetics	(5)
Pulmonology and Intensive care	(5)
Medical Social Services	(6)

## **CME**

### **Department organized following workshops or training courses**

1. Three satellite workshops on neonatal ventilation at Chandigarh- May 2009; Chennai-September 2009; Aurangabad (December 2009).
2. Four satellite workshops on Continuous Positive Airway Pressure (CPAP) at Aurangabad: July 2009; Warangal, Vijayawada October 2009; Hyderabad January 2010; Pune February 2010;
3. Fetal Medicine Workshop in collaboration with department of Obstetrics and Gynecology AIIMS, March 2010
4. International Symposium on Protective Nutrients at AIIMS 2010
5. DeSymposium on ‘Techniques of Pediatric Neurologic Examination’ March 2010.
6. Pediatric Hematology update, October 2009.
7. Three Childhood Diabetes Meets (April 2009, September 2009 and April 2010).
8. Seminar on milk on “World Milk Day”., May 2009.
9. National Nutrition Week Celebrations, September 2009.
10. XXI Annual Conference of the Indian Society of Pediatric Nephrology in collaboration with the International Society of Nephrology and Commission for Global Advancement, December 2009.
11. Six bimonthly Meetings of the Delhi Society of Pediatric Nephrology.

Faculty members and Scientists delivered a total of 151 Lectures.

## **RESEARCH**

### **Funded projects**

#### ***Completed***

1. “Dietary Prevention of non-communicable diseases”. 2008 to 2009. WHO Funding Rs 150000.
2. Cloning and Expression of NSP4 Enterotoxin of Rotavirus in *E.coli* and evaluation of NSP4 specific immune responses during natural rotavirus infection in children. Chief Investigator: Dr. Pratima Ray, Funded by DST; 2004-2007, Funds: 19,90,000.00.
3. The Indo-US collaboration to develop rotavirus vaccine, Chief Investigator: Prof. M.K. Bhan/ Dr. Pratima Ray, Funded by NIH; 2003-2008, Funds: 213,43,185.00
4. Safety & Immunogenicity of 116E rotavirus vaccine candidate. Chief Investigator: Prof. M.K. Bhan/ Dr. Pratima Ray, Funded by DBT; 2000-2008, Funds: 27,54,000.00.

5. Characterization of rotavirus strains from a multicentric Rotavirus study at AIIMS, Investigator: Dr. Pratima Ray, Funded by DBT; 2005-2008, Funds: Rs. 31,97,000.00.
6. Molecular Characterization of VP3 gene of Rotavirus, Chief Investigator: Dr. Pratima Ray, Funded by ICMR, Funds: 13, 20,000.00.
7. Survey of Prenatal Diagnostic Practices in India as a Part of Multi Country Survey – Developing Methods to Facilitate Informed Choice Taking Into Account Concordance Between the Principles that Govern the Undergoing of Prenatal Tests and Practice Across Europe and Beyond Economic modelling study Non-invasive (NI) RhD testing in Europe & Asia. Dr. Madhulika Kabra, Funding Agency: SAFE, Euro: 10,000. 2006-2009
8. Molecular Genetic studies in Leukodystrophy, Dr. Madhulika Kabra, Ms Pallavi Shukla (PhD student), UGC, UGC Funding Rs 20,000/- per year.
9. Molecular genetic studies in Steroid resistant Nephrotic syndrome PI: Dr. Arvind Bagga; Investigators: Dr. Madhulika Kabra, Dr. Pankaj Hari. Funding Agency: DBT, Total funding: 470 000. Duration: 2007-2010.
10. Validation of WHO LBW feeding guidelines. Prof Vinod Paul, Ashok Deorari and Ramesh Agarwal; Rs 130 000; WHO Years 2007-09.
11. Development of Learning Package on Essential Newborn Care for Nurses for pre-service education. Funded by WHO-SEARO, Principal Investigator: Dr. Ashok K Deorari. Funding: US \$ 10,000, Duration of Project:; September 2009 to November 2009
12. Daily corticosteroids to prevent infection associated relapses in patients with frequently relapsing nephrotic syndrome. Funded by ICMR; 2006-2009; Rs. 9,22,020
13. A multicenter double blind, randomized, parallel group evaluation of 12 weeks of valsartan compared to enalapril in children 6-17 years of age with hypertension. Funded by PPD Pharmaceutical Development India Ltd.; 2007-2009, Rs. 3,30,270.
14. A randomized double blind multicenter study to evaluate the dose response of valsartan in children 1-5 years old with hypertension. Funded by PPD Pharmaceutical Development India Ltd; 2007-2009, Rs. 6,40,845.
15. A Program to improve injection practices in the country: PI & Central Coordinating Team Member Dr S Gulati: An IndiaCLEN study; USAID; 2005-2009. Rs. 2,37,795
16. To understand the deviation in cell signaling pathway of autism through neurotrophic factors (Insulin like growth factor-1) & undertake a randomized blinded trial with Olanzapine to evaluate its effect on Insulin like Growth factor-1 (IGF-1), clinical symptoms of autism and Autism rating scales (ongoing) Chief Investigator: Dr Rachna Seth, Funding Agency: Department of Science & Technology, Duration, Duration: 2006-2009. Funds: Rs 4,08,000/-.
17. Evaluation of Anthracycline induced myocardial cardiotoxicity in children with Cancer: A comparative study with echocardiography and MUGA (ongoing), Chief Investigator :Dr Rachna Seth, Funding Agency All India Institute of Medical Sciences, New Delhi, Duration: 2008-09, Funds: Rs. 40,000/-.

## Ongoing

1. Adiponectin, CRP and IL-6 in overweight children and adolescents and their relationship with insulin resistance PI- Dr Vandana Jain, Funding Agency- AIIMS, total funding Rs 1 lac, Duration 2009-10.
2. KIGS multinational Growth Survey, PI- Dr Vandana Jain, Funding Agency-Pfizer Research Division, total funding Rs 77, 000 Duration 2009-10.
3. Zinc as an immunomodulator in the treatment of possible serious bacterial infections in infants more than 7 days and up to 2 months of age. Funding Agency: DBT, Principal Investigator: Dr. Shinjini Bhatnagar, Co-PI Prof. SK Kabra, Duration: 2005-2009, Total grant. Rs. 20,027,000.
4. Specific targeted research or innovation project, Funding by: European Union, PI: Dr. Shinjini Bhatnagar, Total grant: 75,65,299, Duration: 2005-2009,
5. Efficacy of zinc in the treatment of severe and very severe pneumonia in hospitalized children 2-24 months of age. Funding Agency: Johns Hopkins Bloomberg School of Public Health, USA & INCLEN, PI: Dr. Shinjini Bhatnagar Duration:2006-2010, Total Grant: Rs. 53,84,284.
6. Efficacy of zinc in the treatment of severe and very severe pneumonia in hospitalized children 2-24 months of age, Funding Agency: WHO, PI:Dr. Shinjini Bhatnagar & Co-PI: Prof. SK Kabra Duration:2006-10, Total funding: Rs. 75,53,367.
7. Effects of administering 10 mg of zinc orally to young infants aged 7 days and up to 4 months with possible serious bacterial infection on survival and function of peripheral blood mononuclear cells, Funding Agency: DBT, PI: Dr. Shinjini Bhatnagar & Prof. HK Prasad, Duration: 2007-2010, Total Funding: Rs. 88,57,000/
8. Efficacy of Stem cell in improvement of left ventricular function in patients with acute myocardial infarction. Funding Agency: DBT, PI: Dr. Shinjini Bhatnagar, Duration:2006-2010, total funding:Rs.15,85,000.
9. Data Management for Intravenous autologous bone marrow-derived stem cell therapy of patients with acute ischaemic stroke; A multi-institutional project. Funding Agency: DBT, PI: Dr. Shinjini Bhatnagar Duration: 2008-10, Total Funding:9,79,600.
10. Etiology and characteristics of influenza and other pathogens in acute lower respiratory infection, Funding Agency: John Hopkins Bloomberg School of Public Health, USA & INCLEN, PI: Dr. Shinjini Bhatnagar, Duration 2008-10, total funding: 35,32,680.
11. Hib Meningitis Sentinel Surveillance in North India. Funding Agency: John Hopkins Bloomberg School of Public Health, USA & INCLEN, PI: Dr. Shinjini Bhatnagar, duration:2008-10, Total funding:82,02,464.
12. Evaluation of Chikungunya infection in children and adults, Chief Investigator: Dr. Pratima Ray, Funded by DBT; 2008-11, Funds: Rs.1,24,60,000/-
13. Molecular Characterization of Rotavirus strains infecting neonates born in the hospital and diarrheal children admitted at All India Institute of Medical Sciences, Delhi during 2007-09, Chief Investigator: Dr. Pratima Ray, Funded by ICMR; 2009-12, Funds: Rs. 33,79400/-

14. Effects of administering 10 mg of zinc orally to young infants aged 7 days and up to 4 months with possible serious bacterial infection on survival and function of peripheral blood mononuclear cells, Co- Principal Investigator, Funded by DBT, 2008-2010, Funds: 42,37,105.00, Duration 2007-09.
15. Center of Excellence (COE) Program Support Projects, Madhulika Kabra, Madhumita Roychowdhury, DBT, 3.53 Crore for five years, 2007-2012.
16. Evaluation of MLPA and Array CGH for the detection of cryptic subtelomeric rearrangements in idiopathic mental retardation, Madhulika Kabra, D Ghosh Neeraj Gupta, DBT, 26.94 Lacs. 2007-2010.
17. Molecular genetic studies in Steroid resistant Nephrotic syndrome, Dr Arvind Bagga, Dr. Madhulika Kabra, Dr. Pankaj Hari, DBT, 4.70 lacs. 2007-2010.
18. Validation of Strategies for Rapid Prenatal Detection of Aneuploides, Dr. Madhulika Kabra, Deepika Deka Dr. Rashmi Shukla, DBT, 17.79 lacs. 2007-2010.
19. 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, Dr. Madhulika Kabra, Dr. N. Raghuram, Dr. Madhumita, Dr. Roychowdhury, Dr. Deepika Deka, DBT, 14.92 lacs. 2007-2010.
20. Identification of Novel Genes for non-syndromic hearing loss in the Indian Population, Dr. Madhulika Kabra, Dr. Manju Ghosh, DBT, 54.28 lacs., 2007-2012.
21. Newborn screening for congenital Hypothyroidism and congenital Adrenal Hyperplasia - A multicentric study, Prof. V.K.Paul, Prof. A.K.Deorari, Dr. Madhulika Kabra, Dr. Sheffali Gulati, Dr. Ramesh Aggarwal, Dr. Nandana Jain, Suman Vashisht, ICMR, 15 lacs.,
22. A Multicenter, Randomized, Double-Blind, Parallel-Group Study of Gene-Activated® Human Glucocerebrosidase (GA-GCB) Enzyme Replacement Therapy Compared with Imiglucerase in Patients with Type I Gaucher Disease, Dr. Madhulika Kabra, Suman Vashisht, Shire Human Genetic Therapies, USA. 12 lacs. 2007-2010.
23. To understand the deviation in cell signaling pathway of Autism through neurotrophic factors (Insulin like Growth Factor-1) & undertake a randomized blinded trial with Olanzapine to evaluate its effect on Insulin like Growth Factor-1 (IGF-1), clinical symptoms of autism rating scales-2006-09, Dr. Rachna Seth, Ms. Savita Sapra, Ms. Suman Vashisht, Funding Agency: DST, Total Funding:4,08,000
24. Molecular genetic studies in Rett Syndrome, Dr. Madhulika Kabra, Ms. Rajni Khajuria (Ph.D student), ICMR, ICMR fellowship.
25. Role ANP in diagnosis of PDA (PI Ramesh Agarwal; 100 000; AIIMS) 2008-9.
26. Systematic review Vitamin K1 therapy in neonates. Principal Investigator: Dr. Ashok K Deorari, Funding Agency: WHO Head Q's, Total Funding : US \$ 9,000, Duration of Project 2009 to F 2010.
27. Systematic review role of exchange transfusion in Jaundice, Principal Investigator: Dr. Vinod K Paul, Funding Agency: WHO Head Q's, Total Funding : US \$ 18,000, Duration of Project : 2009 to 2010

28. Antibiotic prophylaxis in the management of vesicoureteric reflux: a randomized double blind placebo controlled trial. Funded by ICMR; 2006-2010; Rs. 11,41,815
29. Levamisole treatment for children with steroid sensitive nephrotic syndrome: multicentric double blind placebo controlled randomized trial. Funded by ACE Pharmaceuticals Netherlands; 2009-12; Rs. 21,27,568
30. A prospective, randomized controlled trial comparing the efficacy of intravenous cyclophosphamide and alternate day prednisolone *versus* tacrolimus and alternate day prednisolone for patients with steroid resistant nephrotic syndrome. Funded by ICMR; 2009-2012; 7,25,781.
31. Molecular genetic studies in steroid resistant nephrotic syndrome. Funding by DBT; 2007-10; Rs. 4,70,000
32. Randomized Placebo Controlled Trial of Valproate in Children with Spinal Muscular atrophy, PI Dr Seffali Gulati Funding agency AIIMS Rs1, 00,000 per yr X 2; 2008-2011.
33. Detection of minimal residual disease (MRD) in B cell lineage acute lymphoblastic leukemia(ALL) at the end of induction by flowcytometry Name of Chief Investigator: Dr Rachna Seth, Funding Agency, ICMR, Duration: Three years:2009-12,Funds: Rs 34,82,535
34. A study of infections in Febrile neutropenic pediatric oncology patients at a tertiary care hospital, Name of Chief Investigator:Dr Rachna Seth, Funding Agency, AIIMS Research Grant, Duration:2009-10, Funds :Rs 1,00,000
35. Evaluating the Psychosocial and cognitive outcomes in acute leukemia, Dr. Rachna Seth, Funding Agency: AIIMS, Total funding: 67,000, Duration:2007-08.
36. Immunologic effect of zinc supplementation in HIV infected children receiving highly active antiretroviral therapy: A randomized, double blind placebo controlled trial. PI DR Rakesh Lodha, Funding agency ICMR, Rs 31 Lakhs, 2008-2010
37. Nevirapine levels in HIV-infected children receiving antiretroviral therapy with fixed dose combinations PI DR Rakesh Lodha, Funding agency ICMR, 2008-2010 ICMR, Rs 18 Lakhs
38. Biomarker Discovery in asthma using an integrated -omics approach PI DR Rakesh Lodha, Funding agency IGIB Rs 31 Lakhs, 2008-2010
39. Strengthening of CF services at AIIMS. Funded by Cystic Fibrosis Worldwide (CFW), total funding Rs 400000, duration 2006-2010 (N 818)
40. Zinc supplementation in pulmonary tuberculosis. Funding agency NUFU, Total funding Rs 15000000, duration 2007-2011.

## Departmental Projects

### Completed

1. Comparison of Serum and intraerythrocyte magnesium level in obese and non-obese children and its relationship with insulin resistance.
2. Adrenal insufficiency in VLBW babies with shock



3. A study of chronic pancreatitis and other risk factors for the development of cancer of the pancreas,
4. Early diagnosis of PDA in VLBW babies
5. Role of stomach wash in babies born with meconium stained amniotic fluid
6. Iron stores in SGA/AGA babies
7. Efficacy of phenobarbital on jaundice in babies with Rh isoimmunization
8. Prevalence of dyslipidemia in children with chronic kidney disease and measurement of carotid intima-media thickness and flow mediated vasodilatation.
9. Incidence of acute kidney injury in sick, hospitalized children: A prospective observational study.
10. Efficacy of rituximab for patients with steroid resistant and dependent nephrotic syndrome.
11. Mutational studies in patients with steroid resistant nephrotic syndrome
12. Intranasal versus intravenous midazolam for control of acute seizures in children: prospective open-labelled randomized equivalence trial.
13. Effect of low dose folic acid supplementation on phenytoin induced gingival overgrowth: a randomized double blind controlled trial.
14. Efficacy of modified constraint induced movement therapy on upper extremity in cerebral palsy children with asymmetrical motor impairment: a randomized control trial.
15. Behavior problem in children and adolescents with epilepsy : prevalence and risk factors: A hospital based cross sectional study
16. A Randomized, Double-Blind, Placebo-Controlled Study of Donepezil on Cognitive Function and Behaviour in Children with Fragile X Syndrome.
17. The evaluation of thyroid functions and thyroid antibodies in children with epilepsy on valproate monotherapy.
18. Randomized Open Label Comparative Study of Efficacy and Tolerability of Classical 4:1 versus 2.5:1 Ketogenic Diet in Intractable Epilepsy in Children between 6 Months and 5 Years.
19. Comparative Cross Sectional study of Heart Rate Variability in well controlled Vs. Refractory childhood epilepsy.
20. Visual versus goniometric assessment of adductor and popliteal angles in infants with hypertonia.
21. Evaluation of cardiac dysfunction in children with Duchenne's muscular dystrophy.
22. Clinical and neurodevelopmental profile in children with Tuberous sclerosis.
23. Molecular Genetic studies in patients with Leukodystrophy
24. Evaluation of pediatric cancer survivors for long/late effects of cancer therapy
25. Arsenic versus ATRA in acute promyelocytic leukemia
26. Clinical profile of autistic children in India

## Departmental Projects

### *Ongoing*

1. “Evaluation of the efficacy of the modified Atkins diet in children with refractory epilepsy: a randomized controlled trial.”
2. “Adiponectin, C-reactive protein and interleukin-6 in overweight children and adolescents and their relationship with dyslipidemia and insulin resistance.”
3. “Effect of gluten free diet on metabolic and anthropometric parameter in Type I diabetic patients with celiac disease
4. “Effect of Atorvastatin in Hyperlipidemia and progression of carotid intima media thickness in steroid resistant Nephrotic Syndrome”
5. Impaired glucose tolerance in children and adolescents with cystic fibrosis.
6. Bone mineral density in ex-preterm toddlers
7. Sensitivity and specificity of the Biocard Celiac Disease kit in identifying celiac disease.
8. A study of chronic pancreatitis and other risk factors for the development of cancer of the pancreas.
9. Randomized, double blind, placebo controlled trial to examine the effectiveness of zinc supplementation in reducing relapse rates in patients with frequently relapsing nephrotic syndrome
10. Multicentric, randomized, double blind, placebo controlled trial to compare the efficacy of 3 months versus 6-months therapy with prednisolone for the first episode of idiopathic nephrotic syndrome in children
11. Efficacy of oral calcitriol and enalapril versus enalapril in reducing proteinuria in children with chronic kidney disease
12. Abnormalities of complement regulatory factors in patients with atypical hemolytic uremic syndrome
13. Evaluation of the efficacy of the modified Atkins diet in children with refractory epilepsy: a randomized controlled trial.
14. Comparison of daily versus intermittent (10 days a month) prednisolone therapy in ambulatory children with Duchhene Muscular dystrophy- an open label randomized controlled trial.
15. Comparison of the Full Outline of Unresponsiveness (FOUR) Score Coma Scale and the Glasgow Coma Scale (GCS) in children aged 5-18 years with non traumatic coma in predicting outcome (in-hospital mortality and functional outcome at discharge).
16. Clinical and electrophysiological characteristics of neuropathy in HIV infected children over five years of age receiving Anti-retroviral therapy
17. Evaluation of modified Atkins diet in patients with infantile spasms: A Pilot study.
18. Clinical and electrophysiological characteristics of childhood Guillain Barre syndrome: A cross sectional study.

19. To study HR variability in children between 2 to 15 years of age with GBS.
20. Molecular Genetic studies in Indian children with Rett syndrome.
21. To study copy number changes in Indian patients with idiopathic MR
22. Evaluation of the efficacy of the modified Atkins diet in children with refractory epilepsy: a randomized controlled trial.
23. Comparison of daily versus intermittent (10 days a month) prednisolone therapy in ambulatory children with Duchhene Muscular dystrophy- an open label randomized controlled trial.
24. Comparison of the Full Outline of Unresponsiveness (FOUR) Score Coma Scale and the Glasgow Coma Scale (GCS) in children aged 5-18 years with non traumatic coma in predicting outcome (in-hospital mortality and functional outcome at discharge).
25. Clinical and electrophysiological characteristics of neuropathy in HIV infected children over five years of age receiving Anti-retroviral therapy
26. Evaluation of modified Atkins diet in patients with infantile spasms: A Pilot study.
27. Clinical and electrophysiological characteristics of childhood Guillain Barre syndrome: A cross sectional study.
28. To study HR variability in children between 2 to 15 years of age with GBS.
29. Molecular Genetic studies in Indian children with Rett syndrome.
30. To study copy number changes in Indian patients with idiopathic MR
31. Screening for CMV infection by PCR (Microbiology)
32. Glucose homeostasis in critically ill children.
33. Pharmacokinetics of antitubercular medications in children
34. Comparison of rapid bronchodilatory effect of formoterol and salbutamol in children between 5-15 years with mild acute exacerbation of asthma: A double blind, randomized, controlled trial
35. Prevalence of *Pneumocystis jirovecii* on Induced Sputum of <15 Yr Immunocompromised Children with Pneumonia by Gomori Methenamine silver stain and Polymerase Chain Reaction
36. Cloning and expression of Chickengunia Virus genes and evaluation of their role in chickengunia pathogenesis in children and adults.

## **COLLABORATIVE RESEARCH**

### *Completed*

1. Efficacy of Flutamide in reducing tumor size and vascularity in nasopharyngeal carcinoma (Dept of ENT)
2. Vitamin D status of exclusively winter-born breastfed babies at 3 months of age. Funding Agency- AIIMS, total funding Rs 1 lac, Duration 2006-7.
3. Vitamin D status of exclusively summer-born breastfed babies at 3 months of age. Funding Agency- AIIMS, total funding Rs 1 lac, Duration 2007-8.

4. Surgery for drooling in children: Bilateral submandibular duct transposition and sublingual gland excision (Deptt. of ENT).
5. Detection of minimal residual disease (MRD) in B cell lineage acute lymphoblastic leukemia(ALL) at the end of induction by flowcytometry.(Laboratory Oncology, IRCH) ( MD thesis received the ICMR grant)
6. Evaluation of expression of P-glycoprotein (P-gp) in retinoblastoma (RPC) (MD thesis submitted at RPC).
7. Evaluation of anthracycline toxicity in childhood cancers ; A comparative study with echocardiography and MUGA (Cardiology & Nuclear medicine).
8. The work entitled “Assessment of cardiac function by MUGA and conventional echocardiography and tissue doppler echocardiography in children with ALL receiving nthracycline chemotherapy.” has been undertaken and submitted as DM dissertation

## Collaborative Research

### Ongoing

1. Body fat and its relationship with metabolic syndrome indicators in overweight pre-adolescents and adolescents. (Clinical Pharmacology Division, Department of Medicine).
2. Efficacy and safety of single dose 6 lac IU arachitol in treatment of rickets in children (Dept of Endocrinology and Metabolism). ICMR Young Diabetics registry (Department of Endocrinology and Metabolism)
3. To compare integrated screening with contingent sequential screening for prenatal detection of Down’s syndrome in the Indian context. In Collaboration with Prof. Seema Kapoor , Genetics division department of Pediatrics MAMC New Delhi
4. Development of low cost diapers for LBW infants (PI Prof Vinod Paul; Rs 2.5 lac; DBT)
5. Evaluation of adaptive changes in masseter muscle dimensions and EMG activity following twin block and a phase of fixed appliance therapy. (Department of Dentistry)
6. Randomized Controlled Trial of early vs late surgery in childhood intractable epilepsy patients in India (Department of Neurology).
7. Evaluation of reflexology as an adjunctive therapy in children with spastic cerebral palsy (Department of Biophysics).
8. Evaluation of reflexology as an adjunctive therapy in children with West syndrome (Department of Biophysics).
9. To develop and characterize Duchenne Muscular Dystrophy disease specific induced pluripotent stem cells from adult cells (ORBO).
10. Neuro Developmental Disabilities among children in India – An INCLLEN Study, Funding Agency: INCLLEN, AUTISM SPEAKS & National Trust & Ministry of Social Justice & Empowerment, Investigator: Site PI Dr Seffali Gulati Duration: 2006-2011, Total funding: Rs. 2,25,00,000.
11. Reprogramming of adult cell to develop Duchenne Muscular Dystrophy disease specific pluripotent stem cells. Funding agency Indo-Australian Biotechnology Fund, Duration June 2010 to June 2013, Total funding Rs 1.3 Crores

12. Evaluation of predictors of adverse outcome in Febrile neutropenic episodes in Pediatric Oncology patients
13. Evaluation of myocardial function in pediatric cancers and pediatric cancer survivors(Cardiology): an ongoing evaluation for evaluation of long/late effects of cancer therapy
14. Immunological characterization of HIV 1 infection in children in India. (Biochemistry).
15. Detection of mycobacterium in patients with extra pulmonary tuberculosis. Lab Medicine
16. Development of taqman based real time quantitative polymerase chain reaction assay for detection of pneumocystis carinii/ jirovecii pneumonia. DEPTT. Microbiology
17. Antigenic and molecular characterization of Influenza Virus strains from acute respiratory infection. With Microbiology
18. Oral voriconazole versus intravenous low dose amphotericin B for primary antifungal prophylaxis in pediatric acute leukemia induction: a prospective randomized clinical study. (Medical Oncology)
19. Enhanced Surveillance for Pandemic H1N1 (PH1N1) of swine origin lineage: A Multi centre study, INDIA Supplemental project for "Developing sustainable Influenza Surveillance Network in India (CO-AG Grant No: IU5 1 IP 00033301) Microbiology

## PUBLICATIONS

### *Journals*

1. Amdekar YK, Singh V, Kabra SK, Sethi GR, Amdekar YK, Singh V, Sethi GR, Kabra SK, Babu M, Vijayasekaran D, Mathews J, Agarwal RK, Choudhury P, Agarwal R. India Clinical Epidemiology Network(IndiaCLEN) Task Force on Pneumonia Consensus statement on childhood tuberculosis. Indian Pediatr. 2010; 47:41-55.
2. Arora NK, Awasthi S, Gupta P, Kabra SK, Mathew JL, Nedunchelian K, Niswade AK, Patel A, Rewal S, Sethi GR, Shah D, Singh V, Shah D, Gupta P. India Clinical Epidemiology Network (IndiaCLEN) Task Force on Pneumonia Rational use of antibiotics for pneumonia. Indian Pediatr. 2010; 47:11-8.
3. Arora S, Kabra M. Hum Novel human pathological mutations. Gene symbol: HBB. Disease: Thalassaemia beta. Genet. 2010; 127: 123.
4. Arun S, Bhatnagar S, Menon S, Saini S, Hari P, Bagga A. Efficacy of zinc supplements in reducing relapses in steroid-sensitive nephrotic syndrome. Pediatr Nephrol 2009; 24: 1583-6.
5. Arun S, Singh A,K, Lodha R, Kabra SK. Disclosure of HIV infection status in children. Indian J Pediatrics 2009; 76: 805-808
6. Arya R, Gulati S, Deopujari S. Management of hepatic encephalopathy in children. Postgrad Med J. 2010; 86: 34-41; quiz 40. (MDLinx.com)
7. Bharaj P, Sullender WM, Kabra SK, Broor S. Human bocavirus infection in children with acute respiratory tract infection in India. J Med Virol. 2010; 82: 812-816.
8. Bharaj P, Sullender WM, Kabra SK, Mani K, Cherain J, Tyagi V, Chahar HS, Kaushik S, Dar L, Broor S. Respiratory viral infections detected by multiplex PCR among pediatric patients with lower respiratory tract infections seen at an urban hospital in Delhi from 2005 to 2007. Virol J. 2009; 6: 89.

9. Choudhry S, Bagga A, Hari P, Sharma S, Kalaivani M, Dinda A. Efficacy and safety of tacrolimus versus cyclosporine in children with steroid-resistant nephrotic syndrome: a randomized controlled trial. *Am J Kidney Dis* 2009; 53: 760-769.
10. Choudhry S, Bagga A, Hari P, Sharma S, Kalaivani M, Dinda A. Efficacy and safety of tacrolimus versus cyclosporine in children with steroid-resistant nephrotic syndrome: a randomized controlled trial. *Am J Kidney Dis* 2009; 53: 760-769
11. Nayak B, Panda AK, Ray P, Ray AR. Formulation, characterization and evaluation of rotavirus encapsulated PLA and PLGA particles for oral vaccination. *J Microencaps* 2009, Vol.26: 154-165.
12. Chahar HS, Bharaj P, Dar L, Guleria R, Kabra SK, Broor S. Co-infections with chikungunya virus and dengue virus in Delhi, India. *Emerg Infect Dis.* 2009; 15: 1077-1080.
13. Choudhary A, Sharma S, Sankhyan N, Gulati S, Kalra V, Banerjee B, Kumar A.. Midbrain and Spinal Cord Magnetic Resonance Imaging (MRI) Changes in Poliomyelitis. *J Child Neurol.* 2010 ;25(4): 497-499.
14. Choudhary A, Sharma S, Sankhyan N, Gulati S, Kumar A. Unidentified bright objects in Neurofibromatosis Type 1. *Indian J Pediatr.* 2010 Mar;77(3):340.
15. Finnegan J, Nobel KA, Lodha R. Evidence behind the WHO Guidelines: Hospital Care for Children: What is the Role of HIV Antigen Testing in Infants <12-months Old? *J Trop Pediatr.* 2009, 55:216-8.
16. Garg PK, Khajuria R, Kabra M, Shastri SS. Association of SPINK1 Gene Mutation and CFTR Gene Polymorphisms in Patients With Pancreas Divisum Presenting With Idiopathic Pancreatitis. *J Clin Gastroenterol.* ;43(9):848-52.
17. Ghosh I, Kumar L, Seth R, Thavaraj V. Sustained remission achieved with ATRA and chemotherapy in second relapse of APL in Down syndrome. *J Pediatr Hematol Oncol.* 2009; 31: 539-40.
18. Goel A, Sreenivas V, Bhatnagar S, Lodha R, Bhatla N. Risk of birth defects increased in pregnancies conceived by assisted human reproduction. *Fertil Steril.* 2009, 92:07.
19. Gulati A, Sridhar V, Bose T, Hari P, Bagga A. Short-term efficacy of sevelamer versus calcium acetate in patients with chronic kidney disease stage 3-4. *International Urology Nephrology* 2009 Dec 18 DOI 10, 1007/S11255-009-9688-9
20. Gupta AK, kandasamy D, seth R Role of FDG-PET/CT in management of Hodgkin Lymphoma. *Indian J Pediatr,* 2009; 76: 1273-4
21. Gupta R, Mirdha BR, Guleria R, Kumar L, Samantaray JC, Agarwal SK, Kabra SK, Luthra K. Diagnostic significance of nested polymerase chain reaction for sensitive detection of *Pneumocystis jirovecii* in respiratory clinical specimens. *Diagn Microbiol Infect Dis.* 2009; 64: 381-388
22. Gupta R, Thabrah MM, Vaidya B, Gupta S, Lodha R, Kabra SK. Anti-cyclic citrullinated peptide antibodies in juvenile idiopathic arthritis. *Indian J Pediatr* 2010; 77: 41- 44.



23. Hari P, Bagga A, Mahajan P, Dinda A. Outcome of lupus nephritis in Indian children. *Lupus* 2009; 18: 348-354
24. Jain V, Goel P, Kumar D, Seith A, Sarkar C, Kabra S, Agarwala S. Endobronchial chondroid hamartoma in an infant. *J Pediatr Surg.* 2009; 44: e21-23.
25. Jain V, Sharma R, Verma S, Agarwal R. Fetal Euthyroid Goiter. *Indian Journal of Pediatrics* 2009; 76: 1259-60
26. Jose B, Sankhyan N, Arya R, Kabra M, Gulati S, Azad RV. Inflicted neuro-trauma in infancy..*Indian J Pediatr.* 2010 Jan 20 (4)
27. Malik J, Bhan MK, Ray P. Natural Immunity to Rotavirus Infection in Children. *Indian J Biochem Biophys,* 2008: 45:219-228
28. Malik J, Gupta SK, Bhatnagar S, Bhan MK, Ray P. Evaluation of IFN- $\alpha$  Response to Rotavirus and Nonstructural Protein NSP4 of Rotavirus in Children Following Severe Rotavirus Diarrhea. *J Clin Virol* 2008, 43: 202-06.
29. Kabra SK, Lodha R, Pandey RM. Antibiotics for community-acquired pneumonia in children. *Cochrane Database Syst Rev.* 2010; 3: CD004874.
30. Kabra SK, Mukherjee A, Vani SA, Sinha S, Sharma SK, Mitsuyasu R, Fahey JL. Continuing medical education on antiretroviral therapy in HIV/AIDS in India: needs assessment and impact on clinicians and allied health personnel. *Natl Med J India.* 2009; 22: 257-60.
31. Kabra SK, Pawaiya R, Lodha R, Kapil A, Kabra M, Vani AS, Agarwal G, Shastri SS. Long-term daily high and low doses of azithromycin in children with cystic fibrosis: A randomized controlled trial. *J Cyst Fibros.* 2010; 9:17-23.
32. Kalra V, Chaudhry R, Dua T, Dhawan B, Sahu JK, Mridula B. Association of *Campylobacter jejuni* infection with childhood Guillain-Barré syndrome: a case-control study. *J Child Neurol.* 2009; 24: 664-8.
33. Kalra V, Mishra D, Suri A, Seth R, Garg A. Intraventricular neurocysticercosis. *Indian J Pediatr.* 2009; 76 ; 420-3
34. Kalra V, Sankhyan N, Sharma S, Gulati S, Choudhry R, Dhawan B. Outcome in childhood Guillain-Barré syndrome. *Indian J Pediatr.* 2009; 76: 795-9.
35. Kalra V, Seth R, Mishra D, Saha NC. Clobazam in refractory childhood epilepsy. *Indian J Pediatr.* 2010;77(3)263-266.
36. Kalra V, Sharma S, Arya R. ACTH therapy in refractory generalized epilepsy. *Indian J Pediatr.* 2009;76: 91-3.
37. Kalra V, Sharma S, Sahu J, Sankhyan N, Chaudhry R, Dhawan B, Mridula B. Childhood acute transverse myelitis: clinical profile, outcome, and association with antiganglioside antibodies. *J Child Neurol.* 2009;24: 466-71.
38. Kasa-Vubu JZ, Jain V, Kathy Welch. Impact of fatness, insulin and gynecologic age on luteinizing hormone secretory dynamics in adolescent females. *Fertility Steril* 2009 Apr 24 (Epub ahead of print) PMID 19394610



39. Khajuria R, Sapra S, Ghosh M, Gupta N, Gulati S, Kalra V, Kabra M. Rapid detection of deletions in hotspot C-terminal segment region of MECP2 by routine PCR method: report of two classical Rett syndrome patients of Indian origin. *Genet Test Mol Biomarkers*. 2009;13: 277-80.
40. Khajuria R, Sapra S, Ghosh M, Gupta N, Gulati S, Kalra V, Kabra M.. Novel human pathological mutations Disease Rett Syndrome. Gene symbol: MECP2.17:. *Hum Genet*. 2010; 127: 118.
41. Khajuria R, Sapra S, Ghosh M, Gupta N, Gulati S, Kalra V, Kabra M. Novel human pathological mutations. Gene symbol: MECP2. Disease: Rett Syndrome.*Hum Genet*. 2010;127:117-8
42. Kumar A, Goenka AH, Choudhary A, Sahu JK, Gulati S. Disseminated cysticercosis in a child: whole-body MR diagnosis with the use of parallel imaging. *Pediatr Radiol*. 2010; 40: 223-7.
43. Kuttiat V, Lodha R, Das B, Kohli U. Prevalence of cholera in pediatric patients with acute dehydrating diarrhea. *Indian J Pediatr* 2010; 77: 67- 71.
44. Lodha R, Bhargava A. Financial incentives and the prescription of newer vaccines by doctors in India. *Indian J Med Ethics*. 2010; 7: 28-30.
45. Lodha R, Bhutia TD, Kabra SK, Thukral A. Day 1 blood glucose and outcome in critically ill children. *Indian Pediatr*. 2009; 46: 809-10.
46. Lodha R, Kabra SK. Do inhaled corticosteroids adversely affect glucose metabolism? *Indian Pediatr* 2009; 46: 293-4.
47. Lodha R, Kabra SK. One to one immunization guidelines. *Indian Pediatr* 2009; 46: 1021-23.
48. Mallik S, Dar L, Broor S, Gulati S, Salhotra A, Kalra V, Behari M. Subacute Sclerosing Panencephalitis in a tertiary care center in post measles vaccination era. *J commun. Dis* 2009; 42: 161-167.
49. Menon PR, Lodha R, Kabra SK. Bovine colostrum in Pediatric Respiratory Diseases: A Systematic Review. *Indian J Pediatr* 2010; 77: 108- 109.
50. Menon PR, Lodha R, Sivanandan S, Kabra SK. Intermittent or Daily Short Course Chemotherapy for Tuberculosis in Children: Meta analysis of Randomized Controlled Trials. *Indian Pediatr*. 2010; 47: 67-73.
51. Misra A, Chowbey P, Makkar BM, Vikram NK, Wasir JS, Chadha D, Joshi SR, Sadikot S, Gupta R, Gulati S, Munjal YP, Jain V. Consensus statement for diagnosis of obesity, abdominal obesity and the metabolic syndrome for Asian Indians and recommendations for physical activity, medical and surgical management. *J Assoc Physicians India*. 2009;57:163-70
52. Mukherjee A, Lodha R, Kabra SK. Idiopathic CD4+ T-cell lymphocytopenia. *Indian J Pediatr*. 2009; 76: 430-432.
53. Nelson EA, Bresee JS, Parashar UD, Widdowson MA, Glass RI; Asian Rotavirus Surveillance Network (Fang ZY, Wang B, Zhang LJ, Sun LW, Du ZQ, Tang JY, Hou AC, Shen H, Song XB, Wang XY, Xu ZY, Zhang YL, Zhao SJ, Hao ZY, Xing ZC, Han CQ, Ma JC, Chen JC, Tam JS, Chan PK, Yu LM, Ng YC, Poon KH, Ng CH, Ip KS, Fok TF, Bahl R, Ray P, Subodh S, et al., Rotavirus epidemiology: the Asian Rotavirus Surveillance Network. *Vaccine*. 2008; 26: 3192-6.

54. Rao S, Saxena R, Deka D, Kabra M. Use of HbA estimation by CE-HPLC for prenatal diagnosis of beta-thalassemia; experience from a tertiary care centre in north India: a brief report. *Hematology*. 2009; 14:122-4.
55. Ruperto N, Ozen S, Pistorio A, Dolezalova P, Brogan P, Cabral DA, Cuttica R, Khubchandani R, Bracaglia C, Bagga A, Stanevicha V, Bircan Z, Barbano G, Martini A; Paediatric Rheumatology International Trials Organisation (PRINTO). EULAR/PRINTO/PRES criteria for Henoch-Schönlein purpura, childhood polyarteritis nodosa, childhood Wegener granulomatosis and childhood Takayasu arteritis: Ankara 2008. Part I: Overall methodology and clinical characterization. *Ann Rheum Dis* 2010; 69: 790-7.
56. Saharan S, Jose B, Seth R, Iyer V, Kabra S. Langerhans cell histiocytosis presenting as recurrent air leaks in young children. *Acta Paediatr*. 2010; 99: 488-488.
57. Sahu JK, Sharma S, Kamate M, Kumar A, Gulati S, Kabra M, Kalra V. Lead Encephalopathy in an Infant Mimicking a Neurometabolic Disorder. *J Child Neurol*. 2009
58. Sankar J, Arun S, Sankar MJ, Seth R, Thavaraj V, Kabra SK. Primary cutaneous mucormycosis during induction chemotherapy in a child with acute lymphoblastic leukemia. *Indian J Pediatr* 2009; 76; 1161-3
59. Sankar J, Lodha R, Kabra SK. Quinolones where do we use. *Indian J Pediatrics* 2009; 76 (SS1): S 46- S 52.
60. Sankhyan N, Kalra V, Aksentijevich I, Kabra M, Gulati S, Sharma S. Late presentation in NOMID (Neonatal-Onset Multisystem Inflammatory Disease); A Case Report. *J Pediatr Neurol* 2009; 7: No 3.
61. Sarthi M, Lodha R, Kabra SK. Pneumonia. *Indian J Pediatrics* 2009; 76 (SS1): S 11- S 17.
62. Schultz JM, Khan SN, Ahmed ZM, Riazuddin S, Waryah AM, Chhatre D, Starost MF, Ploplis B, Buckley S, Velásquez D, Kabra M, Lee K, Hassan MJ, Ali G, Ansar M, Ghosh M, Wilcox ER, Ahmad W, Merlino G, Leal SM, Riazuddin S, Friedman TB, Morell RJ. Am. Noncoding mutations of HGF are associated with nonsyndromic hearing loss, DFNB39. *J Hum Genet*. 2009; 85: 25-39.
63. Sebastian MR, Das CJ, Kumar V, Lodha R. Unexplained coma in a toddler. *Denouement. Pediatr Infect Dis J*. 2009; 551, 558-9.
64. Sebastian MR, Lodha R, Kabra SK. Chickengunia infection in children. *Indian J Pediatrics* 2009; 76: 185-189.
65. Sebastian MR, Lodha R, Kabra SK. Swine origin influenza (swine flu). *Indian J Pediatr*. 2009; 76: 833-41.
66. Sethi SK, Ludwig M, Kabra M, Hari P, Bagga A. Vitamin A responsive night blindness in Dent's disease. *Pediatr Nephrol*. 2009; 24: 1765-70
67. Sethi SK, Lunardi J, Kabra M, Deka D, Bagga A. Antenatal diagnosis of Lowe syndrome. *Clin Exp Nephrol*. 2010 Feb 17. DOI 10.1007/S10157-010-0267-2
68. Sethi SK, Hari P, Bagga A. Elevated FGF-23 and parathormone in linear nevus sebaceous syndrome with resistant rickets. *Pediatr Nephrol* 2010 Mar 9.

69. Sethi SK, Ludwig M, Kabra M, Hari P, Bagga A. Vitamin A responsive night blindness in Dent's disease. *Pediatr Nephrol* 2009; 24: 1765-70.
70. Sethi SK, Singh N, Gil H, Bagga A. Genetic studies in a family with distal renal tubular acidosis and sensorineural deafness. *Indian Pediatr* 2009; 46: 425-7.
71. Sethi SK, Marie-Agnes DD, Thaker N, Hari P, Bagga A. Hemolytic uremic syndrome due to homozygous factor H deficiency. *Clin Exp Nephrol* 2009; 13: 526-30.
72. Sharma R, Jain V. Bilateral Breast Enlargement in a Male Toddler: an Unusual Cause. *Indian J Pediatrics* 2009; 76 : 1164-66
73. Sharma S, Chanana B, Gulati S, Venkatesh P, Singh S. Acute bilateral vision loss as the presenting feature of subacute sclerosing panencephalitis. *Indian J Pediatr.* 2009; 76: 952-3.
74. Sharma S, Gulati S, Kalra V, Agarwala A, Kabra M "Seizure control and biochemical profile on the ketogenic diet in young children with refractory epilepsy – Indian experience": *Seizure* 2009;18:446-9.
75. Sharma S, Kalra V, Garg A, Suri V, Suri A Gliomatosis cerebri.. *Indian J Pediatr.* 2009; 76: 553-4.
76. Sharma S, Sankhyan N, Kabra M, Gulati S. Teaching Neuroimages T2 hypointense thalami in infantile GM1 gangliosidosis. *Neurology* 2010;74:e47.
77. Sharma S, Sankhyan N, Kabra M, Kumar Hypomelanosis of Ito with hemimegalencephaly. *A. Dermatol Online J.* 2009 ;15:12
78. Sharma S, Sankhyan N, Kalra V, Garg A, Gupta SD, Agarwala S, Das P. Inflammatory myofibroblastic tumor involving lung and brain in a 10-year-old boy: a case report. *J Child Neurol.* 2009; 24:1302-6.
79. Shukla P, Gupta N, Kabra M, Ghosh M, Gulati S, Kalra V. Hum Novel human pathological mutations. Gene symbol: ABCD1. Disease: Adrenoleukodystrophy. *Genet.* 2009 ;126: 335-6.
80. Shukla P, Gupta N, Kabra M, Ghosh M, Sharma R, Gupta AK, Gulati S, Kalra V.J. Three novel variants in X-linked adrenoleukodystrophy. *Child Neurol.* 2009; 24: 857-60.
81. Singhi S, Khilnani P, Lodha R, Santhanam I, Jayashree M, Ranjit S, et al. Guidelines for treatment of septic shock in resource limited environments. *J Pediatr Infect Dis* 2009; 4: 173–192.
82. Sivanandan S, Lodha R, Kabra SK. Nosocomial pneumonia. *Indian J Pediatrics* 2009; 76 (SS1): S 32- S 39.
83. Subhashini L, Vatsa M, Lodha R. Knowledge, attitude and practices among health care professionals regarding pain in children. *Indian J Pediatr.* 2009 70:913-6.
84. Sharma S, Ray P, Gentsch JR, Glass RI, Kalra V, Bhan MK. Emergence of G12 strains in Delhi, 2000-2007. *J Clin Microbiol* 2008, 46: 1343-1348.
85. Sharma S, Paul VK, Bhan MK, Ray P. Genomic characterization of nontypeable rotaviruses and detection of a rare G8 strain from Delhi India *J Clin Microbiol* 2009,. 47: 3998-4005.

86. Tanveer N, Sharma MC, Sarkar C, Gulati S, Kalra V, Singh S, Bhatia R. Diagnostic utility of skin biopsy in dystrophinopathies. *Clin Neurol Neurosurg.* 2009 ; 111: 496-502.
87. Tiewsoh K, Lodha R, Pandey RM, Broor S, Kalaivani M, Kabra SK. Factors determining the outcome of children hospitalized with severe pneumonia. *BMC Pediatr* 2009; 9: 15.
88. Varshney AK, Chaudhry R, Saharan S, Kabra SK, Dhawan B, Dar L, Malhotra P. Association of *Mycoplasma pneumoniae* and asthma among Indian children. *FEMS Immunol Med Microbiol.* *FEMS Immunol Med Microbiol.* 2009; 56: 25-31.
89. Verma P, Verma V, Ray P, Ray AR. Agar Gelatin Hybrid Sponge induced Three Dimensional In Vitro “Liver Like” Hep G2 Spheroids for The Evaluation of Drug Cytotoxicity. *J Tissue Eng Regen Med* 2009 ;3: 368-76.
90. Verma S, Gupta R, Lodha R, Kabra SK. Feasibility and Efficacy of Intraarticular Steroids (IAS) in Juvenile Idiopathic Arthritis (JIA). *Indian Pediatr.* 2009; 46: 264-5.
91. Verma V, Verma P, Ray P, Ray AR. 2’3-Dihydrazone Cellulose: Prospective Material for Tissue Engineering Scaffolds. *Mat Sc Eng C* 2008: 28: 441-47.
92. Verma V, Verma P, Ray P, Ray AR. Preparation of scaffolds from human hair proteins for tissue engineering applications. *Biomed. Met.* 2008; 3: 025007.
93. Yadav S, Das CJ, Kumar V, Lodha R. Acute necrotizing encephalopathy. *Indian J.* 2010 77: 307-309.
94. Mishra S, Chawla D, Agarwal R, Deorari AK, Paul VK. Transcutaneous Bilirubin levels in healthy term and late preterm Indian neonates. *Indian J Pediatr.* 2010; 77: 45-50.
95. Dalal SS, Mishra S, Agarwal R, Deorari AK, Paul V. Does measuring the changes in TcB value offer better prediction of Hyperbilirubinemia in healthy neonates? *Pediatrics.* 2009;124: e851-7.
96. Mishra S, Chawla D, Agarwal R, Deorari AK, Paul VK, Bhutani VK. Transcutaneous bilirubinometry reduces the need for blood sampling in neonates with visible jaundice. *Acta Paediatr.* 2009; 98: 1916-9.
97. Sankar MJ, Paul VK, Kapil A, Kalaivani M, Agarwal R, Darmstadt GL, Deorari AK Does skin cleansing with chlorhexidine affect skin condition, temperature and colonization in hospitalized preterm low birth weight infants?: a randomized clinical trial. *J Perinatol.* 2009; 29: 795-801.
98. Sankar MJ, Saxena R, Mani K, Agarwal R, Deorari AK, Paul VK. Early iron supplementation in very low birth weight infants—a randomized controlled trial. *Acta Paediatr.* 2009; 98: 953-8.
99. Dalal SS, Chawla D, Singh J, Agarwal RK, Deorari AK, Paul VK. Limb splinting for intravenous cannulae in neonates: a randomised controlled trial. *Arch Dis Child Fetal Neonatal Ed.* 2009; 94: F394-6.
100. Mishra S, Chawla D, Agarwal R, Deorari AK, Paul VK. Transcutaneous bilirubin levels in healthy term and late preterm Indian neonates. *Indian J Pediatr.* 2010 Jan;77(1):45-50. Epub 2010 Feb 5. PubMed PMID: 20135268.
101. Deorari AK. Continuous distending pressure for respiratory distress in premature infants: RHL Commentary (last revised: 1<sup>st</sup> January 2010). The WHO reproductive health library Geneva: WHO.

102. Satish Mishra, Ramesh Agarwal, Ashok Deorari, Vinod Paul. The Cochrane Library, Intervention review “Oral zinc for the prevention of hyperbilirubinemia in neonates”. DOI: 10.1002/14651858.CD008432
103. Kumar P, Chawla D, Deorari A. Light-emitting diode phototherapy for unconjugated hyperbilirubinemia in neonates (Protocol). **Cochrane Database of Systematic Reviews** 2009, Issue 3. Art. No.: CD007969. DOI: 10.1002/14651858.CD007969.
104. Sankar MJ, Saxena R, Mani K, Agarwal R, Deorari AK, Paul VK. Early Iron Supplementation in Preterm VLBW Infants – a randomized controlled trial. *Acta Paediatr* 2009;98:953-58.
105. Sankar MJ, Paul VK, Kapil A, Mani K, Agarwal R, Darmstadt G, Deorari AK. Does Skin Cleansing with Chlorhexidine Affect Skin Condition, Temperature and Colonization in Hospitalized Preterm Low Birth Weight Infants: A Randomized Clinical Trial. *J Perinatol* 2009;29:795-801.
106. Mishra S, Chawla D, Agarwal R, Paul VK, Deorari AK, Bhutani V. Comparison of transcutaneous bilirubinometry and visual assessment of level of jaundice in near-term and term neonates on deciding the need for blood sampling. *Acta Paediatrica* 2009 Nov; 98: 1916–1919.
107. Dalal S, Mishra S, Agarwal V, Paul VK, Deorari AK. Does Measuring the Trend Compared to Single Transcutaneous Bilirubin Value within First 48 Hours of Age Offer Better Prediction of Subsequent Hyperbilirubinemia in Healthy Neonates? *Pediatrics* 2009 Oct; 124 (5): e851-e857.
108. Sivananda S, Chawla D, Mishra S, Agarwal R, Deorari AK. Effect of Sling Application on Efficacy of Phototherapy in Healthy Term Neonates with Non-hemolytic Jaundice: A Randomized Study. *Indian Pediatrics* 2009;46:23-28.
109. Dalal SS, Chawla D, Singh J, Agarwal RK, Deorari AK, Paul VK. Limb splinting for intravenous cannulae in neonates: a randomized controlled trial. *Arch Dis Child Fetal Neonatal Ed.* 2009 Nov;94(6):F394-6. Epub 2009 May 12.
110. Sankar MJ, Paul VK, Deorari AK. Neonatal Infections in Asia: Is the data truly representative of all units in the region? Available at <http://fn.bmj.com/cgi/eletters/94/2/F144#3017> (accessed on 27/03/2009)
111. Lawn JE, Lee AC, Kinney M, Sibley L, Carlo WA, Paul VK, Pattinson R, Darmstadt GL. Two million intrapartum – related stillbirths and neonatal deaths: where, why, and what can be done. *International Journal of Obstetrics and Gynecology* 2009; 107: S5-S20
112. Lawn JE, Kinney M, Lee AC, Chopra M, Donnay F, Paul VK, Bhutta ZA, Bateman M, Darmstadt GL. Reducing intrapartum-related deaths and disability: can the health system deliver? *International Journal of Obstetrics and Gynecology* 2009; 107: S123-S142.
113. Oommen A; Vatsa M; Paul V K; Aggarwal R. Breastfeeding practices of urban and rural mothers. *Indian Pediatrics* 2009;46(10):891-4.
114. Bahl R, Martines J, Ali N, Bhan MK, Carlo W, Chan KY, Darmstadt G, Hamer D, Lawn J, Paul VK, Tsai AC, et al. Research priorities to reduce global mortality from newborn infections by 2015. *Pediatric Infectious Disease Journal* 2009; 28: S43-8.

#### **BOOKS AND EDITOR OF SPECIAL SUPPLEMENT/ SYMPOSIUM:**

1. Jain V, Anuja A. Management of Obesity in Children. 2009. Printed by The Impact, New Delhi

2. Seth Rachna & Sapra Savita. Neurocognitive and Psychosocial deficits in childhood cancer. A manual for school & Health Professionals, Konark Printers
3. Kabra SK, Lodha R. Essential Pediatric Pulmonology. 2<sup>nd</sup> Edition. Noble Vision, New Delhi. 2010.
4. Essential Pediatrics Eds O.P. Ghai, Vinod K Paul 6th edition, CBS Publishers, New Delhi 2009.
5. Vandana Jain, Anuja Agarwala, Kiran Rai, Meenu Khaneja “Management of childhood obesity” – information booklet on childhood obesity in English and Hindi, 2009.
6. Neonatal Equipment–Everything you would like to know!’ Deorari AK. Paul VK (ed), 4<sup>th</sup> Ed, 2010, Sagar Publications, Delhi.
7. Workbook on CPAP-Science, evidence and practice, Deorari AK, Kumar P, Murki S (eds) 1<sup>st</sup> edition, 2010, Chetna Publishers, New Delhi.
8. ‘Learners & Facilitators Guide’ on Essential Newborn Nursing for resource restricted countries, 2nd Ed. 2009, (Reprinted twice) Chetna Publishers, New Delhi.

### Chapters in Books

1. Bhatnagar S, Lodha R, Bhatia V, Wadhwa N, Agarwala A. Nutrition. Ghai Essential Pediatrics, 7<sup>th</sup> Edn. Pub: CBS & Distributors 2009;57-77.
2. Gulati S, Kalra V. Neuromuscular disorders. In Ghai Essential Pediatrics Eds Ghai OP, Paul VK Bagga A. 7<sup>th</sup> ed., 2009, pp 566-579, New Delhi; CBS Publishers & Distributors.
3. Gulati S. Care of Neurological problems In Essential Pediatric Nursing Eds Gupta P. 3<sup>rd</sup> edition 2010, CBS publishers, New Delhi.
4. Gulati S. Encephalitis. In Principles of Pediatric and Neonatal Emergencies (A publication of Indian Pediatrics) Eds Sachdev HPS, Choudhry P, Bagga A, Chugh K, Ramji S, Puri RK . 3<sup>rd</sup> ed. 2010, New Delhi; Jaypee Brothers Medical Publishers (P) Ltd.
5. Gulati S. Malformations of the nervous system. In Essential Pediatric Nursing Eds Gupta P. 3<sup>rd</sup> edition 2010, CBS publishers, New Delhi .
6. Gupta P, Gulati S. Care of disabled children. In Essential Pediatric Nursing Gupta P. 3<sup>rd</sup> edition 2010, CBS publishers, New Delhi .
7. Jain V, Chen M, Menon R. Disorders of Carbohydrate Metabolism. In Gleason CA, Devaskar SU, eds. Avery’s Diseases of the Newborn. 9th Edition, Philadelphia, PA: Elsevier 2010
8. Jain V, Ghai OP. Normal Growth and its Disorders. In Ghai OP, Paul VK, Bagga A, eds. Ghai Essential Pediatrics. 7th edition, New Delhi: CBS Publishers and Distributors Pvt Ltd; 2009: 1-21.
9. Jain Y, Lodha R. Kala Azar. In, Parthasathy A (Ed). IAP Textbook of Pediatrics. 4<sup>th</sup> Edn. Jaypee. New Delhi. 2009; pp 440-3.
10. Singhal T, Seth R, Bhatia V, Lodha Rakesh, Bagga Arvind, Kabra SK, Sinha Aditi, Jain Richa, Kumar Pawan, Menon RP. Ghai Essential Pediatrics VII Edition 2009, Infection, Infection/Infectations.



11. Seth Rachna, Arya LS. Ghai Essential Pediatrics VII edition 2009. Childhood malignancies.
12. Madhulika Kabra & Neerja Gupta , Chromosomal and Single gene disorders in An Introduction to genetics and Fetal medicine Eds deepika Deka& Narendra Malhotra,2nd Edition,FOGSI Publication (Jaypee brothers) 95-98,2010
13. Neerja Gupta & Madhulika Kabra ;Genetic Counseling for Obstetricians in An Introduction to genetics and Fetal medicine Eds deepika Deka& Narendra Malhotra,2nd Edition,FOGSI Publication (Jaypee brothers) 13-20,2010
14. Sadhna Arora and Madhulika Kabra . Noninvasive prenatal diagnosis in An Introduction to genetics and Fetal medicine Eds Deepika Deka& Narendra Malhotra,2nd Edition,FOGSI Publication (Jaypee brothers) 203-205,2010
15. Shinjini Bhatnagar, Rakesh Lodha, Vidhut Bhatia, Nitya Wadhwa, Anuja Agarwala “Nutrition” In: “Essential Pediatrics” 7<sup>th</sup> edition (silver jubilee edition) (ed); O.P Ghai, Vinod K Paul, Arvind Bagga; CBS publishers and distributors Pvt. Ltd., New Delhi, April 2009; Chapter 5, Pg 57 – 77.
16. Sindhu S, Lodha R. Pneumonia and the role of probiotics. In, Takeda Y, Nair GB (Eds). Evidence Based Health Benefits of Probiotics. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi. 2009: pp 43- 56.

## PATIENT CARE SERVICES

### Outpatient Services

Department of Pediatrics provides general OPD services daily from 9 a.m. in Pediatrics OPD. There are 15 superspeciality services provided by department, which are as follows:

Name of Service	New Cases	Old cases	Total Attendance
General OPD	29931	47468	77399
Pediatric Neurology Clinic	1099	2600	3699
Myopathy Clinic	298	832	1130
Pediatric Gastroenterology Hepatology and Nutrition	1219	3918	5137
Well Baby Clinic	264	938	1192
High Risk Neonatology Clinic	256	901	1157
Pediatric Nephrology Clinic	469	3501	3970
Pediatric Chest Clinic	516	4560	4976
Pediatric Tuberculosis Clinic	244	1871	2115
Pediatric Rheumatology Clinic	158	1485	1643
Genetics and Birth Defects Clinic	2901	1360	4261
Pediatric Oncology Clinic	150	1580	1730



Pediatric Cancer Survivor Clinic	88	544	632
Pediatric Endocrine & Metabolism Clinic	1000	1500	2500
Development Clinic	365	385	750
<b>Grand Total:</b>	<b>39324</b>	<b>71265</b>	<b>110589</b>

**In addition Cystic fibrosis and Pediatric HIV services were provided in Pediatric Chest clinic.**

**Physiotherapy Services** were provided to the patients in Neurology clinic, Myopathy clinic, Genetics clinic, Development clinic, Pediatric Chest Clinic, Rheumatology clinic and OPD services

**Dietetics services** were provided to patients attending Pediatric Gastroenterology, Hepatology and Nutrition clinic, Pediatric Chest clinic and general OPD services

**Medical Social services** were provided to all the patients admitted in Pediatric wards and patients attending clinics and general OPD.

### **Indoor Services**

Indoor services include admission facilities in general wards, day care facility, oral rehydration unit and pediatric Intensive care facility.

Children requiring short procedures or interventions are admitted for a day in day care facility situated in C5 ward

Children suffering from acute diarrhoeal diseases are admitted and provided with oral rehydration therapy in Oral rehydration unit (ORU) situated in C5 ward

Children requiring intensive care are admitted in Pediatric Intensive care unit which is well equipped to provide care to critically ill children.

Admissions in ORU		780
Long admissions in Pediatric wards	377 + 818	1195
Admissions in Day care facility (Short admission)	2360+1896	4256
Patients admitted in PICU		365

### **Special investigations/procedures**

#### **ENDOCRINOLOGY**

Water deprivation test	15
Vasopressin challenge test	15
ACTH stimulation test	26
HCG stimulation test	40
GnRH stimulation test	30
Dexamethasone suppression test	10

GH stimulation test	20
Modified Oral Glucose tolerance test	40
<b>GASTROENTEROLOGY HEPATOLOGY AND NUTRITION</b>	
<b>Pediatrics Endoscopies</b>	<b>898</b>
Sclerotherapies	267
Diagnostics	407
Dilatation	23
Biopsies	161
Foreign Body Removal	4
Colonoscopies	36
<b>CD Serology</b>	
IFA (AEA) for diagnosis of Celiac disease:	556
tTg ELISA:	400
Fecal Fat	
Sudan III stain Quantitative	30
D-xylose quantitative	20
NBT for Chronic Granulomatous Disease	61
<b>Diagnostics for Sepsis</b>	
CRP: Latex agglutination (semi quantitative)	1500
<b>Micronutrient Assays</b>	
Serum Zinc,	10
Serum copper	12
<b>GENETIC</b>	
Developmental / Behavioural evaluation and intervention : (developmental assessment, early stimulation and behavioural intervention)	1543
<b>Laboratory tests :</b>	
<b>I. Cytogenetics Lab.</b>	
1. Peripheral Blood Cultures	579
2. Cord Cultures for Karyotyping	47
3. Chromosomal Breakage studies	40
4. Amniotic Fluid cultures	89
5. CVS cultures	12

## II Biochemical Lab.

1. Prenatal diagnosis for high risk pregnancies by triple test	1762
a) MSAFP	1762
b) $\hat{\text{A}}$ HCG	1762
c) Free Estriol	1762
2. AFP	44
3. $\hat{\text{A}}$ hcG	12
4. TLC for disorders of amino acid metabolism	169
5. Disorders of Mucopolysaccharidosis (Urine Spot test)	85
6. Homocysteinuria test	49
7. Reducing Substances in urine	175
8. DNPH	168
9. FeCl <sub>3</sub>	170
10. Urine Porphyrin	11
11. Oligosaccharides	12
12. Blood Ammonia	334
13. Enzyme assays for Inborn Error of Metabolism:	
Total no. patients for Enzyme Assays:	231
• No. of patients with single enzyme assay:	115
• No. of patients with multiple enzyme assays:	116

S No.	Enzyme Assay	Disorder	No. of Pts
1.	Arylsulfatase A Leukodystrophy	Metachromatic-	69
2.	$\hat{\alpha}$ -Glucosidase	Gaucher Disease	27
3.	$\hat{\alpha}$ -Iduronidase	Hurler Syndrome (MPS I)	9
4.	Iduronate Sulfatase	Hunter Syndrome (MPS II)	9
5.	Galactosose-6- sulphate sulphatase	Morquio A (MPS IV A)	11
6.	$\hat{\alpha}$ -Galactosidase	GM1 Gangliosidosis and Morquio B (MPS IV B)	40

7. Arylsulfatase B	Maroteaux-Lamy Syndrome(MPS VI)	2
8. $\alpha$ -Glucuronidase	MPS VII	13
9. Hexosaminidase A	Tay-Sachs (GM 2)	18
10. Galactose-1-Phosphate-UridylTransferase	Galactosaemia	21
11. Biotinidase (Screening Test)		16

### III Molecular lab.

1. Thalassemia mutation studies		261
2. Thalassemia prenatal diagnosis		101
3. Duchenne muscular dystrophy family studies		289
4. Duchenne muscular dystrophy prenatal diagnosis		22
5. Cystic fibrosis family studies		50
6. Cystic fibrosis prenatal diagnosis		4
7. Spinal muscular atrophy family studies		85
8. Spinal muscular atrophy prenatal diagnosis		12
9. Hemophilia A family studies		8
10. Hemophilia B family studies		2
11. Fragile X screening		91
12. Fragile X Prenatal diagnosis		2
13. Intersex cases for genotyping		53
14. Skeletal dysplasia mutations		26
15. MTHFR		10
16. Sequencing for diagnosis & Prenatal test		267
17. Connexin 26 mutations		21
18. MLC Mutation testing		10
19. Rett Syndrome Mutation testing		40

### NUTRITION UNIT

Nutrition :		1788
New Patients		1267
Old Patients		521

## **NEPHROLOGY**

### **Special tests and procedures in nephrology**

Hemodialysis	810
Acute peritoneal dialysis (including automated peritoneal dialysis)	141
Continuous ambulatory peritoneal dialysis	15
Plasmapheresis sessions	104
Temporary hemodialysis catheter placement	132
Renal biopsy	115
Renal transplants	6

## **NEUROLOGY**

### Special Investigations/procedures

#### EPS Lab

1. NCV	340
2. EMG	121
3. RNST	11
4. EEG	1609
5. Muscle biopsies	141
6. Skin biopsies	21
7. Nerve biopsies	26
8. Arterial lactate	312
9. CSF lactate	156

## **PED. ONCOLOGY**

Bone marrow examination:	480
CSF examination:	360
Lymphnode aspiration:	25
Flowcytometry :	60

## **PULMONOLOGY AND INTENSIVE CARE**

Fibre- optic bronchoscopy:	246
Spirometry :	530
Infant pulmonary function test	15
Sweat testing	428

### **Pediatric Intensive Care**

Mechanical Ventilation	175
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### Critical Care Lab:

Arterial Blood Gas Analysis	10000
Electrolyte estimation	7000

### Community Service & camps

1. Organized IX Education program for parents of cystic fibrosis on 5.4.2009 by the Division of Pediatric Pulmonology
2. Parent interaction meeting for Rett Syndrome - 11th October 2009 at AIIMS by Genetics Parents Meeting for Osteogenesis Imperfecta 25th October 2009 Genetics *Parents meeting for Autism 2nd April 2009 Genetics*
3. In Pediatric Oncology division the 'Parent support group – doctor meet' organized interactive meeting between parents of children with various forms of childhood malignancies in collaboration with an NGO 'CANKIDS'.
4. International Childhood Cancer Day was celebrated on Feb 15, 2009. As part of the HEALTH, HYGIENE & NUTRITION PROGRAM, children were explained the importance of these issues. A small film has been created by the treating physicians highlighting the importance of each of these.
5. Pediatric Endocrine division organized 2 interactive educational meets for children with Type 1 Diabetes and their parents and one for children with Congenital Adrenal Hyperplasia.
6. Anjali Mukerjee, Anuja Agarwala "Rise and Shine" In: What's Hot – Times of India: (ed); Abhiruchi Chand: 25<sup>th</sup> July 2008; Pg 32.
7. Parmeet Kaur, Anuja Agarwala, et al "Guide to Healthy Lifestyle for Adolescents" – a booklet released during the Nutrition Week; on the occasion of
8. "Healthy Lifestyle Exhibition" organized by Dietetics Department, AIIMS on 3<sup>rd</sup> September 2008.
9. Anuja Agarwala "Enteral and Parenteral Formulations" In: Workshop Manual of Certificate course in Clinical Nutrition (Level 1) titled "Effective Nutrition Support in Hospitalized patients" An ISPEN – PENSA initiative 2008; Pg 16 – 17.
10. Anuja Agarwala "Healthy, Wealthy 'N' Wise" In: Mail Today: Education (special Initiative) on Tuesday, 23<sup>rd</sup> December, 2008; Pg 34.
11. Anuja Agarwala. Stick to a Healthy Monsoon Diet. In: DNA (Bangalore Edition) on 12<sup>th</sup> June 2009.
12. Financial support to patients through the Rashtriya Arogya Nidhi, Prime Ministers relief fund, by providing medications with the help of NGOs like CANKIDS and CPAA
13. Patient education program. Parent support group meets are organized once every 3-4 monthly where the doctors, social worker, dietician, parents of children undergoing treatment and representatives from the NGO participate .

14. 3<sup>rd</sup> Childhood Diabetes-celiac meet” organized by Pediatrics GE and Endocrinology divisions, on 11<sup>th</sup> March 2008.
15. Information Booklet for patients on Obesity (in Hindi and English) printed and released on the Institute Day.
16. Mr Dhaneswar Yadav (MSSO) provided following services to pediatric patients: counseling to 3000 persons: Individual Counseling, Group Counseling, Family Counseling, Relationship Counseling to children with chronic illness; facilitated getting railway concession to 1200 patients; mobilized Rs 50 lakhs of financial assistance for poor patients from government & NGO's; and rehabilitated 7 unknown neonates through Child Welfare Committees.

## **AWARDS HONOURS**

### **Dr V. K. Paul**

- Visiting Professor, Public Health Foundation of India
- Dr. R. V. Rajam Oration of the National Academy of Medical Sciences
- Indian Academy of Pediatrics (Chandigarh chapter) oration
- Dr. K. C. Choudhury Oration of the Institute of Child Health, Kolkata

### **Dr AK Deorari**

- State NNF Oration for AP Neocon 2009 at Warangal, Andhra Pradesh
- Andhra Pradesh Pedicon–2009 Oration at Rajahmundry, Andhra Pradesh.

### **Arvind Bagga**

Educational Ambassador, International Society of Nephrology

### **Rakesh Lodha**

- Certificate of Appreciation from The Stanford India Biodesign Program.

### **Ramesh Agarwal**

- Certificate of Appreciation from The Stanford India Biodesign Program.
- ICMR International Fellowship for Young Scientists at Stanford University, USA.

### **Dr. Rachna Seth**

- Felicitated by CANKIDS-KIDSCAN, an NGO, for significant impact on childhood cancer treatment in India
- Awarded fellowship to attend the St Jude Viva Forum for Hematological Malignancies at Singapore March 3-5, 2010

## **Special Events**

### **Departmental**

- The Department was adjudged the best Pediatrics Department in India, third time in a row, by the magazine 'The Week'.



- Division of Neonatology was recognized as Advanced Centre for Newborn Health Research by ICMR, New Delhi 2010-2014.
- Division of Neonatology continued to be WHO Collaborating Centre for Training and Research in Newborn Care.
- Division of Genetics continued to be WHO Collaborating Centre for Clinical Genetics.
- The Training tool of WHOCC-AIIMS on Essential Newborn Nursing for small hospitals has been incorporated into a National Programme (Navjaat Shishu Suraksha Karyakaram) launched by Ministry of Health on 15<sup>th</sup> September 2009.
- Division of Neonatology created a website [www.newbornwhocc.org](http://www.newbornwhocc.org) The website highlights the activities of our Division and provides free access to learning resource materials ,software for Data collection etc developed by Neonatology Division.
- Division of Neonatology developed a teaching learning package on Essential Newborn Care consisting of power point along with matching script by consensus and pilot testing in six institutions in India. Available on website [www.newbornwhocc.org](http://www.newbornwhocc.org)

**Dr. Vinod K Paul**

- Team Leader for developing the Newborn and Child Health Policy 2009 for the Ministry of Health, Government of India
- Led a team to review the impact of existing child health programs for the Planning Commission for the Mid-term Appraisal of the XI Plan.
- Member, Board of the global Partnership for Maternal, Newborn and Child Health, Geneva
- Member, Data Safety Monitoring Board for the WHO Multi-centre study on impact of neonatal vitamin A supplementation on child mortality.
- Member, Codex Shadow Committee of the Women and Children Department, Government of India.
- Member, Scientific Advisory Council, Global Alliance to Prevent Prematurity and Stillbirths, a Gates Foundation Funded initiative.
- WHO Temporary Advisor for developing Childbirth Safety Checklist
- Member, Technical Advisory Group, Saving Newborn Lives, Save the Children (US)
- Member, Maternal Health Task Force, a Gates Foundation Funded initiative.
- Invitee to the International Advisory Panel on National Rural Health Mission.
- Member, Neonatal Health Group of the International INTERGROWTH Study to develop international fetal and newborn growth standards for 21<sup>st</sup> century
- Invited by DFID UK to develop maternal and newborn health inputs to G8 deliberations.
- Member, task force on Helping Babies Breathe initiative of the American Academy of Pediatrics
- Member, International Editorial Board, Journal of Perinatology and World Journal of Pediatrics.
- Member, Governing Body of the National Neonatology Forum

- Member, SNEHA, a Mumbai-based NGO involved in maternal, newborn and child health.
- Member, Child Health Epidemiology Research Group (India)
- Member of the following committees of ICMR: National Ethics Committee, Task Force on Birth Defects, Scientific advisory committee for neonatal infection surveillance network, and member core group for the task force study on home-based management of newborn and young infant study.

#### **Dr. A. K. Deorari**

- WHO consultant to DPR Korea for capacity building of country for ensuring delivery of services for Essential Newborn Care on two occasions of two weeks each.

#### **Dr. Arvind Bagga**

- Member, Pediatrics Board, Medical Council of India (2007-09)
- Core Group Member, Chronic Kidney Disease Registry, Indian Society of Nephrology
- Associate Editor, Indian Pediatrics
- Member, International Advisory Board: (i) Current Pediatrics; (ii) World Pediatrics
- Member, National Advisory Board, Indian Journal of Practical Pediatrics
- Editorial Board, Indian J Pediatrics
- Core Group Member, Chronic Kidney Disease Registry, Indian Society of Nephrology
- The Division of Pediatric Nephrology was designated as “Level A Center” under the Sister Renal Center Program of the International Society of Nephrology

#### **Pankaj Hari**

- Secretary, Indian Society of Pediatric Nephrology
- Nominated as New Key Opinion Leader (nKOL) for pediatric transplantation by The International Transplantation Society (TTS)
- Reviewer for Pediatrics, (official Journal of American Academy of Pediatrics), Pediatric Nephrology (official Journal of International Pediatric Nephrology Association)

#### **Dr. Sheffali Gulati**

- Contributed to the validation of the INCLIN instrument for Diagnosis of Attention-Deficit/Hyperactivity Disorder (I-FDA) and INCLIN instrument for Diagnosis of Autism (IDEA) as a senior investigator.
- Served as Expert for Neurology projects for Indian Council of Medical Research and also reviewer for various National and International journals including American Journal of Medical Genetics

#### **Dr. Rakesh Lodha**

- Attended meeting of WHO Technical Group- Pediatric HIV/ ART care- Finalization of ART Treatment Guidelines for Children at Geneva (December 1-3, 2009) as a Temporary Advisor

**Dr. Rachna Seth**

- Organized the 1<sup>st</sup> Childhood Cancer survivor conference at AIIMS in collaboration with CANKIDS-KIDSCAN an NGO.
- Developed of manual entitled 'Neurocognitive and psychosocial deficits in childhood cancer ' and patient education material for care of children with cancer( CD on health and hygiene & poster).

**Dr Vandana Jain**

- Conferred the Fellowship of GSMC-FAIMER Regional Institute in 2009.
- Australia delivered a talk on Metabolic syndrome and endothelial dysfunction in adolescents in April 2010.

**Dr.Shinjini Bhatnagar**

- Member, Technical Advisory Board for Diarrhoea, Institute of One World Health.
- National Coordinator Indian Academy of Pediatrics (IAP) and UNICEF for National Consultative Group for dissemination of rationale guidelines for treatment of diarrhea

**Dr Pratima Ray**

- Awarded ICMR International fellowship for senior biomedical scientist 2007
- Elected life member of American Society of Virology
- Reviewer for Infection Genetics and Evolution (Elsevier)
- Reviewer for Indian Journal of Pediatrics
- Reviewer for Pediatric Infectious Diseases
- Evaluated PhD thesis, Swinburn University of Technology, Victoria, Australia

**Ms Anuja Aggarwala**

- Resource person for Training the Trainers Program for establishing Malnutrition Treatment Centres (MTCs) in district hospitals in the state of Rajasthan.
- Resource person in TOT for Homoeopathic practitioners under Delhi State Health Mission (DSHM).
- Chaired A.N. Radha & K.G. Naidu Medical Trust Award Sessions at 42<sup>nd</sup> t Annual National Conference of Indian Dietetic Association (Lucknow)
- Facilitator for TOT on "facility Based Care of Severe Acute Malnutrition" under IDHS (National Rural Health Mission).
- Chaired Session on "Safe concepts in Enteral Nutrition" at XV Annual Conference of Indian Society of Parenteral and Enteral Nutrition Held at Hyderabad on 22<sup>nd</sup> and 23<sup>rd</sup> January 2010.
- Appointed as one of the Expert Member of the Selection Committee by Institute of Liver and Biliary Sciences, Vasant Kunj, New Delhi (an Autonomous Society under Government of NCT of Delhi) to interview Nutritionists.

- CCT Member in INCLLEN Projects on “Role of Yoga, Meditation and Diet in CVD and CND’, ‘Determinants of under-nutrition in children and assessment of management at different levels of Health care’ and ‘Foundational work for a Brain-to-Society Surveillance System for Innovation in Behavioral, Public Health, and Cross-Sector Strategy to Prevent Childhood Obesity and other lifestyle Related Health Problems’.
- Core group member for “Development of training modules on facility based care of Severe Acute Malnutrition (SAM).
- Expert Group Committee member of Course writers to design course structure in Home Science – B. VET Program for IGNOU.
- Selected as a 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.
- Attending meetings as FSSAI panel member: at Public Health Foundation of India (PHFI) partner FSSAI for: Eat Right – a mass communication initiative to address Cardiovascular Disease and Diabetes burden in India; and Development of a Communication and Advocacy Strategy for FSSAI.

## VISITING SCIENTISTS

Dr. Olivier Fontaine, WHO Geneva

Dr. William Keenan and Dr Susan Niermeyer of the American Academy of Pediatrics / Neonatal Resuscitation Program

Dr Deekhsa Bali University of Duke USA - 30th July 2008

Dr Vanessa Tyrrell BAppSc, FHGSA(Cytogenetics) MBA

Asia Pacific and Japan Regional Sales Specialist, Illumina

Prof Ram K Menon, Chairman, Division of Pediatric Endocrinology, CS Mott Childrens Hospital., Michigan University delivered guest lecture on Genotype, phenotype and Epigenetics in November 2009

Dr Alexia Pena, Pediatric Endocrinologist from Adelaide, Australia delivered a talk on Metabolic syndrome and endothelial dysfunction in adolescents in April 2010.

Dr. Raj Warriar, Vice Chancellor, University of Manipal and Emeritus Scientist.

## 9.26 Paediatric Surgery

### Professor and Head

D.K. Gupta

### Professors

V. Bhatnagar

M. Bajpai

### Associate Professors

S. Agarwala

M. Srinivas

### EDUCATION

1. Teaching of undergraduate medical and nursing students.
2. Postgraduate teaching and training of MCh Pediatric Surgery trainees, - inclusive of Seminars, Journal clubs, Case discussions, Thesis presentations.
3. Trainees on rotation – M. Ch. Trainee in Neurosurgery, DM trainees in Neonatology, MS Trainees in General Surgery,
4. Training in the ward of BSc. and the M.Sc. Nursing students.

### Short term and long term training

Four WHO fellow from Korea, two from Afghanistan and one from Bangladesh underwent short term and long term training.

### CME Conducted by Department

1. Professor DK Gupta organized Workshop cum CME on stem cell potential in renal repair & regeneration: Clinical and experimental aspects on December 7, 2009 at AIIMS
2. Indian Association of Pediatric Surgeons, Delhi State chapter meeting 28<sup>th</sup> April, 2009.

### Lectures delivered

#### Professor D.K. Gupta

1. Surgical management of Neurogenic Urinary Bladder, during the ICCS Meeting held in New Delhi, December 5-6, 2009.
2. How to differentiate Intersexuality from Hypospadias, Chair the scientific session and participate as an expert during the Panel discussion during the Workshop on Hypospadias – Agra, May 2009.
3. Stem cell–issues, options and challenges, during the Workshop cum CME on stem cell application in Renal Repair and Regeneration, AIIMS, December 6-7, 2009.
4. Intersex – diagnosis and management of Posterior Urethral Valves, NRS Medical College, August 4, 2009.
5. Visiting Professor, University of Chicago, USA at the Children Memorial Hospital, Chicago, USA, November 9-10, 2009, to deliver Guest Lectures on;

- Use of Stem cell in spina Bifida
  - Esophageal replacement in Newborns.
6. Guest faculty during CME Program in Pediatric surgery Update, Mumbai, March 26-28, 2010, to deliver the lecture on Ethical Challenges in Pediatric Surgery, chairperson. Moderator of Live sessions on clinical case discussions and as a Panelists.
  7. Guest faculty during the 10<sup>th</sup> annual conference of Indian Association for Child Health and Adolescent Mental Health. AIIMS November 23-24, 2009 and deliver the lecture on Problems of Intersex Children.

**Professor V. Bhatnagar**

Guest Lectures at the Salmaniya Medical Complex, Kingdom of Bahrain, May 2009:

1. Post-operative assessment in anorectal malformations,
2. Research studies in biliary atresia,
3. Surgical options in long gap esophageal atresia,
4. Surgical management of the epispadias-exstrophy complex,
5. Controversies in the management of vesico-ureteral reflux.

Operative demonstrations at the Salmaniya Medical Complex, Kingdom of Bahrain:

1. Reoperation for reversed gastric tube esophageal replacement.
2. Posterior sagittal anorectoplasty for high anorectal malformation in a female.
3. Hypospadias surgery – urethroplasty, fistula repair and phalloplasty.
4. Endoscopic incision of ureterocele and posterior urethral valves.
5. Reimplantation of ureters by the Cohen technique.

Common GI problems in pediatric practice. 30<sup>TH</sup> UP State PEDICON, Indian Academy of Pediatrics at Allahabad, November 14-15, 2009.

**Professor M. Bajpai**

Lectures at Madhya Pradesh chapter of IAPS:

1. Cholestatic jaundice- Medical nad Surgical management
2. Postnatal management of antenatally diagnosed hydronephrosis

**Dr. Sandeep Agarwala**

1. Thoracic tumors in children: At the Surgical Oncology training course conducted jointly by IPSO and EUPSA at the 56<sup>th</sup> BAPS +10<sup>th</sup> EUPSA Annual Congress at Graz, Austria, June 17-20, 2009
2. Medical writing and publication. Guest lecture during CME during the 35<sup>th</sup> Annual Conference of the Indian Association of Pediatric Surgeons, 19-22 November, 2009, Lucknow.

3. Hepatoblastoma: Improving outcomes in India. Guest Lecture at International Update on cancer and blood diseases in children and adolescents, 6-7<sup>th</sup> February, 2010, New Delhi

## National and International Conferences

### Lectures delivered

#### Professor D.K. Gupta

1. Lecture on Technical advances in genitoplasty during the 3<sup>rd</sup> world congress of Hypospadias and Intersex disorders, Toronto, Canada, November 12-15, 2009
2. The following lectures were delivered at the Annual Congress of the Pediatric Surgical Society of Iran, held in Tehran from May 11-14, 2009:
  - a) Esophageal replacement for long gap esophageal atresia
  - b) What is new in the managements of Wilms tumor?

Following lectures were delivered during SAARC Congress in Bangladesh, December 12-15, 2009 to deliver the;

- Long gap TEF/OA
- Training in Pediatric Surgery
- Lung Lesions
- Presidential address during the inaugural function as President of FAPSS.
- Inaugural speech during the inaugural function of Laparoscopic workshop.

Lectures on management of Intersex child during 22<sup>nd</sup> Biennial Congress of the Asian Association of Pediatric Surgeons, Kuala Lumpur, Malaysia, February 21-24, 2009.

Lecture on esophageal replacement – our experience in Newborns during 25<sup>th</sup> Annual conference of Egyptian Association of Pediatric Surgeons and Turkish Association of Pediatric Surgeons, Luxor, Egypt, December 8-11, 2009 to deliver the

Lecture on Status of Pediatric Surgery amongst SAARC nations during the International Forum of the BAPS, June 19, 2009 in the 10<sup>th</sup> EUPSA and 56<sup>th</sup> BAPS Annual Congress, held in Graz, Austria.

#### Professor V. Bhatnagar

1. Keynote Address entitled ‘Complications in Pediatric Surgery’ at the Surgery Conference 2009, Armed Forces Medical College, Pune, August 22-23, 2009.

#### Dr. Sandeep Agarwala

1. Wilms Tumor: Surgical Challenges. Guest lecture in 13<sup>th</sup> annual conference of the Pediatric Hematology-Oncology Chapter of Indian Academy of Pediatrics, November 16<sup>th</sup>, 2009, Chandigarh.
2. RCN guidelines for treatment of hepatoblastoma- at Annual meeting of SIOPEL, Padova, Italy, March, 2010
3. Panelist on the panel discussion “Approach and counselling of couple with diagnosis of fetal malformation/abnormal biochemical screening test during the 18<sup>th</sup> Annual Conference of National



Association of Reproductive and child health of India (NARCHI), 5-6<sup>th</sup> September, 2009, AIIMS, New Delhi.

4. Panelist on Panel discussion on Childhood cancer survivorship during the 1<sup>st</sup> Indian Childhood Cancer Survivor Conference, 6<sup>th</sup> February, 2010, AIIMS, New Delhi
5. Panelist on Panel discussion on treatment of childhood cancers during the 1<sup>st</sup> Indian Childhood Cancer Survivor Conference, 6<sup>th</sup> February, 2010, AIIMS, New Delhi

## **RESEARCH**

### **Funded projects**

#### **Professor DK Gupta**

1. A concept Model: Role of Autologous and Human stem cell in an Experimental model of Biliary atresia in rats, in collaboration with Department of Stem Cell facility, pathology, ICMR Project IRIS ID-2007/06040

#### **Professor M Bajpai**

1. To study the role of molecular markers (non-genetic) in the diagnosis and treatment of Posterior urethral valves: A Pilot study
2. A study on the effect of endoscopic treatment of VUR in patients with angiotensin converting enzyme insertion deletion gene polymorphism in down regulating RAS activation: A Pilot study

#### **Dr. S. Agarwala**

1. Genetic parameters of neuroblastoma: A study on fine needle aspiration cultures. [Funded by AIIMS Research Grant, 2009-2010. Rs. 100,000]

### **Departmental projects**

#### **Completed**

1. Outcomes of pulmonary metastatectomy for pediatric solid tumors.

#### **Ongoing**

1. Long term outcome of children treated for posterior urethral valve
2. Long term results following pediatric pyeloplasty using single transanastomotic stent.
3. Evaluation of N-Myc amplification and Tyrosine Hydroxylase in Neuroblastoma.
4. Effect of intralesional injection sclerotherapy using Na<sup>+</sup> tetradecyl sulphate in vascular malformations.
5. Mucous production in the neobladder after augmentation colocolocystoplasty.
6. Results of the outcome of treatment of neuroblastoma in children by using moderately intense chemotherapy consisting of cyclophosphamide, doxorubicin, etoposide and cisplatin in combination with surgery and radiotherapy.
7. Results with the use of platinum based regimes in the treatment of pediatric malignant germ cell tumors.

8. Prospective study of treatment of children with Wilms' tumor on treatment with NWTS-5 regimen.
9. Prospective study of treatment of children with rhabdomyosarcoma on treatment with IRS-5 regimen.
10. Prospective study of treatment of children with hepatoblastoma on treatment with PLADO regime.
11. Monotherapy for standard risk hepatoblastoma.
12. Prospective study on five drug regimen for the management of clear cell sarcoma of the kidney.
13. Musculoskeletal and pulmonary functional abnormalities after thoracic surgeries
14. To study the role of renin angiotensin system blockade on renal recovery in experimentally induced unilateral ureteric obstruction- a morphometric analysis
15. To study the effect of ipsilateral ureteric obstruction on contralateral kidney & the role of renin angiotensin system blockade on renal recovery in experimentally induced unilateral ureteric obstruction-a morphometric analysis

### **Collaborative research**

#### ***Completed***

1. Volumetric analysis of the spleen in portal hypertension [Radio-diagnosis]
2. The role of nitric oxide in portal hypertension [Biochemistry]
3. Long term results of esophageal replacement by reverse gastric tube [Radio-diagnosis, Nuclear Medicine]
4. Loss of heterozygosity at 11p15.5 in hepatoblastomas [Pathology]
5. Role of FDG PET-CT in staging and evaluation of early response to chemotherapy in children with neuroblastoma [Nuclear Medicine]
6. Evaluation of hearing deficiencies in children who have received cis-platinum for treatment of solid tumors. [Otorhinolaryngology.
7. Whole body MR imaging for detection of skeletal metastases in pediatric patients of small cell neoplasms: comparison with skeletal scintigraphy and FDG-PET CT scan. [Medical Oncology, Radiodiagnosis and Nuclear Medicine]
8. Comparison of efficacy and safety of oral antibiotics (amoxicillin-clavulanic acid and ofloxacin} with intravenous combination (Ceftriaxone and amikacin) in outpatient setting in pediatric patients of low risk febrile neutropenia [Medical Oncology]
9. Telomerase estimation in patients with wilms' tumor and hepatoblastoma as a marker for prognosis [Pathology, Biochemistry]

10. Evaluation of lymphocytic infiltration in wilms' tumor and adjoining normal renal parenchyma and its relation to recurrence and outcome [Pathology]

### **Ongoing**

1. Role of autologous bone marrow mononuclear stem cells in polio affected neurologically deficit patients [in collaboration with the Department of Pediatric Surgery, Postgraduate Institute of Medical Sciences, Dr RML Hospital, New Delhi].
2. Role of bone marrow mononuclear stem cells in experimental model of liver fibrosis, [in collaboration with the Department of Pediatric Surgery, Postgraduate Institute of Medical Sciences, Dr RML Hospital, New Delhi. Volumetric analysis] Antibiotic prophylaxis in the management of vesicoureteric reflux: a multicentric randomized double blind placebo controlled trial [Pediatrics].
3. Biochemical analysis of bile in various disease states [Gastroenterology].
4. Comparison of pre and post operative liver histology in patients with choledochal cysts [Pathology, Radiodiagnosis].
5. Long term results following reimplantation of ureters in under one year old patients with VUR [Nuclear Medicine].
6. Long term results following Kasai's procedure for biliary atresia [Nuclear Medicine, Pathology].
7. Long term results following tubularisation of pouch colon for pull through [Pathology, Radiodiagnosis].
8. A study of management issues in crossed fused renal ectopia [Nuclear Medicine, Radiodiagnosis].
9. Long term results following pyeloplasty in solitary kidneys [Nuclear Medicine, Radiodiagnosis].
10. A study of management issues in ectopic kidneys [Nuclear Medicine, Radiodiagnosis].
11. Genomic and proteomic analysis of SCF/C-Kit gene in a pediatric neoplasm, Neuroblastoma. [Pathology and Biochemistry]
12. Gene deletions and mutations in Wilms Tumor: Correlation with histopathology and Outcome. [Pathology]
13. Evaluation of cardiotoxicity related to adriamycin in children with solid tumors. [Nuclear Medicine, cardiology].
14. Evaluation of restrictive lung disease in long-term survivors of malignant germ cell tumors who have received Bleomycin as a part of treatment. [Pediatrics].
15. Evaluation of role of adjunctive therapy with <sup>131</sup>I MIBG therapy for advanced non-responsive, relapsed and metastatic Neuroblastoma [Nuclear Medicine]

### **PUBLICATIONS**

#### **Journals**

1. Agarwal GS, Saxena A, Bhatnagar V. The development of intra-pulmonary arterio-venous shunts as a poor prognostic factor following surgery for biliary atresia. *Tropical Gastroenterology* 2009;30:110-112.
2. Agarwala S, Bajpai M, Bhatnagar V, Srinivas M, Bakhshi S, Gupta AK, Dattagupta S, Iyer VK, Mathur SR, Mohanty BK, Pawar DK, Arora MK, Gupta DK. Effect of tumor spill on recurrence rate and outcome in patients with Wilms tumor: Results of AIIMS - WT 99 study. *Journal of Indian Association of Pediatric Surgeons* 2009;14:151-152. (abstr)
3. Agarwala S, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V, Gupta DK. Wilms tumor: Management strategies and outcomes of AIIMS-WR-99 Trial. *Pediatr Blood Cancer* 53:712, 2009 (abstr)
4. Agarwala S, Ronghe M, Aronson DC, Czuderna P, Brock P, Roebuck D, Perilongo G, Plaschkes J, Childs M, Derosa M, Covezzoli A. Pilot of treatment guidelines for hepatoblastoma (HB) in resource challenged nations (RCN). *Pediatr Blood Cancer* 53:717, 2009 (abstr)
5. Balamourougane P, Datta Gupta S, Bhatnagar V. Evaluation of ultrastructural changes by electron microscopy in neonatal cholestasis. *Tropical Gastroenterology* 2009;30:167-170.
6. Bhatnagar V, Ragavan M, Kumar D. Voiding pattern and continence status of exstrophy bladder patients after augmentation colcystoplasty. *Journal of Indian Association of Pediatric Surgeons* 2009;14:189. (abstr)
7. Bhatnagar V, Ragavan M. Complications following sigmoid colcystoplasty in bladder exstrophy patients. *Journal of Indian Association of Pediatric Surgeons* 2009;14:189. (abstr)
8. Das CJ, Dinghra S, Gupta AK, Iyer VK, Agarwala S. Imaging of pediatric liver tumors with pathological correlation. *Clinical Radiology* 64:1015-1025, 2009
9. Garg R, Agarwala S, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V, Gupta DK. Sacrococcygeal malignant germ cell tumor (SC-MGCT) with intra-spinal extension. *Journal of Indian Association of Pediatric Surgeons* 2009;14:153. (abstr)
10. Gazula S, Datta Gupta S, Bhatnagar V. Maldevelopment as a possible etiologic factor in biliary atresia. *European Journal of Pediatric Surgery* 2009;19:128-129. [Epub 2009, Feb 11].
11. Gazula S, Mathur SR, Iyer VK, Gupta AK, Pawar DK, Agarwala S. Thoraco-abdominal mature teratoma in a left diaphragmatic hernia. *Indian J Pediatr.* 2010 Feb 8. [Epub ahead of print]
12. Gazula S, Pawar DK, Seth T, Bal CS, Bhatnagar V. A study of the effects of early ligation of splenic artery during splenectomy in patients of extrahepatic portal venous obstruction. *Journal of Indian Association of Pediatric Surgeons* 2009;14:194-199. (UC Chakravorty award paper)
13. Goel P, Gupta D K. Malignancy in Undescended testis. *Journal of Pediatric Surgeons of Bangladesh.* 2010;1: 53-56.
14. Goel P, Panda S, Srinivas M, Kumar D, Seith A, Ahuja A, Sarkar C, Chowdhury S, Agarwala S. Pleuropulmonary blastoma with intrabronchial extension. *Pediatr Blood Cancer.* 2010 Jul 1;54(7):1026-8

15. Goel P, Srivastava K, Das N, Bhatnagar V. Evaluation of blood levels of nitric oxide as a means to differentiate neonatal hepatitis from biliary atresia . *Journal of Indian Association of Pediatric Surgeons* 2009;14:124-125. (abstr)
16. Goenka A, Parihar M, Sharma R, Bhatnagar V, Gupta AK. 3D MR imaging in ectopia vasa deferentia. *Pediatric Radiology* 2009;39:1246-1249. [Epub 2009, Aug 14].
17. Gupta A, Swaroop C, Agarwala S, Pandey RM, Bakhshi S. Randomized controlled trial comparing oral amoxicillin-clavulanate and Ofloxacin with intravenous ceftriaxone and amikacin as outpatient therapy in pediatric low risk febrile neutropenia. *J Pediatr Hematol-Oncol* 31:635-41,2009
18. Gupta C, Iyer VK, Kaushal S, Agarwala S, Mathur SR. Fine needle aspiration cytology of undifferentiated embryonal sarcoma of the Liver. *Cytopathology*. 2010 Jan 22. [Epub ahead of print]
19. Gupta Devendra K. Circumcision in the Indian scenario – Traditional Taboos and scientific basis. *Dialog in Pediatric Urology*, 2009
20. Gupta DK. Childhood trauma: The neglected childhood killer disease. *Afr J Paediatr Surg* 2010;7:61-5
21. Gupta DK. Trans-sexuality: Cultural issues involved in the management. *Indian J Plast Surg* 2009;42:233-234
22. *Indian Journal of Plastic surgery – comments on intersex patient*, *Ind Journal of Plastic Surgery*, 2009 ; 42 : 231-232.
23. Jain V, Agarwala S, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V et al. Malignant germ cell tumors in children: Management and outcomes from AIIMS-MGCT 94 trial. *Pediatr Blood Cancer* 53:732, 2009 (abstr)
24. Jain V, Bhatnagar V. Cricopharyngeal myotomy for the treatment of cricopharyngeal achalasia. *Journal of Pediatric Surgery* 2009;44:1656-1658.
25. Jain V, Goel P, Kumar D, Seith A, Sarkar C, Kabra SK, Agarwala S. Endobronchial chondroid hamartoma in an infant. *J Pediatr Surg* 44:e 21-23, 2009
26. Jain V, Varma A, Agarwala S, Bhatnagar V. Treatment strategies and long term outcome of antenatally detected unilateral PUJ obstruction. *Journal of Indian Association of Pediatric Surgeons* 2009;14:151. (abstr)
27. Jindal B, Agarwala S, Bakhshi S, Srinivas M, DauttaGupta S, Bhatnagar V. Recurrent benign mature cystic teratoma of ovary with hepatic, peritoneal and pulmonary metastasis. *Pediatr Blood Cancer* 53:898, 2009 (abstr)
28. Jindal B, Grover VP, Bhatnagar V. The assessment of lower urinary tract function in children with anorectal malformations before and after PSARP. *European Journal of Pediatric Surgery* 2009;19:34-37. [Epub 2009, Feb 16].
29. Kumar D, Sharma P, Agarwala S, Thulkar S, Tanveer N, Bakhshi S. Pediatric renal non-hodgkin lymphoma with inferior vena cava thrombosis. *J Pediatr Hematol Oncol*. 2010 Mar;32(2):147-9

30. Mathur SR, Gupta R, Seith A, Agarwala S, Subramanian S, Gupta SD. Aspiration cytology of mesenchymal hamartoma of the chest wall in an infant: a case report. *Acta Cytol.* 2010 Jan-Feb;54(1):63-5
31. Moorthy G, Agarwala S, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V, Pawar DK, Arora MK, Gupta AK, Gupta DK. Long term outcome of children with Wilms tumor having intravascular thrombus. *Journal of Indian Association of Pediatric Surgeons* 2009;14:152. (abstr)
32. Moorthy G, Agarwala S, Sharma A, Iyer VK, Srinivas M, Bajpai M, Bhatnagar V, Gupta DK. Cytogenetic evaluation of neuroblastoma using fine needle aspiration culture. *Pediatr Surg Int* 25:939-943,2009
33. Nayak A, Iyer VK, Agarwala S The cytomorphic spectrum of Wilms tumour on fine needle aspiration: a single institutional experience of 110 cases. *Cytopathology.* 2010 Mar 5. [Epub ahead of print]
34. Panda S, Agarwala S, Jindal B, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V, Gupta DK. Pulmonary metastasectomy – Is it a safe and viable option in children? *Journal of Indian Association of Pediatric Surgeons* 2009;14:153. (abstr)
35. Ragavan M, Bhatnagar V. Renal function, metabolic and acid base status in exstrophy bladder patients following augmentation colocolostomy. *Journal of Indian Association of Pediatric Surgeons* 2009;14:187-188. (abstr)
36. Ragavan M, Gazula S, Yadav DK, Agarwala S, Srinivas M, Bajpai M, Bhatnagar V, Gupta DK. Peripherally inserted central venous lines versus central lines in surgical newborns- A comparison. *Ind J Pediatr* 77:171-174, 2010
37. Ragavan M, Grover VP, Bhatnagar V. Urodynamic behaviour of sigmoid augmented bladder in classic exstrophy patients. *Journal of Indian Association of Pediatric Surgeons* 2009;14:188. (abstr)
38. Ragavan M, Tandon N, Bhatnagar V. Effect of augmentation colocolostomy on physical growth and bone mineral density in exstrophy bladder patients. *Journal of Indian Association of Pediatric Surgeons* 2009;14:188-189. (abstr)
39. Sharma MC, Jain D, Sarkar C, Bhatnagar V, Rishi A, Suri V, Garg A. Lumbosacral Wilms' tumor as a component of immature teratoma associated with spinal dysraphism—a rare case and short literature review. *Fetal Pediatr Pathol.* 2009;28:201-8.
40. Sharma S, Gupta D K. Revival of Landings concept of Infantile Obstructive Cholangiopathy- a plea to hand over the 2 week old jaundiced full term neonate to the surgeon. *Journal of Pediatric Surgeons of Bangladesh.* 2010;1:37-52.
41. Sharma S, Sankhyan N, Kalra V, Garg A, Gupta SD, Agarwala S, Das P. Inflammatory myofibroblastic tumor involving lung and brain in a 10-year-old boy: a case report. *J Child Neurol* 24:1302-06, 2009
42. Sigamani E, Iyer VK, Agarwala S. Fine needle aspiration cytology of infantile haemangioendothelioma of the liver: a report of two cases. *Cytopathology.* 2010 Mar 10. [Epub ahead of print]

43. Sinha A, Sharma S, Gulati A, Sharma A, Agarwala S, Hari P, Bagga A. Frasier syndrome: early gonadoblastoma and cyclosporine responsiveness. *Pediatr Nephrol*. 2010 Apr 24. [Epub ahead of print]
44. Subramanian S, Seith A, Abhey P, Agarwala S, Mathur SR. Answers to case of the month #143 Mesenchymal hamartoma of the chest wall. *Can Assoc Radiol J* 60:47-9;2009. Epub 2009 Apr 10
45. Uppal P, Kaur J, Agarwala S, Gupta A, Safaya R, Kabra S. Communicating oesophageal duplication cyst with heterotopic pancreatic tissue -an unusual cause of recurrent pneumonia in an infant. *Acta Paediatr*. 2010 Mar 11. [Epub ahead of print]
46. Yadav DK, Agarwala S, Dinda AK, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V, Gupta DK. Tumor infiltrating lymphocytes in wilms tumor. *Pediatr Blood Cancer* 53:723, 2009 (abstr)
47. Yadav DK, Agarwala S, Iyer VK, Singh N, Kar R, Bajpai M, Bhatnagar V, Gupta DK. Telomerase activity in Wilms tumor. *Journal of Indian Association of Pediatric Surgeons* 2009;14:152-153. (abstr)

### Chapters in books

1. Gupta DK, Sharma S. Principles of Surgery in Pediatric Solid Tumors, in *Pediatric Hematology and Oncology*, Eds. Bharat Agarwal, H Sachdeva et al, published by Jaypee Bros, New Delhi 2009.
2. Gupta DK, Teratoma. In *Pediatric Surgery – A comprehensive book for South Africa*, Ed. Kokila Lakhoo et al, 2010 Springer, Germany, chapter 121,(in Press)
3. Gupta DK, Tuberculosis In *Paediatric Surgery: A Comprehensive text for Africa*. Ed. Kokila **Lakhoo**. Springer, Germany 2010. Chapter 18. 117-125 ( in press)
4. Gupta DK, Sharma S. Recent advances in Obstructive Uropathy In *Recent advances in Surgery - 12* Ed. Roshan Lal Gupta, Jaypee Bros, 2010 Chapter 13: 214-232
5. Gupta Devendra K, Sharma S. Hydrometrocolpos, in *Newborn Surgery, Third Edition*, Ed. Prem Puri Springer, Germany, 2010.( In press)
6. Sharma S, Gupta DK. Role of Human Chorionic Gonadotropins in Cryptorchidism.. In *Gonadal and Nongonadal Actions of Gonadotropins*. Ed Kumar Anand, Rao CV, Chaturvedi. 2010. Narosa Publishers. Chap 14; 157-166.
7. Gupta DK, Sharma S, Ammini AC. Hormonal Treatment for disorders of sexual differentiation. In *Gonadal and Nongonadal Actions of Gonadotropins*. Ed Kumar Anand, Rao CV, Chaturvedi. 2010. Narosa Publishers. Chap 26; 310-317.
8. Gupta DK. Vesico Ureteric reflux In *Handbook of Pediatric Surgery* Eds. Sinha CK, Davenport M. Springer, Germany, 2010.
9. Bhatnagar V, Moorthy G. Infantile hypertrophic pyloric stenosis. In, Chattopadhyay TK (ed). *GI Surgery Annual, Department of GI Surgery, AIIMS, New Delhi, 2009; Vol. 16:25-38.*
10. Jain V, Agarwala S. Congenital lung malformations:In: Kabra S, Lodha R (eds) *Essential Pediatric Pulmonology, 2<sup>nd</sup> edition*. Nobel Vision Medical Book Publishers, New Delhi 2010 pp 279-285



11. Agarwala S. Thoracic tumors in infancy and childhood: In: Kabra S, Lodha R (eds) Essential Pediatric Pulmonology, 2<sup>nd</sup> edition. Nobel Vision Medical Book Publishers, New Delhi 2010 pp 279-285

## Books

1. Puru the Pioneer – 2009, Jaypee Bros, Ed. DK Gupta (1<sup>st</sup> Edition)

## PATIENT CARE

Attendance in OPD and specialty clinics

	New Cases	Old Cases	Total
General OPD	6112	12670	18782
Specialty clinics			
Hydrocephalus	19	225	244
Intersex	25	229	254
Craniosynostosis	3	20	23
Pediatric urology	330	3032	3367
Pediatric solid tumor	157	1685	1842
CRHSP Ballabgarh	-	-	-
Minor procedures	3100	-	-

Admissions

AB-5 ward 2495

AB5- ICU 204

Surgical procedures

Major 1720

Minor 599

At CRHS Ballabgarh 237

TOTAL 2556

Special investigations:

Urodynamic evaluation 463

Uroflometry 370

Ano-rectal manometry 58

Esophageal manometry 1

4-hr pH monitoring 25

## AWARDS AND HONORS

Professor DK Gupta:

1. Invited as chairman of the M.Ch Examination in Pediatric Surgery held at AIIMS in June 2009.
2. Invited by the Royal College of Surgeons of Edinburgh as the guest to be Conferred the Hony. FRCS – Edinburgh, October 22-23, 2009.
3. Invited to receive the Indraprastha Vaish Ratan Award – October 1, 2009
4. Invited as the International Member of the Abstract review committee of the Pacific Association of Pediatric Surgeons, May 12-15, 2009.
5. Nominated as the Editor in Chief – Journal of Pediatric Surgical Specialities (JPSS), Bucharest, Romania from 2009.
6. Nominated as the Editorial Consultant – Journal-Gastroenterology, Beijing, China.
7. Nominated as the Editorial Consultant – World Journal of Hepatology, Beijing, China.
8. Invited as the International Guest faculty during the 10<sup>th</sup> EUPSA and 56<sup>th</sup> BAPS Annual Congress, held in Graz, Austria, June 17-20, 2009, with following responsibilities;
  - Chairing of scientific sessions during the Colorectal Club meeting.
  - Chairing of session during the Oncology session of the joint congress.
  - Participation during the international forum meeting of the Europe Associations of Pediatric Surgeons as a representative from Asia
  - Participation in the Council meeting of the World Federation of Associations of Pediatric Surgeons as a representative from Asia.
  - Participation as the council member of the British Association of Pediatric Surgeons, June 19, 2009
  - Invited to present the status report on the preliminary arrangements on the forthcoming 3<sup>rd</sup> World Congress of Pediatric Surgery in 2010 in Delhi.
9. Invited as international guest faculty during the 2<sup>nd</sup> Congress of Associations of Bangladesh (APSB) and the 3<sup>rd</sup> FAPSS Conference, held in Dhaka from December 12-15, 2009.

Professor V Bhatnagar

1. Delivered the Dr.M.S.Ramakrishnan Oration at the 35<sup>th</sup> Annual Conference of the Indian Association of Pediatric Surgeons at Lucknow during 19-22 November, 2009 entitled ‘Biliary Atresia – An attempt to explore beyond the tip of the iceberg’.
2. The paper entitled ‘A study of the effects of early ligation of splenic artery during splenectomy in patients of extrahepatic portal venous obstruction’ by S.Gazula, D.K.Pawar, T.Seth, C.S.Bal, V.Bhatnagar won the U.C.Chakravarty award at the 35<sup>th</sup> Annual Conference of the Indian Association of Pediatric Surgeons at Lucknow during 19-22 November, 2009.
3. Nominated as a Member of the Editorial Board of the Indian Journal of Pediatrics and the Journal of the Indian Association of Pediatric Surgeons.

4. Nominated as the Vice President of the AIIMSONIANS, the alumni association of the All India Institute of Medical Sciences, New Delhi.

Dr. Sandeep Agarwala

1. Awarded the CCLG (UK) travel grant for 2009.
2. Selected as course instructor for Surgical Oncology course conducted by European Union of Pediatric Surgical Associations (EUPSA) with the International Society of Pediatric Surgical Oncology for 2009.
3. Nominated as a member of the executive committee of the International Society of Pediatric Surgical Oncology (IPSO) for a period of 4 years.
4. Is the Treasurer of the AIIMSONIANS, the alumni association of the All India Institute of Medical Sciences, New Delhi

### **SIGNIFICANT EVENTS**

Prof D.K. Gupta

1. Organized the International Workshop cum CME Program, on “Stem Cell Potentials in Renal Repair and Regeneration – clinical and Experimental Aspects, from December 6-7, 2009.
2. Invited as the International Member of the Abstract review committee of the Pacific Association of Pediatric Surgeons, May 12-15, 2009
3. Nominated as the Chairman for the selection of candidates from the SAARC Region for Lister and Greenwood Fellowships of the British Association of Pediatric Surgeons.
4. Nominated as the Editorial Consultant – World Journal of Hepatology, Beijing, China.
5. Invited as the examiner in Pediatric surgery for MCh Examination at KGMU, Lucknow, July 18, 2009
6. Invited as the examiner in Pediatric surgery as the MCh Examiner –NRS Medical College, Kolkata, August 4, 2009
7. Invited for the MCI Inspection at Bangalore Medical College, Bangalore for starting M.Ch in the speciality, June 1, 2009
8. Invited as the guest faculty in Urology Mock Test examination held at AIIMS – March 22-24, 2010
9. Invited for the MCI Inspection in Pediatric surgery in Jaipur December 2009 for increase in M.Ch seats in the department in the specialty.
10. Invited as the inspector by Medical council of India for conducting inspection at the NRI Medical College, Guntur, AP, February 5-6, 2010
11. Dr DK Gupta was invited as the expert in Pediatric surgery for the CSIR pool selection –March 31, 2010

12. Dr DK Gupta was invited as the President of the SAARC Association of Pediatric Surgeons to address the Conventions India, held at HICC, Hyderabad from May 1-2, 2009.

Prof. V. Bhatnagar

1. Prof.V.Bhatnagar was visiting Professor to The Salmaniya Medical Complex, Kingdom of Bahrain in May 2009 and to The Armed Forces Medical College, Pune in August 2009.

### **VISITING SCIENTISTS**

Dr. AB Mathur- Norwich UK

Dr. Sandeep Gupta- Minnesota, USA

Dr. Aseem Shukla- Minnesota, USA

Dr. Richard W Grady- Washington, USA

Dr. Ahmed- Iraq

Dr. Bashar M Shehab- Iraq

## 9.27 Pathology

### Professor and Head

Subrat K. Panda

### Professors

Chitra Sarkar  
Rajni Safaya

Manoj K. Singh  
Ruma Ray

S. Datta Gupta  
A.K. Karak

### Additional Professors

A.K. Dinda

### Associate Professors

M.C. Sharma

Venkateswaran K. Iyer

### Assistant Professors

Sandeep R Mathur

Vaishali Suri

## EDUCATION

**Undergraduate:** No change

**Postgraduate** MD students: 16 Senior Residents: 13

PhD students: 12 Pool Officer: 4

### Short term and Long term training:

Students received short term training in the department.

## CONTINUING MEDICAL EDUCATION

### Organized by the department

1. First Hands-on Workshop on Cervical Precancerous lesion cytology & HPV testing 24th March, 2010.

### Lectures delivered

1. Prof. S.K. Panda was invited by Gastroenterology Young Masters 2010 on behalf of ISG to deliver a lecture at Manesar, Gurgaon on 21<sup>st</sup> Feb., 2010.
2. Prof. S.K. Panda was invited to deliver a series of talks on Biomedical Research on 22-23 March, 2010 at IIT Kharagpur.
3. Sarkar C. Approach to Diagnosis of Gliomas. CME in Pathology. Maulana Azad Medical College, New Delhi, 2009.
4. Dr R Safaya was invited as guest speaker at 2<sup>nd</sup> CME in Pathology” organized by MVJ Medical College” at Bangalore from 5<sup>th</sup> to 6<sup>th</sup> February 2010.
5. Participated as an invited faculty and delivered talk on, “Biomedical Education: Current and Future Perspective”, in the Workshop for the Principals at Academic Staff College, Jawhar Lal University, New Delhi on 29 October, 2009

6. Dr AK Dinda: Indo-US Workshop on Redox Signaling in Degenerative Diseases, Maneswar, Gurgaon, 19-21 December, 2009, Invited lecture on “Application of Nanotechnology in Medicine; The Health and Safety Challenges” and also chaired a session on “Redox regulation of stem cell signaling”.
7. Dr AK Dinda: Invited lecture on “Current approaches to the diagnoses of glomerular diseases” on 22<sup>nd</sup> December, 2009 in Post conference CME of APCON-2009 at Kolkata
8. Dr AK Dinda: Invited lecture on “Nanotechnology in Diagnostic Pathology”, on 18<sup>th</sup> December, 2009 at the CME organized by International Academy of Pathology Indian Division (IAPID) – 2009 at Kolkata
9. Dr AK Dinda: Invited lecture in “Transplantation Update 2010”, organized by Smt. Gulabben Rasiklal Doshi & Smt. Kamlaben Mafatlal Mehta institute of kidney diseases and research centre, Ahmedabad, 12 – 14 February, 2010 entitled, “Nonimmunologic causes of renal allograft dysfunction”.
10. Dr AK Dinda: Participated as a Faculty in workshop on Renal Pathology for clinician organized by International Society of Nephrology (ISN) and Indian Society of Pediatric Nephrology, at AIIMS on 4<sup>th</sup> December 2009
11. Dr AK Dinda: Invited lecture in 2<sup>nd</sup> CME in Pathology organized by Maulana Azad Medical College, Delhi, on 18<sup>th</sup> November, 2009, entitled, “Emerging role of Nanotechnology in Pathology”.
12. Dr AK Dinda: Invited lecture in the workshop “Stem cell Potentials in Renal Repair and Regeneration – Clinical and experiemntal aspects”, organized by Department of Pediatric Surgery, AIIMS, December 6-7, 2009, entitled, “Nanotechnology in Stem Cell Therapy”.
13. Sharma MC. Approach to diagnosis of muscle diseases. Postgraduate lecture series of IAPM Delhi Chapter, 2009.
14. Sharma MC. Approach to diagnosis of round cell tumors. CME in Pathology. NEIGRIHMS, Shillong, Meghalaya, 2009.
15. Suri V. FISH assay in Neuropathology: Overview. National workshop on molecular cytogenetics (solid tissue) by FISH. AIIMS, New Delhi, August 24-29 2009.
16. Suri V. Pathologic prognostic factors and use of MGMT in treatment of Glioblastomas. CME 2010 on Malignant brain tumors. VIMHANS, New Delhi, 31<sup>st</sup> January 2010.

## **NATIONAL AND INTERNATIONAL CONFERENCES**

### **Lectures delivered**

#### **Prof. Chitra Sarkar**

1. Role of Histopathology and Newer Techniques in the Diagnosis of Muscle Diseases. Asia Oceanic Myology Conference (AOMC) at Mumbai 23-24 May 2009.
2. Pathological Substrate in Epilepsy: Is it important for outcome prediction? Asian Epilepsy Academy (ASEPA), Commission on Asian and Oceanian Affairs International League against Epilepsy, Course on epilepsy surgery: evaluation, surgical procedures and rehabilitation, November 7-8, 2009, AIIMS, New Delhi.

3. In quest of markers for better prognostication and therapeutics of CNS tumors. In Annual Conference of the National Academy of Medical Sciences at Chhatrapati Shahuji Maharaj Medical University, Lucknow, 31<sup>st</sup> October 2009.
4. Applications of Molecular Pathology in Neurological and Neurosurgical Practice. Society of Neurosciences Meeting, Pune, 15-18 March 2010.
5. Changing Scenario in Oncopathology Practice. Oncology Congress 2010, Dharmashila Cancer Hospital, Delhi, 17<sup>th</sup> January 2010.
6. Clinicopathological case discussion. Neurology: Controversies to Consensus, New Delhi, 27-18 February 2010.

**Prof. Rajni Safaya**

7. “Extraskelatal Mesenchymal Chondrosarcoma (EMC)” oral presentation organized by 22nd European Congress of Pathology & International Conference to be held in Florence, Italy from 4-9<sup>th</sup> September 2009.

**Dr. A.K. Dinda**

8. “Calcineurin Inhibitor Toxicity” in the 6th Asia Pacific IAP Congress, 20th to 23rd August 2009 at Le Meridien Resort and Convention Centre, Kochi, Kerala,
9. “Application of Nanotechnology in Medicine; The Health and Safety Challenges” in 34th IAUA (Indian Agricultural University Association) Vice Chancellor’s Convention, at NDRI Karnal, on 7<sup>th</sup> December, 2009.
10. “Understanding Cell and Tissue interaction of Materials: The Challenges” in the National Conference on Ceramics in Bio-Medical Applications to be held at NIT Rourkela during January 21-22, 2010.
11. “Understanding nanoparticle and cellular interaction; The key for development of novel applications of nanotechnology in medicine” in Nanobiotech-2009: National conference on nanobiotechnology, at Bapuji Institute of Engineering & Technology, Davanagere, Karnataka on 25<sup>th</sup> Sept. 2009

**Dr. M.C. Sharma**

12. Inflammatory myopathies. Asia Oceanic Myology Conference (AOMC) at Mumbai, 23-24 May 2009.
13. “LGMD Type IIa: Clinicopathological spectrum” at Annual conference of IAPM, Kolkata, December 2009.
14. “WHO 2007: New entities and controversial issues” at Annual Conference of Delhi Neurological Association, AIIMS, New Delhi, 2009.

**Dr. V.K. Iyer**

15. “Conventional cervical cytology” at the AOGIN cytology workshop New Delhi, March 24<sup>th</sup> 2010
16. “Liquid based cytology and reflex HPV testing” at AOGIN conference, New Delhi, March 26<sup>th</sup> 2010



**Dr. Sandeep Mathur**

17. “Conventional versus two-tiered grading system for Cervical preneoplastic lesions” at AOGIN Conference, New Delhi, March 26<sup>th</sup> 2010
18. “Newer biomarkers for prediction of high grade cervical preneoplastic lesions” at AOGIN Conference, New Delhi. March 27<sup>th</sup> 2010

**Dr. Vaishali Suri**

19. “Effect of bone marrow derived mononuclear cells on nerve regeneration in rat sciatic nerve transection model” at XXIV<sup>th</sup> Annual Conference-Delhi Chapter-IAPM UCMS and GTB Hospital, Delhi, 2009.

**Prof. S. Dattagupta**

20. “Patterns, Vocabulary and Terminologies in Pathology : A guide not just for Postgraduate Students” in the Postgraduate Teaching Session of the Delhi Chapter of the Indian Association of Pathologists and Microbiologists held at the All India Institute of Medical Sciences, on 25 April 2009
21. Instructional Slide Seminar on “ Liver Biopsy interpretation” in the Postgraduate Teaching Session of the Delhi Chapter of the Indian Association of Pathologists and Microbiologists held at the All India Institute of Medical Sciences, on 04 July 2009
22. Clinico-Pathological-Conference (CPC) on “Amyloidosis” at the Kasturba Medical College, Manipal, 03 August 2009
23. “Approach to Identification of Fungi in Histological Sections” at the Kasturba Medical College, Manipal, 03 August 2009
24. “Patterns, Vocabulary and Terminologies in Pathology : A guide not just for Postgraduate Students” at the Kasturba Medical College, Manipal, 03 August 2009
25. Slide Seminar on “ Liver and Gastrointestinal Biopsies “ at the Kasturba Medical College, Manipal, 03 August 2009
26. “Interpretation of Liver Biopsies” at the 36<sup>th</sup> Annual Conference of the Karnataka Chapter of the Indian Association of Pathologists and Microbiologists [KCIAPM] at the JSS Medical College, Mysore , 25 October 2009
27. Slide Seminar on “Liver Biopsies” at the 36<sup>th</sup> Annual Conference of the Karnataka Chapter of the Indian Association of Pathologists and Microbiologists [KCIAPM] at the JSS Medical College, Mysore , 25 October 2009
28. “Histopathology of Endometriosis” at the INDO-US Workshop on Endometriosis at the All India Institute of Medical Sciences, New Delhi, 3 November 2009
29. Speaker in the “Symposium on Undergraduate Pathology Education in India” and delivered the talk on “Undergraduate Pathology Teaching at AIIMS” on 19 December 2009 at the 58<sup>th</sup> Annual Conference of the Indian Association of Pathologists and Microbiologists [APCON 2009], held at Kolkata from 19-21 December 2009.

## RESEARCH

### Funded

#### *Completed*

1. Acute thalamic involvement in severe head injury-An autopsy study with histopathological correlation. Dr. Chitra Sarkar (Co-PI), AIIMS, Rs 2.2 lakhs (2006-09).
2. Role of Sonic Hedgehog signaling in Human Cerebellum Development. Dr. Chitra Sarkar (Co-PI), NBRC, DBT, Rs 15 lakhs (2007-09).
3. Identification of novel Esophageal Squamous Cell Carcinoma genes by using a combination of array-based CGH and gene expression microarrays. [Co-investigator with Prof TK Chattopadhyay, (Department of Gastrointestinal Surgery) as the Principal Investigator from All India Institute of Medical Sciences, New Delhi and Dr M Bashyam as the Principal Investigator of the project (Center for DNA Fingerprinting and Diagnostics, Hyderabad) funded by the Department of Biotechnology]
4. A randomized controlled trial of VSL#3 versus mesalamine in patients with microscopic colitis (Co-Investigator with Dr Vineet Ahuja from the Department of Gastroenterology, All India Institute of Medical Sciences, New Delhi as the Principal Investigator, funded by CD Pharma.)

#### *Ongoing*

1. Study of viral proteins and other molecular markers in Hepatitis E virus (HEV) infected cells using high throughput molecular techniques; S. K. Panda; Funded by DBT for three years (2007-2010).
2. Investigation related to mechanism of entry of HEV into the host cells; S. K. Panda; Funded by DBT for 3 years (2008-2011).
3. Glial tumors: a correlative clinicopathological study of chromosomes 1p/19q status, epidermal growth factor receptor (EGFR) amplification and p53 expression Glial tumors: a correlative clinicopathological study of chromosomes 1p/19q status, epidermal growth factor receptor (EGFR) amplification and p53 expression. Dr. Chitra Sarkar, ICMR, 16.5 lacs (2007-10)
4. Study of the role of bone marrow derived mononuclear cells in peripheral nerve repair of adult rats. Dr Vaishali Suri, ICMR, Rs 18 lacs (2006-09)
5. Efficacy and safety of AP 12009 in adult patients with recurrence or refractory anaplastic astrocytoma (WHO grade III) as compared to standard treatment with temozolomide or BCNU: A randomized actively controlled, open label clinical phase III study. Dr. Chitra Sarkar (Co-PI), Antisense Pharma, Germany, Rs 25 lakhs, (2007-10).
6. Angiogenesis in astrocytic tumors of the brain: A clinicopathological study with special reference to expression of vascular endothelial growth factor (VEGF), and hypoxia inducible factor (HIF)-1 alpha and correlation with vascular morphometric parameters and tumor infiltrating inflammatory cells. Dr. Chitra Sarkar (PI.) ICMR Rs.21 lacs (approx). 2009-2012.
7. Development of nanoparticulate system for selective receptor specific macrophage targeting Dr AK Dinda, DBT, Rs 30,90,000, (2007-09).

8. Glioblastomas in children: A study with special reference to molecular pathways and MGMT methylation status. Dr. Vaishali Suri (PI). ICMR. 24 LACS (approx). 2010-2013
9. Analysis of Her-2/neu status on fine-needle aspiration cytology smears and its correlation with hormone receptor status, proliferation markers and apoptosis in breast cancer: A fluorescent in-situ hybridization (FISH) and immunocytochemistry study. Dr Sandeep Mathur, CSIR, Rs 14 lakhs .(2009-2011)
10. Prognostication of paediatric abdominal solid tumors on the basis of 1p and 16q chromosomal deletions.: Dr. Venkateswaran K Iyer. AIIMS. Total Funding: Rs. 300,000 2009-12
11. p16INK4a and E-cadherin expression profile in pre-cancerous lesions of cervix and cervical carcinomas. AIIMS, Institute Research Grant. 1 lakh. 2009-2010

## Departmental Projects

### Completed

1. Primary and secondary glioblastomas: A study of EGFR amplification, EGFR vIII mutants & p53 expression.
2. Histopathological and morphometric evaluation of surgically excised specimens of thoracic aortic aneurysms.
3. Modulation of macrophage function with nanoparticle.
4. Role of macrophage in modulation of renal fibrosis.
5. Ultrastructural study of podocyte changes in immune and non-immune mediated glomerular diseases.

### Ongoing

1. Study of gliomagenesis: Possible involvement of CNS developmental pathway
2. Study of Limb Girdle Muscular Dystrophy (LGMD) Patients in Indian Population Using Calpain-3, Dysferlin and Sarcoglycan Protein Analysis.
3. Study of IDH-1 mutations in gliomas.
4. Study of PTEN and CDKN2 gene alterations in GBMs.
5. Study of WNT pathway in ependymomas.
6. Study of cytokines in inflammatory myopathies.
7. Gene deletions and mutations in Wilms tumor: Correlation with histopathology and outcome
8. Study of iron metabolism associated proteins in renal cell lines in hyperglycemic and hypernatraemic condition
9. Study of endocytosis and fate of calcium phosphate based and gold nanoparticle.
10. Airway remodeling in Bronchial Asthma; A study in experimental mice model.
11. Nanoparticle mediated antigen presentation and modulation of antigen processing by macrophage
12. Development of metal nanoparticle for cancer targeting

## COLLABORATIVE

### Completed

1. Characterization of the properties of an amplified region of DNA in primary meningeal tumors – (with Dept of Biochemistry, AIIMS).
2. Analysis of FAT gene in glial tumors – (with Dept of Biochemistry, AIIMS).
3. Pilocytic astrocytomas : correlation of clinical features and outcome with proliferation index and angiogenesis – (with Dept of Neurosurgery, AIIMS).
4. Altered DNA sequences in gliomas: characterization of changes and context sequences with reference to tumor type – (with Dept of Biochemistry, AIIMS).
5. Advanced center for Liver diseases; Collaboration with Prof. S. K. Acharya; Funded by ICMR for 5 years (2004-2009).
6. Detection and molecular characterization of *Pneumocystis jiroveci* from patients with clinical diagnosis of interstitial pneumonia - (with Dept. of Microbiology, AIIMS)
7. Pharmacological and molecular studies on cardioprotective potential of cox-2 inhibitor and indigenous antioxidant drugs in experimentally induced myocardial infarction – (with Dept. of Pharmacology, AIIMS)
8. Parallel performance trial of fast HPV versus hybrid capture 2 for cervical cancer Screening – (with Dept of Obs & Gynae, AIIMS)
7. Development of HPV candidate vaccine/s: Preparation of a clinical trial site/cohort for vaccine testing – (with Dept of Obs & Gynae, AIIMS)
8. Correlation of Hepatitis B virus DNA in serum with viral core and surface antigen detection in liver tissue by immunohistochemistry in occult Hepatitis B virus infection. *[with Dept. of Pathology and Gastroenterology, AIIMS]*
9. Measurement of the depth of ducto-lobular units from the skin in mastectomy specimens to arrive at an optimum thickness of the skin flap in modified radical mastectomy for carcinoma breast- *[with Dept. of General Surgery and Pathology].*
10. The correlation of VEGF and TGF Beta1 expression to clinicopathological response, ER, PR and Her2/Neu status in locally advanced breast cancer: A pilot study - *[with Dept. of Radiation Oncology and Pathology, AIIMS]*
11. Evaluation of loss of heterozygosity in Chromosome 1p and 11p in Hepatoblastomas - *[with Dept. of Pathology and Pediatric Surgery, AIIMS]*
12. Effect of Glutamine Supplementation on structure and function of the intestines in patients with Crohn's Disease - *[Dept. of Gastroenterology and Pathology, AIIMS]*
13. Analysis of Peripheral T-Cell Lymphomas – Incidence, Clinical Characteristics, Prognostic Factors and Treatment outcomes - *[Dept. of Medical Oncology and Pathology, AIIMS]*
14. Effect of short course of Prednisolone to Gluten-free Diet and Gluten-free Diet alone in the recovery of clinical, histological and immunological features in treatment of naive adult patients

with Celiac disease: A pilot randomized controlled trial - [*Dept. of Gastroenterology and Pathology, AIIMS*]

15. Role of FDG PET-CT in evaluation of axillary lymph node involvement in T1T2N0 Breast cancer in comparison with sentinel lymph node biopsy - [*with Dept. of General surgery, NMR and Pathology, AIIMS*]

### **Ongoing**

1. Analysis of immunomodulation property of IFN-g on classical, nonclassical MHC 1 and TGF- $\beta$  expression in astrocytic tumors and their relevance in immunotherapy – (with Dept. of Neurobiochemistry).
2. Study of HIC-1 in tumorigenesis and cell response – (with Dept of Biochemistry).
3. Effects of administration of human umbilical cord blood cells (HUCBG) in Combination with melatonin versus HUCBG along in rat with stroke – (with Dept of Neurology, AIIMS).
4. Effect of Terminalla arjuna on Cardiac Hypertrophy in Rats - (with Dept. of Pharmacology, AIIMS).
5. Evaluation of the cardio protective effects of combination of Ramipril and Irbesartan in experimental model of ischemic-reperfusion injury in rat heart - (with Dept. of Pharmacology, AIIMS).
6. Study on the cardioprotective effect of Pitavastatin in experimental model of ischemic - reperfusion injury in rat heart – (with Dept. of Pharmacology, AIIMS).
7. Imaging guided lung biopsy in immunocompromised patients with possible fungal pneumonia and its clinical implications - (with Dept. of Hematology, AIIMS).
8. An electron microscopic study of left ventricular muscle biopsy in patients with transposition of great arteries (with Dept of Cardiothoracic Surgery, AIIMS).
9. Prognostic Factors in the management of osteosarcoma: A clinical study – (with Dept. of Orthopaedics, AIIMS).
10. Molecular detection and genotyping of HPV in cervical cancer – a population based study - (with Dept. of Biochemistry, AIIMS).
11. Study of genetic polymorphisms of dihydropteroate synthase (DHPS) gene in Pneumocystis jiroveci isolates: correlation with clinical outcome in patients with PCP - (with Dept. of Microbiology, AIIMS).
12. Reconstruction of Extensive Long-Bone Defects in Rabbit Using Calcium Phosphate Mullite Composites - (with Dept of Metallurgy, IIT Kanpur)
13. Development of tumor targeting with nanogel system - (with Center for Biomedical Engineering, IIT, Delhi).
14. Role of macrophage and oxidative stress in airway remodeling - (with IGIB, Delhi).
15. Effect of blocking of HIF1 $\alpha$  gene expression on macrophage endocytosis and generation of ROS - (with JNU, Delhi).

16. Fabrication of chitosan-gelatin-alginate composite tissue engineering scaffold by foaming method without using surfactant, its characterization and biocompatibility studies - (with Dept of Paper Technology, IIT Roorkee).
17. Development of hydrogel based wound dressing and study of its efficacy in experimental model- (with Center for Biomedical Engineering, IIT, Delhi).
18. Study of placenta for oxidative stress status in pregnant women on daily versus weekly iron supplementation: An ICMR Task Force Study. ICMR. 2009-2011 – (with Dept. of Obs & Gynae), AIIMS.
19. Safety and efficacy of 2 versus 3 dose HPV vaccine in adolescent girls aged 10-18 years – (with IARC, Lyon, France. IARC. 2009-2014)
20. A Randomized controlled trial to determine gluten threshold for pediatric patients with celiac disease - *[with Dept. of Pathology, Physiology and Pediatrics, AIIMS]*
21. Evaluation of focal renal mass lesions using MDCT & MR with diffusion-weighted imaging - *[with Dept. of Pathology, Radiodiagnosi and, Urology, AIIMS]*
22. Effect of Anti-TFN-  $\tilde{U}$  therapy on severity of experimental acute pancreatitis and subsequent pancreatic regeneration - *[with Dept. of Pathology and Anatomy, AIIMS]*
23. A study of angiogenesis, proliferative activity and DNA ploidy in oral Verrucous Carcinoma: Comparison with Normal Mucosa, Verrucous Hyperplasia and Squamous Cell Carcinoma- *[with Dept. of Pathology, ENT and Radiation Oncology, AIIMS]*
24. Cysts, tumours and tumour like lesions of the jaw: evaluation by panoramic radiographs and multi detector computed tomography with limited MRI correlation - *[with Dept. of Pathology and Radio-Diagnosis, AIIMS]*
25. Correlation of Hepatitis B virus DNA in serum with viral core and surface antigen detection in liver tissue by immunohistochemistry in occult hepatitis B virus infection - *[with Dept. of Pathology and Gastroenterology, AIIMS]*
26. Exploration of the site of origin and cellular characteristics of Juvenile Nasopharyngeal Angiofibroma - *[with Dept. of ENT and Pathology, AIIMS]*
27. Evaluation of prognostic significance of protease expression and molecular markers in patients with Ca Pancreas - *[with Dept. of Gastroenterology, Pathology and Biochemistry, AIIMS]*
28. Characterization of Tight junction proteins in Crohn's Disease and Celiac Disease patients - *[with Dept. of Gastroenterolog and Pathology, AIIMS]*
29. Molecular pathogenesis of oral pre-cancerous lesions and oral cancer - *[with Dept. of Biochemistry, Pathology, Dental Surgery, ENT, General Surgery and Surgical Oncology, AIIMS]*
30. Histological diagnosis of Celiac disease and its correlation with other markers - *[with Dept. of Pathology and Pediatrics, AIIMS]*
31. Histopathology of Acute and Subacute Liver Failure - *[with Dept. of Pathology and Gastroenterology]*



32. Molecular Characterization of *Giardia intestinalis* isolates and correlation of genotype with different clinical spectrum of Human Giardiasis - [with Dept. of Pathology, Microbiology, Pediatrics and Gastroenterology, AIIMS]
33. Evaluation of Curcumin in advanced Cervical Cancer - [with Dept. of Pathology, Biochemistry, Obstetrics and Gynecology and Radiation Oncology, AIIMS]

## PUBLICATIONS

1. Sharma MC, Jain D, Sarkar C, Suri V, Garg A, Sharma BS et al. Papillary tumor of the pineal region—a recently described entity: a report of three cases and review of the literature. *Clin Neuropathol.* 2009;28:295-302.
2. Sharma MC, Jain D, Sarkar C, Goebel HH. Congenital myopathies - a comprehensive update of recent advancements. *Acta Neurol Scand.* 2009;119:281-92.
3. Sarkar C, Jain A, Suri V. Current concepts in the pathology and genetics of gliomas. *Indian J Cancer.* 2009;46:108-19.
4. Sharma MC, Ghara N, Jain D, Sarkar C, Singh M, Mehta VS. A study of proliferative markers and tumor suppressor gene proteins in different grades of ependymomas. *Neuropathology.* 2009;29:148-55.
5. Sharma MC, Jain D, Gupta A, Sarkar C, Suri V, Garg A et al. Dysembryoplastic neuroepithelial tumor: a clinicopathological study of 32 cases. *Neurosurg Rev.* 2009;32:161-70.
6. Sharma MC, Jain D, Sarkar C, Bhatnagar V, Rishi A, Suri V et al. Lumbosacral Wilms' tumor as a component of immature teratoma associated with spinal dysraphism—a rare case and short literature review. *Fetal Pediatr Pathol.* 2009;28:201-8.
7. Suri V, Das P, Pathak P, Jain A, Sharma MC, Borkar SA et al. Pediatric glioblastomas: a histopathological and molecular genetic study. *Neuro Oncol.* 2009;11:274-80.
8. Tandon A, Suri A, Kasliwal MK, Mahapatra AK, Mehta VS, Garg A, Sarkar C et al. Assessment of endocrine abnormalities in severe traumatic brain injury: a prospective study. *Acta Neurochir (Wien).* 2009;151:1411-7.
9. Biswas A, Goyal S, Puri T, Das P, Sarkar C, Julka PK et al. Atypical teratoid rhabdoid tumor of the brain: case series and review of literature. *Childs Nerv Syst.* 2009;25:1495-500.
10. Goel RK, Suri V, Suri A, Sarkar C, Mohanty S, Sharma MC et al. Effect of bone marrow-derived mononuclear cells on nerve regeneration in the transection model of the rat sciatic nerve. *J Clin Neurosci.* 2009;16:1211-7.
11. Shukla B, Agarwal S, Suri V, Pathak P, Sharma MC, Gupta D, Sharma BS, Suri A, Halder A, Sarkar C. Assessment of 1p/19q status by fluorescence in situ hybridization assay: A comparative study in oligodendroglial, mixed oligoastrocytic and astrocytic tumors. *Neurol India.* 2009;57:559-66.
12. Puri S, Mahapatra AK, Hussain E, Sarkar C, Sinha S, Joshi BH. A review of studies on targeting interleukin 4 receptor for central nervous system malignancy. *Curr Mol Med.* 2009;9:732-9.



13. Das P, Puri T, Suri V, Sharma MC, Sharma BS, Sarkar C. Medulloblastomas: a correlative study of MIB-1 proliferation index along with expression of c-Myc, ERBB2, and anti-apoptotic proteins along with histological typing and clinical outcome. *Childs Nerv Syst.* 2009;25:825-35.
14. Tanveer N, Sharma MC, Sarkar C, Gulati S, Kalra V, Singh S et al. Diagnostic utility of skin biopsy in dystrophinopathies. *Clin Neurol Neurosurg.* 2009;111:496-502.
15. Bakhshi S, Gupta A, Sharma MC, Khan SA, Rastogi S. Her-2/neu, p-53, and their coexpression in osteosarcoma. *J Pediatr Hematol Oncol.* 2009;31:245-51.
16. Choudhari KA, Kaliaperumal C, Jain A, Sarkar C, Soo MY, Rades D et al. Central neurocytoma: a multi-disciplinary review. *Br J Neurosurg.* 2009;23:585-95.
17. Bajpai J, Gamanagatti S, Sharma MC, Kumar R, Vishnubhatla S, Khan SA et al. Noninvasive imaging surrogate of angiogenesis in osteosarcoma. *Pediatr Blood Cancer.* 2010;54:526-31.
18. Gupta R, Suri V, Arora R, Sharma MC, Mishra S, Singh M, Sarkar C. Suprasellar ganglioglioma presenting with diabetes insipidus in a young boy: a rare clinical presentation. *Childs Nerv Syst.* 2010;26:255-8.
19. Muzumder S, Das P, Kumar M, Bhasker S, Sarkar C, Medhi K et al. Primary epithelioid angiosarcoma of the breast masquerading as carcinoma. *Curr Oncol.* 2010;17:64-9.
20. Das P, Haresh KP, Suri V, Sharma MC, Sharma BS, Sarkar C. Malignant hemangiopericytoma of pituitary fossa. *Indian J Pathol Microbiol.* 2010;53:109-11.
21. Jain V, Goel P, Kumar D, Seith A, Sarkar C, Kabra S et al. Endobronchial chondroid hamartoma in an infant. *J Pediatr Surg.* 2009;44:e21-3.
22. Sai Kiran NA, Kasliwal MK, Gupta A, Mridha AR, Sharma MC, Sharma BS. A rare case of intracranial solitary fibrous tumor of meninges: case report. *J Neurosurg Sci.* 2009;53:153-5.
23. Biswas A, Puri T, Goyal S, Kumar S, Sharma A, Paliwal P, Suri V et al. Spinal myxopapillary ependymoma with Down syndrome: exploring an unusual association. *J Pediatr Hematol Oncol.* 2010;32:e38-41.
24. Sharma S, Kalra V, Garg A, Suri V, Suri A. Gliomatosis cerebri. *Indian J Pediatr.* 2009;76:553-4.
25. Tanwar V, Sachdeva J, Kshore K, Mittal R, Nag TC, Ray R, Kumari S, Arya DS. Dose-dependent actions of curcumin in experimentally induced myocardial necrosis: a biochemical, histopathological, and electron microscopic evidence. *Cell Biochem Funct.* 2010;28:74-82.
26. Charan Sahoo K, Arora S, Goyal S, Kishore K, Ray R, Chandra Nag T, Singh Arya D. Cardioprotective effects of benazepril, an angiotensin-converting enzyme inhibitor, in an ischaemia-reperfusion model of myocardial infarction in rats. *J Renin Angiotensin Aldosterone Syst.* 2009;10:201-9.
27. Malav IC, Juneja R, Choudhary SK, Ramakarishnan S, Ray R, Jain A. Atrial Stasstill Causing Congestive Heart Failure in a Child with Ostium Secundum Atrial Septal Defect. *Pediatr Cardiol.* 2009 Nov 21(Epub ahead of print).

28. Sharma A, Ray R, Rajeswari MR. High-Mobility Group A1 (HMGA1) Protein expression correlates with cisplatin-induced cell death in squamous cell carcinoma of skin. *Cancer invest.* 2009 Nov 16 (Epub ahead of print).
29. Kumar S, Seth S, Jaiswal A, Enjamoori R, Dinda AK, Ray R. Chronic beta-adrenergic activation-induced left ventricular systolic dysfunction is associated with systemic release of TNF-alpha and IL-1beta in rats. *Pharmacol Rep.* 2009;61:870-6.
30. Kumar S, Enjamoori R, Jaiswal A, Ray R, Seth S, Maulik SK. Catecholamine-induced myocardial fibrosis and oxidative stress is attenuated by Terminalia Arjuna (Roxb.). *J Pharm Pharmacol.* 2009;61:1529-36.
31. Agarwal S, Mathur SR, Ray R, Sharma SC, Sinha P. Cytopathological diagnosis of hyalinizing trabecular tumour, a rare thyroid neoplasm. *Cytopathology*, 2009;15(Epub ahead of print).
32. Goyal SN, Arora S, Sharma AK, Joshi S, Ray R, Bhatia J, Kumari S, Arya DS. Preventive effect of crocin of *Crocus sativus* on hemodynamic, biochemical, histopathological and Ultrastructural alterations in isoproterenol-induced cardiotoxicity in rats. *Phytomedicine.* 2009; 9 (Epub ahead of print).
33. Das P, Iyer VK, Mathur SR, Ray R. Anaplastic large cell lymphoma: a critical evaluation of cytomorphological features in seven cases. *Cytopathology.* 2009;9(Epub ahead of print).
34. Goyal S, Arora S, Mittal R, Joshi S, Nag TC, Ray R, Kumari S, Arya DS. Myocardial salvaging effect of telmisartan in experimental model of myocardial infarction. *Eur J Pharmacol* 2009;619:75-84.
35. Chowdhury Uk, Saxena A, Ray R, Sheil A, Reddy SM, Agarwal S, Mittal C. Salvage one and done-half ventricular repair and resection of Ewing's sarcoma of cardiac origin. *Hellenic J Cardiol.* 2010; 51:71-3.
36. Kothari SS, Sharma S, Bhatt K, Ray R, Bakhsi S, Chowdhury U. Recurrent hemorrhagic pericardial effusion in a child due to diffuse lymphangiohemangiomatosis: a case report. *J Med Case Reports.* 2010; 4:62.
37. Kumar N, Das P, Kumar D, Kriplani A, Ray R. Pelvic actinomycosis mimicking: an advanced ovarian cancer. *Indian J Pathol Microbiol.* 2010;53:164-5.
38. Uppal P, Kaur J, Agarwala S, Gupta AK, Safaya R, Kabra SK. Communicating oesophageal duplication cyst with heterotopic pancreatic tissue – an unusual cause of recurrent pneumonia in an infant, 2010, *APA*; 1798:1-2.
39. Gupta A, Kumar L, Karak A, Thulkar S, Rastogi R, Bhatti S. Multicentric hyaline-vascular type Castleman disease presenting as an epidural mass causing paraplegia: a case report. *Clin Lymphoma Myeloma.* 2009; 9:250-3.
40. Arora R, Gupta R, Sharma A, Dinda AK. Invasive papillary carcinoma of male breast: report of two cases of a rare tumor. *Indian J Pathol Microbiol* 2010;53:135-7.
41. Arora R, Gupta R, Sharma A, Dinda AK. Primary Neuroendocrine Carcinoma (Atypical Carcinoid) of the Thymus: Report of three cases of a rare entity and review of literature. *Indian J Pathol Microbiol* 2010;53:148-51.

42. Gupta R, Sharma A, Ksh A, Khadgawat R, Dinda AK. Phosphaturic Mesenchymal Tumor of the Sinonasal Tract: A Case Report. *Acta Endocrinologica (Buc)* 2009;5:537-41.
43. Sharma A, Gupta R, Khaira A, Gupta A, Tiwari SC, Dinda AK. Renal involvement in leprosy: Report of progression from diffuse proliferative to crescentic glomerulonephritis. *Clin Exp Nephrol* 2009 Dec 17 (Epub ahead of print).
44. Sharma A, Jain S, Gupta R, Banerjee KG, Guleria S, Agarwal SK. Ultrastructural alterations in endothelial mitochondria are associated with enhanced nitrotyrosine accumulation and progressive reduction of VEGF expression in sequential protocol renal allograft biopsies with calcineurin inhibitor toxicity. *Transplant International* 2010;23:407-416.
45. Gupta R, Sharma A, Mahanta PJ, Jacob TG, Agarwal SK, Roy TS. Focal segmental glomerulosclerosis in idiopathic membranous glomerulonephritis: a clinic-pathological and stereological study. *Nephrol Dial Transplant* 2010;25:444-449.
46. Gupta R, Arora R, Sharma A, Dinda AK. Chemotherapy Induced Cytomorphologic Changes in Breast Carcinoma: A Potential Diagnostic Challenge for the Histopathologist. *Indian J Pathol Microbiol* 2009;52:583-585.
47. Gupta R, Sharma A, Arora R, Dinda AK, Gupta A, Tiwari SC. Membranous glomerulonephritis in a patient with ankylosing spondylitis: a rare association. *Clin Exp Nephrol* 2009;13:667-70.
48. Gupta R, Arora R, Sharma A, Dinda AK. Primary chondroblastic osteogenic sarcoma of the clavicle: a rare case. *Pathology* 2009;41:408-10.
49. Gupta R, Arora R, Sharma A, Dinda AK. Diffuse Lipomatosis of the Thyroid Gland: A Pathologic Curiosity. *Indian J Pathol Microbiol* 2009;52:215-6.
50. Khaira A, Bagchi S, Sharma A, Mukund A, Mahajan S, Bhowmik D. Renal allograft tuberculosis: report of three cases and review of literature. *Clin Exp Nephrol*. 2009;13:392-6.
51. Khaira A, Upadhyay BK, Sharma A, Das P, Mahajan S, Makhariya G. Hepatitis B virus associated focal and segmental glomerular sclerosis: report of two cases and review of literature. *Clin Exp Nephrol*. 2009;13:373-7.
52. Mabalirajan U, Ahmad T, Leishangthem GD, Joseph DA, Dinda AK, Agrawal A. Beneficial effects of high dose of L-arginine on airway hyperresponsiveness and airway inflammation in a murine model of asthma. *J Allergy Clin Immunol*. 2010;125:626-35.
53. Rastogi R, Anand S, Dinda AK, Koul V. Investigation on the synergistic effect of a combination of chemical enhancers and modulated iontophoresis for transdermal delivery of insulin. *Drug Dev Ind Pharm*. 2010 Mar 24.
54. Muralikrishnan G, Amanullah S, Basha MI, Dinda AK, Shakeel F. Modulating effect of *Withania somnifera* on TCA cycle enzymes and electron transport chain in azoxymethane-induced colon cancer in mice. *Immunopharmacol Immunotoxicol*. 2010 Feb 5.
55. Prasad R, Anand S, Khar RK, Dinda AK, Koul V. Studies on in vitro and in vivo transdermal flux enhancement of methotrexate by a combinational approach in comparison to oral delivery. *Drug Dev Ind Pharm*. 2009;35:1281-92.

56. Mitra DK, Joshi B, Dinda AK, Rai AK, Girdhar BK, Katoch K, Bindra MS, Sengupta U. Induction of lepromin reactivity in cured lepromatous leprosy patients: impaired chemokine response dissociates protective immunity from delayed type hypersensitivity. *Microbes Infect.* 2009;11:1122-30.
57. Singh P, Khaira A, Sharma A, Dinda AK, Tiwari SC. IgA nephropathy associated with pleuropulmonary tuberculosis. *Singapore Med J.* 2009;50:e268-9.
58. Mabalirajan U, Aich J, Leishangthem GD, Sharma SK, Dinda AK, Ghosh B. Effects of vitamin E on mitochondrial dysfunction and asthma features in an experimental allergic murine model. *J Appl Physiol.* 2009;107:1285-92.
59. Mabalirajan U, Dinda AK, Sharma SK, Ghosh B. Esculetin restores mitochondrial dysfunction and reduces allergic asthma features in experimental murine model. *J Immunol.* 2009;183:2059-67.
60. Dutta R, Kumar A, Handa KK, Dinda AK. Large pedunculated fibrovascular polyp of oesophagus in a young woman. *Interact Cardiovasc Thorac Surg.* 2009;9:352-3.
61. Naqvi S, Samim M, Dinda AK, Iqbal Z, Telagoanker S, Ahmed FJ, Maitra A. Impact of magnetic nanoparticles in biomedical applications. *Recent Pat Drug Deliv Formul.* 2009;3:153-61.
62. Gupta R, Mathur SR, Gupta SD, Durgapal P, Iyer VK, Das CJ, Shalimar, Acharya SK. Hepatic epithelioid hemangioendothelioma: A diagnostic pitfall in aspiration cytology. *Cytojournal.* 2010;6:25.
63. Gazula S, Mathur SR, Iyer VK, Gupta AK, Pawar DK, Agarwala S. Thoraco-abdominal mature teratoma in a left diaphragmatic hernia. *Indian J Pediatr.* 2010 Feb 8. [Epub ahead of print] PubMed PMID: 20140770.
64. Hadda V, Khilnani GC, Bhalla AS, Mathur S. Lipoid pneumonia presenting as non resolving community acquired pneumonia: a case report. *Cases J.* 2009;2:9332.
65. Prasad CP, Rath G, Mathur S, Bhatnagar D, Ralhan R. Expression analysis of maspin in invasive ductal carcinoma of breast and modulation of its expression by curcumin in breast cancer cell lines. *Chem Biol Interact.* 2010 Feb 12;183(3):455-61.
66. Bhatla N, Dar L, Patro AR, Kumar P, Kriplani A, Gulati A. Can human papillomavirus DNA testing of self-collected vaginal samples compare with physician-collected cervical samples and cytology for cervical cancer screening in developing countries? *Cancer Epidemiol.* 2009;33:446-50.
67. Arava S, Sharma A, Iyer VK, Mathur SR. Iodamoeba butschlii in a routine cervical smear. *Cytopathology.* 2009 Oct 27. [Epub ahead of print]
68. Prasad CP, Rath G, Mathur S, Bhatnagar D, Parshad R, Ralhan R. Expression analysis of E-cadherin, Slug and GSK3beta in invasive ductal carcinoma of breast. *BMC Cancer.* 2009;9:325.
69. Madhusudhan KS, Seith A, Khadgawat R, Das P, Mathur S. Tuberculosis of the thyroid gland: magnetic resonance imaging appearances. *Singapore Med J.* 2009;50:e235-8.
70. Mathur R, Gupta SK, Mathur SR, Velpandian T. Anti-tumor studies with extracts of *Calotropis procera* (Ait.) R.Br. root employing Hep2 cells and their possible mechanism of action. *Indian J Exp Biol.* 2009;47:343-8.

71. Chalamalasetty SB, Madan K, Javvaji S, Singh KK, Vijayaraghavan M, Mathur S. Anaplastic large cell lymphoma presenting as liver abscess and portal vein thrombosis. *Indian J Cancer*. 2009;46:240-1.
72. Prasad CP, Rath G, Mathur S, Bhatnagar D, Ralhan R. Potent growth suppressive activity of curcumin in human breast cancer cells: Modulation of Wnt/beta-catenin signaling. *Chem Biol Interact*. 2009;181:263-71.
73. Subramanian S, Seith A, Abhey P, Agarwala S, Mathur S. Answer to case of the month #143 mesenchymal hamartoma of the chest wall. *Can Assoc Radiol J*. 2009;60:47-9.
74. Arora VK, Aggarwal S, Mathur S, Rath GK, Julka PK. Pleural mesothelioma: an unusual case diagnosed on pleural fluid cytology and immunocytochemistry. *Diagn Cytopathol*. 2009;37:509-12.
75. Dutta R, Kumar A, Jindal T, Mathur SR. Neuroendocrine carcinoma of the thymus gland with sternal invasion. *Interact Cardiovasc Thorac Surg*. 2009;8:694-6. Epub 2009.
76. Bhatla N, Gulati A, Mathur SR, Rani S, Anand K, Muwonge R. Evaluation of cervical screening in rural North India. *Int J Gynaecol Obstet*. 2009;105:145-9.
77. Sigamani E, Iyer VK, Agarwala S. Fine needle aspiration cytology of infantile haemangioendothelioma of the liver: a report of two cases. *Cytopathology*. 2010 Mar 10. [Epub ahead of print]
78. Nayak A, Iyer VK, Agarwala S. The cytomorphologic spectrum of Wilms tumour on fine needle aspiration: a single institutional experience of 110 cases. *Cytopathology*. 2010 Mar 5. [Epub ahead of print]
79. Muzumder S, Das P, Kumar M, Bhasker S, Sarkar C, Medhi K, Iyer VK, Rath GK. Primary epithelioid angiosarcoma of the breast masquerading as carcinoma. *Curr Oncol*. 2010;17:64-9.
80. Gupta C, Iyer VK, Kaushal S, Agarwala S, Mathur SR. Fine needle aspiration cytology of undifferentiated embryonal sarcoma of the liver. *Cytopathology*. 2010. [Epub ahead of print]
81. Saharan S, Jose B, Seth R, Iyer VK, Kabra SK. Langerhans cell histiocytosis presenting as recurrent air leaks in young children. *Acta Paediatr*. 2010;99:488. Epub 2010.
82. Moorthy G, Agarwala S, Sharma A, Iyer VK, Srinivas M, Bajpai M, Bhatnagar V, Gupta DK. Cytogenetic evaluation of neuroblastoma using fine needle aspiration cultures. *Pediatr Surg Int*. 2009;25:939-43.
83. Jindal B, Agarwala S, Bakhshi S, Jain V, Gupta AK, Kumar R, Bal CS, Iyer VK, Gupta SD. Bilateral primary renal lymphoma with orbital metastasis in a child. *Pediatr Blood Cancer*. 2009;52:539-41.
84. Gazula S, Datta Gupta S, Bhatnagar V. Maldevelopment as a possible etiologic factor in biliary atresia. *Eur J Pediatr Surg*. 2009;19:128-9.
85. Gupta R, Mathur SR, Singh P, Agarwala S, Datta Gupta S. Cellular mesoblastic nephroma in an infant: report of the cytologic diagnosis of a rare paediatric renal tumor. *Diagn Cytopathol*. 2009; 37:377-80.

86. Hazrah P, Dhir M, Datta Gupta S, Deo V, Parshad R. Prognostic significance of location of the primary tumor in operable breast cancers. *Indian J Cancer*. 2009; 46:139-45
87. Matta A, Tripathi SC, Desouza LV, Grigull J, Kaur J, Chauhan SS. Heterogeneous ribonucleoprotein K is a marker of oral leukoplakia and correlates with poor prognosis of squamous cell carcinoma. *Int J Cancer*. 2009;125:1398-406
88. Misra R, Agarwal S, Kumar L, Datta Gupta S, Mittal S. Squamous cell carcinoma arising in a dermoid during pregnancy. *Aust N Z J Obstet Gynaecol*. 2009;49:333-4
89. Radhakrishnan S, Das P, Singh S, Kalita D, Datta Gupta S, Bakhshi S. Presentation of childhood CML mimicking bone sarcoma. *Pediatr Blood Cancer*. 2009;52:901-2
90. Ralhan R, DeSouza LV, Matta A, Chandra Tripathi S, Ghanny S, Datta Gupta S. iTRAQ-multidimensional liquid chromatography and tandem mass spectrometry-based identification of potential biomarkers of oral epithelial dysplasia and novel networks between inflammation and premalignancy. *J Proteome Res*. 2009; 8:300
91. Sawhney M, Matta A, Macha MA, Kaur J, Datta Gupta S, Shukla NK. Cytoplasmic accumulation of activated leukocyte cell adhesion molecule is a predictor of disease progression and reduced survival in oral cancer patients. *Int J Cancer*. 2009; 124: 2098-105
92. Das P, Narender Kumar, Datta Gupta S . Metastatic tumours in ovaries. *Ind J Medical Paediatr Oncol* 2009; 30 (Suppl. 1):38-45.
93. Eunice M, Kulshreshtha B, Kriplani A, Dada R, Agarwal S, Kucheria K. Familial pure gonadal dysgenesis with 46 XY karyotype in three siblings and Gonadoblastoma in the youngest sibling. *Int J Hum Genet* 2009; 9: 123-6.
94. Hadi R, Kumar M, Pathy S, Ds P, Vaid A, Datta Gupta S. Glassy Cell Carcinoma (GCC) of uterine cervix: A case report. *AROI (TN & PY Ch) Communicue* 2009; 1: 9-11
95. Balamourougane P, Datta Gupta S, Bhatnagar V. Evaluation of ultrastructural changes by electron microscopy in neonatal cholestasis. *Trop Gastroenterol*. 2009; 30:167-70.
96. Leenaars AA, Dogra TD, Girdhar S, Datta Gupta S, Leenaars L. Menstruation and suicide: a histopathological study. *Crisis* 2009;30:202-7
97. Sharma G, Mirza S, Yang YH, Parshad R, Hazrah P, Datta Gupta S. Prognostic relevance of promoter hypermethylation of multiple genes in breast cancer patients. *Cell Oncol*. 2009;31: 487-500.
98. Hadda V, Khilnani GC, Bhalla AS, Gupta R, Datta Gupta S, Goel A. Pulmonary lymphoma mimicking metastases: a case report. *Cases J* 2009; 2:7081
99. Sharma S, Sankhyan N, Kalra VA Garg A, Datta Gupta S, Agarwala S, Das P. Inflammatory myofibroblastic tumor involving lung and brain in a 10-year-old boy: A case report. *J Child Neurol*. 2009; 24:1302-6.
100. Kumar V, Jagannathan NR, Kumar R, Nayyar R, Thulkar S, Datta Gupta S, Hemal AK, Gupta NP. Potential of (1) H MR spectroscopic imaging to segregate patients who are likely to show malignancy of the peripheral zone of the prostate on biopsy. *J Magn Reson Imaging* 2009; 30:842-8.



101. Singh A, Datta P, Jain PK, Bhatla N, Datta Gupta S, Dey B, Singh N. HPV genotyping, variants and viral load in tumors, SILs and controls in a Northern Indian population subset. *Intl J Gynecol Cancer* 2009; 19: 1642-8.
102. Madhusudhan KS, Srivastava DN, Dash NR, Gupta C, Datta Gupta S. Case report. Schwannoma of both intrahepatic and extrahepatic bile ducts: a rare case. *Br J Radiol.* 2009; 82:e212-5.
103. Lal P, Datta Gupta S, Thakar A. Sjogren's syndrome masquerading as nasopharyngeal carcinoma. *Am J Otolaryngol.* 2009; 30: 209-11. [Epub 2008 Oct 1]
104. Kumar A, Kumar R, Seenu V, Datta Gupta S, Chawla M, Malhotra A, Mehta SN. The role of (18) F-FDG PET/CT in evaluation of early response to neoadjuvant chemotherapy in patients with locally advanced breast cancer. *Eur Radiol.* 2009;19: 1347-57 [Epub 2009 Feb 13, ]
105. Das P, Ahuja A, Datta Gupta S. Calcifying telangiectatic cutaneous breast carcinoma metastasis. *Int J Surg Pathol.* 2009;17: 455-6. [Epub 2008 May 21]
106. Kumar A, Regmi SK, Dutta R, Kumar R, Datta Gupta S, Das P, Halanaik D, Jindal T. Characterization of thymic masses using (18)F-FDG PET-CT. *Ann Nucl Med.* 2009 ; 23:569-77 [Epub Jul 8, 2009 ]
107. Paul SB, Chalamalasetty SB, Vishnubhatla S, Madan K, Gamanagatti SR, Batra Y, Datta Gupta S, Panda SK, Acharya SK. Clinical profile, etiology and therapeutic outcome in 324 hepatocellular carcinoma patients at a tertiary care center in India. *Oncology* 2009;77:162-71. [Epub Jul 28, 2009].
108. Sinha P, Bahadur S, Thakar A, Matta A, Macha M, Ralhan R, Datta Gupta S. Significance of promoter hypermethylation of p16 gene for margin assessment in carcinoma tongue. *Head Neck.* 2009; 31:1423-30. [Epub May 8 2009]
109. Sharma A, Mohanti B, Raina V, Shukla N, Pal S, Dwary A, Deo S, Sahni P, Garg P, Thulkar S, Datta Gupta S, Rath G. A phase II study of gemcitabine and oxaliplatin (Oxigem) in unresectable gall bladder cancer. *Cancer Chemother Pharmacol.* 2009 Jul 3 [Epub ahead of print]
110. Macha MA, Matta A, Sriram U, Thakkar A, Shukla NK, Datta Gupta S, Ralhan R. Clinical significance of TC21 overexpression in oral cancer. *J Oral Pathol Med.* 2009 Dec 16. [Epub ahead of print]
111. Mallick SR, Das P, Prakash G, Chopra A, Kumar L, Pati HP, Datta Gupta S. Post stem cell transplant hemphagocytic lymphohistiocytosis. *Indian J Hematol Blood Transfus* 2009; 25:182 (Abstr)
112. Kumar R, Shalimar, Bhatia V, Khanal S, Sreenivas V, Datta Gupta S, Panda SK, Acharya SK. Antituberculosis therapy induced acute liver failure (ATT-ALF): Magnitude, profile, prognosis and predictors of outcome. *Indian J Gastroenterol* 2009; 28 (Suppl 1): A5-6 (Abstr)
113. Goswami P, Das P, Sreenivas V, Datta Gupta S, Ahuja V, Makharia GK. Expression of tight junction protein (ZO-1, Claudin-2, 4 and Occludin) in patients with celiac disease and active Crohn's disease and changes in their expression six months after treatment. *Indian J Gastroenterol* 2009; 28 (Suppl 1): A9 (Abstr)



114. Srivastava S, Makharia GK, Das P, Mishra A, Datta Gupta S, Joshi YK. Development of a therapeutic algorithm for management of ulcero-constrictive diseases of intestine in a tuberculosis endemic country. *Indian J Gastroenterol* 2009; 28 (Suppl 1): A11 (Abstr)
115. Das P, Goswami P, Srivastava S, Sreenivas V, Ahuja V, Makharia GK, Datta Gupta S. Expression of tight junction markers in colonic Crohn's disease, ulcerative colitis and intestinal tuberculosis. *Indian J Gastroenterol* 2009; 28 (Suppl 1): A11-12 (Abstr)
116. Kumar R, Madan K, Prakash S, Khanal S, Sreenivas V, Datta Gupta S, Panda Sk, Acharya SK. Adipokines and cytokine in patients with Non-alcoholic fatty liver disease (NAFLD): A case control study. *Indian J Gastroenterol* 2009; 28 (Suppl 1): A72 (Abstr)
117. Shalimar, Singhal A, Kumar R, Bhatia V, Khanal S, Sreenivas V, Datta Gupta S, Panda SK, Acharya SK. Evaluation of neutropil function in acute liver failure. *Indian J Gastroenterol* 2009; 28 (Suppl 1): A75  
Goyal R, Datta Gupta S, Mahanta M, Acharya SK. HbeAg negative chronic hepatitis B: Magnitude, viral characteristics and host characteristics. *Indian J Gastroenterol* 2009; 28 (Suppl 1): A101 (Abstr)
118. Yadav P, Das P, Mirdha BR, Datta Gupta S, Bhatnagar S, Makharia GK. Changing spectrum of malabsorption syndrome in adults in India. *Indian J Gastroenterol* 2009; 28 (Suppl 1): A141 (Abstr)

## PATIENT CARE

### Laboratory services

#### Surgical Pathology Laboratory

Specimens processed	34,357
Special stains	26,788
Frozen sections	810

#### Cytopathology Laboratory

Patient care services:

1. FNAC out-patients clinic
2. On site rapid assessment of Ultrasound guided FNAC

Laboratory Services

1. Processing of all cytology specimens (FNAC, ascetic/ pleural fluid, sputum, urine, cerebrospinal fluid, bronchoscopic aspirate / lavage,
2. Processing and screening of cervical (Pap) smears.
3. Special processing facilities like Cytospin and Millipore filtration.

Total specimens

FNAC (out patient)	7808
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Exfoliatives routine	6064
Cervical smears(PAP smears)	3968
Immunocytochemistry	653
<b>Autopsies performed</b>	30
<b>Electron microscopy</b>	
Specimens processed	810
<b>Immunohistochemistry Laboratory</b>	
Specimens processed	17,431
<b>Neuropathology services</b>	
Neuropathology surgical specimens	2254
Immunohistochemistry	7580
Muscle biopsies:	
Total number received	378
Muscle enzyme histochemistry	1195
Myelin stain	141
Frozen sections	308
Diagnostic FISH	20
<b>Tissue Culture Lab</b>	
H&E Staining	486
Special Stains	287
Immunohistochemistry	583
Frozen Sections	600
<b>Renal pathology services</b>	
Urine sediment analysis	2141
Immunofluorescence of kidney biopsy	547
Electron microscopy of kidney biopsy	150
<b>Cardiac Pathology Services</b>	
Routine Cases	180
Research Cases	161
Poly. L Lysine slides	20943
Special stains	228
Frozen Sections	101

## Hepatic Pathology Services

### Markers for hepatitis viruses

HBs Ag	1702
HBe Ag	1792
HBc-IgM	120
HAV IgM	240
Anti-HCV IgG	600
Anti-HEV IgM	400

### AWARDS & HONOURS

1. Prof. S.K. Panda was invited to attend the Annual Meeting of the Indian National Science Academy and was elected a fellow of the Indian National Science Academy to receive the fellowship at Kolkata from 7-10<sup>th</sup> December, 2009.
2. Dr Chitra Sarkar was awarded the Sir Shriram Memorial Oration by the National Academy of Medical Sciences, New Delhi.
3. Dr Chitra Sarkar was elected as Fellow of the National Academy of Medical Sciences (NAMS).
4. Dr. NC Nayak Talented young Pathologist Award for year 2009 won by Dr. Vaishali Suri in XXIV<sup>th</sup> Annual Conference-Delhi Chapter-IAPM UCMS and GTB Hospital, Delhi.
5. First Prize for poster entitled “Molecular profile of oligodendrogliomas in the young” won by Dr. Shipra Agarwal at the XII<sup>th</sup> annual conference of DNA (DNA CON- 2009)), 6<sup>th</sup> and 7<sup>th</sup> Feb 2010, Sir Ganga Ram Hospital, New Delhi.
6. First Prize for oral paper entitled “MGMT gene promoter methylation in gliomas” won by Ms. Prerana Jha at the XII<sup>th</sup> annual conference of DNA (DNA CON- 2009)), 6<sup>th</sup> and 7<sup>th</sup> Feb 2010, Sir Ganga Ram Hospital, New Delhi.
7. Third Prize for poster entitled” Limb girdle muscular dystrophy Type 2a in India: a study based on semi-quantitative protein analysis with clinical and histopathological correlation” won by Mr Pathak Pankaj at the XII<sup>th</sup> annual conference of DNA (DNA CON- 2009)), 6<sup>th</sup> and 7<sup>th</sup> Feb 2010, Sir Ganga Ram Hospital, New Delhi.

### SIGNIFICANT EVENTS

#### Prof. S.K. Panda

1. Nominated as a subject expert for Standing Selection Committee for Group A posts in NEIGRIHMS, Shillong on 8<sup>th</sup> Sept., 2009.
2. Invited by the Indian Council of Agricultural Research for Project Directorate on Animal disease Monitoring and Surveillance to attend the meeting on 24<sup>th</sup> April, 2009 in Bangalore.
3. Invited to attend a meeting at IIT Chennai on instrumentation and to discuss the Sikka Committee of the Indian National Science Academy on 12<sup>th</sup> July, 2009 at Chennai.

### **Prof. Chitra Sarkar**

4. Nominated as member of committee for reviewing the functioning status of deemed to be university of NBRC.
5. Nominated as Member of the Scientific Advisory Committee of Institute of Pathology, New Delhi.
6. Nominated as Member of the Chronic Disease Biology – Neurology group, DBT, New Delhi.

### **Dr AK Dinda**

7. Nominated as an expert in the committee evaluating on “Issues of Risk in the Regulation of Nanotechnology” organized by the International Development research Centre and The Energy and Resources Institute (TERI), New Delhi as a part of the project on “Capability, Governance and Nanotechnology Developments: a focus on India”.

### **Prof. S. Datta Gupta**

8. Member of the Technical Committee of the Ministry of Health & Family Welfare for the Six-AIIMS like institution and upgradation of medical colleges under the Pradhan Mantri Swasthya Suraksha Yojana of the Government of India
9. He attended the following meetings / consultations of the World Health Organization (WHO) [South East Asia Regional Office (SEARO)] as a Temporary Advisor:
  - (i) Expert Group Meeting on Continuing Medical Education (CME), 12-14 October 2009, Manesar, India
  - (ii) Regional Consultation on WHO Draft Code for Practice for the International Recruitment of Health Personnel, 16-17 December 2009, Gurgaon, India
10. Invited as a member of the Committee of the Medical Council of India for drawing a Competency-Based Curriculum for Postgraduate Medical Courses\
11. Member of the Project Implementation Committee of AIIMS

### **VISITING SCIENTISTS**

1. Dr Sadhan Majumder, Professor, Department of Genetics, Department of Neuro-Oncology, University of Texas MD Anderson Cancer Center, USA visited the Neuropathology lab and delivered a lecture on “Flexibility of stem/progenitor cells regulates normal development and cancer” on 23<sup>rd</sup> February 2010.
2. Dr. Mani S. Mahadevan, Professor of Pathology and Medical Director, Molecular Diagnostics Lab, UVA Health System, University of Virginia, USA visited the Department of Pathology and delivered a lecture on 11<sup>th</sup> Feb., 2010, AIIMS, New Delhi.

## 9.28 Pharmacology

### Professor and Head

Y. K. Gupta

### Professors

V.L. Kumar  
S.K. Maulik

Kamal Kishore

N.R. Biswas

### Associate Professors

D.S. Arya

Jatinder Katyal

### Assistant Professor

Jagriti Bhatia

Kh Reeta

Surender Singh

### Scientists

Sujata Joshi  
Thomas Kaleekal  
Sunder Singh Samuel

Sharda S. Peshin  
Nabanita Halder

Amita Srivastava  
Madhuri Gupta

### EDUCATION

The department is engaged in the teaching programme of MBBS (3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> semesters), BSc Nursing (Hons), MSc, MD, PhD and DM (Clinical Pharmacology) courses.

### Continuing Medical Education

#### Organized by the Department

1. National Clinical Research Training Course, August 24-29, 2009 at AIIMS, New Delhi. Organized in collaboration with Department of Biotechnology (DBT).
2. Brainstorming Workshop on “National Pharmacovigilance Programme (NPVP): The way ahead” December 29-30, 2009 at AIIMS, New Delhi. Organized in collaboration with Central Drugs Standard Control Organization (CDSCO) and sponsored by World Health Organization (WHO).

### Lectures delivered

#### Dr. Y.K. Gupta

1. Key note speaker on “Evolution of Pharmacovigilance in India & Global Practices” in the seminar on “Pharmacovigilance - Fostering Safer Practices” organized by Medical subcommittee of IDMA at Mumbai on 10<sup>th</sup> July 2009.
2. Delivered a lecture on “Human Resource Development in Clinical Research, Indian Scenario” at Jamia Hamdard on 5<sup>th</sup> August 2009.

3. Delivered a guest lecture on ‘Managing Quality in Pharmacy Services’ in the CME on ‘Quality in Hospital Services’ organized by the Dept. of Hospital Administration, AIIMS on 7<sup>th</sup> Nov. 2009.
4. Delivered an invited lecture on “Pharmacovigilance and evolving synergy of academia, industry and regulators” and acted as a resource person for a hands on workshop at ‘Partnership in Clinical Trials – Asia Pacific’ at Singapore on 1<sup>st</sup> – 3<sup>rd</sup> December, 2009.
5. Delivered a guest lecture on “Herbal Drugs in Epilepsy and Alzheimer’s disease” at 4<sup>th</sup> International Symposium on “Current Trends in Drug Discovery Research” at CDRI, Lucknow on 17<sup>th</sup> Feb, 2010

**Dr. V.L. Kumar**

2. “Pro-inflammatory properties of latex of *Calotropis procera*” at the Universidade Federal Rural de Pernambuco, Recife, Brazil on February 22, 2010.
3. “Anti-inflammatory, analgesic and anti-pyretic properties of latex of *Calotropis procera*” at the Universidade Federal do Ceara, Fortaleza, Brazil on February 26, 2010.
4. “Medicinal uses and pharmacological properties of latex of *Calotropis procera*” at the Universidade Federal do Ceara, Fortaleza, Brazil on March 3, 2010.

**Dr. Kamal Kishore**

1. Delivered two invited lectures on ‘Herbal Drugs I and II’ at Forest Research Institute, Dehradun on 30.9.10.

**Dr. Jagriti Bhatia**

1. Delivered an invited talk on, “Innovation in undergraduate Pharmacology teaching and training” in the ‘International CME on drug discovery and development and 1st National conference of Indian Society for Rational Pharmacotherapeutics’ at Jawaharlal Nehru Medical College, Wardha, 23 - 25<sup>th</sup> February, 2010.

**Dr. Kh Reeta**

1. Delivered an invited lecture on “Issues in Clinical Trials of Herbal Medicine” in the Indo- US Symposium on Ayurvedic, Siddha & Unani (ASU) Drugs: Development and Marketing organized by Center for Research in Indian Systems of Medicine (CRISM) in collaboration with Indian Institute of Integrative Medicine (CSIR) and National Center for Natural Products Research, the University of Mississippi, USA, at NASC Complex, New Delhi, December 2-4, 2009.
2. Delivered an invited lecture on “Managing Quality in Pharmacy Services” in the CME on Managing Quality in Hospital Services in collaboration with World Health Organization, at AIIMS, November 6-7, 2009.
3. Delivered an invited lecture, on “Boosted Drugs” in the CME on Risorine, organized by Indian Institute of Integrative Medicine, Jammu (CSIR) and Cadila Pharmaceuticals Ltd., at Hotel Lalit, New Delhi, November 1, 2009.

### **Dr. S.K. Maulik**

1. Delivered a talk on “Antioxidants and Cardioprotection” in Indo-US workshop on ‘Redox Signaling in Degenerative Diseases’ at Manesar, Gurgaon, on 20<sup>th</sup> December, 2009.

### **Lectures delivered in Conferences**

#### **Dr Y. K. Gupta**

1. Delivered a lecture on “Pharmacovigilance in drug development and beyond.” in the conference on “Translational Health Research: Pathways to Discovery” at King George Medical College, Lucknow , 29<sup>th</sup> April 2009.
2. Delivered an invited lecture on “Pharmacovigilance activities” in Patient Safety Conference organized by Dept. of Surgery, AIIMS on 12<sup>th</sup> October, 2009.
3. Delivered an invited lecture on ‘Use of herbal drugs in neurodegenerative disorders in India’ in the Indo- US Bilateral Conference on ‘Translational Neurosciences: New trends in mental and neurodegenerative disorders research’ at Chicago, USA on 15 – 16<sup>th</sup> October, 2009
4. Delivered an invited lecture on ‘Pharmacoepidemiology research in India’ in the 4<sup>th</sup> Asian conference on ‘Pharmacoepidemiology’ at Tainan, Taiwan on 23<sup>rd</sup> – 25<sup>th</sup> October, 2009.
5. Delivered a talk on “Pharmaceutical intervention in H1N1 Influenza”. At Second India Disaster Management Congress by NDMA on 4- 6<sup>th</sup> November, 2009.
6. Delivered a guest lecture on “How to write a research project and research paper” in the Recent Trends in Pharmaceutical Sciences (RTPS 09) at Anand College of Pharmacy, Agra on 14<sup>th</sup> November, 2009.
7. Delivered a plenary talk on “Academia, Industry and Regulator Synergy for Impactful Pharmacovigilance in India” in the Annual Conference of Society of Pharmacovigilance in India (SOPI) at Rajendra Institute of Technology and Sciences, SIRSA on 20<sup>th</sup> Nov, 2009.
8. Delivered a lecture on ‘Clinical Trials and Ethical Aspects of Clinical Trials in India.’ at 61<sup>st</sup> IPC– New Drug Discovery, Development and Approval: Opportunities and Challenges in the 21<sup>st</sup> Century at Ahmedabad’ on 13<sup>th</sup> December, 2009:
9. Delivered a guest lecture on “Good Laboratory Practice for academic institutions” at the APPICON 2009, Saifai, Itawah, 3-6<sup>th</sup> Dec 2009.

#### **Dr. S.K. Maulik**

2. Delivered a key note address on “Peripheral benzodiazepine receptor and experimental cardiac hypertrophy” at the 4th Global Conference on ‘Recent Advances in Cardiovascular Sciences’p on 4<sup>th</sup> February 2010 in Delhi.
3. Delivered an invited talk on “*Terminalia arjuna* (Roxb.) in experimental Left Ventricular Dysfunction” in 2nd World Heart Congress-2010 and Heart Failure Society of India at PGIMER, Chandigarh on 7<sup>th</sup> February 2010.



4. Delivered an invited talk on “Rational Pharmacotherapeutics for MBBS curriculum” and also chaired a session in the 1st National Conference of Indian Society For Rational Pharmacotherapeutics on 24th February 2010 at Jawaharlal Nehru Medical College at Wardha, Nagpur.

### **Dr. V.L. Kumar**

1. “Germinating seeds of the mung bean, *Vigna radiata* (Fabaceae), as a model for the preliminary evaluation of cytotoxic effect of drugs” at the APPICON 2009, Saifai, Itawah, 3-6<sup>th</sup> Dec 2009.

## **RESEARCH**

### **Funded Projects**

#### **Ongoing**

1. Assessment of Awareness of Environmental Mercury Pollution in Healthcare System: Solutions & Strategies for Prevention. Dr YK Gupta. Funded by Ministry of Environment & Forests, Government of India for 2 years (2008 -2010) Funds: Rs. 21,14,796.
2. Pharmacological Evaluation of plant extracts and their medicinal products. Dr YK Gupta. Funded by Ranbaxy Research foundation for 4 years (2006-2010).Funds: Rs. 14,00,000.
3. Safety study of UNIM-401 and UNIM-403 in the treatment of chronic plaque psoriasis. Dr YK Gupta. Funded by Department of AYUSH, Govt. of India New Delhi for 1 year (2008 – 2009). Funds: Rs.8, 02,864.
4. Reversal of mercury induced toxicity in rats by combination therapy: a novel approach. Research associate Varsha Singh under Dr YK Gupta. Funded by ICMR for 3 years (2008-2011) .Funds: Rs. 8,55,600.
5. Efficacy & Safety Evaluation on Antiepileptic activity of selected Indian Herbs. Dr. YK Gupta. Funded by Department of Science and technology for 3 years (2007-2010). Funds : Rs 8.04 lakhs.
6. Training module in clinical research. Dr. YK Gupta. Funded by the Department of Biotechnology for 3 years ( 2008-2010). Funds: Rs 9,00,000.
7. Quantitative detection of heavy metals and phthalates in toys. Dr YK Gupta. Funded by ICMR for 1 year (2009). Funds: Rs. 6,30,900.
8. Effect of traditionally used ayurvedic rasa aushadhies on renal and hepatic functions: Clinical and experimental study. Dr YK Gupta. Funded by Department of AYUSH, MOHFW, Government of India for 3 years (2009-2012). Funds: Rs 27,65,842.
9. Phyto-therapeutic development of latex of the medicinal plant *Calotropis procera*. Indo-Brazil project. Dr. V L Kumar. Funded by Department of Science and Technology for 3 years (2009-2012). .Funds : Rs. 10,00,000.
10. Evaluation of the efficacy of polyherbal formulation in models of age-related ocular diseases. Dr. N R Biswas. Funded by Dey’s Pharmaceuticals for 1 year (2009-2010). Funds: Rs 4.91 lakhs.

11. Study of placenta for oxidative stress status in pregnant women on daily versus weekly iron supplementation: An ICMR Task Force Study. Dr SK Maulik. Funded by ICMR for 2 years (2009-2011). Funds: 8 lakhs.
12. Studies on pharmacological and molecular mechanism to investigate an angiotensin type I receptor blocker Irbesartan in experimental model of myocardial ischemia reperfusion injury. Dr. D.S. Arya. Funded by Indian Council of Medical Research for 3 years (2008-2011). Funds: Rs 22,00,000.
13. Randomized Double Blind Placebo-Controlled Study to Compare the Efficacy of Riboflavin versus Propranolol in Prophylaxis of Migraine. Dr. Kh Reeta. Funded by AIIMS for 1 year(2009-2010). Funds : Rs. 1 lakh.
14. Standardization and Pharmacological studies of widely practiced antiarthritic Unani formulation “Majoon Suranjan” based on classical Unani literature. Dr. Surender Singh. Funded by Indian Council of Medical Research (ICMR), Govt. of India for 3 years (2007-2010). Funds: Rs. 28.62 lakhs.
15. Evaluation of anti-arthritis activity of plant lipids containing omega-3 fatty acids in experimental models “Majoon Suranjan” based on classical Unani literature. Dr. Surender Singh. Funded by Indian Council of Medical Research (ICMR) for 3 years (2009-2012). Funds: Rs. 18.48 lakhs.

### Completed

1. Estimation of oxidative stress during oral iron supplementation in daily vs weekly doses among anaemic pregnant mothers. Dr SK Maulik. Funded by ICMR, 2007-2009. Funds: Rs 10 lakhs.
2. Evaluation of antihypertensive potential of *Embllica officinalis* in DOCA-salt model of rat hypertension. Dr Jagriti Bhatia. Funded by AIIMS. 2008 - 2009. Funds: Rs 1 lakh.
3. UNEP/WHO Milk Survey Project ; Human Milk Data from NCT Region. Dr. Y.K. Gupta. Funded by WHO. Funds: US \$4000
4. Comparative study of platelet aggregation, micro-inflammatory state and oxidative stress in renal transplant patients receiving different immunosuppressants. Dr Kh Reeta. Funded by AIIMS. 2008-2009. Funds: 1 lakh.
5. A randomized open label prospective study of effect of atorvastatin in insulin sensitivity and pancreatic beta cell function in type-2 diabetes mellitus patients. Dr. Surender Singh. Funded by AIIMS. 2008-2009. Funds: Rs.1 Lakh.

### Departmental Projects

#### Ongoing

1. Pharmacokinetic interaction of herbal medicines and antiepileptic drugs: the molecular mechanisms.
2. An explorative prospective open-labelled pilot study for evaluation of safety and efficacy of the nutraceutical S-adenosyl-L-methionine (SAME) in patients with osteoarthritis of knee
3. Evaluation of antiepileptic property of selected Indian plants and their mechanism of action.

4. To study the effect of immunosuppressive agents on transient ischemia model in rats.
5. Effect of *Bacopa monniera* and *Curcuma longa* in sodium valproate induced hepatotoxicity in rats
6. Adverse effects of antiepileptics and their interactions with an Ayurvedic formulation Panchgariya Ghrita: An experimental and clinical study.
7. Evaluation of potential of *Clitoria ternatea* and *Evolvulus alsinoides* extracts for cognitive impairment in rats.
8. Development of experimental model for postmenopausal dry eye in rodents
9. Development and validation of experimental animal model for diabetic retinopathy
10. Evaluation of topical COX-2 inhibitors for corneal angiogenesis
11. Corneal metabolism of drugs and their relation with endothelial toxicity in amide class of local anesthetics
12. Pharmacokinetic and Toxicity profile of High Dose Methotrexate and its Relationship with Serum Creatinine in Indian Children
13. Detection (Qualitative) and Estimation (Quantitative) using LCMS/MS of Steroids in Unlabelled Medications
14. Effect of SAME on PTZ induced seizures
15. In vitro Assessment of DNA Damage as Predictor of Response to Chemotherapy in Acute Myeloid Leukemia

### Completed

1. Effect of COX-2 inhibitor etoricoxib on tolerance to antiepileptic effect of phenobarbitone in mice.
2. Evaluation of different beta- lactam antibiotics in pentylene tetrazole induced seizures in mice.
3. A randomized double blind study to evaluate lipid modifying, anti-inflammatory, anti-oxidant efficacy and tolerability of combination of atorvastatin and ezetimibe versus atorvastatin and placebo with dyslipidemia
4. Intensive adverse drug reaction monitoring in hospital inpatients in medicine and nephrology wards in A.I.I.M.S.
5. Neurobehavioral evaluation of hydroalcoholic extract of *Emblica officinalis* with special reference to its antiepileptic activity.
6. Evaluation of chemical nature of Holi colours & their ocular toxicity.
7. Correlation of umbilical cord serum retinol levels in preterm very low birth weight infants with maternal serum retinol level at delivery.
8. Plasma level monitoring of mycophenolic acid and clinical outcome in renal transplant patients
9. Evaluation of thyroid functions and thyroid antibodies in children with epilepsy on valproate monotherapy

## Collaborative Projects

### *Ongoing*

1. Efficacy and safety of concomitant use of nevirapine and rifampicin in patients co-infected with HIV and tuberculosis in India in collaboration with department of Medicine, AIIMS
2. Functional importance of organic anion and cation drug transporters (SLC family) in the ocular disposition of drugs. In collaboration with Department of Ocular Pharmacology, AIIMS
3. Development of water soluble derivatives of isoflavones with selective affinity for estrogen and androgen receptors using CADD for post-menopausal dry eye syndrome. in collaboration with Department of Ocular Pharmacology, AIIMS
4. Prediction of ocular side effects of therapeutic agents in the experimental animal models. In collaboration with Department of Ocular Pharmacology, AIIMS
5. Isolation and evaluation of the pharmacologically active principles from marine sources. In collaboration with Department of Ocular Pharmacology, AIIMS.
6. Stereo selectivity in corneal penetration of drugs. In collaboration with College of Pharmacy, Ohio State University, USA.

### *Completed*

1. Strategies for development of ocular specific fluoroquinolones. in collaboration with Department of Ocular Pharmacology, AIIMS

## PUBLICATIONS

### **Journals**

1. Reeta KH, Mehla J, Gupta YK. Curcumin is protective against phenytoin - induced cognitive impairment and oxidative stress in rats. *Brain Res* 2009;1301:52-60.
2. Briyal S, Sharma U, Jagannathan NR, Gupta YK. Effect of vineatrol in focal cerebral ischemia in rats. *Methods Find Exp Clin Pharmacol* 2009;31:505-11.
3. Gupta YK, Katyal J, Kumar G, Mehla J, Katiyar CK, Sharma N. Evaluation of antitussive activity of formulations with herbal extracts in sulphur dioxide (SO<sub>2</sub>) induced cough model in mice. *Indian J Physiol Pharmacol* 2009;53:61-6.
4. Gupta YK, Briyal S, Sharma M. Protective effect of curcumin against kainic acid induced seizures and oxidative stress in rats. *Indian J Physiol Pharmacol* 2009;53:39-46.
5. Singh G, Siddiqui MA, Khanna VK, Kashyap MP, Yadav S. Oxygen glucose deprivation model of cerebral stroke in PC-12 cells: glucose as a limiting factor. *Toxicol Mech Methods* 2009;19: 154-60.
6. Gupta K, Singh VP, Kurupati RK, Mann A, Ganguli M, Gupta YK. Nanoparticles of cationic chimeric peptide and sodium polyacrylate exhibit striking antinociception activity at lower dose. *J Control Release* 2009;134:47-54.

7. Verma D, Gupta YK, Parashar A, Ray SB. Differential expression of L- and N-type voltage-sensitive calcium channels in the spinal cord of morphine+nimodipine treated rats. *Brain Res* 2009;1249:128-34.
8. Kumar VL, Singhal A. Germinating seeds of the mung bean, *Vigna radiata* (Fabaceae), as a model for the preliminary evaluation of cytotoxic effect of drugs. *Biocell* 2009;33:19-24.
9. Ramos MV, Oliveira JS, Figueiredo JG, Figueiredo IST, Kumar VL, Bitencourt FS. Involvement of NO in the inhibitory effect of *Calotropis procera* latex protein fractions on leukocyte rolling, adhesion and infiltration in rat peritonitis model. *J Ethnopharmacol* 2009;125:387-392.
10. Bharti S, Wahane VD, Kumar VL. Protective effect of *Calotropis procera* latex extracts on experimentally induced gastric ulcers in rat. *J. Ethnopharmacol* 2010;127:440-444.
11. Wahane VD, Kumar VL. Atorvastatin ameliorates inflammatory hyperalgesia in rat model of monoarticular arthritis. *Pharmacol Res* 2010;61:329-333.
12. Senthilkumari S, Velpandian T, Biswas NR, Bhatnagar A, Mittal G, Ghose S. Evidencing the modulation of P-glycoprotein at blood ocular barriers using gamma scintigraphy. *Cur. Eye Res* 2009;34:73-77.
13. Sahoo KC, Arora S, Goyal S, Kishore K, Ray R, Nag TC. Cardioprotective effects of benazepril, an angiotensin-converting enzyme inhibitor, in an ischaemia-reperfusion model of myocardial infarction in rats. *Journal of the Renin-Angiotensin-Aldosterone System* 2009;1-9.
14. Medhi B, Kishore K, Singh U, Seth SD. Comparative Clinical Trial of Castor Oil and Diclofenac Sodium in Patients with Osteoarthritis. *Phytotherapy Research* 2009;23:1469-1473.
15. Kumar S, Seth S, Jaiswal A, Enjamoori R, Dinda AK, Ray R. Chronic beta- adrenergic activation-induced left ventricular systolic dysfunction is associated with systemic release of TNF-alpha and IL-1-beta in rats. *Pharmacol Rep* 2009;61:870-6.
16. Kumar S, Enjamoori R, Jaiswal A, Ray R, Seth S, Maulik SK. Catecholamine-induced myocardial fibrosis and oxidative stress is attenuated by *Terminalia arjuna* (Roxb.). *J Pharm Pharmacol* 2009;61:1529-36.
17. Kumar S, Sood S, Enjamoori R, Jaiswal A, Dinda AK, Roy TS. Method for Enhanced Separation of Cardiac Myosin Heavy-Chain Isoforms by nongradient SDS-PAGE. *Analytical Letters* 2009;42:1-7.
18. Nandave M, Ojha SK, Joshi S, Kumari S, Arya DS. *Moringa oleifera* leaf extract prevents isoproterenol-induced myocardial damage in rats: evidence for an antioxidant, antiperoxidative, and cardioprotective intervention. *J Med Food* 2009;12:47-55.
19. Goyal S, Arora S, Mittal R, Joshi S, Nag TC, Ray R, Kumari S, Arya DS. Myocardial salvaging effect of telmisartan in experimental model of myocardial infarction. *Eur J Pharmacol* 2009;619:75-84.
20. Halder N, Joshi S, Nag TC, Tandon R, Gupta SK. *Ocimum sanctum* extracts attenuate hydrogen peroxide induced cytotoxic ultrastructural changes in human lens epithelial cells. *Phytother Res* 2009;23:1734-7.

21. Goyal S, Siddiqui MK, Siddiqui KM, Arora S, Mittal R, Joshi S. Cardioprotective effect of 'Khamira Abresham Hakim Arshad Wala' a Unani formulation in isoproterenol-induced myocardial necrosis in rats. *Exp Toxicol Pathol* 2010;62:61-74.
22. Jha M, Jaiswal AK, Millo T, Gupta M. Snake bite poisoning – A forensic review. *Indian Police Journal* 2009;LVI:38-50.

### Abstracts

1. Reeta KH, Pahuja M, Mehla J Gupta YK. Protective effect of *Zizyphus jujuba* against experimental models of epilepsy and seizure-induced cognitive impairment in rats. *Indian J Physiol Pharmacol* 2009, 53(5): 445.
2. Nandeesh BR, Reeta KH, Kumar Lalit, Gupta YK. Prediction of response to chemotherapy in acute myeloid leukemia by *in vitro* assessment of DNA damage using single cell gel electrophoresis (comet assay). *Indian J Physiol Pharmacol* 2009, 53(5): 446.
3. Reeta KH, Mehla J, Gupta YK. Involvement of opioidergic mechanism in the antinociceptive effect of *Acorus calamus* in formalin-induced pain response in rats. *Indian J Pharmacol* 2009; 41 (Suppl 1): S13.
4. Dahiya AK, Reeta KH, Kumar G, Gupta YK. Evaluation of the antiepileptic potential of S-adenosyl methionine in pentylenetetrazole-induced seizures in rats. *Indian J Pharmacol* 2009; 41 (Suppl 1): S58.

### Books/ Chapters in Books/ Monographs:

1. Kumar V.L., Kumar V. Anticancer properties of plant-derived food, phytochemicals and plant-expressed recombinant pharmaceuticals. Potential and challenges Chapter 13, Volume I; *Comprehensive Bioactive Natural Products*, Studium Press LLC, USA, 2010.

### PATIENT CARE

#### Clinical Pharmacology Facility

The Clinical Pharmacology wing of the department is equipped to conduct a range of studies on healthy volunteers. Recently acquired facilities include instruments for neurocognitive testing, exercise pharmacodynamics and cardiovascular parameters assessment, platelet function testing, imaging facilities and a cell culture laboratory. The facility has 20 beds including two beds in the ICU.

The department has standardised methods for estimation of lead, cadmium, copper, zinc, iron, arsenic, mercury and magnesium in biological samples using Inductively coupled plasma – Atomic Emission spectrophotometer (ICP-AES)

#### Therapeutic Drug Monitoring facility

The department provides facilities for estimation of blood levels of drugs with narrow therapeutic index like methotrexate and antiepileptics (Phenytoin, Phenobarbitone, Carbamazepine and Sodium valproate). In addition standardized methods are available for estimation of Vitamin A and E.

#### National Poison Information Centre

National Poisons Information Centre (NPIC) provides 24 hour service. Information on management of poisonings is provided to treating physicians, general public and also to governmental and non-governmental organizations.

Information on various poisonings and treatment protocols on telephone, Fax, e-mail and in person. The NPIC has the back-up of latest literature on poisoning due to a variety of products that include household items, agricultural and industrial chemicals, drugs, environmental toxins including plants, animal bites and stings and other miscellaneous products. The data received by centre is compiled and analysed for knowing the trend of poisonings.

### **Pharmacovigilance Programme of India – National Coordinating Centre**

Department of Pharmacology will be the National Co-ordinating centre for the revised Pharmacovigilance Programme of India under the Central Drugs Standard Control Organization (CDSCO), Ministry of Health, Government of India. This centre will receive adverse drug reaction data from the ADR monitoring centres across the country. The data will be collated and analysed for causality assessment of the adverse drug reactions and submitted to CDSCO.

### **Urinary Catecholamine test**

Urinary catecholamines estimation is routinely performed in the department for the diagnosis of Pheochromocytoma. A total of 156 samples from different departments were analysed during the year.

### **AWARDS AND HONOURS**

#### **Dr Y.K. Gupta**

- Elected President; Society of Toxicology, India; for 2010-12.
- Chairman - Scientific Advisory Committee: National Institute of Occupational Health, Ahmedabad. Indian Council of Medical Research, New Delhi
- Chairman – Institutional Ethics Committee, Institute of Nuclear Medicine & Allied Science (INMAS). DRDO, Ministry of Defence, Government of India.
- Chairman – National GLP Technical Committee. Department of Science and Technology, Government of India , New Delhi
- Chairman – Expert committee on Clinical Medicine and Pharmacology, Indian Pharmacopoeia Commission. Ministry of Health & Family Welfare
- Chairman - Institutional Animal Ethics Committee. AIIMS, New Delhi.
- Editor (Pharmacology), Indian Journal of Physiology and Pharmacology
- Member – Governing Body: Central Council of Research in Ayurveda & Siddha. Dept of AYUSH, Ministry of Health and Family Welfare, New Delhi.
- Member – Governing Body: Central Council of Research in Homoeopathy. Dept of AYUSH, Ministry of Health and Family Welfare, New Delhi.
- Member - Research Council: Centre for Cellular and Molecular Biology (CCMB), Hyderabad. Council of Scientific & Industrial Research (CSIR), Government of India.
- Member - Research Council: Central Drug Research Institute (CDRI), Lucknow. Council of Scientific & Industrial Research (CSIR), Government of India.



- Member – Scientific body of Indian Pharmacopeia Commission.
- Member – Scientific Advisory Committee. CCRAS, Department of AYUSH, Ministry of Health & Family Welfare.
- Member – Institutional Ethics Committee for Human Research. AIIMS, New Delhi.
- Member - ICMR-NIF (National Innovation Foundation) Initiative Committee for Planning commission in 11th five year plan. Indian Council of Medical Research, New Delhi
- Member - National Committee of IUNS-IUPS-IUPHAR, Indian National Science Academy, Bahadur Shah Zafar Marg, New Delhi. Indian National Science Academy
- Member - Core Group for National Guidelines on Chemical Disaster Management. National Disaster Management Authority, GOI, New Delhi.
- Member - Group to advise Regulation of Manufacture & Import of Multi-use Insecticides, Group on Simplification of Registration Procedure of Multi-use Insecticides, Central Insecticides Board & Registration Committee. Directorate of Plant Protection, Quarantine & Storage, Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India
- Member - Advisory Committee: ICMR for preparing medicinal plants monographs on selected diseases of public health importance. Indian Council of Medical Research, New Delhi
- Member – The Project Review Committee: Department of Science and Technology of Indo-Foreign Collaboration. Department of Science and Technology, New Delhi
- Expert Member - Project Review Committee: Indian Council of Medical Research, New Delhi. Indian Council of Medical Research, New Delhi
- Member – Project Review Committee: for Centre Council for Research in Ayurveda and Siddha. Dept of AYUSH, Ministry of Health and Family Welfare, New Delhi
- Member – Project Review Committee : for Centre Council for Research in Homeopathy. Dept of AYUSH, Ministry of Health and Family Welfare, New Delhi
- Member – Project Review Committee: for Centre Council for Research in Unani Medicine. Dept of AYUSH, Ministry of Health and Family Welfare, New Delhi
- Member - Working Group: Safety evaluation of Ayurveda, Siddha, and Unani herbal, herbo-mineral and herbo-metallic formulations. Dept of AYUSH, Ministry of Health and Family Welfare, New Delhi
- Member - Project Advisory Committee in Bio-medical Science and Technology. Department of Science and Technology, New Delhi
- Member - Advisory committee: for Indian Drugs and Pharmaceuticals Limited, Gurgaon, Haryana.
- Member - Expert Group: Emerging Technologies. Department of Science and Technology, New Delhi.
- Member - Task Force on Database / Monographs on Medicinal Plants, Medical Plants Unit. Indian Council of Medical Research, New Delhi

- Member - Institutional Review Board: National Institute of Health and Family Welfare, New Delhi. Member - Institutional Review Board: National Institute of Health and Family Welfare, New Delhi.
- Member. Management Committee of Vishram Sadans, AIIMS.
- Member, Institutional Ethics Committee (IEC), Indian Council of Medical Research, New Delhi.
- Member, Expert Committee to examine continued marketing of certain drug formulations reported to be prohibited or restricted in other countries, Director General of Health Services, Central Drugs Standard Control Organization, GOI.
- Member, Task Force on Biotechnology for Medicinal and Aromatic Plants, Department of Biotechnology, Ministry of Science & Technology, GOI.
- Member, Committee to develop a plan to create the facility of Nanotechnology in AIIMS and Collaboration with US Universities, AIIMS, New Delhi.
- Member, Medical Biotechnology and Nanotechnology Sectional Committee, AIIMS, New Delhi.
- Member – Research Committee, AIIMS, New Delhi.
- Expert member - Inspection team of Medical Council of India. Medical Council of India, New Delhi.

#### **Dr. V.L. Kumar**

- Dev Raj Bajaj Research Prize for the best paper on the development of newer technique in Pharmacology, by the Association of Physiologists and Pharmacologists of India at the annual conference, APPICON 2009, December 3-6, 2009.

#### **Dr SK Maulik**

- Elected member of American College of Clinical Pharmacology
- Fellow of Pulmonary Vascular Research Institute

#### **Dr. Surender Singh**

- Member, National Academy of Medical Sciences
- Associate Editor, Indian Journal of Physiology and Pharmacology)
- Member, Project Monitoring Committee, AYUSH, Govt. of India.
- Member, Pharmacopeia's Committee (Unani), Deptt. of AYUSH, Ministry of Health & Family Welfare, Govt. of India.
- Member, Project Evaluation Committee, CCRUM, Deptt. of AYUSH, Ministry of Health & Family Welfare, Govt. of India.
- Member, Appraisal Committee, AICTE, Ministry of HRD, Govt. of India.
- Member, Inspection Committee, AICTE, Ministry of HRD, Govt. of India.
- Member, Inspection Committee, Pharmacy Council of India, Govt. of India.

- Member, Board of Research Studies, GGS Indraprastha University, Jamia Hamdard and Uttar Pradesh Technical University.
- Member, Task Force Committee, CCRH, New Delhi
- Member, Board of Research Studies, Uttar Pradesh Technical University (UPTU), Lucknow
- Member, Programme Expert Committee, IGNOU, New Delhi.

## 9.29 Physical Medicine and Rehabilitation

### Professor and Head

U. Singh

### Additional Professor

Sanjay Wadhwa

### Associate Professors

S.L. Yadav

Gita Handa

(On deputation from 1.1.2010)

### EDUCATION

Department is involved in teaching of undergraduate medical students during MBBS course through lectures, integrated seminars and practical demonstration / visit to department including prosthetic-orthotic workshop.

Department is providing MD (PMR) training to PG students, besides orientation training of MHA, MD (Community Medicine, Pharmacology, Medicine, Rheumatology, Paediatrics), MS (Orthopaedics), DM (Neurology and Pediatric Neurology) students, WHO Fellows and postgraduate Nursing students. The faculty has been involved in guiding Post-graduate students of Orthopaedics, Pharmacology, Community Medicine and Paediatrics, Computer Facility Project trainees and also co-guiding the dissertation for students from and outside the institute.

### CME

The Faculty and Resident doctors of the department participated in a number of national and international CME Programmes, Conferences, Seminars, Symposia and Panel discussions

#### Dr. U Singh

1. Psychosocial impact of Leprosy. 3<sup>rd</sup> Annual Conference of Indraprastha Association of Rehabilitation Medicine, Dr RML Hospital, New Delhi, July 25-26, 2009.
2. Lecture and demonstration of Orthotics. During the 11<sup>th</sup> Post Graduate Instructional Course In Orthopaedics, organized by Department of Orthopaedic Surgery, MAMC and LNJP Hospitals, New Delhi, September 5, 2009.
3. Lecture and demonstration of Prosthetics. During the 11<sup>th</sup> Post Graduate Instructional Course In Orthopaedics, organized by Department of Orthopaedic Surgery, MAMC and LNJP Hospitals, New Delhi, September 5, 2009.
4. Trauma Rehabilitation. During the Trauma 2009 International Congress, CME cum Live Workshop, JPNTAC, AIIMS, New Delhi, November 14, 2009.
5. Components of Stroke Rehabilitation. 38<sup>th</sup> Annual Conference of IAPMR, SMS Hospital, Jaipur, January 22-24, 2010.

## **Dr Sanjay Wadhwa**

Organized two 1-week long Training Workshops at AIIMS on ‘Comprehensive Rehabilitation for the patients suffering from Ankylosing Spondylitis’.

### **Lectures Delivered in Conferences**

#### **Dr U Singh**

1. Dr Sushil Singh L, Dr U Singh, Dr SL Yadav, Dr Gita Handa. Outcome of a comprehensive pulmonary rehabilitation interventions on the exercise endurance and ADL in patients with COPD. IAPMR Mid Term CME 2009, Coimbatore, August 8-9, 2009.

#### **Dr. Sanjay Wadhwa**

1. Delivered a talk on ‘Grading Disabilities in Leprosy’ during the Medical Students Training Workshop on Leprosy in August, 2009 at AIIMS
2. Delivered a talk on ‘Injury Prevention in Elderly’, during the WHO-Min. of Health, Govt. of India sponsored Workshop on TEACH-VIP at GMCH, Chandigarh on 08.10.2009.
3. Delivered a talk on ‘Comprehensive Rehab Care in Injury Prevention’, during the WHO-Min. of Health, Govt. of India sponsored Workshop on TEACH-VIP at GMCH, Chandigarh on 09.10.2009.
4. Delivered a talk on ‘Ethical Issues in Injury Prevention’, during the WHO-Min. of Health, Govt. of India sponsored Workshop on TEACH-VIP at GMCH, Chandigarh on 09.10.2009.
5. Delivered a talk on ‘My experience on use of Botox injections in the Management of Spasticity’, during the 2<sup>nd</sup> PMR Specialists Meeting on Spasticity Management at Hyderabad in November, 2009.
6. Delivered a talk on ‘Clinical Gait Analysis’, during the Workshop on ‘Basics of Developmental Pediatrics’ at MAMC, New Delhi on 21.01.2010.

### **RESEARCH**

#### **Projects (Collaborative)**

#### **Dr. U. Singh**

1. Development of ICF core set for hand conditions, in collaboration with ICF Research Branch of WHO CC F IC (DIMDI) Institute for Health and Rehabilitation Sciences, Ludwig-Maximilian University, Germany
2. Skeletal muscle strength including its energy metabolism, bone mineral homeostasis and Th1/Th2 cytokines expression in Asian Indians with chronic hypo-vitaminosis D before and after oral cholecalciferol supplementation, in collaboration with Dr R Goswami, Endocrinology and Metabolism, AIIMS. Applied for funding to ICMR.

#### **Dr. Sanjay Wadhwa**

“Open Label Efficacy Trial of Valproate in Children with Spinal Muscular Atrophy”, funded by AIIMS.

## PUBLICATIONS

1. Sanjay Wadhwa. Book Review. Principles of Exercise Prescription. Milind V Bhutkar. *National Medical Journal of India* Vol. 22, No. 2, March-April 2009, 96-97.
2. Prakash O, Singh U, Yadav SL, Kishore K, Handa G, Dwivedi SN. Effect of Alprazolam in Spasticity: A Pilot Study. *IJPMR*; 20 (1):6-12.
3. Prasad Byrav D S, B Medhi, A Prakash, S Patyar, S Wadhwa. Lornoxicam: a Newer NSAID *IJPMR* 2009; 20 (1):27-31.
4. Srikumar V, Wadhwa S, Singh U, Yadav SL, Handa G. Contractures and Drug Abuse. *IJPMR* 2009; 20 (1): 34-35.
5. Gupta AK, Yadav SL, Singh U, Wadhwa S, Kumar A, Borah D, Pandey RM. Correlation Between Instrumental Hand Function and Activities of Daily Living in Rheumatoid Arthritis. *IJPMR* 2009; 20 (2): 48-51.
6. Medhi B, Kishore K, Singh U, Seth SD. Comparative clinical trial of castor oil and diclofenac sodium in patients with osteoarthritis. *Phytother Res.* 2009 Oct;23(10):1469-73.
7. Sanjay Wadhwa. Exercise in Hypertension- Its Role and Recommendations *Ann Nat Acad Med Sc* Vol 46, No. 1, 2010 pp 33-44.

## Chapter in book

Srikumar V, Singh U. Physical Medicine and Rehabilitation Interventions in Rheumatic Diseases. In: Syngle A, Deodhar SD, eds. *Rheumatology Principles and Practice*. New Delhi: Jaypee Brothers Medical Publishers; 2010: 382-94.

## PATIENT CARE

The Department provides Outpatient, Inpatient and Outreach services to people with disabilities. The department has many diagnostic as well as therapeutic facilities which include comprehensive rehabilitation facilities, Balance lab, Computerised dynamometry, Electro physiology Lab, Minor O.T etc

Cases	Patient Care Area	No. of Patients
New Cases	OPD	14042
	Ballabgarh	4352
	Camps	105
	Prosthetic & Orthotic	3749
<b>Total New Cases</b>		<b>22248</b>
Old Cases	OPD	10369
	OPD Visits PT Section	14636
	OPD Visits OT Section	22203

	OPD Visits MSW	7113
	OPD Visits Voc Counselor	3243
	Disability Evaluation Clinic	92
	Railway Concession Certificates	435
	Prosthetic & Orthotic	14227
	Minor OT Procedures	2565
	<b>Total Old Cases</b>	<b>74883</b>

## AWARDS AND HONOURS

### Dr. Sanjay Wadhwa

1. Awarded the 1<sup>st</sup> Prize in the Essay Competition in Hindi during the ‘Hindi Pakhwara’, on 14.09.2009, organized by AIIMS.
2. Awarded Consolation Prize in the Debate Competition in Hindi during the ‘Hindi Pakhwara’, on 14.09.2009, organized by AIIMS.

### Dr. U. Singh

1. Invited to represent the country for the consensus meeting for the Development of ICF Core Sets for Hand Conditions, organized by the ICF Research Branch of WHO CC FIC (DIMDI), Ludwig Maxmilians Universtat, Institute of Health and Rehabilitation Sciences, Munich, Germany, held at Switss Paraplegia Research, Nottwil, Switzerland, from May 7-9, 2009.
2. Member of the Sub-Committee on Locomotor, Leprosy Cured etc., of Rehabilitation Council of India, Ministry of Social Justice and Empowerment.
3. Chairman, Specialty Advisory Board in PMR, National Board of Examinations.
4. Chairman, Technical Advisory Group, Mission Mode Project, Ministry of Social Justice and Empowerment, Government of India.
5. Member, Executive Council, National Institute for the Orthopaedically Handicapped, Kolkata.
6. Inspector, GGS IP University, Govt. of NCT, Delhi.
7. Member BIS, Rehabilitation Appliances and Equipment for Disabled Sectional Committee (MHD 10)
8. Consulting Editor and Reviewer, Journal of Rehabilitation Council of India Locomotor and Associated Disabilities.
9. Editor, Indian Journal of Physical Medicine and Rehabilitation.
10. Editorial Board Member, Indian Journal of Physiotherapy and Occupations Therapy.
11. Member, Advisory Committee to monitor upgradation of facilities in the departments of PMR in medical colleges, DGHS, Ministry of Health and Family Welfare, Govt. of India.



12. Chairman, Expert Committee for upgradation of facilities in the Departments of Physical Medicine and Rehabilitation in Medical Colleges, DGHS, Ministry of Health and Family Welfare, Govt. of India.
13. Member, Research Committee, Guru Nanak Dev University, Amritsar.
14. Member Curriculum committee, PMR, for Medical Council of India.
15. Inspector, Medical Council of India.
16. Chairman, Scientific Session 1a, Stroke Rehabilitation, 38<sup>th</sup> Annual Conference of Indian Association of Physical Medicine and Rehabilitation, SMS Hospital, Jaipur, January 23, 2010.
17. Honorary member of the editorial board for the International Journal of BioSciences and Technology (IJBST) ISSN: 0974 -3987.

**Dr. Sanjay Wadhwa**

1. Editor, Annals of the National Academy of Medical Sciences (India)
2. Honorary Secretary, National Academy of Medical Sciences (India)
3. Vice-President, Indraprastha Association of Rehabilitation Medicine
4. Dean, Faculty of Physiotherapy, Baba Farid University of Health Sciences (BFUHS), Faridkot
5. Member, Academic Council, BFUHS
6. Member, Finance Committee, BFUHS
7. Member, Planning Board, BFUHS
8. Member, Committee for drafting MPT Syllabus and Ordinances, Baba Farid University of Health Sciences (BFUHS), Faridkot
9. Founder Member, Indian Career Development Association
10. Member, Publication Advisory Committee, NAMS (India)
11. Member, Selection Committee, Saket College of Physiotherapy, Chandimandir
12. Member, Academic Council, Saket College of Physiotherapy, Chandimandir
13. Member, Committee formed by DGHS for strengthening of PMR services in Medical College Hospitals under 11<sup>th</sup> Five-Year Plan. Visited RIMS, Ranchi
14. Member, Curriculum Committee formed by Medical Council of India for revision of Syllabus in PMR at PG Degree and Diploma levels
15. Member, Curriculum Committee formed by National Board of Examinations, India for revision of DNB Syllabus in PMR
16. Member, Committee formed under Special DGHS to review Technical Specifications for Equipments for setting up a Sports Injury Centre at Safdarjang Hospital, New Delhi
17. Member, Committee formed under DGHS for development of a National Health Portal in India

18. Member, Committee formed under Special DGHS to review Paramedical and Physiotherapy Council Bill
19. Nominated Venue Medical Officer Incharge, Thyagaraj Sports Complex for the Commonwealth Games 2010
20. Examiner, MD (PMR) Examination under the Rajasthan University of Health Sciences
21. Examiner, DNB (PMR) Examination under the National Board of Examinations (India)
22. Appointed twice as an Examiner, PhD (Viva-Voce) Examination, University of Delhi
23. Requested for reviewing articles submitted for publication in the National Medical Journal of India and the Indian Journal of Community Medicine
24. Guided Thesis of MS Ortho student at PGI, Chandigarh
25. Guiding Thesis of MD (PMR) students at AIIMS

## **SIGNIFICANT EVENTS**

### **Mass Media**

Total Health, live phone in program on Winters and Arthritis, telecast on DD News, January 17, 2010.

Delivered a **Key-note Address** on ‘Career Development related to Disability Sector’ at the National Symposium on Career Development in India held at University of Delhi on 13.01.2010.

Delivered a **Key-note Address** on ‘Research in Health Sector in India’ at the National Workshop on Research Methodology for PhD Scholars and Teachers held at University of Delhi on 04.02.2010.

### **Camps**

Faculty and residents participated in different camps at Srikrishna Janambhumi Mandir at Mathura

### **Community Services**

Dr. U. Singh delivered a Health Talk on “Prevention and Treatment of Osteoporosis” in the WHO SEARO Office, September 30, 2009.

## 9.30 Physiology

### Professor and Head

J. Sengupta

### Professors

R. Mathur

K. K. Deepak  
(on leave)

H. N. Mallick  
(on leave and joined  
on 01.05.09)

D. Ghosh

S.C. Mahapatra

### Additional Professors

K.P. Kochhar

### Associate Professors

R. Sharma  
A. K. Jaryal

N. Mehta  
R. K. Yadav

S. Jain  
A. Talwar

### Assistant Professor

S. K Sood  
(on leave from 24.8.2009)

## EDUCATION

The department provided about 400 hours of teaching to the first year MBBS students and about 60 hours of teaching to students of B.Sc. Nursing and allied courses, besides conducting M.Sc. (Physiology) and MD (Physiology) courses and guiding PhD students.

### Short-term and long-term training

The department provided short-term training for two month (19.01.2010 to 17.03.2010) to Associate Professor, Department of Physiology, Pramukhswami Medical College, Karamsad, Gujarat; a student, B Tech, Biotechnology, SVBPU & T, Modipuram, Meerut, UP from June to August 2009 and a student from Presidency College, Kolkata from June - August, 2009.

## CME

### Lectures delivered

#### Dr H. N. Mallick

“Current status of sleep medicine and research in India”, at the Asian Sleep Research Society summit and symposium on “Sleep research and medicine”, at Bankoku Shynryokan, Nago, Okinawa; 25 Oct. 2009 organized by Japanese Society for Sleep Research.

Course Director, National Sleep Medicine Course 2009 organized at India Habitat Centre, New Delhi, 12-13 Dec. 2009 organized by Dr. M. Bhatia, Sir Gangaram Hospital, New Delhi.

“The waking brain”, National Sleep Medicine Course 2009, at India Habitat Centre, New Delhi; 12 Dec. 2009 organized by Dr. M. Bhatia, Sir Gangaram Hospital, New Delhi.

### **Dr N. Mehta**

“Improving practical Assessment - Use of OSPE” in CME on Medical Education organized by the Medical Education Unit and the department of Anatomy at Maharishi Markandeshwar Institute of Medical Sciences & Research, Ambala; 31 October - 1 November, 2009.

### **Dr A. Jaryal**

The Department of Physiology conducted the workshop on “Information Retrieval in Health Sciences” (hands on), Centre for Medical Education and Technology, AIIMS, 15-16<sup>th</sup> Feb., 2010.

## **National and International Conferences**

### **International Conference**

#### **Dr J. Sengupta**

Organized Meeting of ‘Moving into the Future: New Dimensions and Strategies for Women’s Health Research’, in University of California San Francisco; Women’s Health, National Institute of Health, USA; 27-29 May, 2009.

Organized the XXXVI IUPS Satellite Symposium on Endometrial Receptivity and Blastocyst Implantation in Kyoto, Japan; 25 July, 2009.

Organized Indo-US ‘Hands On’ Workshop on ‘Microarray in Endometriosis: Clinics to Research Laboratory’ at AIIM; 3-7 November 2009.

#### **Dr H.N. Mallick**

Organized and chaired a symposium on “Better Sleep” during 6<sup>th</sup> Asian Sleep Research Society Congress at Osaka, Japan, 26 October 2009.

#### **Dr D. Ghosh**

Organized Meeting of ‘Moving into the Future: New Dimensions and Strategies for Women’s Health Research’, in University of California San Francisco; Women’s Health, National Institute of Health, USA; 27-29 May, 2009.

Organized ‘Hands On’ Indo-US Workshop on ‘Microarray in Endometriosis: Clinics to Research Laboratory’ at AIIMS; 3-7 November 2009.

#### **Dr. S.C. Mahapatra**

Convener “International Symposium on Medicinal and Nutraceutical Plants”, 25-27 November 2009 at AIIMS, New Delhi.

### **National Conference**

#### **Dr R. Sharma**

Organized a workshop on “Yoga in teaching and research” Goa Medical College, Goa; 20 Aug. 2009.

Organizing secretary, national workshop on “Assessment Methods for Learning Evaluation in Basic Medical Sciences” at AIIMS, New Delhi; 16-18 Sept., 2009.

### **Dr. N. Mehta**

Organized Workshop “Research Methodology” in collaboration with the Medical Education Unit, Subharti Medical College, Swami Vivekanand Subharti University, Meerut (UP); 3 – 4 July, 2009.

Organized Workshop “Yoga in teaching and research’ Goa Medical College, Babolim, Goa; 20 August, 2009.

Organizing Secretary of the workshop on “Ethics in Healthcare & Research”, Centre for Medical Education and Technology, AIIMS, 10 - 12 February, 2010.

### **Lectures delivered**

#### **International Conference**

### **Dr. J. Sengupta**

“Accessing Modern Contraceptive Technologies in India”, in the Working Group on Global Health, Women’s Health, National Institute of Health, University of California San Francisco, USA; 27-29 May, 2009.

“Global genomic profiling and differential expression of genes in autologous eutopic and ectopic endometrium of women in stage III of endometriosis”, in the Pacific Symposium on Biocomputation (PSB-2010), Farimont Orchid, Big Island (Kona), Hawaii; 4 - 8 January, 2010.

### **Dr R. Mathur**

“Modulation of biphasic nociceptive response of sucrose ingestion by VMH: Role of b-endorphin” in International Conference on “Neurosciences updates & Asia Pacific Society for Neurochemistry, International Brain Research Organization & International Society for Neurochemistry”, Centre for Neuroscience, University of Science & Technology, Cochin; 7 – 14 December, 2009.

### **Dr K.K. Deepak**

“Lifestyle modifications in bronchial asthma: autonomic and immunologic considerations”, Osher Research Center, Harvard Medical School, Harvard University, Boston, USA; 12 September, 2009.

“Gender based psychometric analysis of medical students’ assessment” in 7<sup>th</sup> GCC Medical Colleges Conference organized by King Faisal University, Dammam, Kingdom of Saudi Arabia; 18 Nov 2009.

“Steps of constructing OSPE/OSCE” in workshop on Assessment Strategies –II, College of Medicine organized by King Faisal University, Dammam, Saudi Arabia; 6 May 2009.

“International Database for Enhanced Assessments and Learning (IDEAL) and its banking system” in workshop on Assessment Strategies-II, College of Medicine organized by King Faisal University, Dammam, Saudi Arabia; 7 May 2009.

### **Dr. H.N. Mallick**

“Brain mechanism for the recognition of food intake and formation of satiety” in 19<sup>th</sup> International Congress of Nutrition Congress on “Glutamate function in human nutrition, taste and satiety”, Bangkok, Thailand; 8 October, 2009.

“Ambient temperature and sleep” in “6<sup>th</sup> Asian Sleep Research Society Congress”, Osaka, Japan; 26 October, 2009.

“Sleep and body temperature changes produced by destruction of preoptic warm sensitive neurons of rats” in “6<sup>th</sup> Asian Sleep Research Society Congress”, Osaka, Japan; 26 October, 2009.

“Effect of lateral preoptic area lesion on sleep, hypothalamic and body temperature in rats” in “6<sup>th</sup> Asian Sleep Research Society Congress”, Osaka, Japan; 26 October, 2009.

### **Dr D. Ghosh**

‘Transcriptomics of endometrial receptivity’ in the XXXVI International Union of Physiological Sciences Satellite Symposium on ‘Endometrial Receptivity and Blastocyst Implantation’ in Kyoto, Japan; 25 July, 2009.

“Build heuristics to assure sufficient information and efficient negentropy, and integrate them locally and globally to ensure meaningful genesis of future strategies for women’s health”, in the Working Group on Stem Cells”, Women’s Health, National Institute of Health (NIH), University of California San Francisco, USA; 27-29May, 2009.

“Small scale transcript expression networks in receptive stage endometrium” in the Pacific Symposium on Biocomputation (PSB-2010), Farimont Orchid, Big Island (Kona), Hawaii; 4- 8 January, 2010.

### **Dr. K.P. Kochhar**

“Relevance of traditional Indian medicinal plants in modern medicine” in 2<sup>nd</sup> International Symposium on Medicinal and Nutraceutical Plants, AIIMS, New Delhi; 25-27 November, 2009.

“Dietary spices: tradition to modernity, Physiological effects of Indian dietary spices” in 2<sup>nd</sup> International Symposium on Medicinal and Nutraceutical Plants, AIIMS, New Delhi; 26 November 2009.

“Benefits of traditional Indian practices and yoga in health and disease” in 2<sup>nd</sup> International Symposium on Medicinal and Nutraceutical Plants, AIIMS, New Delhi; 26<sup>h</sup> November 2009.

### **Dr R.K. Yadav**

“Peritoneal fluid leptin level in pelvic endometriosis” in the “36<sup>th</sup> International Congress of Physiological Sciences”, Kyoto, Japan; July 27- August 1, 2009.

### **National conference**

#### **Dr R. Mathur**

“Effect of whole body magnetic field exposure on the sensori-motor recovery in spinalised rats”, in national Symposium on “Nano-Sciences: Theory and Applications and Workshop on Microwaves: Principles and Applications”, Jawaharlal Nehru University, New Delhi; 5– 7 November, 2009.

“Study of chronic exposure to magnetic field on pain status of fibromyalgia patients” in 27<sup>th</sup> Annual Conference of Indian Academy of Neurosciences, “Recent Advances in Neurosciences”, National Institute of Medical Sciences, University, Jaipur; 18-20 December, 2009.

“Application of brain microdialysis in pharmacokinetic and pharmacodynamic studies of neuroactive compounds”, in national symposium on “Contemporary Technologies & Concepts Revolutionizing Drug Discovery Strategies”, AIIMS, New Delhi; 3-5 February, 2010.

#### **Dr R. Sharma**

“Yoga in research”, Workshop on Yoga in Research and Teaching, Goa Medical College, Goa; 20 August 2009.

“Stress management”, Goa Medical College, Goa; 20 August 2009.

“Mechanics of paper setting”, in national workshop on “Assessment Methods for Learning Evaluation in Basic Medical Sciences”, AIIMS, New Delhi; 16-18 September, 2009.

### **Dr. N. Mehta**

“Medical Ethics - The core of Doctor-Patient relationship” in Seminar on Doctor-Patient relationship organized by Himalayan Institute of Medical Sciences, Dehradun and Association of British Scholars, 26 April, 2009.

“Group Dynamics” in Workshop on ‘Research Methodology’, Subharti Medical College, Swami Vivekanand Subharti University, Meerut, 3-4 July, 2009.

“Fundamentals of biomedical research”, in Workshop on ‘Research Methodology’, Subharti Medical College, Swami Vivekanand Subharti University, Meerut, 3-4 July, 2009.

‘Bioethics in research’ in Workshop on ‘Research Methodology’, Subharti Medical College, Swami Vivekanand Subharti University, Meerut, 3-4 July, 2009.

“Grant proposal writing” in Workshop on ‘Research Methodology’, Subharti Medical College, Swami Vivekanand Subharti University, Meerut, 3-4 July, 2009.

“Ethics in Research & Orthodontic practice” in SAARC Orthodontic conference - Current perspectives in Clinical Care, Education & Research, Organized by Centre for Dental Education and Research, AIIMS under the aegis of Ministry of External Affairs, Govt. of India and SAARC Secretariat, Kathmandu, Nepal, at India Habitat Centre, New Delhi 3-4 August, 2009,.

“Role of Yoga in Education” in workshop on ‘Yoga in teaching and research’, Goa Medical College, Babolim, Goa, 20 August, 2009.

“Introduction and Group dynamics” in national workshop on ‘Assessment Methods for Learning Evaluation in Basic Medical Sciences, AIIMS, New Delhi; 16-18 September, 2009.

“SAQs and SEQs in Assessment” in national workshop on ‘Assessment Methods for Learning Evaluation in Basic Medical Sciences, AIIMS, New Delhi; 16-18 September, 2009.

“Problem Based Learning and its Assessment” in national workshop on ‘Assessment Methods for Learning Evaluation in Basic Medical Sciences, AIIMS, New Delhi; 16-18 September, 2009.

“Oral Assessment” in national workshop on ‘Assessment Methods for Learning Evaluation in Basic Medical Sciences, AIIMS, New Delhi; 16-18 September, 2009.

“How to write a research proposal” in national workshop on ‘Research Methodology’ organized by the Central Council for Research on Yoga and Naturopathy, Ministry of Health and Family Welfare, Govt. of India, 23-25 November, 2009.

### **Dr. A. Jaryal**

“Item analysis and question banking”, in national workshop on “Learning Evaluation in Basic Medical Sciences”, Department of Physiology, AIIMS, New Delhi; 16-18 September, 2009.

“Improving practical assessment”, in national workshop on “Learning Evaluation in Basic Medical Sciences”, Department of Physiology, AIIMS, New Delhi; 16-18 September, 2009.



“Insights into cardiovascular physiology through signal processing” in national workshop on “Biomedical Engineering”, Department of Biomedical Engineering Deenbandhu Chhotu Ram University of Science and Technology, Murthal, Haryana; 12-13 November, 2009.

“Electrocardiography: analysis and interpretation: software vs physician”, in “Indian Confederation of Healthcare Accreditation Convention for Patient Safety”, Parkland Exotica, Chattarpur, Delhi; 27 – 29 November, 2009.

### **Dr A. Talwar**

“How to conduct an OSPE”, in national workshop on “Assessment Methods for Learning Evaluation in Basic Medical Sciences”, AIIMS, New Delhi; September 16-18, 2009.

## **RESEARCH**

### **Funded**

#### *Completed*

1. Defining endometrial receptivity for blastocyst implantation using cDNA based array technology PI: D. Ghosh, Co-I: J. Sengupta. Funded by Department of Science and Technology, from 13 April 2006 to 12 April 2009. Funds: Rs.44,48,700/-.
2. Motor responses to noxious/non-noxious stimuli in spinalised humans and rats: Role of electromagnetic stimulation in recovery. PI: R. Mathur, Co-PI: M. Behari, J. Behari, A. Gupta. Funded by the Department of Science and Technology, (Integrated long term programme of cooperation in science & technology between India and Russia) from April 2006 to September 2009. Funds: Rs.32,67,339/-.
3. A study to assess acute mental stress induced changes in EEG, cognitive behavior and neurosteroids across the menstrual cycle and effect of meditation on stress induced changes. PI: R. Sharma, Co-I: R.L. Bijlani, A. Talwar. Funded by: Central Council for Research in Yoga and Naturopathy, Ministry of Health, from: April 2006 to February 2010. Funds: Rs.15,00,000/-.
4. Prenatal auditory sound stimulation: effect on spatial memory and expression of synaptic proteins in chick hippocampus. PI: S. Jain, Co-I: R. Mathur, S. Wadhwa. Funded by Council of Scientific and Industrial Research from August 2006 to August 2009. Funds: Rs.15,00,000/-.
5. Role of glutamate microinjection at the POA on sleep-wakefulness. PI: H.N. Mallick, Co-I: V. Mohan Kumar. Funded by the Ajinomoto, Incorporation Company, Japan from April 2006 to March 2009. Funds: Rs 6,00,000/-.
6. Role of the warm receptors of the preoptic area in altering sleep. PI: H.N. Mallick. Funded by Defense Institute of Physiology and Allied Sciences from 28 August 2003 to 27 August 2009. Funds: Rs 5,00,000/-.
7. Neural correlates of conflict: An event related functional magnetic resonance imaging study: PI: S.K. Sood. Co I: S. Kumaram. Funded by AIIMS Research Grant from April 2006 to March 2008. Funds: Rs.1,30,000/-.
8. Effect of exposure to magnetic field following implantation of ferromagnetic plates on the recovery from spinal cord injury in rats. PI: S. Jain, Co-I: R. Mathur. Funded by AIIMS Research Grant, from: May 2008 to March 2009. Funds: Rs.1,00,000/-.

## Ongoing

1. Elucidating endometriosis using genomic strategy. PI: J. Sengupta, Co-I: D. Ghosh. Funded by Department of Biotechnology from 29 March 2008 to 28 March 2010. Fund: Rs.1,66,94,000/-
2. Understanding endometriosis – proteomics strategy PI: Jayasree Sengupta, Co-I D. Ghosh. Funded by Ministry of Science and Technology, Department of Science and Technology 31 March 2010 from 30 March 2013 to Funds:Rs.35,00,000/-.
3. “Modulation of the activity of barosensitive and chemosensitive neurons in nucleus tractus solitarius by medial preoptic area stimulation in rats”. PI: A. Jaryal, Co-I: K.K Deepak, H. N. Mallick. Funded by Ministry of Science and Technology, Department of Science and Technology from 29 December 2009 to 28 December 2012. Funds:Rs.34,83,000/-.
4. Endometrial receptivity for blastocyst implantation in the primate: Systems biology approach. PI: D. Ghosh, Co-I: J. Sengupta. Funded by Ministry of Science and Technology, Department of Science and Technology from 18 December 2009 to 17 December 2012. Funds: Rs.34,10,000/-.
5. Role of human chorionic gonadotropin in endometrial receptivity for pregnancy establishment. PI: J. Sengupta, Co-I: D. Ghosh. Funded by Department of Science and Technology from: 28 November 2008 to 27 November 2011. Funds:Rs.33,89,400/-.
6. Event related evoked potential studies in dyslexics. Funded by Department of Science and Technology, Government of India, PI: S.K. Sood, Co-I: R. Sagar from February 2009 to January 2011. Funds:Rs.32,45,600/-.
7. 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. PI: S. Jain. Co-I: R. Mathur, J. Behari. Funded by Department of Science and Technology from August 2009 to August 2012. Funds: Rs.29,00,000/-.
8. Development of blood flow variability (BFV) software using impedance plethysmography technique and derivation of BFV-BPV relationship. PI: A.K. Jaryal, Co-I: K.K. Deepak. Funded by: Ministry of communication and information technology (MCI) from 5 November, 2008 to 5 November, 2010. Funds: 29,00,000/-.
9. Efficacy of Yoga and dietary management in sedentary overweight subjects with regards to markers of endothelial dysfunction, obesity and diabetes. PI: R.K. Yadav, Co-I: Dr. S.C. Mahapatra. Funded by Central Council for Research in Yoga and Naturopathy, Ministry of Health & Family Welfare, Govt. of India from: December 2009 –December 2012. Funds: Rs.23,00,000/-.
10. To study the effect of repeated magnetic stimulation on sensori-motor recovery in spinal cord injured patients. PI: R. Mathur, Co-I: S. Jain, J. Behari, S.Y. Kothari. Funded by Department of Science and Technology from 19 January 2009 to 18 January 2011. Funds:Rs.19,88,140/-.
11. Effect of bone marrow stromal cells transplantation and magnetic stimulation in the sensory-motor functional recovery of spinalised rats”. PI: R. Mathur. Co-PI: S. Mohanty, Co-I: S. Jain. Funded by Indian Council of Medical Research from 1 January, 2008 to 9 January 2011. Funds: Rs.16,05,952/- .

12. The role of proteomic approach and biomarkers in the diagnosis of endometriosis. PI: R.K. Yadav, Co-I: A. Kriplani, A. Srinivasan. Funded by Council of Scientific and Industrial Research from January 2008 to January 2011. Funds: Rs.16,00,000/-.
13. Immunomodulatory effects of Tulsi (*Ocimum sanctum* Lin) extracts on healthy human subjects. PI: S.C. Mahapatra. Co-I: N. Mehta, S.N. Naik, S. Verma and A. C. Kar. Funded by Central Council of Research in Ayurveda and Siddha, New Delhi from August 2007 to July 2010. Funds: Rs.14,92,419/-.
14. Psychoneuroimmune effects of meditation: an evaluation by PET and biochemical markers. PI: R.K. Yadav, Co-I: C. S. Bal, S.C. Mahapatra. Funded by Department of Biotechnology from February 2008 to Feb. 2011. Funds:Rs.14,00,000/-.
15. The role of lateral preoptic area in regulation of body temperature, thermal preference, sleep-wakefulness and homeostatic restoration of sleep during chronic cold exposure in rats. PI: H.N. Mallick, Co-I: V. Mohan Kumar. Funded by from 15 January 2007 to 14 January 2010. Funds:Rs.9,78,500/-.
16. Cognition induced changes in brain oscillations. PI: R. Sharma, Co-I: A. Talwar, R Sagar, Institute research grant from April 2009 to March 2011. Funds:Rs.1,00,000/-.
17. Behavioural development of visual system following prenatal chronic auditory stimulation in chicks (*Gallus domesticus*). PI: S. Jain. Co-I: R. Mathur, S. Wadhwa. Funded by Institute research grant from May 2009 to March 2010. Funds: Rs.1,00,000/-.
18. To study the effect of *Ocimum sanctum* (Tulsi) leaf extract on Event related potentials in healthy adults. PI: A. Talwar, Co-I: R Sharma, S.C. Mahapatra. Funded by Institute research grant from April 2009 to March 2011. Funds: Rs.1,00,000/-.

## **Departmental Research**

### ***Completed***

1. Role of ventromedial hypothalamus in biphasic responses to various pain stimuli in sucrose fed rat.
2. Effect of MF exposure on pain modulation status of rats.

### ***Ongoing***

1. Effect of chronic endogenous hypercortisolism on vascular endothelial function in cushing Syndrome patients.
2. Assessment of vascular function before and after renal transplantation.

## **Collaborative Research**

### ***Completed***

1. Influence of prenatal auditory stimulation on the development of synaptic proteins, brain derived growth factor and spatial memory in chick hippocampus. (Department of Anatomy)
2. Calibration and interpretation of the physiological measurement in research development of new curriculum in the area of sound and vibration. (with Mechanical and industrial engineering, IIT, Roorkee)

3. Heart rate variability in chronic obstructive pulmonary disease, association with systemic inflammation and clinical implications. (With Vallabhbhai Patel Chest Institute, Delhi University)
4. A comparison of autonomic function before and after surgical intervention in patients with temporal lobe epilepsy. (With Neurology, Neurosurgery)
5. Correlation between cardiovascular autonomic function and myocardial ischemia. (With Cardiology)
6. Cardiovascular autonomic functions after myocardial infarction: effect of short-term exercise training. (With Cardiology)
7. Electroencephalographic and sympathetic responses to visual and cues with emotional and rational contents. (With Atal Bihari Vajpayee Indian Institute of Information Technology and Management, Gwalior)

### *Ongoing*

1. Purglautation of human adult retinal pigment epithelial (GRPE) cells in the 6-OHD and lesioned rat model of Parkinsons' disease (PD). (With Neurology, AIIMS)
2. Influence of prenatal chronic noise exposure on brain stem auditory nuclei, hippocampus and spatial memory in chicks. (Department of Anatomy)
3. Evaluation of reflexology as an adjunctive therapy in children with west syndrome. (With Biophysics, AIIMS)
4. A study of heart rate variability, blood pressure variability, baroreflex sensitivity and arterial stiffness in chronic kidney disease stages 4 and 5 in Indian population. (With Nephrology, AIIMS)
5. Isoflurane and vecuronium dose requirement in diabetic patients with and without diabetic auto neuropathy undergoing elective surgery; as determined by entropy and neuromuscular transmission (NMT) monitory – Blinded study. (Department of Anaesthesia)
6. Non-invasive assessment of vascular function in patients with chronic endogenous hypercortisolism. (With Endocrinology)
7. Autonomic dysfunction in newly detected Type-II diabetes mellitus patients. (With Endocrinology)
8. Psychoneuroimmune effects of meditation: an evaluation by PET and biochemical markers. (With Nuclear Medicine, AIIMS)
9. The role of proteomic approach and biomarkers in the diagnosis of endometriosis. (With Obstetrics and Gynaecology, AIIMS)
10. Effect of priming on stroop task performance using event related functional magnetic resonance imaging, Department of Nuclear Magnetic resonance, AIIMS.
11. Study of eye movement abnormalities in patients of young onset Parkinson's Disease, Neurology, AIIMS.

12. Assessment of Cognitive Functions, pre and post renal transplantation in patients of chronic kidney disease on maintenance hemodialysis, Nephrology, AIIMS.
13. Cognition in Pregnancy and Elderly, Indian Institute of Technology, New Delhi.

## PUBLICATIONS

### Journals

1. Ghosh D, Sharkey AM, Charnock-Jones DS, Smith SK, Sengupta J. Effect of low-dose mifepristone administration on day 2 after ovulation on transcript profiles in implantation-stage endometrium of rhesus monkeys. *Reproduction* 2009; **138**: 357-370.
2. Ghosh D. Scientists playing God! *Indian J Physiol Pharmacol* 2009; **53**: 195-196.
3. Ghosh D. Vindication is not the business of science. *Indian J Physiol Pharmacol* 2009; **53**: 1-2.
4. Jaryal A.K, Selvaraj N, Santhosh J, Anand S, Deepak K.K. Monitoring of cardiovascular reactivity to cold stress using digital volume pulse characteristics in health and diabetes. *J Clin Monit Comput.* 2009; **23(2)**:123-30.
5. Jaryal AK, Selvaraj N, Santhosh J, Anand S, Deepak KK. Monitoring of cardiovascular reactivity to cold stress using digital volume pulse characteristics in health and diabetes. *J Clin Monit Comput.* 2009 Apr; **23(2)**:123-30.
6. Kaushik K, Mallick H.N, Kumar V.M. Changes in hypothalamic temperature during 24 hrs in rats. *Indian J. Physiol Pharmacol* 2009; **53**:88-92.
7. Kondoh T, Mallick H.N. Torii K. Activation of the gut-brain axis by dietary glutamate and physiologic significance in energy homeostasis. *Am J Clin Nutr* 2009; **90**:832S-837S.
8. Kumar D, Mallick H.N., Kumar VM. Ambient temperature that induces maximum sleep in rats. *Physiol Behav* 2009; **98**:186-191.
9. Manjhi J, Mathur R, Behari J. Effect of low level capacitive-coupled pulsed electric field stimulation on mineral profile of weight-bearing bones in ovariectomized rats. *J Biomed Mater Res B Appl Biomater.* 2010; **92(1)**:189-95.
10. Mondal S, Bamola VD, Mahapatra SC (2009), Plant as a Medicine: Need of Scientific Exploration of Traditional Knowledge. *The Pharma Review*: 2009; **7**: 101-102.
11. Mondal S, Mirdha BR, Mahapatra SC (2009), The Science behind sacredness of Tulsi (*Oscimum sanctum* Linn.). *Indian J Physiol Pharmacol*: 2009; **53**: 291-306.
12. Mukherjee S, Tripathi M, Chandra PS, Yadav R, Choudhary N, Sagar R *et al.* Cardiovascular autonomic functions in well-controlled and intractable partial epilepsies. *Epilepsy Res.* 2009 Aug; **85(2-3)**:261-269.
13. Najwa AR, Sengupta J, Ghosh D. A systems biology approach towards understanding the process of blastocyst implantation. *Indian J Physiol Pharmacol* 2009; **53**: 197-208.
14. Naskar S, Sood SK and Goyal V. Effect of acute deep brain stimulation of the subthalamic nucleus on auditory event-related potentials in Parkinson's disease. *Parkinsonism & Related Disorders*, Online publication complete: 8-FEB-2010; DOI information: 10.1016/j.parkreldis.2009.12.006

15. Punj J, Jaryal A, Mahalingam S, Mukundan C, Pandey R, Darlong V *et al.* Toe gangrene in an infant subsequent to application of adult-type pulse oximeter probe for 10 min. *Journal of Anesthesia* DOI:10.1007/s00540-010-0930-5. Accepted: March 1, 2010 (in press).
16. Ramakrishnan S, Malik V, Karthikeyan G, Seth S, Yadav R, Singh S *et al.* Acute hemodynamic effects of sildenafil in patients with idiopathic dilated cardiomyopathy. *Indian Heart J.* 2008 Nov-Dec; **60(6)**:599-601.
17. Selvaraj N, Jaryal A.K, Santhosh J, Anand S, Deepak KK. Monitoring of reactive hyperemia using photoplethysmographic pulse amplitude and transit time. *J Clin Monit Comput.* 2009; **23(5)**:315-322.
18. Selvaraj N, Jaryal A.K, Santhosh J, Deepak K.K, Anand S. Influence of respiratory rate on the variability of blood volume pulse characteristics. *J Med Eng Technol.* 2009; **33(5)**:370-375.
19. Singh LP, Bhardwaj A, Deepak KK, Bedi R. Occupational noise exposure in small scale hand tools manufacturing (forging) industry (SSI) in Northern India. *Ind Health.* 2009 Aug; **47(4)**:423-430.
20. Singh LP, Bhardwaj A, Deepak KK. Occupational exposure in small and medium scale industry with specific reference to heat and noise. *Noise Health.* 2010 Jan- Mar; **12(46)**:37-48.
21. Sood SK. Book Review: Principles of exercise prescription by Milind V. Bhutkar on sports physiology, Jaypee Brothers Medical Publishers (P) Ltd, *Indian J Physiol Pharmacol* 2009; **53(1)**: 105–106
22. Takashi K, Mallick H.N, Kunio T. Physiological significance of glutamate signaling in Gut-Brain communication. *Bioscience Microflora* 2009; **28**:109-118.
23. Vempati R, Bijlani RL, Deepak KK. The efficacy of a comprehensive lifestyle modification programme based on yoga in the management of bronchial asthma: a randomized controlled trial. *BioMed Central Pulm Med.* 2009 Jul **30**; 9:37.
24. Yadav R, Suri M, Mathur R, Jain S. Effect of procainization of ventromedial nucleus of hypothalamus on the feeding behavior of rats. *J Clin Biochem Nutr.* 2009 **44(3)**:247-252.

### Abstract

1. Choudhary N, Tripathi M, Chandra PS, Sagar R, Jaryal AK, Pandey RM *et al.* Hemispheric sidedness, epilepsy surgery and cardiovascular autonomic functions. *Clin Auton Res* 2009; **19**: 315.
2. Deepak KK, Khadka R, Narang R, Jaryal A, Patel CD, Pandey RM. Baroreflex function appears to initiate compensatory mechanism for cardiac autonomic modulation in patients with angina pectoris. *J Physiol Sci* 2009; **59**; p 167 (abstr.)
3. Khadka R, Jaryal A, Patel CD, Narang R, Deepak KK. Cardiovascular. autonomic modulation increases with severity of myocardial ischemia. *J Physiol Sci* 2009; **59**; p 169.
4. Khandelwal E, Jaryal AK, Deepak KK. Cardiovascular autonomic functions in symptomatic and asymptomatic patients of orthostatic hypotension. *Clin Auton Res* 2009; **19**:310.



5. Magan D, Mehta M, Yadav RK, Mehta N, Mahapatra SC. Effect of comprehensive yoga based lifestyle modification program on quality of life. *Indian J Physiol Pharmacol*. 2009; **53(5)**:407.
6. Pandey N, Yadav RK, Kriplani A, Mahapatra SC. Peritoneal fluid leptin and adiponectin levels in infertile patients of endometriosis. *Indian J Physiol Pharmacol*. 2009; **53(5)**:392.
7. Roshni AB, Yadav RK, Mehta N, Mahapatra SC. Effect of comprehensive yoga based lifestyle modification program on breath holding time. *Indian J Physiol Pharmacol*. 2009; **53(5)**:411.
8. Yadav RK, Pandey N, Kriplani A, Mahapatra SC. Peritoneal fluid leptin level in pelvic endometriosis. *J Physiol Sci* 2009; **59(1)**:363.

## **PATIENT CARE**

Neurophysiology Research Laboratory offered objective assessment of pain and pain modulation status by a battery of electro physiological and biochemical tests for select, referred patients of chronic pain. 20 patients (headache, fibromyalgia) were assessed during the year. Relief in pain was provided by transcranial magneto therapy to 14 patients of fibromyalgia.

Endocrine assays for estradiol from serum samples of 13 subjects undergoing IVF-ET treatment in the Department of Obstetrics & Gynecology, AIIMS were performed using EIA technique at the Departmental Biochemistry laboratory. The data were returned to the referring department for subsequent analysis and management.

Autonomic function lab and vascular function lab provide diagnostic facility for referred patients. The laboratory provide routine test of autonomic reactivity along with autonomic tone quantification. A total number of 576 humans have been tested for autonomic function test this year, which included 22 patients.

Intra-operative monitoring of spinal cord: The department of physiology is providing support to the orthopedic department for monitoring of integrity of spinal cord during corrective surgeries for kyphoscoliosis. (20 patients)

Integral Health Clinic (IHC) is a centre of mind body medicine. IHC is an outpatient facility which is used not only for therapeutic gains but also as part of a developing health consciousness. A total of 95 (ninety five) subjects (including patients of chronic diseases, nursing students and healthy subjects) were enrolled and benefited at IHC during the year 2009 -2010. The IHC facility was regularly used by the dept of Lab Medicine, AIIMS and dept of Biomedical Engineering, AIIMS during the same year.

### **The Department provides central facilities for:**

- i) Autonomic Function and Vascular Function;
- ii) Confocal Imaging;
- iii) Molecular Biology;
- iv) Pain modulation status;
- v) Transcranial magneto therapy for chronic pain patients.
- vi) Integral Health Clinic



## AWARDS AND HONOURS AND SIGNIFICANT EVENTS

The department faculty has chaired several sessions in national and international conferences/symposium. The faculty also has been assisting various universities in India and abroad in various capacities as experts and examiners.

### **Dr J. Sengupta**

Participated in the XXXVI IUPS Congress held during July 27-August 1, 2009 in Kyoto, Japan as a WHO, Geneva nominated participant.

Participated a collaborative meeting on Systems Biology at the School of Medical Science and Technology at IIT-Kharagpur during 8 to 10 February, 2010.

### **Dr R. Mathur**

Appointed as an external expert to review of XI Five Year Plan Project in Defense Research Developmental Organization, Government of India.

Expert, Postgraduate Board of Studies in Physiology, Pt. B.D. Sharma University of Health Sciences, Rohtak.

Member, Board of Studies, Department of Physiology, Aligarh Muslim University, Aligarh.

### **Dr K.K. Deepak**

Session on “curriculum planning” held during 7<sup>th</sup> Gulf Cooperation Council Medical Colleges Conference, organized by King Faisal University, Dammam, Saudi Arabia, 19 November 2009.

Serving as Item Bank Administrator for IDEAL Consortium ([www.hkwebmed.org](http://www.hkwebmed.org)) for University of Dammam (formerly King Faisal University).

Serving as member, Education Committee of International Union of Physiological Sciences (IUPS).

Serving as member, Board of Specialty of Physiology, Medical Council of India (MCI).

Appointed as editorial advisor, Al Ameen Journal of Medical Sciences.

### **Dr H.N. Mallick**

Chaired round table discussion on Future of Sleep Medicine and Research in Asia at Okinawa, Japan, during October 2009.

Elected Chair, Scientific Committee of Asian Sleep Research Society for 2009-2012

General Secretary: Indian Society for Sleep research

Finance Secretary: Associations of Physiologists and Pharmacologists of India

### **Dr D. Ghosh**

Participated in the XXXVI IUPS Congress held during July 27-August 1, 2009 in Kyoto, Japan as a WHO, Geneva nominated participant.

Participated in a collaborative meeting on Systems Biology at the School of Medical Science and Technology at IIT-Kharagpur during 8 to 10 February, 2010.

### **Dr S.C Mahapatra**

Awarded International Society of Horticultural Sciences (ISHS) medal for the year 2009.

Appointed as the Chairman of Institutional Ethics Committee of Central Insecticide Laboratory (CIL), Ministry of Agriculture, Government of India.

### **Dr. N. Mehta**

Member, Organizing committee, National workshop on 'Assessment Methods in Learning Evaluation', AIIMS, 16 – 18 September, 2009.

Invited to conduct Resource Session 'MCQs in Assessment' in First Advanced Workshop: 'Newer Techniques in Medical Education Technology', organized by Medical Education Unit, Army College of Medical Sciences, New Delhi; 13 February, 2010.

Invited by His Holiness The Dalai Lama for the Mind-life Science - 2009 conference organized at Dharamsala from 6<sup>th</sup> to 11<sup>th</sup> April 2009, under the aegis of the Mind Life Institute to expand the scope of the dialogue to include Indian scientists and practitioners from other Eastern traditions, in particular Yoga, organized by The Foundation for Universal Responsibility of His Holiness The Dalai Lama.

Invited to chair the session 'Epidemiological study designs' in Workshop on 'Research Methodology' at Subharti Medical College, Swami Vivekanand Subharti University, Meerut, 3-4 July 2009.

Invited to chair the session 'Collaborative research in medicine' in Workshop on 'Research Methodology' at Subharti Medical College, Swami Vivekanand Subharti University, Meerut, 3-4 July 2009.

### **Dr. R.K. Yadav**

Finance Secretary "International Symposium on Medicinal and Nutraceutical Plants", 25-27 November 2009 at AIIMS, New Delhi.

### **Dr A. Talwar**

Finance Secretary, National workshop on "Assessment Methods for Learning Evaluation in Basic Medical Sciences", organized by the Department of Physiology, AIIMS for hands on training of the faculty members from medical colleges all over India, AIIMS, New Delhi; 16-18 Sept., 2009

### **.Dr S.K. Sood**

Associate Editor, Indian J Physiol Pharmacol.

## **VISITING SCIENTISTS**

Professor Linda C Guidice from the Department of Obstetrics, Gynaecology and Reproductive Sciences, Centre for Reproductive Sciences, University of California, USA for INSO-US Collaborative Research Project on Endometriosis during 3-7 November 2009.

## **ADMINISTRATION**

### **Dr J. Sengupta**

Administration of the department of Physiology including the Confocal Imaging Laboratory.

**Dr R. Mathur**

Member, B.B. Dixit Library Committee, AIIMS, New Delhi.

Member, Sub-Committee, Research proposal, AIIMS, New Delhi.

**Dr D. Ghosh**

Executing functions of Officer-in-Charge for Departmental Central Facilities of Biochemistry Lab and Molecular Biology Lab, and Departmental Stores. Executive Editor for Indian Journal of Physiology and Pharmacology.

**Dr. R.K. Yadav**

Managing as Secretary, AIIMS Faculty club, AIIMS.

## 9.31 Psychiatry

### Professor and Head

Rajat Ray

### Professors

Manju Mehta  
Pratap Sharan

S.K. Khandelwal

R.K. Chadda

### Associate Professor

Rajesh Sagar

### Assistant Professors

Nand Kumar

Mamta Sood

### EDUCATION:

#### Under Graduate

##### Teaching

24 hrs: 3<sup>rd</sup> Semester

14 hrs: 6<sup>th</sup> Semester

6 hrs: 8<sup>th</sup> Semester

##### Clinical Posting

20 days: 4-5<sup>th</sup> Semester

40 days 6-8<sup>th</sup> Semester

Undergraduate teaching and assessment in CRHSP Ballabgarh

**BSC Nursing:** 38 hrs in 2 Semesters

#### Ph.D & Post graduate teaching

- Journal discussion once every week
- Seminar once every week
- Case conference once every week
- Faculty/staff presentation once every week
- CCR & CGR once every semester
- Psychotherapy supervision once every week
- Supervision of Consultation-Liaison training for junior residents

## **Continuing Medical Education:**

### **Lectures delivered**

#### **Dr. Manju Mehta**

‘Psychological Factors in Murder,’ National Judicial Academy, Bhopal, 25 July 2009.

‘Decision Making and Overcoming Personal Bias,’ National Judicial Academy, Bhopal, 10 August 2009.

‘Application of Child Psychology in the Clinical Setting,’ Lady Shriram College, New Delhi, 16 September 2009

‘Enhancing Coping Skills,’ Jesus & Mary College, New Delhi, 14 December 2009

#### **Dr. S.K. Khandelwal**

‘Management of Comorbid Depression and Ischemic Heart Disease,’ Annual CME of the Indian Psychiatric Society (North Zone), Rohtak; 26 April 2009

‘Why Invest in Mental Health,’ Golden Jubilee CME of the PBM Medical College, Bikaner, 19 August 2009.

#### **Dr. R.K. Chadda**

Resource Person for ‘Prognosis in Patients with Comorbid Depression and Ischemic Heart Disease’ Mid-Term CME of the Indian Psychiatric Society (North Zone), Rohtak; 26 April 2009.

‘Schizophrenia: Etiopathogenesis’. Postgraduate Development Programme, Ludhiana; 3-4 July 2009.

‘Headache: Psychiatric Aspects’ CME of Delhi Psychiatric Society, Delhi; 28 March 2010.

#### **Dr. Pratap Sharan**

‘Initiatives Undertaken to Promote Rational Psychotropic Use in All India Institute of Medical Sciences,’ Third Asia–Pacific Regional Consultation on Undergraduate Medical and Pharmacy Education: Setting Up of an Informal Network – ‘Educators for Rational Drug Use’, Negombo, Sri Lanka, August 2009.

‘Evidence for the Revision of ICD-11: Global Literature Review,’ Meeting of the 2009–2010 Advisory Group for the Revision of ICD-10 Mental and Behavioural Disorders, Geneva, Switzerland; September 2009.

#### **Dr. Rajesh Sagar**

‘Management of Suicide’ CME for Nurses, AIIMS, New Delhi, November 2009.

## **National and International Conferences**

National Conferences\Workshop

Biennial Conference of the Indian Association for Child & Adolescent Mental Health, 23-25 November 2009 (Organizing Chairperson: Manju Mehta, Organizing Secretary: Rajesh Sagar)

### **Dr. Manju Mehta**

‘Use of Assessment in Forensic Psychiatry Cases,’ Symposium on Forensic Psychiatry, 62<sup>nd</sup> Annual National Conference of Indian Psychiatric Society, Jaipur, 16 January 2010.

‘Managing Aggression on Roads,’ Annual Conference of Indian Association of Clinical Psychology, Bangalore, 1 - 3 February 2010.

### **Dr. S.K. Khandelwal**

‘Improving General Health in Community by Mental Health Care,’ BP Koirala Institute for Health Sciences, Dharan, Nepal, 7-8 September 2009.

‘Psychosocial Aspects of Cancer - Breaking Bad News,’ Annual Seminar of Cancer Sahyog, Indian Cancer Society, Delhi, 4 October 2009.

‘Does Social Psychiatry hold a Special Significance for Developing Countries,’ Silver Jubilee Conference of the Indian Association for Social Psychiatry, Lucknow, 14-16 November 2009.

### **Dr. R.K. Chadda**

‘Impact of Newer Antidepressants on Outcome of Mental Disorders,’ Annual National Conference of the Indian Psychiatric Society (North Zone), Jodhpur, 31 October-1 November 2009.

‘Steps to be Taken in Future for Development of Social Psychiatry,’ Silver Jubilee Conference of the Indian Association for Social Psychiatry, Lucknow, 14-16 November 2009.

‘Interaction between Medical Professionals and Pharmaceuticals: Indian Scene,’ Silver Jubilee Conference of the Indian Association for Social Psychiatry, Lucknow, 14-16 November 2009.

### **Dr. Pratap Sharan**

‘An Update on ICD 11 from the ICD 11 Committee,’ Symposium on Status of DSM V and ICD 11. Indian Global Psychiatric Initiative (Pre conference Event of 62<sup>nd</sup> Annual National Conference of Indian Psychiatric Society, Jaipur, January 2010.

### **Dr. Rajesh Sagar**

‘Depression in Stroke - Psychiatrist’s Perspective’ CME on Depression and Medical Co-morbidity, Jaipur, June 2009.

Delivered a talk ‘Strengthening of Psychiatry in Undergraduate Curriculum’ and Resource Person for the 3rd Indo-US Healthcare Summit, New Delhi, January 2010.

‘Thyroid and Psychiatric Disorders,’ The CME of the 62<sup>nd</sup> Annual National Conference of Indian Psychiatric Society, Jaipur, January.

‘Manual Based Training on Mental Health for Community Health Workers,’ 62<sup>nd</sup> Annual National Conference of Indian Psychiatric Society, Jaipur, January 2010.

‘Depression in Clinical Practice,’ Neurosciences CME of the Brain & Spine Foundation, India, New Delhi, February 2010.

## **Dr. Mamta Sood**

‘Prospective Longitudinal Study on the Duration of Untreated Psychosis in Patients with First Episode of Psychosis,’ Silver Jubilee Conference of the Indian Association for Social Psychiatry, Lucknow, 14-16 November 2009.

‘Testamentary Capacity,’ Symposium on Forensic Psychiatry in ‘62<sup>nd</sup> Annual National Conference of Indian Psychiatric Society (ANCIPS), 2010 Jaipur, January 2010.

## **MD and Ph. D Students**

Chugh G, Dhal A, Sagar R, Mehta M. Neglect and Abuse: Perpetrators to Dissociation,’ X Biennial Conference of Indian Association for Child & Adolescent Mental Health, New Delhi, November 2009.

Goyal S, Ramdurg S, Goyal P, Sharan P, Sagar R. ‘Socio Demographic Profile and Modes of Intentional Self-Harm in Patients in a Tertiary Care Centre (AIIMS),’ 62<sup>nd</sup> Annual National Conference of Indian Psychiatric Society, Jaipur, January 2010.

Goyal S, Ramdurg S, Goyal P, Sagar R, Sharan P. ‘Psychiatry Disorders associated with Intentional Self Harm in Patients in a Tertiary Care Centre (AIIMS),’ 62<sup>nd</sup> Annual National Conference of Indian Psychiatric Society, Jaipur, January 2010.

Chugh G, Mehta M, Sagar R, Dhawan A. ‘Improving Coping Skills and Reducing Externalizing and Internalizing Problems among School Going Adolescents using a Brief Cognitive Behaviour Therapy (CBT) Module,’ X Biennial Conference of the Indian Association for Child & Adolescent Mental Health, New Delhi, November 2009.

Mittal AK, Shrigopal G, Sagar R, Mehta M. Emotional and Behavioural Difficulties among Children in the Attention Deficit Hyperactivity Disorder (ADHD),’ X Biennial Conference of Indian Association for Child & Adolescent Mental Health, New Delhi, November 2009.

Mukhopadhyay AK, Pallavi P, Mehta M, Sagar R. ‘Study of Serum Cytokine, and Plasma ACTH and Cortisol Levels in Adolescent Depression Patients,’ X Biennial Conference of Indian Association for Child & Adolescent Mental Health, New Delhi, November 2009.

Shrigopal G, Mittal AK, Sagar R, Mehta M. ‘Assessment of Parents Satisfaction in ADHD Patient with or without Conducts Symptoms,’ X Biennial Conference of Indian Association for Child & Adolescent Mental Health, New Delhi, November 2009.

Sarcar S, Majumdar P, Gupta R, Bhadr R, Balhara YP, Sagar R. ‘Cost Issues in Psychiatry,’ 62<sup>nd</sup> Annual National Conference of Indian Psychiatry Society, Jaipur, January 2010.

Sarcar S, Mehta M, Sagar R. Behaviour Therapy for Children with Mental Health Problems by a First Year Resident,’ X Biennial Conference of Indian Association for Child & Adolescent Mental Health, New Delhi, November 2009.

## **International Conferences**

### **Dr. Manju Mehta**

‘Childhood Obesity,’ Lecture delivered at McGill University, Montreal; 11-19 November, 2009.



### **Dr. S. K. Khandelwal**

‘Psychobiology of Mood and Behaviour in Extreme Climatic Conditions,’ 12<sup>th</sup> International Conference on Neurosciences and Biological Psychiatry, St. Petersburg, Russia; 16-20 May 2009.

### **Dr. Pratap Sharan**

Resource Person for the ‘Working Group to Assist in the Revision of International Classification of Diseases and Related Health Problems (ICD 10),’ Geneva, Switzerland; September 2009.

### **Dr. Rajesh Sagar**

Resource Person in SCAN Advisory Meeting and SCAN Workshop at the International Congress of the International Federation of Psychiatric Epidemiology, Vienna, Austria; April 2009.

‘Psychiatry Morbidity in Bomb Blast Victims: Results from A Developing Country,’ 16<sup>th</sup> World Congress on Disaster and Emergency Medicine, Victoria BC, Canada; May 2009.

### **MD and Ph. D Students**

Mishra AK, Singh T, Sagar R. ‘Mind-Body Medicine (Yoga based) Comprehensive Life Style Intervention in Hypertensive Patients,’ 68<sup>th</sup> Annual Scientific Meeting on Stress & Health of American Psychiatric Society, Portland, USA; March. 2010.

Bhardwaj D, Dharan M, Vivekanandhan S, Sagar R, Karthik M, Udup N. ‘Association of CYP2D6\*3 Genetic Polymorphisms on the Metabolism of Quetiapine with Schizophrenia in an Indian Population,’ 15<sup>th</sup> Biennial Winter Workshop on Psychosis, Barcelona, Spain; November 2009.

Chugh, G, Mehta, M, Sagar, R, Dhawan A. ‘Effectiveness of a Brief Coping Skill Cognitive Behaviour Therapy (CBT) Module in Reducing Emotional Distress among Indian School Going Adolescents,’ 117<sup>th</sup> Annual Convention of American Psychological Association, Toronto, Canada; November 2009.

Twinkle P, Shveta J, Vivek D, Shah N, Abhishek D, Sagar R, Dada T. Evaluation of major depressive disorder in patients receiving chronic treatment with topical b-blockers. World Glaucoma Congress, Boston, USA; July 2009.

Vivekanandhan S, Sonali N, Tripathi M, Sagar R. ‘Association Of CYP2D6\*4 Genetic Polymorphism on the Metabolism of Donepezil with Alzheimer’s Disease in an Indian Population. 1<sup>st</sup> International Congress on Neurobiology and Clinical Psychopharmacology & European Psychiatric Association Conference on Treatment Guidance, Thessaloniki, Greece, January 2010.

## **RESEARCH**

### **Funded Projects**

#### ***Ongoing***

Development of pharmacogenomics single nucleotide protein (SNP) database for critical candidate genes involved in drug response in schizophrenia – Multicentric study. RK Chadda, Mamta Sood. Funded by Department of Biotechnology (DBT) (2008-2010). Funds: Rs. 2.5 lakhs.

Validation of Depression Identification Instrument in an outpatient and primary care population. Pratap Sharan, Rajesh Sagar. Funded by World Health Organization – South East Asia Regional Office (WHO-SEARO) (2009). Funds: Rs. 3.5 lakhs.

Effects of the Breathing Technique ‘Sudarshan Kriya Yoga (SKY)’ with Standard Treatment on Depressive Disorder Patients in comparison to Standard Treatments Alone,’ Nand Kumar, Rajesh Sagar. Funded by Indian Council of Medical Research (ICMR) (2009-2011). Funds: Rs. 11 lakhs.

### **Completed**

Prospective Study on Duration of Untreated Psychosis in Patients with First Episode of Psychosis. Mamta Sood. Funded by AIIMS (2008-2009). Funds: Rs 25,000.

Analysis of Research Related to Diagnosis and Classification of Mental and Behavioural Disorders. Pratap Sharan. Funded by World Health Organization.. (2007-2009). Funds: Rs. 2 lakhs.

Supervision and Preparation of a Technical Report of the Depression Identification Instrument – Phase III. Pratap Sharan. Funded by WHO-SEARO (2008-2009). Funds: Rs. 1.25 lakhs.

Data Analysis, Interpretation of Data and Preparation of a Technical Report for SEARO Depression Project - Phase III. Rajesh Sagar. Funded by WHO-SEARO (2008 -2009). Funds: 1.25 lakhs.

### **Collaborative Research**

#### **Ongoing**

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. Funded by Department of Science & Technology (DST) (with Department of Physiology).

#### **Completed**

Effect of Yoga and Naturopathy on Serum Interleukin Levels in Adolescents with Depression. Rajesh Sagar. Funded By AYUSH, Ministry Of Health & Family Welfare (with Department of Laboratory Medicine).

Association between Catechol-O-Methyltransferase (COMT) Polymorphism and Obsessive-Compulsive Disorder (OCD) in the Indian Population (with Department of Biochemistry)

Long Term Cognitive Outcome in Children Cured for Acute Lymphoblastic Leukemia (with Department of Radiotherapy).

### **PUBLICATIONS**

#### **Journals**

Bhardwaj R, Chakrabarti S, Mittal BR, Sharan P. A single photon emission computerized tomography (SPECT) study of regional cerebral blood flow in bipolar disorder. *World Journal of Biological Psychiatry* 2010; **11**: 334-43.

Chadda RK. Book Review: Bad Men Do What the Good Men Dream. *National Medical Journal of India* 2009; **22**: 94-5.

Chadda RK. Book Review: Violent Crime: Clinical and Social Implications. *National Medical Journal of India* 2009; **22**: 212-3.

Chadda RK, Sood M, Kumar N. Experiences of a sensitization program on common mental disorders for primary care physicians using a problem based learning approach. *Indian Journal of Psychiatry* 2009; **51**: 289-91.

Ganguly KK, Chadda RK, Singh TB. A study of sociocultural perspectives of caregivers in burden coping behaviour in bipolar disorder and schizophrenia cases. *International Journal of Psychosocial Rehabilitation*, 2009; **13**: 93-103.

Kessler RC, Birnbaum HG, Shahly V, Bromet E, Hwang I, McLaughlin KA, Sampson N, Andrade LH, de Girolamo G, Demyttenaere K, Haro JM, Karam AN, Kostyuchenko S, Nock MK, Hwang I, Sampson N, Kessler RC, Angermeyer M, Beautrais A, Borges G, Bromet E, Bruffaerts R, de Girolamo G, de Graaf R, Florescu S, Gureje O, Haro JM, Hu C, Huang Y, Karam EG, Kawakami N, Kovess V, Levinson D, Posada-Villa J, Sagar R. Cross-national analysis of the associations among mental disorders and suicidal behavior: findings from the WHO World Mental Health Surveys. *PLoS Medicine* 2009; **6**: e1000123. [Epub 2009 Aug 11].

Kovess V, Lara C, Levinson D, Matschinger H, Nakane Y, Browne MO, Ormel J, Posada-Villa J, Sagar R, et al. Age differences in the prevalence and co-morbidity of DSM-IV major depressive episodes: results from the WHO World Mental Health Survey Initiative. *Depression Anxiety* 2009 Dec 27. [Epub ahead of Print].

Kulhara P, Avasthi A, Grover S, Sharan P, Sharma P, Malhotra S, Gill S. Needs of Indian schizophrenia patients: an exploratory study from India. *Social Psychiatry and Psychiatric Epidemiology* 2009 Aug 26 [Epub ahead of Print].

Kulshreshtha B, Philibert P, Eunice M, Khandelwal S, Mehta M, Audran F, et al. Apparent male gender identity in a patient with complete androgen insensitivity syndrome. *Archives of Sexual Behaviour* 2009; **38**: 873-5.

Lee S, Tsang A, Kessler RC, Jin R, Sampson N, Andrade L, Karam EG, Mora ME, Merikangas K, Nakane Y, Popovici DG, Posada-Villa J, Sagar R, et al. Rapid-cycling bipolar disorder: cross-national community study. *British Journal of Psychiatry* 2010; **196**: 217-25.

Malhotra S, Biswas P, Sharan P, Grover S. Characteristics of patients visiting the Child & Adolescent Psychiatric clinic: A 26-year study from North India. *Journal of Indian Association for Child and Adolescent Mental Health* 2007; **3**: 53-60 (Published in 2008-2009).

Mukherjee S, Tripathi M, Chandra PS, Yadav R, Choudhary N, Sagar R, et al. Cardiovascular autonomic functions in well-controlled and intractable partial epilepsies. *Epilepsy Research* 2009; **85**: 261-9.

Razzouk D, Sharan P, Gallo C, Gureje O, Lamberte EE, de Jesus Mari J, Patel V, et al. Scarcity and inequity of mental health research resources in low-and-middle income countries: A global survey. *Health Policy* 2009 Oct 19. [Epub ahead of Print].

Reed G, Sharan P, Saxena S. Reducing disease burden through the revision of ICD-10 mental and behavioural disorders. *National Medical Journal of India* 2009; **22**: 285-8.

Maheshwari SK, Gupta S, Sharan P. Medication non-compliance and substance abuse in schizophrenia. *Nursing Journal of India* 2009; **100**: 201-3.

Sharan P. Overview of Indian Research on personality disorders. *Indian Journal of Psychiatry* 2010; **52** (Special Supplement of Annotations): S34-8.

Sharan P, Gallo C, Gureje O, Lamberte E, Mari JJ, Mazzotti G, et al. Mental health research priorities in low- and middle-income countries of Africa, Asia, Latin America and the Caribbean. *British Journal of Psychiatry* 2009; **195**: 354-63.

Sharan P, Bhargava R. Intellectual disabilities: public policy and resources (Editorial). *Journal of Indian Association Child and Adolescent Mental Health* 2007; 3: 45-52. (Published in 2008-2009).

Sharan P, Malhota S. Telepsychiatry: the bridge across the access gap in child and adolescent mental health (Editorial). *Journal of Indian Association for Child and Adolescent Mental Health* 2007; 3: 18-21. (Published in 2008-2009).

Sharma S, Joshi S, Chadda RK. Therapeutic drug monitoring of lithium in patients with bipolar affective disorder: experiences from a tertiary care hospital in India. *American Journal of Therapeutics*, 2009; **16**: 393-7.

Singh V, Shivanand K, Sagar R Lithium toxicity: role of hemodialysis. *Journal of Mental Health & Human Behaviour* 2009; **14**: 62-8.

Sood M, Chadda RK. Women in psychiatry: A view from the Indian subcontinent. *Indian Journal of Psychiatry* 2009; **51**: 199-201.

Sood M, Chadda RK. Women psychiatrists in India: A reflection of their contributions. *Indian Journal of Psychiatry* 2010; 52 (Special Supplement of Annotations): 396-401.

Stein DJ, Ruscio AM, Lee S, Petukhova M, Alonso J, Andrade LH, Benjet C, Bromet E, Demyttenaere K, Florescu S, de Girolamo G, de Graaf R, Gureje O, He Y, Hinkov H, Hu C, Iwata N, Karam EG, Lepine JP, Matschinger H, Oakley Browne M, Posada-Villa J, Sagar R, et al. Subtyping social anxiety disorder in developed and developing countries. *Depression Anxiety* 2009 Dec 27. [Epub ahead of Print].

Vikas A, Avasthi A, Sharan P. Psychological impact of obsessive compulsive disorder on patients and their caregivers: a comparative study with depressive disorder. *International Journal of Social Psychiatry* 2009 Oct 15. [Epub ahead of Print]

### **Books/Chapter in Books/Monographs/ Proceedings**

Chadda RK. Suicide behavior in hospital settings. In: Roy Abraham K Punnoose (Eds.). *Suicide Prevention: A Handbook for Community Gatekeepers*. Kottayam: National Alliance for Mental Health 2009; pp 120-6.

Mehta M, Sagar R. Child and adolescent psychiatry at AIIMS. *Proceedings of X Biennial Conference of Indian Association for Child & Adolescent Mental Health*. New Delhi: AIIMS 2009; pp 28-31.

Sagar R. Public health issues in child & adolescent mental health -time to "Act." In *Proceedings of X Biennial Conference of Indian Association for Child & Adolescent Mental Health*. New Delhi: AIIMS 2009; pp 37-9.

Sharan P, Sagar R. *Validation of the Depression Identification Instrument in an outpatient and primary care population*. New Delhi: Department of Psychiatry AIIMS & WHO SEARO, 2009.

Sharan P contributed the chapter 'Psychological health' to WHO's *International Travel and Health (ITH) 2010 version*. Geneva: WHO 2010.

Sharan P, Dhawan A, Tripathi BM. *Souvenir of the X Biennial Conference of the Indian Association for Child and Adolescent Mental Health*. New Delhi: Department of Psychiatry, All India Institute of Medical Sciences 2009.

Sharan P, Shyam Sundar A, Saxena S. Mental health research in India: a focus on health research system issues. In: Varma VK, Kala A, Gupta N (Eds.). *Culture, Personality and Mental Illness – A Perspective from Traditional Societies*. Delhi: Jaypee Brothers 2009: pp 397-413.

Sharan P, Shyamsundar A. Eating disorders in women. In Sharma I, Parial S (Eds.). *Women & Mental Health*. Indian Psychiatric Society 2010.

## PATIENT CARE

OPD	NEW	OLD	TOTAL
Walk-in-clinic	11094	26627	38531
Detailed Assessment	1703	-	1703
<b>Specialty Clinic</b>			
A) Child Guidance:	450	502	952
B) De-Addiction Clinic:	115	1382	1497
Total:	14172	28511	42683
Total Admission:	347		
Total discharges	321		
Laboratory Investigations for Patient Care:			
Serum Lithium:	1251		

## Patient Care Initiative

The department has taken a new initiative, "Structuring and expansion of consultation-liaison (C-L) psychiatry services":

- Introduction of supervised C-L training for junior residents and establishment of referral structure.
- Introduction of psychoeducation groups for patients and relatives of medical oncology inpatients.
- Development of outpatient liaison interaction with endocrinology department.

## AWARDS AND HONOURS AND SIGNIFICANT EVENTS

**Dr. Manju Mehta** is the President Elect of the Indian Association of Clinical Psychology. She was also elected as a member of various bodies: Academic Council of Hyderabad University, Hyderabad; Academic Council of Central University of Bihar, Patna; and Board of Visitors, Institute of Human Behaviour and Allied Sciences, New Delhi. She imparted short-term training in Child Psychology

and Psychiatry to seven students of Masters in Psychology of Delhi University and one faculty from Department of Pediatrics, Safdarjung Hospital. She was the Chairperson of the Organizing Committee for the X Biennial Conference of the Indian Association for Child & Adolescent Mental Health held at AIIMS, New Delhi (23– 25 November 2009) and she conducted a Workshop on ‘Stress Management’ for senior judges at the National Judicial Academy, Bhopal from 4-6 December 2009.

**Dr. S.K. Khandelwal** is the chairperson of the Awards Committee and Scientific Committee of the, Indian Association for Social Psychiatry. He chaired symposia at the Annual Conference of Indian Psychiatric Society. He is the chairperson of the National Board for Richmond Fellowship Society for Mental Health. He is a member of the panel of National Board of Examinations for inspecting institutes running DNB courses. He organized a symposium on “Risk Assessment in Mental Health” at the Annual Conference of the Indian Psychiatric Society, Jaipur (17-20 January 2010).

**Dr. R. K. Chadda** is the Secretary General of the Indian Association for Social Psychiatry. He is a member of the Ethics Committee, Institute of Human Behaviour & Allied Sciences, Delhi. He is the chairperson of the Awards Committee of the Indian Psychiatric Society-North Zone and Co-Chairperson of the Indian Psychiatric Society Task Force on Mental Health Legislation. He is a peer reviewer for Schizophrenia Research and Primary Psychiatry. He organized a workshop on Forensic Evaluations in Psychiatry in the 62nd Annual National Conference of the Indian Psychiatric Society, Jaipur (17-20 January 2010).

**Dr. Pratap Sharan** is an Advisory Board Member for the WHO International Advisory Group for the Revision of ICD-10 Mental and Behavioural Disorders. He is the Vice President & President Elect for Indian Association for Child and Adolescent Mental Health. He is the Editor, Journal of Indian Association for Child and Adolescent Mental Health (2005-2009). He is Working Committee Member of the National Medical Journal of India and an Editorial Board member of Journal of Mental Health and Human Behavior. He is a peer reviewer for various national and international journals: Comprehensive Psychiatry, Journal of Affective Disorders, International Psychogeriatrics, International Journal of Social Psychiatry, National Medical Journal of India and Journal of Mental Health and Human Behavior. He is a Co-recipient of the *GC Boral Award – I* for best paper presentation at the Silver Jubilee Conference of the Indian Association for Social Psychiatry held at Lucknow in November, 2009 (Primary Author: Dr. Mamta Sood). He participated in the World Health Organization’s Workshop on Essential package for Mental, Neurological and Substance Use Disorders. Bellagio, Italy, 2009. He served as a resource person for the WHO’s Essential Package for Mental, Neurological and Substance Use Disorders Scoping Document on Child and Adolescent Mental Health (2008-2009) as well as on University Grants Commission team to inspect the National Institute of Mental Health and Neurosciences (NIMHANS) for maintenance of Deemed University status (2009).

**Dr. Rajesh Sagar** is an Honorary Consultant to Public Health Foundation of India (PHFI). He was awarded the Fellowship of International Medical Science Academy. He was the India coordinator of the World Mental Health Survey Consortium Annual Meeting at Saratoga Springs, USA (July 2009). He is the member of 1st Working Group Meeting (April 2010) of NACO to study the psycho-social burden on PLHA attending ICTCS and ART centres in India; and also a member of the Technical Advisory Panel for developing a manual titled ‘An Introduction to Mental Health – Facilitator’s Manual for Training Community Health Workers in India’ under the auspicious of Australia India Council. He conducted the ‘National Training Program on Mental Health of Young People: on Youth



Friendly Healthy Services in India' that was organized by MAMTA in May 2009. He chaired a session on 'Public Health Importance of Aggression and Violence in Schools' in the Mid Term CME of the Indian Association for Child and Adolescent Mental Health New Delhi in May 2009. He was appointed as Appraiser for Psychiatry and faculty facilitator of CME for the Diplomate of National Board (DNB), National Board of Examination, New Delhi. He chaired a session on Child and Adolescent Psychiatry in 'Summit Psychiatry,' South Asian Forum International, Dubai; June 2009. He conducted and organized the Annual Meeting of Central Mental Health Authority (CMHA), Government of India, as secretary, CMHA in Aug 2009. Was invited as an expert to brief Hon'ble Minister of Health & Family Welfare on Parliament Question on mental health (November 2009), and the Hon'ble Minister of Social Justice and Empowerment on amendments to National Trust Act and Person with Disability Act (January 2010). He is a peer reviewer for Indian Journal of Psychiatry, National Medical Journal of India and Journal of the Canadian Academy of Child & Adolescent Psychiatry. He is a reviewer for research projects for Indian Council of Medical Research, Department of Biotechnology, and Central Council of Homeopathy Research (CCRH). He is an advisor on mental health for Government of Uttarakhand for development of mental health services in the state and acted as a coordinator for training in mental health for 6 medical officers of Government of Uttarakhand (October 2009). He served as a resource person for the WHO SCAN Training and Research centres in the World. He acted as an expert to the EFC meeting for National Mental Health Programme (NMHP) chaired by Secretary (Expenditure), Ministry of Finance (February 2010) and to the National Consultation on NMHP under the chairpersonship of Secretary, Health & Family Welfare (January 2010). He participated in the national consultation on Amendments to Disability Act 1995 organized by National Centre for Promotion of Employment for Disabled People (October 2009). He participated in the National Consultation on harmonization of laws pertaining to mental health sector with UNCRPD organized by the Human Right Laws Network (HRLN), National Association of Deaf, National Alliance on Access to Justice for Persons living with Mental Illness (NAAJMI) (December 2009). He was the Organizing Secretary for the X Biennial Conference of Indian Association for Child & Adolescent Mental Health, AIIMS, New Delhi (November 2009) and chaired sessions on 'Liaison Child Psychiatry' and 'Public Health Issues in Child & Adolescent Mental Health' at the same conference. He is a member of Executive Council of Indian Psychiatry Society –North Zone. He is the co-chairperson of National Task Force for Advocacy of Indian Psychiatry Society.

**Dr. Mamta Sood** was awarded the Membership of National Academy of Medical (MNAMS) at the 49<sup>th</sup> Annual Conference of National Academy of Medical Sciences, Lucknow (October-November 2009). She was awarded GC Boral I award at the Silver Jubilee Conference of Indian Association for Social Psychiatry, Lucknow (14-16 November 2009). She also chaired a scientific session during the same conference. She was a resource person at the X Biennial Conference of Indian Association for Child & Adolescent Mental Health (23-25 November 2009).

### **PhD and MD Students**

**Dr. Gitanjali Chugh** received the Niloufer Award of the Indian Association for Child and Adolescent Mental Health at the X Biennial Conference held at AIIMS, New Delhi, 2009.

**Dr AK Mittal**, et al received the Best Poster Presentation award at the X Biennial Conference of the Indian Association for Child and Adolescent Mental Health held at AIIMS, New Delhi, 2009.



## 9.32 Radiodiagnosis

### Professor and Head

Arun Kumar Gupta

### Professor

Deep Narayan Srivastava

### Additional Professor

Raju Sharma

### Associate Professors

Sanjay Thulkar  
(BRAIRCH)

Sanjay Sharma (RPC)

Ashu Seith Bhalla

### Assistant Professors

Smriti Hari

Shivanand Gamanagatti  
(Trauma Centre)

Atin Kumar  
(Trauma Centre)

### Scientist-IV

Shashi B. Paul

## EDUCATION

### Undergraduate and Postgraduate

- MD Radiology: There are a total of 21 junior residents out of whom 3 are sponsored candidates.
- BSc (Hons) Medical Technology in Radiography (MTR): A batch of 5 students was admitted to the course in 2009-2010.
- One short term trainee was present in the department in the year 2009-10.

### Continuing Medical Education

#### Lectures delivered

#### Dr. Deep Srivastava

- 'Male Infertility and Erectile Dysfunction,' AIIMS-MAMC-PGI Imaging Course on Genitourinary Radiology, Chandigarh, April 2009.
- 'Interactive Case Presentation Quiz,' Imaging Update – 2009, Indian Radiology and Imaging Association (UP Chapter), Allahabad, 22 November 2009.
- 'Peripheral Limb Doppler: Lecture and Live Workshop,' Imaging Update – 2009, Indian Radiology and Imaging Association (UP Chapter), Allahabad, 22 November, 2009.

#### Dr. Raju Sharma

- 'Adrenal Imaging,' AIIMS-MAMC-PGI Imaging Course on Genitourinary Radiology, Chandigarh, April 2009.

- ‘Mediastinal Imaging,’ AIIMS-MAMC-PGI Imaging Course on Chest & Cardiac Radiology, New Delhi, 6 November 2009.
- ‘Biliary & Pancreatic Emergencies,’ CME on Emergency Radiology, Teleradiology Series & Radgurukul, Bangalore, 31 October 2009.
- ‘Abdominal Trauma,’ CME on Emergency Radiology, Teleradiology Series & Radgurukul, Bangalore, 31 October 2009.
- ‘Imaging of Endometriosis,’ Indo-US Workshop on Microarray in Endometriosis, New Delhi, 3 November 2009.
- ‘Cross-sectional Imaging of Liver Space Occupying Lesions (SOLs),’ 50<sup>th</sup> Annual Conference of Indian Society of Gastroenterology, Kolkata, 11 December 2009.
- ‘MRI of Liver SOLs,’ MRI Update, Mumbai, 20 December 2009.
- ‘Role of MRI in Fetal Medicine,’ Fetal Medicine Society Meeting, New Delhi; 30 January 2010.
- ‘Imaging of Focal Liver Lesions,’ Young Masters Meeting, Indian Society of Gastroenterology, Gurgaon, 20 February 2010.
- ‘Film Reading Session Annual,’ Conference of Delhi Branch of Indian Radiology & Imaging, New Delhi, 27-28 February 2010.

#### **Dr. Sanjay Thulkar**

- ‘Imaging in Gynecological Malignancies,’ AIIMS-MAMC-PGI Imaging Course on Genitourinary Radiology, Chandigarh, 3-4 April 2009.
- ‘Radiology and PET Scan in Cancer Ovary,’ Seminar on Cancer Ovary, SRM Medical College, Chennai, 9 August 2009.
- ‘Imaging in Lung and Oesophageal Cancers,’ 7<sup>th</sup> ICRO-AROI teaching course organized by Indian College of Radiation Oncology (ICRO) and Association of Radiation Oncologists of India (AROI), New Delhi, 12-13 September 2009.
- ‘Basics of Ultrasound in Pain Management,’ Research Society of Anaesthesiology & Clinical Pharmacology, Delhi, 9-12 October 2009.
- ‘Advances in Interventional Pain Management,’ 12<sup>th</sup> Annual Conference of Indian Society of Vascular & Interventional Radiologists (ISVIR), New Delhi, 7-10 October 2009.
- ‘Patient Safety and Radiological Imaging,’ National Patient Safety Conference, New Delhi, 12-13 October 2009.
- ‘Lung Malignancy,’ AIIMS-MAMC-PGI Imaging Course Series on Chest and Cardiovascular Radiology, New Delhi, 6-7 November 2009.
- ‘Conventional Imaging in Oncology,’ Oncology Congress – 2010, New Delhi, 17 January 2010.

#### **Dr. Sanjay Sharma**

- ‘Pulmonary Manifestations in an Immune Compromised Host: Hematological Infections and Bone Marrow Transplant,’ AIIMS-MAMC-PGI Course on Chest and Cardiovascular Imaging, Delhi, 6-7 November 2009.

- ‘Imaging in Urology,’ Urology Society of India, New Delhi, 22-24 March 2010.

**Dr. Ashu Seith Bhalla**

- ‘Urinary Tract Tuberculosis,’ AIIMS-MAMC-PGI Imaging Course on Genitourinary Imaging, Chandigarh, 2-3 April 2009.
- ‘Imaging for Head and Neck Cancer,’ Larynx & Hypopharynx - 2009, Head & Neck Cancer Conference & Live Workshop, New Delhi, 31 October – 2 November 2009.
- ‘Bronchial Artery Embolization,’ AIIMS-MAMC-PGI Imaging Course Series on Chest and Cardiovascular Imaging, New Delhi, 7-8 November 2009.
- ‘Film Reading Session,’ AIIMS-MAMC-PGI Imaging Course on Chest and Cardiovascular Imaging, New Delhi; 6-7 November 2009.
- Interstitial Lung Disease,’ Delhi Imaging Update – 2010, Annual Congress of Indian Radiological and Imaging Association (IRIA) - Delhi State, New Delhi, 27-28 February 2009.

**Dr. Smriti Hari**

- ‘Retroperitoneum,’ AIIMS-MAMC-PGI Imaging Course on Genitourinary Radiology, Chandigarh, 3-4 April 2009.
- ‘Interstitial Lung Disease,’ AIIMS-MAMC-PGI Imaging Course on Chest and Cardiovascular Radiology, New Delhi, 6-7 November 2009.

**Dr. Shivanand Gamanagatti**

- ‘Vascular Interventions of Genitourinary Tract,’ AIIMS-MAMC-PGI Imaging Course on Genitourinary Imaging, Chandigarh, 2-3 April 2009.
- ‘Percutaneous Vertebroplasty vs. Percutaneous Kyphoplasty,’ Annual Registry Meet cum Complication Meeting combined with CME on Advances in Interventional Radiology: Lessons from Trials and Registries, New Delhi, 25-26 April 2009.
- ‘MDCT Techniques and Anatomy of Thorax,’ AIIMS-MAMC-PGI Imaging Course on Chest and Cardiovascular Imaging, New Delhi, 6-7 November 2009.

**Dr. Atin Kumar**

- ‘Imaging of Genitourinary Trauma,’ AIIMS-MAMC-PGI Imaging Course on Genitourinary Radiology, Chandigarh, 3-4 April 2009.
- ‘Imaging of Chest Trauma,’ AIIMS-MAMC-PGI Course on Chest & Cardiac Radiology, New Delhi, 6-7 November 2009.
- ‘Imaging of Chest Trauma,’ Annual Conference of the Haryana State Chapter of IRIA, Rohtak, 21 March 2010.

**Dr. Shashi B. Paul**

- ‘Hepatocellular Carcinoma in India,’ Kinki University School of Medicine, Osaka, Japan; July 2009.

- ‘Efficacy of Transarterial Chemoembolization for Unresectable Hepatocellular Carcinoma: Ongoing Work at a Tertiary Care Centre in India,’ Kinki University School of Medicine, Osaka, Japan; July 2009.
- ‘Radiofrequency Ablation versus Percutaneous Acetic Acid Therapy for the Treatment of Small Hepatocellular Carcinoma,’ Annual Meeting of Advanced Centre for Liver Disease of Indian Council of Medical Research, New Delhi, December 2009
- ‘Oral Chemotherapy and Supportive Therapy in the Treatment of Unresectable Patients of Hepatocellular Carcinoma,’ Annual Meeting of Advanced Centre for Liver Disease of Indian Council of Medical Research, New Delhi, December 2009
- ‘Transarterial Chemoembolization (TACE) and TACE combined with Oral Chemotherapy in the Treatment of Unresectable Hepatocellular Carcinoma,’ Annual Meeting of Advanced Centre for Liver Disease of Indian Council of Medical Research, New Delhi, December 2009.

### **National and International Conferences**

11<sup>th</sup> Annual Conference of the Indian Society of Vascular and Interventional Radiology (ISVIR) was jointly organized by Departments of Radiodiagnosis, Cardiac Radiology, and Neuroradiology at AIIMS, New Delhi, 7-10 October 2009.

### **Lectures delivered**

#### **National Conferences**

##### **Dr. Deep Srivastava**

- ‘Imaging and Interventional Treatment in Hepatic Cell Carcinoma: Indian Experience,’ New Management Paradigms in Liver Diseases: Institute of Liver and Biliary Sciences - National Institute of Health (USA) Symposium, New Delhi, 6-7 March 2010.
- ‘Role of Interventional Radiology in Healthcare Management in India,’ Indian Institute of Management (IIM), Indore, 4 March 2010.

##### **Dr. Sanjay Sharma**

- ‘Endovascular Management of Paediatric Budd Chiari Syndrome: A Promising Therapeutic Option?’ 7<sup>th</sup> National Conference of the Indian Society of Paediatric Radiology, New Delhi, 12-13 September 2009.
- ‘Ozone Therapy in Intervertebral Disc Lesions,’ 12<sup>th</sup> Annual Meeting of the Indian Society of Vascular & Interventional Radiology, New Delhi, 7-10 October 2009.
- Role of radiology in fungal infections, Golden Jubilee Conference of the Indian Society of Haematology and Transfusion Medicine New Delhi; 19-22 November 2009.

##### **Dr. Ashu Seith Bhalla**

- ‘Recent Advances in Endovascular Management of GI Bleed,’ 12<sup>th</sup> Annual conference of the Indian Society of Vascular & Interventional Radiology, New Delhi, 7-10 October 2009.

##### **Dr. Shivanand Gamanagatti**

- Embolisation of giant Superior Mesenteric Artery (SMA) aneurysm an unusual case,’ 11<sup>th</sup> Annual Conference of ISVIR, New Delhi, 7-10 October 2009.

## International Conferences

### Dr. Deep Srivastava

- ‘Interventional Radiology in Trauma,’ Trauma – 2009 International Conference, CME cum Live Workshop, New Delhi, 12-15 November 2009.

### Dr. Shivanand Gamanagatti

- ‘Ultrasound Guided Central Venous Access,’ Trauma – 2009 International Conference, CME cum Live Workshop, New Delhi, 12-15 November 2009.
- ‘Embolisation Techniques in Trauma: Live Video Demonstration,’ Trauma – 2009 International Conference, CME cum Live Workshop, New Delhi, 12-15 November 2009.
- ‘Plain X-Ray in Major Trauma,’ Trauma – 2009 International Conference, CME cum Live Workshop, New Delhi, 12-15 November 2009.

### Dr. Atin Kumar

- ‘Imaging of Abdominal Trauma,’ Trauma 2009: International Conference, CME cum Live Workshop, New Delhi, 12-15 November 2009.
- ‘Imaging of Chest Trauma,’ at Trauma 2009: International Conference, CME cum Live workshop, New Delhi, 12-15 November 2009.
- ‘FAST in trauma,’ Trauma 2009: International Conference, CME cum Live Workshop, New Delhi, 12-15 November 2009.

## RESEARCH

### Funded Research

#### *Ongoing*

- Diagnostic Accuracy of Whole Body Diffusion Weighted MRI in Oncologic Imaging: Comparison with Whole Body STIR MRI and FDG-PET-CT. Raju Sharma. Funded by AIIMS from 2009-2011. Funds: Rs. 1 lakh.

#### *Collaborative*

#### *Completed*

- Effects of Arzoxifene on Vertebral Fracture Incidence and on Invasive Breast Cancer Incidence in Postmenopausal Women with Osteoporosis or with Low Bone Density (with Department of Endocrinology). AC Ammini, Ashu Seith Bhalla. Funded by Eli Lilly and Company from 2005-2009. Funds: Rs. 50 lakhs.
- Antibiotic Prophylaxis in the Management of vesicoureteral reflux vesicoureteral reflux (VUR) - A Randomized Double Blind Placebo-Controlled Trial (with Department of Pediatrics). Pankaj Hari, Smriti Hari. Funded by ICMR from 2006-2009. Funds Rs 12 lakhs

#### *Ongoing*

- A Phase III Randomized, Placebo Controlled Clinical Trial to Assess the Safety and Efficacy of Odanacatib (MK-0822-018) to Reduce the Risk of Fracture in Osteoporotic Postmenopausal Women Treated with Vitamin D and Calcium (with Department of Endocrinology).

- Evaluation of Newer Markers of Atherosclerosis in Patients with Type-2 Diabetes (with Department of Medicine). Naval K Vikram, Atin Kumar. Funded from 2009-1012.

## Departmental Research

### *Completed*

- Role of PET-CT colonography and colonoscopy in the evaluation of ulcerative colitis.
- Differentiating recurrent gliomas from post radiotherapy changes: utility of advanced MRI techniques and their correlation with 99m tc-glucoheptonic acid (GHA) brain SPECT.
- Role of MDCT in staging of laryngeal carcinoma with limited MRI correlation
- Comparison of MDCT, endoscopic ultrasound, MRI & PET-CT in evaluation of pancreatic malignancy.
- MRI in evaluation of chronic wrist pain.
- Percutaneous management of patients with malignant biliary obstruction.
- Diffusion weighted MRI: A new tool for evaluation of focal liver lesions.
- The role of Multidetector Computed Tomographic Dacryocystography in patients with epiphora.
- Utility of cardiac MRI in right ventricular function evaluation in health and disease.

### *Ongoing*

- Comparison of CT & MRI including diffusion weighted MRI in renal mass lesions.
- Cysts, tumors and tumor like lesions of the jaw: evaluation by panoramic radiographs and MDCT with limited MRI correlation.
- A prospective study on radiological evaluation in patients with vascular malformations of extremities.
- Role of computed tomography and splenic artery embolisation in patients with blunt splenic injury.
- MRI evaluation of internal derangement of the knee.
- Evaluation of transrectal ultrasound, elastography and contrast enhanced sonography for detection of prostate cancer.
- Role of MRI in characterisation of sonographically indeterminate adenexal masses.
- Radiofrequency ablation of lower limb symptomatic varicosities.
- Role of computed tomography in staging and management of carcinoma cervix.
- Ultrasound and CT evaluation of the neck for assessment of lymph node metastases in clinically N0 patients with squamous cell carcinomas of the upper aerodigestive tract.
- Percutaneous radiofrequency ablation of painful benign bone tumors and metastasis.
- Comparison of accuracy of image guided and palpation guided core needle biopsy in palpable breast masses.

- Clinical utility of breast ultrasound as an adjunct to mammography in diagnostic breast imaging.

## **Collaborative Research**

### *Completed*

- To study the clinical and neuro developmental profile in children with tuberous sclerosis (with Department of Pediatrics).
- Incremental role of F-18 FDG PET-CT in evaluating response to primary treatment in advanced epithelial ovarian cancer patients (with Department of Nuclear Medicine).
- Hodgkin's lymphoma: analysis of treatment outcomes and prognostic factors (with Department of Medical Oncology).
- Oral voriconazole vs intravenous low dose amphotericin B for primary antifungal prophylaxis in pediatric acute leukemia induction: A prospective, randomized, clinical trial (with Department of Medical Oncology).
- Prothrombotic factors in patients with newly diagnosed multiple myeloma: an observational study (with Department of Medical Oncology).
- Equivalence randomized controlled trial of bioresorbable plates and titanium plates in the osteosynthesis of mandibular fracture - A pilot study (with Department of Dental Surgery).
- Utility of PET scan in assessing extent of disease and response to treatment in sarcoidosis (with Department of Medicine).
- Correlation between splenic volume and splenic vein diameter, portal pressure before and after the shunt, grade of varices in extrahepatic portal vein obstruction (with Department of Gastro-intestinal Surgery).
- Internal jugular vein ACTH estimation for diagnosis of ACTH dependent Cushing's syndrome: ultrasound guided direct jugular vein sample collection (with Department of Endocrinology).
- A clinical and cephalometric study of temporary anchorage device (TAD) supported anchorage in the management of maximum discrepancy extraction cases (with Department of Dental Surgery).
- Comparison of minimally invasive techniques and conservative treatment in vertebral collapse (with Department of Orthopedics).
- Clinico-radiological evaluation of total knee arthroplasty short term retrospective-prospective study (Orthopedics).
- Relationship of fetal Doppler velocimetry to biophysical profile and fetal outcome in normal pregnancies and in pregnancies with intrauterine growth retardation (with Department of Obstetrics and Gynaecology).
- Noninvasive screening for early preclinical atherosclerosis in children on phenytoin carbamazepine monotherapy for more than 18 months (with Department of Pediatrics).
- Feasibility of virtopsy: minimally invasive autopsy using ultrasonography and percutaneous organ biopsies as an alternative to open body autopsy in fetal abnormality (with Department of Obstetrics and Gynaecology).



- Role of centchroman in regression of mastalgia and regression of fibroadenoma and its correlation to histopathology and estrogen and progesterone receptors (with Department of Surgery).
- Effect of vitamin D3 supplementation on bone disorders in children with chronic kidney disease (with Department of Pediatrics).
- Prevalence of dyslipidemia in children with chronic kidney disease and measurement of carotid intima-media thickness and flow mediated vasodilatation (with Department of Pediatrics).
- Endothelial dysfunction in systemic sclerosis (with Department of Medicine).
- Correlation between splenic volume with splenic vein diameter, portal pressure before and after the shunt, grade of varices in extrahepatic portal vein obstruction (with Department of Paediatric Surgery).
- Molecular genetic studies in patients with leukodystrophy (with Department of Paediatrics).
- Long term follow up of patients undergoing esophageal replacement by reversed gastric tube (with Department of Paediatric Surgery).

### *Ongoing*

- Role of PET-CT in differentiating benign and malignant pancreatic mass lesions in patients with or without chronic pancreatitis (with Department of Nuclear Medicine).
- Use of CT as an adjunct to pre-operative planning and monitoring for osteo-odonto-keratoprosthesis in patients with end-stage Steven Johnson syndrome (with Department of Ophthalmology).
- Evaluation of changes in the dimensions of masseter muscle during various stages of twin block appliance therapy using MRI (with Department of Dental Surgery).
- Study of non alcoholic fatty liver disease and atherosclerosis in Asian Indians (with Department of Medicine).
- Evaluation of testicular blood flow and volume in patients undergoing laparoscopic inguinal hernia repair (with Department of Surgery).
- Evaluation of pancreatic tumors (with department of surgery).
- Abdominal fat estimation in patients of obstructive sleep apnoea (with Department of Medicine).
- Effect of continuous positive airway pressure on cardiovascular biomarkers in patients with obstructive sleep apnoea (with Department of Medicine).
- To study the effect of cricoids split with or without rib grafting in cases of subglottic stenosis for laryngotracheal stenosis (with Department of Otorhinolaryngology).
- Oxidative stress, carotid intimal media thickness & endothelial dysfunction in renal transplant recipients and effect of therapy with N- acetyl cysteine (with Department of Nephrology).
- Effect of N-Acetylcysteine on Oxidative stress, endothelial dysfunction & carotid intimal media thickness in chronic peritoneal dialysis patients – An open labeled randomized trial (with Department of Nephrology).

- Study of visual function and fundus findings in orbital tumours and their alterations after surgery (with Department of Ophthalmology).
- Role of non alcoholic fatty liver disease in adult population in a rural community living in Haryana (with Department of Preventive Medicine).
- Role of clinical, radiological and genetic evaluation in patients with Blepharophimosis Ptosis Epicanthus Inversus Syndrome (with Department of Ophthalmology).
- Evaluation of adjuvant chemotherapy in stage 2 and neoadjuvant chemotherapy in stage 3 retinoblastoma as per the international retinoblastoma staging system (with Department of Medical Oncology).
- Imaging guided lung biopsies in immune compromised patients with possible fungal pneumonia and its clinical implications (with Department of Hematology).
- Study of duration of anticoagulation in patients with deep venous thrombosis based on compression ultrasound (with Department of Hematology).
- Randomized control study of laparoscopic sleeve gastrectomy with and without staple line reinforcement in morbidly obese patients.(with Department of Surgery).
- Role of ultrasound elastography in breast lesions (with Department of Surgery).
- Role of magnetic resonance imaging and spectroscopic methods in the evaluation of prostate cancer (with Department of NMR).
- Randomized study comparing upfront surgery followed by chemotherapy versus upfront chemotherapy followed by interval debulking surgery in previously untreated epithelial ovarian cancer stage 3C and stage 4 (pleural effusion only) (with Department of Medical Oncology and Department of Obstetrics and Gynecology).
- Validation of gel dosimetry as 3D verification tool in highly conformal radiotherapy techniques (with Department of Neurobiochemistry and Department of Radiotherapy).
- Comparison of CT, MRI and PET CT in evaluation of focal pancreatic masses and its correlation with the histopathology (with Department of Nuclear Medicine).
- A study of angiogenesis, proliferative activity and DNA ploidy in squamous cell carcinoma of larynx and their correlation with lymph node metastasis (with Department of Pathology).
- Comparative study of radiation therapy dose, volume evaluation for 3D conformal radiotherapy (3D CRT) versus image guided radiotherapy (IGRT) and analysis of early response in head and neck squamous cell carcinoma (with Department of Radiotherapy).
- Prospective comparative evaluation of 3D CT based treatment planning and 2D radiography based treatment planning for intracavitary brachithery in carcinoma cervix (with Department of Radiotherapy).
- Prevalence of vitamin D deficiency and rickets in patients of congenital ichthyosis and keratinizing disorders in age group less than 21 years (with Department of Dermatology).
- Assessment of therapeutic response of radiolabelled anti-CD20 antibodies 131-iodine rituximab and/or 90 Yttrium rituximab in diffuse large B cell non Hodgkin lymphoma (with Department of Nuclear Medicine).

- Characterization and dosimetric evaluation of thermoluminescent phosphorus (with Department of Medical Physics).
- Study of efficacy of bioresorbable plates in the osteosynthesis of mandibular fractures without post-operative maxillomandibular fixation: a prospective study (with Department of Dental Surgery).
- A comparative study to measure the condylar guidance by the radiographic and clinical methods (with Department of Dental Surgery).
- Clinical and radiographic hand abnormalities in patients with systemic sclerosis and their correlation with systemic features of the disease (with Department of Medicine).
- Study of rheumatic musculoskeletal symptoms/disease and osteoarthritis of knee in older patients (with Department of Medicine).
- Gastrointestinal involvement in systemic sclerosis - A cross sectional study (with Department of Medicine).
- Effect of progressive resistance exercise training on hepatic fat in Asian Indians with non-alcoholic fatty liver disease (NAFLD) (with Department of Medicine).
- Oncology adequacy and functional outcome of transoral laser microsurgery (TLM) for early and moderately advanced laryngeal and hypopharyngeal cancers (with Department of Otolaryngology).
- Role of PET-CT in diagnosing unknown primary of head and neck cancer with cervical metastases (with Department of Otolaryngology).
- Immunohistochemical characterization of juvenile nasopharyngeal angiofibroma (JNA) and radiological and histological evaluation of involvement of Vidian canal in JNA (with Otolaryngology)
- Plastination of brain sections by silicone(S-10) and polyester (P-40) techniques.
- Structural and functional abnormalities in lungs in Achalasia cardia patients-pre and post treatment evaluation (with Department of Medicine).
- Study of mycobacteremia in military and disseminated tuberculosis (with Department of Medicine).
- Role of contrast enhanced ultrasound in the diagnosis and for assessment of the therapeutic response in patients of hepatocellular carcinoma (with Department of Gastroenterology).
- Assessment of response of hepatocellular carcinoma to transarterial chemoembolization by using magnetic resonance imaging (with Department of Gastroenterology).
- Arthroscopic and MR evaluation of elbow in patients with rheumatoid arthritis (with Department of Orthopedics).
- Intralesional autologous bone marrow stem cell injection in avascular necrosis of femoral head: follow up with bone scan, PET scan and (with Department of Orthopedics).
- Plain radiograph and MR imaging of patients with tennis elbow (with Department of Orthopedics).

- MDCT evaluation of spinal trauma: preoperative and post operative evaluation (with Department of Orthopedics).
- Randomized controlled trial of radiofrequency ablation versus percutaneous acetic therapy for the treatment of small hepatocellular carcinoma (with Department of Gastroenterology).
- Randomized control trial of transarterial chemoembolisation (TACE) versus TACE plus oral chemotherapy in the treatment of unresectable hepatocellular carcinoma (with Department of Gastroenterology).
- Randomized controlled trial of transarterial chemotherapy (TAC) versus oral chemotherapy in the treatment of unresectable hepatocellular carcinoma (with Department of Gastroenterology).
- Randomized Controlled trial of N-acetylcysteine in prevention of renal failure in hepatocellular carcinoma patients undergoing transarterial chemotherapy and transarterial chemoembolisation (with Department of Gastroenterology).
- Randomized controlled trial of oral chemotherapy versus supportive therapy in the treatment of unresectable hepatocellular carcinoma (with Department of Gastroenterology).
- Liver stiffness estimation by transient elastography in cirrhosis and non-cirrhotic portal hypertension (with Department of Gastroenterology).
- MRI based protocol for the management of infected pancreatic necrosis (with Department of Gastroenterology).
- Pattern of peripheral arterial diseases in tertiary care surgical practice: Indian scenario (with Department of Surgery).
- Safety and efficacy of autologous stem cells in prevention of amputation in patients with chronic critical limb ischemia (with Department of Surgery).
- A comparative evaluation of changes in ultrasonographic dimensions of masseter muscle with EMG activity prior and subsequent to twin blocks therapy (with Department of Dental Surgery).
- USG evaluation of intimal-medial thickness of carotid artery in patients with SLE (with Department of Medicine).
- Estimation of standard liver volume in the Indian population (with Department of Gastrointestinal Surgery).
- Role of intraoperative ultrasound in gastrointestinal malignancies: comparison with conventional imaging techniques (with Department of Gastrointestinal Surgery).
- Ultrasound doppler evaluation of Extra-Hepatic Portal Vein Obstruction (EHPVO) patients during follow up (with Department of Gastrointestinal Surgery).
- Ultrasound evaluation cervical lymph nodes in patients with carcinoma of esophagus (with Department of Gastrointestinal Surgery).
- Role of MRI in evaluation of pelvic organ prolapse and its relationship with Pelvic Organ Prolapse - Quantitative (POPQ) classification (with Department of Obstetrics and Gynaecology).

- Relationship of fetal doppler velocimetry to biophysical profile and fetal outcome in normal pregnancies and in pregnancies with intrauterine growth retardation (with Department of Obstetrics and Gynaecology).
- Evaluation of PET scan in preoperative assessment of cases of endometrial carcinoma (with Department of Obstetrics and Gynaecology).
- Correlation of stage and imaging of endometriosis with fertility outcome (with Department of Obstetrics and Gynaecology).
- Evaluation of the efficacy of thrice weekly DOTS regimen in TB pleural effusion at six months (with Department of Medicine).
- Endothelial dysfunction in rheumatoid arthritis (with Department of Medicine)
- A comparison of seizure recurrence in neurocytotoxicosis patients with calcified and non calcified healed lesions (with Department of Paediatrics).
- Incidence of acute kidney injury in sick, hospitalized children: A prospective observational study (with Department of Paediatrics).
- A study the clinical and neurodevelopment profile in children with Tuberous sclerosis (with Department of Paediatrics).
- Efficacy of zinc supplement as an adjunct with anti-tubercular treatment in children below 15 years of age with pulmonary tuberculosis in reducing time to sputum conversion: a randomized blind trial (with Department of Paediatrics).
- A comparison of seizure recurrence in neurocytotoxicosis patients with calcified and non calcified healed lesions (with Department of Paediatrics).
- Development of multifunctional metallic nano particles for cancer targeting (with Department of Pathology).
- Sonographic placental investigation and maternal quantitative D-Dimers in early singleton pregnancy: correlation with maternal and fetal outcome (with Department of Obstetrics and Gynaecology).

## **PUBLICATIONS**

### **Journals**

- Ankur G, Bhalla AS, Sharma R. First branchial cleft cyst (Type II). *Ear Nose Throat Journal* 2009; 88:1194-5.
- Bajpai J, Sharma M, Sreenivas V, Kumar R, Gannagatti S, Khan SA, et al. VEGF expression as a prognostic marker in osteosarcoma. *Pediatric Blood Cancer* 2009; 53:1035-9.
- Choudhary A, Sharma S, Sankhyan N, Gulati S, Kalra V, Banerjee B, Kumar A. Midbrain and spinal cord magnetic resonance imaging (MRI) Changes in Poliomyelitis. *Journal of Child Neurology* 2010 Feb 5 [Epub ahead of print].
- Choudhary A, Sharma S, Sankhyan N, Gulati S, Kumar A. Unidentified bright objects in neurofibromatosis Type 1. *Indian Journal of Pediatrics* 2010 Jan 20 [Epub ahead of print].

- Das CJ, Dhingra S, Gupta AK, Iyer V, Agarwala S. Imaging of pediatric liver tumours with pathological correlation: pictorial review. *Clinical Radiology* 2009; 64:1015-25.
- Das CJ, Goenka AH, Srivastava DN. MR-guided abdominal biopsy using a 1.5 Tesla closed system. *Abdominal Imaging* 2009 Mar 4 [Epub ahead of print].
- Das CJ, Makharia GK, Kumar R, Tiwari RP, Sharma R, Malhotra A. PET-CT colonography: A novel non-invasive technique for assessment of extent and activity of ulcerative colitis. *European Journal of Nuclear Medicine and Molecular Imaging* 2009 Dec 22 [Epub ahead of print].
- Gadodia A, Gamanagatti S, Neyaz Z. Segmental cystic renal disease: sonographic and CT findings. *Journal of Clinical Ultrasound* 2009; 37:525-6.
- Gadodia A, Kumar A, Sankhyan N, Sharma S, Vasisht N. Images in neurology. Neurodegeneration with pantothenate kinase syndrome: retinal and magnetic resonance imaging findings. *Archives of Neurology* 2009; 66:798-9.
- Gadodia A, Seith A, Sharma R, Takkar A, Parshad R. MR sialography using CISS & HASTE sequence in inflammatory salivary gland diseases: comparison with digital sialography. *Acta Radiologica* 2010; 51:156-63.
- Gadodia A, Seith A, Sharma R. Pediatric salivary gland imaging. *Pediatric Radiology* 2009; 39:1380-1.
- Ganesan P, Swaroop C, Ahuja A, Thulkar S, Bakhshi S. Early onset sinonasal mucormycosis during induction therapy of acute lymphoblastic leukemia: good outcome without surgical intervention. *Journal of Pediatric Hematology & Oncology* 2009; 31:152-3.
- Ganesan P, Thulkar S, Gupta R, Bakhshi S. Childhood aleukemic leukemia with hypercalcemia and bone lesions mimicking metabolic bone disease. *Journal of Pediatric Endocrinology & Metabolism* 2009; 22:463-7.
- Ghosh I, Thulkar S, Arora R, Bakhshi S. Multifocal osteomyelitis as a presenting manifestation of childhood acute myeloid leukemia. *Journal of Pediatric Hematology & Oncology* 2009; 31:75-6.
- Goenka A, Kumar A, Sharma R. MR spectroscopy for the differentiation of recurrent glioma from radiation induced change. *American Journal of Roentgenology* 2009; 193:W569-70.
- Goenka A, Sharma R, Gupta AK. 3D MR imaging in ectopic vasa deferentia. *Pediatric Radiology* 2009; 39:1246-9.
- Goenka AH, Das CJ, Sharma R. Nephrogenic systemic fibrosis: A review of the new conundrum. *National Medical Journal of India* 2009; 22:242-6.
- Gupta A, Kumar L, Karak A, Thulkar S, Rastogi R, Bhatti S. Multicentric hyaline vascular type Castleman disease presenting as an epidural mass causing paraplegia: A case report. *Clinical Lymphoma & Myeloma* 2009; 9: 250-3.
- Gupta AK, Kandasamy D, Seth R. Role of FDG-PET/CT in management of Hodgkin's lymphoma. *Indian Journal of Pediatrics* 2009; 76: 1271-4.
- Gupta AK, Kandasamy D. Sonography of gut wall pathology. *Indian Journal of Pediatrics* 2009; 76:1176.



- Gupta AK, Manjunath YC. Imaging in mediastinal neuroblastoma. *Indian Journal of Pediatrics* 2010; 77: 105-6.
- Gupta AK. Normal thymus mimicking 'mediastinal mass.' *Indian Journal of Pediatrics* 2009; 76:1067-8.
- Gupta M, Gupta R, Gogia N, Thulkar S. Pulmonary artery thrombus seen as a solitary pulmonary nodule on chest radiograph. *Singapore Medical Journal* 2010; 51:e22-3.
- Gupta P, Sharma R, Gadodia A, Kumar S, Roy KK, Malhotra N, Sharma JB. Role of MRI in fetal abdominal cystic masses detected on prenatal sonography. *Archives of Gynecology & Obstetrics* 2010; 281:519-26.
- Hadda V, Khilnani GC, Bhalla AS, Gupat R, Gupta SD, Goel A. Pulmonary lymphoma mimicking metastases: a case report. *Cases Journal* 2009; 16:7081.
- Hadda V, Khilnani GC, Bhalla AS, Mathur S. Lipoid pneumonia presenting as non resolving community acquired pneumonia: a case report. *Cases Journal* 2009; 16:9332.
- Jain V, Goel P, Kumar D, Seith A, Sarkar C, Kabra S, Agarwala S. Endobronchial chondroid hamartoma in an infant. *Journal of Pediatric Surgery* 2009; 44:e21-3.
- Jain V, Sharma R, Kandpal H. Evaluation of the liver using CT scan. *National Medical Journal of India* 2009; 22:137-46.
- Jana M, Gupta AK. Radiologic evolution of congenital cystic adenomatoid malformation in a neonate. *Indian Journal of Pediatrics* 2010; 77: 212-3.
- Jana M, Hari S. Traumatic diaphragmatic rupture complicated by intercostal tube insertion into the stomach. *Surgery* 2010 Feb 26 [Epub ahead of print].
- Jana M, Kumar A Kallmann syndrome in an adolescent boy. *Pediatric Radiology* 2010; Mar 12 [Epub ahead of print]
- Kadiravan T, Soneja M, Hari S, Sharma SK. Images in clinical tropical medicine: disseminated cysticercosis. *Journal of Tropical Medicine & Hygiene* 2009; 80:699.
- Khera R, Jain S, Kumar L, Thulkar S, Vijayaraghavan M, Dawar R. Diffuse large B-cell lymphoma: experience from a tertiary care center in north India. *Medial Oncology* 2009 Apr 7 [Epub ahead of print].
- Kumar A, Goenka AH, Choudhary A, Sahu JK, Gulati S. Disseminated cysticercosis in a child: whole-body MR diagnosis with the use of parallel imaging. *Pediatric Radiology* 2010; 40:223-7.
- Kumar A, Kumar J, Garg M, Farooque K, Gamanagatti S, Sharma V. Posttraumatic subacute ascending myelopathy in a 24-year-old male patient. *Emergency Radiology* 2009 Sep 4 [Epub ahead of print].
- Kumar D, Sharma P, Agarwala S, Thulkar S, Tanveer N, Bakhshi S. Pediatric renal non-Hodgkin lymphoma with inferior vena cava thrombosis. *Journal of Pediatric Hematology & Oncology* 2010; 32:147-9.
- Kumar J, Seith A, Kumar A, Madan K, Guleria R. Chest wall and mediastinal nodal aspergillosis in an immunocompetent host. *Diagnostic Interventional Radiology* 2009; 15:176-8.



- Kumar V, Jagannathan NR, Kumar R, Nayyar R, Thulkar S, Gupta SD. Potential of (1) H MR spectroscopic imaging to segregate patients who are likely to show malignancy of the peripheral zone of the prostate on biopsy. *Journal of Magnetic Resonance Imaging* 2009; 30:842-8.
- Madhusudan KS, Sharma S, Srivastava DN, Thulkar S, Mehta SN, Prasad G, et al. Comparison of intra-arterial digital subtraction angiography using carbon dioxide by homemade delivery system and conventional iodinated contrast media in the evaluation of peripheral arterial occlusive disease of the lower limbs. *Journal Medical Imaging & Radiation Oncology* 2009; 53:40-9.
- Madhusudan KS, Srivastava DN, Dash NR Gupta C, Gupta SD. Schwannoma of both intrahepatic and extrahepatic bile ducts: a rare case. *British Journal of Radiology* 2009; 82: e212-5.
- Madhusudhan KS, Das CJ, Dutta R, Kumar A, Bhalla AS. Endovascular embolization of pulmonary sequestration in an adult. *Journal of Vascular Interventional Radiology* 2009; 20:1640-2.
- Madhusudhan KS, Seith A, Khadgawat R, Das P, Mathur S. Tuberculosis of the thyroid gland: magnetic resonance imaging appearances. *Singapore Medical Journal* 2009; 50:e235-8.
- Madhusudhan KS, Sharma R, Kandpal H, Kumar A, Gamanagatti S, Jain V, Chumber S. A rare case of combined soft-tissue and intraosseous arteriovenous malformation of the hand with diffuse periosteal elevation: imaging appearances. *British Journal of Radiology* 2009; 82:e219-24.
- Madhusudhan KS, Sharma S, Seth A. Spontaneous closure of a traumatic intrarenal pseudoaneurysm. *Journal of Medicine* 2009; 55:124-6.
- Madhusudhan KS, Sharma S, Srivastava DN, Thulkar S, Mehta SN, Prasad G, et al. Comparison of intra-arterial digital subtraction angiography using carbon dioxide by 'home made' delivery system and conventional iodinated contrast media in the evaluation of peripheral arterial occlusive disease of the lower limbs. *Journal of Medical Imaging & Radiation Oncology* 2009; 53:40-9.
- Madhusudhan KS, Srivastava DN, Gamanagatti S. Giant hemangioma of liver presenting as deep vein thrombosis of the lower limbs. *Journal of Postgraduate Medicine* 2009; 55:290-1
- Makharia GK, Seith AS, Sharma SK, Sinha A, Goswami P, Aggarwal A, et al. Structural and functional abnormalities in lungs in patients with achalasia. *Neurogastroenterology Motility* 2009; 21:603-8.
- Mathur SR, Gupta R, Seith A, Agarwala S, Subramanian S, Gupta SD. Aspiration cytology of mesenchymal hamartoma of the chest wall in an infant: a case report. *Acta Cytologica* 2010; 54:63-5.
- Misra MC, Khan RN, Bansal VK, Jindal V, Kumar S, Noba AL, et al. Laparoscopic pericystectomy for hydatid cyst of the liver. *Surgical Laparoscopic Endoscopic Percutaneous Technology* 2010; 20:24-6.
- Mukund A, Gamanagatti S. Ethanol ablation of renal cell carcinoma for palliation of symptoms in advanced disease. *Journal of Palliative Medicine* 2010; 13:117-20.

- Paul SB, Chalamalasetty SB, Vishnubhatla S, Madan K, Gamanagatti SR, Batra Y. Clinical profile, etiology and therapeutic outcome in 324 hepatocellular carcinoma patients at a tertiary care center in India. *Oncology* 2009; 77:162-7.
- Paul SB, Manjunatha YC, Acharya SK. Palliative treatment in advanced hepatocellular carcinoma: has it made any difference? *Tropical Gastroenterology* 2009; 30:125–134.
- Prabhakar R, Ganesh T, Rath GK, Julka PK, Sridhar PS, Joshi RC, Thulkar S. Impact of different CT slice thickness on clinical target volume for 3D conformal radiation therapy. *Medical Dosimetry* 2009; 34:36-41.
- Pushker N, Kashyap S, Bajaj MS, Meel R, Sood A, Sharma S, Konkali VL. Primary lacrimal sac rhinosporidiosis with grossly dilated sac and nasolacrimal duct. *Ophthalmic Plastic Reconstructive Surgery* 2009; 25:234-5.
- Pushker N, Mehta M, Bajaj MS, Chawla B, Sharma S, Sethi S, Ghose S. Nasoethmoidal cephalocele with bilateral orbital extension presenting as bilateral lower eyelid mass. *Journal of Pediatric Ophthalmology & Strabismus* 2010; 47:64.
- Roychoudhury A, Rustagi A, Bhatt K, Bhutia O, Seith A. Aneurysmal bone cyst of the mandible: report of 3 cases. *Journal of Oral Maxillofacial Surgery* 2009; 67:1996-2004.
- Sahu JK, Sharma S, Kamate M, Kumar A, Gulati S, Kabra M, Kalra V. Lead encephalopathy in an infant mimicking a neurometabolic disorder. *Journal of Child Neurology* 2010; 25:390-2.
- Sharma A, Gupta D, Mohanti BK, Thulkar S, Dwary A, Goyal S, et al. Non Hodgkin lymphoma following temozolomide. *Pediatric Blood Cancer* 2009; 53:661-2.
- Sharma A, Mohanty B, Raina V, Shukla N, Pal S, Dwary A, Deo S, Sahni P, Garg P, Thulkar S, et al. A phase II study of gemcitabine and oxaliplatin (oxygem) in unresectable gall bladder cancer. *Cancer Chemotherapy & Pharmacology* 2010; 65:497-502.
- Sharma DN, Bahl A, Thulkar S, Rath GK, Basu KS, Bansal A, Julka PK. Radiation dose escalation by percutaneous interstitial brachytherapy in locally advanced non small cell lung cancer. *Indian Journal of Chest Diseases & Allied Sciences* 2009; 51:103-6.
- Sharma R, Priyadarshi RN, Seith A. Shoulder girdle lipomatosis. *Singapore Medical Journal* 2009; 50:e315-7.
- Sharma S, Mukund A, Agarwal S, Srivastava DN. Case of a misplaced IVC filter: A lesson to learn. *Cardiovascular Interventional Radiology* 2010 Feb 26 [Epub ahead of print].
- Sharma S, Sankhyani N, Kabra M, Kumar A. Hypomelanosis of Ito with hemimegalencephaly. *Dermatology Online Journal* 2009; 15:12.
- Sharma S, Sankhyani N, Kumar A. Teaching neuroimages: macrocephaly with subcortical calcifications in vein of Galen aneurysmal malformation. *Neurology* 2009 May 26 [Epub ahead of print].
- Sharma SK, Gupta V, Kadiravan T, Bagga A, Seith A, Kumar A, et al. A prospective study of risk factor profile and incidence of deep venous thrombosis among medically-ill hospitalized patients at a tertiary care hospital in northern India. *Indian Journal of Medical Research* 2009; 130:726-30.

- Shukla P, Gupta N, Balakrishnan P, Ghosh M, Gupta AK, Sharma R, Kabra M. Megalencephalic leukodystrophy with simple hemihyperplasia: a rare association. *Clinical Dysmorphology* 2009; 18:49-51.
- Shukla P, Gupta N, Kabra M, Ghosh M, Sharma R, Gupta AK, et al. Three novel variants in X-linked adrenoleukodystrophy. *Journal of Child Neurology* 2009; 24:857-60.
- Thulkar S, Hari S. Present role of mammography/ digital mammography in the management of breast cancer. *PET Clinics* 2009; 4:213-25.

### Abstracts

- Bhatt K, Roychoudhury A, Bhutia O, Seith A, Trikha A, Pandey RM. Equivalence randomized controlled trial of bioresorbable plates and titanium plates in the osteosynthesis of mandibular fracture - A pilot study. *International Journal of Oral and Maxillofacial Surgery* 2009; 38:494.

### Books

- Khandelwal N, Chowdhury V, Gupta AK, Lal A (Eds). *Genitourinary Imaging*, 3rd Edition. New Delhi: Jaypee Brothers Publishers (P) Ltd 2009.
- Chowdhury V, Gupta AK, Khandelwal N, Sharma S, Prakash A (Eds). *Chest & Cardiovascular Imaging*, 3rd edition. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd 2010.

### Chapters in Books

- Bhalla AS, Gupta AK, Sharma R. Tubercular infection of the urinary tract. In: Khandelwal NK, Choudhary V, Gupta AK (Eds.), *Diagnostic Radiology - Genitourinary Imaging*, 3<sup>rd</sup> edition. New Delhi: Jaypee Publishers 2009; pp 120-37.
- Bhalla AS, Sharma S. Imaging of the tracheobronchial tree. In: Choudhary V, Gupta AK, Khandelwal N (Eds.), *Diagnostic Radiology - Chest and Cardiovascular Imaging*, 3<sup>rd</sup> edition. New Delhi: Jaypee Publishers 2010; 90-116.
- Gamanagatti S, Srivastava DN. Vascular interventions of genitourinary tract. In: Khandelwal NK, Choudhary V, Gupta AK (Eds.), *Diagnostic Radiology - Genitourinary Imaging*, 3<sup>rd</sup> edition. New Delhi: Jaypee Publishers 2009; pp 449-66.
- Gamanagatti S, Bhalla AS. Bronchial artery embolization. In: Choudhary V, Gupta AK, Khandelwal NK (Eds). *Diagnostic Radiology: Chest & Cardiac Radiology*, 3<sup>rd</sup> edition New Delhi: Jaypee Brothers 2010; pp 315-27.
- Gupta AK, Srinivasan A. Common radiological procedures in pediatric surgery. In: Gupta DK (Ed). *Pediatric Surgery: Diagnosis and Management*, New Delhi: Jaypee Brothers Medical Publishers (P) Ltd, 2009; pp 131-9.
- Hari S, Kumar A. Retroperitoneum. In: Khandelwal N, Chowdhury V, Gupta AK *Diagnostic Radiology: Genitourinary Imaging*, 3<sup>rd</sup> edition. New Delhi: Jaypee Brothers Medical Publishers (Pvt.) Ltd. 2009; pp 408-34.
- Hari S, Sharma S, Srivastava DN. Imaging of interstitial lung diseases. In: Chowdhury V, Gupta AK, Khandelwal N. *Diagnostic Radiology: Chest and Cardiovascular Imaging*, 3<sup>rd</sup> edition. New Delhi: Jaypee Brothers Medical Publishers (Pvt) Ltd. 2010; pp 117-33.

- Kumar A, Gamanagatti S. Imaging of chest trauma. In: Choudhary V, Gupta AK, Khandelwal NK. Diagnostic Radiology: Cardiovascular and Chest imaging, 3<sup>rd</sup> Edition. New Delhi: Jaypee Brothers 2010; 259-71.
- Kumar A, Gamanagatti S. Imaging of urinary tract trauma. In: Khandelwal N, Chowdhury V, Gupta AK Diagnostic Radiology: Genitourinary Imaging, 3<sup>rd</sup> edition. New Delhi: Jaypee Brothers Medical Publishers (Pvt.) Ltd. 2009; 358-77.
- Sharma R, Bhalla AS, Gupta AK. Imaging the adrenal gland. In: Khandelwal N, Chowdhury V, Gupta AK Diagnostic Radiology: Genitourinary Imaging, 3<sup>rd</sup> edition. New Delhi: Jaypee Brothers Medical Publishers (Pvt.) Ltd. 2009; pp 378-407.
- Sharma S, Thulkar S. Chest in immune compromise: hematological infections and bone marrow transplant. In: Choudhary V, Gupta AK, Khandewal NK (Eds). Diagnostic Radiology: Chest & Cardiac Radiology, 3<sup>rd</sup> edition New Delhi: Jaypee Brothers 2010; 145-53.
- Sharma S. Radiology in fungal infections. In: Mahapatra M, Seth T, Misra M. Haematology - Education Program Book. New Delhi: Jay Dee Services 2009; pp 139-51.
- Sharma R, Bhalla AS, Gupta AK. Imaging the mediastinum. In: Choudhary V, Gupta AK, Khandelwal NK. Diagnostic Radiology: Cardiovascular and Chest imaging, 3<sup>rd</sup> Edition. New Delhi: Jaypee Brothers 2010; pp 154-77.
- Srivastava DN Thulkar S. Male infertility and erectile dysfunction. In: Khandelwal N, Chowdhury V, Gupta AK Diagnostic Radiology: Genitourinary Imaging, 3<sup>rd</sup> edition. New Delhi: Jaypee Brothers Medical Publishers (Pvt.) Ltd. 2009; pp 580-96.
- Srivastava DN, Batra B, Gandhi D. Paediatric interventional radiology. In: Gupta DK (Ed). Paediatric Surgery: Diagnosis & Management. New Delhi: Jaypee Brothers Medical Publishers (Pvt.) Ltd. 2009; pp 168-79.
- Srivastava DN, Kumar A Gamanagatti S. MDCT Chest: technique and anatomy. In: Chowdhury V, Gupta AK, Khandelwal N (Eds). Diagnostic Radiology: Chest and Cardiovascular Imaging, 3<sup>rd</sup> edition. New Delhi: Jaypee Brothers Medical Publishers (Pvt) Ltd. 2010; pp 13-27.
- Thulkar S, Hari S, Gupta AK. Lung malignancies. In: Chowdhury V, Gupta AK, Khandelwal N (Eds). Diagnostic Radiology: Chest and Cardiovascular Imaging, 3<sup>rd</sup> edition. New Delhi: Jaypee Brothers Medical Publishers (Pvt) Ltd. 2010; pp 212- 35.
- Thulkar S, Hari S. Imaging in gynecological malignancies. In: Khandelwal N, Chowdhury V, Gupta AK. Diagnostic Radiology: Genitourinary Imaging, 3<sup>rd</sup> edition. New Delhi: Jaypee Brothers Medical Publishers (Pvt.) Ltd. 2009; pp 529-57.

## PATIENT CARE

### New Equipment

- Somatom Definition Flash (high end multi-detector CT with dual energy capability)
- Sterrad 100S (low temperature hydrogen peroxide gas plasma sterilizer)
- Upgradation of X-ray film and standard video acquisition station

*Details of Investigations for the period 1<sup>st</sup> April 2009 to 31<sup>st</sup> March 2010*

<b>S. No.</b>	<b>Investigation</b>	<b>Number</b>
1.	Plain X ray (including emergency)	1,88,832
<b>S. No.</b>	<b>Special Investigations</b>	<b>Number</b>
1.	Barium studies	2772
2.	Intravenous Urography	1662
3.	Micturating Cystourethrography (adult + children)	1812
4.	Hysterosalpingography	258
5.	Contrast studies	873
6.	Mammogram	1464
7.	Digital Subtraction Angiography	646
8.	Interventional Digital Subtraction Angiography	1118
9.	OT Procedures	41
10.	MRI	2811
11.	Routine Ultrasound	42162
12.	Doppler	3421
13.	Ultrasound guided Interventions (routine + emergency)	2849
14.	CT	13808
15.	CT guided Interventional Procedure	463
	<b>Total (special investigations)</b>	<b>76,160</b>
	<b>Grand Total= 1, 88,832 + 76,160</b>	<b>2, 64,992</b>

### **AWARDS, HONOURS AND SIGNIFICANT EVENTS**

**Dr. Sanjay Sharma** received the Dr BD Handa Award for the best paper at the 7<sup>th</sup> National Conference of Indian Society of Paediatric Radiology (Delhi, 13 September 2009). He was elected Joint Secretary of Indian Society of Vascular & Interventional Radiologists (2009-10).

**Dr Ash Seith Bhalla** was elected to the executive council of ISVIR (2009-10). She also received the best poster award at Annual Conference of ISVIR (Delhi, 7-10 October 2009).

**Dr Shivanand Gamanagatti** is on the Editorial Board of the World Journal of Radiology and the Journal of Thoracic Diseases. He was also awarded the MNAMS.

**Dr Atin Kumar** was awarded the MNAMS.

**Dr Shashi Paul** was awarded the Japanese Society of Hepatology (JSH) Best Poster Award at its 8<sup>th</sup> Single Theme Conference (Tokyo, Japan, November 2009). She was a Visiting Scientist to the Department of Gastroenterology, Kinki University School of Medicine, Osaka, Japan (July –August 2009). She was also awarded the MNAMS.

## 9.33 Reproductive Biology

### Professor and Head

Anand Kumar

### Associate Professors

Narendra Nath Sarkar

Ashutosh Halder

Pradeep Kumar Chaturvedi

## EDUCATION

### Undergraduate/Postgraduate Training

Ph.D/DM/MD/MS - 12 candidates

MD Laboratory Medicine and MD Biochemistry students in Central RIA Facility

### Short & Long Term Training

Long-term training was provide to 3 trainees on WHO fellowship (6 months)

Short-term training was provided to 1 student

### Continuing Medical Education

The Department organized a national workshop on 'Molecular Cytogenetics: Cancer Cytogenetics (Solid Tissue) by Fluorescent in-situ Hybridization (FISH),' at AIIMS, New Delhi, in August 2009.

### National & International Conferences/Workshops

Indian Institute of Technology (Kharagpur and Department of Reproductive Biology, AIIMS jointly organized a workshop on 'Technology in Fertility Regulation,' at AIIMS, in February 2010.

### Lectures delivered

#### Dr. Anand Kumar

- 'Keynote Address' on 'Physiology of Thyroid Hormone Changes during Pregnancy,' Varanasi March, 2010.

#### Dr. N.N. Sarkar

- 'Menopause: the end of the reproductive phase of women's life,' Indian Science Congress, Trivandrum, January 2010.

#### Dr. A. Halder

- 'Role of Molecular Cytogenetics in Clinical Practice,' 35<sup>th</sup> Annual Conference of the Indian Society of Human Genetics, Lucknow, March 2010.
- 'In-Situ Hybridization Methodologies: In-situ Hybridization, Colorimetric In-situ Hybridization (CISH), Fluorescent in-situ Hybridization (FISH), DNA Microarrays,' Molecular Techniques in Cancer Diagnosis & Research,' New Delhi, March 2010.

## RESEARCH

### Funded Projects

#### *Ongoing*

- Prevalence of 22q11 deletion syndrome in children with structural cardiac malformation: a tertiary care referral hospital-based study in Delhi. A. Halder (2006-ongoing). Funded by: Indian Council of Medical research (ICMR). Funds: Rs. 9 lakhs.
- Rapid detection of chromosome X, Y, 21, 18 & 13 aneuploidy by primed in-situ labeling. Halder A (2008-ongoing). Funded by: AIIMS. Funds: Rs. 2 lakhs.
- Spermiation defect: role of AMH, Vitamin A and heavy metal. SRF project (2009 – ongoing). Funded by: ICMR. Funds: Rs. 3 lakhs.
- Quality control for hCG kits procured by HLL Lifecare Limited. Anand Kumar (2008-ongoing). Funded by: HLL Lifecare Limited, Gurgaon. Funds: Rs. 3.6 lakhs/year.
- Mediatory role of hypoxia inducible factor 1 alpha on vascular endothelial growth factor expression in an immortalized mouse leydig cell line. Anand Kumar (2009-ongoing). Funded by: Department of Science and Technology. Funds: Rs. 18 lakhs.

### Departmental

#### *Ongoing*

- Regulation of proliferation of prostatic cancer cell line LNCaP.
- Regulation of granulosa cell steroidogenesis.
- Genetic and endocrine factors in primary testicular failure.
- Role of cobalt chloride induced hypoxia on MA-10 cells.
- An investigation on underlying etiology on primary testicular failure
- Dynamics of Sex Ratio
- Analysis of differential expression of proteins in motile and non motile spermatozoa
- Evaluation of the impact of intimate partner violence on woman's reproductive health and pregnancy outcome.
- Evaluation of the end of reproductive phase of the woman's life.
- Evaluation of the use of emergency contraception by the adolescents and young adult women.

#### *Completed*

- Evaluation of hormonal profiles behind the heart of a man.
- Evaluation of the impact of the sex hormone therapy on the health of postmenopausal women.
- Evaluation of emergency contraception: a contraceptive intervention confronting ethical and cultural barriers.
- Effect of oral contraceptive containing ethinyl estradiol combined with drospirenone Vs desogestrel on clinical and biochemical parameters in patients of polycystic ovarian syndrome.



## Collaborative Research

### Ongoing

- Use of letrozole versus clomiphene citrate combined with gonadotropins in superovulation and Intra-uterine insemination cycles (with Department of Obstetrics & Gynaecology).
- Comparison of chronic groin pain, testicular functions and quality of life after open and laparoscopic inguinal hernia repair - A prospective randomized controlled trial (with Department of Surgery).
- Characterization of chromosomal anomalies in multiple myeloma patients using cytogenetics and fluorescent in-situ hybridization (FISH) (with Dr. BR Ambedkar Institute Rotary Cancer Hospital).
- Adrenal functions in patients with severe sepsis and septic shock (with Department of Medicine).

### PUBLICATIONS

- Fauzdar A, Halder A, Kumar A. Effect of gonadotropins on chromosome aneuploidy, chromosome mosaicism and skewed sex ratio in mouse preimplantation embryos. *Indian J Med Res* 2009; **129**: 669-75.
- Yadav N, Sumod K, Kumar S, Jain M, Halder A, Saxena R, et al. Therapeutic effect of bone marrow-derived liver cells in phenotypic correction of murine hemophilia A. *Blood* 2009; **114**: 4552-61.
- Shukla B, Agarwal S, Suri V, Pathak P, Sharma MC, Gupta D, Sharma BS, Suri A, Halder A, et al. Assessment of 1p/19q status by fluorescence in situ hybridization assay: A comparative study in oligodendroglial, mixed oligoastrocytic and astrocytic tumors. *Neurol India* 2009; **57**: 559-66.
- Halder A. Amniotic band syndrome and/or limb body wall complex: split or lump. *Application Clin Gen* 2010; **3**: 7-15.
- Halder A. 46, XY disorder of sex development with Mullerian ducts remnants. *J Clin Diag Res* 2010; **4**: 2169-74.
- Halder A, Jain M, Chaudhary I, Kabra M. Prevalence of 22q11.2 microdeletion in 121 patients with cardiac malformation. *BMC Med Gen* 2010; **11**:101.
- Sarkar NN. Emergency contraception spearheading despite hurdles and hindrance. *Int Med J* 2009; **16**: 211-16.
- Sarkar NN. Hormonal profiles behind the heart of a man. *Cardiol J* 2009; **16**: 300-6.
- Gupta R, Deepanjali S, Kumar A, Dadhwal V, Agarwal SK, Pandey RM, Chaturvedi, PK. A comparative study of pregnancy outcomes and menstrual irregularities in northern Indian patients with systemic lupus erythematosus and rheumatoid arthritis. *Rheumatol Int* 2009; Oct 14 (Epub ahead of print) PMID:19826816.

### Book

Kumar A, Rao CV, Chaturvedi PK (Eds). *Gonadal and Nongonadal Actions of Gonadotropins*. New Delhi: Narosa, 2010.

## CHAPTERS IN BOOKS

- Rani L, Mohanty BP, Chaturvedi PK, Kumar A. Hypoxia modulation of LH action on the MA-10 cells. In: Kumar A, Rao CV, Chaturvedi PK (Eds.). Gonadal and Nongonadal Actions of Gonadotropins. New Delhi: Narosa 2010; pp 131-45.
- Halder A, Fauzdar A, Kumar A. Do gonadotropins used for ovarian stimulation in assisted reproduction cause increase in chromosome aneuploidy, chromosome mosaicism and skewed sex ratio in embryos? In: Kumar A, Rao CV, Chaturvedi PK (Eds.). Gonadal and Nongonadal Actions of Gonadotropins. New Delhi: Narosa 2010; pp. 327-37.

## PATIENT CARE

Central Radio Immune Assay (RIA) facility is now fully computerized using laboratory information software (LIS). It is the first fully computerized laboratory in AIIMS. Assays for LH, FSH, Prolactin, T3, T4, TSH, Testosterone, Estradiol, Progesterone, alpha Feto-Protein, Prostate Specific Antigen (PSA), Beta hCG, CA-125 and cortisol can be carried out the facility.

Name of Assays	Number
FSH	2995
LH	2482
Prolactin	2128
T3	5525
T4	6548
TSH	11455
Testosterone	1326
Estradiol	545
Progesterone	58
AFP	2830
PSA	1638
Beta hCG	690
CA-125	1144
Cortisol	131
Total Number of tests	<b>39495</b>
Total number of patients	22464 .

**Andrological Examinations:** Semen Examination: 300, Seminal Fructose: 249

Genetic investigations and counseling: 200

## AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor Anand Kumar** was nominated as a visiting Professor to the University of Sains, Malaysia from 1-27 October 2009. He also chaired a session at the International Conference on Reproductive Health & 20<sup>th</sup> Annual Meeting of the ISSRF at Jaipur (8-10 February 2010). He is a member of the Advisory Committee of the University Grants Commission – Special Assistance Programme in Zoology of M.L. Sukhadia University, Udaipur. He serves on the Editorial Board of the Open Andrology Journal (Bentham); and is a peer reviewer for the International Journal of Andrology, Wellbeing of Women Research Training Fellowship (London), Fertility and Sterility, and Indian Journal of Medical and Pediatric Oncology. He is also a reviewer for Department of Science and Technology project proposals. He was appointed as an External Examiner for MSc Biochemistry of the National Dairy Research Institute, Karnal. He is also an examiner for University of Rajasthan and University of Mumbai. He served as an Expert in the Faculty Selection Committee for Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow and National Institute of Health and Family Welfare, New Delhi. He has been nominated to the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA), and the Institutional Animal Ethics Committee of Dr. BR Ambedkar Centre of Biomedical Research, University of Delhi.

**Dr. Ashutosh Halder** chaired the session in Indian Society of Human Genetics Conference 2010 at Lucknow. He was awarded the second prize for poster presentation at the 4<sup>th</sup> International Congress on Birth Defect and Development 2009 at New Delhi. He is an examiner for DM in Medical Genetics at SGPGIMS, Lucknow. He is a member of the editorial board of Clinical Reviews and Opinions, Asian Journal of Medical Sciences, and International Journal of Genetics and Molecular Biology; and he is a reviewer for Indian Journal of Medical Research, Indian Journal of Pediatrics, 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 and Indian Pediatrics. He provided expert genetics opinion to assist the Ethics Committee of Medical Council of India (MCI). He is also a member of the Board of Specialty of Medical Genetics of the MCI and helped in the revision of the MD & DM Medical Genetics Curriculum.

**Dr. NN Sarkar** is a peer reviewer for International Journal of Gynecology & Obstetrics, International Journal of STD & AIDS; and Journal of Women's Health.

**Dr. P.K. Chaturvedi** was nominated as a member of Membership Committee of the Society for the Study of Reproduction (SSR). He is the Officer-in-Charge of the Central RIA Facility and Andrology laboratory.

## 9.34 Surgical Disciplines

### Professor and Head

M.C. Misra

### Professor

Anurag Srivastava

Arvind Kumar

### Additional Professor

Sunil Chumber

Sandeep Guleria

Rajender Prashad

### Associate Professor

V. Seenu  
(on leave)

Sandeep Agarwal  
Anita Dhar

V.K. Bansal

### Assistant Professor (Trauma Centre)

Amit Gupta

Biplab Mishra

Maneesh Singhal\

Subhodh Kumar

Sushma Sagar

### Short Term Training

- 3 students were provided 2-3 months short-term training in laparoscopic surgery (Minimally Invasive Surgery).
- 7 students from various developed countries were provided elective training (11-90 days).

### CME and Conferences Organized by the Department

The Department organized the following courses

- Minimally Invasive Surgery Training Centre, AIIMS, New Delhi (Course Director: MC Mishra, Course Co-ordinator: VK Bansal).
- Operative Laparoscopy-Suturing Skills, 13-15 April 2009 & 2-4 November 2009.
- Operative Laparoscopy-Basic and Advanced, 4-8 May 2009, 20-24 July 2009, 17-21 August 2009, 5-9 October 2009, 7-11 December 2009, 4-8 January 2010, & 1-5 February 2010.
- Laparoscopic Hernia Surgery, 12-14 May 2009, 8-10 September 2009, 24-26 November 2009, & 12-14 January 2010.
- Laparoscopic Colorectal Surgery, 27-29 July 2009 & 8-10 February 2010
- ATLS – India Program Promulgation, ATLS Provider Courses (Course Director: MC Mishra) at JPN Apex Trauma center, AIIMS, New Delhi in Collaboration with American College of Surgeons, 22-24 April 2009, 7-9 May 2009, 28-30 May 2009, 23-25 July 2009, 29-31 August 2009, 17-19 September 2009, 29-31 October 2009, 19-21 November 2009, 21-23 January 2010,

18-20 February 2010, 11-13 March 2010, 18-20 March 2010 & at IMA House, Cochin, Kerala (under IEMS, Kottayam, Kerala), 25–27 February, 2010.

- Fourth AIIMS Surgical Week: International Minimal Access Surgery Conference, CME cum Live Workshop, Endosurg – 2010 (Chairperson: MC Mishra, Organizing Secretary: Sandeep Aggarwal, VK Bansal), AIIMS, New Delhi 26-28 March 2010
- Monthly Meeting of Delhi State Chapter, Association of Surgeons of India, AIIMS, New Delhi, 20 February 2010.
- 2nd Live Operative Workshop and CME on Morbid Obesity (Organizing Chairman: MC Mishra, Organizing Secretary: Sandeep Aggarwal), AIIMS, New Delhi, 13-15 November 2009.
- 2nd International Conference, CME cum Live Workshop in Association with Indian Society for Trauma and Acute Care (ISTAC) (Organizing Chairman: MC Mishra), JPN Apex Trauma Center & AIIMS, New Delhi, 12-15 November 2009.
- ASICON foundation CME on “Trauma,” JPN Apex Trauma Center & AIIMS, New Delhi, 26 July 2009.
- XX Annual Conference of the Indian Society of Organ Transplantation (Resource Person: Dr. Sandeep Guleria), Varanasi, Uttar Pradesh, 8-10 October, 2009.

### **Guest Faculty and Invited Lectures**

#### **Prof. MC Misra**

- Resource Person for the First North East Zonal CME of ISA, Guwahati 30-31 May 2009.
- Resource Person for Symposium on ‘Technical Challenges in Laparoscopic Incisional and Ventral Hernia Repair,’ Mid-Term National Conference of Indian Hernia Society, Coimbatore, 17 -18 July 2009.
- ‘Current Status of Laparoscopic Incisional and Ventral Hernia Repair,’ Mid-term Annual Conference of Indian Hernia Society, Coimbatore, 17-18 July, 2009.
- Performed live surgery ‘Bilateral TEP Repair of Groin Hernia and TAPP for Giant Groin Hernia,’ with Prof. Bittner from Germany, Mid-term Annual Conference of Indian Hernia Society, Coimbatore, 17-18 July 2009.
- ‘Hospital Contingency Disaster Planning,’ Course for Hospital Administration, National Institute of Health and Family Welfare (NIHFW), New Delhi, 20 July 2009.
- Panelist on discussion on ‘Quality of Care in Hospitals,’ 11<sup>th</sup> Professional Development Course in Management, Public Health and Health Sector Reforms for District Medical Officers, NIHFW, New Delhi, 4 August 2009.
- Resource Person for Symposium on ‘Technical Challenges in Laparoscopic Inguinal Hernia repair,’ South Zone Conference of SELSI, Chennai, 2-4 September 2009.
- Operative Faculty in 2<sup>nd</sup> International live Multi-specialty Laparoscopic Surgery Workshop cum Conference of SELSI, SELSICON-2009, Agra, 24-25 October 2009.
- Resource Person for the Pre-Conference Live Workshop of the International College of Surgeons, ICSIS-GOLDEN CON-2009, Amritsar, 29 October 2009.

- Performed Live Surgery on a Bilateral Groin Hernia (Totally Extra-peritoneal Repair), Pre-conference Live Operative Workshop, 35<sup>th</sup> Annual Conference of UP Chapter of Association of Surgeons of India, 6–8 November 2009.
- ‘Trans-Vaginal Cholecystectomy,’ 35<sup>th</sup> Annual Conference of UP Chapter of Association of Surgeons of India, 6–8 November 2009.
- ‘Capacity Building to Improve Trauma Care in India – a Huge Challenge,’ Health Conclave – 2009 “Managing Challenges of 21<sup>st</sup> Century in Healthcare Organizations,” International Institute of Health Management Research (IIHMR), New Delhi, 18-19 November 2009.
- Dr. S.K. Sen Memorial Oration, Annual Conference of Delhi State Chapter, SURGICON-2009, 22<sup>nd</sup> November 2009.
- ‘Endoscopic Vs Laparoscopic Management of CBD Stones,’ Annual National Conference of Indian Association of Clinical Medicine, Khajuraho, 28–30 November 2009.
- Performed Live Demonstration of ‘TEP Repair of Groin Hernia and Laparoscopic Cholecystectomy,’ LAPAROCON – 2009, Kanpur, 20 December 2009.
- ‘Laparoscopic Colo-Rectal Surgery,’ LAPAROCON – 2009, Kanpur, 20 December 2009.
- Resource Person for ‘Implementing United Nations Legal Instruments: Towards Improving Road Safety in Developing Countries,’ New Delhi, 21-22 January 2010.
- Key Note Lecture ‘Emerging trends in Surgery – Big Surgeons – Big Incisions to Scarless surgery,’ CME on “Emerging trends in Medicine,” Military Hospital, Jodhpur, 13 February, 2010.
- ‘Advance Laparoscopic Hepatobiliary Surgery,’ Military Hospital, Jodhpur, 13 February, 2010.
- ‘Accident and Emergency Services & Role of Hospitals in Disaster Management,’ 83<sup>rd</sup> Training Course in Hospital Administration for Senior Hospital Administrators, NIHFWS, New Delhi, 18 February 2010.
- Key-Note Lecture ‘Capacity Building to Improve Trauma Care in India – a Huge Challenge – ATLS Journey So Far,’ CME on “Management of Trauma in Armed Forces, Military Hospital, Bengdubi, Bagdogra, West Bengal, 6-7 March 2010.
- ‘Accident and Emergency Services & Role of Hospitals in Disaster Management & Operation Theatre Planning and Design,’ 84<sup>th</sup> Training Course in Hospital Administration for Senior Hospital Administrators from U.P., NIHFWS, New Delhi, 11<sup>th</sup> March 2010.
- ‘Accident and Emergency Services & Role of Hospitals in Disaster Management,’ 85<sup>th</sup> Training Course in Hospital Administration for Senior Hospital Administrators from U.P., NIHFWS, New Delhi, 25 March 2010

**Dr. Sandeep Guleria**

- ‘How to choose a Live Donor?’ Transplantation Society - Emerging Key Opinion Leaders, Agra, 5 April 2009.
- ‘Organ Transplantation,’ Trained Nurses Association of India, 21 April 2009.
- ‘Surgical Aspects of Renal Transplantation,’ IMA East Zone, New Delhi, 25 May 2009.

- ‘Treatment of Diabetes,’ Key Opinion Leaders Meeting on Diabetes, Bangalore, 9 May 2009.
- ‘Surgical Site Infection’ Indian Spinal Institute, New Delhi 16 May 2009.
- ‘Kidney and Pancreas Transplantation,’ CME organized by Max Hospital ( Patparganj) Delhi, 14 June 2010.
- ‘Organ Harvesting,’ National Deceased Donor Training Network, 22 September 2009.
- Delivered the ‘BL Tiwary Oration,’ Association of Surgeons of India - Jharkhand Chapter, 31 October 2009.
- ‘Future of Transplantation,’ Moolchand Hospital, New Delhi, 7 November 2009.
- ‘Current Status of Organ Transplantation’, Medicine CME organized by Max Hospital ( Patparganj) Delhi, 15 November 2009.
- Panelist on discussion on ‘Surgical Site Infections,’ Delhi State Chapter Annual Conference SURGICON - 2009, 21 November 2009.
- ‘Safe Surgery Saves Lives,’ Delhi State Chapter Annual Conference SURGICON – 2009, 21 November 2009.
- ‘Pediatric Transplantation: Successes and challenges,’ Indian Association of Pediatric Nephrologists, 5 November 2009.
- ‘Abdominal Compartment Syndrome,’ Annual Conference of ASI, Coimbatore, 26 December 2009.
- Lobo Oration: ‘Kidney Pancreas Transplantation,’ Christian Medical College, Ludhiana, 8 January 2010.
- ‘Donor Swapping,’ Annual Conference of Delhi Nephrological Society, Manesar, Haryana, 23 January 2010.
- ‘Organ Donation: Cross Border Status,’ Transplantation Update organized by Bir Hospital, Kathmandu, Nepal; 1 March 2010.
- Panelist on discussion on ‘Management of Hepatic Secondaries,’ Symposium on HIV and Hepatitis C Virus Co-Infection and Hepatic Cell Carcinoma, Institute of Liver & Biliary Diseases (ILBS), 6 March 2010.
- ‘25 years of Transplantation,’ Bombay Hospital, 14 March 2010.
- ‘Viable Alternatives in Transplantation,’ Philippines Transplantation Society, Manila, Philippines; 20 March 2010.

#### **Dr. Rajender Prashad**

- ‘Laparoscopic Surgery for Hiatus Hernia,’ and Live Demonstration of laparoscopic procedures, Mid-Term Annual Conference of Indian Hernia Society, Coimbatore, 17-18 July 2009.
- ‘Surgical Management of Achalasia Cardia,’ and Live Demonstration of laparoscopic procedures in International Minimal Access Surgery Conference, CME cum Live Workshop ENDOSURG - 2010, AIIMS, New Delhi 26-28 March, 2010.



**Dr. Sandeep Aggarwal**

- ‘Sleeve Gastrectomy – AIIMS Experience’, Annual Conference of All India Association for Advancing Research in Obesity (AIAARO) - Gujarat Chapter, Ahmedabad, May 2009.
- ‘Laparoscopic Management of Traumatic Diaphragmatic Hernia with Chest Tube in Herniated Stomach,’ 17<sup>th</sup> Congress of the European Association of Endoscopic Surgery (EAES), Prague, Czech Republic; June 2009.
- ‘Laparoscopic Splenectomy for a Large Hydatid Cyst of Spleen,’ 17<sup>th</sup> Congress of the European Association of Endoscopic Surgery (EAES), Prague, Czech Republic; June 2009.
- ‘Laparoscopic Management of Traumatic Diaphragmatic Hernia,’ International Live Operative Workshop of South Zone Chapter of SELSI, September 2009.
- ‘Mini-Donor Nephrectomy,’ Annual Conference of the Indian Society of Transplantation (ISOT), Varanasi, October 2009.
- ‘Laparoscopic Sleeve Gastrectomy: Technique,’ National Conference of Indian Association of Gastrointestinal Endoscopic Surgeons (IAGES), New Delhi, February 2010.
- ‘Prevention and Management of Complications of Sleeve Gastrectomy,’ Annual Conference of Obesity Surgery Society of India (OSSSI), Jaipur, March 2010.
- ‘Sleeve Gastrectomy - Technique and Management of Complications,’ ENDOSURG - 2010, AIIMS, New Delhi, March 2010.

**Dr. VK Bansal**

- Moderated a Symposium on ‘Technical challenges in Laparoscopic Incisional and Ventral Hernia Repair,’ National Conference of Indian Hernia Society, Coimbatore, July 2009.
- ‘Why Training is Essential in Laparoscopic Surgery - AIIMS Model of Laparoscopic Surgery Training,’ National Conference of Indian Hernia Society, Coimbatore, July 2009.
- ‘What is the Role of Training in Laparoscopic Surgery-SELSI Vision’ National Conference of SELSI, Agra, October 2009.
- ‘Transvaginal cholecystectomy - AIIMS Model,’ South Zone Conference of SELSI, Chennai, September, 2009.
- Moderated a Symposium on ‘Technical Challenges in Laparoscopic Inguinal Hernia Repair,’ South Zone Conference of SELSI, Chennai, September, 2009.
- Moderator for Panel Discussion on ‘Difficult Laparoscopic Cholecystectomy,’ AIIMS Surgical Week, ENDOSURG 2010, AIIMS, New Delhi, 26-28 March 2010.
- Master Video presentation on ‘Laparoscopic Anterior Resection’ Northern Chapter ASI Annual Conference, Chandigarh, March 2010.

## Papers Presented by the Faculty

### Prof. MC Misra

- ‘Single Stage vs. Two Stage Management of Gall Stones with CBD stones,’ Annual Conference of Delhi State Chapter of ASI, New Delhi, 22 November 2009.
- ‘Prospective Non - Randomised Study of Heavy Weight Polypropylene Mesh in Laparoscopic Incisional/Ventral Hernia Repair,’ Annual Conference of Delhi State Chapter of ASI, New Delhi, 22 November 2009.
- ‘Laparoscopic Adrenalectomy – our Experience,’ Annual Conference of Delhi State Chapter of ASI, New Delhi, 22 November 2009.
- ‘Total Extra - Peritoneal Repair Versus Trans - Abdominal Pre-peritoneal Repair for Inguinal Hernia Repair,’ National Conference of Indian Hernia Society, Coimbatore, 17-18 July 2009.
- ‘Mesh Fixation in Laparoscopic Incisional Hernia Repair: Tackers vs Polypropylene Sutures,’ National Conference of Indian Hernia Society, Coimbatore, 17-18 July 2009.
- ‘Laparoscopic Repair of Incisional and Ventral Hernias – our experience,’ National Conference of Indian Hernia Society, Coimbatore, 17-18 July 2009.
- ‘Prospective Evaluation of Laparoscopic Skills Acquisition in a Short Term Focused Training Program on a Phantom Model using Porcine Gall Bladder,’ National Conference of Indian Hernia Society, Coimbatore, 17- 8 July 2009.

### Dr. Sandeep Guleria

- ‘A study of Risk Factors for Post Transplant Diabetes Mellitus,’ Annual Conference of the Indian Society of Organ Transplantation, Varanasi, October 2009.
- ‘Effect of Renal Transplantation on Coronary Artery Calcification and Carotid Intima – Medial Thickness in Renal Recipients,’ Annual Conference of the Indian Society of Organ Transplantation, Varanasi, October 2009.

### Dr. Rajender Prashad

- Sah RG, Sharma U, Prasad R, Jagannathan NR. ‘Early Assessment of the Therapeutic Response of Locally Advanced Breast Cancer Patients undergoing Neo-adjuvant Chemotherapy: Sequential Monitoring by Tumor Volume and Total Choline Concentration,’ 16<sup>th</sup> NMRS (National Magnetic Resonance Society) Meeting, Lucknow, 21-24 February, 2010.
- Sah RG, Sharma U, Parsad R, Jagannathn NR. ‘Biochemical and Morphological Characterization of Her2/neu Positive and Negative Invasive Ductal Carcinoma of the Breast Cancers,’ Indian Biophysical Society (IBS) Conference – 2010, Varanasi, 13-15, February 2010.
- Singh AK, Pasi S, Das NN, Parshad R, Dalal K, Dev S. ‘Evaluation of Cox-2 as a Biomarker in Breast Cancer Progression and Treatment,’ National Conference on Genomics, Proteomics and Systems Biology, Bangalore, 1 October 2009.

### **Dr. VK Bansal**

- ‘Laparoscopic Pseudocyst Management,’ South Zone Conference of SELSI, Chennai, September, 2009.
- ‘TEP Vs TAPP for Laparoscopic Inguinal Hernia Repair,’ South Zone Conference of SELSI, Chennai, September, 2009.
- ‘Laparoscopic Management of Pseudocyst of Pancreas,’ Northern Chapter ASI Annual Conference, Chandigarh, March 2010.

### **Dr. Anita Dhar**

- ‘Newer Trajectories in Peripheral Arterial Disease,’ ONCOWOUNDCON-2010, New Delhi, 6 March 2010.
- Dhar A, Srivastava A, Reddy V. ‘Major Ductal Excision with a Safe Technique,’ International Surgical Week (ISW) - 2009 Adelaide, Australia; 2 September 2009.
- Dhar A, Mukkherje A, Srivastava A. ‘Retrocaval Retroperitoneal Tumor Mimicking a Hydatid Cyst. ISW - 2009, Adelaide, Australia; 2 September 2009.

### **Research**

#### **Funded Projects**

- Cost Effectiveness Analysis and Comparison Of Single Stage Vs Two Stage Management Of Patients With Concomitant Gall Stone Disease And Common Bile Duct Stones - A Randomized Controlled Trial. VK Bansal, MC Mishra, P Garg, CS Pandav. Funded by: Society of American Gastrointestinal Endoscopic Surgeons (SAGES). Funds: 30,000 US dollars

#### **Collaborative Research**

- Induction of Therapeutic Angiogenesis in Limb Ischemia by Intra-arterial Delivery of Autologous Bone Marrow Derived Stem Cells. Sajeew Sinha (PI). Funded by Department of Biotechnology (with Department of Cardiac-Radiology & Cardiology).

#### **Departmental Projects**

##### **Completed**

- A prospective randomized comparison of TAPP vs. TEP repair in patients undergoing laparoscopic inguinal hernia repair.
- A prospective randomized control trial of sutured vs. tacker fixation of mesh in patients undergoing laparoscopic incisional hernia repair.
- Prospective evaluation of laparoscopic skills acquisition in a short term focussed training programme on a phantom model using porcine gall bladder.
- Role of radiofrequency ablation in treatment of symptomatic lower limb varicosities
- Feasibility of fast track discharge in breast cancer patients undergoing definitive surgery and impact on quality of life, (in collaboration with Department of Physical Medicine).

- Designing of methylation target arrays for breast cancer.
- The effect of renal transplantation on coronary artery calcification and carotid intimal-medial thickness in renal recipients.
- Effect of donor kidney weight/recipient body weight mismatch on patients and graft outcome in live donor renal transplantation.
- To study the incidence and assess the risk factors for post-transplant new onset diabetes mellitus.
- Lymphoscintigraphy of upper limb lymphatics in patients undergoing axillary dissection in carcinoma breast.
- Measurement of the depth of the terminal ductal lobular unit from the skin in mastectomy specimen to masses at the optimum thickness of the flap to be raised in the mastectomy for breast cancer.
- Assessment of cosmetic outcome following breast oncoplasty following breast conservative surgery.

### *Ongoing*

- Chronic groin pain and quality of life after laparoscopic inguinal hernia repair using heavy weight vs light weight meshes.
- Comparison of long term outcome and quality of life after laparoscopic incisional and ventral hernia repair with suture or tracker mesh fixation.
- Comparison of chronic groin pain and quality of life after laparoscopic inguinal hernia repair – TEP vs TAPP.
- Chronic groin pain, testicular function and quality of life after laparoscopic and open inguinal hernia repair.
- A randomized controlled study of comparison of single stage vs two stage treatment for patients with gall stones and common bile duct stones.
- To evaluate the endovenous laser ablation in the treatment of varicose veins.
- A prospective study on radiological evaluation in patients with vascular malformations of the extremities.
- Comparison of various imaging modalities in the diagnosis and staging of the periampullary tumors and study of various perioperative factors in predicting the outcome of the patients with periampullary tumors.
- Laparoscopic suturing skills acquisition – a comparison between trained and novice surgeons.
- Major trauma outcome study in a level-I trauma centre.
- Study of human breast cancer by magnetic resonance techniques.
- Clinical correlation of ER, PR, HER2 neu expression and BRCA1 gene mutations in Indian breast cancer patients.

- Development and validation of a simple method for measurement of trans-fatty acid intake and to study the association between trans-fatty acids and coronary artery disease.
- Evaluation of cox-2 and lox levels and the role of peptide inhibitors in breast cancer.
- Feasibility of fast track discharge in breast cancer patients (with Departments of Biotechnology & Biophysics).
- Structural and functional abnormalities in lungs in achalasia cardia patients - pre and post treatment evaluation (with Departments of Gastroenterology, Medicine & Radio Diagnosis).
- Pilot study comparing symptomatic outcome of patients undergoing laparoscopic cardiomyotomy with angle of his accentuation v/s laparoscopic cardiomyotomy with anterior dors fundoplication for achalasia cardia (with Departments of Gastroenterology, Radio Diagnosis & Biostatistics).
- Clinical utility of breast ultrasound as an adjunct to mammography in the diagnostic breast imaging (with Department of Radio Diagnosis).
- Comparison of accuracy of image guided v/s palpation guided core needle biopsy in palpable breast masses (with Department Radio Diagnosis).
- A study to assess the marital relationship of women and their psychosocial status after surgical treatment of carcinoma breast.
- Study of outcome of laparoscopic sleeve gastrectomy in morbidly obese patients.
- Evaluation of endovenous laser ablation in the treatment of varicose veins
- Randomized study of outcome of laparoscopic sleeve gastrectomy with and without staple line reinforcement in morbidly obese patients.
- To study the pattern of peripheral arterial disease in tertiary care surgical practice: Indian scenario.
- A randomized trial comparing limited length ductal cone excision with 3 cm ductal cone excision in women presenting with mammary duct discharge.
- Validation of different techniques in physical examination of the breast.
- Comparison of USG elastography, sonography and mammography in breast masses.
- Ascertaining the depth of the terminal ducto-lobular unit from skin by preoperative magnetic resonance scan and post operative histological measurement.
- A detailed ultra structural study of major ducts in women with periductal mastitis/mammary duct ectasia.
- Safety and efficacy of autologous stem cells in prevention of amputation in patients with chronic critical limb ischemia.
- Radical duct excision for nipple discharge (benign breast disease) – its long term follow up.
- Role of cilastazole in treatment of chronic ischemia of the lower limb.

## PUBLICATIONS

- Bansal VK, Misra MC, Garg P, Prabhu M. A prospective randomized trial comparing two-stage versus single-stage management of patients with gallstone disease and common bile duct stones. *Surg Endosc* 2010 Feb 5 [Epub ahead of print].
- Bansal VK, Misra MC, Krishna A, Buess GF (Editorial). Transanal excision of anorectal lesions. *Trop Gastroenterol* 2010; 31:1-4.
- Bansal VK, Misra MC, Bhowate P, Kumar S. Laparoscopic management of common bile duct “stentolith”. *Trop Gastroenterol* 2009; 30:95-6.
- Danishad KK, Sharma U, Sah RG, Seenu V, Parshad R, Jagannathan NR. Assessment of therapeutic response of locally advanced breast cancer (LABC) patients undergoing neoadjuvant chemotherapy (NACT) monitored using sequential magnetic resonance spectroscopic imaging (MRSI). *NMR Biomed* 2010 Feb 19 [Epub ahead of print].
- Gadodia A, Seith A, Sharma R, Thakar A, Parshad R. Magnetic resonance sialography using CISS and HASTE sequences in inflammatory salivary gland diseases: comparison with digital sialography. *Acta Radiol* 2010; 51: 156-63.
- Guleria S. Mini-donor nephrectomy: A viable and effective alternative *Indian Urol* 2010; 26:139-41.
- Gupta H, Srivastava A, Menon GR, Agrawal CS, Chumber S, Kumar S. Comparison of interrupted versus continuous closure in abdominal wound repair: a meta-analysis of 23 trials. *Asian J Surg* 2008; 31:104-14.
- Hari S, Kumar J, Kumar A, Saha S, Chumber S. Posterior mediastinal teratoma. *Intern Med J* 2009; 38:448-9.
- Hazrah P, Dhir M, Gupta SD, Deo V, Parshad R. Prognostic significance of location of the primary tumor in operable breast cancers. *Indian J Cancer* 2009; 46:139-45.
- Jindal V, Misra MC, Bansal VK, Choudhury N, Garg SK, Khan RN. Technical challenges in laparoscopic cholecystectomy in situs inversus. *J Laparoendosc Adv Surg Tech* 2010 Feb 16 [Epub ahead of print].
- Jindal V, Khan RN, Panwar R, Bansal VK, Misra MC. Nationwide study of early outcomes after incisional hernia repair. *Br J Surg* 2009; 96:1452. *Br J Surg* 2010; 97: 617-8; author reply 618.
- Madhusudahn KS, Sharma R, Kandpal H, Kumar A, Gamanagatti S, Jain V, Chumber S. A rare case of combined soft-tissue and intraosseous arteriovenous malformation of the hand with diffuse periosteal elevation: imaging appearances. *Br J Radiol* 2009; 82:219-24.
- Mirza S, Sharma G, Parshad R, Srivastava A, Gupta SD, Ralhan R. Clinical significance of stratifin, ER alpha and PR promoter methylation in tumor and serum DNA in Indian breast cancer patients. *Clin Biochem* 2010; 43:380-6.

- Misra MC, Khan RN, Bansal VK, Jindal V, Kumar S, Noba AL, et al Laparoscopic pericystectomy for hydatid cyst of the liver. *Surg Laparosc Endosc Percutan Tech* 2010; 20:24-6.
- Okidi O, Reddy S,- Guleria S. A page in transplantation. *Saudia Kidney Disease Transplantation* 2010; 21:180-1.
- Prasad CP, Rath G, Mathur S, Bhatnagar D, Parshad R, Ralhan R. Expression analysis of E-cadherin, Slug and GSK3beta in invasive ductal carcinoma of breast. *BMC Cancer* 2009; 9:325.
- Sharma A, Jain S, Gupta R, Banerjee KG, Guleria S, Agarwal SK Dinda AK Ultrastructural alterations in endothelial mitochondria are associated with enhanced nitrotyrosine accumulation and progressive reduction of VEGF expression in sequential protocol renal allograft biopsies with calcineurin inhibitor toxicity. *Transpl Int* 2009 Nov 13 [Epub ahead of print].
- Sharma G, Mirza S, Parshad R, Srivastava A, Datta Gupta S, Pandya P, Ralhan R. CpG hypomethylation of MDR1 gene in tumor and serum of invasive ductal breast carcinoma patients. *Clin Biochem* 2010; 43:373-9.
- Sharma G, Mirza S, Yang YH, Parshad R, Hazrah P, Datta Gupta S, Ralhan R. Prognostic relevance of promoter hypermethylation of multiple genes in breast cancer patients. *Cell Oncol* 2009; 31: 487-500.
- Sharma S, Mukund A, Aggarwal S, Srivastava DN. Case of a misplaced IVC filter: A lesson to learn. *Cardiovasc Intervent Radiol* 2010 Feb 26 [Epub ahead of print].
- Singh G, Kumar P, Parshad R, Seith A, Thulkar S, Hosten N. Role of color doppler indices in predicting disease-free survival of breast cancer patients during neoadjuvant chemotherapy. *Eur J Radiol* 2010 Jan 11 [Epub ahead of print].

## Abstracts

- Aggarwal S, Reddy VS, Okidi O, et al. Laparoscopic Repair of Traumatic Diaphragmatic Injury with Chest Tube in Herniated Stomach. *Surg Endosc* 2010; 24:S160–61.
- Aggarwal S, Reddy VS, Okidi O, et al. Laparoscopic Splenectomy for a Large Hydatid Cyst of Spleen. *Surg Endosc* 2010; 24:S179.
- Danishad KKA, Sharma U, Sah RG, Seenu V, Parshad R, Jagannathan NR. Potential of choline SNR, tumor volume and diameter in the assessment of response of locally advanced breast cancer patients (LABC) using sequential MRSI and MRI. *Proc Intl Soc Magn Reson Med* 2009; 17:88.
- Sah RG, Sharma U, Parshad R, Jagannathan NR. Quantification of absolute concentration of choline for differentiation of malignant, benign and normal breast tissues by in-vivo proton MR spectroscopy. *Proc Intl Soc Magn Reson Med* 2009; 17:486.
- Sah RG, Sharma U, Parshad R, Jagannathan NR. Clinical potential of absolute concentration of total choline in breast cancer patients using in-vivo proton MR spectroscopy: assessment of early therapeutic response following neo-adjuvant chemotherapy. *Proc Intl Soc Magn Reson Med* 2009; 17:481.



- Sah RG, Sharma U, Parshad R, Jagannathan NR. Variation of the apparent diffusion coefficient (ADC) measured from various regions of the normal breast tissue using diffusion weighted MRI as a function of various phases of the menstrual period. Proc Intl Soc Magn Reson Med 2009; 17:293.

### Significant Events, Awards and Honours

**Prof. M.C. Misra** continued to serve as the India Chair and Course Director of the ATLS Program; Convener of the Society of Endoscopic and Laparoscopic Surgeons of India; President of Indian Hernia Society; President of the Indian Society of Trauma and Acute Care; Peer reviewer for Surgical Endoscopy and Indian Journal of Surgery, Examiner for MRCS examinations for the Royal College of Surgeons and Physicians of Glasgow and Royal College of Surgeons of Edinburgh; and Key Opinion Leader for the Injury prevention program of WHO, MOH & FW, and ICMR. He was a member of the inspection committee of the Medical Council of India to inspect facilities at Padmashree Dr. D. Y. Patil Medical College, Navi Mumbai and to verify compliance report regarding increase of Postgraduate seats in General Surgery (22 February 2010); for Krishna Institute of Medical Sciences, Karad (29 September 2009) and for Smt. NHL Municipal Medical College, Ahmedabad for starting of MD (Emergency Medicine) course (25 January 2010). He served on the panel to Audit the last decade of work by the Department of Endocrine Surgery, Sanjay Gandhi Postgraduate Institute, Lucknow (12 November 2009); and on the MOH & FW Technical Committee for appraisal of Jawaharlal Nehru Medical College of Aligarh Muslim University for upgradation in the second phase of PMSSY (25 August 2009). He continued to serve as a member of the expert committee of GOI to grant recognition for Kidney transplantation; and served as a member of the Indian Advisory Committee for the Indo-Australian Workshop on Road Traffic Injury (June 2010 in Sydney, Australia & 11 February, 2010 in Hyderabad); the MCI expert group to restructure the Medical Education Curriculum (24 December 2009). He was the Chief Guest for the Inaugural Function of “LAPAROCON – 2010”, 2<sup>nd</sup> Regional Congress & Live Workshop on Laparoscopic Surgery & Endourology (16 January 2010, Satna, Madhya Pradesh); and of the CME on ‘Hip and Knee Arthroplasty and Advanced Physiotherapeutic Techniques’ organized by the Indian Association of Physiotherapists, Delhi State Chapter, (14 March 2010, New Delhi); and as a Guest of Honour at the Inaugural Function of the Multi-Specialty Conference of Delhi Medical Association (13 December 2009, Delhi). He was the Congress President for the Mid-Term Conference, CME Cum Live Workshop of the Indian Hernia Society (16–18 July 2009, Coimbatore) and he delivered the Presidential Oration on ‘Laparoscopic Incisional and Ventral Hernia Repair – Standards of Care in the Current Millennium.’ He delivered the Dr. Kini Memorial Oration at ASICON - 2009, (28 December 2009, Coimbatore) and the Dr. S.K. Sen Memorial Oration of the Delhi State Chapter of ASI at SURGICON-2009 (22 November 2009, Delhi). He was a panelist at the 3<sup>rd</sup> Indian MedTech Summit under Stanford– India Biodesign (SIB) (12 December 2009, New Delhi). He was the Convener for the CME (Recent Advances in Trauma care) of the ASICON Research Foundation (26 July 2009, New Delhi); and the ISOT Registry Meeting Liver and Kidney Transplantation (14 February 2010). He was a Co-organizer for the International Conference Cum Live Operative Workshop on Advanced Laparoscopy, jointly organized by SELSI, Societe Internationale d’Urologie (Indian Chapter), and Urological Society of India – North Zone (4–6 June 2009, Srinagar); and the First Training Course on Medical Preparedness for Emergency Medical Response to CBRN

Casualties organized by National Disaster Management Authority (NDMA) and Defense Research and Development Organization (DRDO) (20–22 May 2009, New Delhi). He chaired scientific sessions during the 2<sup>nd</sup> India Disaster Management Congress organized by National Institute of Disaster Management (4–6 November 2009, New Delhi); 3<sup>rd</sup> Annual National Conference of Society for Wound Care and Research (4–6 September 2009, New Delhi); the CME (Technology Tutorial for Surgeons) of the Delhi State Chapter of ASI (9 August 2009, New Delhi); CME (Information Technology for Surgeons; session: Power point presentation) (9 August 2009); and CME at IAGES-2010 (session: Solid Organ Surgery) (20 February 2010); and was a Co-Chairperson for the session on “Surgery Track” during Global Health Summit of the Association of American Physicians of India (2-3 January 2010, New Delhi). He was invited to participate at the ATLS International Meeting (10-11 October 2009, Chicago) and he attended the 95<sup>th</sup> Clinical Congress of American College of Surgeons (12–14 October 2009, Chicago); he was a Guest Speaker at the Shanghai Inguinal and Ventral Hernia Forum (20–22 August 2009, Shanghai). He was also invited as a National Faculty at the Quartasept Centennial (175 Years) Jubilee Celebrations of the Madras Medical College & Hospital and the International Conference of the Society of Endoscopic and Laparoscopic Surgeons of India - South Zone (4–6 September 2009, Chennai). He is an Examiner for the IMRCS examination of the Royal College of Physicians and Surgeons of Glasgow (14-15 September 2009, New Delhi). He continued as a Competent Authority (Chairman, Authorization Committee) for granting final approval in genetically related donor/donee organ transplantations at AIIMS in pursuance of Transplantation of Human Organs Act 1994 (Transplantation of Human Organs Rules Amended 2008).

**Dr. Sunil Chumber** was awarded the Swami Pranavananda Saraswati Award of the University Grants Commission for (Medical) Education (2007) (award conferred in March 2010).

**Dr. Sandeep Guleria** continues to be secretary of the Indian Society of Organ Transplantation. He is also the Co-Editor of the Indian Journal of Transplantation. He delivered the Lobo Oration of the Christian Medical College, Ludhiana entitled ‘Kidney Pancreas Transplantation’ (8 January 2010) and was awarded the BL Tiwary Memorial Oration by the Jharkand Surgical Society on ‘Current status of Organ Transplantation.’ He is also a Key Opinion Leader of the Transplantation Society and the Chairman of the Postgraduate Education Committee of the Association of Surgeons of India (2009). He served as a member of the Scientific Committee of the Indian Society of Organ Transplantation; the Expert committee of GOI to grant recognition for liver and Kidney transplantation. He is an Examiner for MRCS examination of the Royal college of Surgeons and Physicians of Glasgow and Royal college of Surgeons of Edinburgh and he helped conduct the MRCS examination of the Royal College of Physicians and Surgeons of Glasgow at Sir Ganga Ram Hospital (15-16 September 2009); and was invited by the CSIR as an expert for the selection of Senior Research Associates. He was the Organising Secretary for the Annual Conference of the Indian Society of Organ Transplantation to be held in Delhi in 2011. He was the Chief Guest for the Annual Day of International Hospital with the theme ‘Public Lecture on Organ Donation’ (30 May 2009, New Delhi). He chaired scientific sessions on obesity at Max Hospital (28 June 2010, New Delhi); ‘trauma’ in ASICON CME on Trauma (26 July 2010, New Delhi); on ‘Power Point Presentation’ in a CME of ASICON Foundation (9 August 2009, Delhi); and ‘Transplant landscape: Past, Present and Future’ (14 March, 2010). He also chaired talks on ‘Simultaneous Kidney Pancreas

Transplantation’ at the ISOT Annual conference (8 October 2009; Varanasi), the JM Patel Oration of the ISOT (9 October 2009; Varanasi), the RVS Yadav Memorial Oration of the ISOT (10 October 2009; Varanasi), the BL Tiwary Oration of the Association of Surgeons of India, Jharkhand Chapter (31 October 2009), talk on ‘Liver Transplant for HCC: how Big is Acceptable’ (7 March 2010, New Delhi). He also took a public lecture on ‘Renal Failure and Transplantation’ (31 July 2009, New Delhi).

**Dr. Rajender Prashad** chaired a session during the 2<sup>nd</sup> Live Operative Workshop cum CME on Obesity Surgery (13 November 2009, New Delhi).

**Dr. Sandeep Aggarwal** has initiated the Bariatric Surgery Program for Morbid Obesity at AIIMS and a Patient Support Group for Obese patients. He was also nominated as an Executive Member of Obesity & Metabolic Surgery Society of India (OSSI) for a period of two years.

**Dr. Anita Dhar** received the Breast Surgery International Travel Award for ISW 2009.

### Public Services

#### Dr. M C Misra

- ‘Stone in Gallbladder,’ Doordarshan National Channel (13 February 2010; 4 -4:30 PM).
- ‘Healthcare scenario - Achievements and Challenges when India attains 61 years as Republic,’ DD National Channel (25 January 2010: 5:35-6 PM).
- ‘Thyroid disorders,’ Live Phone-in program Healthy India,” Lok Sabha TV (8 August 2009 & 23 January 2010; 6–7 PM).
- ‘Increase in average age of children born after Year 2000 (UN Report),’ Sahara Samay TV (7 January 2010).
- ‘Healthcare Reforms in India,’ Lok Sabha TV (4 January 2010; 7–8 PM).
- ‘Hernia,’ Live Phone-in program “Total Health,” Doordarshan News (27 September 2009; 8:30–9:30 AM).
- ‘Surgical Jaundice,’ Live Phone-in program “Total Health,” Doordarshan News (30 August 2009; 8:30–9:30 AM).
- Visit to Leh, Ladakh (10-13 September 2009) to attend the serious and chronic patients in a Medical camp, Organized by Ladakh Hill Council and Ashok Mission.
- ‘Dangers of Radiation by the Microwave Antennas installed on the rooftops of several buildings in densely populated areas of Old Delhi and other areas of the capital,’ Live India TV Channel (4 July 2009; 6–7 PM).
- ‘Technique of Plastination of dead body and body organs in context of Michel Jackson’s death,’ Live India TV Channel (28 June 2009; 5-6–PM).
- ‘Cancer,’ Live Phone-in program Healthy India,” Lok Sabha TV (20 May 2009; 4-5 PM).
- ‘Gall Stone Disease,’ Live Phone-in program “Total Health,” Doordarshan News (19 April 2009; 8:30–9:30 AM).

- ‘Sadak Durghatnayein: Karan evam Bachao,’ FM Gold Channel (Prasar Bharti - All India Radio) (14 April 2009; 9:45–10:00 PM).
- ‘Laparoscopic Surgery – Newer developments,’ “Evening Live Show,” DD National Channel (13 April 2009; 5:00-6:00 PM).
- ‘Aapatkaleen Sevayon Ke Dauran Chikitsa Suvidhayein Evam Prabandhan,’ Live Phone – in Programme on the occasion of WHO Day (Prasar Bharti - All India Radio) (6 April 2009; 7:05–7:54 AM).
- ‘Prevention of Head Injury in Women by using Helmet,’ Times of India (8<sup>h</sup> April 2009).
- ‘Ethics and Governance,’ National Seminar organized by the Desh Bandhu College, Delhi; 15-16 February 2010.

## 9.35 Transplant Immunology & Immunogenetics

### Professor and Head

N.K Mehra

### Associate Professor

D.K Mitra

### Scientists

Uma Kanga  
Arundhati Panigrahi  
(upto Oct.31, 2009)

Gurvinder Kaur  
Sanjeev Goswami\*

Sunil Kumar

### EDUCATION

**Short term training:** The Department provided short term training to the Junior Residents of Pathology and Laboratory Medicine.

During the year, 21 students from various universities/ institutions/ hospitals received 4-6 months training in laboratory techniques infor HLA testing and other immunological investigations.

**Long term training:** One doctor from the Armed Forces Medical College, Pune is undergoing training in Clinical Immunogenetics.

**Training to DM students:** Several DM students from the Departments of Pathology, Nephrology, Medical Oncology and Hematology were trained in techniques for HLA testing and other immunological investigations.

### Continuing Medical Education (CME)

During the year, the faculty and scientists of the department participated and delivered several lectures in national and international conferences. A quality control exercise for DNA typing of HLA genes is in progress at the national level. Training on various cell culture assays (including flow cytometry based assays) has been regularly provided to students and visiting trainees. The Faculty also delivered special lectures in various department of the institute (Biotechnology, Medical Oncology, Hematology, Medicine and Anatomy) as part of the academic curriculum of these departments.

### National and International Conferences:

#### Organized by Department

16<sup>th</sup> Ranbaxy Science Foundation Symposium, 'Immunogenomics of Infectious Diseases: Current Status and Emerging Frontiers,' 4 November 2009 (Coordinator: NK Mehra).

33<sup>rd</sup> International Scientific Conference of the Australasian and South East Asian Tissue Typing Association (ASEATTA 2009), 12-15 November 2009 (President: NK Mehra, Organizing Secretary: Gurvinder Kaur)

6<sup>th</sup> International Summer School on Immunology & Immunogenetics, 16-19 November 2009 (Chair: NK Mehra; Secretary: Gurvinder Kaur)

International Seminar on Complement in Health and Disease, 27 February 2010 (Chair: NK Mehra).

### **Lectures delivered (National):**

#### **Professor NK Mehra**

‘Asian Indian Donor Marrow Registry,’ Planning Meeting of Marrow Donor Registry in India, Mumbai, 11 April 2009.

‘Hematopoietic Stem Cell Transplantation: Opportunities and Challenges,’ Indian Council for Medical Research (ICMR) Fourth Medical Development Congress, New Delhi, 13-14 April 2009.

‘Strides in Medicine and Biology,’ QIP-STTP Program on Annual Tissue Culture, Chennai, 20 July 2009.

‘Stem Cell Advances: iPS, gPS and ES cells,’ QIP-STTP Program on Annual Tissue Culture, Chennai, 20 July 2009.

‘Genetics of Type-1 Diabetes: Single Disease, Many Genes,’ Kolkata; 8 August 2009.

‘iPS & gPS: Science for the Future,’ Life Science Conclave-2009, New Delhi, 29 August 2009.

‘Immunogenetic basis of HIV-1 Infection, Transmission and Disease Progression,’ HIV Science, Chennai 28-29 August 2009.

‘Brain Storming Session on Nasopharyngeal Carcinoma,’ Guwahati, 18 September 2009.

‘Genetics of Type-1 Diabetes,’ Annual Conference of the Research Society for Study of Diabetes in India (RSSDI), Ahmedabad, 6 November 2009.

‘Genetics of HIV Infection,’ 36<sup>th</sup> Annual Conference of the Indian Immunology Society, Bangalore, 16 December 2009.

‘Bone Marrow Transplantation: Opportunities & Challenges,’ Symposium on Introduction to HLA and Molecular Immunogenetics, Kolkata, 4 January 2010.

‘Unrelated Donor Marrow Registries: Challenges in India,’ Bio-Asia International Symposium-2010, Hyderabad, 4 February 2010.

‘A View of the Human MHC and Class III Set of Genes,’ International Seminar on Complement in Health and Disease, New Delhi, 27 February 2010.

‘Immunological Basis of Liver Injury in Hepatitis (HBV, HC) – HIV co-infection – Session Chair,’ 1<sup>st</sup> Institute of Liver and Biliary Science-National Institute of Health (USA) (ILBS-NIH) Symposium, New Delhi, 6-7 March 2010.

‘A Journey into the World of HLA in Medicine and Biology,’ 3<sup>rd</sup> Department of Biotechnology (DBT) Sponsored Workshop on HLA, Lucknow, 22 March 2010.

‘Selection of Deceased Donor for Organ Transplantation,’ Workshop on Embalming, Plastination and Organ Donation in Present Day Scenario, New Delhi, 26 March 2010.

‘Evolutionary Significance of Disease associated HLA-DR3 Haplotypes in India,’ 33<sup>rd</sup> International Conference of the Australasian and South East Asian Tissue Typing Association (ASEATTA 2009), New Delhi, 12-15 November 2009.

‘HLA and Disease Associations,’ 6<sup>th</sup> International Summer School in Immunology & Immunogenetics, New Delhi; 16-19 November 2009.

**Dr. DK Mitra**

‘Host Immune Response in Human Tuberculosis,’ National CME on Immunology, Indian Immunological Society, Agartala, 5-6 March 2010.

‘Immunology of Leprosy,’ 38<sup>th</sup> National Conference of the Indian association for Dermatology, Venereology and Leprosy DERMACON-2010, Lucknow; 8-20 January 2009.

Resource Person for the 36<sup>th</sup> Annual Conference of Indian Immunology Society, Bangalore, 16-19 December 2009.

‘Effector Immune Functions in Military Tuberculosis,’ CME in Immunology, Indian Immunological Society, Baroda, 27-28 November 2009.

**Dr. Uma Kanga**

‘Tissue Typing Techniques for Indian Marrow Donor Registries,’ Future Plans Meeting of the Marrow Donor Registry India, Mumbai, 11 April 2009.

‘HLA Matching: Basic Introduction and Techniques,’ Golden Jubilee Conference of Indian Society of Hematology & Transfusion Medicine, New Delhi, 9-22 November 2009.

**Dr. Gurvinder Kaur**

‘Immunology and Immunogenetics: Chimerism based post-HSCT Monitoring,’ 6<sup>th</sup> International Summer School, New Delhi, 16-19 November 2009.

**International:**

‘Innate Immunity Markers in Tuberculosis,’ 9<sup>th</sup> World Congress of Inflammation, Tokyo, Japan; 6-10 July 2009.

‘Pocket-1 and Pocket-4 Residents of MHC Class II Molecules with Influence Susceptibility Mycobacterial Infections,’ US-Japan Leprosy/TB Meeting, Fukuoka, Japan; 29-31 July 2009.

‘Immunogenetics of Type 1 Diabetes,’ 4<sup>th</sup> Asian Congress on Autoimmunity, Singapore, September 12-13 2009.

‘Post-transplant Donor Specific Antibody Monitoring in Renal Transplantation: clinical relevance,’ 11<sup>th</sup> Congress of the Asian Society of Transplantation (CAST 2009), Beirut, Lebanon; 1-4 October 2009.

‘Comprehensive Antibody Repertoire Screening in related donor (LRD) Renal Transplantation,’ 11<sup>th</sup> Congress of the Asian Society of Transplantation (CAST 2009), Beirut, Lebanon; 1-4 October 2009.



‘Genetic Diversity of HLA in the Indian population,’ Department of Anthropology, University of Geneva, Switzerland; 22-25 November 2009.

‘Immunogenetic Aspects of Nasopharyngeal Carcinoma in the North East Region of India,’ Singapore, 20-21 February 2010.

Delivered the following invited lectures at Riyadh Military Hospital, Riyadh, Saudi Arabia; 13-23 December 2009.

- Journey into the World of HLA and Medicine
- Comprehensive Antibody Repertoire Screening in LRD Renal Transplantation
- Clinical Relevance of Cytokine Gene Polymorphism on Post Transplant Renal Allograft Survival
- Hematopoietic Stem Cell Transplantation: Recent Developments
- Genetic Diversity of HLA: Population Level and Tribal Group
- Comparative Genomics of Disease associated HLA-DR3 Haplotypes in Type 1 Diabetes: Caucasian vs. Asian Indians
- Strategies in Medicine and Biology : Can Man Live for 150 Years?

#### **Dr. D.K.Mitra**

‘Local Immune Response in Chronic Intracellular Infection,’ LAH Symposium on Immunology, Stanford University School of Medicine, California, USA; 7-10 November 2009

Visiting Guest Speaker, School of Medicine, UC Davis School of Medicine, California, USA; November 2009.

#### **Dr. Uma Kanga**

Genetic Factors influencing Outcome of the Unrelated Hematopoietic Stem Cell transplantation,’ Anthony Nolon Trust Lecture Series, London; 12 March 2009.

‘Donor Selection Strategies for Hematopoietic Stem Cell Transplantation,’ 33 Annual Scientific Conference of the Australasian and South East Asian Tissue Typing Association (ASEATTA 2009), New Delhi; 12-15 November 2009.

#### **Dr. Gurvinder Kaur**

‘Host Genetics in HIV-1 Infection,’ 33<sup>rd</sup> Australasian South East Asian Tissue Typing Association (ASEATTA 2009), New Delhi; 12-15 November 2009

‘Advances in Transplant Molecular Diagnostic Histocompatibility & Immunogenetics,’ Recent Advances in Technologies in HSCT and Organ Transplantation, Riyadh Military Hospital, Saudi Arabia; December 2009.

‘Immunogenetics of Mycobacterial Infections and HIV/AIDS: An Indian experience,’ Tokyo, Japan; 2 March 2010.

‘Evolutional Medical Science: Identification of HIV/AIDS related Genes to Develop Therapeutic and Preventive Strategies,’ Tokyo Medical and Dental University, Tokyo, Japan; 3-7 March 2010.

## RESEARCH

### Funded Projects

#### Completed:

Studies on T Cell Mediated Suppression of Immunity in Visceral Leishmania Patients. DK Mitra. Funded by Department of Biotechnology (DBT) (completed on February 2010).

ICMR-INSERM Project on Type 1 Diabetes. NK Mehra. Funded by Indian Council of Medical Research (ICMR) for 5 years (2004-2009). Funds: Rs.120.20 lakhs.

#### Ongoing:

Monitoring T Cell Activation Markers and Cytokine Production following Allogenic Renal Transplantation. NK Mehra. Funded by ICMR for 3 years (2005-08). Funds: Rs. 17 lakhs.

Program Support for Advanced Program in Histocompatibility and Immunogenetics (PS-APHTI) NK Mehra. Funded by DBT for 3 years (2005-08 extended upto March 2010). Funds: Rs.163.43 lakhs.

Comprehensive Approach to Understand Streptococcal Disease and their Sequelae to Develop Innovative Strategies for Diagnosis, Therapy, Prevention and Control. NK Mehra. Funded by European Commission for 3 years (2006-09 extended upto March 2010). Funds: Rs.114 lakhs.

Type 1 Diabetes Genetics Consortium: An International Effort. NK Mehra. Funded by NIH, USA for 3 years (2005-08 extended upto 2010). Funds: Rs. 12.5 lakhs.

HLA Profile of Raica Community of Rajasthan. NK Mehra. Funded by ICMR for 2 years (2006-2008 extended upto 2009). Funds: Rs.10.08 lakhs.

Genomic Analysis of MHC Region Genes (HLA & Non HLA) in Type 1 Diabetes in the Indian Population. NK Mehra. Funded by ICMR for 3 years (2006-09). Funds: Rs. 27 lakhs.

Comparative Study on the Immunogenetic Similarities between Euro Caucasians and Asian Indians: An Indo-Hungarian initiative. NK Mehra. Funded by DST for 3 years (2007-2010).

Genetic Basis for HIV-1 Transmission Resistance and Disease Progression. NK Mehra. Funded by DBT for 3 years (2007-2010). Funds: Rs.60 lakhs.

Hematopoietic Stem Cell Transplantation and Genetics of HIV Infection NK Mehra. Tata Innovation Fellowship funded by DBT for 3 years (2007-2010). Funds: Rs. 22.20 lakhs.

Studies on T Cell Mediated Suppression of Immunity in Visceral Leishmaniasis Patients. NK Mehra. Funded by DBT for 3 years (2006-09). Funds: Rs.79.29 lakhs.

Efficacy of Oral Zinc Administration as an Adjunct Therapy in Category I Pulmonary Tuberculosis along with Assessment of Immunological Parameters (Double-Blind, Randomized, Placebo-Controlled, Multicenter Clinical Trial). DK Mitra. Funded by DBT for 5 years (2007-12). Funds: Rs.30 lakhs.

Impact of HIV Infection on Latent TB among Patients with HIV-TB Coinfection. DK Mitra. Funded by DBT & ICMR for 3 years (2007-2011). Funds: Rs.134.00 lakhs.

Early Detection of Polarized Cytokine Producing Alloreactive T Cells and the Role of Chemokines in their Selective Homing among Patients undergoing Renal Transplantation. D. Mitra. Funded by DST for 3 years (2007-2010). Fund: 28.3 lakhs.

Study of NKT Cells in Polarized Immunity among Leprosy Patients. DK Mitra. Funded by ICMR for 3 years (2007-2010). Funds: 51.50 lakhs.

Role of Fox P3+ Regulatory T Cells in Polarized Immunity among Leprosy Patients. DK Mitra. Funded by ICMR for 3 years (2010-2013). Funds Rs.49.28 lakhs (for AIIMS Component).

## **PUBLICATIONS**

### *Journals*

Andrea SE, Mehra NK. Two HLA class I region SNPs are associated with leprosy susceptibility in Vietnam and India. *Hum Mol Genetics* 2009 (Epub ahead of Print).

Been LF, Nath SK, Ralhan SK, Wander GS, Mehra NK, Singh J, et al. Replication of association between a common variant near Melanocortin-4 receptor gene and obesity-related traits in Asian Sikhs. *Obesity* 2009 Aug 13 (Epub ahead of Print).

Bharti AC, Panigrahi A, Sharma PK, Gupta N, Kumar R, Shukla S, Bhowmik D, Agarwal S, Guleria S, Mehra NK. Clinical relevance of curcumin induced immunosuppression in living related donor renal transplant: An in vitro analysis. *Exp Clin Transplant* 2010; 2:83-93.

Kaur G, Mehra NK. Genetic determinants of HIV-1 infection and progression to AIDS: susceptibility to HIV infection. *Tissue Antigens* 2010; 73: 289-301.

Kaur G, Mehra NK. Genetic determinants of HIV infection and progression to AIDS: immune response genes. *Tissue Antigens*, 2009; 73: 373-85

Kumar M, Meenakshi N, Sundaramurthi JC, Kaur G, Mehra NK, Raja A. Immune response to mycobacterium tuberculosis specific antigen ESAT-6 among South Indians. *Tuberculosis* 2010; 90: 60-9.

Kumar M, Sundaramurthi JC, Mehra NK, Kaur G, Raja A. Cellular immune response to mycobacterium tuberculosis - specific antigen culture filtrate protein-10 in South India. *Med Microbiol Immunol* 2010; 199: 11-25.

Kumar N, Kaur G, Mehra NK. Genetic determinants of type 1 diabetes: Immune response genes. *Biomarkers Med* 2009; 3: 153-73.

Mehra NK, Kumar N. Conference scene: the 4<sup>th</sup> Asian Congress of Autoimmunity. *Immunotherapy* 2010; 2: 145-50.

Mitra DK, Singh A, Sharma SK. Interaction of programmed cell death-1 (PD-1) with its ligand PD-ligand 1 (PD-L1) has a co-inhibitory function in T Cells during human tuberculosis. *Clinical Immunology* 2010; 135: S70.

Mitra DK, Joshi B, Dinda AK, Rai AK, Girdhar BK, Katoch K, et al. Induction of lepromin reactivity in cured lepromatous leprosy patients: impaired chemokine response dissociates protective immunity from delayed-type hypersensitivity. *Microbes Infection* 2009; 11: 1122-30.

Nakajima T, Nakayama EE, Kaur G, Terunuma H, Mimaya Jun-ich, Ohtani H, et al. Impact of novel TRIM5 $\alpha$  variants, Gly110Arg and G176del, on the anti-HIV-1 activity and the susceptibility to HIV-1 infection. *AIDS* 2009; 23:2091-100.

Najmi N, Kaur G, Sharma SK, Mehra NK. Human Toll-Like receptor 4 polymorphisms TLR4 Asp299Gly and Thr399Ile influence susceptibility and severity of pulmonary tuberculosis in the Asian Indian population. *Tissue Antigens* 2010; 76:102-9.

Sanghera DK, Been L, Ortega L, Wander GS, Mehra NK, Aston CE, et al. Testing the association of novel meta-analysis-derived diabetes risk genes with type II diabetes and related metabolic traits in Asian Indian Sikhs. *J Hum Genet* 2009; 54: 162-8.

Sanghera DK, Demirci FY, Been L, Ortega L, Ralhan S, Wander GS, Mehra NK, et al. PPARG and ADIPOQ gene polymorphisms increase type 2 diabetes risk in Asian Indian Sikhs: Pro12Ala still remains as the strongest predictor. *Metabolism* 2010; 59:492-501.

Saxena A, Rai A, Raina V, Seth T, Mitra DK. Expression of CD13/Aminopeptidase N in precursor B cell leukemia: Role in growth regulation of B cells. *Cancer Immunol Immunother* 2010; 59: 125-35.

Sengar M, Rai AK, Saxena A, Singh A, Raina V, Seth T, Sharma A, Bakshi S, Kumar R, Mitra DK. Acute leukemia: diagnosis improved by flow cytometry in addition to morphology. *Asia Pacific J Clin Oncology* 2009; 5: 55–65.

Sharma PK, Saha PK, Singh A, Sharma SK, Ghosh B, Mitra DK. FoxP3<sup>+</sup> regulatory T cells suppress effector T-cell function at pathologic site in miliary tuberculosis. *Am J Respir Crit Care Med* 2009; 179: 1061–70.

Swapan KN, Been L, Deshmukh H, Ralhan SK, Wander GS, Mehra NK, et al. Replication of association between common variants near melanocortin-4 receptor gene and obesity-related traits in a Sikh population from Northern India. *Hum Genetics* 2009.

## **Book**

The HLA Complex in Biology & Medicine: A Resource Book. New Delhi Jaypee Brothers Medical Publishers (P) Ltd., 2009.

## **Chapters in book:**

Mehra NK, Panigrahi A. Transplant immunogenetics. In: Gupta DK, Sharma S, Richard G, Khan A (Eds.). *Pediatric Surgery – Diagnosis and Management*, Vol 2. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd., 2009; pp 969–87.

Mehra NK, Singh P, Sood P. Probiotics, immunomodulation and human health. In: Nair GB (Ed.). *Evidence Based Health Benefits of Probiotics*. New Delhi: Oxford and IBH Publishing Co Pvt Ltd., 2009.

Mehra NK, Singh M. Genetic susceptibility parameters in tuberculosis. In: Sharma SK, Mohan A (Eds.). *Tuberculosis*, 2<sup>nd</sup> Edition New Delhi, Jaypee Brothers Medical Publishers (P) Ltd., 2009; pp 124-42.

Mitra DK Sharma PK. Tuberculosis vaccine: immunology, strategies and status, Adult Immunization. Proceedings of the 64<sup>th</sup> Annual Conference of the Association of Physicians of India (APICON 2009); pp 182-91.

Mitra DK, Rai AK. Immunology of tuberculosis. In: Sharma SK, Mohan A (Eds.). Tuberculosis – Ed 2, New Delhi: JayPee Brothers Medical Publishers Ltd., 2009; pp: 108-23.

Sood P, Bindra MS, Kumar N, Mehra NK. Immunogenetic aspects of recurrent spontaneous abortions. In: Bandivedekar AH, Puri CP (Eds.). Current Paradigm of Reproductive Immunology. Trivandrum: Research Signpost Publishers 2009; pp 121-146.

## VISITING SCIENTISTS

- Dr. Eckart Wurzner, Mayor of the City of Heilderberg and team from Germany (2 April, 2009)
- Prof. G Peters from Germany
- Prof. Peter Doherty, *Nobel Laureate*, Department of Immunology, St. Jude Children’s Research Hospital, Memphis, Tennessee, USA (3 November 2009)
- Dr. Jean-Yves Bonnefoy, Vice President, Research & Development Transgene, France – 10 (December 2009).
- Prof. Kumar Belarni and Dr. Paul R Bohjanen, Minnesota Centre for AIDS Research (CFAR), USA, (22 February 2010).
- An international team consisting of Prof. Moh Daha (Netherlands), Dr. Lenmart Truedsson (Sweden), Prof. Peter Garred (Denmark), Prof. Y. Sommarin (Sweden), Prof. Robert B Sim (United Kingdom), Prof. Francesco Tedesco (Italy), Prof. Tom E Mollness (Norway), and Prof. Reinhard Wurzner (Austria) visited the department in connection with an International Seminar on Complement in Health and Disease (27 February 2010).
- Prof. Ricky Richardson, Great Ormond Street Hospital, London (11 March 2010).
- Prof. Vijay Kuchroo from USA.

## PATIENT CARE

### Laboratory services

#### Transplantation

##### *HLA matching*

	Recipients	Donors	Total
<i>Renal transplant</i>	253	280	533
<i>Bone marrow transplant</i>			
Leukemia	41	112	153
Aplastic anemia	50	190	240
Acute leukemia	65	194	259
Thalassemia	52	150	202

Others	20	55	75
<b>Total</b>	<b>228</b>	<b>701</b>	<b>929</b>

#### *Cadaver donor organ transplantation*

Cadaver donor	15
Kidney recipients	10
Heart recipients	0

#### *Cross Match Test*

Serology	610
Flowcytometry	134
Panel reactive antibody (PRA) screening	625
Luminex PRA	20
ELISA PRA	113

#### **Diagnosics**

*Spondyloarthropathies* 1376

#### *Other diseases*

Chimerism studies in BMT 50 recipient donor pairs  
Immunophenotyping of leukemia patients 81

Unrelated Donor search for BMT 350

During the year, a total of 278 requests for search of unrelated HLA matched donor from the ‘Asian Indian Donor Marrow Registry’ for bone marrow transplantation (BMT) were received. These include 100 from USA, 85 from Europe, 63 from various Asian countries and 30 from India.

#### **AWARDS AND HONOURS AND SIGNIFICANT EVENTS**

Prof NK Mehra is a member of the Editorial Boards of Indian Journal of Leprosy, Indian Journal of Transplantation, and Journal of Laboratory Physicians. He is a member of the following: Board of Studies in Human Genomics of Punjab University, Chandigarh; Research Advisory Committee of Centre for Liver Research and Diagnosis (CLRD), Hyderabad; DBT Expert Group for Selection of Scientist C & D posts, NARI, Pune; National Apex Committee for Stem Cell Research & Therapy (NAC-SCRT); ICMR Project Research Group on Diabetes; DBT Task Force on Stem Cell and Regenerative Medicine; Scientific Advisory Committee of NICED, Kolkata; Scientific Advisory Committee, Institute of Pathology; DHR Core Advisory Committee on Establishment of Advanced Centres on various aspects of Medicine in different Medical Institutions in the country; and the Ethics Committee of B.L. Kapoor Memorial Hospital. He was an Invited Speaker at the 11<sup>th</sup> Congress of the Asian Society Of Transplantation (CAST 2009), Beirut, Lebanon. He was a Visiting Professor to the Department of Medical Studies, Riyadh Military Hospital, Riyadh, Saudi Arabia (Dec.18-25, 2009). Member,

Dr. Uma Kanga serves as a Councillor for the 'Australasian and South East Asian Tissue Typing Association (ASEATTA).

Dr. Prabhat K Sharma received the Dr GP Talwar Young Scientist Award of the Indian Immunology Society-2009.



## 9.36 Urology

### Professor and Head

N.P. Gupta

### Professors

A.K. Hemal  
(Long term leave since 30.9.07)

P.N. Dogra

### Additional Professor

Amlesh Seth

### Associate Professor

Rajeev Kumar

## 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 and postgraduate students in Urology from various Indian medical colleges and abroad to observe and learn robotics, endourology, laparoscopy and microsurgery in Urology.

The faculty of the department continues to be examiners for NBE and MCh Urology in various universities and inspectors for the Medical Council of India and National Board for recognition of standard of examination and facilities for Urology postgraduate courses.

## CONTINUING MEDICAL EDUCATION

### Conducted by the Department

- The department organized an 'International Symposium, Workshop and Hands-on Training on Diseases of the Prostate Gland' on 3-4 April 2009 at AIIMS. Over this two day period, a wide variety of surgical procedures for diseases of the prostate were demonstrated. This included robotic radical prostatectomy, bipolar trans-urethral resection of the prostate (TURP) and a number of different lasers used for benign prostatic hypertrophy. The operative workshop was transmitted live to the auditorium with two-way communication with the audience.
- The department organized a 'Mock Examination' for postgraduate trainees (MCh and DNB) in Urology for the Urological Society of India from 22-24 March 2010 at AIIMS. Eighty postgraduates were registered for this program and over 15 faculty members from various parts of the country conducted examinations in the standard pattern. A live operative demonstration was also given of common urological procedures.

- The department organized a ‘Monthly Clinical Meeting’ of the Delhi Urological Society on 30 January 2010 at AIIMS

### Participated as invited Faculty in CME Programs

#### Prof NP Gupta

- Resource person for the Continuing Urology Education (CUE) programme of Urological Society of India, Hyderabad, 13-14 June 2009.
- Resource person for the American Urology Association – Urological Society of India (AUA-USI) Instructional Course, Mumbai, 29-30 September 2009.
- Resource person for the Joint Course of European School of Urology & Asian School of Urology, Bali, Indonesia; 3-6 December 2009.
- Resource person for the Uro-Laser Workshop, Hyderabad, 22-23 January 2010.
- Demonstrated Live Operative Surgery of ‘Robotic Radical Prostatectomy,’ SurgiCON 2010, New Delhi, 27 March, 2010.

#### Prof PN Dogra

- ‘Role of Medical Vs. Surgical Management of Benign Prostatic Hypertrophy (BPH),’ International Symposium, Workshop and Hands-on Training on Diseases of the Prostate Gland, New Delhi, 3-4 April 2009.
- Demonstrated ‘Urethroplasty’ in Live Operative Workshop on Reconstructive Genitourinary Surgery and Laser Prostatectomy, Delhi; 8-9 August 2009.
- Chairperson for Live Operative Workshop on Reconstructive Genitourinary Surgery and Laser Prostatectomy, Delhi, 8-9 August 2009 & Amritsar, 2 October 2009.
- Chairperson for a debate on ‘There is no evidence for Medical Management of Idiopathic Oligoasthenospermia,’ North Zone Urological Society of India Conference (NZUSICON), Amritsar, 4 October 2009.
- Chairperson for a Symposium on ‘Role of Uprima in Management of Erectile Dysfunction,’ New Delhi, 20 March 2010.

#### Dr Amlesh Seth

- Faculty for USI Mock Examination for postgraduate trainees in Urology, New Delhi, 22-24 March.
- ‘Anatomy of the Prostate,’ International Symposium, Workshop and Hands-on Training on Diseases of the Prostate Gland, AIIMS, New Delhi, 3-4 April, 2009.
- Demonstrated ‘Trans-urethral Resection (TUR) for Multiple Bladder Tumors,’ New Delhi, 3-4 April 2009
- ‘AIIMS Experience of Management of Renal Cell Carcinoma (RCC) with Level III/IV Venous Tumor Thrombus,’ NZUSI CUE programme, UROSURGE 2010, Jhansi, 7 March 2010.

- ‘Surgery is the Standard of Care for Early Carcinoma Prostate,’ Annual Conference of RGCON New Delhi, 28 March, 2010.

### **Dr Rajeev Kumar**

- ‘Premalignant Pathology of the Prostate’ International Symposium, Workshop and Hands-on Training on Diseases of the Prostate Gland, New Delhi, 3-4 April 2009.
- ‘Getting past the Reviewers’ Workshop on Scientific Communication, University College of Medical Sciences (UCMS) and Guru Teg Bahadur (GTB) Hospital, New Delhi, 6 April 2009.
- Demonstrated ‘Microsurgical Vasospermicostomy, Vasectomy-Reversal and Varicocelelectomy,’ 2<sup>nd</sup> Annual TS Jayaram Memorial CUE of the Bangalore Urological Association, Bangalore, 19 September 19 2009.
- Resource person for American Urological Association (AUA)/Urological Society of India (USI) Instructional Course and Mock Examination, Mumbai, 28-30 September 2009.
- Faculty for the Peer Review Workshop of the Indian Journal of Urology, Vellore, 23-24 October 2009.
- Demonstrated Percutaneous Nephro Lithotripsy (PCNL) at the USI Mock Examination for postgraduate trainees in Urology, New Delhi, 22-24 March 2010.

## **NATIONAL AND INTERNATIONAL CONFERENCES**

### **Lectures delivered**

#### **Prof NP Gupta**

- ‘Genitourinary Tuberculosis (GUTB): Asian Experience,’ Annual Conference of AUA-2009, Chicago, USA; 24-29 April 2009.
- Resource Person for the 17<sup>th</sup> Annual Meeting of the Federation of ASEAN Urological Association with 5<sup>th</sup> Asian Symposium, Ho Chi Min City, Vietnam; 3-6 June 2009.
- Resource Person for the 1<sup>st</sup> Istanbul Robotic Urology Symposium, Istanbul, Turkey; 1-2 July 2009.
- ‘Robotic Urologic Surgery,’ Urology Conference of Yemen Urological Association, Sanna, 14-17 July 2009.
- ‘Robotic Pyeloplasty,’ 20<sup>th</sup> Video Urology World Congress, Kuala Lumpur, Malaysia; 23-26 July 2009.
- ‘Robotic Urologic Surgery,’ Annual Conference of Taiwan Urological Association, Taiwan; 29-30 August 2009.
- Resource person for the Societe Internationale d’ Urologie Congress, Shanghai, China, 1-5 November 2009.
- Resource Person for the Annual Conference of Urological Society of India, Agra, 3-7 February 2010.

- Resource Person and delivered the UAA lecture in the Annual Meeting of Urological Society of Australia & New Zealand, Perth, Australia; 21-24 February 2010
- ‘Robotic Radical Prostatectomy,’ RGCON-2010, New Delhi, 26 March 2010.

### **Prof PN Dogra**

- Video lectures on ‘Robotic Pyeloplasty and Radical Nephrectomy,’ in SELSI South Zone Conference - 2009, Chennai, 4-6 September 2009.
- Delivered the Dr. P. N. Kataria Memorial Oration on ‘Laser Core-through Urethrotomy in Post-traumatic Obliterative Stricture of Bulbomembranous Urethra,’ NZUSICON- 2009, Amritsar, 2 October 2009.
- Resource Person for the Advance-2010 International Robotic Urologic Symposium Las Vegas, USA; 15-17 January 2010.
- Resource person for 8<sup>th</sup> Evidence Based Management of Urological Cancers, Mumbai, 26-28 February 2010.

### **Dr Amlesh Seth**

- ‘Impact of Vessel Sealing Device on Outcome of Radical Cystectomy,’ (Seth A, Gupta NP), Societe Internationale d’ Urologie Congress, Shanghai, 1-5 Nov, 2009.
- ‘Survivin: A Novel Target for Diagnosis of Urothelial Carcinoma of the Bladder,’ (Seth A, Gupta NP), Societe Internationale d’ Urologie Congress, Shanghai, 1-5 Nov, 2009.
- ‘Malignant Adrenal Pheochromocytoma with Atriocaval Thrombus,’ (Seth A, Gupta NP), Societe Internationale d’ Urologie Congress, Shanghai, 1-5 Nov, 2009.
- ‘Leiomyosarcoma of Inferior Vena Cava involving the Renal Veins: A Surgical Challenge,’ (Seth A, Gupta NP), Societe Internationale d’ Urologie Congress, Shanghai, 1-5 Nov, 2009.
- ‘Current Status of Management of Castration-Refractory Carcinoma Prostate,’ Annual Conference of USI, Agra, 3-7 February 2010.
- Expert for the panel discussion on ‘Difficult cases of Castration Refractory Carcinoma Prostate,’ Annual Conference of USI, Agra, 3-7 February 2010.
- Chaired the session on ‘Prostate Cancer,’ 8<sup>th</sup> Evidence-based Management of Urological Cancers, Mumbai, 26-28 February, 2010.

### **Dr Rajeev Kumar**

- Moderated a session on ‘Current Controversies in Men’s Health,’ IAUAA Annual Meeting, Chicago, USA; 25 April 2009.
- Resource Person for the 1<sup>st</sup> Istanbul Robotic Urology Symposium, Istanbul, Turkey; 1-2 July 2009.
- ‘What a Gynaecologist should know about Male Infertility,’ 18<sup>th</sup> Annual Conference of NARCHI, New Delhi, 5-7 September 2009.
- Participated in a debate ‘There is no evidence for Medical Management of Idiopathic Oligoasthenospermia,’ North Zone Urological Society of India Conference (NZUSICON), Amritsar, 2-4 October 2009.

- ‘Laparoscopy and Robotics: Past, Present and Future,’ 7<sup>th</sup> Annual Nephrology Urology Transplantation Society (NUTS) of SAARC, Colombo, Sri Lanka; 13-14 October 2009.
- Demonstrated ‘Laparoscopic Pyeloplasty,’ 7<sup>th</sup> Annual NUTS of SAARC Meeting, Colombo, Sri Lanka; 13-14 October, 2009.
- ‘Case-based Discussion on Male Infertility in India,’ Andrology Sub-specialty Program, 43<sup>rd</sup> Annual Conference of the USI, Agra 3-7 February, 2010.
- ‘Unexplained Male Factor Infertility,’ 5<sup>th</sup> Annual Conference of Indian Fertility Society, New Delhi, 5-6 February, 2010.

## RESEARCH

### Funded Projects

#### *Ongoing*

- Evaluation of Oxidative Stress as a Cause for Idiopathic Male Infertility and the Role of ‘Addyzoa’ in its Treatment: Randomised, Double Blind Placebo Controlled trial. Rajeev Kumar. Funded by: Charak Pharmaceuticals (2009-2011). Funds: Rs. 5.6 lakhs

#### *Completed*

- Molecular Analysis of Gene Markers in Urine Cytology and Tissue Histology Specimens of Indian Patients with Superficial and Muscle Invasive Transitional Cell Carcinoma of Urinary Bladder. Amlesh Seth. Funded by Indian Council of Medical research (ICMR) (2009-2010). Rs. 10 lakhs.

### Departmental Projects

#### *Ongoing*

- A post-marketing surveillance study of intra-vesical BCG vaccine (Serum Institute of India Ltd-ONCO-BCG) in carcinoma-in-situ and in intermediate- and high-risk Ta, Ta1 transitional cell carcinoma of urinary bladder.
- Urethroplasty for anterior and posterior urethral strictures: different techniques.
- Core-through urethrotomy for traumatic obliterative urethral stricture.
- Evaluation of robotic radical prostatectomy.
- Evaluation of robotic pyeloplasty, ureteroneocystostomy and repair of urinary fistula.
- Evaluation of robotic radical cystectomy.
- Discordant clinical and fine needle aspiration cytology (FNAC) findings in suspected obstructed azoospermia: surgical and pathological correlation.
- Causes of negative surgical explorations in men with obstructive azoospermia.

#### *Completed*

- Simplified two-layer vasoepididymostomy for vasectomy reversal: evaluation of a new technique.
- Superior calyceal access in pediatric PCNL: safety and efficacy.

## Collaborative Projects

### Ongoing

- Role of PET CT in carcinoma bladder (with Department of Nuclear Medicine).
- Cholesterol homeostasis and expression of cell cycle proteins (Cyclin E & CDK2) in normal prostate, benign prostatic hyperplasia and carcinoma prostate cases: a pilot study (with Department of Biochemistry).
- Mitochondrial genes and Y chromosome deletions in male infertility (with Department of Anatomy).
- 3-dimensional chemical shift imaging and diffusion weighted imaging using Proton Magnetic Resonance Spectroscopy (MRS) in the diagnosis of carcinoma prostate (with Department of NMR)

## PUBLICATIONS

### Journals

- Agarwal N, Seth A, Kulshrestha V, Kochar S, Kriplani A. Spontaneous vesicovaginal fistula caused by genitourinary aspergillosis. *International Journal of Gynaecology Obstetrics* 2009; 105: 63-4.
- Anand A, Seth A, Singh MK, Gupta C. Neuroendocrine tumor in horseshoe kidney. *Indian Journal of Pathology and Microbiology* 2010; 53: 195-7.
- Badjatia N, Satyam A, Singh P, Seth A, Sharma A. Altered antioxidant status and lipid peroxidation in Indian patients with urothelial bladder carcinoma. *Urology Oncology* 2009 Jan 24. [Epub ahead of print]
- Garg M, Kanojia D, Seth A, Kumar R, Gupta A, Surolia A, Suri A. Heat-shock protein 70-2 (HSP70-2) expression in bladder urothelial carcinoma is associated with tumour progression and promotes migration and invasion. *European Journal of Cancer* 2010; 46: 207-15.
- Gupta L, Thakur H, Sobti RC, Seth A, Singh SK. Role of genetic polymorphism of estrogen receptor-alpha gene and risk of prostate cancer in north Indian population. *Molecular Cell Biochemistry* 2010; 335: 255-61.
- Gupta NP. Late Dr. Sarinder Man Singh, "A thorough gentleman." *Indian Journal of Urology* 2009; 25: 154.
- Gupta NP, Mukherjee S, Nayyar R, Hemal AK, Kumar R. Transmesocolic robot-assisted pyeloplasty: single center experience. *Journal of Endourology* 2009; 23: 945-8.
- Gupta NP, Sharma N, Kumar R. Nuclear matrix protein 22 as adjunct to urine cytology and cystoscopy in follow-up of superficial TCC of urinary bladder. *Urology* 2009; 73: 592-6
- Gupta NP, Mishra S, Dogra PN, Yadav R, Seth A, Kumar R. Transpubic urethroplasty for complex posterior urethral strictures: a single center experience. *Urology International* 2009; 83: 22-6.
- Gupta NP, Anand A. Lasers are superfluous for the surgical management of benign prostatic hyperplasia in the developing world. *Indian Journal of Urology* 2009; 25: 413-4.

- Gupta NP, Anand A, Mishra S. Transurethral vapor resection of prostate - an alternative treatment for benign prostatic hyperplasia >100 g. *Journal of Endourology* 2009; 23: 1883-6.
- Gupta NP, Nayyar R, Sahay SC. Periureteric venous ring with renal calculi and transitional cell carcinoma: report of a rare case. *Surgical and Radiologic Anatomy* 2010; 32: 405-7.
- Gupta NP, Anand A. Comparison of TURP, TUVRP, and HoLEP. *Current Urology Reports* 2009; 10: 276-8.
- Gupta NP, Mishra S, Nayyar R, Seth A, Anand A. Comparative analysis of percutaneous nephrolithotomy in patients with and without a history of open stone surgery: single center experience. *Journal of Endourology* 2009; 23: 913-6.
- Gupta NP, Mishra S, Seth A, Anand A. Percutaneous nephrolithotomy in abnormal kidneys: single-center experience. *Urology* 2009; 73: 710-4; Discussion 714-5.
- Gupta NP, Mishra S, Dogra PN, Hemal AK, Seth A, Kumar R. Outcome of end-to-end urethroplasty: single-center experience. *Urology International* 2009; 82: 179-82.
- Gupta R, Mathur SR, Iyer VK, Sudheer Kumar A, Seth A. Cytomorphologic consideration in malignant ascites with renal cell carcinoma: A report of two cases. *CytoJournal* 2010; 7: 4.
- Hemal AK, Nayyar R, Gupta NP, Dorairajan LN. Experience with robot assisted laparoscopic surgery for upper and lower benign and malignant ureteral pathologies. *Urology* 2010 Mar 27. [Epub ahead of print]
- Jain D, Sharma MC, Epari S, Gupta NP, Kolla SB. Hemangioendothelioma of urinary bladder: report of rare case. *Urology* 2009; 3: 1259-61.
- Kumar R, Nehra A, Jacobson DJ, McGree ME, Gades NM, Lieber MM, et al. Alpha blocker use is associated with decreased risk of sexual dysfunction. *Urology* 2009; 74: 82-8.
- Kumar R, Nehra A. Surgical and minimally invasive treatments for Peyronie's disease. *Current Opinion Urology* 2009; 19: 589-94.
- Kumar R, Nehra A. Prosthetics in Urology. *Urology Times Clinical Edition*. 2009; Dec 1. [Epub ahead of print]
- Kumar R. Diary of a urologist as a trainee at AIIMS. *Indian Journal of Urology* 2009; 25: 223-33.
- Kumar R, Venkatesh S, Kumar M, Tanwar M, Shasmsi MB, Kumar R, Gupta NP, Oxidative stress and sperm mitochondrial DNA mutation in idiopathic oligoasthenozoospermic men. *Indian Journal of Biochemistry Biophysics* 2009; 46: 172-7.
- Kumar V, Jagannathan NR, Kumar R, Nayyar R, Thulkar S, Gupta SD, et al. Potential of 1H MR spectroscopic imaging to segregate patients who are likely to show malignancy of the peripheral zone of the prostate on biopsy. *Journal of Magnetic Resonance and Imaging* 2009; 30: 842-8.
- Madhusudhan KS, Sharma S, Seth A. Spontaneous closure of a traumatic intrarenal pseudoaneurysm. *Journal of Postgraduate Medicine* 2009; 55:124-6.



- Nayyar R, Dogra PN. Anteriorly placed midline intraprostatic cyst. *Journal of Endourology* 2009; 23: 595-7.
- Nayyar R, Gupta NP. Critical appraisal of technical problems with robotic urological surgery. *British Journal of Urology International* 2009 Oct 28. [Epub ahead of print]
- Nayyar R, Gupta NP, Hemal AK. Robotic management of complicated ureteropelvic junction obstruction. *World Journal of Urology* 2009 Aug 27. [Epub ahead of print]
- Nayyar R, Gupta NP, Hemal AK, Kumar R. Two concomitant robot-assisted procedures in one anesthesia session: our experience. *Journal of Endourology* 2009; 23: 263-7.
- Nayyar R, Sharma N, Gupta NP. Prognostic factors affecting progression and survival in metastatic prostate cancer. *Urology International* 2010; 84: 159-63.
- Nayyar R, Sharma N, Gupta NP. Docetaxel-based chemotherapy with zoledronic acid and prednisone in hormone refractory prostate cancer: factors predicting response and survival. *International Journal of Urology* 2009; 16: 726-31.
- Nayyar R, Singh P, Panda S, Kashyap S, Gupta NP. Proptosis due to 'isolated' soft tissue orbital metastasis of prostate carcinoma. *Indian Journal of Cancer* 2010; 47: 74-6.
- Nayyar R, Singh P, Gupta NP, Hemal AK, Dogra PN, Seth A, Kumar R. Upgrading of gleason score on radical prostatectomy specimen compared to the pre-operative needle core biopsy: An Indian experience. *Indian Journal of Urology* 2010/26/1 doi:10.4 103/0970-1591.60445
- Nayyar R, Singh P, Seth A. Penile cutaneous horn over long standing radiation dermatitis. *Journal of Postgraduate Medicine* 2009; 55: 287.
- Nayyar R, Kumar R, Kumar V, Jagannathan NR, Gupta NP, Hemal AK. Magnetic resonance spectroscopic imaging: current status in the management of prostate cancer. *British Journal of Urology International* 2009; 103: 1614-20.
- Satyam A, Singh P, Badjatia N, Seth A, Sharma A. A disproportion of T(H)1/T(H)2 cytokines with predominance of T(H)2, in urothelial carcinoma of bladder. *Urology Oncology* 2009 Oct 16. [Epub ahead of print]
- Shamsi MB, Venkatesh S, Tanwar M, Talwar P, Sharma RK, Dhawan A, Kumar R, Gupta NP, et al. DNA integrity and semen quality in men with low seminal antioxidant levels. *Mutation Research* 2009; 665:29-36.
- Sobti RC, Gupta L, Thakur H, Seth A, Singh SK, Kaur P. CYP17 gene polymorphism and its association in north Indian prostate cancer patients. *Anticancer Research* 2009; 29: 1659-63.
- Sobti RC, Thakur H, Gupta L, Janmeja AK, Seth A, Singh SK . Polymorphisms in the HPC/ELAC-2 and alpha 1-antitrypsin genes that correlate with human diseases in a North Indian population. *Mol Biol Reports* 2010 Feb 2. [Epub ahead of print]
- Venkatesh S, Shamsi MB, Kumar R, Gupta NP, Sharma RK, Talwar P, Dada R. Oxidative stress: role of seminal plasma. *Obstetric and Gynaecology Today* 2009; 14: 416-9.
- Venkatesh S, Singh G, Gupta NP, Kumar R, Deecaraman M, Dada R. Correlation of sperm morphology and oxidative stress in infertile men. *Iranian Journal of Reproductive Medicine* 2009; 7: 29-34.

- Venkatesh S, Riyaz AM, Shamsi MB, Kumar R, Gupta NP, Mittal S. Clinical significance of reactive oxygen species in semen of infertile Indian men. *Andrologia* 2009; 41: 251-6.

### Book Chapters

- Kumar R, Nehra A. Treatment of male incontinence: surgical procedures (Post TURP/RRP). In : Badlani GH, Davila GW, Michel MC, de La Rosette JJMCH (Eds.). *Continence: Current Concepts And Treatment Strategies*. Springer 2009; pp 433-42.
- Kumar R, Nehra A. Priapism. In : Carson CC, Kirby RS, Goldstein IS, Wyllie MG (Eds.). *Textbook of Erectile Dysfunction, 2nd Edition*. New York: Informa Healthcare 2009; pp 420-27.
- Seth A. Testicular Tumors. In: Hai AA, Srivastava RB (Eds.). *ASI Textbook of Surgery*. McGraw Hill 2010.

### AWARDS & HONOURS

**Prof NP Gupta** was conferred an Honorary degree of Doctorate of Science (DSc) by Rani Durgawati Vishwavidyalaya on 24 October 2009. He was also conferred the Ranbaxy Award on clinical research on 4 Nov, 2009

**Prof PN Dogra** delivered the Dr. P.N. Kataria Memorial Oration on NZUSICON – 2009 at Amritsar (2 October). He was also awarded the “Rashtriya Gaurav Award” by India International Friendship Society on 10 October 2009.

**Dr Amlesh Seth** was awarded a WHO fellowship for a short-term training on Epidemiology and Biostatistics at Prince of Songkhla University, Thailand (6 October – 14 November 2009). He served as the organising secretary for the USI Mock Examination for postgraduate trainees in Urology New Delhi, 22-24 March 2010). He is a peer reviewer for a number of journals - Indian Journal of Urology, Indian Journal of Medical Research, Indian Journal of CTVS.

**Dr Rajeev Kumar** was selected to represent India at the Leadership Workshop of the Asian School of Urology at Kyoto, Japan. He was appointed the Editor for the 20th Anniversary Monograph of the Urological Association of Asia. He served as the Convenor of the Scientific Content Committee of the North Zone Chapter of Urological Society of India; as Organizing Secretary of the International Symposium, Workshop and Hands-on Training on Diseases of the Prostate Gland (New Delhi, 3-4 April 2009); and as a Treasurer for the USI Mock Examination for postgraduate trainees in Urology (New Delhi, 22-24 March 2010).

### COMMUNITY SERVICE

The faculty of department of Urology participated in the following community service:

- Dr NP Gupta delivered a talk on Delhi Doordarshan
- Faculty from the Department of Urology participated in medical camp services in Kargil and Leh in the state of Jammu & Kashmir.

## PATIENT CARE

### 1. Main Hospital OPD

New Cases 13384

Old Cases 28817

### 2. BRAIRCH Uro-malignancy clinic

New Cases 402

Old Cases 1198

### 3. Admissions: 5184

### **Surgical procedures: 7676**

#### 1. Main OT: 1652

Open procedures: 261

Endourology: 888

Lower tract: 561

Upper tract: 327

Percutaneous renal surgery: 180

Ureterorenoscopy: 147

Microsurgery: 69

Laparoscopic Surgery: 84

(40 Laproscopic donor nephrectomies in collaboration with Surgery Unit-II)

Robotic Surgery : 130

Radical Prostatectomy: 47

Pyeloplasty: 62

Others: 21

Others: 220

#### 2. Minor OT: 6024

Cystoscopy: 1946

Minor Cases: 4078

### **Extra-corporeal Shock Wave Lithotripsy (ESWL): 864**

New cases 306

Re-do cases 558

<b>Urodynamic procedures:</b>	<b>3363</b>
Uroflowmetry	3054
Cystometrogram	309
<b>Ultrasound procedures:</b>	<b>340</b>
TRUS/ prostate biopsies :	204
Diagnostic :	43
SPC:	53
PCN:	40
<b>Stone Analysis:</b>	<b>113</b>

## 10.1 Cardiothoracic Sciences Centre

### Chief

Balram Airan

Professor A. Sampath Kumar retired on 1st October 2010 as Chief Cardiothoracic Centre. Prof. Balram Airan assumed the charge of Chief Cardiothoracic Centre on 3rd October 2010 with retrospective effect from 1st May 2008.

### CARDIOTHORACIC AND VASCULAR SURGERY

#### Professor and Head

Balram Airan

#### Additional Professors

U.K. Chowdhury

S.K. Choudhary

A.K. Bisoi

#### Associate Professors

Milind Hote

Sachin Talwar

V. Devagourou

### CARDIOLOGY

#### Professor and Head

V.K. Bahl

#### Professors

Anita Saxena  
Balram Bhargava

S.S. Kothari  
K.C. Goswami

#### Additional Professors

R. Juneja

R. Narang

#### Associate Professors

S. Mishra  
N. Naik

S. Seth  
G. Karthikeyan  
S. Singh

Rakesh Yadav  
Gautam Sharma

#### Assistant Professors

Ambuj Roy

S. Ramakrishnan

### CARDIAC ANAESTHESIA

#### Professor and Head

Usha Kiran

#### Professor

Sandeep Chauhan

#### Associate Professor

Neeti Makhija

Poonam Malhotra

Minati Choudhury

Shambhu Nath Das

**Assistant Professor**

Parag Gharde

Vishwas Malik

**BLOOD TRANSFUSION SERVICES**

**Chief Medical Officer and In-charge**

Anjali Hazarika

**Senior Technical Officers**

Kalpana Misra

Bijay Majhi

**Technical Officers**

Suresh Kumar  
Avdesh Kr. Tangri

Gulshan Mehta  
P.S. Rajput

G.S. Chauhan  
Anita Rani

**CARDIAC RADIOLOGY**

**Professor & Head**

Sanjiv Sharma

**Associate Professor**

Gurpreet Singh Gulati

**Assistant Professor**

Priya Jagia

**NUCLEAR MEDICINE**

**Associate Professor**

Chetan D. Patel

**STEM CELL FACILITY**

**Assistant Professor**

Sujata Mohanty

**CARDIAC PATHOLOGY**

**Professor**

Ruma Ray

**CARDIAC BIOCHEMISTRY**

**Associate Professor**

R Lakshmy

**ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)**

**Associate Professor**

Aarti Vij

## EDUCATION

### CARDIO-THORACIC VASCULAR SURGERY

#### Training

The following Cardiac Surgeons, Physiotherapist, Cardiac Operation Theatre (Technicians) have undergone Short Term Training at the Department of CTVS.

1. Lt Col (Dr) Sameer Kumar Army Hospital (R&R) Hospital, Delhi Cantt. New Delhi
2. Dr. Hakeem Zuber Ashraf from Jammu & Kashmir, Soura Srinagar.
3. Dr. Zaur Hussain from Jammu & Kashmir, Soura Srinagar
4. Ms. Shivani Sharma from Sector 16,NOIDA U.P
5. Ms. Kanika Bhardwaj from Meerut Road, Ghaziabad(UP)
6. Mr. Sajith K.R. Cardiac Nursing (CT Centre) from Sruthi College of Nursing Gullapailli, Guntur District (AP).
7. Dr. Dhirender Kumar physiotherapist from Safdarjung Hospital.
8. Dr. Sunny physiotherapist from Bansarsi Dass Chandiwala Institute, I.P. University, New Delhi.
9. Dr. Neha Aggarwal physiotherapist from Banarsi Dass Chandiwala Institute, I.P. University, New Delhi.
10. Dr. Minaxi physiotherapist, MPT student Jamia Hamdard, New Delhi.
11. Dr. Rimpi Anand physiotherapist MPT student Jamia Hamdard, New Delhi.
12. Dr. Pawan physiotherapist MPT student Jamia Hamdard, New Delhi.
13. Dr. Ahad Babu physiotherapist MPT student Jamia Hamdard, New Delhi.
14. Dr. Rahul Yadav physiotherapist CCS University Meerutt.

#### National and International Conferences

1. Prof. Balram Airan was invited to chair a session on “Percutaneous Valve Implantation” in the ISMICS-09 Annual winter Workshop on 11<sup>th</sup> December 2009 at Gurgaon,
2. Prof. Balram Airan was invited to attend 11<sup>th</sup> Annual Conference of Pediatric Cardiac Society of India 23<sup>rd</sup>-25<sup>th</sup> October 2009 at PGIMER, Chandigarh.
3. Prof. Balram Airan was invited to deliver a talk on “Fontan Principles of Surgery” during the Cardiac CT CME organized by SMS Medical College & Hospital, Jaipur from 11<sup>th</sup> to 13<sup>th</sup> September 2009.
4. Prof. Balram Airan was invited to deliver 18<sup>th</sup> Dr. K.G. Deshpande Memorial Oration on behalf of the Oration Committee of Cardiological Society of India, Vidharbha Chapter, Nagpur on 13<sup>th</sup> September 2009.
5. Prof. Balram Airan was invited to deliver a talk during 2<sup>nd</sup> World Heart Failure Congress 2010 on “Heart Transplantation in India” at PGIMER, Chandigarh 5-7<sup>th</sup> February 2010.



6. Prof. Balram Airan Participated in STICH Investigator Meeting held at Munich, Germany.
7. Prof. Balram Airan was invited & delivered a talk on “Donor maintenance” during workshop on “Cadaver Donation Process” organized by ORBO held at AIIMS, New Delhi
8. Prof. Balram Airan was invited & delivered “PROFESSOR K. V. NAIDU MEMORIAL ORATION” during AP CSI 16<sup>th</sup> Annual Conference at Hyderabad
9. Prof. Balram Airan was invited & participated as an expert in Health Programme live telecast by Doordarshan News, New Delhi on “Heart Transplant”
10. Prof. Balram Airan was invited & delivered a guest lecture on “Cardiac Surgical ICU” at SASHCON-2008, AIIMS, New Delhi
11. Dr UK Choudhary, Additional Professor of CTVS was invited to 46<sup>th</sup> Annual Meeting of the Society of Thoracic Surgeons, January 25-27, 2010, Fort Lauderdale, Florida, USA and presented a paper on Histopathology of Ascending Aorta and the Risk factors related to Histopathological conditions and Aortic Dilatation in Patients with Tetralogy of Fallot
12. Dr Sachin Talwar Associate Professor of CTVS attended the 23<sup>rd</sup> annual meeting of the European association for cardiothoracic surgery at Vienna, Austria, Oct 17-21, 2009 and presented a paper on “Effect of pre-operative administration of allopurinol in patients undergoing surgery for valvular heart diseases
13. Invited to attend the annual Conference of the Endocrine Society of India at Udaipur, 9-10<sup>th</sup> Oct 2009 and presented a paper on: Effect of Cardio-Pulmonary Bypass on Serum Thyroid Hormone Profile of Children with Congenital Heart Disease”.
14. Invited to the 11<sup>th</sup> Annual conference of the Pediatric Cardiac Society of India, at Chandigar and delivered an invited lecture on “The Hemi-Fontan operation: where do we stand today?”
15. Invited and delivered a guest lecture on “Controversies in the management of Cardiopulmonary bypass in neonates and infants” at the 10<sup>th</sup> Annual conference of the Indian Society of Extracorporeal Technology at Delhi, February, 26-27, 2010.
16. Invited and conducted the Quiz at the 10<sup>th</sup> Annual conference of the Indian Society of Extracorporeal Technology at Delhi, February, 26-27, 2010.
17. Delivered an invited lecture on” Cardiac Surgery basics for the budding cardiologists” at the AIIMS Pediatric Cardiology CME, Delhi, March 13-14, 2010.

## CARDIOLOGY

CME, seminars, workshops Organized

1. **AIIMS Pediatric Cardiology CME 2010**’ organized by Department of Cardiology on 13 & 14 March 2010 at Ramalingaswami Board Room, AIIMS.
2. **Professor Philip Poole Wilson Heart Failure Research Symposium**’ Organized jointly by the Department of Cardiology, AIIMS, and Imperial College /Royal Brompton Hospital London on 2<sup>nd</sup> March, 2010 at Ramalingaswami Board Room, AIIMS.

## National & International Conferences

### Lectures Delivered

#### V K Bahl

1. Infective endocarditis – delivered at American College of Cardiology (ACC 2010) held at Atlanta USA.
2. Presidential oration – Heart failure Past present & future – CSI 2009.

#### Anita Saxena

1. 3D Echo in Pediatric cardiology – Annual Conference of Pediatric Cardiac Society of India, Chandigarh, 2009.
2. “World Heart Failure Congress” held at Chandigarh Feb 2010.
3. 16<sup>th</sup> Annual Conference of “The Indian College of Cardiology”, Lucknow Oct-Nov 2009.
4. “Advanced Cardiovascular Therapeutics 2009”, held at Chennai July 2009.
5. Member of expert group on “Is a Group A Streptococcal Vaccine desirable and feasible?”

#### SS Kothari

Transposition of great arteries – Annual Conference of Pediatric Cardiac Society of India, Chandigarh, 2009.

#### Balram Bhargava

1. Stem Cell Therapy for Acute MI: Where are we at present? National Conference of the Association of Physicians of India, NOIDA, India 2009.
2. Hypertrophic Cardiomyopathy (Plenary Lecture). Ceylon College of Physicians, Colombo 2009.
3. Multivessel stenting versus CABG (Debate). Ceylon College of Physicians, Colombo 2009.
4. Medical Device Innovation: Moving up the value chain. First National meeting on Medical Devices; Federation of Indian Chambers of Commerce and Industry, New Delhi 2009.
5. Litigation in medicine. Annual Cardiological Society of India (Delhi Branch), New Delhi 2009.
6. Challenges and opportunities for healthcare innovation/ entrepreneurship in India. Brainstorming Research initiative by Wellcome Trust UK, DBT India and AIIMS, New Delhi 2010.
7. Stem Cells In Cardiology: What the Clinician needs to know? Annual Cardiological Society of India (CARDICON), Lucknow, 2010.
8. Review of other DES in widespread use in India. What are the data. India Live. New Delhi 2010
9. Interventional management of Hypertrophic Cardiomyopathy. India Live. New Delhi 2010

#### R Juneja

Annual Conference of Pediatric Cardiac Society of India, Chandigarh, 2009

#### Sandeep Mishra

Hot to do LIMA interventions – at China Intervention Therapeutics 2009

## **S Ramakrishnan**

Imaging in VSD with AR – Annual Conference of Pediatric Cardiac Society of India, Chandigarh, 2009.

## **CARDIAC ANAESTHESIA**

### **DM Cardiac Anaesthesia**

In DM Cardiac Anaesthesia Programme four new candidates were selected including one sponsored. Two DM candidates passed the examination successfully in June 2009 and two in Dec 2009. At present nine are pursuing DM Cardiac-Anaesthesia course. Three of the nine DM students are sponsored candidates, two of them are Lt. Col. from the Armed forces.

### **P.G. Training**

This year 8 postgraduate students from the department of General Anaesthesia, AIIMS were posted for a period of one and a half months each for training in cardiac anaesthesia One DM Candidate from Sree chitra Institute of Medical Sciences was given short term training. One PDCC candidate from Varanasi also completed short term training.

### **International Short term Surperspeciality Training**

One faculty member Dr.Jimmie Kabugi member from Kenya Africa has completed one year of 'Hands on' training in cardiac anaesthesia on 21<sup>st</sup> Feb 2010.

### **M.Sc. Perfusion Technology**

5 new candidates joined MSc. perfusion technology. A total of 9 candidates are undergoing MSc perfusion technology at present.

### **Lectures delivered**

#### **Dr. Usha Kiran**

1. Lecture on "Monitoring anti-coagulation during cardio- pulmonary bypass" at Annual Conference of IACTA. Chennai 15<sup>th</sup> May 2009.
2. Safety in Anaesthesia "Chaired the session during Annual Conference of ISA Delhi branch on 4<sup>th</sup> April'2009.
3. On Parkinson's day – 4<sup>th</sup> April. Parkinson related associated network PRAN" annual Conference Inaugural session" spiritual exercises were narrated At AIIMS. New Delhi.
4. Guest lecture on the topic "Spirituality for health and healing" at Global Hospital and Health city, Chennai on 14<sup>th</sup> May 2009.
5. Guest lecture in Shankar Naitralaya , Chennai on the topic "Meditation and spirituality for preventing and management of diseases" on 14<sup>th</sup> May 2009.
6. During The World Congress on preventive and clinical cardiology on 2<sup>nd</sup> Oct'2009 at Akshar Dham, chaired a session 'spirituality for preventive aspect of cardiology'.
7. A talk on "Ethical conflicts in Medical Sciences" at Mount Abu on 28<sup>th</sup> July 2009 during a National Conference on Mind Body Medicine.

10. A talk on “Healing Head and Heart” at Mount Abu, on 27<sup>th</sup> July’2009 during National Conference on Mind Body Medicine.
11. Invited faculty for a talk on the topic “Art of living and stress management” on 11<sup>th</sup> July 2009, at National Board of Examination, Dwarka, New Delhi.
12. A talk on “Spirituality in Health and Disease” at Command Hospital Jaipur on 10<sup>th</sup> Sept’2009.
13. Key note address on Inaugural session of Holistic Nursing Conference on “Holistic Care” at Mount Abu on 19<sup>th</sup> Sep’2009.
14. A talk on “Anaesthesia Challenges in a child with congenital heart disease”, at Army college of Medical Sciences New Delhi. During Annual Conference of Research Society of Anaesthesiology and clinical pharmacology (RSACP) on 10<sup>th</sup> Oct’2009.
15. In the 1st Annual Conference of Indian College of Anaesthesiology chaired a session of “Anaesthesia in patient with Transplanted organs”. On 21<sup>st</sup> Nov’2009 at New Delhi.
16. Gave a talk on “Professional Transformation through personal transformation” during a Conference on Mind Body Medicine at Vile Parle BSES Hospital, Mumbai on 13<sup>th</sup> Dec’2009.
17. Gave a talk on “Anaesthesia Challenges in a child with congenial heart disease”, at Thane, Mumbai, during the Annual Conference of Regional branch of ISA. On 13<sup>th</sup> Dec’2009.
18. A talk on “whole body hypothermia”. Do we still need it, 50 years later? At Annual Conference of IACTA, Kolkatta, on 28<sup>th</sup> Feb’2010.
19. As a panelist on the topic “Professional transformation through personal transformation” at conference on Rejuvenating life through Mind body Medicine. On 7<sup>th</sup> Feb’2010. Manesar, Gurgaon.
20. Guest lecture “Manage your stress” at National Fertilizers Limited. Panipat on 3<sup>rd</sup> Sep’2009.
21. Gave a talk on “Use of Transesophageal echocardiography in congenital Heart disease” at PGI, Chandigarh on 19<sup>th</sup> Feb’2010 at 4<sup>th</sup> TEE and critical care Workshop.

#### **Dr. Sandeep Chauhan**

1. Guest lecture” Management of a dialysis dependent patient for On Pump CABG surgery.” at XIIIth Annual Conference of IACTA at Kolkata: 23-26 Feb 2010.
2. Guest lecture” Left ventricular systolic function “ at 4<sup>th</sup> TEE and critical care workshop at PGI Chandigarh 20<sup>th</sup> Feb’2010.
3. Guest lecture “ Physiology of one lung ventilation” at 57<sup>th</sup> ISA conference at Chennai 26-29 Dec 2009.
4. Guest lecture “ Perfusion strategies for the Arterial switch operation “ at PCS conference at Chandigarh, Oct 23-25 2009.

#### **Dr. Neeti Makhija**

1. Delivered guest lecture on “Acute renal injury in perioperative period. What can be done to minimize it and management of the same “ in the 11<sup>th</sup> annual national conference of Paediatric Cardiac Society of India, held at PGI, Chandigarh from 23<sup>rd</sup>-25<sup>th</sup> October 2009.

2. Delivered lecture o “Newer Anaesthesia Workstations. Do they really improve safety” in the 57<sup>th</sup> Annual National Conference of Indian Society of Anaesthesia (ISACON) held at Chennai from 26<sup>th</sup> to 30<sup>th</sup> December 2009.
3. Delivered Lecture on “Transesophageal echocardiography in infective endocarditis” in 4<sup>th</sup> Annual Peroperative and Critical Care Transesophageal Echocardiography Workshop, held from 19<sup>th</sup> Feb-21<sup>st</sup> Feb 2010, at PGI Chandigarh.
4. Was an invited panelist in the panel discussion on “Post infarction ventricular septal rupture” in thirteenth annual national conference of Indian Association of Cardiac and Thoracic Anaesthesia (IACTA), held at Kolkata from 26<sup>th</sup> to 28<sup>th</sup> Feb 2010.

**Dr. Poonam Malhotra Kapoor**

1. Guest Lecture on “Ischaemic preconditioning and its relevance to the cardiac-anaesthesia” in Annual IACTA Conference-Chennai-15<sup>th</sup> to 17<sup>th</sup> May 2009.
2. Guest lecture on “Video presentation on cardiopulmonary bypass” in Post Graduate Assembly on 7<sup>th</sup> September 2009 at UCMS and GTB Hospital, New Delhi.
3. Delivered a guest lecture on “Differences in cardiopulmonary bypass in off pump and On Pump CABG” in Post Graduate Assembly on 7<sup>th</sup> September 2009 at UCMS and GTB Hospital, New Delhi.
4. Guest lecture on “Tricuspid and pulmonary valve assessment in TEE” in TEE workshop on 5<sup>th</sup> – 7<sup>th</sup> October 2009 at Bangalore.
5. Guest lecture on “Newer modalities to estimate fluid status in intensive care” at RSACPCON Conference on 9<sup>th</sup> to 11<sup>th</sup> October 2009 at Army Medical College, New Delhi.
6. Invited as guest faculty on “Anaesthetics and neuro cognitive performance of patients undergoing CABG” during Scientific Conference on 3<sup>rd</sup> November 2009 at National Brain Research centre, Gurgaon, NCR.
7. Presented a protocol for project on “Molecular mechanisms underlying ischaemic preconditioning during CABG: A baseline study” during European Union Conference on 4<sup>th</sup> – 6<sup>th</sup> November 2009 at Jawaharlal Nehru University, New Delhi.
8. Guest lecture on “Cognitive decline and anaesthetic agents in patients undergoing cardiac surgery: is there a relationship?” in 1<sup>st</sup> Conference of North Zone Cardiac Anaesthesia Conference at Ludhiana 28<sup>th</sup> – 29<sup>th</sup> November 2009.
9. Gave a lecture on “Fluid management therapy in cardiac surgery patients” 2<sup>nd</sup> Scientific Meeting of “The society of Cardiac Anaesthesiology – Delhi & NCR Branch” on 5<sup>th</sup> December 2009 at New Delhi.
10. Guest lecture on “Is the PAC Passe: Exposing the data for continued (mis) use: PRO as faculty. ISMICS winter conference on 12<sup>th</sup> December 2009 at Medanta, The Medicity Gurgaon, NCR.
11. Guest lecture on “PA Catheter – its relevance to the practice of anesthesiologists” on 27<sup>th</sup> December 2009 in Annual ISACON Conference on 26<sup>th</sup> – 28<sup>th</sup> December 2009 at Chennai.

12. Guest lecture on “Basic TEE of aortic valve” in Annual IACTA Conference on 26<sup>th</sup> to 28<sup>th</sup> February 2010 at Kolkata.
13. Guest lecture in PRO-CON session on “Diastolic dysfunction measurement has no relevance to actual perioperative management of patients: CON”

**Dr. Minati Choudhury**

1. Guest lecture in “Low cardiac output syndrome the story unfolds’ ISAJAL in 2008-BBSR Oct 09 – 12<sup>th</sup>.

**Dr. Sambhunath Das**

1. Guest lecture in “Intra aortic balloon pump therapy prior to OPCABG surgery reduces perioperative ischemia & Hemodynamic instability” in 12<sup>th</sup> national conf. IACTA Chennai 15 – 17<sup>th</sup> May’ 2009.
2. Guest lecture in “Regional anesthesia for anticoagulated patients” in 19<sup>th</sup> ISA East Zone Conf 9-11<sup>th</sup> Oct’2009 Puri, Orissa.
3. Guest lecture in “Anesthesiologist role in Cath-Lab procedures” in Annual National Conf.of Pediatric Cardiac society of India at Chandigarh Oct-2009.

**Dr. Vishwas Malik**

1. Guest lecture on “Pre-operative Arrhythmias in Congenital Heart Disease” in Paediatric Cardiac Society of India Annual Meet at Chandigarh. Oct-2009.
2. Guest lecture on “Intracardiac Masses” in Perioperative Transoesophageal Echocardiography workshop at PGI Chandigarh. Feb’2010.
3. Panel Discussion on “Milrinone Extended usage in ICU” at Indian Association of Cardiothoracic Anaesthesia Annual Conference from 26<sup>th</sup> to 28<sup>th</sup> Feb’2010.

**BLOOD TRANSFUSION SERVICES**

1. Short term training (3 months) provided to 1 trainee.
2. Three in-house training sessions held in the department on various topics.

**CARDIAC RADIOLOGY**

Guest Lectures, Workshops and Conferences Conference organized by the department 12<sup>th</sup> Annual National Conference of Isvir At Aiims, New Delhi On 7<sup>th</sup> -10<sup>th</sup> October, 2009. , There Were State-of-The-Art Symposia, Panel Discussions, Workshops, How I Do It Sessions Along With An Extensive Scientific Exhibition.

**Dr. Sanjiv Sharma**

1. External Examiner for M.Sc Medical Tech (Radio-diagnosis) part II & viva voce examination to be held on Ist May, 2009 in PGI, Chandigarh.
2. CME on Vascular malformations head to toe and be a trainer on peripheral angioplasty and stenting: Lecture on the Imaging and endovascular management of Pulmonary AVM’s on 13<sup>th</sup> and 14<sup>th</sup> June, 2009 at Coimbatore.

3. Attended Annual meeting of Cardiovascular and Interventional Radiological Society of Europe on September 19-23, 2009 and oral presentation on “Imaging appearances and role of magnetic resonance imaging in the diagnosis of restrictive heart disease caused by endomyocardial fibrosis”
4. External Examiner for MD Radiodiagnosis practical examination held on 9<sup>th</sup> June, 2009 in IG Medical College, Shimla.
5. Attended ISVIR-REF MEET 2009, CME & Training program for interventional Radiology on 18<sup>th</sup> July & 19<sup>th</sup> July 2009 at Madurai.
6. 5<sup>th</sup> Reach Monitoring Committee Meeting Of The Prestigious Project I.E. “Tifac-Core In Interventional Radiology Under Mission Reach Programme Of Tifac, Department Of Science And Technology On 24<sup>th</sup> July, 2009 In Wardha
7. Attended a symposium on “Endovascular Treatment of Aortic Aneurysm & Dissections from 3<sup>rd</sup> -4<sup>th</sup> July, 09 and give a talk and case presentation on: Interactive Case Presentation-TAA, Interactive Case Presentation-Type B Dissection and Imaging of Endoleak & Management
8. Faculty and deliver a lecture on “Cardiac MRI in Congenital Heart Disease” in ‘XIth annual meeting of PCSI’ on 23-25<sup>th</sup> October, 2009 in Chandigarh.
9. Attended the meeting outs in the treatment of Thoracic Aortic Pathologies at Graz, Austria and Annual meeting of European Society of Cardiovascular and Interventional Radiology at Lisbon on 8<sup>th</sup> September, 2009
10. Lecture on “Chest X-ray in Heart Disease” and “Imaging of Congenital Heart Disease” in III<sup>rd</sup> series of AIIMS-MAMC PGI Imaging Courses on Chest & Cardiovascular-Radiology on 7<sup>th</sup> November, 2009 at Maulana Azad Medical College, New Delhi.
11. Delhi Endovascular Club Meeting At India Habitat Centre, New Delhi On 18<sup>th</sup> December, 2009, New Delhi.
12. External Expert In The Meeting Of Core Technical Committee ‘A’ Scheduled To Be Held On 14.1.2010 In Pgimer, Chandigarh.

**Dr Gurpreet S Gulati**

1. The annual meeting of the Radiological society of North America, Nov 29-Dec 3, 2009 at Chicago, USA. Presented 3 scientific papers.
2. Renal Artery Stenting for Renovascular Hypertension. CME on Advances in Interventional Radiology- Lessons from Trials and Registries. At the Annual Registry-cum-complication meeting of the Indian Society of Vascular and Interventional Radiology, April 25-26, 2009 at AIIMS, Delhi.
3. “Practical cardiac MRI” workshop, Amrita Institute of Medical Sciences, Cochin, June 27, 2009. Presented lecture on “MRI for Pericardial disease and cardiac masses”
4. 4<sup>th</sup> Cardiac CT and MRI review course: 29-30<sup>th</sup> August, 2009 at Mumbai. Presented 4 lectures.
5. 12<sup>th</sup> Annual conference of the Indian Society of Vascular and Interventional Radiology, 7-10<sup>th</sup> October, 2009, Delhi. Presented 2 lectures and 4 papers (2 oral- endovascular aortic pseudoaneurysm and type b dissection; 2 posters: iron oxide and endovenous laser)



6. Annual conference of Pediatric Cardiac Society of India, October 23-25, PGI, Chandigarh. Presented a talk on “MRI in Congenital Heart Disease”.
7. 16<sup>th</sup> Annual Conference of the Indian College of Cardiology, 30<sup>th</sup> October-Nov 1, 2009, Lucknow. Presented talk on “MRI in CHD”.
8. Annual conference of the Nuclear Cardiological Society of India, Nov 14-16, 2009. Presented talk on “Viability Assessment with Cardiac MRI”.
9. AIIMS-MAMC-PGI Imaging Course: Chest and Cardiovascular Imaging, Nov 6-7<sup>th</sup> 2009, Delhi. Presented 2 lectures (Imaging in Ischemic Heart Disease and Imaging in Cardiac and Paracardiac Masses), and co-conducted the Film Reading Session.
10. 63<sup>rd</sup> Annual National conference of the Indian Radiological and Imaging Association on 23-26<sup>th</sup> January 2010, at Ahmedabad. Delivered talk on “Cardiac MRI- The Basics”.
11. Prof Philip Poole Wilson Symposium on Heart Failure, March 2, 2010 at AIIMS. Imaging in Heart Failure. Moderator and Reporteur.
12. AIIMS Paediatric Cardiology CME, March 13-14, 2010 at AIIMS, Delhi. Delivered talk on “CT and MR in CHD”.

### **Dr Priya Jagia**

1. CME on Advances in Interventional Radiology- Lessons from Trials and Registries. At the Annual Registry-cum-complication meeting of the Indian Society of Vascular and Interventional Radiology, April 25-26, 2009 at AIIMS, Delhi. Talk on “Overview and approach to management of Complications in Renal angioplasty and stenting”.
2. 8<sup>th</sup> Annual academic sessions of the Sri Lanka College of Radiologists and the Conference of the Radiological Society of SAARC countries, 29<sup>th</sup>-31<sup>st</sup> May 2009, in Kandy, Sri Lanka. Talk on “Pearls & Pitfalls of Vascular Sonography - TIA and VBI”.
3. 8<sup>th</sup> Annual academic sessions of the Sri Lanka College of Radiologists and the Conference of the Radiological Society of SAARC countries, 29<sup>th</sup>-31<sup>st</sup> May 2009, in Kandy, Sri Lanka. Talk on “Pearls & Pitfalls of Vascular Sonography - Renovascular Hypertension”.
4. 8<sup>th</sup> Annual academic sessions of the Sri Lanka College of Radiologists and the Conference of the Radiological Society of SAARC countries, 29<sup>th</sup>-31<sup>st</sup> May 2009, in Kandy, Sri Lanka. Delivered a talk on “Optimization of Ultra sound image & artifacts”.
5. 7<sup>th</sup> National Conference Indian Society of Pediatric Radiology 2009 held on 12<sup>th</sup>-13<sup>th</sup> September, 2009, Hotel Le Meridien, New Delhi, India. Lecture on “Role of MRI in Congenital heart disease”.
6. 12<sup>th</sup> Annual conference of the Indian Society of Vascular and Interventional Radiology, 7-10<sup>th</sup> October, 2009, Delhi. Presented paper on “Follow-up results after endovascular repair of complicated chronic type B aortic dissections”.

### **CARDIAC NUCLEAR MEDICINE**

1. No. of Postgraduate students: 3 (training of post graduates on rotational basis in Nuclear Cardiology)
2. No. of Thesis/research papers completed: 2

3. No. of lectures for postgraduate students: 10
4. Moderator in Journal Club/Seminars: 10
5. No. of lectures for undergraduate/paramedical: 0
6. No. New thesis started: 3

### **STEM CELL FACILITY**

1. Undergraduate, post graduate, paramedical:
  - i The department participates in Ph.D programme
2. Short and Long Term training:
  - ii Seven graduate & post-graduate students have received short term training

### **CME**

### **CONFERENCES, SEMINAR, WORKSHOPS:**

1. Bio- Asia 2009 Conference in Hyderabad on 3rd February 2009
2. Principal and Practice of light microscopy a training course with a focus
3. on Asia , Bangalore on 7th March 2009
4. Brain Storming Meeting on Human Embryonic Stem Cells at NIRRH,
5. Mumbai on 16th Jan, 2010
6. Maternal Fetal Medicine workshop in Deptt. Of Obst. & Gynae, AIIMS on
7. 15<sup>th</sup>-20<sup>th</sup> March, 2010

### **Lectures delivered**

1. Fourth Medical Development Congress on “Stem Cell Therapy” ASSOCCHEM HOUSE, New Delhi. 13 - 14 April, 2009
2. Christian Medical College, Vellore on 31 July-1 August, 2009
3. Gargi College, University of Delhi. on 6 November, 2009
4. Indian Society of Hematology and Transfusion Medicine, Department of Hematology, AIIMS, New Delhi on 19-22 November, 2009
5. CME- Stem Cell Potentials in retinal Repair and Regeneration- Clinical and Experimental Aspects, AIIMS, New Delhi on 6-7 December, 2009
6. 1st National Mesenchymal Stem Cell Symposium, Eskisehir, Turkey on 4-6 Feb, 2010
7. CGR- “Stem Cells in Neurological disorders” in the Department of Neurology , Feb, 2010

### **CARDIAC BIOCHEMISTRY**

1. Two students pursuing PhD in the department
2. Co-guide for Seven MD/DM students
3. Guided 6 short term (6months) trainees

## **ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)**

### **Guest Lectures / Invited Lecture**

1. Co-chairperson in the Session on Operations Research in Hospital Administration in the National Seminar Cum Workshop conducted by Deptt of Hospital Admn in collaboration with World Health Organisation on 7 & 8<sup>th</sup> August 2009 at New Delhi.
2. Panelist in the session on “How to make required request – a Hospital Policy” in the 24<sup>th</sup> National Eye Donation Fortnight organized by Dr. RP Centre for Ophthalmic Sciences, AIIMS on 25<sup>th</sup> August 2009.
3. Invited Lecture on “Awareness on Organ & Body Donation” at India International Centre organized by Deptt of Anatomy, MAMC & Dadhichi Dehdan Samiti and moderated by Senior Officials from Delhi Government on 26<sup>th</sup> August 2009.
4. Guest Lecture on Managing Quality in in-patient Services on 6<sup>th</sup> November 2009 at Ramalinga Swamy Board Room, AIIMS organized by Deptt of Hosp. Admn.
5. Delivered lecture on Organ Preservation & Packing Body Disposal – Normal and Medico Legal Cases in the Certificate Course on Transplant Co-ordination by National Deceased Donor Transplantation Network (NDTN) at India International Centre on 22<sup>nd</sup> September 2009.
6. Delivered lecture on Tissue Donation – Retriaval, Preservation, Sterilization, Packing and Uses” in the Certificate Course on Transplant Co-ordination by National Deceased Donor Transplantation Network (NDTN) at India International Centre on 22<sup>nd</sup> September 2009.
7. Delivered talk on “Legal, Ethical and Administrative issues in Organ Donation – Current Scenario” in the Plenary Session on Scope of Organ Donation at Trauma Centres in the International conference TRAUMA 2009 at JPNATC, New Delhi on 15<sup>th</sup> November 2009 organised by Indian Society for Trauma dna Acute Care (ISTACR).
8. Guest Lecture on Organ & Tissue Donation & Retrieval” in the two days workshop on “Embalming Plastination & Organ Donation in Present Scenario” organized by Maulana Azad Medical College, New Delhi on 26 & 27<sup>th</sup> March 2010
9. Panelist in the session on “Current Status of Transplantation and Organ Donation” in the two days workshop on “Embalming Plastination & Organ Donation in Present Scenario” organized by Maulana Azad Medical College, New Delhi on 26-27 March, 2010.

### **Attended Conferences, Seminars, Workshops**

1. Attended the 10<sup>th</sup> ISODP and 16<sup>th</sup> ETCO Organ Donation Congress from 4-6 October, 2009 at Berlin.
2. Attended 3 days workshop on “National Initiative on Patient Safety (NIPS)” at Habitat Centre organized by Deptt of Hospital Administration, AIIMS on 14-16 September 2009.
3. Attended the National Seminar Cum-Workshop on Operations Research in Hospital Administration” conducted by Deptt of Hospital Admn in collaboration with World Health Organisation on 7 & 8<sup>th</sup> August 2009 at New Delhi.

4. Attended the 24<sup>th</sup> National Eye Donation Fortnight organized by Dr. RP Centre for Ophthalmic Sciences, AIIMS on 25<sup>th</sup> August 2009.
5. Attended the “Awareness on Organ & Body Donation” at India International Centre organized by Deptt of Anatomy, MAMC & Dadhichi Dehdan Samiti and moderated by Senior Officials from Delhi Government on 26<sup>th</sup> August 2009.
6. Attended the workshop on Managing Quality in in-patient Services on 6<sup>th</sup> November 2009 at Ramalinga Swamy Board Room, AIIMS organized by Deptt of Hosp. Admn.
7. Attended the Certificate Course on Transplant Co-ordination by National Deceased Donor Transplantation Network (NDTN) at India International Centre on 22<sup>nd</sup> September 2009.
8. Attended “Good Health –Good Life” in the Health Exhibition organized by AIIMS on 25<sup>th</sup> September 2009 at AIIMS
9. Attended the Certificate Course on Transplant Co-ordination by National Deceased Donor Transplantation Network (NDTN) at India International Centre on 22<sup>nd</sup> September 2009.
10. Attended the Plenary Session on Scope of Organ Donation at Trauma Centres in the International conference TRAUMA 2009 at JPNATC, New Delhi on 15<sup>th</sup> November 2009 organised by Indian Society for Trauma and Acute Care (ISTACR).
11. Attended workshop on “Embalming Plastination & Organ Donation in Present Scenario” organized by Maulana Azad Medical College, New Delhi on 26 & 27<sup>th</sup> March 2010.

## RESEARCH

### CARDIO-THORACIC VASCULAR SURGERY

#### *Ongoing*

1. Prof Balram Airan is the Principal Investigator at AIIMS, India for treatment of congestive cardiac failure (STICH Trial) – An international multicentric trial study.
2. Prof Balram Airan is the Principal investigator Centre of Excellence in Stem Cell research – A DBT funded Project.
3. Prof Balram Airan is the Principal Investigator in DBT Centre of Excellence proposal “Centre for Stem Cell Research Basic and Translational” May 2008.
4. Prof Balram Airan is the Principal Investigator in Use of autologous bone marrow stem cells for myocardium regeneration Sept 2006.
5. Dr UK Chowdhury is co-investigator in ICMR Funded Project Entitled “Myocardial preconditioning against infarction in patients undergoing coronary artery bypass surgery: A comparison of isoflurane and sevoflurane”.
6. Dr UK Chowdhury is co-investigator in ICMR funded project “Role of prognostic markers in complex congenital cardiac surgery”
7. CORONARY trial; a multinational ongoing comparison study between on pump vs off pump CABG surgery.

8. Premedication vs. premeditation in patients undergoing CABG surgery – a clinico biochemical study.
9. STICH Trial Study
10. Follow up results of different RVOT reconstruction techniques in pulmonary atresia.
11. Results and follow up of Hemitruncus repair
12. Autologous pericardial valve conduits from Bovine pericardium in RVOT reconstruction. A prospective study.
13. Use of autologous bone marrow stem cells in regeneration of damaged myocardium in patients undergoing CABG
14. Long term outcome of patients undergoing the Glenn Shunt with preservation of antegrade flow
15. Role of IABP in selected group of patients of CAD with EF <30% by haemodynamics and cardiac enzyme analysis.
16. Study of Human Mesenchymal Stem Cells with respect to its isolation, characterization and in vitro differentiation to cardiopulmonary and neuronal cell lineage.
17. Bone Tissue Engineering by growing and differentiating Mesenchymal.
18. Stem Cells on Biocomposite scaffold
19. Freedom Trial – An NIH study
20. CABG vs multivessel PTCA: Long term outcome
21. Short-and Long-term Prognostic Value of Coronary Sinus Derived- Cardiac Troponin-I, Creatine Kinase-MB, Lactate, Pyruvate and Lactate-Pyruvate Ratio in Adult Patients Undergoing Open Heart Surgery.
22. Serial semi-invasive haemodynamic assessment following pericardiectomy for chronic constrictive pericarditis
23. Study of Epidermal Stem Cells (EpISC) with respect to its isolation, characterization and in vitro differentiation
24. Comparison of Pre-operative ECMO support with post-operative ECMO support.
25. Comparison of Leucocytes reduction filter with Pall set filter used for blood priming in ASO cases of cardiopulmonary bypass.
26. Comparison of HES vs Albumin during priming of CPB circuit in patient undergoing CABG.

### *Completed*

1. Idiopathic tricuspid regurgitation in pediatric and adult patient. A Retrospective analysis.
2. Comparison of Graham Nunn's, single patch & double patch repair in complete AVSD repair: A retrospective study.
3. Role of Nicorandil to prevent radial artery vasospasms in patients undergoing CABG using radial artery.

4. Automatic functional assessment using heart rate variability in patients undergoing single ventricle repair..
5. Comparison of neurological outcome after ascending and aortic arch surgery using two technique of cerebral protection, Antegrade selective cerebral perfusion (ASCP) and Retrograde cerebral perfusion(RCP).
6. Comparative study of crystalloid versus colloid as priming solution for cardiopulmonary bypass (CPB) during open heart surgery in adult patients.
7. Comparison of Neurological outcome using Alpha stat of PH. Stat blood gas management in Paediatric patient with cyanotic congenial heart disease (TOF) under going total correction with the use of CPB.
8. Comparison of the effect of combined Ultrafiltration (Pre-BUF+CUF) versus conventional Ultrafiltration in infant cardiac surgery with CPB.
9. Comparison of Blood crystalloid with blood colloid for priming in children with CCHD, undergoing Intra-cardiac repair on CPB.

## **CARDIOLOGY**

### ***Ongoing***

1. CVD Biomarker profiling in Acute coronary events by antibodies and antigen array(Funded by – ICMR)
2. RHEUMATIC study (Funded by – ICMR)
3. Intravascular Ultrasound for severe pulmonary artery hypertension in congenital heart diseases ,Department of science and technology
4. Morphology and function of platelets in Idiopathic pulmonary artery hypertension, Department of science and technology
5. Propranolol in children with VSD and Heart Failure (VSD PHF Study)
6. Tissue Doppler imaging in mitral stenosis pre and post PTMC
7. 3D echo study of rheumatic mitral regurgitation
8. 3D echo parameters as a predictor of immediate outcome of PTMC
9. Comparison of 3D echo and MRI parameters in Ebstein’s anomaly
10. Strain and Tissue Doppler Imaging in normal neonates
11. Initial study of safety and Efficacy of Betablockers in Eisenmenger Syndrome

### ***Completed***

1. Non-invasive detection of sub-clinical disease activity in patients with established rheumatic valvular heart disease. (Funding source – DBT )
2. Acute hemodynamic effects of tobacco chewing
3. Sleep study in Eisenmenger syndrome

4. Brain Natriuretic peptide level (BNP) estimation in Chronic constrictive pericarditis and restrictive Cardiomyopathy
5. 2, 3 DPG PET imaging in Chronic constrictive pericarditis and restrictive Cardiomyopathy
6. Prosthetic heart valve thrombosis in Children – risk factors & outcome of thrombolysis
7. Inflammatory markers in Eisenmenger syndrome
8. Strain and Tissue Doppler Imaging in TGA
9. Tissue Doppler and strain rate imaging in patients with acute hypertensive heart failure

### **Research**

1. SPIRIT V - The SPIRIT Clinical Trial Program consists of six studies evaluating the XIENCE™ V Everolimus Eluting Coronary Stent System for the treatment of coronary artery disease. (Funded by - Abbot Vascular Inc., USA)
2. RED HF study – A double blind randomized placebo-controlled, multicenter study to assess the efficacy and safety of Darbepoetin alfa treatment on mortality and morbidity in Heart failure (HF) subjects with symptomatic left ventricular systolic dysfunction and Anemia. (Funded by - Amgen Technology Pvt. Ltd.)
3. INDICOR Trial (Funded by – B Braun)
4. STITCH (Surgical Treatment of Ischemic Heart Failure) trial (Funded by - NIH, Bethesda, MD, USA )
5. RELEASE T Study
6. FREEDOM trial: Future REvascularization Evaluation in patients with Diabetes mellitus: Optimal management of Multivessel disease (FREEDOM) Trial. Clinical trial comparing multivessel DES versus CABG in diabetics, (Funded by - NIH, Bethesda, MD, USA)
7. Global Registry of Rheumatic Heart Disease International hospital-based registry of chronic rheumatic valvular heart disease which is currently in its pilot phase with participants from several countries in Africa and AIIMS hospital
8. 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.
9. UKIERI Project – A collaboration of Imperial college London and Department of Cardiology AIIMS – Inflammatory and novel biomarkers in untreated heart failure (Funded by UKIERI initiative)

## **CARDIAC ANESTHESIA**

### **Ongoing**

1. ICMR Funded Project Entitled “”Role of prognostic markers in complex congenital cardiac surgery””
2. Pentoxifylline in reducing neurocognitive decline and inflammatory response in Patient of CABG under cardiopulmonary bypass. Chief Investigator Dr.Sambhunath Das. AIIMS Research Fund.



3. Association between Inflammation and Osteopentin in coronary artery disease. Chief Investigator Dr.Minati Choudhury. AIIMS Research Fund.
4. Efficacy of lactate concentration gradient from right atrium to pulmonary artery in goal-directed haemodynamic management in cardiac surgical patients.
5. Brain natriuretic peptide, stroke volume variation and E/A ratio as non-invasive markers of diastolic dysfunction in patients undergoing pericardiectomy.
6. Comparison of phenoxybenzamine vs papaverine use for radial artery conduit during coronary artery bypass grafting.
7. FloTrac and its use as non-invasive cardiac output monitor in cardiac surgical patients.
8. Comparison of Tranexamic acid and Trasylol in tetrology of Fallot patients.
9. Role of myocardial Lactate and Pyruvate in high risk Cardiac surgical patients.
10. Comparison of clinical and angiographic outcome in patients undergoing on pump CABG with radial artery graft pretreated with phenoxybenzamine Vs. papaverine
11. Comparison of Tranexamic acid and Trasylol in tetrology of Fallot patients
12. Functional tricuspid regurgitation with and without tricuspid valve annuloplasty: serial echocardiographic assessment of tricuspid valve and right ventricular function
13. Role of magnesium in arrhythmia prevention in infants undergoing cardiac surgery.
14. Comparison of Etomidate versus Sevoflurane in patients undergoing CABG.
15. Comparison of thiopentone Etomidate propofol and midazolam in patients undergoing coronary artery bypass grafting (On going).

### *Completed*

1. Role of co-enzfyme Q10 and alpha lipoic acid in attenuating .The oxidative stress and systemic inflammatory response in patients undergoing coronary artery bypass graft surgery” of Institute Research Grant (2007-2008) Funding Agency: A.I.I.M.S.- Institute -Research Grant.
2. ICMR Funded Project Entitled “Myocardial preconditioning against infarction in patients undergoing coronary artery bypass surgery: A comparison of isoflurane and sevoflurane”. Funding Agency - ICMR.
3. Imbalance between Endothelin – I and Plasma Nitric Oxide products, influences the outcome in children suffering from severe pulmonary hypertension due to congenital heart disease. Chief Investigator Dr.Minati Choudhury
4. Evaluation of prophylactic Vasopressin in patients on the angiotensin Converting Enzyme Inhibitor Ramipril undergoing Coronary Artery Bypass Surgery- Comparative study of Lactate, Pyruvate and Lactate Pyruvate ratio as Markers of myocardial Ischemia in Adult patients undergoing open heart surgery.
5. A comparative study of acute effects of inhaled Nitroglycerin with intravenous dobutamine on haemodynamics and oxygenation in adult patients with pulmonary arterial hypertension undergoing valve surgery under cardio pulmonary bypass .

6. Inhaled nitroglycerin versus inhaled milrinone in congenital heart disease children suffering from pulmonary arterial hypertension.
7. Role of coenzyme Q10 and alpha lipoic acid in attenuating the oxidative stress and systemic inflammatory response in patients undergoing coronary artery bypass graft surgery.
8. Validation of Euro Score in Indian population – Completed and submitted in Annals of Cardiac Anaesthesia.
9. Comparison of inhaled nitroglycerine inhaled milrinone in children suffering from severe pulmonary artery hypertension
10. Comparison of magnesium Versus magnesium plus Vitamin C in atrial fibrillation –prophylaxis in patients undergoing coronary artery bypass grafting –Rectal diclofenac suppository in postoperative pain relief in adult cardiac surgical patients.
11. Etomidate for children in cathlab diagnostic procedure – Completed and submitted in Paediatric Anaesthesia Relation between plasma endothelin level and quality of sleep in patients undergoing coronary bypass grafting – completed.

### **Collaborative Research**

1. Effect of pulmonary circulation and low tidal volume ventilation on lung function in patients undergoing cardiopulmonary bypass-CTVS (Completed)
2. Normal aortic valve morphology in patient undergoing cardiac surgery for nonrheumatic nonaortic valve disease and normal population in Indian context by echocardiography-CTVS (Completed)
3. Fast track cardiac surgery (On going)

### **BLOOD TRANSFUSION SERVICES**

#### *Ongoing*

1. Dr. Anjali Hazarika was co-investigator in following project funded by DBT.
  - i) Safety & efficacy of autologous stem cell in preventing amputation in patients with chronic critical limb ischaemia. (With dept of Surgery)
  - ii) Production and characterization of site selected human monoclonal antibodies against the envelope glycoprotein of HIV-I (clade-C) (with Deptt of biochemistry)
  - iii) SDF-1 and DC-SIGNR polymorphism and expression in HIV-I infection (with Deptt. of Biochemistry)
2. Co-guide for thesis on “Immunological characterization of HIV-1 infection in children” – (Department of Biochemistry)
3. Co-guide in dissertation on “costing of a unit of Blood & Blood components at CNC AIIMS” (Dept. of Hospital Admn.)

## CARDIAC RADIOLOGY

### *Ongoing*

1. “Induction Of Therapeutic Angiogenesis In Critical Limb Ischemia By Intra-Arterial Delivery Of Autologous Bone-Marrow Derived Stem Cells”. Funded by the Department of Biotechnology, Ministry of Science and Technology, Government of India.
2. “MRI for in vivo-tracking of iron oxide labeled mesenchymal stem cells in a rat model of heart failure”. Funded by the Department of Biotechnology, Ministry of Science and Technology, Govt of India.
3. “Feasibility, safety and efficacy of cell-based therapy for the treatment of diabetes mellitus by local intra-arterial delivery of autologous bone marrow-derived adult stem cells in the pancreas” ethically cleared, under consideration of financial grant by the Department of Biotechnology, Ministry of Science and Technology, Government of India.
4. “Safety and efficacy of endovascular delivery of autologous bone marrow derived stem cells in the management of patients with renal failure”. Ethically cleared, under consideration of financial grant by the Department of Biotechnology, Ministry of Science and Technology, Government of India.
5. “Stem Cell Therapy in Idiopathic Dilated Cardiomyopathy: A Randomized double blind controlled trial”.
6. MD (Medicine) Thesis: “Prevalence of co-morbidities in patients with chronic obstructive pulmonary disease”.

### *Completed*

1. DM (Cardiology) Project: Detection of pericardial inflammation by F-18 FDG PET-CT in chronic constrictive pericarditis”
2. MCh (CTVS) Project: “Role of Nicorandil in patients undergoing coronary artery bypass surgery using radial artery”.
3. DM (Cardiology) Project: “Atherogenesis and altered endothelial function in cyanotic congenital heart disease: role of hypoxic preconditioning”.
4. “Correlation of Clinical Disease Activity with Imaging Modalities in Takayasu Arteritis”
5. MD (Radiodiagnosis) Thesis: “Utility of Cardiac MRI in RV function evaluation in health and disease”.
6. DM (Cardiology) Project: “Value of Dual Source Computed Tomography In Assessment Of Chronic Total Occlusion Of Coronary Arteries”.
7. MS (Surgery) Thesis: “The effect of Renal Transplantation on coronary artery calcification and carotid intima-medial thickness in renal recipients.”
8. DM (Cardiology) project: “Study of clinical characteristics and MRI features of restrictive cardiomyopathy (RCMP) and to devise MRI criteria for diagnosis of EMF.”
10. DM (Gastroenterology) Project: “Clinical spectrum, etiology and outcomes of percutaneous angioplasty in HVOTO- Cohort prospective follow-up study.”

## CARDIAC NUCLEAR MEDICINE

### Ongoing

1. Detection of myocardial ischemia in asymptomatic diabetes' with Tc99m-MIBI myocardial perfusion scintigraphy'. (2006) Funding agency -International Atomic Energy Agency, duration of project – 4 years
2. 'Use of autologous bone marrow stem cells for myocardium regeneration'(2006) Funding agency - Department of Biotechnology
3. Labeling of stem cells with Technetium-99m hexamethylene propylene amine oxine (Tc99m HMPAO) and to detect the homing of stem cells in the myocardium after intra- coronary injection. (2007- ongoing) Institute funded.
4. Evaluation of anthracycline induced cardiotoxicity in childhood malignancies. Comparison of echocardiography and radionuclide ventriculography. (2008)Institute funded
5. 'Efficacy of stem cells in improvement of left ventricular function in patients with acute myocardial infarction' (2008 –ongoing). Funding agency - Department of Biotechnology

### Collaborative Research

1. F-18 FDG in detecting ischemia at rest in patients with known coronary artery disease. (Nuclear Medicine & Cardiology)
2. Non invasive detection of Coronary artery disease: Comparison of 64 sections multidetector CT angiography and stress myocardial perfusion imaging in patients with chronic angina (Nuclear Medicine, Cardiology, Cardiac Radiology)

### Guide for Thesis

1. Role of PET-CT in initial staging and post therapy assessment in patients of carcinoma ovary – Chief Guide; of Dr. RM Reddy, MD (Nuclear Medicine) submitted Dec. 2009
2. Role of F-18 FDG PET/CT in prognostication and restaging of locally recurrent cancer cervix. Co- Guide; of Dr. Sagar Maharjan, MD (Nuclear Medicine, 2008 - 2010).
3. Role of PET/CT in initial staging of locally advanced breast cancer and comparison with conventional modalities. Co-Guide, of Dr. Sanjay Kumar, MS (Surgery,2008-10).
4. Tumor Burden Estimation by F-18 FDG PET/CT using Phantom and its application in pediatric lymphoma for treatment response evaluation. Chief Guide, of Arun Gupta, MSc. (Nuclear Medicine) - submitted in Jan. 2010.
5. Equilibrium Radionuclide angiography in evaluation of left ventricular synchrony and function in patients with permanent pacemaker: comparison between right ventricular outflow tract septum Vs apical pacing. Chief Guide, of Dr. Harmandeep Singh, MD, (Nuclear Medicine, 2009-12).
6. Comparison of Emory, Cedar Sinai, 4D-MSPECT, Myometrix softwares for the assessment of left ventricular ejection fraction using Tc99m Tetrofosmin gated SPECT; Validation with equilibrium radionuclide angiocardiology. Chief Guide of Sanjana Ballal, MSc. (Nuclear Medicine, 2010-12).

7. Myocardial perfusion abnormalities in children with cyanotic congenital heart diseases, more than one year after successful univentricular repair (Fontan operation) and biventricular repair (Total correction of Tetralogy of Fallot). Co-Guide of Dr. A Priyadarshini, MD (Pediatrics, 2009-2011).

## **STEM CELL FACILITY**

### **Ongoing**

1. Isolation and expansion of Mesenchymal Stem Cells (MSC) from human bone marrow/ umbilical cord and evaluation of its cardiomyogenic and neurogenic differentiation potential, Sujata Mohanty, ICMR ,3 Years ,20 Lakhs
2. Transplantation of Mesenchymal Stem Cell in animal models of Myocardial Infarction and Parkinson's disorder, Sujata Mohanty ,DBT, 44.45 Lakhs
3. Establishment of Melanocyte culture in a serum free system for transplantation in vitiligo patients, AIIMS (Institute Project).

### **Collaborative Research**

1. Use of autologous bone marrow stem cells for myocardium regeneration, PI-Balram Airan, DBT, 3yrs. Funds: 98.234 lakhs
2. Efficacy of Stem Cell in improvement of left ventricular function in patients with acute myocardial infarction; Balram Bhargava, DBT, 1.5 yrs, 26.397 lakhs
3. DBT Centre of Excellence for Stem Cell Research : Basic and Transplantation (Core Grant ), Balram Airan, DBT, 5 yrs, 867.90 lakhs
4. Culture of limbal stem cell for ocular surface reconstruction in stem cell deficiency disorder, Radhika Tandon, DBT, 3 yrs. Funds: 27 lakhs
5. Induction of therapeutic angiogenesis in critical limb ischemia by intra-arterial delivery of autologous bone marrow derived stem cells, Sanjiv Sharma, DBT, 9 months. Funds: 23.097 lakhs
6. Use of Autologous Bone Marrow Derived Stem cells For Rehabilitation of patients with Dry Age Related Macular Degeneration and Retinitis Pigmentosa: A Phase-I Clinical Trial, Atul Kumar, 3 yrs, ICMR, Funds:20.61 lakhs
7. Intravenous Autologous bone marrow stromal or mononuclear cells for patients with acute ischemic stroke: A Multi Institutional project, Rohit Bhatia, 3 yrs, DBT, Funds: 75 lakhs
8. Safety and Efficacy of Autologous Stem Cell in prevention of amputation in patients with chronic critical limb ischemia; Anita Dhar, 2 yrs, Funds: 50.65 Lakhs
9. To study the role of bone marrow derived pluripotent cells in peripheral nerve repair in adult rats, Vaishali Suri, ICMR, 30 lakhs
10. Effect of bone marrow stromal cells transplantation and magnetic stimulatory in the secondary motor functional recovery of spinalised rats, Dr.Rashmi Mathur, ICMR, 3 yrs, Funds: 17 lakhs
11. MRI for in- vivo tracking of iron oxide labeled Mesenchymal stem cells in a rat model of heart failure, Gurpreet Gulati, DBT, 5 yrs, 28.15 lakhs

12. Development of a potential biopolymer to serve as an alternative substrate of human amniotic membrane for ex – vivo expansion of corneal epithelial cell , Radhika Tandon, DBT, 3 yrs, 23.69 lakhs
13. Exploring the role of MHC and co-stimulatory molecules in the immune evasion mechanism of glioma stem cells, S.Vivekanandhan, 3 yrs, 22.15 lakhs
14. To evaluate the potential role of bio-polymer to support the culture of corneal epithelial cells, Namrata Sharma (*Institute Project*)
15. Molecular Characterization of Fanconi Anemia: a pilot study (*Institute project*)

## **CARDIAC PATHOLOGY**

### **Departmental Research**

1. Histopathological and morphometric evaluation of surgically excised specimens of thoracic aortic aneurysms.

### **Collaborative Research**

1. Effect of *Terminalla arjuna* on Cardiac Hypertrophy in Rats (Dept. of Pharmacology).
2. Evaluation of the cardio protective effects of combination of Ramipril and Irbesartan in experimental model of ischemic-reperfusion injury in rat heart (Dept. of Pharmacology).
3. Study on the cardioprotective effect of Pitavastatin in experimental model of ischemic-reperfusion injury in rat heart (Dept. of Pharmacology).
4. Imaging guided lung biopsy in immunocompromised patients with possible fungal pneumonia and its clinical implications (Dept. of Hematology).
5. An electron microscopic study of left ventricular muscle biopsy in patients with transposition of great arteries( Dept of Cardiothoracic surgery)

## **CARDIAC BIOCHEMISTRY**

### **Ongoing**

1. Relation of APOA-V gene variants to serial changes in childhood body mass index and coronary artery disease risk factors in young adulthood. Funded by ICMR for 5 yrs (2005-2010) Total funds: 35 lakhs
2. Role of Telomere shortening and Telomerase activity on EPC senescence in premature CAD patients and controls (2008-2010) DBT 28 lakhs
3. Evaluation of HDL<sub>2</sub>, HDL<sub>3</sub> and apolipoprotein A1 levels in a large Indian industrial population: Association with genetic variants in CETP, LCAT, hepatic lipase and LPL gene Funded by DST for 3 yrs (2007-2010) Total funds: 65 lakhs

### **Completed**

1. Lab coordinator in “Low dose magnesium sulphate regimen for management of eclampsia - a randomized controlled trial” Funded by ICMR for 3 yrs (2007-2010) Total funds: 2.5 lakhs.

2. Serum fatty acid levels and their correlation with other CVD risk factors in Industrial population from Delhi and Trivandrum Funded by ICMR for 3 yrs (2005-2009) Total funds: 14 lakhs

### **Collaborative research**

1. Role of Homocysteine in Coronary Artery Disease: Genetic and Epigenetic studies. Collaboration with Cardiology and Institute of Genomics and Integrated Biology.
2. Auditing of early goal direct therapy in patients undergoing cardiac surgery. Collaboration with Cardiac Anesthesia.
3. Paraoxonase and its gene variants in relation to coronary artery disease. Collaboration with Biochemistry.
4. Role of oral coenzyme Q10 in patients undergoing coronary artery bypass graft surgery with Cardiac Collaboration with Cardiac Anesthesia.
5. Non-invasive detection of sub clinical disease in patients with established rheumatic valvular heart disease. Collaboration with Cardiology.
6. Relationship of Growth in Infancy and Childhood to Adult Endothelial Function and Body Composition; the New Delhi Birth Cohort. Collaboration with Endocrinology.
7. Development of long acting penicillins for rheumatic fever prophylaxis: preliminary evaluation of the current 3 weekly schedule in terms of disease control. Collaboration with Cardiology.
8. Nutritional challenges, abdominal adiposity and type 2 diabetes in Indians. Funded by Wellcome trust in collaboration with Center for chronic disease control (CCDC)
9. Association of Trans fatty acid and CAD-a case control study. With Cardiology Dept.

### **PUBLICATIONS**

#### **CARDIO-THORACIC VASCULAR SURGERY**

1. Chowdhury UK, Bisoi Ak, Ray R, Malhotra P, et al. Central pulmonary artery histopathology in patients with cyanotic congenital heart diseases. *Ann Thorac Surg* 2009; 87: 589-596.
2. Chowdhury UK, Kothari SS, Gupta R et al. Successful lobectomy for pulmonary arteriovenous malformation causing recurrent massive hemoptysis. *Heart Lung Circulation*. 2009; 18: 133-162.
3. Chowdhury UK, Rizhvi A, Sheil A, et al. Successful surgical correction of a patient with congenital coronary arteriovenous fistula between left main coronary artery and right superior cavo-atrial junction. *Hellenic J Cardiol* 2009; 50: 73-78.
4. Chowdhury UK, Airan R, Malhotra P, et al. Relationship between internal jugular venous oxygen saturation and pump flow rates in children and adults undergoing corrective cardiac surgery under cardiopulmonary bypass. Accepted for publication in *Hellenic Journal of Cardiol*, 2009.
5. Chowdhury UK, Mittal C, Mishra AK, et al. An Alternative Technique for Septation of the Aorto-pulmonary Window using a Fenestrated, Unidirectional Valved Fabric Patch. Accepted for publication in *J Thorac Cardiovasc Surg*, 2009;1-3.
6. Chowdhury UK, Seth S, Avneesh S, Mittal CM, Jagia P. Successful aneurysmectomy in a patient with congenital apical left ventricular aneurysm. *Texas H J*, 2009; 36: 331-333.



7. Chowdhury UK, Seth A. Removal of renal cell carcinoma and thrombectomy with intra-atrial tumour without cardiopulmonary bypass- Invitation from L. Henry Edmunds, Editor, The Annals of Thoracic Surgery (Reply to the Editor). *Ann Thorac Surg* 2009.
8. Poonam Malhotra, Banashree Mandal, Usha Kiran, Chowdhury, UK, Rajendra Karnatak. Transesophageal Echocardiography in off-pump Coronary Artery Bypass Grafting. *Annals of Cardiac Anesthesia* 2009 12(2):174-83.
9. Poonam Malhotra, Vikram Aggarwal, Chowdhury UK, Minati Choudhury, Sarvesh Pal Singh, Usha Kiran. Comparison of B-type Natriuretic Peptide (BNP) and Left Ventricular Dysfunction in patients of Constrictive Pericarditis undergoing Pericardiectomy. *Annals of Cardiac Anaesthesia* (Accepted for publication) for May 2010 issue.
10. Chowdhury UK, Govindappa R, Ray R, Das P, et. al. Histopathology and Morphometry of intra pulmonary vasculature in patients undergoing superior and total cavopulmonary connection. Accepted for publication. *J Thorac Cardiovasc Surg* 2009.
11. Gupta A, Hote MP, Choudhary M, Kapil A, Bisoi AK. Comparison of 48 and 72 hour antibiotic therapy in patients under going cardiac surgery: A Randomized blind controlled study. *J Antimicrobial Chemotherapy* 2010: In press
12. Bisoi AK, Sharma P, Reddy SK, Chauhan S, Das S, Saxena A, Kothari SS. Primary ASO in children presenting late with dTGA, IVS : when it is to late for primary ASO. *Eur J Cardiothorac Surg* : In press.
13. Malankar D, Bisoi AK, Chauhan S, Das SN. How to do it. Technique of ALCAPA Repair with coronary transfer & LeCompte manoeuvre. *Journal of Cardiac Surgery* 2010 : In press
14. Talwar S, Choudhary SK, Airan B. Selected summaries. *Annals of Pediatric Cardiology* 2008;1:153-55. Talwar S, Shivaprasad MB, Kothari SS, Choudhary SK. A novel conduit lengthening technique to facilitate the arterial switch operation in an infant with a problematic combination of coronary anomalies. *Texas Heart Institute Journal*. 2009 : 36:234-7.
15. Talwar S, Choudhary SK, Airan B. Selected summaries. *Annals of Pediatric Cardiology* 2009;2:179-81. Talwar S, Choudhary SK, Airan B. Surgery for Complete Atrio-ventricular septal defect: Is a uniform strategy applicable? *Annals of Pediatric Cardiology* 2009;2:58-60.
16. Talwar S, Choudhary SK, Sandeep AJ, Malik V, Kothari SS, Gulati GS, Kumar TKS, Airan B. Atrial switch operation in a patient with dextrocardia, bilateral superior Vena cavae, left atrial isomerism and unroofed coronary sinus. *Ann Thorac Surg*. 2009;87 : 1983-6.
17. Talwar S, Sharma P, Choudhary SK, Airan B. Ultrasonic Scalpel for Hemostasis in Pacemaker-Dependent Patients During Open-Heart Surgery. *J Card Surg*. 2010 :In Press.
18. Talwar S, Sandeep JA, Choudhary SK, Velayoudham D, Lakshmy R, Kasthuri JM, Kumar AS. Effect of preoperative administration of allopurinol in patients undergoing surgery for valvular heart diseases. *Eur J Cardiothorac Surg*. 2010:In Press.
19. Talwar S, Choudhary SK, Airan B. Innominate artery cannulation for congenital heart disease. *Interact Cardiovasc Thorac Surg*. 2010:In press.

20. Talwar S, Sharma P, Gulati GS, Kothari SS, Choudhary SK. Tetralogy of fallot with coronary artery to pulmonary artery fistula and unusual coronary pattern: missed diagnosis. *J Card Surg.* 2009 ;24(6):752-5.
21. Talwar S , Agarwala S, Mittal CM, Choudhary SK, Airan B. Pleural effusions in children undergoing cardiac surgery. *Ann Pediatr Cardiol* 2010;3:In press
22. Talwar S , Agarwala S, Mittal CM, Choudhary SK, Airan B. Diaphragmatic palsy after cardiac surgical procedures in patients with congenital heart disease *Ann Pediatr Cardiol* 2010;3:In press.
23. Talwar S, Malankar D, Choudhary SK, Saxena A, Airan B. An alternative technique for the atrial switch operation for transposition of the great arteries in an unoperated adult patient . *J Cardiac Surgery* 2010: In press.
24. Kumar AS, Talwar S, Gupta A. Mitral valve replacement with the pulmonary autograft – mid-term results. *J Thorac Cardiovasc Surg* 2009;138:359-64.
25. Malankar D, Talwar S, Makhija N, Sharma S, Choudhary SK. Surgical management of univentricular heart with total anomalous pulmonary venous drainage and intrapulmonary vertical vein. *J Cardiac Surg* 2010;25: 84-6.
26. Reddy SM, Talwar S, Velayudham D, et al. Multimodality bloodconservation in open heart surgery: an audit. *Interactive Cardiovascular & Thoracic Surgery* 2009;9:480-3.
27. Gupta A, Talwar S, Airan B. Eustachian Valve as a cardiovascularpatch. *Heart Lung Circulation.* 2009;18 : 358-9.
28. Malankar D, Talwar S, Makhija N, Choudhary SK. An inexpensivetechnique of selective antegrade cerebral perfusion. *Interact Cardiovasc Thorac Surg.* 2009 May;8(5):577-8.
29. Choudhary SK, Gupta A, Talwar S, Kumar ASK. bloc neochordae and cusp formation from autologous pericardium for repair of congenital tricuspid regurgitation. *Ann Thorac Surg.* 2010;89(2):646-7.
30. Mittal CM, Talwar S, Velayudham D, et al. Randomized trial comparing the use of carpentier’s ring with posterior segment annuloplasty using a C-shaped ring of teflon felt for mitral valve repair in rheumatic population”. *Indian J Thorac Cardiovasc Surg* 2009;25:114-17.
31. Mittal CM, Talwar S, Velayudham D, et al. Early results of aortic valve reconstruction with stentless glutaraldehyde treated autologous pericardial valve. *Indian J Thorac Cardiovasc Surg* 2009;25:178-82.
32. Talwar S, Choudhary SK, Janardhan SA, Malik V, Kothari SS, Gulati GS, Kumar TK, Airan B. Atrial switch operation in a patient with dextrocardia, bilateral superior vena cavae, left atrial isomerism and unroofed coronary sinus. *Ann Thorac Surg.* 2009 Jun;87(6):1963-6.
33. Talwar S, Sharma P, Gulati GS, Kothari SS, Choudhary SK. Tetralogy of fallot with coronary artery to pulmonary artery fistula and unusual coronary pattern: missed diagnosis. *J Card Surg.* 2009 Nov-Dec;24(6):752-5.
34. Talwar S, Shivaprasad MB, Kothari SS, Choudhary SK. A novel conduit-lengthening technique to facilitate the arterial switch operation in an infant with a problematic combination of coronary anomolies. *Tex Heart Inst J.* 2009;36(3):234-7.

35. Talwar S, Sharma P, Gulati GS, Kothari SS, Choudhary SK. Tetralogy of fallot with coronary artery to pulmonary artery fistula and unusual coronary pattern: missed diagnosis. *J Card Surg.* 2009 Nov-Dec;24(6):752-5.
36. Talwar S, Choudhury SK, Gulati GS, Airan B. Tetralogy of Fallot with anomalous systemic and pulmonary venous drainage, anomalous coronary artery pattern and abnormal development of diaphragm. *Congenital Heart Disease* 2009;4:21-24.
37. Talwar S, Choudhary SK, Janardhan SA, Malik V, Kothari SS, Gulati GS, Kumar TK, Airan B. Atrial switch operation in a patient with dextrocardia, bilateral superior vena cavae, left atrial isomerism and unroofed coronary sinus. *Ann Thorac Surg.* 2009 Jun;87(6):1963-6.
38. Chowdhury UK, Seth S, Sheil A, Mittal CM, Jagia P, Malhotra P, Reddy SM. Successful aneurysmectomy of a congenital apical left ventricular aneurysm. *Tex Heart Inst J.* 2009;36(4):331-3.
39. Chowdhury UK, Saxena A, Ray R, Sheil A, Reddy SM, Agarwal S, Mittal C. Salvage one an done-half ventricular repair and resection of Ewing's sarcoma of cardiac origin. *Hellenic J Cardiol.* 2010 Jan-Feb; 51(1):71-3.
40. Chowdhury UK, Seth S, Govindappa R, Jagia P, Malhotra P. Congenital Left Atrial Appendage Aneurysm: A Case Report and Brief Review of Literature. *Heart Lung Circ.* 2009 Dec 30. [Epub ahead of print]
41. Chowdhury UK, Kothari SS, Bishnoi AK, Gupta R, Mittal CM, Reddy S. Successful lobectomy for pulmonary arteriovenous malformation causing recurrent massive haemoptysis. *Heart Lung Circ.* 2009 Apr;18(2):135-9.
42. Chowdhury UK, Seth S, Sheil A, Mittal CM, Jagia P, Malhotra P, Reddy SM. Successful aneurysmectomy of a congenital apical left ventricular aneurysm. *Tex Heart Inst J.* 2009;36(4): 331-3.
43. Dhananjay P. Malankar, M.S.\*, Sandeep Chauhan, M.D.+, Shambhu Das, M.D+, and Akshay Kumar Bisoi, Mc.h.\* CONGENITAL HEART DISEASE Surgical Techniques How to Do It: Repair of Anomalous Left Coronary Artery nfrom Pulmonary Artery (ALCAPA)

## CARDIOLOGY

1. Ahmad S, Sundaramoorthy E, Arora R, Sen S, Karthikeyan G, Sengupta S. Progressive degradation of serum samples limits proteomic biomarker discovery. *Anal Biochem.* 2009 Nov 15;394(2):237-42.
2. Anand A, Roy A, Bhargava B, Raj H, Barde PB, Vijayan VK. Early symptom-relief after valvulotomy in mitral stenosis indicates role of lobeline-sensitive intrapulmonary receptors. *Respir Physiol Neurobiol.* 2009 Dec 31;169(3):297-302.
3. Angeli F, Verdecchia P, Karthikeyan G, Mazzotta G, Del Pinto M, Repaci S, Gatteschi C, Gentile G, Cavallini C, Reboldi G. New-onset hyperglycemia and acute coronary syndrome: a systematic overview and meta-analysis. *Curr Diabetes Rev.* 2010 Mar;6(2):102-10.

4. Angeli F, Verdecchia P, Karthikeyan G, Mazzotta G, Repaci S, Del Pinto M, Gentile G, Cavallini C, Reboldi G. ss-blockers and risk of all-cause mortality in non-cardiac surgery. *Ther Adv Cardiovasc Dis*. 2010 Mar 3. [Epub ahead of print]
5. Bahl VK, Jadhav UM, Thacker HP. Management of hypertension with the fixed combination of perindopril and amlodipine in daily clinical practice: results from the STRONG prospective, observational, multicenter study. *Am J Cardiovasc Drugs*. 2009;9(3):135-42.
6. Bhagat H, Narang R, Sharma D, Dash HH, Chauhan H. ST elevation—an indication of reversible neurogenic myocardial dysfunction in patients with head injury. *Ann Card Anaesth*. 2009 Jul-Dec;12(2):149-51.
7. Chadha DS, Karthikeyan G, Goel K, Malani SK, Seth S, Singh S, Dhall A, Bhargava B. N-terminal pro-BNP plasma levels before and after percutaneous transvenous mitral commissurotomy for mitral stenosis. *Int J Cardiol*. 2009 Feb 3.
8. Chaturvedi V, Karthikeyan G. Fondaparinux in acute coronary syndromes. *Expert Opin Drug Metab Toxicol*. 2009 Dec;5(12):1615-23.
9. Chaturvedi V, Saxena A. *Indian J Pediatr*. 2009 Feb;76(2):195-205.
10. Karthikeyan G, Eikelboom JW, Hirsh J. New oral anticoagulants: not quite there yet. *Pol Arch Med Wewn*. 2009 Jan-Feb;119(1-2):53-8.
11. Karthikeyan G, Eikelboom JW, Turpie AG, Hirsh J. Does acetyl salicylic acid (ASA) have a role in the prevention of venous thromboembolism? *Br J Haematol*. 2009 Jul;146(2):142-9.
12. Karthikeyan G, Math RS, Mathew N, Shankar B, Kalaivani M, Singh S, Bahl VK, Hirsh J, Eikelboom JW. Accelerated infusion of streptokinase for the treatment of left-sided prosthetic valve thrombosis: a randomized controlled trial. *Circulation*. 2009 Sep 22;120(12):1108-14.
13. Karthikeyan G, Mayosi BM. Is primary prevention of rheumatic fever the missing link in the control of rheumatic heart disease in Africa? *Circulation*. 2009 Aug 25;120(8):709-13.
14. Karthikeyan G, Moncur RA, Levine O, et al. Is a pre-operative brain natriuretic peptide or N-terminal pro-B-type natriuretic peptide measurement an independent predictor of adverse cardiovascular outcomes within 30 days of noncardiac surgery? A systematic review and meta-analysis of observational studies. *J Am Coll Cardiol*. 2009 Oct 20;54(17):1599-606.
15. Karthikeyan G, Senthamizhchelvan S. Where should surgeons place the graft on the left anterior descending coronary artery? A theoretical basis for change. *Cardiovasc Revasc Med*. 2009 Apr-Jun;10(2):117-20.
16. Karthikeyan G. Coronary angiography by 64-row CT. *N Engl J Med*. 2009 May 7;360(19):2028.
17. Kothari SS, Jagia P, Gupta A, Singh N, Ray R. Images in cardiovascular medicine. Pulmonary capillary hemangiomas. *Circulation*. 2009 Jul;120(4):352-4.
18. Kothari SS, Sharma S, Bhatt K, Ray R, Bakhshi S, Chowdhury U. Recurrent hemorrhagic pericardial effusion in a child due to diffuse lymphangiohemangiomas: a case report. *J Med Case Reports*. 2010 Feb 22;4:62.

19. Kothari SS. Clinical classification of pulmonary hypertension. *J Am Coll Cardiol*. 2010 Jan 19;55(3):267; author reply 267. PubMed PMID: 20117425.
20. Kothari SS. Clinical practice guidelines and scientific evidence. *JAMA*. 2009 Jul 8;302(2):145.
21. Kothari SS. Kawasaki disease and window of opportunity. *Indian Pediatr*. 2009 Oct;46(10):915.
22. Kumar J, Garg G, Karthikeyan G, Sengupta S. Cystathionine beta-synthase 844Ins68 polymorphism is not associated with the levels of homocysteine and cysteine in an Indian population. *Biomarkers*. 2010 Feb 23.
23. Kumar J, Garg G, Kumar A, Sundaramoorthy E, Sanapala KR, Ghosh S, Karthikeyan G, Ramakrishnan L; Indian Genome Variation Consortium, Sengupta S. Single nucleotide polymorphisms in homocysteine metabolism pathway genes: association of CHDH A119C and MTHFR C677T with hyperhomocysteinemia. *Circ Cardiovasc Genet*. 2009 Dec;2(6):599-606.
24. Kumar J, Garg G, Sundaramoorthy E, Prasad PV, Karthikeyan G, Ramakrishnan L, Ghosh S, Sengupta S. Vitamin B12 deficiency is associated with coronary artery disease in an Indian population. *Clin Chem Lab Med*. 2009;47(3):334-8.
25. Kumar S, Enjamoori R, Jaiswal A, Ray R, Seth S, Maulik SK. Catecholamine-induced myocardial fibrosis and oxidative stress is attenuated by *Terminalia arjuna* (Roxb.). *J Pharm Pharmacol*. 2009 Nov;61(11):1529-36.
26. Kumar S, Seth S, Jaiswal A, Enjamoori R, Dinda AK, Ray R, Maulik SK. Chronic beta-adrenergic activation-induced left ventricular systolic dysfunction is associated with systemic release of TNF-alpha and IL-1-beta in rats. *Pharmacol Rep*. 2009 Sep-Oct;61(5):870-6.
27. Malav IC, Juneja R, Choudhary SK, Ramakrishnan S, Ray R, Jain A. Atrial standstill causing congestive heart failure in a child with ostium secundum atrial septal defect. *Pediatr Cardiol*. 2010 Feb;31(2):283-6.
28. Math RS, Saxena A, Chakraborty P, Reddy SM, Bisoi A. An Unusual Case of Dissecting Aneurysms Involving Both Coronary Sinuses of Valsalva. *J Am Soc Echocardiogr*. 2009 Oct 30.
29. Mishra S, Bahl VK. Curriculum in cath lab: coronary hardware - part I the choice of guiding catheter. *Indian Heart J*. 2009 Jan-Feb;61(1):80-8.
30. Mishra S, Bahl VK. Curriculum in cath lab: coronary hardware—Part II. Guidewire selection for coronary angioplasty. *Indian Heart J*. 2009 Mar-Apr;61(2):178-85.
31. Mishra S, Bahl VK. Guidewire selection for coronary angioplasty. Part 2. *Indian Heart Journal*. 2009; 61: 275-280
32. Mishra S. Angio Quiz. *Indian Heart Journal*. 2009; 61: 111-12.
33. Mishra S. Intra-arterial hematoma after percutaneous coronary intervention of Shepard's Crook Right Coronary Artery. *Indian Heart Journal*. 2009; 61: 209-10
34. Narang R, Chadha DS, Goel K, Mishra S, Bajaj N, Sharma S, Gupta N, Bahl VK. Screening coronary angiography prior to surgery in rheumatic valvular heart disease: a study of 2,188 patients. *J Heart Valve Dis*. 2009 Jul;18(4):455-60.

35. Palaniswamy C, Selvaraj DR, Guleria R, Mohan A, Narang R. Airway hyper-reactivity in rheumatic mitral stenosis improves after balloon valvotomy. *Ther Adv Cardiovasc Dis*. 2009 Dec;3(6):423-7.
36. Palaniswamy C, Selvaraj DR, Guleria R, Mohan A, Sugunraj JP, Ramamurthy S, Narang R. Respiratory muscle strength in rheumatic mitral stenosis improves after balloon valvotomy. *J Cardiovasc Med (Hagerstown)*. 2009 Oct 21.
37. Parakh N, Asotra S, Singh S, Ramakrishnan S, Karthikeyan G, Seth S, Bhargava B. Transcoronary pacing: are the modern wires effective? *Indian Heart J*. 2009 Mar-Apr;61(2):160-2.
38. Parakh N, Bhargava B. Golden jubilee of hypertrophic cardiomyopathy: is alcohol septal ablation the gold standard? *Cardiovasc Revasc Med*. 2009 Jul-Sep;10(3):172-8.
39. Parakh N, Singh S, Math RS, Sharma S, Bahl VK. Catheter-induced left main coronary artery spasm. *J Cardiovasc Med (Hagerstown)*. 2009 Mar;10(3):288-9.
40. Prabhakaran D, Roy A. Commentary: Societal influences on cardiovascular disease: time to assess and act. *Int J Epidemiol*. 2009 Dec;38(6):1595-8
41. Ramakrishnan S, Kothari SS, Juneja R, Bhargava B, Saxena A, Bahl VK. Prevalence of rheumatic heart disease: has it declined in India? *Natl Med J India*. 2009 Mar-Apr; 22(2):72-4.
42. Ramakrishnan S, Kothari SS, Sharma S. Massive left pulmonary artery pseudoaneurysm in a young child. *JACC Cardiovasc Interv*. 2010 Mar;3(3):362-3.
43. Ramakrishnan S. Echocardiography in acute rheumatic fever. *Ann Pediatr Cardiol*. 2009;2(1):61-4.
44. Roy A, Naik N. Coronary artery bypass or percutaneous intervention for multivessel coronary artery disease. *Natl Med J India*. 2009 Mar-Apr;22(2):77-8.
45. Roy A, Prabhakaran D, Jeemon P, Thankappan KR, Mohan V, Ramakrishnan L, Joshi P, Ahmed F, Mohan BV, Saran RK, Sinha N, Reddy KS; on behalf of the Sentinel Surveillance in Industrial Populations Study Group. Impact of alcohol on coronary heart disease in Indian men. *Atherosclerosis*. 2010 Feb 26.
46. Saxena A, Ramasamy S, Devagourou V, Math R. Ventricular septal rupture in a 4-year-old child following blunt chest injury. *Pediatr Cardiol*. 2009 Nov;30(8):1188-9.
47. Saxena A. Congenital cardiac surgery in the less privileged regions of the world. *Expert Rev Cardiovasc Ther*. 2009 Dec;7(12):1621-9.
48. Sharma R, Talwar S, Marwah A, Shah S, Maheshwari S, Suresh P, Garg R, Bali BS, Juneja R, Saxena A, Kothari SS. Anatomic repair for congenitally corrected transposition of the great arteries. *J Thorac Cardiovasc Surg*. 2009 Feb;137(2):404-412.e4
49. Saxena A, Juneja R, Ramakrishnan S. Working Group on Management of Congenital Heart Diseases in India, Drug therapy of cardiac diseases in children. *Indian Pediatr*. 2009 Apr;46(4):310-38.
50. Yadav R, Chandra S, Naik N, Juneja R. Radiofrequency catheter ablation of atrioventricular nodal reentrant tachycardia associated with anomalous drainage of both superior vena cava into coronary sinus. *Indian Pacing Electrophysiol J*. 2009 Sep 1;9(5):278-82.



51. Yadav R, Chandra S, Naik N, Nagesh C, Kothari S. Unusual site of permanent pacing: a case report. *Indian Pacing Electrophysiol J.* 2009;9(2):108-11.
52. Yusuf S, Natarajan M, Karthikeyan G, Taggart D. Management of stable angina. *BMJ.* 2009 Jul 17;339:b2789.
53. Kothari SS, Jagia P, Gupta A, Singh N, Ray R. Images in cardiovascular medicine. Pulmonary capillary hemangiomas. *Circulation.* 2009 Jul 28;120(4):352-4.
54. Roy A, Prabhakaran D, Jeemon P, Thankappan KR, Mohan V, Ramakrishnan L, Joshi P, Ahmed F, Mohan BV, Saran RK, Sinha N, Reddy KS; on behalf of the Sentinel Surveillance in Industrial Populations Study Group. Impact of alcohol on coronary heart disease in Indian men. *Atherosclerosis.* 2010 Feb 26

### CARDIAC ANAESTHESIA

1. Sahu B, Chauhan S, Kiran U, Bisoi A.K. "Neuro cognitive function in patients undergoing CABG surgery with cardio pulmonary bypass"-effect of 2 rewarming strategies". *Jouernal cardio vascular Anaesth.* 2009; 23(1): 8-13.
2. Sahu B, Chauhan S, Kiran U, Bisoi A.K." Neurocognitive function is children with cyanotic congenital heart disease undergoing corrective cardiac surgery-effect of 2 rewarming strategies" *Eur J Cardiothor Surgery;* 2009;35: 505-510.
3. Chauhan S." The Brain, temperature and cardiopulmonary bypass- what we should be doing". *Ann. Cardiac Anaesth:* 2009, (12) 2; 104-106.
4. Kiran U, Makhija N, Malik V, Gharde P. Relaxation Therapies in Pain Management-a review article. *Indian J Pain* 2009; 23:218-225.
5. Dhawan N, Das SN, Kiran U, Chauhan S, Bisoi AK, Makhija N. Effect of Rectal Diclofenac in Reducing Postoperative Pain and Rescue analgesia Requirement after Cardiac Surgery. *Pain Practice* 2009; 9;385-393.
6. Makhija N, Kiran U, Karmarkar A, Kapoor PM. Sevoflurane for Airway assessment in Ankylosing spondylitis. *J Anaesth Clin Pharmacol* 2009;25:369-371.
7. Kiran U, Makhija N. Patient with Recent Coronary Artery Stent Requiring Major Non Cardiac Surgery. *Indian Journal of Anaesthesia* 2009;53:582-591.
8. Paul G, Makhija N, Kiran U. Anaesthesia for Automated Implantable Cardioverter Defibrillator in Congenital Long QT syndrome. *J Anaesth Clin Pharmacol* 2010; 26(1):97-98.
9. Poonam Malhotra, Banashree Mandal, Usha Kiran, Ujjwal Chowdhury, Rajendra Karnatak Transesophageal Echocardiography in off-pump Coronary Artery Bypass Grafting. *Annals of Cardiac Anesthesia* 2009 12(2):174-83.
10. Poonam Malhotra Kapoor, Minati choudhury, Madhava Kakani. Thoracic epidural anaesthesia in cardiac surgery: A Letter to Editor. *Annals of Cardiac Anesthesia* 2009; 12(2): 167-68
11. S.N. Das, U. Kiran, N, Saxena, P Malhotra. PDA ligation in a patient with severe left ventricular dysfunction – role of sevoflurane. *IJTCVS* 2010; 17(2):93-95.



12. DR Poonam wrote aChapter in a book entitled “recent advances in cardiac anaesthesia” on “Fluid responsiveness in cardiac surgery”. Edited by Dr. Mukul Kapoor released in October 2009 during RSACPCON 2009 proceedings.
13. Arindam Choudhury, Sambhunath Das, Usha Kiran, Anaesthetic Management of a Newborn with Galactosaemia for Congenital Heart Surgery-*Indian Journal of Anaesthesia* April,2009; 53(2): 219-222.
14. Surgical repair of multiple unruptured aneurysms of sinus of Valsalva Srikrshna Modugula-Reddy, Akshay Kumar Bisoi, Pranav Sharma, Shambunath Das Published online July 10,2009. *Interact CardioVasc Thorac Surg* 2009;9:709-711.
15. Singh R, Choudhury M, Saxena A, Kapoor PM, Juneja R, Kiran U. Inhaled Nitroglycerin Versus Inhaled Milrinone in Children with Congenital Heart Disease Suffering from Pulmonary Artery Hypertension. *J Cardiothorac Vasc Anesth.* 2010 Jan 5.

## CARDIAC RADIOLOGY

1. Vargas A, Hoey ETD, Gopalan D, Agrawal BSK, Scream NJ, Gulati GS (corresponding author). Congenital and acquired lesions of the aortic root: Multidetector CT features. *Postgraduate Medical Journal* 2009;85;383-391.
2. Gupta A, Naik N, Gulati GS (corresponding author). Meso-aortic entrapment of a left inferior vena cava. *Indian Journal of Radiology and Imaging* 2010 Jan;20(1):63-65.
3. Jagia Priya, Sharma Sanjiv, Juneja Rajnish, Guleria Randeep. “Transcatheter Treatment Of Pulmonary Artery Pseudoaneurysm Using PDA Closure Device”. *Diagn Interv Radiol.* 2009 Sep 25. doi: 10.4261/1305-3825.DIR.2657-09.1. [Epub ahead of print]
4. Jagia P, Sharma S, Juneja R, Guleria R. Transcatheter treatment of pulmonary artery pseudoaneurysm using a PDA closure device. *Diagn Interv Radiol.* 2009 Sep.

## Abstracts

1. Sharma S, Kumar G, Gulati GS, Jagia P, Gupta A. Imaging appearance and role of magnetic resonance imaging in the diagnosis of restrictive heart disease caused by endomyocardial fibrosis. Abstract 1902.5 published in the abstract book of the annual Meeting of the Cardiovascular and Interventional Radiological Society of Europe, September 19-23, 2009, Lisbon, Portugal.
2. Gulati GS, Ramakrishnan S, Mehrotra S, Patel C, Sharma S. Spectrum of imaging findings in Cardiac Tuberculosis with multi-detector CT, MRI and PET-CT. Presented at the RSNA Annual Meeting Nov 29-Dec 3, 2009, as an educational exhibit and abstract published in the meeting program book.
3. Gulati GS, Sharma S, Kothari S, Sharma S. Unexplained Pulmonary Arterial Hypertension: Role of CT and MRI in resolving this Diagnostic Dilemma. Presented at the RSNA Annual Meeting Nov 29-Dec 3, 2009, as an educational exhibit and abstract published in the meeting program book.
4. Gulati GS, Jain G, Sharma A, Ramakrishnan S, Seth S, Mehrotra S, Patel C, Sharma S. Magnetic Resonance Imaging in Restrictive Cardiomyopathy. Presented at the RSNA Annual Meeting Nov 29-Dec 3, 2009, as a Scientific exhibit and abstract published in the meeting program book.

## Chapters in Books

1. Sharma S, Gulati GS, Jagia P. Chest X-ray in heart disease. Chapter in the book “Chest and Cardiovascular Imaging”, edited by AK Gupta, N Khandelwal, V Chowdhary, Jaypee Publishers, New Delhi, 2009, page.....341-348
2. Gulati GS, Sharma S, Jagia P. Imaging in ischemic heart disease. Chapter in the book “Chest and Cardiovascular Imaging”, edited by AK Gupta, N Khandelwal, V Chowdhary, Jaypee Publishers, New Delhi, 2009, page....349-363
3. Gulati GS, Jagia P, Sharma S. Imaging in cardiac masses. Chapter in the book “Chest and Cardiovascular Imaging”, edited by AK Gupta, N Khandelwal, V Chowdhary, Jaypee Publishers, New Delhi, 2009, page.....384-398
4. Jagia P, Sharma S, Gulati GS. Imaging approach in children with congenital heart disease. Chapter in the book “Chest and Cardiovascular Imaging”, edited by AK Gupta, N Khandelwal, V Chowdhary, Jaypee Publishers, New Delhi, 2009, pages.
5. Jagia P, Gulati GS, Sharma S. Imaging in cardiomyopathies. Chapter in the book “Chest and Cardiovascular Imaging”, edited by AK Gupta, N Khandelwal, V Chowdhary, Jaypee Publishers, New Delhi, 2009, page....376-383
6. Jagia P, Sharma S, Gulati GS. Imaging diagnosis of valvular heart disease. Chapter in the book “Chest and Cardiovascular Imaging”, edited by AK Gupta, N Khandelwal, V Chowdhary, Jaypee Publishers, New Delhi, 2009, page....399-408
7. Gulati GS. Cardiac MRI- An evolving tool in the Imaging Evaluation of Patients with Congenital Heart Disease. Chapter in the Book “Cardiology Update”, edited by R J Manjuran, M/s Wild Thoughts, Kottayam, 2009, page...217-224.

## CARDIAC NUCLEAR MEDICINE

### Abstracts

1. Chetan Patel, Madhavi Chawla, Murali Nadig, Tushar Mohapatra, Shamim Shamim, and A. Malhotra. To evaluate the role of F-18 FDG PET in detecting ischemic myocardium at rest in patients with known coronary artery disease. J. Nucl. Med. Meeting Abstracts, May 2009; 50: 1149.
2. Sagar Maharjan, Chetan Patel, D N Sharma, Rakesh Kumar, Sunesh Kumar, Sanjay Thulkar, Arun Malhotra. Role of 18F-FDG PET-CT in carcinoma of uterine cervix patients with clinical suspicion of recurrence. J. Nucl. Med. Meeting Abstracts, May 2009; 50: 1704.
3. Khadka R, Narang R, Jaryal A, Patel CD, Deepak KK. Baroreflex function impaired in patients presenting with anginal symptoms with no evidence of myocardial perfusion defects.. Proc. International Conference on Integrative Physiology: Modern Perspective & Platinum Jubilee Celebration of the Physiological Society of India 2009:p.272
4. Khadka R, Jaryal A, Patel CD, Narang R, Deepak KK. Cardiovascular autonomic modulation increases with severity of myocardial ischemia. J Physiol Sci 2009:59; p 169
5. Deepak KK, Khadka R, Narang R, Jaryal A, Patel CD, Pandey RM. Baroreflex function appears to initiate compensatory mechanism for cardiac autonomic modulation in patients with angina pectoris. J Physiol Sci 2009:59; p 167.

- 6 Rakesh Kumar, Anita Kumari, Parmod Garg, Shallu Midha, Raju Sharma, Abhishek Kumar, Shamim Ahmed Shamim, Chetan Patel, and A. Malhotra. Role of F18-FDG PET-CT imaging in differentiating benign and malignant pancreatic lesions and its comparison with CT/MRI/EUS. J. Nucl. Med. Meeting Abstracts, May 2009; 50: 1755.
- 7 CM Nagesh, Anita Saxena, Chetan Patel, Murali Nadig, Arun Malhotra. Role of F-18 Fluorodeoxyglucose Positron emission tomography in children with active rheumatic carditis and chronic rheumatic heart disease. Pediatric cardiology & cardiac surgery abstract book, June 2009; 6110.

### Papers/Chapter

1. Rakesh Kumar, Neerja Rani, Chetan Patel, Sandip Basu, Abass Alavi. False-Negative and False-Positive results in FDG-PET and PET/CT in Breast cancer. PET Clin, 2009; 4; 289-298.
2. Chetan D.Patel, Madhavi Chawla. Nuclear Medicine in CVS & Chest. Eds Veena Chowhary, A K Gupta, Niranjana Khandelwal; Diagnostic Radiology, Chest & Cardiovascular Imaging. AIIMS-MAMC- PGI series. 3<sup>rd</sup> Edition, Jaypee Brothers Medical Publishers (P) Ltd, New Delhi, 2010; 423-436.

### STEM CELL FACILITY

#### Journals

1. Gupta R, Suri V. Mohanty S, Suri A. Effect of bone marrow derived mononuclear cells on nerve regeneration in transaction model of spinal cord injury model. Journal of Clinical Neurosciences, 2009
2. Tulika Seth, Sujata Mohanty “Stem Cells and transplantation in Pediatrics. JIMSA, Jan-Mar, 2009 Vol 22 (1), 37-42
3. Shweta Sharma, Radhika Tandon, Sujata Mohanty, Namrata Sharma, M.Vanathi, Seema Sen, Seema Kashyap, Neeta Singh Culture of Corneal Limbal Epithelial Stem Cells: Experience From Bench top to Bedside in a Tertiary Care Hospital in India. Accepted in “Cornea” 2010
4. Pratibha Sharma & Lalit Kumar & Sujata Mohanty & Vinod Kochupilla .Response to Imatinib mesylate in chronic myeloid leukemia patients with variant BCR-ABL fusion transcripts, Ann Hematol, published online, August 2009
5. Pratibha Sharma, Sujata Mohanty, Lalit Kumar. Mutations in ABL kinase domain are associated with inferior progression-free survival. Leukemia and Lymphoma. Accepted 2010)
6. Bhuvanesh Gupta, Navdeep Grover, Sujata Mohanty, Krishan Gopal Jain Harpreet Singh . Radiation grafting of acrylic acid/N-vinyl pyrrolidone binary mixture onto poly (ethylene terephthalate) fabric and growth of human mesenchymal stem cell, Journal of Applied Polymer Sciences, Vol.115, 116- 126 (2010).
7. Sandeep Seth, Balram Bhargava, Rajiv Narang, Ruma Ray, Sujata Mohanty, Gurpreet Gulati, Lalit Kumar, Balram Airan, Panangipalli Venugopal. Autologous Bone marrow cells in dilated cardiomyopathy (ABCD trial). A long term follow up study. Journal of American College of Cardiology, 2009

## Abstracts

1. Shweta Sharma, Sujata Mohanty, Sudip Sen, Ajoy Roychoudhary, Pooja Teotia, Bose Sushmita, Anil Kumar, Balram Airan, Radhika Tandon. Ex vivo expansion of oral mucosal epithelial stem cells (OMESC) and comparison from native oral mucosal epithelial cells. Asia-ARVO meeting on Research in Vision and Ophthalmology, Hyderabad. 2009
2. Sujata Mohanty, Sushmita Bose, Pooja Teotia, Balram Bhargava, Balram Airan. Generation of dopaminergic neurons from bone marrow derived adult human mesenchymal stem cells : possible role of Pax-6, International Society for Stem Cell Research, 2009 held at Spain .

## CARDIAC PATHOLOGY

1. Tanwar V, Sachdeva J, Kshore K, Mittal R, Nag TC, Ray R, Kumari S, Arya DS. Dose-dependent actions of curcumin in experimentally induced myocardial necrosis: a biochemical, histopathological, and electron microscopic evidence. *Cell Biochem Funct.* 2010 Jan;28(1):74-82.
2. Charan Sahoo K, Arora S, Goyal S, Kishore K, Ray R, Chandra Nag T, Singh Arya D. Cardioprotective effects of benazepril, an angiotensin-converting enzyme inhibitor, in ischaemia-reperfusion model of myocardial infarction in rats. *J Renin Angiotensin Aldosterone Syst.* 2009 Dec;10(4):201-9.
3. Malav IC, Juneja R, Choudhary SK, Ramakarishnan S, Ray R, Jain A. Atrial Stasidil Causing Congestive Heart Failure in a Child with Ostium Secundum Atrial Septal Defect. *Pediatr Cardiol.* 2009 Nov 21 (Epub ahead of print).
4. Sharma A, Ray R, Rajeswari MR. High-Mobility Group A1 (HMGA1) Protein expression correlates with cisplatin-induced cell death in squamous cell carcinoma of skin. *Cancer Invest.* 2009 Nov 16 (Epub ahead of print).
5. Kumar S, Seth S, Jaiswal A, Enjamoori R, Dinda AK, Ray R, Maulik SK. Chronic beta-adrenergic activation-induced left ventricular systolic dysfunction is associated with systemic release of TNF-alpha and IL-1beta in rats. *Pharmacol Rep.* 2009 Sept-Oct;61(5):870-6.
6. Kumar S, Enjamoori R, Jaiswal A, Ray R, Seth S, Maulik SK. Catecholamine-induced myocardial fibrosis and oxidative stress is attenuated by Terminalia Arjuna (Roxb.). *J Pharm Pharmacol.* 2009 Nov; 61(11):1529-36.
7. Agarwal S, Mathur SR, Ray R, Sharma SC, Sinha P. Cytopathological diagnosis of hyalinizing trabecular tumour, a rare thyroid neoplasm. *Cytopathology*, 2009 Oct. 15 (Epub ahead of print).
8. Goyal SN, Arora S, Sharma AK, Joshi S, Ray R, Bhatia J, Kumari S, Arya DS. Preventive effect of crocin of *Crocus sativus* on hemodynamic, biochemical, histopathological and Ultrastructural alterations in isoproterenol-induced cardiotoxicity in rats. *Phytomedicine.* 2009 Sept 9 (Epub ahead of print).
9. Das P, Iyer VK, Mathur SR, Ray R. Anaplastic large cell lymphoma: a critical evaluation of cytomorphological features in seven cases. *Cytopathology.* 2009 Sep 9 (Epub ahead of print).

10. Goyal S, Arora S, Mittal R, Joshi S, Nag TC, Ray R, Kumari S, Arya DS. Myocardial salvaging effect of telmisartan in experimental model of myocardial infarction. *Eur J Pharmacol* 2009 Oct 1;619(1-3):75-84.
11. Kumar N, Das P, Kumar D, Kriplani A, Ray R. Pelvic actinomycosis mimicking: an advanced ovarian cancer. *Indian J Pathol Microbiol.* 2010 Jan-Mar; 53(1): 164-5.

## CARDIAC BIOCHEMISTRY

1. Gupta R, Abraham RA, Dhatwalia S, Ramakrishnan L, Prabhakaran D, Reddy KS. Use of dried blood for measurement of Trans fatty acids. *Nutr J.* 2009 Jul 24;8(1):35.
2. Ramakrishnan Lakshmy and Ruby Gupta. Measurement of Glycated Hemoglobin A1c from Dried Blood by Turbidimetric Immunoassay *J Diabetes Sci Technol.* 2009, 3(5): 1203-1206.
3. Sharma SK, Reddy EV, Kadhiravan T, Lakshmy R, Sreenivas V. Prevalence of syndrome Z and the association of metabolic syndrome with obstructive sleep apnea in a northern Indian population. *Am J Respir Crit Care Med.* 2009, 179, 3627.
4. Kumar J, Garg G, Kumar A, Sundaramoorthy E, Sanapala KR, Ghosh S, Karthikeyan G, Ramakrishnan L; Indian Genome Variation Consortium, Sengupta S Single nucleotide polymorphisms in homocysteine metabolism pathway genes: association of CHDH A119C and MTHFR C677T with hyperhomocysteinemia. *Circ Cardiovasc Genet.* 2009 Dec;2 (6):599-606.
5. Bharathi AV, Kuriyan R, Kurpad AV, Thomas T, Ebrahim S, Kinra S, Lyngdoh T, Reddy SK, Dorairaj P, Vaz M; *Indian Migrants Study Group.* Assessment of physical activity using accelerometry, an activity diary, the heart rate method and the Indian migration study questionnaire in south Indian adults. *Public Health Nutr.* 2010 Jan;13 (1):47-53.
6. Jeemon P, Prabhakaran D, Mohan V, Thankappan KR, Joshi PP, Ahmed F, Chaturvedi V, Reddy KS; *SSIP Investigators (Biochemical Investigator).* Double burden of underweight and overweight among children (10-19 years of age) of employees working in Indian industrial units. *Natl Med J India.* 2009 Jul-Aug; 22(4):172-6.
7. Ramakrishnan Lakshmy, Ruby Gupta, Dorairaj Prabhakaran, Uma Snehi, K. Srinath Reddy. Utility of Dried Blood Spots for Measurement of Cholesterol and Triglycerides in a Surveillance Study. *Journal of Diabetes Science and Technology*, March 2010, Volume 4, Issue 2: pages 258-262.
8. Arora M, Tewari A, Tripathy V, Nazar GP, Juneja NS, Ramakrishnan L, Reddy KS Community-based model for preventing tobacco use among disadvantaged adolescents in urban slums of India. *Health Promot Int.* 2010 Feb 27. [Epub ahead of print]

## Abstract

1. Mohammad Tarik, Lakshmy Ramakrishnan, Ruby Gupta, Dorairaj Prabhakaran, and Kolli Srinath Reddy Association of LDL Particle Size with other Cardiovascular Risk Markers in an Industrial Population. Presented at ACBICON 2009 held in Kochi, Kerala from 5-7<sup>th</sup> November 2009 Abstract published in *Indian Journal of Clinical Biochemistry Supplement*, 2009/24 pg 177.

2. Ransi Ann Abraham, Lakshmy Ramakrishnan ,Ruby Gupta, Smita Golandanz, Rajinder.
3. Parshad, V K Bahl, Ambuj Roy, R M Pandey, Dorairaj Prabhakaran and Kolli Srinath Reddy Cheek Cell Epithelium: a Non Invasive Specimen for Measurement of Fatty Acid Intake Presented at ACBICON 2009 held in Kochi, Kerala from 5-7<sup>th</sup> November 2009 Abstract published in Indian Journal of Clinical Biochemistry Supplement, 2009/24 pg 197.
4. Ruby Gupta, Ramakrishnan Lakshmy, Dorairaj Prabhakaran and Kolli Srinath Reddy Storage Stability of Glycosylated Hemoglobin in Red Blood Cells and Dried Blood Spots Presented at ACBICON 2009 held in Kochi, Kerala from 5-7<sup>th</sup> November 2009 Abstract published in Indian Journal of Clinical Biochemistry Supplement, 2009/24 199-200.
5. Rizwana Quraishi, Ramakrishnan Lakshmy, Ashok K Mukhopadhyay and Bansi L Jaikhan Apo E Genotyping from Blood Stored on Filter Paper Indian Journal of Clinical Biochemistry Supplement, Presented at ACBICON 2009 held in Kochi, Kerala from 5-7<sup>th</sup> November 2009 Abstract published in Indian Journal of Clinical Biochemistry Supplement, 2009/24 2009/24 225-226.
6. R.Lakshmy, HPS Sachdev, Meenakshi Sharma, SK Bhargava, GR Chandak and KS Reddy Association of ApoA5 1131 T>C Polymorphism with Triglyceride Levels in Indians Presented at ACBICON 2009 held in Kochi, Kerala from 5-7<sup>th</sup> November 2009 Abstract published in Indian Journal of Clinical Biochemistry Supplement, 2009/24 pg 269.
7. S.A.Norris, C. Osmond, Z. Kimmie, R. Lakshmy, N. Tandon, C. Kuzawa, N.R. Lee, D. Gigante, M. Ramirez-Zea, A.D. Stein, C.H.D. Fall and COHORTS group Understanding the developmental pathways to ill-health: associations of size at birth and weight gain in infancy and childhood with adult diabetes risk in five low- or middle-income country birth cohorts Presented in DoHad Meeting held in Santiago, Chile in November 2009.
8. R.Lakshmy, Ruby Gupta, D.Prabhakaran, Reddy KS. Analysis of LDL particle diameter by simple 3% polyacrylamide gel electrophoresis high through put method. Submitted at the Diabetes Technology Meet 2009 held in San Francisco, USA in Nov 2009.

### **ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)**

1. Poster presentation on “Postmortem Organ Donation : An Experience in the 10<sup>th</sup> ISODP and 16<sup>th</sup> ETCO Organ Donation Congress from 4-6<sup>th</sup> October 2009 at Berlin.
2. Poster presentation on “Initiatives to improve organ donation – Experiences throughout the work” in the 10<sup>th</sup> ISODP and 16<sup>th</sup> ETCO Organ Donation Congress from 4-6<sup>th</sup> October 2009 at Berlin.
3. Published a paper titled “Organ Donation – A Gift of Life” in the Souvenir published by Deptt of Anatomy of Maulana Azad Medical College in the workshop on “Embalming, Plastination and organ donation in present day scenario”

### **AWARDS & SIGNIFICANT EVENTS**

#### **CARDIO-THORACIC VASCULAR SURGERY**

1. Prof. Balram Airan was awarded “Dr. K.G. Deshpande Memorial Oration, at Nagpur in September 2009.



2. Dr Sachin Talwar, Assistant Prof of CTVS completed the prestigious Ewart's A Memorial Graham fellowship" by the American Association of Thoracic Surgery for the year 2008-9 for training in Pediatric Cardiac Surgery and joined back in May 2009.
3. Dr. V.P. Gupta, Supdt Physiotherapist honoured for excellent award for serving 25 years at AIIMS by Hon'ble Chief Minister, Delhi at Annual National Conference Physical Therapy 2010.
4. Dr. V.P. Gupta, Supdt Physiotherapist member of the Organizing (Scientific) Committee and chaired the session presented "Physiotherapeutic management of the pulmonary complications after cardiac surgery". Annual National Conference Physical Therapy 2010.
5. Dr. M.S. Mehra, Physiotherapist member of the Organizing (Catering) Committee Annual National Conference Physical Therapy 2010.
6. The Perfusionists at CT Centre successfully organized the 10<sup>th</sup> Annual Conference of Indian Society of Extracorporeal Technology with Mr. Suresh Yadav as organizing Secretary at AIIMS, New Delhi in February 2010.
7. Dr. Gulshan K. Sethi Professor University of Arizona Health Science Centre, Department of Cardiothoracic Surgery, Tuscon, Arizona, USA & delivered guest lecture on "ON –X VALVE"
8. Dr. Tirone E David, Professor & Chief Cardiothoracic Division, Toronto General Hospital, Canada & delivered a lecture on "Pitfalls & Decision making in Valve Sparing Aortic Root Operations".

### **VISITING SCIENTISTS**

Dr. Gulshan K. Sethi Professor University of Arizona Health Science Centre, Department of Cardiothoracic Surgery, Tuscon, Arizona, USA & delivered guest lecture on "ON –X VALVE"

Dr. Tirone E David, Professor & Chief Cardiothoracic Division, Toronto General Hospital, Canada & delivered a lecture on "Pitfalls & Decision making in Valve Sparing Aortic Root Operations".

### **CARDIOLOGY**

1. V K Bahl – President of Cardiological Society of India (CSI) 2008 - 09
2. Awarded Fellow of European society of Cardiology (ESC)
3. V K Bahl – Associate Editor of Asian Heart Journal, a publication of BMJ group
4. S S Kothari – Member of editorial board of JACC Imaging & Pediatric Cardiology
5. Balram Bhargava – Awarded FRCP (Edinburgh) in 2009
6. S Mishra – 'Young Leader Award for Interventional Cardiology', Cardiovascular revascularization therapeutics (CRT) 2010 USA
7. S Mishra - Elected Member Executive Committee, Cardiological Society of India
8. S Ramakrishnan – Awarded 'Col K L Chopra award' for best paper in CAD at Delhi CSI 2009
9. Awarded – 'Best Case in Intervention cardiology' during National mid term interventional council meeting held at Hyderabad 2009
10. Navreet Singh – Awarded 'Sujoy B Roy' award for best research paper at Delhi CSI 2009.



## CARDIAC ANAESTHESIA

1. Dr. Usha Kiran was awarded IACTA fellowship. She continues to be the Vice President of 'PRAN'. Parkinson related Awareness Network. Dr.Usha Kiran Co-organized a conference on Rejuvenating Life through Mind body Medicine on 6<sup>th</sup> & 7<sup>th</sup> Feb'2010, at Distt Gurgaon. She also co-organized a community programme 'Secrets of happiness' on 13<sup>th</sup> – 14<sup>th</sup> March, at Harpal School Ground. Dr.Usha Kiran is editorial board Member of International Journal of Biosciences.
2. Dr.Sandeep Chauhan nominated as President of IACTA. Dr.Sandeep Chouhan is review board member of two journals. 1) Annals of Cardiac-Anaesthesia and 2) National Medical Journal.
3. Dr.Neeti Makhija have been reviewing the articles of two Journals 1) Journal of clinical Anaesthesia and Journal of Anaesthesiology and clinical Pharmacology.
4. Dr.Poonam Malhotra Kapoor organized two CME's on the topic Fluid Therapy in Nov'2009 and Advances in muscle relaxants in July'2009. Dr.Poonam Malhotra Kapoor continues to be the treasurer of IACTA and Secretary of Delhi IACTA. Dr.Poonam Malhotra Kapoor is also editorial Board Member of 1).Annals of Cardiac-Anaesthesia, 2).Journal of Clinical Medical Research (JCMR) and 3).J of clinical Anaesthesia. She has written and edited two Newsletters of IACTA. She was quiz master in three National Conferences.
5. Dr.Minati Choudhury is Review board member of 1) J of clinical Anaesthesia and 2) Annals of Cardiac Anaesthesia
6. Two resident doctors from The Department of Cardiac-Anaesthesia won the quiz, held at Annual Conference of IACTA at Kolkotta, Feb'2010.
7. One Resident Doctor (DM Student who passed in June'2009) received Janak Mehta Award at Annual Conference IACTA Kolkatta.
8. Dr.Jimmie G.Kabugi trainee from Africa received 2<sup>nd</sup> best poster award at 1st Conference of College of Anaesthesiology , Nov 2009.

## BLOOD TRANSFUSION SERVICES

1. Dr. Anjali Hazarika was member of organizing committee for 34<sup>th</sup> National Conference of ISBTI held at Delhi. She delivered following presentation during the conference (22-24 November).
  - a. Blood security – role of public blood banks. (Pre-conf. workshop)
  - b. Management of blood donors.
2. Guest lecture on "Appropriate clinical use of blood" 2<sup>nd</sup> annual conference of ISTAC by JPNATC (14<sup>th</sup> November, 2009)
3. Resource person during training programme for medical officer/technician/nursing staff on Blood Safety organized by NACO at PGIMER RML Hospital, Delhi.
4. Attended 4<sup>th</sup> international conference on thalassaemia (31<sup>st</sup> October – 1<sup>st</sup> November) held in Delhi.

5. Ms. Kalpana Misra (S.T.O) gave a presentation on management of blood bank counter – National conference of ISBTI, Delhi (22-24<sup>th</sup> November).
6. Ms. Anita Dogra (T.O.) gave a presentation on experience in Blood banking at CNC, AIIMS.
7. Ms. Sarla Khanagwal (Staff Nurse) & Mr. Tinku Verma (Lab. Technician) attended the training on blood safety organized by NACO at PGIMER RML Hospital, Delhi.

### **CARDIAC RADIOLOGY**

1. Dr VP Lakhanpal Gold Medal, the Indian College of Radiology and Imaging, for the Best Academic Contribution. Presented at the 63<sup>rd</sup> Annual Conference of the IRIA, 23-26<sup>th</sup> January, 2010 Ahmedabad.
2. Reviewer for Heart, Journal of Cardiovascular Magnetic Resonance, Cardiovascular and Interventional Radiology, Post Graduate Medical Journal, Heart Asia, Indian Heart Journal, Indian Journal of Nephrology, Indian Journal of Thoracic and Cardiovascular Surgery and the Indian Journal of Radiology and Imaging.
3. Annual Membership of European Congress of Radiology, 2009 onwards.
4. Corresponding membership, Cardiovascular and Interventional Radiological Society of Europe, 2009 onwards.
5. Awarded “Commonwealth Scholarship for United Kingdom 2009-10” for a period of 6 months from October 2009 to March 2010 and did “Advanced training in Cardiac CT and MRI” at Royal Brompton and Harefield NHS Hospital Trust in London, UK.

### **CARDIAC BIOCHEMISTRY**

1. Member of Technical advisory committee for fast HPV project conducted by ICPO in collaboration with PATH supported by Milinda and Bill Gates foundation
2. Member of project review committee in the field of (1) metabolic syndrome and obesity and (2) Gastroenterology for division for NCD, ICMR.
3. Reviewed abstracts for UICC (World Cancer Congress 2010).

### **ORGAN RETRIEVAL BANKING ORGANISATION (ORBO)**

1. Chief Guest in the 20<sup>th</sup> Organ Donation Festival organized by Dadhichi Deh Dan Samiti on 6<sup>th</sup> September 2009.

## 10.2 National Drug Dependence Treatment Centre

### Professor and Chief

Rajat Ray

### Professors

B.M. Tripathi  
(deceased 21<sup>st</sup> Dec. 2009)  
Meera Vaswani

Raka Jain

Rakesh Lal

### Associate Professors

Anju Dhawan

Sonali Jhanjee

### Assistant Professors

N. Kaw

Atul Ambekar

### Scientists

Anita Chopra

Hem Sethi

### Medical Social Service Officers

Brahm Prakash  
Ratnesh Kumar

Deepak Yadav

Seema Yadav

### Biochemist

Rizwana Querashi

## EDUCATION

**Undergraduate** - During their posting in the Department of Psychiatry, undergraduates are posted for a day in the Centre.

**Postgraduate** - Residents doing MD (Psychiatry) are posted for 6 months during their course.

### Ph.D. & Postgraduate teaching

Journal discussion - Weekly

Seminar - Weekly

Case Conference - Weekly

Faculty/Staff presentation - Weekly

Seminars - Weekly (at NDDTC, Ghaziabad)

Clinical Combined Round & Clinical Grand Round - two in every semester

### Continuing Medical Education

#### Organised by the Centre

Annual Day Symposium on 'Children of Substance Abusing Parents,' NDDTC, AIIMS; 13 April 2009.

‘Training by Trainers Programme,’ Sher-e-Kashmir Medical College, Srinagar (Coordinated by NDDTC, AIIMS); 27-31 April 2009.

‘Capacity Building of Staff from NGOs Working with Street Children on Issues Related to Substance Abuse,’ AIIMS, New Delhi; 18-19 May 2009.

Training programme on ‘Psychosocial Intervention in Street Children,’ (Organized by NIMHANS, AIIMS and WHO-India), NDDTC, AIIMS; 29-30 July, 10-11 August & 17-18 August, 2009.

Training programme on ‘Delivery of Intervention in Street Children,’ (Organized by NIMHANS, AIIMS and WHO-India), NDDTS, AIIMS: 10-11 August, 2009 & 17-18 August 2009.

Training programme on ‘Forensic Toxicology, Narcotic and Psychotropic Substances’ for WHO Fellow from Myanmar, NDDTC Drug Abuse Testing Laboratory, AIIMS; 19 October – 11 December, 2009.

### **Lectures delivered**

#### **Dr. Rajat Ray**

‘Dr. N. N. De Oration,’ Silver Jubilee Annual Conference of the Indian Association for Social Psychiatry, Lucknow, 15 November 2009.

‘Substance use in Street Children,’ X Biennial Conference of the Indian Association for Child and Adolescent Mental Health, New Delhi, 23-25 November 2009.

‘Magnitude of Drug Abuse in India and Other Countries,’ National Workshop on Drug Abuse Prevention, LNIN National Institute of Criminology and Forensic Sciences, New Delhi, 13 October 2009.

#### **Dr. Anju Dhawan**

‘Basics of Drug Abuse - Affects & Consequences,’ Training of Intelligence Officers of Narcotics Control Bureau. National Institute of Social Defence (NISD), New Delhi, 13 May, 2009.

‘Inhalant Abuse,’ Workshop on Capacity Building of Staff from NGOs, AIIMS, New Delhi, 18-19 April, 2009.

‘Inhalant Abuse and Dependence,’ Training by Trainers Programme, Sher-e-Kashmir Medical College, Srinagar, 27-30 April 2009.

‘Nicotine Dependence,’ Training by Trainers Programme, Sher-e-Kashmir Medical College, Srinagar, 27-30 April 2009.

‘Medical History Taking, Record Keeping and Documentation,’ Training Programme on Basics of Drug Abuse Prevention and Treatment for Nurses and Ward Boys, Society for Prevention for Youth & Masses (SYPM), New Delhi, 29 August 2009.

‘Intervention for Substance Use in Street Children,’ X Biennial Conference of the Indian Association for Child and Adolescent Mental Health, New Delhi, 25 November 2009.

‘Children Affected by Drug Abuse,’ Certificated Course on Social Defence, NISD, New Delhi, 11 November 2009.

## **National Conferences\Workshops\Symposium\Seminars\Training Programmes**

### **Dr. Rajat Ray**

‘Pharmaceutical Abuse in India,’ Organized by the United Nations Office on Drugs and Crime (UNODC), Hyderabad, 18 September 2009.

### **Dr. Raka Jain**

‘Tobacco Use: Relationship between Self-Report and Urinary Cotinine,’ (Jain R, Balhara YPS, Jhanjee S, Sethi H), Silver Jubilee Conference of the Indian Association for Social Psychiatry, Lucknow, 16-17 November 2009.

‘Neurobiological Basis of Nicotine Addiction: An Update,’ (Jain R, Chatterjee B), XXVII Annual Conference of Indian Academy of Neurosciences, Jaipur, 18-20 December, 2009.

### **Dr. Rakesh Lal**

‘Cost Analysis of Heroin Dependence Treatment,’ for the Annual National Conference of the 62<sup>nd</sup> Indian Psychiatric Society, Jaipur, 17-20 January 2009.

### **Dr. Anju Dhawan**

‘Children of Substance Abusing Parents - Issues and Concerns,’ Symposium on Children of Substance Abusing Parents, NDDTC, AIIMS, 13 April 2009.

### **Dr. Sonali Jhanjee**

Resource person for the Workshop entitled ‘Tobacco Control and De-Addiction – Issues and Challenges’ Organized by Indian Medical Association (IMA), WHO and MOH & FW, New Delhi, 26 June 2009.

‘Oral Substitution with Buprenorphine in a Community Mobile Clinic for Opioid Dependent Patients,’ (Jhanjee S, Sethi H), 62<sup>nd</sup> Annual National Conference of Indian Psychiatric Society, Jaipur, 17-20 January 2010.

### **Dr. Atul Ambekar**

‘Intravenous Drug Use and HIV in India: An Overview,’ Annual Conference of the Indian Association of Toxicology, Chandigarh, December 2009.

‘Inhalant Use among Street Children in Delhi: A Rapid Situation Assessment,’ X Biennial Conference of the Indian Association for Child and Adolescent Mental Health, New Delhi, November 2009.

‘Developing Addiction Psychiatry as a Super-speciality In India,’ 62<sup>nd</sup> Annual National Conference of Indian Psychiatric Society, Jaipur, January 2010.

‘Risk Assessment and Risk Management in Psychiatry: A Game of Probability and a Clinical Need,’ 62<sup>nd</sup> Annual National Conference of Indian Psychiatric Society, Jaipur, January 2010.

‘Nicotine Dependence,’ Training of Trainers Programme, Sher-e-Kashmir Medical College, Srinagar, 27-31 April 2009.

## International Conferences

### Dr. Rajat Ray

‘Who do I manage - Opioid Addiction?’ Symposium in Summit Psychiatry - 2009, Dubai; 10 June 2009.

‘Meeting of Experts on Community Action to Treat Alcohol Abuse and Alcoholism,’ Bangkok, Thailand; 22-23 April 2009.

‘Global Expert Meeting on Alcohol, Health and Society Development,’ Stockholm, Sweden; 22-25 September 2009.

‘Expert Meeting on a Project on E-health on Substance Abuse,’ Amsterdam, Netherlands; 14-16 October 2009.

‘Meeting of Introduction for Programme on Mandate of International Narcotics Central Board (INCB),’ Vienna, Amsterdam & Geneva; 7-16 December 2009.

‘Development of WHO Treatment Guidelines on Chronic Pain in Children,’ Bellagio, Italy; 22-26 March 2010.

### Dr. Raka Jain

‘Effects of Nitric Oxide Synthase Inhibitor on the Operant Decrement produced by Naloxone in Morphine Dependent Rats,’ 2<sup>nd</sup> Annual International Drug Abuse Research Society (IDARS) & International Society for Neurochemistry Satellite Meeting, Seoul, S. Korea; 17-21 August 2009.

### Dr. Anju Dhawan

‘Impact of Buprenorphine Maintenance Treatment on High Risk Injection and Sexual Behaviours of Opiate Users,’ International Harm Reduction Conference, Barcelona, Spain; 11-15 May 2009.

Country Profile - India,’ Meeting on TB, HIV and Drug Use by WHO, Kuala Lumpur, Malaysia; 9-11 December 2009.

### Dr. Sonali Jhanjee

‘Demographic and Clinical Characteristics of Opioid Drug Users in a Community Mobile Clinic,’ (Jhanjee S, Sethi H). Annual Meeting of the International Society of Addiction Medicine (ISAM), Calgary, Canada; 23-26 September 2009.

### Anita Chopra

‘Heavy Alcohol Drinking among the Elderly in India,’ (Chopra A, Dhawan A, Sethi H, Mohan D), 35<sup>th</sup> Annual Symposium of the Kettil Bruun Society, Copenhagen, Denmark; June 2009.

‘Heavy Alcohol Drinking among Males from Thrissur - A High Risk Group for Sexual Behaviours,’ (Chopra A, Dhawan A, Sethi H, Mohan D), 1<sup>st</sup> International Conference on Alcohol and HIV, Mumbai, India; 3 August 2009.

## RESEARCH

### Projects

#### Ongoing

Post Marketing Surveillance of Addnok-N (Combination of Buprenorphine and Naloxone). Rajat Ray & Meera Vaswani. Funded by Rusan Pharma (2007 – ongoing). Funds: Rs.10 lakhs.

Oral Substitution Treatment with Buprenorphine. Anju Dhawan, Raka Jain, Anita Chopra & Sonali Jhanjee. Funded by UNODC - Regional Office for South Asia (ROSA) (November 2005- ongoing). Funds: Rs.13 lakhs.

Database on Drug Abuse and HIV/AIDS. RS Tyagi, Anju Dhawan. Funded by UNODC-ROSA (2004 to 2009). Funds: Rs 10 lakhs.

Oral Substitution Treatment in Tihar Prisons. Sonali Jhanjee, Raka Jain, Hem Sethi. Funded by UNODC-ROSA (October. 2008 - ongoing). Funds: Rs. 50, 000.

Effectiveness of Yoga in Patients of Opiate Dependence. Anju Dhawan, Raka Jain, Deepak Yadav. Funded by AYUSH, MOH & FW (June 2009-2011). Funds: Rs 8 lakhs.

Molecular Genetics of Alcohol Dependence: Contribution of Polymorphisms in Dopaminergic and Serotonergic Pathway Genes. Meera Vaswani, Atul Ambekar, Funded by Indian Council for Medical Research (ICMR) (2008-2010). Funds: Rs. 15 lakhs.

#### Completed

Development of Intervention for Out-of-School Adolescents on Inhalant Abuse, Anju Dhawan, Atul Ambekar, Deepak Yadav, Anita Chopra. Funded by WHO (India) (2009). Funds: Rs. 3.87 lakhs.

Assessment of Substance Abuse in Out-of-school Adolescents. Rajat Ray, Anju Dhawan, Atul Ambekar, Deepak Yadav. Funded by WHO (India) (2009) Funds: Rs 4.2 lakhs.

Rapid Situation Assessment of Drug Use at Multiple Sites in India. Rajat Ray, Atul Ambekar, Rakesh Lal, Deepak Yadav, Anita Chopra, Hem Sethi. Funded by MOH & FW (2009).

### Departmental Research

Effect of Nitric Oxide Synthase Inhibitor L-NNA on Sensitization to the Operant Decrement Produced by Naloxone in Morphine Treated Rats. (2009-ongoing).

## PUBLICATIONS

### Journal

Jhanjee S, Balhara YP, Sethi H. Tobacco use pattern and severity of dependence in drug dependent patients. *Indian Journal of Psychiatry* 2009; **51**: S135.

Jhanjee S, Sethi H. Demographic and clinical characteristics of opiod drug users in a community mobile clinic. *Canadian Journal of Addiction Medicine* 2009; **1**: 23.

Lal R. The Drugs Control Act. *Current Medical Journal* 2009; 15: 43-4.

Lal R. Narcotic Drugs and Psychotropic Substances Act 2009. *Current Medical Journal* 2009; **15**: 18-20.



Mathers BM, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick RP, Myers B, Ambekar A, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. *Lancet* 2010; **375**: 1014-28.

Prasad P, Ambekar A, Vaswani M. Dopamine D2 receptor polymorphisms and susceptibility to alcohol dependence in Indian males: a preliminary study. *BMC Medical Genetics* 2010; **11**: 24.

Zolkowska, D. Jain R, Rothman RB, Partilla JS, Roth BL, Setola V, et al. Evidence for the involvement of dopamine transporters in behavioral stimulant effects of modafinil. *Journal of Pharmacology and Experimental Therapeutics* 2009; **329**: 738-46.

## Monographs

Ray R (Contributing Author). *Guidelines for the Psychosocially Assisted Pharmacological Treatment of Opioid Dependence*. Geneva: WHO, 2009.

Ambekar A, Tripathi BM. *HIV Vulnerability among Intravenous Drug Users, their Spouses and Children*. New Delhi: SPYM and Plan International; 2009.

Dhawan A, Malhotra S, Sharan P. *Report on Alcohol Use among Medical College Students in Kangra Medical College*. Report submitted to University Grants Commission as per the Directive of the Supreme Court of India, 2009.

Dhawan A, Chopra A. Capacity Building. In: Tripathi BM, Ambekar A (Eds.). *Manual on Minimum Standards of Care*. New Delhi: NDDTC (AIIMS), MOH & FW and WHO (India), 2009.

Dhawan A, Jain R, Chopra A. *Opioid Substitution: Buprenorphine in India*. New Delhi: UNODC (ROSA), 2010.

Lal R, Ambekar A (Eds.). *Substance Abuse Treatment – Manual for Paramedical Staff*. New Delhi: NDDTC (AIIMS), WHO (India) and MOH&FW, 2009.

## 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 Sundar Nagri Mobile Clinic (New & Old)	:	63663
5. Admission	:	957
6. Discharges	:	964
7. Average % of Bed Occupancy	:	57%

<b>OPD &amp; Specialty Clinics Attendance</b>	<b>New Cases</b>	<b>Old Cases</b>	<b>Total</b>
<b>General OPD:</b>	2966	30482	33448
<b>Specialty Clinics</b>			
a) Tobacco Use Cessation Clinic:	23	768	791
b) Adolescent Clinic:	33	39	72
c) Dual Diagnosis Clinic:	23	236	259
<b>A) Total (OPD):</b>	045	31525	<b>34570</b>
<b>B) Trilokpuri Community Clinic:</b>	151	20250	<b>20401</b>
<b>C) Sundar Nagri Mobile Clinic</b>	24	8668	<b>8692</b>
<b>Grand Total A+B+C</b>	<b>3220</b>	<b>60443</b>	<b>63663</b>

#### **Laboratory Investigations for Patient Care**

a) Total number of drugs of abuse urine samples screened for: 20733

<b>Drugs</b>	<b>Nos.</b>
Morphine :	2673
Codeine:	2398
Buprenorphine:	2398
Dextropropoxyphene:	2398
Pentazocine:	75
Naltrexone:	64
Naloxone:	316
Pheniramine (Avil):	2398
Nitrazepam:	2508
Diazepam:	2508
Chlordiazepoxide:	2508
Canabinoids:	189
Cotinine	300
<b>b) Biochemical investigations:</b>	19739
<b>c) Hematological investigations:</b>	5109
<b>d) HIV screening:</b>	340

#### **AWARDS AND HONOURS AND SIGNIFICANT EVENTS**

**Dr. Rajat Ray** was nominated by the World Health Organization as member of the International Narcotics Control Board. He delivered the NN De Oration at the Silver Jubilee Annual Conference

of Indian Association for Social Psychiatry at Lucknow (November, 2009). He also organized a programme entitled 'Alcohol Use Disorders among Employees' at Assam Oil Division of the Indian Oil Corporation Limited, Digboi, Assam. He is the member of the Research Advisory Committee of the National Institute of Social Defence, Ministry of Social Justice & Empowerment. He is also the Head and Member of the expert group to finalize the National Policy on Prevention of Alcoholism and Substance Abuse and Rehabilitation for the Ministry of Social Justice and Empowerment.

**Dr. Raka Jain** is a member of the Technical Advisory Committee for Tobacco Testing Laboratories in India under the Directorate General Health Services. She coordinated an 8-week training course on 'Forensic Toxicology, Narcotic and Psychotropic Substances' for a WHO Fellow from Myanmar.

**Dr. Rakesh Lal** attended a WHO meeting of experts on 'Community Action to Reduce Harm from Alcohol Use' held in Bangkok, Thailand (22-23 April, 2009) and the Indo-Swede meeting on 'Alcohol Policy in India' at National Institute of Health and Family Welfare, New Delhi, (2 February 2010). He participated in discussion with 'Human Rights' group representatives regarding availability of narcotic medicines for patients (February, 2010). He is on the Interview panel of UNODC-ROSA for recruitment. He was a resource person for various training programmes for physicians, nurses and paramedical staff held in various states of the country.

**Dr. Anju Dhawan** prepared a Report on 'Alcohol Use among Medical College Students of Kangra Medical College' on the directive of the Supreme Court. She also represented the NDDTC, AIIMS at the NACEN meeting to finalize the curriculum for a joint training programme on supply and demand reduction on 2<sup>nd</sup> May 2009. On behalf of the NDDTC, AIIMS, she also participated in a Delphi study for updating the WHO policy guidelines on achieving Balance in National Opioid Control Policies.

**Dr. Sonali Jhanjee** was a resource person for a '3-month Certificate Course on De-addiction Counselling and Rehabilitation' organized by NISD, New Delhi (8<sup>th</sup> October, 2009) and a course on 'Oral Substitution Treatment (OST) in the Prison Setting' at Tihar Jail, New Delhi (19<sup>th</sup> November 2009).

**Dr. Atul Ambekar** is a member of the Technical Support Group on IDU for National AIDS Control Organisation (NACO), and of the Global Reference Group on HIV and IDU. He was a resource person for various training programmes for physicians, held in various states of the country.

The centre has coordinated and carried out many activities under the **WHO Biennium Grant (2008-09) as a part of National Drug Abuse Control Programme** (R Ray, Late BM Tripathi, R Lal, A Dhawan, A Ambekar, D Yadav). Funded by WHO (India) for 2 years (2008 to 2009). Funds: Rs 27.5 lakh

- Development of Minimum Standards of Care for Drug Users (Rs. 1.3 lakhs)
- Symposium on Alcohol: Revisiting the Current Situation & Planning Ahead (Rs. 3.7 lakhs)
- Training Programme on Agonist Maintenance Programme for Substance Use Disorders (Rs. 4.12 lakhs)
- Agonist Maintenance - Training Workshops – 2 ( [RIMS] & AIIMS)
- Managing of Alcohol and drug Dependence in Primary Care Settings - A Demonstration Project (Rs. 5 lakhs)

- Assessment of Substance Abuse in Out-of-School Adolescents (Rs .8 lakhs)
- Development of Intervention in Out-of-School Adolescents (Rs. 3.9 lakhs)
- District Based Drug Abuse Monitoring System
- Training of Trainers on Substance Abuse at RIMS and Sher-e-Kashmir Medical College (Rs. 2.01 lakhs)

The faculty of the centre acted as resource persons in various training programmes:

- For staff from government hospitals on agonist maintenance, Imphal, April 2009 (R. Lal, A. Ambekar).
- For doctors on substance use, Bilaspur, Chattisgarh, October 2009 (R. Lal, A. Ambekar).
- Training Programme for Targeted Intervention (TI) - NGOs (under NACO) in Gujrat & Rajasthan (Vadodra, August 2009), Uttranchal (Dehradun, September 2009), Delhi (October 2009), Kerala (Trivandrum, December 2009) (A. Ambekar).
- For physicians, nursing personnel and paramedical staff under Community Pilot Project for Goa (Moregaon, May, 2009) and Chattisgarh (August 2009) (R. Lal).
- Three months certificate course on ‘De-addiction Counselling and Rehabilitation’ organized by NISD, New Delhi, October, 2009 (Dr. S. Jhanjee).
- Training on oral substitution treatment (OST) in the prison setting, New Delhi, 19 November 2009 (Dr. S. Jhanjee).

### **Other Significant Events**

- Visit by Ms. Cristina Albertin, Representative of UNODC, (ROSA) to NDDTC and Trilok Puri Community Clinic, 8 May 2009.
- Visit by Dr .JS Thakur, National Professional Officer and Cluster Focal Point, Non-Communicable Diseases and Social Determinants and Health, WHO (India), to NDDTC, 14 May 2009.
- Public Programme as a participatory activity in the ‘International Day against Drug Abuse and Illicit Trafficking’ organized by the Government of National Capital Territory, at NDDTC, AIIMS, 26 June 2009.
- Programme to manage “Alcohol Use Disorder among Employees of Assam Oil Division, IOCL”, Digboi, Assam.

## 10.3 Centre for Dental Education and Research

### Professor and Chief

Naseem Shah

### Professor

O.P. Kharbanda

### Associate Professor

Ajoy Roychoudhury

Veena Jain

Ritu Duggal  
Ongkila Bhutia

## EDUCTAION

### Under Graduate

The Centre conducted the teaching programme of MBBS undergraduate students during their clinical posting.

### Post Graduate

The Centre is conducting Postgraduate programmes in four specialties namely, Orthodontics, Prosthodontics, Endodontics cum Conservative Dentistry and Oral and Maxillofacial Surgery.

**Short Term Training** – Total 45; WHO- 2, BSF- 4

## CONTINUING MEDICAL EDUCATION

### CME

#### Organized by the department

1. SAARC Orthodontic Convention' 09, AIIMS, New Delhi Subsection B: Lectures delivered by departmental faculty, residents and staff (only in CME programmes)
1. Organized a CDE in collaboration with Endo Group on “Revo S rotary file system” Dr. Martine Guigand from France gave a scientific lecture and demonstrated the new rotary system of root canal instrumentation system at CDER on 20<sup>th</sup> March, 2010
2. Co-hosted a CDE course entitled “Multi-speciality Dentistry – The road ahead” in collaboration with University of Detroit-Mercy, School of Dentistry, USA and SGT Dental College, Gurgaon on 21<sup>st</sup> March, 2010
3. A CME was organized by the Department of Orthodontics on 25-3-2010 at CDER.
4. Conducted a CME on “Full Mouth Rehabilitation: Enigma Simplified” during 11th National Post Graduate Student Convention of Indian Prosthodontic Society from 26<sup>th</sup> – 1<sup>st</sup> March 2009 at New Delhi.
5. Faculty from the Centre conducted three days AO Cranio-maxillofacial (CME) course in Nigeria, May 2009.

## National and International Conferences

### Lectures delivered

#### Professor Naseem Shah

- Was an invited speaker at French Endodontic Society's meeting held at Arcachon, Bourdoux, France in June, 2009. Gave a lecture on "Management of anterior immature, traumatized teeth"
- Presented paper on "Bioseal: A novel, non-obturation technique of Endodontic treatment" at the 2<sup>nd</sup> meeting of Pan Asian Pacific Federation (PAPE) and the 1<sup>st</sup> meeting of the International Association of Dental Research (IADR) Asia/Pacific Region (APR) held from 22<sup>nd</sup> to 24<sup>th</sup> Sept. 2009 at Wuhan, China.

#### Professor O.P. Kharbanda

- As a visiting professor gave a lecture on "Interdisciplinary management of Cleft Lip and Palate functional jaw orthopedics, intra-oral molar distilization" at University of Connecticut, USA on 28<sup>th</sup> and 29<sup>th</sup> April, 2009
- Gave a lecture on "Functional jaw orthopedics and intraoral molar distilization" at University of Western Australia (Perth) on 4<sup>th</sup> September, 2009.
- As a visiting professor gave a lecture on "Functional jaw orthopedics and intraoral molar distilization" at the Department of Orthodontics, Faculty of Dentistry, University of Sydney on 7<sup>th</sup> & 8<sup>th</sup> September, 2009
- Gave a lecture on "Interdisciplinary treatment of CLP" at University of Western Australia (Perth) on 1-2<sup>nd</sup> February, 2010
- Invited Keynote Speaker on "Orthodontic Education in India" during 7<sup>th</sup> International Orthodontic Congress of World Federation of Orthodontists, Sydney from 6<sup>th</sup> to 9<sup>th</sup> February, 2010
- Invited Keynote Speaker on "Holistc Approach in the Management of CLP" during 7<sup>th</sup> International Orthodontic Congress of World Federation of Orthodontists, Sydney from 6<sup>th</sup> to 9<sup>th</sup> February, 2010

#### Dr. Veena Jain

- Presented a paper on "effect of different design preparation on flexural & fracture strength of fixed partial denture" during FDI Annual World Dental Congress in Singapore 2<sup>nd</sup> -5<sup>th</sup> September 2009.

#### Dr. Vijay P. Mathur

- Gave an invited talk on "Update on Primary Preventive Dentistry in India" during FDI- Public Health Section Meeting in Singapore held on 2-5 September 2009

#### Dr. Ajay Logani

- Presented a paper on "Endodontic Oddities" at 31<sup>st</sup> Asia Pacific Dental Congress Hong Kong, China 7<sup>th</sup> -11<sup>th</sup> May, 2009

## National conferences

### Prof. Naseem Shah

1. Gave a talk on “Tissue engineering for healing of pulp and periapical diseases” during 22<sup>nd</sup> National Conference of ISDR held on 5<sup>th</sup> & 6<sup>th</sup> Dec. 2009 at Ahmedabad.
2. Guest speaker at the symposium on the “Dental Management of Patients with Special Needs” organized on 10<sup>th</sup> Nov. 2009 at Subharti Dental College, Meerut.
3. Attended and gave a talk on “Treatment of traumatized immature anterior teeth- conventional to regenerative endodontics approach” during 10<sup>th</sup> FODI & IES post graduate student convention at NEIGRIHMS, Shillong, Meghalaya from 29<sup>th</sup> to 30<sup>th</sup> May, 2009.
4. Delivered a lecture on “Controlling Endodontic infections” at the CDE jointly organized by CDER, AIIMS with SGT Dental College, Gurgaon and Detroit-Mercy College, USA on 21<sup>st</sup> March, 2010 at AIIMS.
5. Presented a paper on “Tissue engineering for Pulp-Dentin regeneration” during International symposium “Stem Cell Potentials in Renal Repairs and Regeneration” on 7<sup>th</sup> Dec., 2009 at AIIMS.

### Prof. O.P. Kharbanda

1. Delivered a guest lecture on “Non Extraction: Intra oral molar distalisation” at Andhra Pradesh Orthodontic Study Group of Indian Orthodontic Society at Hyderabad on 5<sup>th</sup> April, 2009.
2. Delivered a guest lecture on “Orthodontic miniscrew” at Meerut Orthodontic Study Group of Indian Orthodontic Society at Meerut on 6<sup>th</sup> April, 2009.
3. Invited as a Chief Guest delivered lecture on “Orthodontic Implants” at Calcutta Orthodontic Study Group of Indian Orthodontic Society at Calcutta on 7<sup>th</sup> June, 2009
4. Delivered a invited talk on “Orthodontic aspects of Cleft, Lip and Palate” at symposium on cleft Lip Nose Deformity at Lucknow on 4<sup>th</sup> July, 2009.
5. Delivered a invited talk on “Orthodontic miniscrew” at Orthodontic CME of Kanpur Orthodontic Study Group of Indian Orthodontic Society at Kanpur on 5<sup>th</sup> July, 2009.
6. Invited Moderator to workshop on Oral Health Research Methodology “Research Problems and Writing research questions” “Expanding on the research idea: Literature search and Review of Literature”, Types of Study design Observational (cross-sectional, case control, cohort) interventional”
  - i. organized by Indian Council of Medical Research at Maharishi
  - ii. Markendshwar University, Ambala from 24<sup>th</sup> to 25<sup>th</sup> August, 2009
7. Delivered a guest lecture on “Implant Supported management of severe malocclusions” at symposium of Goa Orthodontic Study Group – “Ortho Fineness” on 1<sup>st</sup> October, 2009 at Goa
8. Delivered a invited talk on “Expanding vistas in Orthodontics: What a dental surgeon should know?” at 63<sup>rd</sup> Indian Dental Conference 2010 at Chennai from 12<sup>th</sup> to 14<sup>th</sup> February, 2010-



### **Dr. A. Roychoudhury**

1. Gave an invited talk on “Principles of osteosynthesis” and “lateral body and angle fracture of mandible” during AO CMF principles course at Mumbai May 2009.

### **Dr. Vijay P. Mathur**

1. Chaired a Free Paper session during the “63<sup>rd</sup> Indian Dental Conference” held at Chennai in February 2010
2. Gave an invited talk on “The concept of Indian Dental Association- Tobacco Intervention Initiative” during the Indian Dental Association –
3. National Planning meeting held on 12<sup>th</sup> December 2009 at Mumbai.
4. Gave an invited talk on “Introduction to Tobacco Intervention Initiative” during the President Secretary Workshop organized by Indian Dental Association Head Office at Mumbai on 27<sup>th</sup> February 2010.
5. Delivered a Guest lecture on “Oral Health Research in India: Changing Paradigm” during the Indian Society of Pedodontics and Preventive Dentistry PG Convention held in March 2010 at Udaipur Rajasthan
6. Participated as a national coordinator during the Indian Society of Pedodontics and Preventive Dentistry Conference 2009 held at ITS Dental College and Hospital, Murad Nagar on 12-14 November 2009.

### **Dr. Ajay Logani**

1. Presented a paper on “Radio Opaque Metrogyl Collagen Barrier for Long Standing Perforation Repair with MTA- A Clinical Presentation” at the National Conference of Indian Endodontic Society in November 2009, Cochin, Kerala.
2. Presented a paper on “Mineral Trioxide Aggregate – A Wonder material for 21st century Endodontics” at 63<sup>rd</sup> Indian Dental Congress, Chennai February 2010
3. Presented a paper on management of endodontic infections at CDE on Multi Specialty Dentistry- The Road Ahead. 21<sup>st</sup> March 2010, CDER, AIIMS

### **Pruthi G**

1. **Won best paper award** “Different methods to fabricate orbital prosthesis- case report” during 11<sup>th</sup> National convention of Prosthodontics Post Graduate Students from 26<sup>th</sup> Feb – 1<sup>st</sup> March 2009 at New Delhi
2. **Won best paper award** “A Gonio-reflectometer study to evaluate effect of bleaching on composite restoration” during 36<sup>th</sup> Indian Prosthodontic Society Conference from 4<sup>th</sup> – 9<sup>th</sup> Nov 2008 at Thrissur, Kerala

### **Arora N**

1. **Won best paper award.**” Hybrid oral and facial prosthesis for a patient with bilateral total maxillectomy and soft tissue defect- A case report” during 36<sup>th</sup> Indian Prosthodontic Society Conference from 4<sup>th</sup> – 9<sup>th</sup> Nov 2008 at Thrissur, Kerala.

### **Bizenia P**

1. **Won best poster award title** “Feeding obturator- boon for infants” during 36<sup>th</sup> Indian Prosthodontic Society Conference from 4<sup>th</sup> – 9<sup>th</sup> Nov 2008 at Thrissur, Kerala

### **Mankar M**

1. “Neuromuscular Adaptations following Twin Block & A phase of Fixed Appliance Therapy” during 14<sup>th</sup> IOS Post Graduate Students’ Convention, from 21<sup>st</sup> to 25<sup>th</sup> January, 2010 at Chennai.

### **Chaudhary P**

1. Poster presentation “Early treatment of Class III malocclusion, is it worth The burden. When to start”? during 14<sup>th</sup> IOS Post Graduate Students’ Convention, from 21<sup>st</sup> to 25<sup>th</sup> January, 2010 at Chennai

### **Dharma U**

1. “Unexplained pain in endodontics – A diagnostic dilemma” during 10th National FODI & IES postgraduate students’ convention, May 2009, Shillong

### **Dr. Dharmani Umesh**

1. “Can infection of primary teeth lead to formation of dentigerous cyst in permanent teeth? A case report” during the National Conference of Federation of Operative dentistry of India (FODI) & Indian Endodontic Society (IES) November 2009, Cochin, Kerala.

### **Gupta A**

1. “Effect of metal primer on bond strength of composite resin in cavities previously restored with amalgam: An in-vitro study” during 10th National FODI & IES postgraduate students’ convention, May 2009, Shillong.

### **Bhushan S**

- 1 "Effect of prepolymers composite megafillers on the marginal adaptation of composite restoration in cavities with different C –factors – An ex-vivo study” during FODI & IES National Conference November 2009, Cochin, Kerala
2. “Atypical Odontalgia – An endodontic enigma” during 22<sup>nd</sup> ISDR National Conference December 2009 Ahmedabad, Gujarat.

### **Mishra N**

1. “Tooth Wear can it be Quantified?” during FODI & IES National Conference November 2009, Cochin, Kerala.

### **Jhadav G**

- 1 "Probiotics – Prescription engineered by nature” during 22<sup>nd</sup> ISDR National Conference December 2009 Ahmedabad, Gujarat.

### **Yadav R**

- 1 "Effect of distraction osteogenesis in the blood oxygen saturation level in retrogenia patient” during Association of Oral and Maxillofacial Surgeons of India conference at Kochi in November 2009.

## **Kumar L**

1. "Facial nerve morbidity in the management of mandibular condyle neck and subcondylar fracture through retromandibular transparotid approach: a prospective clinical study" during Association of Oral and Maxillofacial Surgeons of India conference at Kochi November 2009.

## **Arya S**

1. "Study of efficacy of bioresorbable plates in the osteosynthesis of mandibular fractures without postoperative maxillomandibular fixation: a prospective study" during Association of Oral and Maxillofacial Surgeons of India conference at Kochi November 2009.

## **Rustagi A**

1. "Finite element study for reconstruction plate" during Association of Oral and Maxillofacial Surgeons of India conference at Kochi, November 2009.

## **RESEARCH**

1. Detection of apoptosis in human periodontal ligament during orthodontic

### **Tooth movement**

Total funding – 2.6 lacs

Funding agency: ICMR

Duration – 2 years and 5 months (2007-2009)

2. To develop an indigenous bite force measuring appliance and to test in patients with different clinical conditions

Investigators: Dr. Veena Jain and Dr. Vijay P Mathur

Funding Agency – Dept of Biotechnology

Starting year - 2007

End year -2009

Total funding – 7.82 lacs

Duration – 2 years (2007-2009)

3. Oral health status of drug-addicts attending a de-addiction centre" year 2008

Investigators: Dr. Naseem Shah and Dr. Vijay P Mathur

Funding Agency – Intramural (None)

Duration – 1 year (2008-2009)

4. To frame policy guidelines for Oral Health Promotion and Interventions for Handicapped Population

Investigators: Dr. Naseem Shah, Dr. Vijay P Mathur and Dr. Ajay Logani

Funding Agency – GOI- WHO Collaborative Programme

Total Funding 2.05 lacs

Duration – 1 year (2008-2009)

## Ongoing

1. Finite element study to analyze the stress distribution in human mandible following twin block therapy  
Investigators: Dr. Ritu Duggal, Dr. Raju Sharma (Dept. of Radiology)  
Funding agency; ICMR  
Duration: 2 years
2. “Micro implant generated stress on maxilla: Effect of design and placement protocols”  
Principle Investigator- Dr. O.P. Kharbanda  
Funding Agency - ICMR  
Total funding - 6,74,006 INR (1<sup>st</sup> year)  
Duration - Two years (2009-2011)
3. “Development of indigenous software for cephalometric tracing”  
Principle Investigator- Dr. O.P. Kharbanda  
Funding Agency - ICMR  
Total funding - 3, 56,000 INR  
Duration - One year ( 2009-2010)
4. Assessment of Safety Profile for Dental Procedures in India  
Investigators : Dr. Ritu Duggal and Dr. Vijay P Mathur  
Funding Agency – Ministry of Health and Family Welfare, GOI  
Total funding – 65.23 lacs  
Duration – 2 years (extended by 8 months) (2008-2010)
5. Age estimation in living adults based on aspartic acid racemization from tooth biopsy specimen.  
Principal Investigator: Dr. Ajay Logani  
Co-investigators: Prof. Naseem Shah, Dr. Veena Jain  
DBT funded project  
Total funding – 18.8 lacs      Duration – 2 years
6. The prevalence and severity of non carious cervical lesions (NCCLs) and its relationship with potential risk factors in urban India: A community based study  
Guide: Dr. Ajay Logani  
Co Guide: Prof.Naseem Shah, Dr.Baridalyne Nongkynrih, Dr. Anil Goswami  
ICMR Funded Project  
Total funding – 2.4 lacs  
Duration – one year

## **Departmental Research**

1. Equivalence randomized controlled trial of bioresorbable plates and titanium plates in The osteosynthesis of mandibular fracture: A pilot study
2. An Evaluation of restoration of lost vertical on EMG activity of masseter and temporalis muscle in patients with generalized attrition of teeth.
3. An in- vitro pilot study to evaluate the effect of incorporation of sapphire (Ceramic) whiskers and silver fillers on the thermal and mechanical properties of Denture base resins
4. An in vitro comparative evaluation of marginal adaptation and fracture resistance of fiber-reinforced and all – ceramic crowns.
5. Lamotrigine Vs Pregabalin in the management of trigeminal neuralgia refractory to Carbamazepine: an open label, randomized active-comparator controlled crossover Trial
6. Organization and functioning of Centre for Dental Education and Research at AIIMS. (In collaboration with Department of Hospital Administration - MHA student from IIHMR, Jaipur)

## **Ongoing**

1. Speech analysis in maxillectomy patients with full bulb and reduce bulb height of hollow bulb obturator.
2. Effect of the stability and crestal bone level in early loaded implants with different occlusal schemes – A pilot study.
3. A comparative study to measure the condylar guidance by the radiographic and clinical methods.
4. Effectiveness of mandibular advancement appliance in patients with obstructive sleep apnoea and associated changes in oropharyngeal structures – A pilot study
5. Facial nerve morbidity in the management of mandibular condyle neck and subcondylar fracture through retromandibular transparotid approach: a prospective clinical study
6. .Effect of distraction osteogenesis in the blood oxygen saturation level in retrogenia patient.
7. Dentin non-collagenous proteins in gingival crevicular fluid as diagnostic and prognostic biomarkers in trauma induced root resorption - A pilot clinical study-2009.
8. Study of efficacy of bioresorbable plates in the osteosynthesis of mandibular fractures without postoperative maxillomandibular fixation:a prospective study
9. Epidemiology study in the pathway of maxillofacial fracture seen at tertiary care hospital in north India.

## **PUBLICATIONS**

1. Shah N. Teaching, learning, and assessment in geriatric dentistry: researching models of practice. J Dent Educ. Jan 2010; 74(1):20-8.
2. Logani A, Singh A, Singla M, Shah N. Labial access opening in mandibular anterior teeth: an alternative approach to success. Quint Int. 2009; 40(7):597-602

3. Singla M, Aggarwal V, Logani A and Shah N. Comparative evaluation of rotary ProTaper, Profile, and conventional step back technique on reduction in *Enterococcus faecalis* colony-forming units and vertical root fracture resistance of root canals. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2010; 109:e105- e110
4. Roychoudhury A, Rustagi A, Bhatt K, Bhutia O, Seith A. Aneurysmal Bone Cyst of the mandible: report of 3 cases. J Oral Maxillofac Surg 2009; 67:1996-2004.
5. Matta A, Tripathi SC, DeSouza LV, Grigull J, Kaur J, Chauhan SS, Srivastava A, Thakar A, Shukla NK, Duggal R, Datta Gupta S, Ralhan R, Michael Siu KW. Heterogeneous ribonucleoprotein K is a marker of oral leukoplakia and correlates with poor prognosis of squamous cell carcinoma. Int J Cancer. 2009 Sep 15; 125(6):1398-406.

### Books

1. Shah N, Mathur VP, Logani A. Guidelines for Oral Health Promotion and Intervention for Disabled Population. Report of GOI-WHO India Project, 2009
2. Rahmatulla M and Shah N. (Ed) "Research priorities for meeting oral health goals in developing countries" Indian Society for Dental Research (ISDR) International Association for Dental Research (IADR) (Indian Section) Indian Academy for Advanced Dental Education. 2009
3. Kharbanda OP, "Diagnosis and Management of Malocclusion and Dentofacial Deformities" First Edition 2009. Pages 562. Elsevier ISBN: 978-81-312-1568-5.

### AWARDS AND HONOURS

1. **Prof. Naseem Shah** was invited by French Endodontic society to deliver a Guest lecture at their Annual Conference at Arcachon, France on 26-27<sup>th</sup> June, 2009. She chaired a scientific session at Pan-Asia Pacific Federation of International Association of Dental research at Wuhan, China on 22-24<sup>th</sup> September, 2009. She was also an invited speaker at International symposium "Stem Cell Potentials in Renal Repairs and Regeneration" on 7<sup>th</sup> Dec. 2009 at AIIMS, 22<sup>nd</sup> National Conference of ISDR held on 5<sup>th</sup> & 6<sup>th</sup> Dec. 2009 at Ahmedabad, at Subharti Dental College, Meerut in a symposium on "Dental Management of Patients with Special Needs" on 10<sup>th</sup> Nov. 2009 and at 10<sup>th</sup> FODI & IES post graduate students' convention at NEIGRIHMS, Shillong, Meghalaya from 29<sup>th</sup> to 30<sup>th</sup> May, 2009.
2. **Prof. Kharbanda** was invited as "Visiting Professor" to give lectures and research discussion at the Department of Orthodontics, Dental School Connecticut, Connecticut, USA from 28<sup>th</sup> to 29<sup>th</sup> April, 2009. He was Keynote Speaker at 7<sup>th</sup> International Orthodontic Congress of World Federation of Orthodontists, Sydney from 6<sup>th</sup> to 9<sup>th</sup> February, 2010. He visited Perth (Australia) as "Visiting Professor" to deliver lectures to the Postgraduates on 1<sup>st</sup> & 2<sup>nd</sup> February, 2010. He chaired a scientific sessions and was invited Guest Speaker to 1<sup>st</sup> AEEDC International Orthodontic meeting held at Dubai on 7<sup>th</sup> - 8<sup>th</sup> March, 2010. He completed tenure as President of the Indian Orthodontic Society Nov, 2009 and took over as President of the Indian Society for Cleft Lip Palate and Craniofacial Anomalies in Feb. 2009. He continues to be on the International Editorial Board of the American Journal of Orthodontics and Dentofacial Orthopedics, British Journal of Orthodontics and Australian Orthodontic Journal besides Co- Editor of the J of Clinical Paediatric Dentistry, and on board J of Indian Orthodontic Society and J Pierre Fauchard Academy. He was honored

with fellowship of International College of continuing Education of Asian Pacific Dental Federation. He was the Chairman of Scientific Committee of the 44<sup>th</sup> Indian Orthodontic Conference held at New Delhi from 5<sup>th</sup> to 8<sup>th</sup> November, 2009.

3. **Dr. Ritu Duggal** was appointed as the Dental Council Inspector for approval of M.D.S courses at various Dental colleges by DCI. She was active organizer in the SAARC Orthodontic Conference (3<sup>rd</sup> to 4<sup>th</sup> August 2009) New Delhi.
4. **Dr. Ajoy Roychoudhury** was appointed as an international faculty for AO CMF course held in Nigeria, May 2009. Was invited faculty at Asia Pacific AO Faculty board meeting held on Aug.2009 at Ho-chi Minh city, Vietnam. He was appointed as Dental Council Inspector for approval of M.D.S courses at 10 various dental colleges in the country by DCI. Is member of technical committee for Pradhan Mantri Swasthya Yagna (Dental Surgeon)
5. **Dr. Veena Jain** was appointed as an expert to conduct the interview for the post of Assistant professor in the specialty of Prosthodontics at Pandit Bhagwat Dayal Sharma University of Health Sciences Rohtak on 10.08.09. She was member of the selection board for selection of Senior residents (Dental) at Maulana Azad Institute of Dental Sciences on 25.6. 09. She was appointed as honorary member of the PG board of studies in dental sciences at MGPGIDSc. Govt of Puducherry, for three years i.e. till 30.06. 2012.
6. **Dr. Vijay P. Mathur** was awarded travel grant from Department of Science and Technology, Govt of India for attending FDI World Dental Congress at Singapore on 2-5 September 2009. He is elected as executive member of Indian Dental Association- Delhi State Branch and South Delhi Branch for year 2009-10.

## SIGNIFICANT EVENTS

1. **Prof. Naseem Shah** participated in the Pan-Asia Pacific **Federation of International Association of Dental research** at was appointed as member of the postgraduate board of studies in Operative Dentistry and Endodontic, Maharishi Dayanand University, Rohtak, Haryana and member of expert group meeting on “Tobacco Cessation” at Vallabhabhai Patel Chest Institute, University of Delhi, Oct. 22<sup>nd</sup> -23<sup>rd</sup> Oct. 2009. She was expert member of Technical Standard Committee on Dental, Ministry of Health & Family Welfare, Govt. of India and of Selection Committee to conduct interview for the post of Professor/Assist. Professor/ Lecturer at MGPGI, Puducherry. She is appointed as technical expert for evaluation of Extra-mural projects, ICMR. She was external examiner in Conservative Dentistry & Endodontics, May 2009 at Govt. Dental College, Maharishi Dayanand University, Rohtak. She was appointed as expert member in the Dentistry for the selection of candidate for the award of Common wealth scholar ship/Fellowship 2010 offered by the Government of United Kingdom-Dec. 2009. She gave an interview on “stem cell technique” on Parasar Bharati Broadcasting corporation of India, National Channel: All India Radio on 30<sup>th</sup> Dec. 2009 and on “Stem Cell Treatment in Dentistry” on 21<sup>st</sup> Dec. 2009 on Sahara & Aaj Tak TV. She gave an interview on “stem cell in dental regeneration” which was published in “Bio-spectrum - Asia” in December, 2009. She was invited by the Jammu & Kashmir Public Service Commission to conduct the interview for the posts of Lectures/B-Grade Specialists in Dentistry on 29<sup>th</sup> Dec. 09 at Jammu.



2. **Prof. Kharbanda** was invited as an expert to review and finalize the Handbook and Facilitator's Guide on Medical Ethics, Dhaka, Bangladesh from 27<sup>th</sup> to 30<sup>th</sup> October, 2009 at Dhaka (Bangladesh). He was invited by ICMR to attend the meeting of Manpower Development Division – Scientific Advisory Committee meeting held on 17<sup>th</sup> November 2009 and meeting of “Task Force on Bioengineering” on 23<sup>rd</sup> November, 2009 at DBT, New Delhi. He was also invited to attend the meeting of Board of Studies in Dental Surgery at Dr. H.S. Judge Institute of Dental Science & Hospital, P.U., Chandigarh on 30<sup>th</sup> November, 2009. He was nominated as a Member-Expert of the Selection Committee meeting of Commonwealth Scholarship/Fellowship Plan, 2010 in the subject field of Dentistry held on 17<sup>th</sup> December, 2009. He was invited to serve as an Expert member of the Selection Committee meeting to interview for the post of Sr. Lecturers in Orthodontics in the office of Vice Chancellor, Punjab University, Chandigarh on 15<sup>th</sup> January, 2010 and also invited as a member of the Selection Committee to interview for the post of Professor in Orthodontics in the office of Vice Chancellor, Punjab University, Chandigarh. He gave a invited talk on “Advance Technology of Dental Care” at Doordarshan Bhawan, Mandi House, New Delhi on 8-1-2010. He was appointed as a member of the Inspection Committee to consider the request of Maulana Azad Institute of Dental Sciences for affiliation with the Delhi University on 25<sup>th</sup> February, 2010 at MAIDS, MAMC Complex, New Delhi. He has been invited as a Visiting Professor at the Department of Orthodontics, Dental School, University of Connecticut, Connecticut USA. He is first Indian to have been conferred with the honour to serve Co-Chair Scientific committee of the 7<sup>th</sup> International Orthodontic Conference organised by the World Federation of Orthodontists to be held in Sydney 2010 where he has also been invited as a Key Note speaker. He served as an Executive Committee Member of the Asian Pacific Orthodontic Society and represented India to whereby he was instrumental successfully confirming Asian Pacific Conference at Delhi to be held in 2012. He was invited by ICMR as subject expert to review the research projects in the field of Oral Health and Advisory Committee to the research grant to the postgraduates. He served Department of Biotechnology as an expert in the field of Biomedical Engineering.
3. **Dr. Ritu Duggal** conducted 9 Training Workshops for senior and junior dental investigators for unified methods of data collection under the project entitled “Assessment of Safety Profile for Dental Procedures in India” and coordinated data collection in more than 800 districts across the country.
4. **Dr. Ajoy Roychoudhury** gave a T.V talk on Healthy India on Dental Health at Lok Sabha T.V. September 2009.
5. **Dr. Vijay P Mathur** attended a training programme in “Introduction to Ethics of Human Subjects Research” and “Introduction to Biostatistics” conducted jointly by Johns Hopkins University and SGPGI, Lucknow. Organized 9 Training Workshops for Senior and Junior Dental Investigators for unified methods of data collection under the project entitled “Assessment of Safety Profile for Dental Procedures in India” and coordinated data collection in more than 800 districts across the country.

## **VISITING SCIENTISTS**

Dr. Ravi Nanda Head Craniofacial Sciences, Dental School University of Connecticut CT, USA.

Delegation from SAARC countries

Delegation from University of Sydney, Australia

Dr. Celia Porter from USA

Dr. Martine Guigand from Faculty of Dentistry, University of Reims, France

## 10.4 Dr. B.R. Ambedkar Institute Rotary Cancer Hospital

### Professor and Chief

G.K. Rath(Radiation Oncology)

### Professors

P.K. Julka  
(Radiation Oncology)  
Subhash Chander  
(Radiation Oncology)

N.K. Shukla  
(Surgical Oncology)  
Rajive Kumar  
(Laboratory Oncology)  
Lalit Kumar  
(Medical Oncology)

Vinod Raina  
(Medical Oncology)  
B.K. Mohanti  
(Radiation Oncology)

### Additional Professor

Sidhartha Satpathy  
(Hospital Administration)

### Associate Professors

S.V.S. Deo  
(Surgical Oncology)

Sanjay Thulkar  
(Radiodiagnosis)

Sushma Bhatnagar  
(Anaesthesiology)

Atul Sharma  
(Medical Oncology)

Sameer Bakhshi  
(Medical Oncology)

Pratik Kumar  
(Medical Physics)

Seema Mishra  
(Anaesthesiology)

Suman Bhaskar  
(Radiation Oncology)

D. N. Sharma  
(Radiation Oncology)

Sushmita Pathy  
(Radiation Oncology)

Ritu Gupta  
(Lab. Oncology)

## EDUCATION

### Anaesthesiology

The following activities are conducted:

- IRCH Seminar - Every Monday and Thursday at 8.15 AM
- Unit Seminar - Every Monday at 2.30 PM
- Unit Journal Club - Every Saturday at 10:00 AM
- Unit Radio Conference - Every Saturday at 9:00 AM

### Lab. Oncology

- Department provides training to students of MD Pathology and DM Hematology and DM Medical Oncology
- Combined clinic-pathological discussions are held with the department of Pediatrics.

## Medical Oncology

### Undergraduate

- Involved in undergraduate teaching (Seminars-4, Lectures-1).

### Postgraduate

- Collaboration and Co-guides for MD Thesis in the department of Obst. & Gynaecology, Nuclear Medicine and Ophthalmology
- **DM Programme**
- Medical Oncology is running a DM program under which there are 13 regular and one sponsored students

### Ph.D training

- One Ph.D. students submitted her work and one was awarded Ph.D. in this year. Four Ph.D. students are pursuing their work in various aspects of Medical Oncology.

### Others

- Dr. Kunjahari Medhi, Senior Research Associate (Pool Officer), C.S.I.R left in October 2009 after a stint of two years.
- 10 Research Officers on various projects.

Progress of Department: The department is fully functional and all the space and staff allotted to it is being fully utilized. The Day care is working very well and approximately 80 patients are treated every day. Almost 10 high dose chemotherapy and blood stem cell transplants are being carried out every month. Lung cancer clinic is also fully functional and over 300 patients have been registered in the last 18 months.

Limitations: there is severe limitation of staff and space; this is holding back the progress of the dept to a great extent.

## Medical Physics Unit

### Under Graduate and Post graduate training:

- The Medical Physics unit has actively participated in imparting education in the field of radiation protection, radiation physics and quality in radiological imaging to the students doing MD Radiology, MBBS, B.Sc. (Hons.) Nursing, B.Sc. (Hons.) Radiography.
- Medical Physics Unit gave training to two WHO trainees – Dr Kavita Vani, Radiologist, Safdarjung Hospital and Dr Ritu Nair Mishra, Radiologists, RML Hospital for 2 months in Radiation Safety and Quality in Diagnostic Medical Physics course.
- In addition, the unit has 2 Ph.D students undergoing training.
- The faculty and staff participated in Unit's and Dr.BRA IRCH Seminars.

### Radiation Oncology

- The department is involved in Undergraduate, Post graduate, B.Sc. Nursing and PhD teaching programs.

- Dr GK Rath established the telemedicine link between DRBRAIRCH and GCRI, Ahmedabad, Sri Ramachandra Medical College, Chennai and SGPPI, Lucknow.
- Dr GK Rath was invited to attend the UNOOSA (United Nation Organization for Outer Space Affairs) sponsored workshop in Thimpu, Bhutan on “Application of tele-health” from 27<sup>th</sup> to 30<sup>th</sup> July 2009. He imparted expertise on technology transfer in tele-health application in cancer and also delivered a lecture on “Collaborative Framework for Cancer Research, Education and Care in South Asian Region”
- Dr PK Julka conducted two telemedicine sessions with the doctors: one with Jammu Medical College on brain Tumors and another with Amritsar on Lung cancers.
- Dr PK Julka published a book “Becoming a Successful Clinical Trial Investigator. First and Second. Gurgaon: DNA Press; 2009” first of its kind on clinical research in India
- Dr BK Mohanti conducted 2 Tele-medicine teaching sessions with the faculty and post-graduate residents of SKIMS, Srinagar.
- Dr BK Mohanti as co-chairman of Medical Publication Committee of AIIMS coordinated the organization of AIIMS book stall at World Book Fair, Delhi, 30 Jan-07 Feb 2010.

#### **Short term training was given to:**

- 6 Doctors from India, 3 Specialist doctors from North Korea, 5 Medical Physicists from India and 5 Radiotherapy Technicians from India.

#### **Surgical Oncology**

- Undergraduate teaching: The faculty was involved in undergraduate teaching by giving didactic lectures and by participating/ moderating seminars on oncological topics.
- Post graduate teaching: The faculty was involved in teaching and training of 12 surgical oncology senior residents, DM medical oncology residents and MD radiotherapy junior residents by giving didactic lectures, moderating seminars, journal clubs etc. & clinical teaching during ward rounds and in special cancer clinics of IRCH. Dr. Shukla acted as Co-guide and Co-supervisors in DM medical oncology thesis, MD radiation oncology thesis & PhD students from different dept. of BRA IRCH & AIIMS.
- Para clinical teaching/training: The faculty was involved in the teaching of the B.Sc nursing students.

#### **Delhi Cancer Registry**

- The registry has an active teaching & training programme being imparted to the Medical Social Service Officers (MSSO's) and other staff of the cancer Registry by Dr. B.B.Tyagi and Mr. N. Manoharan regarding the working of cancer registry, technical guidance in interviewing the cancer patients from various departments viz. radiotherapy, pathology and medical records of all collaborating hospitals.
- Field staffs are also trained in cancer registration methodology, diagnostic and treatment methods available for cancer, cancer epidemiology and coding of cancer patients data as per International

Classification of Diseases for Oncology (ICD.O) third edition and International Classification of Diseases (ICD.10) tenth revision.

## **Continuing Medical Education (CME)**

### **Anaesthesiology**

- Organised CME on Pain Management on 4<sup>th</sup> Oct. 2009.
- Organized 8<sup>th</sup> Foundation Course on Palliative Care on 30-31<sup>st</sup> Jan 2010 for Medical Practitioners and Nursing Staff treating Cancer patients in & around Delhi.
- Nodal center for IAPC certificate course in Palliative Care at Dr BRA, IRCH.

### **Medical Physics**

The faculty and staff of Medical Physics Unit delivered guest lectures for imaging personnel in workshops and CME organized for Radiologists, Radiographers and Physicists.

### **Radiodiagnosis**

#### **Lectures delivered**

- ‘Imaging in Gynecological Malignancies’ at 3<sup>rd</sup> AIIMS-MAMC-PGI imaging course series on Genitourinary Radiology at PGIMER, Chandigarh, April 3-4, 2009.
- ‘Radiology and PET Scan in Cancer Ovary’ at Seminar on Cancer Ovary held at SRM Medical College, Kattankulathur, Chennai. August 9, 2009.
- ‘Imaging in lung and esophageal cancers’ at 7<sup>th</sup> ICRO-AROI teaching course organized by Indian College of Radiation Oncology (ICRO) and Association of Radiation Oncologists of India (AROI) at All India Institute of Medical Sciences, New Delhi September 12-13, 2009.
- ‘Basics of ultrasound in pain management’ at RSACPCON-2009, a CME workshop organized by Research Society of Anaesthesiology Clinical Pharmacology at Army Hospital (research & Referral), Delhi Cantt on October 9-12, 2009.
- ‘Lung Malignancy’ at 3<sup>rd</sup> AIIMS-MAMC-PGI imaging course series on Chest and Cardiovascular Radiology, Maulana Azad Medical College, New Delhi, November 6-7, 2009.
- ‘Conventional Imaging in Oncology’ at Oncology Congress 2010 organized by Dharamshila Hospital and research centre at India Habitat Centre, New Delhi on January 17, 2010.

### **Radiotherapy**

#### **Department organised following CME programmes**

- Dr GK Rath, Dr PK Julka and Dr DN Sharma organized the CME and teaching course for the ICRO (Indian College of Radiation Oncology), the academic wing of AROI (Association of Radiation Oncologists of India) at the AIIMS from 12-13 September, 2009. 52 postgraduate (MD and DNB) students from all over the country from institutions where radiotherapy postgraduate courses are available participated.
- Dr BK Mohanti organized the CME ‘Head and Neck Cancer-Larynx and Hypopharynx’ at AIIMS on 31 Oct-02 Nov 2009, and presented i. lecture ‘Radiotherapy perspective in organ

preservation', ii. instructional course on IMRT/IGRT in head and neck cancer, iii. tumor board on cancer of hypopharynx.

## **Surgical Oncology**

### **Department took part in following CME programmes**

- Dr. NK Shukla participated in a CME program organized by Rajkot cancer society at Rajkot on 13.12.2009. He gave a talk along with video presentation on the following topics.
  - (i) Sentinel lymph node biopsy in breast cancer.
  - (ii) Breast oncoplasty
  - (iii) Harmonic scalpel mastectomy
- Dr. S.V.S. Deo delivered a guest lecture on “Breast Reconstruction- Current status”, CME on breast cancer, Pushpanjali Hospital & Galaxy cancer centre, 30<sup>th</sup> Jan, 2010.

## **NATIONAL AND INTERNATIONAL CONFERENCE**

### **Anaesthesiology**

#### **Lectures delivered**

- A Comparative Efficacy of Amitriptyline, Gabapentin and Pregabalin in Neuropathic Cancer Pain at ASA 2009, 18-21<sup>st</sup> Oct, New Orleans, USA.= by Dr. Seema Mishra
- Pediatric Cancer Pain Management Following WHO Analgesic Ladder at a Regional Cancer Center. ASA 2009, 18-21<sup>st</sup> Oct, New Orleans, USA =by Dr. Shiv Pratap Singh Rana (Senior Resident Anaesthesia )
- Care of Elderly “IAPC certificate course at Jaipur 2010 by Dr. Sushma Bhatnagar.
- “Cancer Pain management”–by Dr. Sushma Bhatnagar at Dr. B.R.A, IRCH, AIIMS in IAPC certificate course 13<sup>th</sup> June 2009
- Emergencies in Palliative Care–by Dr.Seema Mishra at Dr. BRA, IRCH, AIIMS in IAPC certificate course on 14<sup>th</sup> June 2009.
- “Neuropathic Pain Management – by Dr. Seema Mishra in IAPC certificate Course on 4-6<sup>th</sup> Jan 2010 at Kolkatta Medical College, Kolkatta.
- “Ethical Issues in Palliative care” by Dr. Seema Mishra in IAPC certificate Course on 4-6<sup>th</sup> Jan 2010 at Kolkatta Medical College, Kolkatta.
- “Care of Elderly” by Dr. Seema Mishra in IAPC certificate Course on 4-6<sup>th</sup> Jan 2010 at Kolkatta Medical College, Kolkatta.
- “Cancer pain Mangement “by Dr. Seema Mishra at Nursing Update on 23<sup>rd</sup> Nov. 2009, AIIMS, New Delhi.
- “Opioids for Non Malignant Pain” by Dr. Seema Mishra on 21<sup>st</sup> Nov. 2009 in ICA Con 2009, Delhi.



## Lab. Oncology

### Lectures delivered

#### Dr. Rajive Kumar

- Gave talk on “Minimal Residual Disease in Acute Lymphoblastic Leukemia” in *Indian Society of Hematology and Transfusion Medicine* conference 2009, New delhi

#### Dr. Ritu Gupta

- Invited talk on ‘Role of flow cytometry in plasma cell proliferative disorders’, at the special symposium on Advancement of Cytometry Society (20-21<sup>st</sup> June 2009) at Matsue, Japan.
- Gave talk on ‘Flow Cytometry in lymphoma diagnosis’, and chaired on session on “Diagnostic approach to chronic lymphoproliferative disorders”, in Nagpur Lymphoma Conference (November 2009) at Nagpur, India.
- Served on faculty in Advanced TCS Flow Cytometry Workshop on Hematological Malignancies (March 2010) at Delhi-NCR, India.

## Delhi Cancer Registry

### Training Programme/ Meetings Attended

- Dr. B.B.Tyagi & N. Manoharan attended a meeting to finalize the Computer Programme for Delhi PBCR data for the year 2006 at coordinating unit of National Cancer Registry Programme, Bangalore from 29<sup>th</sup> June 2009 to 3<sup>rd</sup> July 2009.

## Medical Oncology

### Lectures delivered

#### Prof. V. Raina

- Gave a talk on Breast cancer in South East Asia in NCCN meeting held in Beijing on 28-29 March 2009.
- Attended NCCN Meeting in Abu Dhabi VAD as the chairman of palliative care guidelines in South East Asia on 23-26 April 2009.
- Gave a talk on Defining the role Taxans in Breast Cancer chemotherapy in National Cancer Institute at Kolkata on 23 May 2009.
- Attended INDOX meeting in Hyderabad on 26-27 June 2009.
- Attended Velcade Investigator Meeting in Mumbai on 5-6 September 2009.
- Chaired panel discussion on advances in Breast Cancer in King George Medical College in Lucknow on 25 September 2009.
- Gave a talk on Progress in hormonal treatment of Breast Cancer & Multiple Myeloma in ISMPO meeting in Srinagar on 23-25 October 2009.
- Attended Investigator on A phase 3, Randomized, Open-Label, Two-Arm Study of Neratinib Plus Paclitaxel Versus Trastuzumab Plus Paclitaxel as First Line Treatment for ErB-2-Positive Locally Recurrent or Metastatic Breast Cancer on 28-29 November in Mumbai.

- Chaired a CME session on Breast Cancer in 8<sup>th</sup> Asia Pacific Oncology Summit in Tokyo, Japan organized by Japanese Society of Medical Oncology on 20-21 March 2010.
- Chaired a session on NHL in Annual Conference on Evidence Based Management of Cancers in India organized by Tata Memorial Centre, Mumbai held on 27<sup>th</sup> February 2010.

**Prof. Lalit Kumar**

- Invited to give a talk on “Multiple Myeloma : autologous stem cell transplantaton: AIIMS experience” during the meeting on “New Frontiers in Hematolog Oncology” at Netaji Subhash Chandra Bose Cancer Research Institute, Kolkata on 10<sup>th</sup> April 09.
- Invited to participate. in the meeting on “Marrow Donor Registries to facilitate Unrelated Donor Stem Cell Transplantation in India” on 11<sup>th</sup> April, 2009 at Mumbai.
- Invited at Tata Memorial Hospital, Mumbai, to give a talk on “Where does autologous transplant fit in era of novel targeted therapies in multiple myeloma?” on 12<sup>th</sup> April, 2009.
- Invited to participate and give a talk on “Multiple Myeloma: impact of Biology” during the “Third International Symposium on Translational Research: Cancer Cell Signaling and Therapy at Bhubneshawar (Orissa)”. from December 18-21, 2009.
- Participated as a panelist in the Robert Ozols symposium at the Fox Chase Cancer Centre, Philadelphia on 24-25<sup>th</sup> Sept., 2009.
- Presented Grand Round on “Multiple Myeloma: Current Management “at the Wyckoff’s Medical Centre, Brooklyn, New York on 29<sup>th</sup> September, 2009.
- Delivered a Seminar at the National Cancer Institute, Bethesda Title: Role of neoadjuvant chemotherapy in the management of advanced Ovarian Cancer, on 2<sup>nd</sup> October, 2009.
- Delivered a Grand Round on Perspectives in Cancer Care in India at the Regional Cancer Center, Johnson City Medical Center, Tennessee (ETSU) on 30<sup>th</sup> October 2009.
- Presentation given at the MD Anderson Cancer Center - In the department of Experimental Therapeutics on 25<sup>th</sup> October, 2009.
- Invited talk on “Perspectives in Cancer Care in India” among a group of Physicians at Utica, NY. USA, on 6<sup>th</sup> November, 2009.
- Presentation given “Perspectives in Cancer Care in India” at the MD Anderson Cancer Center in the department of Lymphoma, on 10<sup>th</sup> November, 2009.
- Research Seminar on is there a place for Neoadjuvant Chemotherapy in the management of advanced Ovarian Cancer” at the John Wayne Cancer Institute, Santa Monika, CA. California., on 18<sup>th</sup> November, 2009.
- Invited to give a talk on “Targeted therapy in Haematological malignancies” during the Association of Physicians of India Conference – APICON 2010 CME at Jaipur, on 7<sup>th</sup> January, 2010.
- Invited to give a talk on “Molecular biology to targeted Therapy “during the Oncology Congress– 2010 at Dharamshila Hospital & Research Centre, New Delhi on 16<sup>th</sup> & 17<sup>th</sup> January, 2010.
- Invited by Army Hospital (R & R), Delhi Cantt, New Delhi, to chair a session on “Multiple Myeloma” during the “Essence of ASH” on 17<sup>th</sup> January, 2010.

- Invited to give a talk on Fungal Infections in Haematological Malignancies during the “8<sup>th</sup> National Conference of Society for Indian Human and Animal Mycology AIIMS, New Delhi held from 4<sup>th</sup> – 6<sup>th</sup> March, 2010.
- Invited to participate and give a talk on “Autologous Stem Cell Transplantation” during Hematologic Malignancies: Bridging the Gap – 2010 meeting to be held at Singapore on 5<sup>th</sup> February, 2010.

#### **Dr. Atul Sharma**

- Chaired a session on Oncology during annual meeting of IMA Karol Bagh on 3<sup>rd</sup> May 2009 in Delhi.
- Presented oral paper “A Randomized Double Blind Phase III Study of Efficacy of *lactobacillus brevis* CD 2 Lozenges in Preventing Radiation and Chemotherapy Induced Mucositis in Head and Neck Cancer Patients” at Orlando May 2009.
- Participated as Faculty at Best of ASCO 2009 at Bangalore, organized by ISMPO. 8<sup>th</sup> August 2009.
- Delivered a guest lecture organized by IMA Aligarh. 25<sup>th</sup> July 2009.
- Delivered a guest lecture organized by IMA, Karnal. 1<sup>st</sup> August 2009.
- Delivered a lecture at “Larynx and Hypopharynx 2009” organized at AIIMS 31 October-2 November 2009.
- Chaired a session on CML during Golden Jubilee Conference of ISHBT at AIIMS 19-22 November 2009.
- Delivered a guest lecture organized by Cancer Society Rajkot on 13 December 2009 on “Locally Advanced Breast cancer”.
- Delivered guest lectures organized by Jodhpur branch of API on 20 December 2009.
- Participated as panelist in panel discussion at TMH during annual “evidence based medicine” meeting held on 26-28 February 2010.

#### **Dr. Sameer Bakhshi**

- Lecture on “Role of autologous stem cell transplantation in pediatric malignancies” in “Celebrating 25 years of BMT” at Tata Memorial Center, Mumbai on 12<sup>th</sup> April 2009.
- Expert Panelist in DD News for “Childhood Leukemias” on 28<sup>th</sup> June 2009.
- Faculty for National Clinical Research Training Course organized by Department of Pharmacology and Department of Biotechnology-Clinical Research Training Center at AIIMS from 24<sup>th</sup>-28<sup>th</sup> August, 2009.
  - Lecture on “Cancer clinical trials”
  - Expert panelist for “Pharmacovigilance and safety monitoring”
- Faculty for Expert Group Meeting on National Essential Medicine List organized by Department of Pharmacology, AIIMS and Central Drugs Standards Control Organization at AIIMS on 16<sup>th</sup> September, 2009.

- Faculty for the 21<sup>st</sup> ICON-Indian Co-operative Oncology Network meeting at Tata Memorial Hospital, Mumbai 19<sup>th</sup>- 20<sup>th</sup> September, 2009.  
- Lecture on “Current approach to Osteogenic sarcoma”
- Lecture on “Chemotherapy in Retinoblastoma: When and What” in XIIIth Annual Conference of the Paediatric Haematology-Oncology Chapter of IAP at PGIMER, Chandigarh on 14<sup>th</sup>-16<sup>th</sup> November, 2009.
- Faculty for “Golden Jubilee Conference of Indian Society of Hematology and Transfusion Medicine 2009” organized by Department of Hematology, at All India Institute of Medical Sciences, New Delhi, India from 19<sup>th</sup>-22<sup>nd</sup> November 2009.
- Lecture on “Role of stem cells in pediatric malignancy” in Workshop cum CME on Stem Cell potentials in renal repair & regeneration clinical and experimental aspects at All India Institute of Medical Sciences on 7<sup>th</sup> December, 2009.
- Organized India Pediatric Oncology Initiative 2<sup>nd</sup> Annual Meeting at All India Institute of Medical Sciences, New Delhi from 4<sup>th</sup>-5<sup>th</sup> February, 2010.
- Lecture on Osteosarcoma: “Current Management and Future Directions’ in International Update on Cancer and Blood Diseases in Children and Adolescents at Apollo Hospital, Delhi from 6<sup>th</sup>-7<sup>th</sup> Feb, 2010.
- Panelist in 1<sup>st</sup> Indian Childhood Cancer Survivor Conference at All India Institute of Medical Sciences, New Delhi on 6<sup>th</sup> Feb, 2010.
- Panelist in show Healthy India (weekly show aimed at promoting nutrition, healthy living and home remedies) at Lok Sabha Television Studio, Parliament House on 13<sup>th</sup> Feb. 2010.
- Expert in show Total Health episode “childhood Cancer” at CPC Doordarshan Asiad Village, New Delhi 90 14<sup>th</sup> Feb, 2010.
- Expert panelist for “Sticky issues in the current management of T-Non Hodgkin’s: Lymphoma” in Eighth Annual Conference on Evidence Based Management of Cancers in India organized by Tata Memorial Centre at Mumbai from 26<sup>th</sup> -28<sup>th</sup> February 2010
- Lecture on “Role of Chemotherapy in Limb preservation in bone and soft tissue sarcomas” in 9<sup>th</sup> Annual International Conference RGCON-2010 organized by Rajiv Gandhi Cancer Institute & Research Centre at India Habitat Centre, New Delhi from 26<sup>th</sup> -28<sup>th</sup> March, 2010.

## Medical Physics Unit

### Lectures delivered

#### Dr. Pratik Kumar

- Patient radiation dose during radiofrequency ablation procedure in interventional cardiology. Proceedings of 30<sup>th</sup> Annual Conference of Association of Medical Physicists of India, Nov. 22-25, 2009, Hyderabad.
- Quality management initiatives in Radiodiagnosis. Proceedings of 15<sup>th</sup> Annual Conference of Association of Medical Physicists of India (Northern Chapter), Feb 6-7, 2010, S.N. Medical College, Agra, page 14-15.

- Basics of radiation biology as relevant to interaction of radiation with cells. XXXVth Annual conference of environmental mutagen society of India & International symposium on mutagen and genetic diversity for health and agriculture. University Institute of Pharmaceutical Sciences, Punjab University, 12- 14 March 2010.
- Chaired a session “NM and Radiobiology” at 30<sup>th</sup> Annual Conference of Association of Medical Physicists of India, Nov. 22-25, 2009, Hyderabad.

## **Radiodiagnosis**

### **Lectures delivered**

1. ‘Advances in Interventional Pain Management’ at 12<sup>th</sup> Annual Conference of Indian Society of Vascular & Interventional Radiologists (ISVIR) held at All India Institute of Medical Sciences, New Delhi on October 7-10, 2009.
2. ‘Patient safety and radiological imaging’ at National Patient Safety Conference held at All India Institute of Medical Sciences, New Delhi on October 12-13, 2009.

## **Radiation Oncology**

### **Lectures delivered**

#### **Dr. G.K. Rath**

- Chaired and Delivered a guest lecture on “Posterior fossa tumors” at the National Conference of Neuro Oncology Society of India (NOSICON – 09) in, India Habitat centre, New Delhi on 3<sup>rd</sup> April 2009.
- Invited talk on “Pre operative radiotherapy and surgery for esophageal cancer: Does this improve outcome?” at the 3<sup>rd</sup> International Surgical CME at Sohar, Sultanate of Oman on 16<sup>th</sup> April 2009.
- Delivered a guest lecture on “Extra cranial radio surgery – the Indian experience” at the “Oncology 2009 international conference on multidisciplinary management of common cancers” at Kumrakom, Kerala on 24<sup>th</sup> April 2009.
- Participated in the “Expert consensus conference –Road map to cervical cancer control in India” at AOGIN, organized by Chittaranjan National Cancer Institute (CNCI), Kolkata on 26<sup>th</sup> April 2009.
- Delivered a guest lecture on “Recent advances in the management of head and neck cancer” at Government Medical College & Hospital, Chandigarh on 2<sup>nd</sup> May 2009.
- Delivered a guest lecture on “IPSA and Inverse planning in Brachytherapy” at the ICRO teaching course conducted at SGPGI, Lucknow on 3<sup>rd</sup> May 2009.
- Delivered a guest lecture on “Combined modality management in multimodality oncology clinics of carcinoma cervix and lungs- the AIIMS experience” at the Kolkata Medical College, Kolkata on 23<sup>rd</sup> May 2009.
- Delivered a guest lecture at the CME on “Latest developments of cancer management” at the cancer hospital, Cooch Behar, West Bengal on 11<sup>th</sup> and 12<sup>th</sup> June 2009.
- Chaired a scientific session at the “best of ASCO 2009” organized by ISMPO at Bangalore on 8<sup>th</sup> August 2009.

- Delivered a guest lecture on “Recent developments in Radiotherapy” in a seminar at Medical College, Kolkata on 17<sup>th</sup> August 2009.
- Delivered a guest lecture on “Recent developments in the management of breast cancer” at Bhubaneswar in the joint meeting organized by the Indian college of nuclear medicine and Utkal institute of medical sciences on 23<sup>rd</sup> August 2009.
- Delivered two guest lectures on (i) “Treatment planning of EBRT in ca cervix-Basics and Recent advances” and (ii) “Inverse planning image guided brachytherapy” at ONCON 2009 organized by SSKM hospital and PG Institute at Kolkata on 1<sup>st</sup> September 2009.
- Delivered a guest lecture on “Role of Radiotherapy in Non Hodgkin’s Lymphoma” at the International update on NHL organized by the Indian society of Hematology and transfusion medicine (Orissa chapter) at Cuttack on 5<sup>th</sup> September 2009.
- Invited talk at the DAE / IAEA conference on Peaceful Uses of Atom to commemorate Dr Homi Bhabha’s Birth Centenary, delivered lecture on “Radiation Oncology Services in India: The Emerging Scenario” at New Delhi on 1<sup>st</sup> October 2009.
- Panelist at the discussion titled: “Indigenous Development in Radiation Oncology and Nuclear Medicine” at New Delhi on 1<sup>st</sup> October 2009.
- Delivered an invited lecture on “Has conformal radiation made an impact on treatment outcome and Quality of life?” at the North Zone AROI conference organized by Max Health care, New Delhi on 3<sup>rd</sup> October 2009.
- Delivered an invited lecture on “Intraoperative brachytherapy and Intraoperative electron therapy” at the “National workshop on brachytherapy update” at Ahmedabad organized by the IBS (Indian Brachytherapy Society) on 10<sup>th</sup> October 2009.
- Invited lecture on “Patient Safety in Radiotherapy” at the National patient safety conference at AIIMS from 12 -13 October 2009.
- Delivered a guest lecture on “Image based brachytherapy in cervical cancers” at the Kasturba Medical college, Manipal on 25<sup>th</sup> October 2009.
- Chaired a session at the “Larynx and Hypopharynx 2009- head and neck cancer update” at AIIMS, New Delhi, 30<sup>th</sup> October 2009.
- Delivered a guest lecture on “Current indications for RT in Breast conservation and Post mastectomy” at the AROICON 2009 (Annual conference of the association of radiation oncologists of India) at Hyderabad on 27<sup>th</sup> November 2009.
- Panelist in the “Panel discussion on NCCN guidelines” at the AROICON 2009 at Hyderabad on 27<sup>th</sup> November 2009.
- Chairperson for “ASTRO 09 highlights” at the AROICON 2009 at Hyderabad on 29<sup>th</sup> November 2009.
- Delivered a guest lecture on “Recent advances in radiation techniques in carcinoma breast” in the “seminar on breast cancer” at Rajkot on 13<sup>th</sup> December 2009.

- Delivered an invited talk on “Cancer control activities at DRBRAIRCH” at the review meeting of all the 27 regional cancer centers entitled “National cancer control program - present status and future prospects” held at GCRI (Gujarat Cancer and Research Institute) Ahmedabad on 31<sup>st</sup> January 2010.
- Delivered the “Golden Jubilee celebration lecture” on “Recent trends in cancer management in India” on the eve of World cancer day at BHU, Varanasi on 2<sup>nd</sup> February 2010.
- Delivered a guest lecture on “Maximizing local control to improve survival” at the 2<sup>nd</sup> ABCC (Asian Breast Cancer Congress) at Bangalore on 6<sup>th</sup> and 7<sup>th</sup> February 2010.
- Participated in the meeting of “National cancer control program: the role of organ preservation: at New Delhi along with officials of WHO, UICC, Directorate General of Health Services, Govt. of India and delivered a talk on “What role organ preservation can play in the NCCP” on 25 March 2010.

### **Dr. P.K. Julka**

- Participated in Pfizer Advisory Board Meeting on Metastatic Renal Cell Carcinoma- Role of Sutent, Singapore, 2<sup>nd</sup> April 2009.
- Chairperson for Scientific Session “Adjuvant Chemotherapy for Breast Cancer – Patient Selection or Drug Selection”, Singapore, 3<sup>rd</sup> April 2009.
- Chairperson for Scientific Session “Adjuvant Hormone Therapy for Breast Pre-menopausal Women”, Singapore, 3<sup>rd</sup> April 2009.
- Guest Lecture on “Factors Determining Local Recurrence in Breast Cancer”, Singapore, 4<sup>th</sup> April 2009.
- Guest Lecture on “Target Determination in Brain Tumors”, ICRO CME, SGPGI, Lucknow, 2<sup>nd</sup> May 2009.
- Participated in IMPACT Breast Cancer Conference, Brussels, 7<sup>th</sup> May to 9<sup>th</sup> May 2009.
- Participated in American Society of Clinical Oncology (ASCO) Meeting at Orlando, 29<sup>th</sup> May to 2<sup>nd</sup> June 2009.
- Participated in a Meeting on “Revision of Standards of Hospitals with 30-100 Beds”, Nirman Bhawan, New Delhi, 30<sup>th</sup> June 2009.
- Participated in Advisory Board Meeting on Head and Neck Cancers, Mumbai, 5<sup>th</sup> July 2009.
- Participated in Avastin Meeting, New Delhi, 13<sup>th</sup> July 2009.
- Guest Lecture on “Chemotherapy in Cervix Cancer”, Kolkata, 1<sup>st</sup> September 2009.
- Guest Lecture on “Overview of Gestational Trophoblastic Neoplasm”, 2<sup>nd</sup> September 2009.
- Guest Lecture on “Chemotherapy and Targeted Therapy in Ovarian Cancer”, 2<sup>nd</sup> September 2009.
- Guest Lecture on “Biological Therapy in Head and Neck Cancer”, Asia Pacific Meeting, Singapore, 9<sup>th</sup> September 2009.



- Guest Lecture on “Recent Advances in Management of Small Cell Lung Cancer”, ICRO Course, 12<sup>th</sup> September 2009.
- Participated in ECCO-ESMO Meeting at Berlin, 20<sup>th</sup> -24<sup>th</sup> September 2009.
- Guest Lecture on “Recent Advances in Management of NSCLC”, 30<sup>th</sup> September 2009.
- Chairperson for Rapid Arc Workshop, Hyderabad, 3<sup>rd</sup> October 2010.
- Guest Lecture on “Concurrent vs. Neoadjuvant Chemo-radiation in Head and Neck Cancers”, AROI, Delhi, 4<sup>th</sup> October 2009.
- Moderator, “Head and Neck Cancer Management”, AROI, New Delhi, 4<sup>th</sup> October 2009.
- Chairperson for Afinitor Symposium, New Delhi, 10<sup>th</sup> October 2009.
- Guest Lecture on “Breast Cancer Awareness”, New Delhi, 27<sup>th</sup> October 2009.
- Chairperson for Scientific Session “Recent Advances in Breast Cancer-Her 2 Positive”, 29<sup>th</sup> October Participated in ICMR Task Force Meeting on Breast Cancer and Brain Tumors, New Delhi, 14<sup>th</sup> October 2009.
- Guest Lecture on “Role of Biological Agents in Head and Neck Cancers”, AIIMS, New Delhi, 31<sup>st</sup> October 2009.
- Participated in ASTRO Meeting, Chicago, 1<sup>st</sup> -4<sup>th</sup> November 2009.
- Chairperson for Symposium on Breast Cancer, 22<sup>nd</sup> November 2009.
- Participated in AROI-ICRO Meeting, Hyderabad, 26<sup>th</sup> November 2009.
- Key Note Address on “Role of Biological Modifiers of Radiotherapy”, AROI, Hyderabad, 27<sup>th</sup> November 2009.
- Panelist in Panel Discussion on Head and Neck Cancer, AROI, Hyderabad, 27<sup>th</sup> November 2009.
- Panelist in Panel Discussion on “Metastatic Colorectal Cancer”, New Delhi, 5<sup>th</sup> January 2010.
- Guest Lecture on “What is New in Oncology”, MAMC, New Delhi, 10<sup>th</sup> January 2010.
- Attended Lecture on “Current Trends in Malignant Gliomas 2010”, 11<sup>th</sup> January 2010.
- PG Lecture on “Biological Modifiers of Radiotherapy”, AIIMS, New Delhi, 12<sup>th</sup> January 2010.
- Guest Lecture on “Molecular Modifiers in Radiotherapy”, Indo-German Workshop (ICMR), Manipal, 17<sup>th</sup> January 2010.
- Guest Lecture on “Role of Tarceva in NSCLC”, New Delhi, 21<sup>st</sup> January 2010.
- Participated in International Breast Cancer Conference (IBCC), Paris, 30<sup>th</sup> January to 1<sup>st</sup> February 2010.
- Key Note Address on “Cancer Prevention” at Steel Authority of India (SAIL), Ranchi, 5<sup>th</sup> February 2010.
- Panelist in Panel Discussion on “Oral Cancer and Targeted Therapy in Head and Neck Cancers”, Artemis, Gurgaon, 6<sup>th</sup> march 2010.
- Guest Lecture on “Role of Histology in Management of NSCLC”, New Delhi, 10<sup>th</sup> March 2010.

- Guest Lecture on “Recent Advances in Lung Cancer”, New Delhi, 11<sup>th</sup> March 2010.
- Panelist in panel Discussion on “Ixabepilone in Breast Cancer”, New Delhi, 13<sup>th</sup> March 2010.
- Guest Lecture on “Management of Clinical Trials” at Training Workshop of Scientists Organized by National Institute of Medical Statistics (ICMR), New Delhi, 17<sup>th</sup> March 2010.

#### **Dr. B.K. Mohanti**

- Invited as national faculty for a panel discussion ‘Lung cancer in developing countries-issues and solutions’, at Annual Conference of National Lung Cancer Conference (NALCCON), Shimla, 25-26 April 2009.
- Invited as international faculty and delivered lecture ‘Current status of Head and neck cancer care in India’ at DEGRO Congress, annual conference of German Society of Radiation Oncology, at Bremen, Germany, 12-14 June 2009.
- Delivered lecture ‘Radiation therapy in Hypopharyngeal Cancer’ at National conference of Foundation of Head and Neck Oncology (FHNO) at Kochi, 23-25 October 2009.
- Delivered a lecture “Ethics in Palliative Care” at 9<sup>th</sup> Foundation Course in Palliative Care under Can Support-IRCH at New Delhi on 23-24 January 2010.
- Delivered invited lecture “Achieving Progress in Neuro-Oncology in India” at CME under Neuro-Oncology Society of India, organized by Hemalata Cancer Hospital, at Bhubaneswar, on 31 January 2010.
- Invited as a Panelist “Cancer care in Childhood cancers-key issues to address”, organized by Can-Kids Foundation and Pediatric Dept, AIIMS, New Delhi on 6<sup>th</sup> February 2010.
- Invited as Faculty and delivered lecture “Barriers in accessing care for older people” at XVII<sup>th</sup> International Conference of Indian Association of Palliative Care (IAPC), Tiruchirapalli, 11-14 February, 2010.

#### **Dr. D.N. Sharma**

- “Role of brachytherapy in carcinoma of lung and esophagus”, CME held at AIIMS, New Delhi, Oct 2009.
- “PET-CT guided interstitial brachytherapy in patients with suspected residual disease”, AROICON Hyderabad, Nov 2009.
- “Radiofrequency ablation vs CT scan guided interstitial brachytherapy in malignant lung lesions”. RSNA 2009, Chicago, USA, Nov 2009.
- “CT scan guided interstitial brachytherapy in lung cancer”, Annual IBS Brachytherapy Conference, Patna, March 2010.

### **Surgical Oncology**

#### **Dr. S.V.S. Deo**

- Delivered a guest lecture on “Update on Thyroid cancer Management” during Saudi Surgical Society meeting held on Damman, Saudi Arabia May 5-7,2009.

- Guest lecture on “Surgical management of breast cancer- An update, Rajasthan State chapter ASI conference, Udaipur, Jan 9-10, 2010.
- Guest lecture on “Recent advances in Breast cancer”. Rajasthan State chapter ASI conference, Udaipur, Jan 9-10, 2010.
- Guest lecture on “Recent advances in Breast cancer surgery- Breast Oncoplasty”. Oncowoundcom, 2010, Delhi ASI, Safdarjung Hospital, 5-7 march 2010.

### **Dr. M. Singh**

- A paper on “Combined modality management of locally advanced sebaceous cell carcinoma of eyelid” was presented in RGCON 2010 international conference held on 26<sup>th</sup> to 28<sup>th</sup> March 2010 by Dr. M Singh Senior Resident in the department.

## **RESEARCH**

### **Funded Projects**

#### **Anaesthesiology**

#### *Completed*

1. Evaluating the correlation of serum levels of morphine and its metabolites on pain in cancer patients. PI: Dr. Sushma Bhatnagar, Co-Investigators: Dr. Seema Mishra, Dr. V. Pandey Funding: AIIMS Research Grant (One Lac)
2. Efficacy of The Anterior Ultrasound-Guided Superior Hypogastric Plexus Neurolysis in intractable pelvic cancer pain in gynaecological cancer patients and assessment of Quality of life before the neurolysis and after neurolysis. PI: Dr. Seema Mishra, Co-investigators: Dr. Sushma Bhatnagar Dr. Sanjay Thulkar, Funding: AIIMS Research Grant (One Lac)
3. A prospective Evaluation of the Incidence and Characteristics of Breakthrough Cancer pain episodes (BTCP) in Head and Neck Cancer Patients. PI: Dr. Sushma Bhatnagar, Funding: Nil
4. Psychosocial Concerns In advanced cancer Patients: An Observational Study at Dr. BRA, IRCH, AIIMS. PI:Dr. Seema Mishra, Co-investigators:Dr. Sushma Bhatnagar, Funding Nil

#### *Ongoing*

1. An Open-Label Study Investigating Long-Term Safety and tolerability of Nasalfent (Fentanyl Citrate Nasal Spray) in the treatment of Breakthrough Cancer Pain (BTCP) in Subjects taking Regular Opioids Therapy. PI: Dr. Sushma Bhatnagar Funding : Company sponsored trial
2. Evaluation of the effect of rhythmic breathing process-Sudarshan Kriya and Pranayam (SKP) on pain perception among advance stage cancer patients having pain. PI:Dr. Sushma Bhatnagar, Funding : Center Council for Research in Yoga & Naturopathy (Deptt. of Ayush)
3. Role of Radiofrequency of mandibular in Head and Neck cancer pain patients. PI: Dr. Sushma Bhatnagar, Co-Investigators : Dr. Seema Mishra, Funding : Nil
4. Comparison of Epidural Triamcinolone and Betamethasone for lumbosacral radicular pain: a prospective randomized study. Principal investigator Dr. Seema Mishra, Co-investigators: Dr. Sushma Bhatnagar

5. Prospective, randomized placebo controlled, Double blind study of tranexamic acid in patients undergoing head and Neck Cancer surgery. Principal investigator:Dr. Seema Mishra, Funding: Nil
6. Pre-emptive analgesia and response to laryngoscopy with Gabapentin, Pregabalin in patients undergoing MRM under General Anaesthesia: A Prospective Randomized Double Blind Placebo controlled Study. Principal investigator Dr. Seema Mishra, Funding: Nil
7. To Compare The Effect Of Radiotherapy And Vertebroplasty On Pain Relief And Quality Of Life In Cancer Patients With Vertebral Collapse Caused By Spinal Metastases. Principal investigator-Dr. Gaurav Nirwani Goyal, Funding : Nil

## Laboratory Oncology

### *Completed*

1. Immunophenotypic characterization of plasma cells by flow cytometry in health & disease with particular reference to plasma cell myeloma. PI-Ritu Gupta. Funded by DST for 3 years.

### *Ongoing*

1. Reference diagnostic range for serum free light chains in Indian subjects: comparison with multiple myeloma. PI. Rajive Kumar. Funding: ICMR
2. Detection of minimal residual disease in B-cell lineage acute lymphoblastic leukemia at the end of induction by flow cytometry. Co-PI Rajive Kumar. ICMR
3. Assessment of multi-drug resistance pattern in acute myeloid leukemia and response to therapy. PI-Ritu Gupta. Funded by AIIMS for 2 years Funds: PI-1,90,000
4. Regulatory T-cell repertoire in plasma cell myeloma. PI-Ritu Gupta. Funded by DBT for 3 years. Funds: 14,82,000
5. Molecular and immunological basis of biological heterogeneity in chronic Lymphocytic Leukemia. PI-Ritu Gupta. Funded by DBT for 3 years. Funds: 19,46,400
6. Endothelial progenitor cells as biomarker of disease activity in multiple myeloma. Co-investigator-Ritu Gupta. Funded by DBT for 3 years. Funds: 16,79,000
7. To study the molecular biology of multiple myeloma. Co-investigator-Ritu Gupta. Funded by DBT for 3 years. Funds: 33,00,000

## Medical Oncology

### *Completed*

1. Adjuvant Tamoxifen Long Against Short (ATLAS) Trial. Dr. Vinod Raina, Oxford University, Approx 30 lakhs, Completed in September, 2006
2. A SU011248 Expanded Access Protocol for Systemic Therapy of Patients with Metastatic Renal Cell Carcinoma Who are Ineligible for Participation in Other SU011248 Protocols but May Derive Benefit from the Treatment with SU011248. Dr. Vinod Raina, Pfizer, Rs. 15 Lakhs Approx. 15.01.2007 to 14.01.2009, P

3. An Open Label Multicenter Phase I/II Study to evaluate Safety And Efficacy of P276-00 in Patients with relapsed and/or Relapsed/Refractory Multiple Myeloma. Dr. Vinod Raina, Nicholas, Rs. 6 Lakhs Approx. 12.05.2008 to 11.05.2009
4. An Open-Label Randomized Comparative Multicentric Study To Assess Safety And Efficacy of Biomab-EGFR<sup>TM</sup> (Nimutuzumab) In Combination With Chemotherapy Versus Chemotherapy Alone In The Treatment of Patients With Stage IIIb / IV Non Small Cell Lung Cancer (NSCLC). Dr. Vinod Raina, Clinigene (Biocon), Rs. 12 Lakhs Approx., 01.12.2008 to 30.11.2009,
5. A Randomized, open label, Multicenter, Phase 2/3 Study to Evaluate the Safety and Efficacy of Lumiliximab in Combination with Fludarabine, Cyclophosphamide, and Rituximab Versus Fludarabine, Cyclophosphamide, and Rituximab Alone in Subjects with Relapsed Chronic Lymphocytic Leukemia. Dr. Vinod Raina, Biogen, Idec, Rs. 15 Lakhs Approx., April 2009 to May 2010
6. In vitro expansion and establishment of human fetal liver hematopoietic stem cell line. Dr. Lalit Kumar DBT, New Delhi. 67.00,2006-2009
7. A combination of p53, EGFR status, and tumor grading in determining the outcome of early epithelial ovarian cancers, Dr. Lalit Kumar, DBT, New Delhi. 1.5, 2007 – 2008
8. Expansion of adult human bone marrow and cord blood stem cells for reconstituting marrow and for reprogramming into hepatocytes, Dr. Lalit Kumar, ICMR, 27.00, 2005-2007
9. A Randomized Double Blind Phase III Study of Efficacy of *lactobacillus brevis* CD 2 Lozenges in Preventing Radiation and Chemotherapy Induced Mucositis in Head and Neck Cancer Patients, Dr. Atul Sharma, C D Pharma India Private Limited, 5,42,000.00, 2006 –2009
10. Molecular Remission With Arsenic Trioxide in Acute Promyelocytic Leukemia ( Indian APLM study Group- IASG), Dr. Atul Sharma, DBT (drug support) 2005-2009
11. A Phase III Study Of Erbb2 Positive Advanced Or Metastatic Gastric Or Esophageal Or Gastroesophageal Junction Adenocarcinoma Treated With Capecitabine Plus Oxaliplatin With Or Without Lapatinib.” Dr. Atul Sharma, GlaxoSmithKline Pharmaceuticals Limited, 434398.00, 2009-2012.

### Ongoing

1. A Treatment Protocol for Patients with Gastrointestinal Stromal Tumor who are Ineligible for Participation in other SU011248 Protocols and are Refractory to or intolerant of imatinib mesylate, Dr. Vinod Raina, Pfizer, Rs. 15 Lakhs Approx. 15.01.2007 to 14.01.2011
2. A Double-Blind, Randomized Phase 2b Study Evaluating the Efficacy and Safety of Sorafenib Compared to Placebo when Administered in Combination with Paclitaxel in Patients with Locally Recurrent or Metastatic Breast Cancer. Dr. Vinod Raina, Reliance, Rs. 25 Lakhs Approx., 01.05.2008 to 30.04.2011
3. A Randomized, Double-blind Multicenter, Placebo controlled Study of Adjuvant Lapatinib in Women with Early-stage ErB2 Overexpressing Breast Cancer, Dr. Vinod Raina, GlaxoSmithkline, Rs. 30 Lakhs Approx. 10.06.2007 to 09.06.2010

4. A randomized, multi-centre, open-label, phase III study of adjuvant lapatinib, trastuzumab, their sequence and their combination in patients with HER2/ErbB2 positive primary breast cancer. Dr. Vinod Raina, GlaxoSmithkline, Rs. 30 Lakhs Approx. 23.05.2008 to 22.09.2011
5. Axitinib (AG-013736) as second Line Therapy for Metastatic Renal cell Cancer: Axis Trial. Dr. Vinod Raina, Pfizer, Rs. 25 Lakhs Approx., April 2009 to May 2011
6. Single Arm Open Label Multicenter Phase II Study to evaluate the Efficacy and Safety of P276-00 in subjects with Relapsed and/or Refractory Mantle Cell Lymphoma, Dr. Vinod Raina, Piramal Life Sciences, Rs. 15 Lakhs, 22.01.2010 to 21.07.2011
7. “A Phase 3, Randomized, Open-Label, Two-Arm Study of Neratinib Plus Paclitaxel Versus Trastuzumab Plus Paclitaxel as First Line Treatment for ErbB-2-Positive Locally Recurrent or Metastatic Breast Cancer”.
8. Dr. Vinod Raina, Wyeth Pharmaceuticals Limited, New Project 18.03.2010 To 17.09.2011
9. Evaluation of Circulating Tumor DNA in Serum of Breast Cancer Patients. Dr. Vinod Raina, DBT, Rs. 12 Lakhs Approx. 15.10.2008 to 14.09.2011
10. Indox Cancer Trials Network Center Dr. Vinod Raina, Oxford University, Rs. 40 Lakhs Approx. 12.05.2006 to 11.04.2011
11. To study the molecular biology of Multiple myeloma. Dr. Lalit Kumar DBT, New Dehi. 33.07 2007-2010
12. Endothelial progenitor cells as biomarker of disease activity in multiple myeloma. Dr. Lalit Kumar, DBT, New Delhi. 17.00 2007-2010
13. Phase II, Multicentric, Open label Randomized study of Mapatumumab (TRM-1), a fully human monoclonal antibody to TRAIL-1 in combination Bortezomib (Velcade), and Bortezomib (Velcade) alone in subject with relapsed or refractory multiple myeloma. Dr. Atul Sharma Parexel International on behalf of HGS, USA 8.8 Lacs 2007-continue
14. Randomized, Phase III-b, Multi-centre, Open-label, Parallel study of Enoxaparin (low molecular weight heparin) given concomitantly with chemotherapy Vs chemotherapy alone in patients with inoperable gastric and gastro-oesophageal cancer. Dr. Atul Sharma, Criterium, Pune, 7,60,000.00 2008-continue
15. Treatment and Characterization of Acute Lymphoblastic Leukemia in Children, Adolescents and Young Adults Dr. Sameer Bakhshi Network of Cancer Treatment and Research & Sir Ratan Tata Trust. Rs. 4.5 lacs/year for Clinical Management Ongoing (2005 onwards)
16. To study chromosomal abnormalities and FLT3 Internal Tandem Duplication (ITD) mutations in acute myeloid leukemia Dr. Sameer Bakhshi, Source of Funding: AIIMS Research Grant, Rs. 3 lacs over 3 years Ongoing since Oct 2007
17. Evaluation of Prognostic Value of FDG-PET after Two Cycles of Chemotherapy in Pediatric and Adolescent High Grade Lymphomas. Dr. Sameer Bakhshi DBT for 3 years 19.45 lacs Ongoing since March 2008



18. Pharmacokinetic and Toxicity profile of High Dose Methotrexate: relationship with Serum Creatinine and MTHFR Polymorphisms in Indian Children. Dr. Sameer Bakhshi JIV DAYA Foundation 7.9 lacs for 2 years

## Medical Physics

### Ongoing

1. Development of sensitive thermo-luminescent materials for radiation dose determination and their dosimetric applications in radiological medical imaging. P.I.: Dr Pratik Kumar. Funding: Indian Council of Medical Research. Funds: Rs. 12,10,416.

## Radiotherapy

### Completed

1. A phase 2 study of Sequential Neoadjuvant Gemcitabine plus Doxorubicin and Gemcitabine plus Cisplatin in large T<sub>2</sub> (> 3cm) and Locally Advanced (T<sub>3</sub>, T<sub>4</sub> or N<sub>2</sub>) operable Breast Cancer. Dr PK Julka, Dr G K Rath, Dr Rajinder Parshad, Dr. Ramesh Dawar, Dr Omana Nair, Dr Renita Bhamrah Sponsor : Eli Lilly. Start year: 2003. Funds:Rs.472000
2. An open label randomized multi-centre phase III study of Trastuzumab in combination with a fluoropyrimidine and Cisplatin versus chemotherapy alone as first-line therapy in patients with HER2 positive advanced gastric cancer. Dr PK Julka, Dr G K Rath, Dr N R Dash, Dr Omana Nair, Dr Tarun Puri, Dr Renita Bhamrah, Dr Gursimran Kaur Dr Amit Bahl, Dr Pushpa Lata Sponsor : Siro. Start year: 2007. Funds:Rs.150000
3. A randomized Phase 3 Study of Pemetrexed in Combination with Cisplatin Versus Cisplatin Monotherapy in Patients with Recurrent or Metastatic Head & Neck Cancer. Carcinoma Dr PK Julka, Dr G K Rath, Dr Alok Thakar, Dr Sudhir Bahadur, Dr Omana Nair, Dr Tarun Puri, Dr Renita Bhamrah Sponsor : Eli Lilly. Start year: 2007. Funds: Rs 1,32,000
4. A randomized phase 3 study of Enzastaurin versus Lomustine in the treatment of recurrent, Intracranial GBM. Dr PK Julka, Dr G K Rath, Dr Chitra Sarkar, Dr Omana Nair, Dr Tarun Puri, Dr Renita Bhamrah Sponsor : Eli Lilly. Start year: 2006. Funds: Rs 186000
5. Protocol 1839IL/0706: A Phase II Randomized, Double Blind, Placebo Controlled, Multicentre Comparative Study of ZD1839 250 mg or 500 mg (Iressa™) 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. Dr PK Julka, Dr GK Rath, Dr DN Sharma, Dr. Sudhir Bahadur, Dr Omana Nair, Dr Tarun Puri, Dr R Prabhakar. Funding Quintiles. Start year: 2004. Funds: Rs 1315781
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. PI: Dr. Sanghamitra Das (ISI), Dr. B.K.Mohanti. Grant from Indian Statistical Institute, Delhi. Start year 2007: Funds:Rs2.2 Lakhs per year.



## Ongoing

- BCIRG 006 - A Multicentric Phase III randomized trial comparing doxorubicin and Cyclophosphamide followed by Docetaxel (ACàt) 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. Dr PK Julka, Dr G K Rath, Dr Rajinder Parshad, Dr Omana Nair, Dr Simran Sponsor: Aventis. Start year: 2004. Funds: Rs.162313.
- A Randomized, Double-Blind, Parallel-group, Multicentre, Phase-III study comparing the Efficacy and Tolerability of Fulvestrant (FASLODEX™) 500 mg with Fulvestrant (FASLODEX™) 250 mg in Postmenopausal Women with Estrogen Receptor Positive Advanced Breast Cancer Progressing or Relapsing after Previous Endocrine Therapy. Dr PK Julka, Dr G K Rath, Dr Rajinder Parshad, Dr Omana Nair, Dr Gursimran Kaur Sponsor: Quintiles. Start year: 2006. Funds:Rs.245700
- 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. Dr PK Julka, Dr G K Rath, Dr Tarun Puri, Dr Gursimran Kaur, Dr Pushpa Lata. Sponsor: Siro. Start year: 2008. Funds: Rs 4,27,710.
- An open Label Prospective Multicentric study to evaluate the safety and efficacy of BIOMAB-EGFR (Nimotuzumab) as induction and maintenance therapy in combination with radiotherapy plus temozolomide (concomitant and adjuvant) in Indian patients with Glioblastoma multiforme. Dr. P. K. Julka, Dr. G. K. Rath, Dr DN Sharma, Dr. O. Nair, Dr C Sarkar, Dr BS Sharma, Dr T Puri, Dr R Bamrah, Dr KP Hareesh. Funding – Clingene. Start year: 2008. Funds: Rs 3,26,800.
- Patterns of Care and Survival studies in Cancers of Head and Neck, Breast and Cervix at Dr BRAIRCH, AIIMS (as part of National Cancer Registry Programme by ICMR) I-508 PI: Dr B K Mohanti. CI: Dr. B.B. Tyagi, Grant from National Cancer Registry Programme, ICMR. Start year 2007: Funds:Rs3.6 Lakhs per year
- 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. Dr PK Julka, Dr Amlesh Seth, Dr Omana Nair, Dr Gursimran Kaur, Dr Renita Bhamrah. Funding: Quintiles. Start year: 2007. Funds: Rs 3,17,405.
- Clinical Impact of PET scan in patients with pelvic recurrence from cervical cancer following radiation therapy Investigator: Dr. DN Sharma. Funding: AIIMS.

## Departmental Research

### Medical Oncology

#### Completed

- Analysis of efficacy of chemotherapy ( irinotecan & oxaliplatin based) in advanced colorectal cancer- Under Dr Atul Sharma. No grant 2007-2009
- An epidemiological study of carcinoma gall bladder. Under Dr Atul Sharma. No grant 2007-2009

- Oral voriconazole versus intravenous amphotericin B as antifungal prophylaxis in pediatric acute leukemia induction therapy: a randomized controlled study. Under Dr. Sameer Bakhshi
- Quantitative detection of broad range of aspergillus and candida species by RQ-PCR in pediatric acute leukemia induction. All India Institute of Medical Sciences, New Delhi, Under Dr. Sameer Bakhshi

### ***Ongoing***

- Retrospective analysis of CLL patients seen at IRCH between 1995-2007.
- Analysis of patients of triple negative breast cancer
- Analysis of T cell lymphomas
- Analysis of neutropenic fever in Leukemia and lymphomas.
- Presentation and analysis of lung cancer at IRCH

### **Medical Physics**

#### ***Completed***

1. Development of Microsoft Access based image reporting module

#### ***Ongoing***

1. Development of protocol for quality assurance of medical image laser printer
2. Characterization of atherosclerotic plaque using CT scan
3. Continued maintenance of Microsoft Access based image reporting module.
4. Patients' dose determination in fluoroscopy guided RF ablation procedures.
5. Application of 4D imaging for modeling internal motion and deformation of lung.
6. Development of quick daily quality assurance check of mammography machine
7. Optimisation of chest imaging in digital fluoroscopy.

### **Radiodiagnosis**

#### ***Ongoing***

1. Ultrasound and CT evaluation of the neck for assessment of lymph node metastases in clinically N0 patients with squamous cell carcinomas of the upper aerodigestive tract.
2. Role of CT in management of patient with carcinoma of cervix.

### **Radiotherapy**

#### ***Completed***

1. The correlation of VEGF and TGF Beta expression to clinicopathological response, ER, PR and Her 2 Neu status in locally advanced breast cancer- A pilot study. Investigators : Dr Nikhil Joshi, Dr P K Julka, Dr G K Rath, Dr DN Sharma, Dr O. Nair, Dr Anurag Srivasthava, Dr Siddharth datta Gupta, Dr SN Dwivedi Funding - Nil

2. Comparison of two different schedule of HDR-ICRT in Carcinoma of Cervix of 7Gy vs. 9Gy at Point A in 3 & 2 weekly fractions respectively: A Prospective Randomized cohort study .Dr Vinay Kumar, Dr G K Rath, Dr P K Julka, Dr DN Sharma. Funding -Nil
3. PET CT in predicting response to chemo radiotherapy in carcinoma cervix Dr Jagdeeshan, Dr DN Sharma, Dr GK Rath, Dr Rakesh Kumar, Dr Sunesh Kumar, Dr A Malhotra. Funding – Nil

### **Ongoing**

1. Comparative Study of Radiation therapy dose, volume evaluation for 3-D conformal radiotherapy (3-D CRT) Vs. Image guided radiotherapy (IGRT) and analysis of early response in Head and Neck squamous cell carcinoma. . Dr BK Mohanti, Dr. Sujith Kumar M, (Junior Resident thesis)
2. Ultrasound and CT evaluation of the neck for the assessment of lymph node metastases in clinically No patients with squamous cell carcinoma of the upper aero-metastases in clinically No patients with squamous cell carcinoma of the upper aero-digestive tract (Dr. Abhishek Man Bajracharya, Junior Resident, Dept of Radio-diagnosis, MD Thesis).
3. Pilot Study to evaluate neoadjuvant chemotherapy in stage 3 retinoblastoma as per the international retinoblastoma staging system. (Dr. Venkatraman R, Dept of Medical Oncology, IRCH, DM Clinical thesis).
4. Study of Angiogenesis, Proliferative Activity and DNA Ploidy in Oral Verrucous Carcinoma: Comparison with Normal Mucosa, Verrucous Hyperplasia and Squamous Cell Carcinoma (Dr. Saumyaranjan Mallick, Junior Resident, Dept of Pathology, MD Thesis).
5. Prospective comparative analysis of 3D-CT based treatment planning with 2D radiography based treatment planning for ICRT of Ca cervix. Dr Renu Madan, Dr Sushmita Pathy, Dr BK Mohanti, Dr Sanjay Thulkar, Dr. V Subramani, Dr Vatsala, Dr Lalit Kumar. Funding – Nil
6. A comparative assessment of quality of life of head and neck cancer patients treated with surgery and postoperative radiotherapy versus chemoradiotherapy. Dr Subhash, Dr Suman Bhasker, Dr BK Mohanti, Dr Atul Sharma, Dr Alok Thakkar. Funding – Nil
7. Clinical correlation of ER, PR and Her 2 neu expression and BRCA-I gene mutations in Indian Breast Cancer patients. Investigators: Dr. Gursimran Kaur, Dr P K Julka, Dr G K Rath, Dr S Datta Gupta , Dr R Parshad, Dr SN Das, Dr M Kabra. Funding – Nil.

### **Surgical Oncology**

#### **Ongoing**

1. A prospective study comparing Histopathologic versus Biomarker assessment of surgical margins in Operable Oral cancer patients.
2. Functional assessment of Oral cancer patients after Radical surgery and Radiotherapy.
3. Oncoplastic Breast Surgery – Prospective evaluation of patient profile and outcome.
4. Assessment of Skin involvement in Breast cancer patients with T4b lesions.
5. Prophylactic antibiotics in surgical oncology patients.
6. Sentinel Lymph Node Biopsy of oral cancer patients using dye and gamma probe .

## Delhi Cancer Registry

### Ongoing

1. Hospital Based Cancer Registry at Dr.BRAIRCH.

### Collaborative research

1. Patient radiation dose determination in RF ablation procedure for tachycardia (Medical Physics Unit, Deptt. of Cardiology & Deptt. of Cardiac-radiology AIIMS).
2. Tumor burden estimation by FDG PET-CT using phantom and its application in pediatric lymphoma for treatment response evaluation (Medical Physics Unit, IRCH and Nuclear Medicine, AIIMS)
3. Promoter hyper methylation in tumor suppressing genes p16 & FHIT and their relationship with ER & PR status in female breast cancer patients of Northern India (Deptt of Surgical Oncology & Deptt. of Biosciences Jamia Milia Islamia).:-
4. Aberrant DNA methylation has been recognized in human breast carcinogenesis as a common molecular alteration associated with loss of expression of a number of key regulatory genes. This study was under taken to determine whether methylation and expression of p16 and FHIT gene would correlate with ER& PR status in breast cancer patients. In 351 pairs of breast cancer tumor and normal breast tissue, there was no significance difference in tumor related gene methylation pattern and ER & PR status of breast tumors.
5. Studies on p-13 kinase in oral cancer (Deptt. of Biotechnology, Biochemistry, Surgical Oncology):- The study was performed in 52 oral cancer patients & 30 normal subjects. p-13 kinase expressed in serum of both oral cancer patients & healthy controls as observed by ELISA. The serum levels of oral cancer patients were significantly higher ( $p=.001$ ) as compared to healthy controls & it has direct correlation with increasing clinical stage of disease.
6. To study the maximum handling capacity of patients at surgical Oncology OPD, Dr. BRA IRCH, AIIMS( Deptt. hospital administration & surgical Oncology):- The maximum number of patients which could be examined and handled by the surgical Oncology department of BRA IRCH is 71/ day. Total patients which could be effectively seen is 12703 per year. Actual number of patients seen by Surgical Oncologist is much more than the maximum capacity of the department. This may be possible if doctors are sitting for longer time or possibly compromising quality of work. This problem can be resolved by restricting the number of patients and increasing the number of consultants & senior residents.
7. Clinical and structural proteomics of human saliva in patients of squamous cell carcinoma of oro pharynx (Department of Biophysics & Surgical Oncology):- 50 patients of squamous cell carcinoma of oral cavity were studied along with 50 normal controls who have not consumed tobacco in any form. Unstimulated saliva (about 5 ml) was collected from control group as well as study group and was analysed for proteomic study. Three differentially expressed proteins were found to be present in oral cancer patients viz. cytoskeletal associated protein -2 (CKAP-2), Cytokeratin -1 and a hypothetical protein.
8. Adjuvant tamoxifen long against short (ATLAS)- - Multi center International Trial,Oxford,UK. (Department of Medical oncology & Surgical Oncology).

9. Cell cycle regulatory proteins WAF-e and p 16 in human esophageal cancer. (Department of Biochemistry, Surgical oncology, Pathology).
10. Multicentric National Program on Evaluation and validation of molecular markers in oral cancer: A cross sectional study. (Department of Biochemistry and Surgical Oncology).
11. To evaluated microsatellite instabilities in different chromosomes in Indian female breast cancer patients. (Department of Surgical Oncology and Department of Biosciences, Jamia Milia Islamia, New Delhi)
12. Role of CT scan and MRI in the evaluation of locally advanced Oral cancer. (Department of Radio Diagnosis & Surgical Oncology).
13. Molecular Evaluation of p 21 WAF -1 gene in Indian Female Breast Cancer Patients (Department of Surgical Oncology and Department of Bio Sciences, Jamia Milia Islamia).
14. Molecular basis of tobacco associated oral carcinogenesis. (Department of Biochemistry & Surgical Oncology).
15. “A randomized, double -blind, placebo-controlled, multi -center phase III study to evaluate the efficacy and safety of pazopanib (GW786034) compared to placebo in patients with locally advanced and/or metastatic renal cell carcinoma” VEG105192(Department of Medical Oncology & Surgical Oncology).
16. “An open label, non randomized phase II trial of oxaliplatin, docetaxel and capectiabine in advanced esophageal and gastric adenocarcinoma” Protocol 0701(Dept. of Medical Oncology, Surgical Oncology, and Radiation Oncology).
17. “A randomized, double -blind, multicenter, placebo controlled study of adjuvant lapatinib in women with early stage ErbB2 over expressing breast cancer”(Department of Medical Oncology & Surgical Oncology).
18. “A radomized, open label multicenter study of single agent larotaxel (XRP9881) at 90 MG/M2 every 3 weeks compared to continuous administrative of 5-FU for the treatment of patients with advanced pancreatic cancer previously treated with a gemcitabine-containing regimen”(Department of Medical Oncology & Surgical Oncology).
19. Molecular Analysis of Genetic variation in Cytokinin in Female Breast Cancer patients in India (Department of Surgical Oncology& Department of Biosciences, Jamia Milia Islamia)
20. “Clinical significance of TC21/R-Ras2 over expression in Oral Cancer”(Department of Biochemistry & Surgical Oncology)
21. “A Pivotal trial to determine the efficacy and safety of AP23573 when administered as maintence therapy to patients with Metastatic soft tissue or bone sarcomas. (deppt. of Medical Oncology & Surgical Oncology)
22. An asia pacific non randomized , open – label phase II study evaluating the safety and efficacy of FOLFIRI plus cetuximab (Erbix) or FOLFOX plus cetuximabin in patients with KRAS wild type metastatic colorectal cancer (APEC study). (Department of Medical Oncology & Surgical Oncology)

23. Role of computed tomography in the staging & management of carcinoma cervix (Department of Radio Therapy, Radio Diagnosis & Surgical Oncology).
24. Molecular analysis of p21 gene in Indian female breast cancer patients. (Department of Surgical Oncology, Department of Biosciences, Jamia milia Islamia)
25. EGFR & Basal cytokeratin expression in Triple negative & non triple negative breast cancer.(Department of Medical Oncology, Department of Surgical Oncology)
26. Functional & phenotypic characteristic of Natural killer T cell and dendritice cells in oral cancer. (Department of biotechnology, Department of Surgical Oncology)
27. Studies on Beclin-1, mTOR Signaling and Autophagy in Oral Cancer (Vaishali Kapoor, MSc Student, Dept of Biotechnology & Dept of Radiation Oncology).
28. Adjuvant Tamoxifen long against short (ATLAS) - Multi center international trial, Oxford, UK. (Surgical Oncology, Medical oncology & Radiation Oncology). Funding:-ATLAS
29. Randomized study of Preoperative short course radiotherapy (25 Gy) vs. preoperative Concurrent radiotherapy (45 Gy) and chemotherapy followed by Surgery in rectal cancer. (Radiation Oncology, Surgical Oncology, Medical Oncology, Pathology, Radiodiagnosis).
30. National Retinoblastoma Registry-Delhi site, a collaborative study under ICMR, New Delhi, India. (collaborating departments of IRCH-radiation oncology, ICMR, New Delhi)
31. Evaluation of Curcumin in the management of advanced cancer cervix. (Collaborating departments - Departments of Radiotherapy, Gynecology, Biochemistry and Pathology)
32. Incremental role of F-18 FDG PET-CT in evaluating response to primary treatment in advanced epithelial ovarian cancer patients (Nuclear Medicine and Radiodiagnosis)
33. Hodgkin's lymphoma: Analysis of treatment outcomes and prognostic factors (Medical Oncology and Radiodiagnosis)
34. Oral Voriconazole vs intravenous low dose Amphotericin B for Primary Antifungal Prophylaxis in Pediatric Acute Leukemia Induction: A Prospective, Randomized, clinical trial (Medical Oncology and Radiodiagnosis).
35. Prothrombotic factors in patients with newly diagnosed multiple myeloma: an observational study (Medical Oncology and Radiodiagnosis)
36. Randomized study comparing up front surgery followed by chemotherapy versus upfront chemotherapy followed by interval debulking surgery in previously untreated epithelial ovarian cancer stage 3C and stage 4 (pleural effusion only). (Dept. of Medical Oncology and gynecology and Radiodiagnosis).
37. Validation of gel dosimetry as 3D verification tool in highly conformal radiotherapy techniques (Neurobiochemistry and Radiotherapy and Radiodiagnosis).
38. Comparison of CT, MRI and PET CT in evaluation of focal pancreatic masses and its correlation with the histopathology (Nuclear Medicine and Radiodiagnosis).
39. A study of angiogenesis, proliferative activity and DNA ploidy in squamous cell carcinoma of larynx and their correlation with lymph node metastasis (Pathology and Radiodiagnosis)



40. Comparative study of radiation therapy dose, volume evaluation for 3D conformal radiotherapy (3D CRT) Vs. Image guided radiotherapy (IGRT) and analysis of early response in head and neck squamous cell carcinoma (Radiotherapy and Radiodiagnosis)
41. Prospective comparative evaluation of 3D CT based treatment planning and 2D radiography based treatment planning for intracavitary brachithery in carcinoma cervix (Radiotherapy and Radiodiagnosis)
42. Prevalence of vitamin D deficiency and rickets in patients of congenital ichthyosis and keratinizing disorders in age group less than 21 years (Dermatology and Radiodiagnosis)
43. Validation of gel dosimetry as 3D verification tool in highly conformal radiotherapy techniques (Neurobiochemistry and Radiodiagnosis)
44. Role of magnetic resonance imaging and spectroscopic methods in evaluation of prostate cancer (NMR and Radiodiagnosis)
45. Assessment of therapeutic response of radiolabelled anti CD20 antibodies <sup>131</sup>Iodine Rituximab and /or <sup>90</sup>Yttrium Rituximab in diffuse large B cell non Hodgkin lymphoma (Nuclear Medicine and Radiodiagnosis)
46. Characterization and dosimetric evaluation of thermoluminescent phosphors (Medical Physics and Radiodiagnosis)
47. Role of Minimally invasive guided therapy in treatment of focal liver Neoplasms-(Anaesthesiology and Department of Radiodiagnosis)
48. Role of Minimally invasive guided therapy in treatment of lung metastasis. (Anaesthesiology and Department of general surgery)
49. Role of Minimally invasive guided therapy in treatment of focal bone Neoplasms- Anaesthesiology and Department of orthopaedics
50. Prothrombotic Factors in Patients with Newly Diagnosed Multiple Myeloma- an Observational Study- Under Dr Atul Sharma. AIIMS extra mural grant 2008- 2009. (Medical Oncology and department of Haematology)
51. Evaluation of percentage purity of anti cancer and anti microbial compounds using HPLC. Under Dr. Atul Sharma- No funding. (Medical Oncology and department of Ocular Pharmacology)
52. To evaluate the role of <sup>99m</sup>Tc-DMSA(V) and <sup>18</sup>F-FDG-PET-CT in the management of patients with osteosarcoma. All India Institute of Medical Sciences, New Delhi- Under Dr. Sameer Bakhshi. (Medical Oncology and Department of Nuclear Medicine)
53. Tumor burden estimation by <sup>18</sup>F-FDG PET/CT using phantom and its application in pediatric lymphoma for treatment response evaluation. All India Institute of Medical Sciences, New Delhi- Under Dr. Sameer Bakhshi. (Medical Oncology and Department of Nuclear Medicine)
54. Assessment of cisplatin ototoxicity in children treated for solid tumors. All India Institute of Medical Sciences, New Delhi- Under Dr. Sameer Bakhshi. (Medical Oncology and Department of Pediatric Surgery)



55. “An Open label, Non Randomized Phase II Trial of Oxaliplatin, Docetaxel, and Capecitabine in advanced esophageal and gastric adenocarcinoma “ Protocol 0601 Under Dr. Atul Sharma. (Medical Oncology and department of Surgical Oncology, Radiation Oncology)
56. T cell repertoire in plasma cell myeloma. Funding agency- DBT.13.0 lacs, 2007-continue under Dr. Atul Sharma. (Medical Oncology and laboratory oncology unit)
57. Endothelial progenitor cells as a biomarker of disease in multiple myeloma. Funding agency- DBT.17.0 lacs, 2007-continue-under Dr. Atul Sharma. (Medical Oncology and laboratory oncology unit)
58. Assessment of multi drug resistance pattern in AML and response to therapy. Funding 1.9 Lac- AIIMS- extra mural grant. Duration 2006- continue- Dr. Atul Sharma. (Medical Oncology and laboratory oncology unit)
59. Expression of ZAP 70 and CD 38 in patients of CLL. Duration 2008- continue-Under Atul Sharma. (Medical Oncology and laboratory oncology unit)
60. Role of PET-CT in staging and evaluation of early response to chemotherapy in patients of neuroblastoma and rhabdomyosarcoma. Under Dr. Sameer Bakhshi. (Medical Oncology and Nuclear Medicine and Pediatric Surgery)
61. Randomized trial comparing carboplatin 560mg/m<sup>2</sup> with 750mg/m<sup>2</sup> for ocular salvage in groups C and D intraocular retinoblastoma. Under Dr. Sameer Bakhshi. (Medical Oncology and ophthalmology)
62. Prognostic factors in the management of osteosarcoma: A clinical study. All India Institute of Medical Sciences, New Delhi, under Dr. Sameer Bakhshi. (Medical Oncology and Orthopedic)
63. Evaluation of tumor angiogenesis in locally advanced retinoblastoma. Under Dr. Sameer Bakhshi. (Medical Oncology and Ocular Pathology)
64. Pilot study to evaluate neoadjuvant chemotherapy in stage retinoblastoma as per the international retinoblastoma staging system. Under Dr. Sameer Bakhshi. (Medical Oncology and Ophthalmology, Nuclear Medicine, Ocular Pathology and Radiology)

## **PUBLICATIONS**

### **Journal**

1. Pratik Kumar. Radiation safety issues in fluoroscopy during percutaneous nephrolithotomy. Urol. J 2008, 8(1): 15-23.
2. Kanan M, Ahmad F, Yadav BK, Pratik Kumar, Jain P, Kumar R, Saxena R. Carrier detection in Glazmann Thrombasthenia: Comparison of flow cytometry and western blot with respect to DNA mutation. Am J Clin Pathol 2008,130:93-98.
3. G. Singh, S. Thulkar, A. Seith, R. Parshad, Pratik Kumar. An approach for assessment of tumor volume from mammography in locally advanced breast cancer. Malaysian J Med Sc. 15 (1), 2008, 37-41.
4. G. Singh, Pratik Kumar, S. Thulkar. Enhancing the quality of radiological breast cancer images by computer aided image segmentation technique. IJBST, 1(3), 2008, 10-16.

5. N Kumar, N Chandhiok, BS Dhillon, Pratik Kumar. Role of oxidative stress while controlling iron deficiency anemia during pregnancy: Indian scenario. *Ind J Clin Biochem*, 24(1),2009,5-14.
6. Sawhney M, Matta A, Macha MA, Kaur J, Datta Gupta S, Shukla NK, Rahlan R. Cytoplasmic accumulation of activated leucocyte cell adhesion molecule is a predictor of disease progression and reduced survival in oral cancer patients. *Int J Cancer*. 2009 May 1; 124(9): 2098-105
7. Raish Mohammad Dhillon S. Varinderpal Ahmad Arif Ansari Ahmad Mustaq Mudasar Shahid Shahid Mohammad Batra Vineeta Gupta Pawan Das Chandra Bhudev Shukla N. K. and Husain Akhtar Syed. Promoter Hypermethylation in Tumor Suppressing Genes p16 and FHIT and their Relationship with Estrogen Receptor Status in Breast Cancer Patients from Northern India. *Tranls Oncol*. 2009 Dec; 2(4): 264-70.
8. Macha MA, Matta a, Sriam U, Thakhar A, Shukla NK, Dattagupta S, Ralhan R. clinical significance of TC21 over expression in oral cancer. *Transl Oncol*. 2009 Dec; 2(4): 264-70.
9. Matta A, Tripathi SC, DESouza LV, Grigull J, Kaur J, Chauhan SS, Srivastava A, Thakar A, Shukla NK, Duggal R, Datta Gupta S, Ralhan R, Michael Siu KW. Heterogeneous ribonucleoprotein K is a maker of oral leukoplakia and correlates with poor prognosis of squamous cell carcinoma. *Int J Cancer*. 2009 Sep 15; 125(6): 1398-406.
10. Saxena A, Dhillon VS, Rasih M, Asim M, Rehman S, Shukla NK, Deo SV, Ara A, Husain SA. Detection and relevance of germline genetic polymorphisms in glutathione S-transferases (GSTs) in breast cancer Northern India population. *Breast Cancer Res Treat* 2009 Jun; 115(3): 537-43.
11. Sharma A, Mohanti B, Raina V, Shukla N K, Pal S, Dwary A, Deo S, Shani P, Garg P, Thulkar S, Datta Gupta S, Rath G K. A phase II study of gemcitabine and oxaliplatin (Oxigen) in unresectable gall bladder cancer, *Cancer Chemother Pharmacol*. 2010 .eb; 65(3): 497-502. *Equib* 2009 jul 3.
12. Sharma DN, Rath GK. Brachytherapy for medically inoperable lung cancer. *Lancet Oncol* 2009; 10(12); 1141-2
13. Sharma DN, Bahl A, Thulkar S, Rath GK, Bansal AK, Julka PK. Radiation dose escalation by percutaneous interstitial brachytherapy in non-small cell lung cancer. *Ind J Chest Dis Allied Sci* 2009; 51(2): 103-4.
14. Sharma DN, Goyal SG, Muzumder S, Hareesh KP, Bahl A, Julka PK, Rath GK. Radiation therapy in pediatric gliomas: our institutional experience. *Neurol Neurochir Pol* 2010; 44(1): 28-34.
15. Sharma DN, Rath GK, Thulkar S, Kumar S, Subramani V, Julka PK. Use of TRUS for interstitial brachytherapy for cervical carcinoma. *J Gynecol Oncol* 2010; 21(1); 12-17.
16. Sharma DN, Rath GK, Malik M, Bhatnagar S, Bahl A, Julka PK. Profile of pediatric cancer patients treated with external beam radiation therapy under anesthesia at a regional cancer center of India. *Austral-Asian J of Cancer*. 2009; 8(3): 93-102.
17. Mohanti BK. Editorial: Ethics in Palliative Care. *Indian J Palliat Care* 2009; 15: 89-92.
18. Bakhshi S, Meel R, Mohanti BK, Hasan Naqvi SG. Treatment and outcome of nonmetastatic extraocular retinoblastoma with a uniform chemotherapy protocol. *J Pediatr Hematol Oncol*. 2010; 32: e42-5.

19. Ganesan P, Sharma A, Mohanti BK, Gogia A. Protracted cisplatin-induced vomiting responding to mosapride. *Indian J Cancer*. 2010; 47:73-4.
20. Sharma A, Bajpai J, Raina V, Mohanti BK. HIV-associated non-Hodgkin's lymphoma: experience from a regional cancer center. *Indian J Cancer*. 2010;47(1):35-9.
21. Dwarakanath BS, Singh D, Banerji AK, Sarin R, Venkataramana NK, Jalali R, Vishwanath PN, Mohanti BK, Tripathi RP, Kalia VK, Jain V. Clinical studies for improving radiotherapy with 2 deoxy-D-glucose: present status and future prospects. *J Cancer Res Ther*. 2009; 5 Suppl 1: S21-6.
22. Goyal S, Biswas A, Puri T, Mohanti BK. Stevens-Johnson syndrome following concurrent phenytoin and holocranial radiotherapy. *Acta Oncol*. 2010; 49:259-60.
23. Sharma K, Mohanti BK, Rath GK. Malignant melanoma: a retrospective series from a regional cancer center in India. *J Cancer Res Ther*. 2009; 5:173-80.
24. Sharma K, Das S, Mukhopadhyay A, Rath GK, Mohanti BK. Economic cost analysis in cancer management and its relevance today. *Indian J Cancer*. 2009; 46(3):184-9.
25. Sharma A, Gupta D, Mohanti BK, Thulkar S, Dwary A, Goyal S, Muzumder S, Das P. Non-Hodgkin lymphoma following temozolomide. *Pediatr Blood Cancer*. 2009;53(4):661-2.
26. Biswas A, Puri T, Goyal S, Kumar S, Sharma A, Paliwal P, Suri V, Jain A, Julka PK, and Rath GK Spinal myxopapillary ependymoma with Down syndrome: exploring an unusual association. *J Ped Hemat/Oncol* 2010; 32(1):38-41.
27. Prabhakar R, Laviraj MA, Haresh KP, Julka PK, Rath GK. Impact of patient setup error in the treatment of head and neck cancer with intensity modulated radiation therapy. *Phys Med* 2010; 26(1):26-33.
28. Rath GK, Sharma DN, Julka PK, Subramani V, Bahl A, Haresh KP. Pulsed-Dose-Rate Intracavitary Brachytherapy for Cervical Carcinoma: The AIIMS Experience. *Am J Clin Oncol* 2009 Oct 16 (ahead of print).
29. Biswas A, Goyal S, Puri T, Das P, Sarkar C, Julka PK, et al. Atypical teratoid rhabdoid tumor of the brain: case series and review of literature. *Childs Nerv Syst* 2009; 25(11):1495-500.
30. Bahl A, Kumar M, Sharma DN, Jothy Basu KS, Jaura MS, Rath GK, and Julka PK. Reirradiation for progressive brain metastases. *J Can Res Ther* 2009; 5(3):161-4.
31. Jothy Basu KS, Bahl A, Subramani V, Sharma DN, Rath GK, Julka PK. Normal tissue complication probability: Does simultaneous integrated boost intensity-modulated radiotherapy score over other techniques in treatment of prostate adenocarcinoma. *J Can Res Ther* 2009; 5(2):78-84.
32. Senthamizchelvan S, Pant GS, Julka PK, Nair O. Biodosimetry using micronucleus assay in acute partial body therapeutic irradiation. *Phys Med* 2009; 25(2): 82-87.
33. Prabhakar R, Haresh KP, Munshi A, Sridhar PS, Subramani V, Julka PK, et al. A simple technique for cranio-spinal irradiation in pediatric patients. *J Can Res Ther* 2009; 5(2):113-5.
34. Kumar M, Bahl A, Sharma DN, Sharma R, Gupta R, Ahmed S, Julka PK et al. Cylindric cell carcinoma of the base of the tongue: A rare variant of squamous cell carcinoma. *J Can Res Ther* 2009; 5(2):124-6.

35. Hareesh KP, Prabhakar R, Anand Rajan KD, Sharma DN, Julka PK et al. A rare case of paraganglioma of the sella with bone metastases. *Pituitary* 2009; 12(3):276-9.
36. Puri T, Goyal S, Julka PK, Nair O, Sharma DN, Rath GK. Lycopene in treatment of high-grade gliomas: A pilot study. *Neurol Ind* 2010; 58(1):20-3.
37. Jothybasu KS, Bahl A, Subramani V, Rath GK, Sharma DN, Julka PK. Static versus dynamic intensity-modulated radiotherapy: Profile of integral dose in carcinoma of the nasopharynx. *J Med Phys* 2009; 34(2):66-72.
38. Muzumder S, Das P, Kumar M, Bhasker S, Sarkar C, Medhi K, Iyer VK, Rath GK. Primary epithelioid angiosarcoma of the breast masquerading as carcinoma. *Curr Oncol*. 2010 Jan;17(1):64-9.
39. Prabhakar R, Rath GK. Slice-based plan evaluation methods for three dimensional conformal radiotherapy treatment planning. *Australas Phys Eng Sci Med*. 2009 Dec;32(4):233-9.
40. Verma AK, Arya AK, Kumar M, Kumar A, Gupta S, Sharma D, Rath G. Weekly cisplatin or gemcitabine concomitant with radiation in the management of locally advanced carcinoma cervix: results from an observational study. *J Gynecol Oncol*. 2009 Dec;20(4):221-6. Epub 2009 Dec 28.
41. Mehta VS, Chandra PS, Singh PK, Garg A, Rath GK. Surgical considerations for 'intrinsic' brainstem gliomas: proposal of a modification in classification. *Neurol India*. 2009 May-Jun;57(3):274-81.
42. Parida DK, Verma KK, Rath GK. Total skin electron irradiation treatment for mycosis fungoides with a new alternate daily treatment schedule to minimize radiation-associated toxicity: a preliminary experience. *Clin Exp Dermatol*. 2009 Jul;34(5):e37-9.
43. Sharma DN, Bahl A, Thulkar S, Rath GK, Basu KS, Bansal A, Julka PK. Radiation dose escalation by percutaneous interstitial brachytherapy in locally advanced non-small cell lung cancer. *Indian J Chest Dis Allied Sci*. 2009 Apr-Jun;51(2):103-6.
44. Arora VK, Aggarwal S, Mathur S, Rath GK, Julka PK. Pleural mesothelioma: an unusual case diagnosed on pleural fluid cytology and immunocytochemistry. *Diagn Cytopathol*. 2009 Jul;37(7):509-12.
45. Sharma K, Mohanti BK, Rath GK, Bhatnagar S. Pattern of palliative care, pain management and referral trends in patients receiving radiotherapy at a tertiary cancer center. *Indian J Pall Care* 2009; 15:148-54
46. Ghosh I, Thulkar S, Arora, Bakhshi S. Multifocal osteomyelitis as a presenting manifestation of childhood acute myeloid leukemia. *J Pediatr Hematol Oncol* 2009;31:75-76.
47. Prabhakar R, Ganesh T, Rath GK, Julka PK, Sridhar PS, Joshi RC, Thulkar S. Impact of different CT slice thickness on clinical target volume for 3D conformal radiation therapy. *Med Dosim* 2009; 34:36-41.
48. Ganesan P, Swaroop C, Ahuja A, Thulkar S, Bakhshi S. Early onset sinonasal mucormycosis during induction therapy of acute lymphoblastic leukemia: good outcome without surgical intervention. *J Pediatr Hematol Oncol*. 2009; 31: 152-53.

49. Khera R, Jain S, Kumar L, Thulkar S, Vijayaraghavan M, Dawar R. Diffuse large B-cell Lymphoma: experience from a tertiary care center in north India. *Med Oncol* 2009.
50. Sharma DN, Bahl A, Thulkar S, Rath GK, Basu KS, Bansal A, et al. Radiation dose escalation by percutaneous interstitial brachytherapy in locally advanced non small cell lung cancer. *Indian J Chest Dis Allied Sci* 2009;51(2):103-06.
51. Madhusuadan KS, Sharma S, Srivastava DN, Thulkar S, Mehta SN, Prasad G, et al. Comparison of intra-arterial digital subtraction angiography using carbon dioxide by homemade delivery system and conventional iodinated contrast media in the evaluation of peripheral arterial occlusive disease of the lower limbs. *J Med Imaging Radiat Oncol* 2009;53(1):40-49.
52. Gupta A, Kumar L, Karak A, Thulkar S, Rastogi R, Bhatti S. Multicentric hyaline vascular type Castleman disease presenting as an epidural mass causing paraplegia: A case report. *Clin Lymphoma Myeloma* 2009;9(3):250-53.
53. Sharma A, Gupta D, Mohanti BK, Thulkar S, Dwary A, Goyal S, et al. Non Hodgkin lymphoma following Temozolomide. *Pediatr Blood Cancer* 2009;53(4):661-62.
54. Ganesan P, Thulkar S, Gupta R, Bakhshi S. Childhood aleukemic leukemia with hypercalcemia and bone lesions mimicking metabolic bone disease. *J Pediatr Endocrinol Metab* 2009;22(5):463-67.
55. Kumar V, Jagannathan NR, Kumar R, Nayyar R, Thulkar S, Gupta SD, et al. Potential of (1) H MR spectroscopic imaging to segregate patients who are likely to show malignancy of the peripheral zone of the prostate on biopsy. *J Magn Reson Imaging* 2009;30(4):842-48.
56. Thulkar S, Hari S. Present role of mammography/ digital mammography in the management of breast cancer. *Pet Clinics* 2009;4:213-25.
57. Sharma A, Mohanty B, Raina V, Shukla N, Pal S, Dwary A, et al. A phase II study of Gemcitabine and oxaliplatin (oxygem) in unresectable gall bladder cancer. *Cancer Chemother Pharmacol* 2010;65(3):497-502.
58. Kumar D, Sharma P, Agarwala S, Thulkar S, Tanveer N, Bakhshi S. Pediatric renal non-Hodgkin Lymphoma with inferior vena cava thrombosis. *J Pediatr Hematol Oncol* 2010;32(2):147-49.
59. Gupta M, Gupta R, Gogia N, Thulkar S. Pulmonary artery thrombus seen as a solitary pulmonary nodule on chest radiograph. *Singapore Med J* 2010;51(1):e22-23
60. Upadhyay SP, Rana SP, Mishra S, Bhatnagar S. Successful Treatment of an Intractable Postherpetic Neuralgia (PHN) Using Peripheral Nerve Field Stimulation (PNFS). *Am J Hosp Palliat Care* 2010; 27; (1):59-62.
61. Upadhyay SP, Chauhan H, Jain R, Mishra S, Bhatnagar S. Perioperative Gabapentine for postoperative pain and early functional recovery after Modified Radical Mastectomy for Carcinoma Breast. *Indian J. Pain* 2009; 23:388-392.
62. Mishra S, Bhatnagar S, Chaudhary P, Rana S P. Breakthrough Cancer Pain: Review of Prevalence, Characteristics and Management. *Indian Journal of Palliative Care.*2009;15 (1):14-18.
63. Milind Kumar, Shikha Goyal, Karuna Singh, Subhas Pandit, DN Sharma, Arun K Verma, GK Rath, Sushma Bhatnagar. Breaking bad news issues: A survey among radiation oncologists. *Indian Journal of Palliative Care.*2009; 15 (1):61-66.

64. Sushma Bhatnagar. Interventional pain management: Need of the hour for cancer pain patients. *Indian Journal of Palliative Care* 2009; 15 (2): 93.
65. Ramesh , Nootan K Shukla, Sushma Bhatnagar. Phantom breast syndrome. *Indian Journal of Palliative Care* 2009; 15 (2): 103-107.
66. Aditi Sinha, Harinderjeet Goyal, Shailja Singh, Shiv Pratap Singh Rana. Quality of life of ostomates with the selected factors in a selected hospital of Delhi with a view to develop guidelines for the health professionals. *Indian Journal of Palliative Care* 2009;15 (2): 111-114.
67. Kuldeep Sharma, Bidhu K Mohanti, Gaura K Rath, Sushma Bhatnagar. Pattern of palliative care, pain management and referral trends in patients receiving radiotherapy at a tertiary cancer center. *Indian Journal of Palliative Care* 2009; 15 (2): 148-154.
68. Deepak Gupta, MD, Seema Mishra, MD, Sanjay Thulkar, MD, Sushma Bhatnagar, MD. In Resopnse to Ultrasonographic-Assisted Ganglion Impar Neurolysis. *Anesth Analg* 2009; 108 ( 6) 2009: 1995-1996.
69. Mishra S, Bhatnagar S, Singh M, Gupta D, Jain R, Chauhan H, Goyal GN. Pediatric cancer pain management at A Regional Cancer Center: Implementation of WHO Analgesic Ladder. *Middle East Journal of Anesthesiology* 2009; 20(2):239-244.
70. Mishra S, Bhatnagar S, Gupta D, Goyal GN, Agrawal R, Jain R, Chauhan H. Respiratory Support in Oncology Ward Setting: A Prospective Descriptive Study. *Am J Hosp Palliat Care*. 2009; 26: 159-164.
71. Mishra S, Prashant N, Goyal GN, Khurana H, Gupta D, Bhatnagar S. Rate dependant Bundle branch block- Transition from left bundle branch block to intraoperative normal sinus rhythm. *Middle East Journal of Anesthesiology* 2009; 20(2):295-298.
72. Shiv Pratap Singh Rana, Himanshu Khurana, Surjya Prasad Upadhya, Arif Ahmed, Seema Mishra and Sushma Bhatnagar. Successful treatment of phantom limb pain with Intrathecal Morphine Pump. *Indian J Pain* 2009; 23: 344-346.
73. Freeny Ann Philip, Shiv Pratap Singh Rana, Seema Mishra and Sushma Bhatnagar. What is happening to me!! I really I don,t know. How to tackle this question?.*Journal of Psychology and counseling* 2009; 1(5) :64-65.
74. Mishra S, Bhatnagar S, Gupta D, Goyal GN, Jain R, Chauhan H. Management of neuropathic cancer pain following WHO analgesic ladder: A Prospective study. *Am J Hosp Palliat Care* 2009; 25 447-451.
75. Gupta D, Sanjeev Kumar Sharma, Khurana H, Mishra S, Bhatnagar S. Long-term silicone urinary catheter is a simpler alternative to radical bilateral percutaneous nephrostomy for palliation of malignant vesicouterine fistula. *Am J Hosp Palliat Care*. 2009; 26(1):66-7.
76. Khurana H, Mishra S, Jain R, Goyal GN, Bhatnagar S. Management of postoperative chylothorax in a patient with carcinoma thyroid with lymphadenopathy. *M.E.J. Aneasth* 2009; 20(1): 121-124.
77. Das SC, Chauhan H, Gupta D, Mishra S, Bhatnagar S. Peaceful surrender to death without futile



- bargaining to live relieves terminal air hunger and anguish. *Am J Hosp Palliat Care*. *Am J Hosp Palliat Care* 2009; 25: 496-499.
78. Das SC, Khurana H, Gupta D, Mishra S, Bhatnagar S. Co morbidities in a Cancer Patient: Problems in Pain Management and Palliation. *American Journal of Hospice and Palliative Medicine*. *Am J Hosp Palliat Care*. 2009; 26(1):60-3.
  79. Garg M, Kanojia D, Seth A, Kumar R, Gupta A, Surolia A, Suri A. Heat-shock protein 70-2 (HSP70-2) expression in bladder urothelial carcinoma is associated with tumour progression and promotes migration and invasion. *Eur J Cancer*. 2010 Jan;46(1):207-15.
  80. Kanojia D, Garg M, Saini S, Agarwal S, Kumar R, Suri A. Sperm associated antigen 9 expression and humoral response in chronic myeloid leukemia. *Leuk Res*. 2010 Jul;34(7):858-63.
  81. Singhal MK, Krishnan V, Singh S, Kumar R, Raina V. Isolated ovarian relapse in a 68-year-old woman with acute lymphoblastic leukemia. *J Clin Oncol*. 2010 Feb 10;28(5):e73-4.
  82. Arora NK, Arora S, Ahuja A, Mathur P, Maheshwari M, Das MK, Bhatia V, Kabra M, Kumar R, Anand M, Kumar A, Gupta SD, Vivekanandan S. Alpha 1 antitrypsin deficiency in children with chronic liver disease in North India. *Indian Pediatr*. 2010 Mar 15.
  83. Prabhu SB, Gupta R, Seth R, Juvenile myelomonocytic leukemia presenting with co-existent cytomegalovirus infection – A case report. *J Pediatric Hematol Oncol* 2010; 32 (4):e 153-154
  84. Singhal M, Raina V, Gupta R, Das P. T cell-prolymphocytic leukemia detected in a patient of breast cancer at the time of recurrence: a case report. *Cases Journal* 2010; 3:4
  85. Gupta R, Bhaskar A, Kumar L, Sharma A, Jain P. Flow cytometric Immunophenotyping and minimal residual disease analysis in multiple myeloma. *Am J Clin Pathol* 2009;132:728-732
  86. Agarwal R, Gupta R, Bakhshi S, Sharma A. Unusual cytochemical reactivity in granular acute lymphoblastic leukemia: A rare case report. *Turk J Hematol* 2010;27:43-45
  87. Ganesan P, Thulkar S, Gupta R, Bakhshi S. Childhood Aleukemic Leukemia with Hypercalcemia and Bone Lesions Mimicking Metabolic Bone Disease: Case Report and Review of Literature. *J Pediatric Endocrinology and Metabolism* 2009;22:463-467
  88. Srivastava S, Gupta R, Naseem S, Kashyap R. Paroxysmal nocturnal hemoglobinuria clone in a case of myelodysplastic syndrome rapidly progressing to acute leukemia. *Ind J Hematol Blood Transfus* 2009;25(1):33-35
  89. Singhal M, Raina V, Medhi K, Gupta C, Reddy RM. Heart as the site of first relapse in diffuse large B-cell lymphoma. *Indian J Cancer* 2010 Apr-Jun;47(2):220-2.
  90. Manoharan N, Tyagi BB, Raina V. Cancer incidences in urban Delhi – 2001-05. *Asian Pac J Cancer Prev*. 2009; 10(5): 799-806.
  91. Singhal M, Raina V, Gupta R, Das P. T cell-prolymphocytic leukemia detected in a patient of breast cancer at the time of recurrence: a case report. *Cases J*. 2010 Jan 4;3:4.
  92. Sharma A, Bajpai J, Raina V, Mohanti BK. HIV-associated non-Hodkin's lymphoma: experience from a regional cancer center. *Indian J Cancer*. 2010 Jan-Mar;47(1):35-9.



93. Singhal MK, Krishnan V, Singh S, Kumar R, Raina V. Isolated ovarian relapse in a 68-year-old woman with acute lymphoblastic leukemia. *J Clin Oncol*. 2010 Feb 10;28(5):e73-4. Epub 2009 Nov 23.
94. Gupta A, Singh M, Singh H, Kumar L, Sharma A, Bakhshi S, Raina V, Thulkar S. Infections in acute myeloid leukemia: an analysis of 382 febrile episodes. *Med Oncol*. 2009 Oct 15.
95. Sazwal S, Bakhshi S, Raina V, Swaroop C, Saxena R. Detection and clinical relevance of BCR-ABL fusion gene in childhood T-lineage acute lymphoblastic leukemia: a report on 4 cases. *J Pediatr Hematol Oncol*. 2009 Nov;31(11):850-2.
96. Singhal MK, Raina V. Cure from breast cancer, not quite yet but getting there? *Ann Oncol*. 2009 Aug;20(8): 1291-2.
97. Majumdar N, Kumar R, Anand M, Kalita D, Ghara N, Chopra A, Medhi K, Sharma A, Kumar L, Raina V. Plasma cell leukemia—a study of 28 cases from India. *Hematology*. 2009 Aug;14(4): 198-203.
98. Sharma A, Mohanti B, Raina V, Shukla N, Pal S, Dwary A, Deo S, Sahni P, Garg P, Thulkar S, DattaGupta S, Rath G. A phase II study of gemcitabine and oxaliplatin (Oxigem) in unresectable gall bladder cancer. *Cancer Chemother Pharmacol*. 2010 Feb;65(3):497-502.
99. Saxena A, Rai A, Raina V, Seth T, Mitra DK. Expression of CD13/aminopeptidase N in precursor B-cell leukemia: role in growth regulation of B cells. *Cancer Immunol Immunother*. 2010 Jan;59(1):125-35.
100. Bhaskar A, Gupta R, Sharma A, Kumar L, Jain P. Analysis of bone marrow plasma cells in patients with solitary bone plasmacytoma. *Cancer Therapy* 2009;7:49-52.
101. Kumar L, Ghosh J, Ganessan P, Gupta A, Hariprasad R, Kochupillai V. High-dose chemotherapy with autologous stem cell transplantation for multiple myeloma: what predicts the outcome? Experience from a developing country. *Bone Marrow Transplant* 2009;43:481-89.
102. Baruah J, Roy KK, Kumar S, Kumar L. A rare case of primary malignant melanoma of Cervix. *Arch Gynecol Obstet* 2009 Jan 9 [Epub ahead of print].
103. Singh N, Kumar L, Meena R, Velpandian T. Drug monitoring of imatinib levels in patients undergoing therapy for chronic myeloid leukaemia: comparing plasma levels of responders and non-responders. *Eur J Clin Pharmacol* 2009;65(6):545-9. Feb 12. [Epub ahead of print]
104. Khera R, Jain S, Kumar L, Thulkar S, Vijayraghwan M, Dawar R. Diffuse Large B-cell lymphoma: experience from a tertiary care center in north India. *Med Oncol* 2009 Apr 7. [Epub ahead of print].
105. Singh K, Srivastava A, Mathur N, Kumar S, Kumar L, Mukhopadhyay A, Kochupillai V, Evaluation of four methods for processing human cord blood and subsequent study of the expansion of progenitor stem cells isolated using the best method. *Cytotherapy* 2009;11(6):768-77.
106. Sharma A, Tripathi M, Satyam A, Kumar L. Study of antioxidant levels in patients with multiple myeloma. *Leuk & Lymphoma* 2009 May;50(5):809-15.

107. Chalamalasetty SB, Madan K, Javvaji S, Singh KK, Vijayaraghavan M, Mathur S, Kumar L, Paul S, Acharya SK. Anaplastic large cell lymphoma presenting as liver abscess and portal vein thrombosis. *Indian J Cancer* 2009;46(3):240-241.
108. Misra R, Agarwal S, Kumar L, Dattagupta S, Mittal S. Squamous cell Carcinoma arising in a dermoid during pregnancy. *Aust N Z J Obstet Gynaecol* 2009 Jun;49(3):333-4.
109. Malik PS, Kumar L. Further progress in myeloma. *Selected summary*. *Nat Med J India* 2009;Jan-Feb;22(1):25-7.
110. Prabu R and Kumar L. Monoclonal B cell Lymphocytosis and chronic lymphocytic leukemia. *Selected summary*. *Nat Med J India* 2009 Mar-Apr;22(2):75-6.
111. Gupta A, Kumar L, Karak A, Thulkar S, Rastogi R, Bhatti S. Multicentric hyaline-vascular type Castleman disease presenting as an epidural mass causing paraplegia: a case report. *Clin Lymphoma Myeloma* 2009;(3):250-3.
112. Gupta R, Mirdha BR, Guleria R, Kumar L, Samantray JC, Agarwal SK, Kabra SK, Luthra K. Diagnostic significance of nested PCR for sensitive detection of pneumocystis jirovech in respiratory clinical specimens. *Diagn Microbiol Infect Dis* 2009;64(4):381-8.
113. Ghosh I, Kumar L, Seth R, Thavraj V. Sustained remission achieved with ATRA and chemotherapy in second relapse of acute promyelocytic leukemia in Down syndrome. *J Pediatr Hematol Oncol* 2009 Aug;31(8):539-40.
114. Majumdar N, Kumar R, Anand M, Kalita D, Ghara N, Chopra A, Medhi K, Sharma A, Kumar L, Raina V. Plasma cell leukemia—a study of 28 cases from India . *Hematology* 2009 Aug;14(4):198-203.
115. Gupta R, Bhaskar A, Kumar L, Sharma A, Jain P. Flow cytometric immunophenotyping and minimal residual disease analysis in multiple myeloma. *Am J Clin Pathol* 2009 Nov; 132(5): 728-32.
116. Gupta A, Singh M, Singh H, Kumar L, Sharma A, Bakhshi S, Raina V, Thulkar S. Infections in acute myeloid leukemia: an analysis of 382 febrile episodes. *Med Oncol* 2009 Oct 15. [Epub ahead of print].
117. Ajay G, Sing M, Singh H, Kumar L, Sharma A, Bakhshi S, Raina V, Thulkar S. Infections in acute myeloid leukemia. *Medical Oncology* DOI 10.1007/s12032-009-9330-9
118. Sengar M, Rai AK, Saxena A, Singh A, Raina V, Seth T, Sharma A, Bakhshi S, Kumar R, Mitra DK. Acute leukemia: diagnosis improved by flow cytometry in addition to morphology. *Asia Pacific J Clin Oncol* 2009;5:55-65.
119. Bakhshi S, Meel R, Naqvi SG, Mohanti BK, Kashyap S, Pushker N, Sen S. Therapy and outcome of orbital primitive neuroectodermal tumor. *Pediatr Blood Cancer* 2009;52:544-7.
120. Childhood Acute Lymphoblastic Leukemia Collaborative Group (one of coauthors Bakhshi S). Beneficial and harmful effects of anthracyclines in the treatment of childhood acute lymphoblastic leukaemia: a systematic review and meta-analysis. *Br J Hematol* 2009;145:376-388.
121. Radhakrishnan V, Bhatia R, Panda GS, Bakhshi S. Acanthamebic meningoencephalitis presenting as personality change. *Pediatr Infect Dis J* 2009;28:555.

122. Radhakrishnan S, Das P, Singh S, Kalita D, Gupta SD, Bakhshi S. Presentation of childhood CML mimicking bone sarcoma. *Pediatr Blood Cancer* 2009;52:901-2.
123. Ganesan P, Thulkar S, Gupta R, Bakhshi S. Childhood aleukemic leukemia with hypercalcemia and bone lesions mimicking metabolic bone disease. *J Pediatr Endocrinol Metab* 2009;22:463-7.
124. Bakhshi S, Gupta A, Sharma MC, Khan SA, Rastogi S. Her-2/neu, p-53, and their coexpression in osteosarcoma. *J Pediatr Hematol Oncol* 2009;31:245-51.
125. Biswas A, Goyal S, Puri T, Das P, Sarkar C, Julka PK, Bakhshi S, Rath GK. Atypical teratoid rhabdoid tumor of the brain: case series and review of literature. *Childs Nerv Syst* 2009; 25: 1495-500.
126. Bajpai J, Sharma M, Sreenivas V, Kumar R, Gamnagatti S, Khan SA, Rastogi S, Malhotra A, Bakhshi S. VEGF expression as a prognostic marker in osteosarcoma. *Pediatr Blood Cancer* 2009;53:1035-9.
127. Bakhshi S, Singh PP, Swaroop C. Outpatient Consolidation chemotherapy in pediatric AML: a retrospective analysis. *Hematology* 2009;14:255-60.
128. Meel R, Pushker N, Bakhshi S. Adjuvant chemotherapy in lacrimal gland adenoid cystic carcinoma. *Pediatr Blood Cancer* 2009;53:1163-4.
129. Gupta A, Swaroop C, Agarwala S, Pandey RM, Bakhshi S. Randomized controlled trial comparing oral amoxicillin-clavulanate and ofloxacin with intravenous ceftriaxone and amikacin as outpatient therapy in pediatric low-risk febrile neutropenia. *J Pediatr Hematol Oncol* 2009;31:635-41.
130. Sazwal S, Bakhshi S, Raina V, Swaroop C, Saxena R. Detection and clinical relevance of BCR-ABL fusion gene in childhood T-lineage acute lymphoblastic leukemia: a report on 4 cases. *J Pediatr Hematol Oncol* 2009;31:850-52.
131. Gupta A, Singh M, Singh H, Kumar L, Sharma A, Bakhshi S, Raina V, Thulkar S. Infections in acute myeloid leukemia: an analysis of 382 febrile episodes. *Med Oncol* 2009 [Epub ahead of print].
132. Bakhshi S, Vidushi A, Das P. Simultaneous Occurrence of Hodgkin Lymphoma and Non-Hodgkin Lymphoma in Siblings. *J Pediatr Hematol Oncol* 2009;31:888-90.
133. Khan SA, Kumar A, Inna P, Bakhshi S, Rastogi S. Endoprosthetic replacement for giant cell tumour of the proximal femur. *J Orthop Surg* 2009;17(3):280-283.
134. Singhal M, Makharia G, Bakhshi S. Childhood chronic myeloid leukemia with celiac disease. *Pediatr Blood Cancer* 2010;54:177.
135. Bakhshi S, Radhakrishnan V. Prognostic markers in osteosarcoma. *Expert Rev Anticancer Ther* 2010;10:271-287.
136. Bajpai J, Gamanagatti S, Sharma MC, Kumar R, Vishnubhatia S, Khan SA, Rastogi S, Malhotra A, Bakhshi S. Noninvasive imaging surrogate of angiogenesis in osteosarcoma. *Pediatr Blood Cancer* 2010;54:526-531.
137. Kothari SS, Sharma S, Bhatt K, Ray R, Bakhshi S, Chowdhury U. Recurrent hemorrhagic pericardial effusion in a child due to diffuse lymphangiohemangiomatosis: a case report. *J Med Case Reports* 2010;4:62.

138. Kumar D, Sharma P, Agarwala S, Thulkar S, Tanveer N, Bakhshi S. Pediatric renal non hodgkin's lymphoma with inferior vena cava thrombosis. *J Pediatr Hematol Oncol* 2010;32:147-9.
139. Bakhshi S, Meel R, Mohanti BK, Hasan Naqvi SG. Treatment and outcome of non Metastatic extraocular retinoblastoma with a uniform chemotherapy protocol. *J Pediatr Hematol Oncol* 2010;32: e42-5.
140. Sharawat SK, Bakhshi R, Vishnubhatla S, Bakhshi S. Mitochondrial D-loop variations in pediatric acute myeloid leukemia: a potential prognostic marker. *Br J Haematol* 2010 [Epub ahead of print].
141. Ganesan P, Kaushal S, Thulkar S, Bakhshi S. Mediastinal mass and paraparesis as the sole presenting features of langerhans' cell Histiocytosis. *J Pediatr Hematol Oncol* 2010 [Epub ahead of print].
142. Dabkara D, Sharma A. Metastatic Ovarian Cancer. *Ind J Med Ped Oncology* 2009;30 (suppl): 46-47
143. Gupta D, Sharma A, Raina V, Bakhshi S, Mohanti BK. Primary testicular non Hodgkin lymphoma: a single institution experience from India. *Indian J Cancer* 2009;46:46-9.
144. Anand H, Bakhshi S, Saxena R. Transient leukemia. *Indian J Pathol Microbiol* 2009;52:257-9.
145. Sharma A, Bajpai J, Raina V, Mohanti BK. HIV Associated Non Hodgkin's Lymphoma: Experience from a Regional cancer Center. *Indian Journal of Cancer* 2010; 47:35-39
146. Singh P, Bakhshi S. Osseous involvement in pediatric hodgkin's lymphoma. *Indian J Pediatr* 2010 [Epub ahead of print].
147. Ganesan P, Bakhshi S. Systemic therapy of melanoma a review. *Nat Med J Ind* 2010;23:21-7

## Abstracts

1. SK Gupta, M.V., A Malhotra, Pratik Kumar, C. Bal. Dosimetry of  $^{177}\text{La}$ -DOTATATE administered into neuroendocrine tumors: An initial experience from India. Proceeding of 56<sup>th</sup> Annual Meeting of society of nuclear Medicine, Toronto, Canada, June 13-17, page 389P, 2009.
2. N. Kumar, S. Diwakar, C. Shekhar, JP Sivdasani, Pratik Kumar. Health account number: pioneering multisectoral coordination and empowering people for health. 3<sup>rd</sup> international conference on Health GIS 2009, July 24 – 26, 2009, Hyderabad.
3. S Bahl, SP Lochab, VE Aleynikov, AG Molokanov, AA Rupasov, A Pandey, Pratik Kumar. Thermoluminescent response of nanocrystalline  $\text{Ba}_{0.97}\text{SO}_4:\text{Eu}$  for proton beam. Proceedings of National Conference on Accelerator and Low Level Radiation Safety, Inter University Accelerator Centre, New Delhi, Nov. 18-20, 2009, page no. 46.
4. Goyal S, Puri T, Sharma DN, Julka PK and Rath GK. Lymphedema following irradiation in breast cancer: A cross-sectional study. *J Clin Oncol* 2009, 27(15S): e11569.
5. Haresh KP, Prabhakar RV, Rath GK, Sharma DN, Heera P and Julka PK. What is the optimum number of beams and energy for IMRT boost in prostate cancer? A plan comparison study. *J Clin Oncol* 2009; 27(15S): e16158.

6. Sharma DN, Julka PK, Rastogi A, Puri T, Rath GK, Sharma BN and Baliga VP. Assessment of efficacy, safety, and tolerability of aprepitant in adult patients with chemotherapy-induced vomiting. *J Clin Oncol* 2009; 27(15S):e20729.
7. Sharma K, Mohanti BK, Sharma DN, Rath GK, Julka PK and Muzumder S. Pattern of palliative care, pain management, and referral trends in developing countries: Still far from optimum. *J Clin Oncol* 2009; 27(15S): e20694
8. Prabhakar RV, Haresh KP, Laviraj MA, Rath GK and Julka PK. Impact of setup error on integral dose in head and neck cancer treated with intensity modulated radiation therapy. *J Clin Oncol* 2009; 27(15S): e17056.
9. Goyal S, Sharma S, Subramani V, Puri T, Muzumder S, Biswas A, Sharma DN, Julka PK, Rath GK. Postoperative Radiotherapy in Carcinoma Parotid: Does Intensity Modulation Help Hear Better? *Int J Rad Oncol* 2009, 75(3): S656.
10. Sharma S, Goyal S, Jaura M, Puri T, Subramani V, Muzumder S, Biswas A, Sharma DN, Julka PK, Rath GK. Does Patient Positioning Affect Radiotherapy Dose Distribution in Target Volumes and Organs at Risk: Assessment in Parotid Tumor. *Int J Rad Oncol* 2009, 75(3):S600-601.
11. Sharma A, Rath GK, Choudhary SP, Thakar A, Mohanti BK, Bahadur S, Sahu AR, Johar A, Dwary A. A randomized double-blind phase III study of efficacy of lactobacillus CD2 lozenges in preventing radiation- and chemotherapy-induced oral mucositis in head and neck cancer patients: Interim analysis. *J Cl Oncol*,2009;27, 15S (May 20 Supplement): 6008
12. N. Manoharan, B B Tyagi & Vinod Raina. Cancer Incidences in Urban Delhi 2001-05, *Asian Pacific Journal of Cancer Prevention*, Vol.10. No.5: 799-806, 2009.
13. Seema Mishra, M.D., Sushma Bhatnagar, M.D., Gaurav N. Goyal, M.D., Surjya Prasad Upadhya, M.D., Shiv Pratap Rana, M.D. A Comparative Efficacy of Amitriptyline, Gabapentin and Pregabalin in Neuropathic Cancer Pain at ASA 2009, 18, 21<sup>st</sup> Oct, New Orleans, USA. A596
14. Shiv P.S. Rana, M.D., Seema Mishra, M.D., Sushma Bhatnagar, M.D., Surjya Prasad Upadhya, M.D., Deepak Gupta, M.D. Pediatric Cancer Pain Management Following WHO Analgesic Ladder at a Regional Cancer Center. ASA 2009, 18, 21<sup>st</sup> Oct, New Orleans, USA A970.
15. A Randomized Double Blind Phase III Study of Efficacy of *lactobacillus brevis* CD 2 Lozenges in Preventing Radiation and Chemotherapy Induced Mucositis in Head and Neck Cancer Patients. Sharma Atul, Rath G K, Chaudhary SP, Thakar A, Mohanti BK, Bahadur S, Sahu AR, Johar A, Dwari AD. *J Clin Oncol* 27:15s, 2009 (suppl; abstr 6008). Presented at Annual Meeting of American Society of Clinical Oncology 2009 June, Orlando, Florida, USA
16. Agarwala S, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V, Pawra DK, Arora MK, Gupta AK, Gupta DK. Long term outcomes of children with wilms tumor having inferior venacaval thrombus. At 56<sup>th</sup> BAPS + 10<sup>th</sup> EUPSA Annual Congress, June 17- 20, 2009, Graz, Austria.
17. Agarwala S, Jain V, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V, Dattagupta S, Iyer VK, Mathur S, Gupta AK, Gupta DK. Saccrococcygeal malignant germ cell tumors: Management and outcomes. At 56<sup>th</sup> BAPS + 10<sup>th</sup> EUPSA Annual Congress, June 17- 20, 2009, Graz, Austria

18. Jindal B, Agarwala S, Bakhshi S, Gupta SD, Bhatnagar V. Recurrent benign mature cystic teratoma of ovary with hepatic, peritoneal and pulmonary metastases. *Pediatr Blood Cancer* 2009;53
19. Agarwala S, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V, Gupta DK. Wilms tumor: management strategies and outcomes of AIIMS-WT-99 Trial. *Pediatr Blood Cancer* 2009;53:712
20. Yadav D, Agarwala S, Dinda AK, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V, Gupta DK. Tumor infiltrating lymphocytes in wilms tumor. *Pediatr Blood Cancer* 2009;53:723
21. Jain V, Agarwala S, Bakhshi S, Srinivas M, Bajpai M, Bhatnagar V, Gupta SD, Iyer VK, Mathur SR, Gupta DK. Malignant germ cell tumors in children: management and outcomes from AIIMS-MGCT 94 trial. *Pediatr Blood Cancer* 2009;53:732
22. Gupta A, Singh M, Singh H, Kumar L, Sharma A, Bakhshi S, Raina V, Thulkar S. Febrile neutropenia during acute myeloid leukemia therapy: Single institution experience from a developing country. *J Clin Oncol* 2009;27 (suppl; abstr e18000)
23. Bajpai J, Gannagatti S, Sreenivas V, Phulia R, Sharma M, Khan SA, Rastogi S, Safaya R, Malhotra A, Bakhshi S. Role of MRI in osteosarcoma for chemotherapy response evaluation and prediction: Correlation with histological necrosis. *J Clin Oncol* 2009;27:15s (suppl; abstr 10540)
24. Bajpai J, Kumar R, Vishnubhatla S, Sharma MC, Bakhshi S. PET-CT in osteosarcoma for chemotherapy response evaluation: Correction with histological necrosis. *J Nucl Med* 2009; 50 (suppl 2):582
25. Sharma P, Kumar R, Bakhshi S, Kumar R, Bal C, Malhotra A. Early FDG PET/CT in predicting final therapy outcome in pediatric lymphoma. *J Nucl Med* 2009;50 (suppl 2):51

### Chapters in Books/Monographs/Reports

1. Julka PK. *Becoming A Successful Clinical Trial Investigator*. First and Second. Gurgaon: DNA Press; 2009: 1-163.
2. Thulkar S, Hari S. Imaging in gynaecological malignancies. In: Khandelwal N, Chowdhury V, Gupta AK (eds). *Diagnostic Imaging: Genitourinary Imaging*. 3<sup>rd</sup> edition. Delhi: Jaypee Publishers, 2009:529-57.
3. Srivastava DN, Thulkar S. Male Infertility and erectile dysfunction. In: Khandelwal N, Chowdhury V, Gupta AK (eds). *Diagnostic Imaging: Genitourinary Imaging*. 3<sup>rd</sup> edition. Delhi: Jaypee Publishers, 2009:580-96.
4. Sharma S, Thulkar S. Chest in immunocompromised host (Hematological infections and bone marrow transplant). In: Chowdhury V, Gupta AK, Khandelwal N. (eds). *Diagnostic Imaging: Chest & Cardiovascular Imaging*. 3<sup>rd</sup> edition. Delhi: Jaypee Publishers, 2010:145-53.
5. Thulkar S, Hari S, Gupta AK. Lung Malignancies. In: Chowdhury V, Gupta AK, Khandelwal N. (eds). *Diagnostic Imaging: Chest & Cardiovascular Imaging*. 3<sup>rd</sup> edition. Delhi: Jaypee Publishers, 2010:212-35.
6. Vinod Raina, B.B.Tyagi & N. Manoharan. *Cancer Incidence and Mortality in Delhi UT Urban – 2006*, Delhi Cancer Registry, Dr.BRARICH, AIIMS, New Delhi, January 2010



7. Singh S, Kumar R. SFLC. In recent advances of Hematology (in press) – 2009.
8. Gupta R & Jain P. Role of flow cytometry in plasma cell proliferative disorders. Haematology Today – 2010

## PATIENT CARE

1. **TOTAL BED STRENGTH** = 182
  - a. Medical Oncology (Regular/Short-Day care) = 78
  - b. Radiation Oncology = 37
  - c. Surgical Oncology = 61
  - d. Palliative Care Unit = 06
2. **TOTAL OPD ATTENDANCE** = **74,080**
  - a. New Patient's = 8,504
  - b. Revisits = 65,576
3. **DESCRIPTION OF VARIOUS OPD/CLINICS AT DR. BRAIRCH**

### Description of various OPD/Clinics at DR. BRAIRCH YEAR-2009-2010

No.	Name of the OPD/Clinic	New Registration			Revisits		
		Male	Female	Total	Male	Female	Total
1.	Adult Medical Oncology Clinic (AMOC)	555	380	935	9768	10,044	19,812
2.	Adult Lymphoma Leukemia Clinic (ADLL)	125	69	194	5,187	2,585	7,772
3.	AML/HL Clinic	36	27	63	136	97	233
4.	ALL/CML Clinic	71	33	104	160	56	216
5.	Breast Cancer Clinic	54	427	481	104	3,737	3,841
6.	Bone & Soft Tissue Clinic	151	96	247	497	275	772
7.	Gastro-Intestinal Clinic	341	261	602	922	627	1,549
8.	Gynaecology Clinic-‘A’	-	216	216	-	859	859
9.	Gynaecology Clinic-‘B’	-	630	630	-	2,217	2,217
10.	Head & Neck (Surgery)-‘A’	183	42	225	931	237	1,168
11.	Head & Neck (ENT)-‘B’	777	130	907	3,192	521	3,713
12.	Lung Cancer Clinic	97	16	113	307	45	352
13.	NHL/MM/CLL	109	58	167	185	102	287
14.	Ophthalmic Tumour Clinic	35	17	52	52	22	74
15.	Paediatric Medical Oncology Clinic (PDMOC)	206	73	279	3,648	1,165	4,813
16.	Paediatric Lymphoma Clinic (PDLL)	113	47	160	2,539	717	3,256



17.	Paediatric Surgery Clinic	83	43	126	1,079	540	1,619
18.	Pain Relief Clinic	216	188	404	2,750	2,020	4,770
19.	Pain and Palliative Care Clinic (RT-II)	01	03	04	07	42	49
20.	Radiotherapy Clinic	1,233	1,113	2,346	3,928	4,324	8,252
21.	Surgical Oncology Clinic	103	90	193	163	131	294
22.	Transplant Clinic	20	07	27	243	67	310
23.	Urology Malignancy Clinic	220	18	238	1,280	84	1,364
	<b>TOTAL</b>	<b>4,619</b>	<b>3,885</b>	<b>8,504</b>	<b>35,584</b>	<b>29,992</b>	<b>65,576</b>

**4. GEOGRAPHICAL DISTRIBUTION ACCORDING TO THEIR RESIDENCE YEAR 2009-2010 (Total = 8,504)**

1.	ASSAM	22
2.	ARUNACHAL PRADESH	02
3.	ANDHRA PRADESH	02
4.	ANDAMAN AND NICOBAR ISLAND	01
5.	AFGHANISTAN	01
6.	BIHAR	966
7.	BURMA	01
8.	BANGLADESH	03
9.	CHATTISGARH	10
10.	CHANDIGARH	05
11.	DELHI	2,936
12.	DADAR AND NAGAR HAVELI	02
13.	DAMAN AND DIU	01
14.	HARYANA	984
15.	HIMACHAL PRADESH	35
16.	IRAQ	02
17.	JAMMU AND KASHMIR	84
18.	JHARKHAND	97
19.	KERALA	12
20.	KARNATAKA	04
21.	MADHYA PRADESH	95
22.	MEGHALAYA	06
23.	MANIPUR	17
24.	MIZORAM	01
25.	MAHARASHTRA	06
26.	NAGALAND	07
27.	NIGERIA	02
28.	NEPAL	40
29.	ORISSA	76

30.	PUNJAB	66
31.	RAJASTHAN	199
32.	SIKKIM	28
33.	TRIPURA	09
34.	TAMIL NADU	03
35.	TAJKISTAN	01
36.	UTTAR PRADESH	2,400
37.	UTTARAKHAND	316
38.	WEST BENGAL	62
	<b>TOTAL</b>	<b>8,504</b>

**5. GEOGRAPHICAL DISTRIBUTION (OTHER COUNTRIES) FOR THE YEAR 2009-2010 (Total =50)**

1.	AFGHANISTAN	01
2.	BURMA	01
3.	BANGLADESH	03
4.	IRAQ	02
5.	NIGERIA	02
6.	NEPAL	40
7.	TAJKISTAN	01
	<b>TOTAL</b>	<b>50</b>

<b>6. TOTAL ADMISSIONS</b>	=	<b>26,002</b>
a. Regular	=	4,918
b. Short/Day-Care	=	21,084
<b>7. TOTAL DEATHS</b>	=	<b>259</b>
<b>8. TOTAL DISCHARGE</b>	=	<b>25,765</b>
a. Regular	=	4,831
b. Short/Day-Care	=	20,934
<b>9. OPERATION THEATRE SERVICES</b>	=	<b>6,177</b>
a. Major	=	648
b. Minor	=	5,529
<b>10. ELECTRO CARDIOGRAM (ECG)</b>	=	<b>2,057</b>

## 11. ANAESTHESIOLOGY

1. ICU facilities for post operative patients.
2. PAC and Pain & Palliative Care Clinic is run Four times in a week in addition to the anaesthesiology related work.
3. Home support to patients with advanced malignancies by NGOs and keeping monthly meeting with them to know follow up reports
4. Providing critical care to patients of Radio therapy, Medical Oncology, and Surgical Oncology.
5. Facility for Pediatric Radiotherapy.
6. Anaesthesia for minor pediatric oncology procedures like Bone marrow biopsy, Central line insertion, Bone marrow Harvesting and others
7. Facility for Pediatric radiological procedures under anaesthesia, Radio frequency ablation for liver, lung, and breast carcinoma.

## 12. LABORATORY ONCOLOGY SERVICES FOR THE YEAR 2009-2010 (TOTAL = 68,051)

1.	HEMOGRAM (HB, TLC, PLATELETS)	47,380
2.	PERIPHERAL BLOOD SMEAR (PBS)	4,616
3.	BONE MARROW ASPIRATION AND TOUCH PREPARATION (BM)	2,678
3.	CYTO-CHEMISTRY	674
4.	SERUM PROTEIN ELECTROPHORESIS (SPE)	1,863
5.	IMMUNOFIXATION (IFX)	76
6.	URINE ELECTROPHORESIS (UE)	191
7.	FLOW	8,651
8.	FNAC (LYMPH NODE)	81
9.	ESR	1,593
10.	APAAP	114
11.	CYTO-SPIN	134
	<b>TOTAL</b>	<b>68,051</b>

## 13. MEDICAL ONCOLOGY LABORATORY SERVICES 2009-2010 (TOTAL= 1,838)

1.	CYTOGENETIC	373
2.	RT-PCR	203
3.	CD-34	111
4.	MNC	111
5.	PBSC-80°C	34

6.	PBSC-4°C	87
7.	BMT ALLOGENIC	03
8.	INFUSION	101
9.	VIABILITY	101
10.	G.M. ELISA	679
11.	CYTOGENETICS FOR CHEMERISM	02
12.	CD-3COUNTS BY FLOW CYTOMETRY	02
13.	IMMUNO PHENOTYPING FOR LEUKEMIA	19
14.	RQ-PCR	12
	<b>TOTAL</b>	<b>1,838</b>

**14. APHERESIS-2009-2010 (TOTAL= 13,810)**

1.	SINGLE DONOR PLATELETS (SDP)	1,376
2.	HARVEST PERIPHERAL BLOOD STEM CELL (PBSC)	100
3.	HEMOGRAM	12,334
	<b>TOTAL</b>	<b>13,810</b>

Other than these routine tests being performed in the Medical Oncology lab, the lab is also involved in the PhD program. At present we have 5 PhD students enrolled with various faculty of Medical Oncology and these PhD students are using MO Lab facility for their thesis work. One PhD student has defended her thesis in January 2010 and one of the students has submitted the thesis in March 2010. One new student was registered for PhD program in January 2010.

**15. MEDICAL PHYSICS-UNIT 2009-2010 (TOTAL = 6,249)**

1.	NO. OF BLOOD BAGS IRRADIATED	2,712
2.	QUALITY ASSURANCE TEST DONE ON X-RAY MACHINES	1,727
3.	QUALITY ASSURANCE TEST DONE AT FILM PROCESSOR AT ROOM NO. 10 (X-RAY)	479
4.	QUALITY ASSURANCE TEST DONE AT ROOM NO. 46 (X-RAY)	114
5.	RADIATION OUTPUT MEASUREMENTS IN X-RAY UNITS	200
6.	QUALITY ASSURANCE TEST DONE ON FILM PROCESSOR AT ROOM NO. 77 (RADIOLOGY, AIIMS)	241
7.	RADIATION PROTECTION SURVEY MEASUREMENTS	05
8.	QUALITY TEST DONE ON FILM PROCESSOR AT ROOM NO.73 (RADIOLOGY, AIIMS)	18
9.	DOSE MEASUREMENT BY GAFCHROMIC FILM	01
10.	QUALITY TEST DONE ON FILM PROCESSOR IN ROOM NO. CASUALTY (RADIOLOGY, AIIMS)	12
11.	ADVISE IN INADVERTENT EXPOSURE TO PREGNANCY	10

12.	QUALITY TEST DONE ON FILM PROCESSOR IN ROOM NO. 80 (RADIOLOGY, AIIMS)	14
13.	RADIATION OUT PUT CONSISTENCY IN MAMMOGRAPHY	547
14.	QUALITY TEST DONE ON FILM PROCESSOR IN ROOM NO. 84, AIIMS	20
15.	QUALITY TEST DONE ON FILM PROCESSOR IN RADIOLOGY, NEW PRIVATE	62
16.	QUALITY TEST DONE ON FILM PRINTER IN DR. BRAIRCH, CT. ROOM NO. 43	36
17.	QUALITY TEST DONE ON FILM PRINTER IN RADIOLOGY, (CT ROOM NO. 8)	51
	<b>TOTAL</b>	<b>6,249</b>

#### 16. RADIO DIAGNOSIS SERVICES 2009-2010 (TOTAL = 21,546)

1.	CT SCAN	4,953
2.	INTERVENTIONS	776
3.	MAMMOGRAPHY	760
4.	SPECIAL INVESTIGATIONS	83
5.	ULTRA SOUND	4,507
6.	X-RAY (OPD+WARD+PORTABLES)	10,469
7.	DOPPLER	204
8.	INTERVENTION (Ma)	02
	<b>TOTAL</b>	<b>21,546</b>

#### 17. RADIOTHERAPY SERVICES 2009-2010 (TOTAL = 1,62,736)

1.	CASES ON RADIOTHERAPY	73,190
2.	TOTAL FIELD ON RADIOTHERAPY	189452
3.	CASES ON BRACHETHERAPY	1,041
4.	TREATMENT PLANNING AND SIMULATION	5261
5.	2D AND 3D DISTRIBUTIONS	987
6.	COMPENSATORS	460
7.	SHIELDING BLOCKS, IMMOBILIZATION DEVICES AND ORIFITS	1,820
8.	RADIATION REVIEW CLINIC	5894
9.	NUMBER OF CASESOF CHEMOTHERAPY	7707
10.	NUMBER OF INJECTIONS	42694
	<b>TOTAL</b>	<b>328,506</b>

**18. (a.) OPD PROCEDURES TREATMENT ROOM NO. 15 (TOTAL = 3,839)****(b.) OPD PROCEDURES TREATMENT ROOM NO. 15 (TOTAL = 740)**

1.	DRESSING	642
2.	SUTURE REMOVAL	97
3.	NG TUBE REMOVAL	01
	<b>TOTAL</b>	<b>740</b>

**(c.) CHEMOTHERAPY SERVICES (OPD) (TOTAL = 13,247)**

1.	MALE CT	9,273
2.	FEMALE CT	3,620
3.	MALE CHILD CT	238
4.	FEMALE CHILD CT	116
	<b>TOTAL</b>	<b>13,247</b>

**19. DELHI CANCER REGISTRY**

- The Delhi Cancer Registry is a Population Based Cancer Registry covers an urban area of 891.09 Square kilometers of Delhi Municipal Corporation, New Delhi Municipal Committee and Delhi Cantonment and 29 census town with an estimated population of 16154387 (Males : 8889315, Females : 7265072) persons in year 2006.
- The crude cancer incidence in Delhi during the year 2006 among males and females are 76.6 and 84.2 per 100,000 persons respectively.
- The first five most common sites of cancer in Delhi among males during 2006 as per World Age adjusted incidence rates per 100,000 persons are lung (14.2), prostate (11.5, tongue (8.6) ), larynx (8.0) and bladder (6.3).
- The five leading sites of cancer in females during 2006 are breast (32.1), cervix uteri (18.1), ovary (8.6), gall bladder (8.5) and corpus uteri (4.2).

**Community Service****Prof. G.K. Rath**

- Delivered a talk on “Cancer in women” in Loksabha TV on 20<sup>th</sup> May 2009
- Delivered a talk on “Cancer scenario in India on National cancer control programme” on Delhi Doordarshan on 7<sup>th</sup> July 2009
- “National Cancer Registry” in Tribune News Service, New Delhi, on March 25, 2010
- “HPV vaccination” in Indian Express on 27<sup>th</sup> March, 2010
- “Cancer cervix screening” in DNA on 4<sup>th</sup> April 2009

**Prof. P.K. Julka**

- AIR Phone-in Program on Head and Neck Cancers, 22<sup>nd</sup> July 2009.
- Participated in Cancer Awareness Camp organized by BSNL Heart Care Foundation of India, New Delhi, 6<sup>th</sup> September 2009.

- AIR Phone-in Program, 7<sup>th</sup> September 2009.
- Television Program on Breast Cancer, Total Health Live Show, Delhi Doordarshan News, 18<sup>th</sup> October 2009.
- Television Program on Recent Advances in Cancer Management, Total Health Live Show, Delhi Doordarshan News, 24<sup>th</sup> January 2010.
- Television Program on Cancer Awareness on World Cancer Day, Total Health Live Show, Delhi Doordarshan News, 4<sup>th</sup> February 2010.
- AIR Live Program on Head and Neck Cancer, 3<sup>rd</sup> March 2010.

**Prof. N.K. Shukla**

- Dr. N.K. Shukla participated in the free cancer detection and treatment camp organized by Ujjain Charitable Trust Hospital & Research Centre and Sattya Sai Society Ujjain on 4<sup>th</sup> & 5<sup>th</sup> July 2009 at Ujjain.
- Dr. N.K. Shukla was involved in care and advice to the ostomates (patients of colostomy, ileostomy and Urostomy)

**Prof. B.K. Mohanti**

- Conducted 3 Telemedicine patient care consultations with doctors of SKIMS, Srinagar.

**AWARDS AND HONOURS**

**Dr. G. K. Rath**

- Elected as the Fellow of National Academy of Sciences, India.
- Chief Guest and inaugurated the CME on Head and neck malignancies” at the Government Medical College & Hospital, Chandigarh on 2<sup>nd</sup> May 2009.
- Award of Honour of the Banaras Hindu University on the occasion of golden jubilee celebration of Institute of medical sciences (1960-2010).
- Chief Guest at the “Foundation day Oration” of the Institute of Cytology and Preventive Oncology and delivered a lecture on “Prevention and Early detection of Breast Cancer: Indian Scenario” on 11<sup>th</sup> January 2010.
- Delivered the “Dr. Raman Chadha Oration” on “Role of modern radiation oncological approaches for organ structure & function preservation in cancer management” at New Delhi on **27<sup>th</sup> March, 2010.**
- Keynote Address “Cancer Control Program in India” at the 14<sup>th</sup> Annual Conference of Northern Chapter of Association of Radiation Oncologists of India organized by SKIMS at Srinagar on 11<sup>th</sup> April, 2009.

**Dr. G. K. Rath is the Chairman of**

- Expert group of Govt. of Gujarat to prepare “A road map for the statewide cancer screening program” organized by the GCRI, Ahmedabad
- PRSG (Project Review and Steering Group) of the project entitled “Development of Oncology Management system for RCC, Thiruvananthapuram being implemented by the Centre for



Development of Advanced Computing (C-DAC), of the Ministry of Communications and Information Technology, Government of India.

- PRSG of the Ministry of Committee and Information and Technology, Govt. of India on “Design and development of Electronic portal imaging device for radiation therapy” being carried out by CSIO (Central Scientific and Industrial Organization), Chandigarh and TSG integration, New Delhi.
- ICMR Task force Project on Breast Cancer and Malignant Brain Tumors.
- Curriculum committee for MD (Radiotherapy) of Medical Council of India.
- Steering Committee of NCRP (National Cancer Registry Program), ICMR.
- ICMR task force on Cancer Management Guidelines.
- Ethics Committee, Institute of Cytology and Preventive Oncology (ICPO), ICMR.
- Technical bid evaluation committee for the procurement of the high energy linear accelerator at CNCI, Kolkata.

**Dr. G. K. Rath is a member of expert Committees/ Bodies of the following:**

- Search Committee for selecting the Director for the Regional cancer centre, Thiruvananthapuram.
- 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).
- Standing Committee on Radiotherapy Development Program, DteGHS, Ministry of Health and Family Welfare, Govt. of India.
- Safety Review Committee for Application of Radiation (SARCAR), Atomic Energy Regulatory Board (AERB), Anushakti Nagar, Mumbai, Govt. of India.
- Technical committee chaired by the honorable minister of health and family welfare, Govt. of Orissa on “Blue print for autonomy for the VSS Medical college, Burla and other medical colleges of the Orissa State”.
- Academic Senate of the Manipal University.
- Committee of experts of the DteGHS, MOHFW for the revision of Standards of hospitals with 30 and 100 beds indoor facility.
- SAG (Scientific Advisory Group), ICMR.
- Indo American Cancer Association.
- Governing Body of Delhi State Cancer Institute, New Delhi.
- Governing Body of the Bhagwan Mahavir Cancer Center, Patna.
- Cancer Research Foundation of India.
- Forum for Breast Protection.
- Anti Cancer trust.

- Indian Cancer Winner's Association.
- Technical evaluation committee meeting for the procurement of linear accelerator at the regional cancer center, SKIMS, Srinagar.
- Technical expert for assisting the selection committee for the recruitment of various levels of posts for faculty in radiation oncology and in medical physics at Delhi State Cancer Institute, New Delhi.
- External examiner for MD (Radiotherapy) of PGIMER, Chandigarh; IGIMS, Shimla and MGM Medical College, Indore
- Appraiser for DNB Radiotherapy for Batra Hospital New Delhi and Dharamshila cancer hospital, New Delhi.
- Technical specification committee meeting for the procurement of linear accelerator at the AHRCC, Cuttack.
- Technical committee for purchase of CT simulator and low energy linear accelerator for GMC, Srinagar and GMC, Jammu respectively.
- Advisory committee of the national conference on Accelerator & Low Level Radiation safety at IUAC (Inter University Accelerator Center), New Delhi.
- Advisory Committee, DRBRAIRCH, AIIMS.
- Technical advisory committee (TAC) and Purchase Management Committee (PMC) of Delhi State Cancer Institute (DSCI), Govt. of NCT, Delhi.
- 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 development & deployment of 6 MV Medical Linear Accelerator.
- Task force subcommittee on review of guidelines for the management of stomach cancer, Indian Council of Medical Research, New Delhi.
- Technical Advisory Group (TAG) for the demo project on Screening technologies to advanced rapid testing (START) project on a new HPV testing (Fast HPV or Care HPV) for the screening of cervical cancer in a rural community at Noida of ICPO.
- Cancer foundation, Delhi
- Project Review Committee on Working Group of Medical Electronics, Ministry of Information Technology, Govt. of India.
- Project Review Committee, Oncology , Indian Council of Medical Research, New Delhi.
- Project Review Committee (North East), ICMR, New Delhi.
- 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.
- Committee chaired by health secretary, Govt of NCT, Delhi for prevention and early diagnosis of cancer in Delhi.

**Dr. G. K. Rath is****Advisory Editor of**

- Journal Academy of Hospital Administration

**Member of Editorial Board of**

- Member of Editorial Board of
- Indian Journal of Chest Disease and Allied Sciences
- Indian Journal of Cancer
- International Journal of Biosciences and Technology
- Journal of Contemporary Brachytherapy

**Consulting Editor**

- Journal of Cancer Research and Therapeutics

**Reviewer for**

- Clinical Oncology
- International Journal of Biosciences and Technology
- Eastern Journal of Medicine
- Projects submitted to ICMR on Oncology

**Prof. P. K. Julka is member/ awardee**

- Indian Medical Association (IMA) Best Orator of the Year Award, 2009.
- Chairperson, ICRO (Indian College of Radiation Oncology), 2008-2009
- MCI Inspection for MD (RT) at MLN Medical College, Allahabad, 25<sup>th</sup> April 2009.
- MCI Inspection, Vaidehi Medical College, Bangalore, 12<sup>th</sup> October 2009.
- Expert for Purchase of CT Simulator, LNJP Hospital, New Delhi, 26<sup>th</sup> October 2009.

**Prof. N.K.Shukla**

- Felicitated by the chief minister of Madhya Pradesh and awarded a memento by him for his selfless services in cancer camps on 5<sup>th</sup> July 2009.
- Dr. N.K. Shukla was appointed as local appraiser by the National Board of Examination to assess the training infrastructure for the DNB candidates and to assess the quality of training by Dharamshila Hospital and research Centre, Delhi.

**Prof. B. K Mohanti is a member/ awardee**

- Dr BK Mohanti has been appointed as an external Expert by the European Commission (EC), Brussels, Belgium, for Framework-Health under EC-FP7-Health-Cancer area activities of 27 EC countries, 2010.
- Nominated as National Faculty for the Institute of Palliative Medicine, Calicut, by Indian Association of Palliative Care and as Steering Committee member of 'Care of Older people in India'.

- Reviewer of manuscripts for National Medical Journal of India, Indian Journal of Palliative Care and Supportive Care Cancer
- Appointed as External Examiner for MD (Radiotherapy) by Nizam's Institute of Medical Sciences (NIMS), Hyderabad, A P. for year 2009-2010.
- External Examiner for IAPC certificate course examination conducted at Choithram Hospital, Indore on 9<sup>th</sup> Aug 2009 and at PGIMER, Chandigarh on 10th January 2010.

#### **Dr. S.V.S. Deo**

- Dr. SVS Deo was selected as a member of American society of breast diseases.
- Dr. SVS Deo was invited as a life member of European society of Surgical Oncology.
- Dr. SVS Deo was appointed as a scientific reviewer for Health Information Research Unit, McMaster University, UK.
- Dr. SVS Deo was nominated as a reviewer of cancer related research projects for funding for International union against cancer (UICC), Geneva, Switzerland.

#### **Dr. Shushma Bhatnagar**

- Dr. Sushma Bhatnagar is selected as Chair Person of Scientific Committee in 18th International Conference on Indian association of Palliative Care 10<sup>th</sup> -13<sup>th</sup> Feb 2011 to be held at SGPGI, Lucknow.
- Dr. Sushma Bhatnagar was selected as an Editor of Indian Journal of Palliative Care.
- Invited as Chair Person in Poster session in XVII International Conference of Indian Association of Palliative Care held from 11<sup>th</sup> to 14<sup>th</sup> February 2010 at Triuchirappalli, Tamilnadu.
- Dr. Sushma Bhatnagar was called as an external examiner for IAPC certificate Course on 2<sup>nd</sup> Jan 2010 at Bhagavan Mahavir Cancer Hospital and Research Center, Jaipur.

#### **Dr. Pratik Kumar**

- Dr. Pratik Kumar was invited as Visiting Faculty, Department of Radiodiagnosis, B.P. Koirala Institute of Health Sciences, Dharan, Nepal.
- Dr Pratik Kumar was nominated Member, Technical Evaluation Committee, National Informatics Centre Service Inc. (NICS: A Govt. of India Enterprise under NIC) for the empanelment of agencies for setting-up and running telemedicine centers of Onconet India.
- He was invited as Examiner, Rajasthan university of Health Sciences, Jaipur for B.Sc. Radiation Technology; Member, Selection Committee, Sri Venkateswara College, University of Delhi for the appointment of Research Associate and Referee for Oman Medical Journal
- Dr Pratik Kumar continued to be the Editor, Medical Physics Chronicle; member of the Editorial Board of Journal of Medical Physics; Member of Electro-medical Equipment Sectional Committee, BIS, New Delhi; Member, Executive Committee, Association of Medical Physicists of India (AMPI), Referee for Journal of Medical Physics, Examiner for Annamalai University, Chidambaram, Tamilnadu, Question setter for Homi Bhabha National University, Mumbai and Examiner for Sher-I- Kashmir Institute of Medical Sciences, Srinagar.

### **Dr. Seema Mishra**

- Dr. Seema Mishra was selected as a Member of Editorial Reviewer Board of *American Journal of Hospice and Palliative Medicine*.
- Dr. Seema Mishra was selected as a Member of Editorial Board of Indian Journal of Palliative Care.
- “Interventional Pain Fellowship” at Pain Management Center at Mount Sinai Medical Center at New York, USA by Dr. Seema Mishra from 23<sup>rd</sup> Oct -6<sup>th</sup> Nov 2009.

### **Dr. Ritu Gupta**

- Ganeshan P, Hakim M, **Gupta R**, Kumar L, Sharma A. T-regulatory cells in multiple myeloma and their response to immunomodulatory therapy. Was awarded best abstract in the category “Immunotherapy” at First International Conference on Hematological Malignancies ‘Bridging the Gap: 2010’ at Singapore in February 2010.

### **Dr. M Singh**

- Dr. M Singh Senior Resident surgical Oncology was awarded 2<sup>nd</sup> prize in best oncology resident category for presentation of a paper “Combined entitled modality management of locally advanced sebaceous cell carcinoma of eyelid” in RGCON 2010 international oncology conference.

### **Dr. Shiv Pratap Singh Rana**

- Dr. Shiv Pratap Singh Rana ( Senior Resident Anaesthesia) received a Travel grant from CSIR, 2009 for attending the conference ASA 2009, 18-21<sup>st</sup> Oct, New Orleans, USA and for Observer ship ( 22<sup>nd</sup> Oct. -3<sup>rd</sup> Nov. 2009) at Detroit Medical Center, Detroit, USA

## **SIGNIFICANT EVENTS**

The department of anaesthesiology organized a CME on “Pain Mangement “on 4<sup>th</sup> Oct.2009 at Dr. BRA, IRCH, and AIIMS.

## **VISITING SCIENTISTS**

- Dr. Bonnefoy from France, who was invited by the ICMR, visited the department of Radiotherapy on 10<sup>th</sup> December 2009.

## **ADMINISTRATION**

Chief : Professor G.K. Rath

Office Supdt. : Sh. Karam Chand

Total No. of Staff of Dr. BRAIRCH including Faculty:

Faculty	20
Grp. A & B	52
Tech. Staff	78
Nursing Staff	176
Resident Staff (SR, JR)	60

Stores Staff	06
Ministerial Staff	27
Grp. D Staff	84
Daily Wages	02
PTSG	03
Outsourced Sanitation Staff	169
Outsourced Security Staff	61½ duties per day
Outsourced Data Entry Operators	8

### **DELHI CANCER REGISTRY**

Scientist VI                      Dr. B.B. Tyagi

### **FINANCE**

Accounts Officer                :    Sh. D.P. Gangal

### **STORES**

Asst. Store Officer              :    Sh. T.R. Mahajan

## 10.5 Neurosciences Centre

### Chief

Hari Hara Dash

### NEUROANAESTHESIOLOGY

#### Professor and Head

Hari Hara Dash

#### Professor

Parmod K. Bithal

#### Additional Professor

Arvind Chaturvedi

#### Associate Professors

Rajendra Singh Chouhan  
(Sabbatical Leave)

Mihir Prakash Pandia  
(Sabbatical Leave)

#### Assistant Professors

Girija Prasad Rath

Hemanshu Prabhakar

### NEUROLOGY

#### Professor and Head

Madhuri Behari

#### Professors

Kameshwar Prasad

M.V. Padma Srivastava

#### Associate Professors

Manjari Tripathi  
Achal Srivastava  
Mamta Bhushan Singh

Sumit Singh\*  
Garima Shukla

Vinay Goyal  
Rohit Bhatia

\*Dr Sumit Singh resigned from his post of Associate Professor in October 2009.

### NEUROSURGERY

#### Professor and Head

A.K. Mahapatra

#### Professor

B.S. Sharma (on deputation)

#### Associate Professors

S.S. Kale  
Rajender Kumar

Sarat P Chandra  
Manmohan Singh

Ashish Suri



### **Assistant Professors**

Manish Singh Sharma  
Deepak Kumar Gupta

Deepak Aggarwal  
Sumit Sinha

S.D. Satyarthee

### **NEURORADIOLOGY**

#### **Professor and Head**

N.K. Sharma

#### **Additional Professor**

Shailesh B. Gaikwad

#### **Associate Professors**

Ajay Garg

### **NEUROPATHOLOGY LABORATORY**

#### **Professor**

Chitra Sarkar

#### **Associate Professors**

M.C. Sharma

#### **Assistant Professor**

Vaishali Suri

### **CLINICAL PSYCHOLOGY**

#### **Assistant Professor**

Ashima Nehra Wadhawan

## **NEUROANAESTHESIOLOGY**

### **Other Staffs**

Eleven (11) DM – Neuroanaesthesiology students and 18 Non–academic Senior Residents (including 10 in Trauma centre) were part of the department.

## **EDUCATION**

### **Postgraduate Teaching**

1. Eight (8) MD-Anaesthesiology students (1.5 months each) from Anaesthesiology department, AIIMS, and 03 PG students (from Lady Hardinge Medical College New Delhi-Two weeks each) received neuroanaesthesiology training in the department.
2. Twelve (12) Senior Residents (08 from Department of Anaesthesiology, AIIMS & 04 from Unit of Anesthesiology, BRAIRCH received training in Neuro-anaesthesiology for variable periods as a part of interdepartmental rotation policy on mutual exchange basis.
3. Three DNB students from Tata Main Hospital, Jamshedpur (05.01.2009 TO 19.01.2009) received training in Neuroanaesthesiology.

4. Once a week (Saturdays) Seminars, Journal club and case presentations as a part of departmental teaching programme were organized for 2½ hours at a time.

### Short-Term Training

1. Dr. Riyadh Firdaus, from Indonesia (From 17.07.2009 to 16.09.2009)
2. Dr. Tanuja Anand, from SAIL hospital Bhillai (From 17.07.2009 to 26.08.2009)

### CME

Nil

### Lectures Delivered

#### Prof. H. H. Dash

- ‘Management of status epilepticus’, CME on Recent advances in Anaesthesia at Burla, Orissa, 21<sup>st</sup> -23<sup>rd</sup> June 2009.
- ‘Perioperative neuroprotection’, 1<sup>st</sup> Annual Conference of Indian College of Anaesthesiologists (ICACON2009), New Delhi, 21<sup>st</sup> -22<sup>nd</sup> Nov 2009.
- ‘Drugs in Neuroanesthesia: role of inhalational agents’, 2<sup>nd</sup> International Anesthesia Symposium held at Guangzhou, China from 8<sup>th</sup>-10<sup>th</sup> Jan 2010
- ‘N<sub>2</sub>O vs. compressed air in Neuroanaesthesia’, 7<sup>th</sup> Obstetrics Society of Asia Oceania & 7<sup>th</sup> International Meeting of Indonesian Society of Obstetric Anesthesia & Indonesian Society of Regional Anaesthesia & Pain Medicine held at Jakarta, Indonesia from 17<sup>th</sup>-20<sup>th</sup> Feb 2010.
- ‘Trigeminal Neuralgia’, JN Medical College Hospital, Aligarh, India on 27<sup>th</sup> Mar 2009
- ‘Anaesthetic implications in posterior fossa surgery’, ISACON 2009, Chennai, 26<sup>th</sup> -29<sup>th</sup> 2009
- Anaesthetic considerations in neurosurgical patients’, Postgraduate Assembly 2010, Sir Gangaram Hospital, New Delhi, 16<sup>th</sup> Feb 2010.
- Prof. P. K. Bithal delivered a lecture on ‘Quality management in hospital services’ in the CME organized by Department of Hospital Administration, AIIMS, New Delhi

#### Prof. P. K. Bithal

- ‘Controversies in management of neurotrauma’, TRAUMA 2009 at JPNATC, AIIMS, New Delhi
- ‘Role of intracranial pressure monitoring’, in TRAUMA 2009 at JPNATC, AIIMS, New Delhi
- ‘Anaesthetic management in neurosurgical patients undergoing non-neurosurgical procedures’, RSACPCON 2009, Base Hospital, New Delhi
- ‘Brain Death’, ‘Cerebral resuscitation’, and ‘Airway devices’, workshop for DNB students, at Telemedicine facility of IGNOU, Delhi
- ‘Anaesthetic management in posterior fossa surgery’, (*Radio talk*) at Telemedicine facility of IGNOU, Delhi

### **Dr. G. P. Rath**

- ‘Neuroanaesthetic considerations in the management of severe traumatic brain injury’, TRAUMA 2009 at JPNATC, AIIMS, New Delhi
- ‘Awake Craniotomy’, workshop for DNB students, at Telemedicine facility of IGNOU, Delhi

### **Dr. H. Prabhakar**

- ‘Fluid and electrolyte management in neurocritical care patient’ TRAUMA 2009 at JPNATC, AIIMS, New Delhi
- ‘Sedation protocol in neuroimaging in paediatrics’, ISNACC 2010, 29<sup>th</sup> – 1<sup>st</sup> Feb 2010, Kolkata
- ‘Anaesthetic management during posterior fossa surgery’, workshop for DNB students, at Telemedicine facility of IGNOU, Delhi

### **National & International Conferences**

The department faculty and residents attended 10 conferences (07 National and 03 international), 01 international symposium, two CME and one workshop. Fourteen lectures (11 in national conferences and 03 in international conferences) were delivered by faculty members and 12 (07 international + 05 national) research papers were presented by faculty members and senior residents in the conferences.

### **RESEARCH**

#### **Funded Research**

Avoidance of nitrous oxide during anaesthesia in patients undergoing craniotomy for supratentorial tumors

#### **Departmental Projects**

##### *Completed*

1. Comparative evaluation of percutaneous retrogasserian glycerol rhizolysis and radiofrequency thermocoagulation techniques in the management of trigeminal neuralgia – a retrospective analysis
2. Comparative study of thiopentone and propofol for brain protection during temporary clipping in intracranial aneurysm surgery
3. A comparative study of early and delayed extubation following transoral odontoidectomy and posterior fixation
4. Postoperative pulmonary complications after transoral odontoidectomy and posterior fixation
5. A retrospective analysis of perioperative complications in neuroendoscopic procedures- our institutional experience

##### *Ongoing*

1. Effect of pregabalin premedication on preoperative anxiety and postoperative pain in lumbar laminectomy and discectomy
2. Complications following elective craniotomy- a prospective observational study

3. Incidence and characteristics of postoperative complications during hospital stay in patients undergoing transsphenoidal removal of pituitary tumors.
4. Comparison of two anaesthetic techniques in postoperative cognitive dysfunctions in patients undergoing transsphenoidal removal of pituitary tumors.
5. Coagulation effects of mannitol alone and in combination with hydroxy-ethyl starch in patients undergoing craniotomy as evaluated by rotational thromboelastography.
6. Coagulation abnormalities following aneurysmal subarachnoid haemorrhage during perioperative period as detected by ROTEM thromboelastography (TEG).
7. To compare the effect of different anesthetic agents on electrocorticography in patients undergoing epilepsy surgery – A BIS guided study
8. Laryngeal morbidity associated with fiberoptic tracheal intubation performed Under General anaesthesia without or with use of muscle relaxant
9. Perioperative management in children with encephalocele
10. The causes, risk factors and rate of postoperative ventilation in patients undergoing elective craniotomy
11. Effect of intraoperative brain protection with propofol on postoperative cognition in patients undergoing temporary clipping during intracranial aneurysm surgery

## **PUBLICATIONS**

1. Tripathi M, Garg A, Gaikwad S, Bal CS, Chitra S, Prasad K, Dash HH, Sharma BS, Chandra PS. Intra-operative electrocorticography in lesional epilepsy. *Epilepsy Res.* 2010; 89(1): 133-141.
2. Bhagat H, Chauhan H, Dash HH. ST elevation in a head-injured patient for emergency neurosurgery: do we routinely need a cardiac evaluation? *Ann Card Anaesth.* 2010; 13(1):73-4.
3. Pandia MP, Dash HH. Report on the first Congress of Asian Society for Neuroanesthesia and Critical Care (ASNACC). *J Neurosurg Anesthesiol.* 2010; 22(1):73-4.
4. Singh D, Rath GP, Dash HH, Bithal PK. Anesthetic concerns and perioperative complications in repair of myelomeningocele: a retrospective review of 135 cases. *J Neurosurg Anesthesiol.* 2010; 22(1):11-5.
5. Ali Z, Prabhakar H, Bithal PK, Dash HH. A review of perioperative complications during frameless stereotactic surgery: our institutional experience. *J Anesth.* 2009; 23(3):358-62.
6. Bhagat H, Narang R, Sharma D, Dash HH, Chauhan H. ST elevation—an indication of reversible neurogenic myocardial dysfunction in patients with head injury. *Ann Card Anaesth.* 2009; 12(2):149-51.
7. Jain V, Mitra JK, Rath GP, Prabhakar H, Bithal PK, Dash HH. A randomized, double-blinded comparison of ondansetron, granisetron, and placebo for prevention of postoperative nausea and vomiting after supratentorial craniotomy. *J Neurosurg Anesthesiol.* 2009; 21(3):226-30.
8. Singh D, Rath GP, Dash HH, Bithal PK. Sevoflurane provides better recovery as compared with isoflurane in children undergoing spinal surgery. *J Neurosurg Anesthesiol.* 2009; 21(3):202-6.

9. Ali Z, Prabhakar H, Rath GP, Dash HH. Enoxaparin induced intracerebral haemorrhage after deep brain stimulation surgery. *Eur J Anaesthesiol.* 2009; 26(7):617-8.
10. Ali Z, Bithal PK, Prabhakar H, Rath GP, Dash HH. An assessment of the predictors of difficult intubation in patients with acromegaly. *J Clin Neurosci.* 2009; 16(8):1043-5.
11. Prabhakar H, Ali Z, Bithal PK, Singh GP, Laithangbam PK, Dash HH. EEG entropy values during isoflurane, sevoflurane and halothane anesthesia with and without nitrous oxide. *J Neurosurg Anesthesiol.* 2009; 21(2):108-11.
12. Rath GP, Bithal PK, Toshniwal GR, Prabhakar H, Dash HH. Saline flush test for bedside detection of misplaced subclavian vein catheter into ipsilateral internal jugular vein. *Br J Anaesth.* 2009; 102(4):499-502.
13. Pandia MP, Bithal PK, Sharma MS, Bhagat H, Prasanna B. Use of spontaneous ventilation to monitor the effects of posterior fossa surgery in the sitting position. *J Clin Neurosci.* 2009; 16(7):968-9.
14. Chaturvedi A, Khanna P. Prevention of airway injury during spine surgery: rethinking bite blocks. *J Neurosurg Anesthesiol.* 2009; 21(4):356.
15. Khanna P, Pandia MP. Use of bite blocks for pediatric anesthesia. *Paediatr Anaesth.* 2009; 19(6):637.
16. Mehta M, Rath GP, Singh GP. Anesthesia for Nelson's syndrome. *Middle East J Anesthesiol.* 2009; 20(2):313-4.
17. Singh M, Bindra A, Rath GP, Malik V, Prabhakar H. Ventriculo-peritoneal shunt surgery in an infant with double aortic arch, patent ductus arteriosus and atrial septal defect. *Middle East J Anesthesiol.* 2009; 20(2):309-12.
18. Chakravarty C, Yadav N, Ali Z, Prabhakar H. Upper lip bite test in a patient with McCune Albright syndrome with acromegaly. *J Clin Neurosci.* 2010; 17(2):258-9.
19. Prabhakar H, Pal Singh G, Ali Z, Bindra A. Surgery in sitting position in patient with ventriculoperitoneal shunt in situ may be hazardous! *Childs Nerv Syst.* 2009; 25(12):1531-2.
20. Prabhakar H, Ali Z, Singh GP, Chaudhary P. Acromegalic and "Mallampati class zero" airway—an unusual finding! *J Neurosurg Anesthesiol.* 2010; 22(1):79.
21. Arasho B, Sandu N, Spiriev T, Prabhakar H, Schaller B. Management of the trigeminocardiac reflex: facts and own experience. *Neurol India.* 2009; 57(4):375-80.
22. Singhal V, Sharma M, Prabhakar H, Ali Z, Singh GP. Effect of posture on mouth opening and modified Mallampati classification for airway assessment. *J Anesth.* 2009; 23(3):463-5.
23. Mehta M, Ali Z, Prabhakar H, Singh GP. Low bispectral index values after treatment for seizures in Dandy-Walker syndrome. *Paediatr Anaesth.* 2009; 19(6):628-9.
24. Prabhakar H, Ali Z, Singh GP. Asystole may be the most severe sequela of the trigeminocardiac reflex: a comment on "Asystole due to trigemino-cardiac reflex: A rare complication of transphenoidal surgery for pituitary adenoma". *J Clin Neurosci.* 2009; 16(11):1508.

25. Khurana H, Dewan P, Ali Z, Prabhakar H. Electrocardiographic changes due to vagosympathetic coactivation during the trigeminocardiac reflex. *J Neurosurg Anesthesiol*. 2009; 21(3):270.
26. Schaller B, Cornelius JF, Prabhakar H, Koerbel A, Gnanalingham K, Sandu N, Ottaviani G, Filis A, Buchfelder M; Trigemino-Cardiac Reflex Examination Group (TCREG). The trigeminocardiac reflex: an update of the current knowledge. *J Neurosurg Anesthesiol*. 2009; 21(3):187-95.
27. Ali Z, Prabhakar H, Rath GP. Persistent postoperative hypertension following posterior fossa surgery. *Middle East J Anesthesiol* 2010; 21(1): 101-102
28. Bithal PK, Pandia MP, Chouhan RS, Prabhakar H, Rath GP, Dash HH, Marda MK. Effect of phenytoin therapy on bispectral index and hemodynamic changes following induction and tracheal intubation. *Indian J Anaesth* 2009; 53:187
29. Elakkumanan LB, Prabhakar H. Avoiding a catastrophe with the knowledge of the working principle of different flowmeters. *Indian J Anaesth* 2009; June: 410 – 411
30. Garg R, Rath GP. Re-insertion of dislodged tracheostomy tube using paediatric laryngoscope. *J Anaesthesiol Clin Pharmacol* 2009; 25(4): 513-514
31. Khanna P, Garg R, Rath GP. Introducer needle can be detached from hub during central venous cannulation. *J Anaesthesiol Clin Pharmacol* 2009; 25(3): 379-380
32. Mahajan C, Chaturvedi A. Endotracheal tube kinking during neurosurgical procedures. *J Anaesth Clin Pharmacol* 2010; 26(1): 119-120.

## PATIENT CARE

### Peri-operative Anaesthetic Care

1. Neurosurgical operations (Total–2278) = Elective (1588) + Emergency (690)
2. Neuroradiological procedures (Total–368) = Diagnostic (201) + Therapeutic (167)
3. MRI procedures (Total-149) = Under Sedation (34) + Under Anaesthesia (115)

### Neuro - Intensive Care Unit

Intensive care management of 1966 patients (1831 neurosurgical and 135 neurological patients) was performed.

### Pain-Clinic

A total of 962 patients (226 New and 736 Old) were seen in the O.P.D. 131 of them were treated with nerve blocks in the operation theater.

## AWARDS, HONOURS & SIGNIFICANT EVENTS

- **Professor H. H. Dash** continues to be Chief of Neurosciences Centre, AIIMS; continues to be one of the Editors of *Journal of Neurosurgical Anesthesiology*; awarded Dr. V. A. Ponoose Oration at Annual conference of ISA, Delhi state branch; invited speaker in 7<sup>th</sup> Obstetrics Society of Asia Oceania & 7<sup>th</sup> International Meeting of Indonesian Society of Obstetric Anesthesia & Indonesian Society of Regional Anaesthesia & Pain Medicine held at Jakarta, Indonesia from

17<sup>th</sup>-20<sup>th</sup> Feb 2010; invited speaker in 2<sup>nd</sup> International Anesthesia Symposium held at Guangzhou, China from 8<sup>th</sup>-10<sup>th</sup> Jan 2010.

**Professor H. H. Dash** is the Superintendent of Hostels in AIIMS

## NEUROLOGY

### EDUCATION

The faculty members of the department have been actively involved in all teaching programs of the department of Neurology and the institute, training undergraduate and post-graduate and post doctoral (DM) students. This includes guidance for preparation and presentation of seminars, journal clubs and clinical combined rounds of the department.

### CME

#### Organized by the department

1. Annual World Parkinson's Day was organized on 5<sup>th</sup> April 2009
2. Biannual Workshops on "Epilepsy and EEG" at CMET, AIIMS, 13<sup>th</sup>-14<sup>th</sup> June 2009 and January 16-17 2010.
3. Epilepsy Day, Awareness: 17<sup>th</sup> Nov-2009, at Jawaharlal Nehru auditorium, AIIMS, New Delhi.
4. A workshop on epilepsy surgery' "Evaluation, Surgical Procedures and Rehabilitation" on 7<sup>th</sup> -8<sup>th</sup> Nov 2009 at AIIMS, chairperson in "Timing and candidates for surgery"
5. Workshop on "*Spasticity and Evidence Based Care for Stroke*" at AIIMS, New Delhi on 12<sup>th</sup> March 2010.
6. Workshop on "*Neurointerventions*" at AIIMS, New Delhi on 15<sup>th</sup> March 2010.
7. Conducted a workshop on "*How to do Cochrane Systematic Review*" at Riyadh, Saudi Arabia, 18-23 May 2009.

#### Lectures delivered

- **Prof. M.Behari** has been invited as a clinical expert to a meeting on Management of Solitary Cysticercus Granulomas (SCG)". a CME on Tropical Neurology at PGIMER, Chandigarh.
- Speaker to Asian Scientific Symposium on Parkinson's disease and Restless Legs Syndrome 2009, July 4-5, 2009 in Japan .
- Speaker to CME by Armed Forces Medical Research Committee (AFMRC) under the Defense Research and Development Council, Ministry of Defense, Pune, 25<sup>th</sup> & 26<sup>th</sup> July, 2009.
- Course Director of Work shop on Botulinum toxin in spasticity after stroke at the V<sup>th</sup> National Congress of the Indian Stroke Association held on 12<sup>th</sup> – 14<sup>th</sup> March 2010, New Delhi.
- Chairperson on epilepsy surgery workshop organized in collaboration with ASEPA (Asian Epilepsy Academy) and ILAE (International league against epilepsy), 7-8<sup>th</sup> Nov, 2009 New Delhi.
- Attended the Annual conference of Indian Academy of Neurology (IANCON-2009) Cochin 10 – 13 Sept'09.
- Invited to chair session in National Medicine Update -2009 held at Pune on 25<sup>th</sup>-26<sup>th</sup> July, 2009.



- Invited as a speaker at Indo-US Bilateral Conference on Translational Neuroscience: New Trends in Mental & Neurodegenerative Disorders Research, held in Chicago, October 15<sup>th</sup> – 16<sup>th</sup>, 2009 as an External Expert
- Invited as an expert in Expert Group Meeting on National Essential Medicine List, September 16, 2009 organized by Department of Pharmacology, funded by World Health Organization
- Invited as invited faculty for the APICON 2010 CME held at Jaipur on 7<sup>th</sup> Jan, 2010
- Invited as invited speaker at Neuro Update 2010 organized by Calcutta Medical College & Indian Institute of Chemical Biology, CSIR, Kolkata held on Feb 13<sup>th</sup> – Feb 15<sup>th</sup> 2010
- Attended the 9<sup>th</sup> Meeting of the Project Assessment Committee, DST in SCTIMS Trivandrum, Kerala, 26<sup>th</sup> & 27<sup>th</sup> Nov, 2009
- Invited as moderator in a session on NeuCon (Controversies in Neurology) at New Delhi on 27<sup>th</sup>–28<sup>th</sup> Feb,2010
- Mentor to help organize an Education course of Asian Oceanian Sub-Section of Movement Disorders Society of Movement Disorders at Dayanand Medical College, Ludhiana on 30<sup>th</sup> – 31<sup>st</sup> Jan,2010 and delivered a lecture.
- **Prof.K.Prasad** “Management of intracerebral hemorrhage” in the CME on Stroke: Recent advances in Medical Management and Rehabilitation held at Christian Medical College, Ludhiana, 3<sup>rd</sup> April 2009.
- Delivered an Oration in the name of “Endowment lecture in Neurosciences” and a talk on “Stem Cell Therapy” at CME and Oration of Andhra Medical College, Vishakhapatnam, 29-30 August 2009.
- “Management of Stroke – Recent Concepts” in the Medicine Update – 2009 at Maulana Azad Medical College, New Delhi on 23<sup>rd</sup> December 2009.
- “Tuberculous Meningitis in India: Lessons from evidence based medicine” in TROPICON 2010 held at JIPMER, Pondicherry on 27<sup>th</sup> March 2010.
- Attended a “Restorative therapy in stroke: Role of stem cells”. 5<sup>th</sup> National Congress of Indian Stroke Association by the Department of Neurology at AIIMS, New Delhi from 13-15 March 2010.
- Attended a “Role of antiplatelets for primary prevention of stroke”. 5<sup>th</sup> National Congress of Indian Stroke Association by the Department of Neurology at AIIMS, New Delhi from 13-15 March 2010.
- Attended a “Experience Based Medicine has unique place in practice of Medicine” Neucon held in New Delhi, February 2010.
- Attended a “Antiplatelet Therapy for Primary & Secondary Prevention of Stroke” in the Annual Conference of Delhi Neurological Association held at New Delhi, February 2010.
- Resource Faculty in the ICMR workshop on Research Methodology at Agartala, Tripura, 18-20 February 2010 and delivered lectures on :
  - Data management and basic summary measures used in above four designs
  - Formulation of research quest, hypothesis generation

- Cross sectional studies
- Cohort
- Characteristics of a good proposal
- “Stem cell therapy: Role in stroke” in Conference on Stroke held at Medanta – The Medicity, Gurgaon on 17 January 2010.
- “Evidence Based Clinical Neurology” in the Annual Conference of the Neurological Society of India from 17-19 December 2009 at SGPGI, Lucknow.
- “Managing Quality In Clinical Services” in the Workshop on Quality Assurance organized by Department of Hospital Administration, AIIMS, New Delhi, November 2009.
- Resource Faculty in the ICMR workshop on Research Methodology, at Guwahati, Assam, 3<sup>rd</sup> – 5<sup>th</sup> September 2009 and delivered talks on :
  - Cross Sectional Studies
  - Cohort Studies
  - Case Control Studies
- “Operational Research” in the National Seminar cum Workshop on Operations Research in Hospital Administration Organised by Department of Hospital Administration (AIIMS New Delhi) in Collaboration with World Health Organization, 7-8 August 2009.
- Conducted workshop on “Clinical Research Methodology” at the Clinical Epidemiology Unit on 25th - 26th April 2009 and delivered lectures on:
  - Study designs
  - Bias
  - Designing a treatment study (clinical trial)
  - Sample size calculation for diagnostic test study and RCT
  - Sample size calculation for cohort and case control study
- Conducted workshop on “Analysis and Interpretation of Data” at the Clinical Epidemiology Unit on 19th - 20th September 2009 and delivered lectures on:
  - Introduction & Data entry
  - Basic principles, Data types/Scales
  - Analysis of RCT/Cohort
  - Analysis of a diagnostic test study
- Conducted workshop on “Designing Clinical Research” at the Clinical Epidemiology Unit on 23rd - 24th January 2010 and delivered lectures on:
  - Study designs and Hypothesis formulation
  - Sample size for diagnostic test study and RCT
  - Simple formula to keep in mind.
- Conducted workshop on “Evidence Based Medicine” at the Clinical Epidemiology Unit on 16th - 17th March 2010 and delivered lectures on:
  - EBM, What, Why and How?
  - Critical appraisal of a meta-analysis paper
  - Group work presentation on meta analysis paper, QA, Discussion

- “Assessing Severity of Tuberculous Meningitis : Beyond MRC” in the International Workshop on the Pathogenesis, Diagnosis & Management of TB meningitis held in University of Cape Town, South Africa on 8-10 May 2009.
- Faculty and conducted a workshop “How to Teach Evidence-Based Clinical Practice” held at McMaster University, Canada from 31 May 2009 to 5th June 2009.
- Resource Person in the 15th Oxford Workshop on Teaching Evidence Based Practice held at University of Oxford from 7 – 11 September 2009.
- Faculty in the 8th Asia Pacific Evidence Based Medicine & Nursing workshop and conference organized by National University Health Systems, Singapore at Penang, Malaysia from 2 – 5 February 2010.
- Conducted a workshop on “How to do Cochrane Systematic Review” at Riyadh, Saudi Arabia, 18-23 May 2009 and delivered following lectures:
  - Systematic review and meta-analysis: An introduction.
  - Format for protocol and Cochrane review
  - Assessing methodologic quality of studies for review
  - Meta-analysis: statistical issues
  - Assessing publication bias in a meta-analysis
- Invited speaker for The International Stroke Update, held in Trivandrum, in Jan, 2009.

**Dr. M.V. Padma**

- Invited speaker for the VTE Symposium, held in New Delhi, in March, 2009.
- Invited speaker for the CME program arranged by the East Delhi Branch of DMA held in March, 2009.
- Invited speaker and Convener for the Third Indo-American FOS Program held in New Delhi, INSA, in Jan, 2009 on Infection and Cognition.
- Invited speaker and faculty for the APICON, 2009, held in Noida, in Jan, 2009.
- Invited speaker and faculty for the combat session on treatment of neurocysticercosis in DNACON, held in Feb, 2009.
- Invited speaker, and chairperson for the 4 th National Stroke Congress, held in March, 2009.
- Invited speaker for the topic on stroke and thrombolysis, held in the CME program in Ludhiana, in April, 2009.
- Invited core member for formulating National Guidelines for SCGs in India – TROPICON – April, 2009, Chandigarh.
- Invited faculty for speaking on Hyperacute thrombolysis in AIS at the CME by the RAJAPICON, held in Jaipur, May, 2009.
- Invited speaker for the Recent advances in stroke symposium held by max Neurosciences Institute, in June, 2009.
- Invited speaker for the World Stroke Day celebrations at IHC, organized by Apollo hospital Delhi in June 2009.

- Invited speaker for the National Stroke Update held at AFMC, Pune in June, 2009.
- Attended the FIST meeting in Delhi in July, 2009.
- Attended the PMC meeting of SBIRI, in Ahmedabad, in July 2009.
- Attended the panel discussion on stroke by the Delhi chapter of API in November, 2009.
- Invited speaker and member for the national guidelines for stroke management at various levels of health care delivery under the National Program for prevention and control of diabetes, CVD and stroke. Held in November, 2009 in Chandigarh.
- Invited speaker for the CME of the APICON held in Jaipur in Jan, 2010.
- Invited speaker for the 27 th Annual conference of Indian Academy of Neurosciences held in Jaipur, in December, 2009.
- Invited speaker for the Critical Care Symposium in Neurosciences held in Fortis Noida Hospital on 20 th of march, 2010.
- Invited speaker for the Controversies in Neurology Symposium held in New Delhi in Feb, 2010.
- Invited speaker for the DNA annual conference held in New Delhi in Feb 2010.
- Invited speaker for the CME on Brain Rescue held in Gurgaon in Jan 2010.
- **Dr.M.Tripathi** has attended SLEEPCON 2009 “International Conference on Sleep Disorders, at Chennai, 4<sup>th</sup> -5<sup>th</sup> April 2009, “Parasomnias: Walking, Talking, Screaming, Eating & more!”
- Attended 10<sup>th</sup> Annual Conference of MP Association of Neuro Sciences(MP NEUROCON) in Gwalior 11<sup>th</sup>-12<sup>th</sup> April 2009, Topic of guest Lecture”, EEG, Epilepsy Classification .
- Attended Expert on Expert group Solitary cysticercal granuloma - National conference on Tropical Neurology ( TROPICON 2009 ) on 19<sup>th</sup> April 2009 –
- Intractable Epilepsy, Epilepsy Update, Patna 10<sup>th</sup> may 2009 under aegis of Indian Epilepsy Association (Bihar Chapter) & Department of Neurology, Indira Gandhi Institute of Medical Science, Patna.
- Attended a meeting on Seizure Semiology - “Neuro-update Kashmir 2009 CME Programme” on 8<sup>th</sup> July 2009 at Govt. Medical College (Neurology Division), Shrinagar-Kashmir.
- Attended the invited faculty talk on activity based electrocorticography “WONOEP Satellite Meeting of the ILAE Conference”, 24<sup>th</sup>-27<sup>th</sup> June at Pecs, Hungary.2009
- Invited speaker- Extratemporal epilepsies, Clinical EEG workshop on 17& 18 July 2009 at Hyderabad
- Attended the CME at Jalandhar on “New options in Idiopathic Generalized Epilepsy”, 1<sup>st</sup> August 2009.
- Attended an invited lecture on “Epilepsy- therapeutic strategies”, 9<sup>th</sup> August 2009, Kanpur, IMA (UP).
- Invited - “Interactive case discussion” -Case presentation and discussion Pre-Conference workshop on *VEEG at IAN*, Cochin on 10<sup>th</sup> Sept 2009.

- “Interactive case discussion” -Case presentation and discussion Pre-Conference workshop on PSG at IAN, Cochin on 10<sup>th</sup> Sept 2009.
- Presented paper in the 19<sup>th</sup> World congress of Neurology 2009, Bangkok, Thailand, 24<sup>th</sup> - 30<sup>th</sup> Oct 2009.
- Newer therapies for dementia. 15<sup>th</sup> Annual conference of the *Alzheimer and Related Disorders Society of India* (ARDSI) at Kolkata on 4<sup>th</sup>-6<sup>th</sup> Dec 2009.
- “Sleep Disorder- Sleep and Epilepsy” ISSR annual meeting, IHC, New Delhi. On 12<sup>th</sup> – 13<sup>th</sup> December 2009.
- Scientific committee of the APICON 2010 at Jaipur (7-10 Jan) Invited Speaker Memory Disturbances.
- *Semiology in Epilepsy and sleep disorders* –Ujjain, Medical University on 8/2/10
- Faints, Fits, Falls in Elderly- are they seizures in Annual meeting for “ECON 2010”, 5-7<sup>th</sup> Feb 2010, Indore (M.P.)
- Chaired the session “Issues in management of Epilepsy”- “International workshop on Epilepsy” held at G.B.Pant Hospital, New Delhi. (19-21 Feb, 2010)
- Invited speaker on Neucon 2010 Old AEDs – Old is Gold
- **Dr V. Goyal** “Issues pertaining to declaration of Brain Death” Trauma 2009, International congress, CME cum live demonstration workshop & 2nd Annual conference of ISTAC, Trauma center, AIIMS, New Delhi. 12-15<sup>th</sup> Nov, 2009
- “New Prospective in management of Migraine” in Regional CME 2909, by IMA branch of Kashipur, Uttranchal. CME is on 13<sup>th</sup> Dec 2009
- “DNA Neurocon” DNA Neurocon 2010, 12<sup>th</sup> Annual conference of Delhi Neurological Association, IHC, New Delhi. 6-7<sup>th</sup> Feb 2010
- Chaired session “False localizing seizures and Catastrophic Epilepsies”, in International workshop on epilepsy, GB Pant Hospital, New Delhi. 19-21 February, 2010
- Emergencies in movement disorders” “Neucon: Neurology, controversies to consensus” New Delhi. 27-28<sup>th</sup> Feb 2010
- “Botulinum toxin treatment for Upper limb spasticity”, 5<sup>th</sup> National congress of Indian Stroke Association & International Stroke conference, AIIMS, New Delhi, 12-15<sup>th</sup> mar 2010.
- “Workshop on spasticity in stroke”, 5<sup>th</sup> National congress of Indian Stroke Association & International Stroke conference, AIIMS, New Delhi, 12-15<sup>th</sup> mar 2010.
- “Management of Migraine”, 3<sup>rd</sup> Medicine update 2010, Department of Neurology, Gwalior Medical College, Kota. 17<sup>th</sup> Apr, 2010
- **Dr. G. Shukla** CME organized by the The Physicians Forum, Jalandhar in association with Chest Physicians Association on 29<sup>th</sup> of Nov 2009 in Jalandhar, Punjab.
- MEDICON 2009 organized by the IMA Saharanpur on 20<sup>th</sup> December 2009, at Saharanpur, UP.

- CME program organized for the Diamond Jubilee Alumni Meet of the Baroda Medical College, Vadodara, Gujarat, on 26<sup>th</sup> December 2009.
- EEG workshop organized by the Dept. of Neurology, AIIMS and the Indian Epilepsy Society, at AIIMS, New Delhi, on 15<sup>th</sup> Jan 2010.
- CME organized by the Brain & Spine Foundation, on 28<sup>th</sup> February at the Mata Channan Devi Hospital, New Delhi.
- NEUCON- North 2010, held at New Delhi, on 28<sup>th</sup> February 2010.
- **Dr R. Bhatia** Public lecture on Multiple Sclerosis Jan 2009 at AIIMS, New Delhi.
- **Dr. M. B. Singh** CME on Management of Epilepsy with newer antiepileptic drugs. Gurgaon 25/09/09.
- Post-traumatic Epilepsy Pre-NSI CME at Lucknow Dec 2009
- Epilepsy: Basics of Diagnosis and Treatment of Epilepsy. CME for Physicians Sasaram 14/02/10
- Sleep Disorders: Recognition, Relevance & Remedies: Neurology Update at MCDH 28/02/2010

## National and International Conferences

### Organized by department

- Organized the 5<sup>th</sup> National Congress of Indian Stroke Association by the Department of Neurology at AIIMS, New Delhi from 13-14 March 2010.

### Lectures delivered

- A Workshop on epilepsy surgery' "**Evaluation, Surgical Procedures and Rehabilitation**" on 7<sup>th</sup>-8<sup>th</sup> Nov 2009 at AIIMS, spoke on **Electrocorticography**".

## RESEARCH

### Funded Research

#### Completed

1. A Randomized, Double-Blind, Placebo-Controlled, Dose Escalation Study of Single Dose Administration of BIIB014 in Subjects with Relapsing and remitting multiple sclerosis as PI, funded by Biogen Idec; (amount 10.00); For 1yr (2008-2009) Prof. Behari
2. "A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Trial, with Placebo Run-In, and an Open-Label Treatment Period, to Evaluate the performance of the Cogstate Computerized neuropsychological Battery and the ADAS-Cog in Generally Cholinesterase-inhibitor AD Patients Randomized to Either Donepezil or Placebo", "Principal Investigator of Quintile ", **Principal Investigator** /in Deptt. Of Neurology, AIIMS. Dr.M. Tripathi

#### Ongoing

#### Prof. M. Behari

1. A Phase III, double – blind placebo controlled study to determine the efficacy and safety of a low (50-100 mg/day) and high (150-200 mg/day) dose range of safinamide as add-on therapy,

in patients with idiopathic Parkinson's disease with motor fluctuations, treated with a stable dose of levodopa as PI funded by CliniRx India Ltd. (Rs 10.00 lakh); for 1 ½ yrs (2009 – 2010)

2. A Phase III, double – blind placebo controlled, 12-month extension study to investigate the long term efficacy and safety of a low (50-100mg/day) and high (150-200mg/day) dose range of Safinamide, as add-on therapy, in patients with advanced idiopathic parkinson's disease with motor fluctuations, treated with a stable dose of Levodopa as PI, funded by Clinirx India Ltd. (Rs 20.00 lakh); for 1 ½ yrs (2007-2009)
3. A randomized, multicenter, double-blind, placebo-controlled, Dose – comparison study to determine the efficacy and safety of BG00012 in subjects with relapsing- remitting multiple sclerosis as PI, funded by Biogen Idec; (amount Rs 16.5lakh); 2yrs (2008-2010)
4. Study of safety and efficacy of *R-HSC-001* in patients with Advanced Parkinson's disease; as PI, funded by Reliance Life Sciences; (Rs 16.5 lakh); 2yrs (2008-2010)
5. Identification of novel gene(s) for familial PD as CO-I, funded by DBT; (amount Rs 95.0 lakh); for 3yrs (2007-2010)
6. Clinical Correlation of Ach-R-Abs and MuSK-Abs in myasthenia gravis patients in context with phenotype and genotype variation as PI, funded by ICMR; (amount Rs 28.0 lakh); for 3yrs (2007-2010)
7. Implantation of human retinal pigment epithelial (hRPE) cells in 6-OHDA lesioned rat model of Parkinson's disease as PI, funded by DST; (amount Rs 43.0 lakh); for 3yrs (2007-2010)

#### **Prof. K. Prasad**

1. Intravenous autologous bone marrow derived stem cell therapy for patients with acute ischemic stroke: A multi-institutional project.  
*Funded by : Department of Biotechnology, Govt. of India.*
2. Central Database Management Facility *Funded by: Department of Biotechnology, Govt. of India.*
3. Capacity Building on Stroke Biology  
*Funded by: Department of Biotechnology, Govt. of India.*
4. Mobilization of stem cells using G-CSF in acute ischemic stroke patients: A randomized clinical trial.  
*Funded by : Department of Biotechnology, Govt. of India.*
5. Beta Adrenergic Receptor and Angiotensin Converting Enzyme Encoding Gene Polymorphism As A Risk Factor For Stroke: A Case Control Study.  
*Funded by : ICMR, Govt. of India.*
6. Comparison of effects of administration of bone marrow mononuclear clls (BMMNCs) in combination with melatonin versus BMNCs alone in middle cerebral artery occlusion model of stroke in rats.  
*Funded by : Department of Biotechnology, Govt. of India.*



### **Prof. M.V.Padma**

1. Autologous Intra-arterial Infusion of Bone Marrow Mono Nuclear Cells for Static Encephalopathy with special reference to Cerebral Palsy. – Approved for DST funding – Rs. 23 Lakhs.
2. Normobaric Oxygen Therapy for Acute Ischemic Stroke: A pilot study in Indian patients. – ICMR – 20 lakhs. PREDICT: University of Calgary
3. Minocycline in acute ischemic stroke – ICMR – Rs. 10 lakhs

### **Dr. Manjari Tripathi**

1. “Correlation of Electrophysiological States and Hemodynamic changes during simultaneous EEG-fMRI in Intractable Epilepsy”, DBT/26.310000
2. “Cognitive Activation Studies of Language and Memory as a Preoperative Evaluation in Patients with Intractable Epilepsy-A Novel Non-invasive method of investigation”, DST/AIIMS. 25,00000/3years
3. “To Assess whether saliva and serum free anti-epileptic drugs levels are equivalent”, ICMR /3years/ 190000
4. Safety, tolerability and effectiveness evaluation of the ISS in the treatment of vascular dementia-A Pilot Study”, BRAIN GATES/3YAERS/

### **Dr. Vinay Goyal**

1. Evaluation of therapeutic effect of Repetitive Transcranial magnetic stimulation (rTMS) in Writers cramp, Migraine, Drug resistant Depression and Obsessive Compulsive Disorders. Funded by ICMR, Budget: 14.2 Lacs, Duration: 2 years

### **Dr. Garima Shukla**

1. Prevalence of the restless legs syndrome in women and its relationship with iron deficiency – a prospective case-controlled study from North India. Funding agency: All India Institute of Medical Sciences, Total funding: Rs. 44,000. Duration: 2 years
2. Generating knowledge for assessment of emerging technologies - The effects of Continuous positive airway pressure therapy for prevention of new vascular events in patients with sleep disordered breathing and stroke: A randomized controlled study. Funding agency: Department of Science and Technology, Ministry of Science & Technology, Government of India. Total funding: 69 lacs Duration: 3 years

### **Departmental Research**

#### **Prof. M. Behari**

1. Predictors of seizures in intractable epilepsy patients undergoing long term video EEG recording
2. Neuropsychiatric problems in patients with Parkinson’s disease
3. Care giver burden among caregivers of Parkinson’s disease patients
4. Long term prognosis and factors affecting prognosis in tubercular meningitis
5. Sleep disorders in intractable and controlled epilepsy patients

6. Result of Mitoxantron therapy in multiple sclerosis
7. Ocular movements in young onset Parkinson's disease
8. Comparison VATS thymectomy vs. Open thoracotomy thymectomy in Myasthenia Gravis
9. Non motor symptoms in Parkinson's disease
10. Validation of Hindi version of PDQ-39 in Indian Parkinson's disease patients
11. Natural history of Parkinson's disease
12. Inflammatory response in SSPE

**Prof. K. Prasad**

1. Fever is associated with doubling of odds of death in patients with stroke: a meta-analysis study.

**Dr. Manjari Tripathi**

1. "Study of cognition and Quality of life in Chronic Intractable Epilepsy using Functional Magnetic Resonance Imaging" (fmri)
2. "A Randomized Controlled Trial (RCT) of Early versus Late Surgery in childhood intractable Epilepsy"

**Dr. Garima Shukla**

1. Psychiatric co-morbidity in patients of medically refractory epilepsy – pre and post epilepsy surgery.
2. Prevalence of Sleep disordered breathing in Stroke patients
3. Lower prevalence of Sleep disturbances in familial Parkinson's disease: a prospective case control study

**Collaborative Research**

*Completed*

**Prof. M.V. Padma**

- "Sensitivity and specificity of PCR in the detection of TBM versus other Neuroinfective diseases"
- "Study of Immune response of Immuno competent cells derived from Tuberculosis patients and healthy individuals"
- "Serological and molecular methods for detection of Cryptococcal Neoformans from clinical samples".
- "Proteomics in the detection of hereditary ataxias".
- High-throughput proteomics and protein marker discovery in tuberculous meningitis. – with Department of Biotechnology. PI – H.K.Prasad.

**Dr. Manjari Tripathi**

- Adverse Effects of Antiepileptics: Effect of Phytomedicines".

- A study of quantitative EEG changes, cognitive function and stress in mild cognitive impairment and Alzheimer's disease".
- "Hippocampal neuronal cell loss and age"
- "Evaluation of antiepileptic property of selected Indian plants and their mechanism of action."
- "Randomization clinical trial on determining the efficacy of Reflexology and usual drug treatment in the management of west syndrome ( infertile spasms)
- "Pilot Study determining the efficacy of Reflexology and usual drug treatment in the management of Lannoux-Gastaut Syndrome and screening on possible genetic mutation in GPR56 gene in Indian population
- "A study to evaluate the impact of health education on self care medication compliance in patients with epilepsy"
- "Surgery for intractable post-traumatic epilepsy: Resection on encephalomalacias using intraoperative electrography" -2009
- "Co-Registration of MRI, PET and Electrocorticographic Data for Neocortical resections in intractable epilepsy to improve the localization of
- A Retrospective analysis of epidermoid and dermoid tumors: A study of 171 cases", 2009.

### **Dr Vinay Goyal**

- "Effect of acute deep brain stimulation of subthalamic nucleus on selective attention in Parkinson's disease" Department of Physiology, AIIMS, New Delhi, India.

### **Ongoing**

### **Prof. K. Prasad**

- Thrombolysis with intravenous rt-PA for acute ischaemic stroke: the third International Stroke Trial. (IST-3). (*Funded by : Medical Research Council, UK*) ENOS : Efficacy of Nitric Oxide in Stroke - A prospective, international, multicentre, randomised, parallel-group, blinded, controlled, collaborative, factorial trial to investigate the safety and efficacy of treatment with transdermal glyceryl trinitrate, a nitric oxide donor, and of stopping or continuing prior antihypertensive therapy, in patients with acute stroke. (*Funded by : Medical Research Council, UK*)
- Genetic basis of ischaemic stroke in an Indian population. (*Funded by : UK-India Education Research Initiative, British Council, UK.*)

For "Departmental Research and "Collaborative Research" only the title of the research project and the name of the collaborative department.

### **PUBLICATIONS**

- Behari M. What is the cause of Parkinson's Disease. 7<sup>th</sup> Asia Pacific Parkinson's Association Program 2009.

- Gambhir H, Vivekanandhan S, Singh S, Goyal V, Shukla G, Mathur R, Behari M. Decreased motor coordination in the rat model of Parkinson's disease (PD) after 20 weeks of lesion. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 40;2009.
- Gupta Priya, Goyal V, Singh S, Shukla G, Behari M. Botulinum toxin therapy in patient of Wilson's disease. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 45;2009.
- Singh Pavan, Goyal V, Shukla G, Singh S, Behari M. Assessment of health related quality of life and depression in patients with hemifacial spasm. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 46;2009.
- Verma Alok, Goyal V, Behari M, Singh S. HRQoL in cranial focal dystonia. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 47;2009.
- Saxena M, Kumaran Sethil S, Singh S, Narang V, Behari M. Articulatory dysfunction in Parkinson's disease: An FMRI study. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 53-54;2009.
- Agrawal Vikas, Dihana M, Sajeesh SR, Sachin s, Shukla S, Goyal V, Singh S, Behari M. Comparison of clinical profiles of patients with young onset parkinson's disease and late onset parkinson's disease in India. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 56;2009.
- Vibha Deepta, Behari M, Singh S, Goyal V, Srivastava AK, Shukla G. Clinical profile of familial and sporadic Parkinson's disease. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 60;2009.
- Rai NK, Kumar M, Shukla G, Goyal V, Kumar N, Srivastava AK, Singh S, Behari M. Neuropsychiatric Co-morbidity in Parkinson's Disease. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 63-64;2009.
- Siddiqui NS, Behari M, Vivekanandhan S, Manral Mala. Trials of Multivitamins/antioxidant and nutritional supplements in Parkinson's Disease patients. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. P 64, 2009.
- Dash Deepa, Vibha D, Srivastava A, Goyal V, Singh S, Shukla G, Behari M. A Case of Issacs syndrome – continuous muscle fiber activity syndrome. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. Pg 67;2009.
- Srijithesh PR, Singh S, Goyal V, Shukla G, Behari M. Thalamic tremors: Clinical features. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 67-68;2009.
- Singh Hariom, Goyal V, Singh S, Shukla G, Srivastava AK, Behari M. Botulinum toxin therapy in hemifacial spasm: Study of Indian Patients. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 69;2009.
- Kumar M, Rai NK, Desai SD, Singh S, Goyal V, Shukla G, Behari M. Two cases of symptomatic hemifacial spasm- unusual cause. 2<sup>nd</sup> Asian and Oceanian parkinson's disease and movement disorders congress. p 69;2009.

- Singh I, Faruq M, Mukherjee O, Jain S, Pal PK, Srivastav MV, Behari M, Srivastava AK, Mukerji M. North and South Indian Populations Share a Common Ancestral Origin of Friedreich's Ataxia but Vary in Age of GAA Repeat Expansion. *Ann Hum Genet.* 2010 Mar 31: 20374234
- Suhail H, Subbiah V, Singh S, Behari M. Serological and clinical features of patients with myasthenia gravis in north Indian population. *Int J Neurosci.* 2010 Feb;120(2):115-9.
- Kumar N, Taneja KK, Kalra V, Behari M, Aneja S, Bansal SK. Novel human pathological mutations. Gene symbol: ABCD1. Disease: Adrenoleukodystrophy. *Hum Genet.* 2009 Aug;126(2):344.
- Soni D, Shukla G, Singh S, Goyal V, Behari M. Cardiovascular and sudomotor autonomic dysfunction in Wilson's disease—limited correlation with clinical severity. *Auton Neurosci.* 2009 Dec 3;151(2):154-8.
- Biswas A, Ranjan R, Meena A, Akhter S, Sharma V, Yadav BK, Behari M, Saxena R. Prothrombotic factors and the risk of acute onset non-cardioembolic stroke in young Asian Indians. *Thromb Res.* 2009 Sep;124(4):397-402.
- Goyal V, Vaishya S, Shukla G, Singh S, Behari M. Unusual complication of deep brain stimulation in Parkinson's disease. *Mov Disord.* 2009 Jun 15;24(8):1251-2.
- Biswas A, Ranjan R, Meena A, Akhter MS, Yadav BK, Munisamy M, Subbiah V, Behari M, Saxena R. Homocystine levels, polymorphisms and the risk of ischemic stroke in young Asian Indians. *J Stroke Cerebrovasc Dis.* 2009 Mar-Apr;18(2):103-10.
- Sachin S, Goyal V, Singh S, Shukla G, Sharma MC, Gaikwed S, Behari M. Clinical spectrum of Hallervorden-Spatz syndrome in India. *J Clin Neurosci.* 2009 Feb;16(2):253-8.
- Biswas A, Tiwari AK, Ranjan R, Meena A, Akhter MS, Yadav BK, Behari M, Saxena R. Thrombin activatable fibrinolysis inhibitor gene polymorphisms are associated with antigenic levels in the Asian-Indian population but may not be a risk for stroke. *Br J Haematol.* 2008 Nov;143(4):581-8.
- Biswas A, Tiwari AK, Ranjan R, Meena A, Akhter MS, Yadav BK, Behari M, Saxena R. Prothrombotic polymorphisms, mutations, and their association with pediatric non-cardioembolic stroke in Asian-Indian patients. *Ann Hematol.* 2009 May;88(5):473-8.
- Sachin S, Shukla G, Goyal V, Singh S, Aggarwal V; Gureshkumar, Behari M. Clinical speech impairment in Parkinson's disease, progressive supranuclear palsy, and multiple system atrophy. *Neurol India.* 2008 Apr-Jun;56(2):122-6.
- Prasad K, Krishnan PR. Fever is associated with doubling of odds of short-term mortality in ischemic stroke: an updated meta-analysis. *Acta Neurol Scand.* 2010 Mar 1.
- Prasad K, Mendelow AD, Gregson B. Surgery for Primary Supratentorial Intracerebral Hematoma. A Meta-Analysis of 10 Randomized Controlled Trials. *Stroke.* 2009 Sep 24.
- Prasad K, Kumar A. Management of stroke: a clinical approach. *J Indian Med Assoc.* 2009;107(6):392-4, 396-9.
- Prasad K. Publication bias perpetuates use of ineffective drugs in stroke. *Int J Stroke.* 2009;4(3):183-4.

- Gaikwad SB, Padma MV, Moses EJ, Sethi K, Tripathi M, Bhatia R, Prasad K, Mishra NK. Intra-arterial thrombolysis in basilar artery occlusions combination of intra-arterial thrombolytics and Gp IIb/IIIa inhibitors in basilar artery thrombosis. *Neurol India*. 2009;57(3):313-9.
- Prasad K, Karlupia N, Kumar A. Treatment of bacterial meningitis: an overview of Cochrane systematic reviews. *Respir Med*. 2009;103(7):945-50.
- Langhorne P, Sandercock P, Prasad K. Evidence-based practice for stroke. *Lancet Neurol*. 2009;8(4):308-9..
- Karlupia N, Prasad M, Prasad K. “Genetically modified mesenchymal stem cells (MSCs) are more effective than unmodified MSCs in reducing infarct volume in rodent MCAo models of stroke: a meta-analysis of pre-clinical studies.” Abstract, *Journal of Cerebral Blood flow and Metabolism* (2009) 29, S553-S564 (935).
- Padma Srivastava MV. Restorative therapy using stem cell in stroke. *Neurol India*, 57(4): 381-386; 2009.
- Saha DC, Xess I, Biswas A, Bhowmick DM, Padma MV. Detection of *Cryptococcus* by conventional, serological and molecular methods. *J. Med. Microbiol*. 58(8): 1098-1105; 2009.
- Gaikwad SB, Padma MV, Moses EJ, Sethi K, Tripathi M, Bhatia R, Prasad K, Mishra NK. Intra-arterial thrombolysis in basilar artery occlusions combination of intra-arterial thrombolytics and Gp IIb/IIIa inhibitors in basilar artery thrombosis *Neurol India*.57(3): 313-319; 2009.
- Rohit Bhatia, M.Tripathi, A.Srivastava, Garg A, M.B.Singh, A.Nanda, M.V.Padma, K.Prasad. Idiopathic Hypertrophic Pachymeningitis and dural sinus occlusion. Report of two cases with longterm follow up. *Journal of Clinical Neuroscience*, 16(7): 937-942; 2009.
- P.S.Chandra, A.Thapa, M.Tripathi, D, B.S.Sharma, M.Sharma PO18-WE -07 Epidemiology study of post traumatic seizure in india *Journal of the Neurological Science* 285 s1 (2009) S245.
- M Tripathi, P Singh, V Padma, R Bhatia, M. Singh, K Prasad All India Institute of Medical Sciences, India, “seizure clustering during VEEG monitoring in patients with intractable seizures, its localizing value and predictors”, *Epilepsia*, 50(Suppl. 10):1–182, 2009.
- K.Prasad , R.Bhatia ,S.Mohanty ,M.V.P.Srivastava , A.Garg A.Srivastava , V.Goyal ,M.Tripathi ,A. Kumar , A.Vij FPO5 – MO-03 “Autologous intravenous bone marrow derived stem cell therapy for ischemic stroke :a pilot study” *Journal of the Neurological Science* 285 s1 (2009) , S64
- K Prasad , P.R.Srijithesh , M.V.Padma ,M.Tripathi ,Neurology ,AIIMS ,New Delhi ,S194(2009)PO09 – MO-09 “Retrospective audit underestimates the degree of adherence to standards of quality stroke care” .
- Jitender Kataria, Lokesh Ankenahally Rukmangadachar, Gururao Hariprasad, Punit Kaur, Manjari Tripathi, Tej P Singh and Alagairi Srinivasan , “Cerebrospinal fluid proteomics in tuberculous meningitis patients”, 2009.
- Manjari Tripathi, Sarat P Chandra, ”Value of electrocorticography in epilepsy surgery for predicting clinical outcome”, Manuscript in Elsevier, clinical research,38,2009.



- Vibha D, Bhatia R, M V Padma Srivastava, Tripathi M, Singh M B, Prasad K, Annals of Indian academy of Neurology, 2009 Vol 12: supplement 1 “Clinical features and independent prognostic factors for acute bacterial meningitis in adults”
- M. Tripathi, N. Choudhary, P.S. Chandra, K.K. Deepak Neurology AIIMS, Physiology AIIMS New Delhi, India (2009). P018 –WE-53 “Effect of temporal lobe epilepsy surgery on cardiovascular autonomic functions”,
- Mukherjee S, Tripathi M, Chandra PS, Yadav R, Choudhary N, Sagar R, Bhore R, Pandey RM, Deepak KK. *Epilepsy Res.* 2009 Aug; 85(2-3):261-9. “Cardiovascular autonomic functions in well-controlled and intractable partial epilepsies”
- Amit Thapa, Sarat P. Chandra, Sumit Sinha, V. Sreenivas, Bhawani S. Sharma and Manjari Tripathi Post-traumatic seizures—A prospective study from a tertiary level trauma center in a developing country *Seizure: European Journal of Epilepsy* 3-MAR-2010.
- Tripathi M, Garg A, Gaikwad S, Bal CS, Chitra S, Prasad K, Dash HH, Sharma BS, Chandra PS. Intra-operative electrocorticography in lesional epilepsy. *Epilepsy Res.* 2010 Jan 13.
- Tripathi M, Vibha D, Choudhary N, Prasad K, Srivastava MV, Bhatia R, Chandra SP. Management of refractory status epilepticus at a tertiary care centre in a developing country. *Seizure.* 2010 Mar; 19(2):109-11.
- Manjari Tripathi, Hariom Singh, “Epilepsy in elderly”, *Epilepsy Update*, Edited by Dr. Ashok Kumar, Dept. of Neurology, IGIMS, Patna, page no. 183-190(23), 2009.
- P. Sarat Chandra, Manjari Tripathi, *Guidelines for Epilepsy surgery*, Dept. of Neurology, IGIMS, Patna, page no. 153-165 (18), 2009.
- Manjari Tripathi, Sureshbabu Sachin, *International neurology- A Clinical Approach*-Edited by Robert P Lisak, Daniel D Truong, William M Carroll, Roongroj Bhidayasiri Wiley Blackwell, 2009, Chapter 85, Nematodes, 300-302.
- Rath GP, Dash HH, Bithal PK, Goyal V. Intracranial Hemorrhage After Percutaneous Radiofrequency Trigeminal Rhizotomy. *Pain Pract.* 2009; 9: 82-84.
- S. Sachin, V. Goyal, S. Singh, G. Shukla, M.C. Sharma, S. Gaikwad, M. Behari. Clinical spectrum of Hallervorden-Spatz syndrome in India. *JNS* 2009; 16: 253–258.
- Goyal V, Vaishya S, Shukla G, Singh S, Behari M. Unusual complication of deep brain stimulation in Parkinson’s disease. *Mov Disord.* 2009 Jun 15; 24 ; 1251-2
- Kumar R, Goyal V, Chauhan RS. Venous air embolism during microelectrode recording in deep brain stimulation surgery in an awake supine patient. *Br J Neurosurg* 2009; 23(4): 446-8.
- Naskar S, Sood SK, Goyal V. Effect of acute deep brain stimulation of the subthalamic nucleus on auditory event-related potentials in Parkinson’s disease. *Parkinsonism Relat Disord.* 2010 Jan 28. [Epub ahead of print]
- Bijoy K Menon, Muneer Eesa, Rohit Bhatia, Michael D Hill, Andrew M Demchuk, Mayank Goyal. Does Concurrent Treatment With IV tPA Increase Recanalization Rate for Endovascular Management of Acute Ischemic Stroke? *Stroke.* published online Feb 22, 2010 (abstract).



- Bhatia, R, M.Tripathi,M, Srivastava,A, Garg A, Singh M.B, Nanda A, Padma MV, K.Prasad. Idiopathic Hypertrophic Pachymeningitis and dural sinus occlusion. Report of two cases with longterm follow up. J. Clin Neuroscience.2009;16: 937-42.
- Expert Group of the Association of Physicians of India on Adult Immunization in India. Collaborators (44). The Association of Physicians of India evidence-based clinical practice guidelines on adult immunization. J.A. P.I 2009;57: 345-56.
- Venkatraman Radhakrishnan, Rohit Bhatia, Gita Satpathy Panda, Sameer Bakhshi. Acanthamebic Meningoencephalitis Presenting as Personality Change. Pediatric Infectious Disease Journal 2009;28:555.
- Jain A, Sharma MC, Sarkar C, Bhatia R, Singh S, Handa R. Increased expression of cell adhesion molecules in inflammatory myopathies: diagnostic utility and pathogenetic insights. Folia Neuropathol. 2009;47:33-42
- Tanveer N, Sharma MC, Sarkar C, Gulati S, Kalra V, Singh S, Bhatia R. Diagnostic utility of skin biopsies in dystrophinopathies. Clin Neurol Neurosurgery.2009;111:496-502.
- M Singh, M Aggarwal, V Singh, A Srivastava. What factors determine compliance among epilepsy patients seen at a tertiary care centre in New Delhi, India? Epilepsia 50(Suppl 10) 1-182; 2009
- MB Singh, A Srivastava, V Singh, M Aggarwal. Can epilepsy awareness programmes improve drug compliance of patients in New Delhi, India? J Neurol Sci 285 S1 (2009)
- Mamta Bhushan Singh Post-traumatic epilepsy Progress in Clinical Neurosciences Vol 24; 57-62.

## PATIENT CARE

In the patient care/ supportive activities include information regarding:

(a) Facilities available in the department (including, special clinical and or special laboratory facilities

Indoor : Data will be provided by MRD section

Outdoor : Data provided by the record section till March'2010

Total Old and New Patients : **90879**

## PROCEDURES DONE IN EMG/EEG Lab :

EP	333
EPS	3414
STVEEG	64
LTVVEEG	217
SLEEP	173
PAPER DIGITAL EEG	3486
ECG	982

### **(b) Community services/camps etc.**

1. Organized World Parkinson's Disease Day for patients on 5th April'2009
2. Organized camp for Parkinson's Disease patients at Om Shanti Retreat Centre, Manesar, Gurgaon on 22 – 23 August, 2009
3. Organised "Epilepsy Rural Camp", 16 August 2009 UP.
4. Organised Rural Epilepsy camp December 2009, Tribal and Rural Orissa.
5. Dr MV Padma. Given a talk in the TV Channel (Ayur Living India) on 30th Sept,09
6. Doordarshan (DD News) "Total Health": "Parkinson's disease" public awareness program on DD News, 8.30-9.30 AM, 12th Apr 2009
7. Doordarshan (DD News) "Total Health": "Neuropsychiatry problems in adolescence" public awareness program on DD News, 3.30pm, 31st Jul 2009
8. Doordarshan (DD News) "Health Show": "Sleep Disorders" public awareness program on DD News, 4.00, 27th Mar 2010

### **AWARDS AND HONOURS**

- Prof.M.Behari has been invited to be the member of the AFMRC
- Prof.M.Behari was the Past President of India Academy of Neurology,
- Prof.M.Behari has been appointed as a member on the Faculty of Medicine, IMS, BHU, Varanasi for a period of three years with effect from 30/8/09.
- Prof.M.Behari has been invited as a Chairman of a Review Committee by the University Grants Commission to review the functioning of NIMHANS, Bangalore.
- Prof.M.Behari has been the expert, selection committee for selection of faculty at Maulana Azad Medical College, Govt.of NCT, Delhi, December, 2009
- Prof.M.Behari has been the member of Institutional Research Review Board and
- Ethics committee, JNU.
- Prof.M.Behari has Membership of Advocacy Subsection, Indian Academy of
- Neurology
- Prof.M.Behari has been the member of the expert committee of Human Resource
- Development Group, CSIR
- Prof.M.Behari has been the member Executive committee, Asean Oceanian Section of International Movement Disorders Society
- Prof.M.Behari has been the member Education committee, Asean Oceanian Section of International Movement Disorders Society
- Prof.M.Behari has been the member PR Committee, International Movement
- Disorders Society

- Prof.M.Behari has been the member Education committee, Movement Disorders Group, World Federation of Neurology
- Prof.M.Behari has been appointed as Inspector to inspect various colleges by Medical Council of India for starting DM course in Neurology.
- NRI Medical College, Guntur for starting of DM (Neurology) course under Dr.
- NTR University of Health Sciences
- Narayana Medical College, Nellore under Dr. NTR University of Health
- Sciences
- PSG Institute of Medical Sciences and Research, Coimbatore under the Tamil
- Nadu Dr.MGR Medical University
- Prof.K.Prasad has been invited to participate in the Cochrane Stroke Group Editors' Meeting held on 14 January 2010 at Edinburgh, UK.
- Prof.K.Prasad has been invited to participate as a Key Member of IndiaCLEN in the Workshop on "IndiaCLEN Strategic Plan" held at New Delhi, 2-4 August 2009.
- Prof.K.Prasad has been invited as a Visiting Professor in Saudi Arabia from 18 – 23 May 2009.
- Prof.M.V.Padma has been invited as a visiting professor to UMASS, Boston in November 2009.
- Prof.M.V.Padma has been invited as a visiting professor to Foothills Hospital, University of Calgary, Canada, in September, 2009.
- Prof.M.V.Padma has been invited as a Visiting Professor for SMS Medical College, Jaipur, May, 2009.
- Prof. M.V.Padma has been appointed as external examiner for the DM examinations for NIMS, and SCTIMS, Trivandrum.
- Prof.M.V.Padma has been appointed as the expert committee member for the FIST program of DST, Govt. of India.
- Prof.M.V.Padma has been appointed as Board member for the SIBRI, under aegis of DBT, Government of India.
- Dr.M.Tripathi has been a Member of AIIMS Research committee to consider the New Research proposals for the year 2010-2011.
- Dr.M.Tripathi has been a Member of AIIMS sub-committee to consider the Research proposals for the year 2010- 2011(FOR CLINICAL SUBJECTS)
- Dr.M.Tripathi has been a Member of national Advisory Board-2010, Journal of the Indian Academy of Geriatrics,
- Dr.M.Tripathi has been a Treasurer -Indian Epilepsy Association Feb/2010
- Dr.M.Tripathi has been a Secretary TROPICON

- Dr.G.Shukla has been selected to receive the Young Investigator bursary award for paper submitted for presentation at the 28<sup>th</sup> International Epilepsy Congress to be held at Budapest, Hungary in June 2009.

## VISITING SCIENTISTS

1. **Dr. Sudhansu Chokroverty**, Co-Director of Neurology (Clinical Neurophysiology and Sleep Medicine) at the New Jersey Neuroscience Institute, JFK Medical Center, Edison, New Jersey, delivered a lecture on **“The Rhythms and Rituals of the Sleeping Brain”** at **4 pm on 20th February 2009.**
2. DR.SUHAIL RASOOL,Project Scientist,Department of Neurology,University and Medical School Of California Irine,USA – 92697 Collaboration with UCLA – USA delivered a lecture on”Vaccination for Alzheimer’sdisease: A reality ? on 22<sup>nd</sup> Sept, 2009 at 4 – 5 pm

## NEUROSURGERY

### EDUCATION

- MCh program: Post MS- 3 years, Post MBBS- 6 years
- PhD Student: presently 1 student under Dr P Sarat Chandra
- Visiting Fellows: During the period 2009-2009, eight fellows attended the Department of Neurosurgery, for observership from India and Abroad.
- Experimental Lab: Fully functional for microneurosurgery and neuroendoscopic training.

### CME

#### Conferences and workshops organized at AIIMS

- Medronic hands on cadaver workshop, (Medtronic) October 2009 at AIIMS; Chairman: Prof AK Mahapatra
- XIIth Annual Microneurosurgery and Spine workshop. Feb 19-21 2010 Chairman: Prof AK Mahapatra, Organizing Secretary: Dr P Sarat Chandra
- International Workshop on Epilepsy Surgery (Asian Epilepsy Academy and International League Against Epilepsy). 7-8<sup>th</sup> November, 2009. Chairman: Prof AK Mahapatra, Organizing Secretary: Dr P Sarat Chandra
- Ist Live surgery and Hands-On cadaveric workshop on Minimally Invasive Spinal Surgery, at JPNA Trauma Center, 23rd-25th July 2009 Chairman: Prof BS Sharma, Organizing Secretary: Dr Sumit Sinha

#### Conferences and workshops organized by faculty outside AIIMS

- Annual conference of NSI 2009, Dec. 17-20th, Lucknow. Chairman: Prof AK Mahapatra
- Advanced course for spinal trauma, AO spine, 21,22nd November, 2009, Gurgaon. Chairman: Dr P Sarat Chandra
- Annual World congress for International Brain Mapping and Intraoperative Surgical Planning, Harvard School of Medicine, Boston; September 2009, Co-organizer and Board of Director; Dr P Sarat Chandra

## Lectures delivered

- 1. Prof AK Mahapatra:** [1] Role of Health Care Workers today. Regional Science Centre City, Lucknow on 28/01/09. [2] Pediatric Health Care at SGPGI. 1st Foundation Day lecture of Advanced Pediatric Centre, SGPGI, Lucknow, April 2009 [3]. Solid State NMR in Neurosciences. Lecture on 3rd Foundation Day of CBMR on, at Lucknow March 2009. [4] Need for Science Today for school children. Science City Lucknow. March, 2009. [5] Management of Skull Base Encephalocele at ISPN CME Rabat, Morocco, May, 2009. [6] How I do it: Split Cord Malformation. At ISPN CME, Rabat, Morocco, May, 2009. [7] Recent developments in Management of intracranial arachnoid cyst. At ISPN CME, Rabat, Morocco, May, 2009. [8] How I do it: Medulloblastoma. At ISPN CME, Rabat, Morocco, May, 2009. [9] Our experience of Nosocomial infection at AIIMS 25 years experience. At ISPN CME, Rabat, Morocco. May, 2009. [10] Telemedicine in Medical Education. In 3<sup>rd</sup> Health University Vice Chancellors Meeting at Trivendrum. July, 2009 [11] Role of Telemedicine in Medical Education at SAARC Telemedicine workshop, Thimpu, Bhutan. July 2009 [12] Rationale of Optic Nerve Decompression on optic nerve injury. In 18th Annual Conference of Neurotrauma Society of India, Jaipur, August, 2009. [13] Role of Decompressive Craniectomy in severe head injury. In 18th Annual Conference of Neurotrauma Society of India, Jaipur. August, 2009. [14] Surgery for optic nerve injury. 3rd October Annual conference of Skull Base surgery society of India – Hyderabad 2009. [15] Split cord malformation. CME International Society For Paediatric Neurosurgery Kolkata Nov. 2009. [15] Complication in Craniofacial Surgery at CME, International Society for Paediatric Neurosurgery at Kolkata Nov. 2009. [16] Epidemiology of head injury. Indian Society of Disaster Management and acute care, New Delhi CME Nov. 2009. [16] Experience of hydrocephalus research at AIIMS. At Indian society for Paediatric Surgery, Nov. 2009, Lucknow, CME. [17] Panel discussion on shunt infection 8/12/09 Lucknow NSI. [18] Split Cord Management – in Asian and Australasian advanced course in Paediatric Neurosurgery at Bangalore Jan 2010 CME. [19] Mahapatra A.K. – Current Management of medulloblastoma – WFNS Advance course – at Agra 13th-14th Feb. 2010, CME. [20] AFMC Research Meeting Pune Feb, 2010. [21] Embryonic stem cell In : Role of stem cell, seminar, Dec. 2009 at AIIMS. [22] Role of stem cell in Neurosurgery, AIIMS DNA Annual meeting, Feb 2010, Delhi, CME [23] 16th Annual conference of National Magnetic Resonance society, Feb. 2010.
- 2. Dr P Sarat Chandra:** [1.] ISSICON; International Spine and Spine Injuries: Invited Faculty; Management of Vertebral body haemangiomas August 2009 [2.] WFNS, September 2009, Boston, presented paper on “Intraoperative absolute alcohol embolization for vertebral body haemangiomas” and “Circumferential spinal fusion for spinal instability” [3.] Faculty, National, AO Spine, AO Spine Principles Course, New Delhi, July 2009 [a] Approach to Anterior cervical Spine [b] Outcome of Surgery for degenerative lumbar spine disease [3] Spinal Implant complications [c] Intraspinal tumors [4.] Faculty and keynote speaker at the San Sevolto Alumini meeting (ILAE), held at PECS, Budapest (ILAE world congress 2009) [5.] Keynote speaker at the 3rd Asian Epilepsy Surgery Congress (AESC) at Osaka, Japan, June 2009 [6.] Keynote speaker: Annual congress of International Brain Mapping Society (IBMISPS) “Use of Multimodal imaging for Epilepsy surgery. [7.] Chairman, Advanced course for spinal trauma, AO spine, 21, 22nd November, 2009, Gurgaon [8.] Attended as an expert in the committee to develop “Guidelines to develop Epilepsy Education In India”; by the Indian Epilepsy Association, April

2010 [9.] Attended as an expert in the committee to develop MEG in India at the Atomic Research Commission, Kalpakam, Tamil Nadu, March 2010 [10] Neurotropicon; JIPMER, Pondicherry; lecture: “Craniovertebral junction anomalies in India” [11] Faculty and Co Chairman for Symposium on Minimally invasive spine surgery and total disc replacement, Lecture: Cervical Arthrodesis, 2010; January, New Delhi [12] Guest lecture as faculty: ILAE/ASEPA International workshop on Epilepsy surgery, 7-8th November, 2009: [a] Hemispherotomy for epilepsy surgery [b] Future directions for epilepsy surgery in India. [13] “Pediatric Epilepsy Surgery”. CME guest lecture given on the occasion of “Pediatric neurosurgery CME”, CMC Ludhiana, May, 2009. [14] “Epilepsy Surgery”. CME guest lecture given on the “Epilepsy Update” held by the IES, Patna, May 2009.[15] UPNEUROCON: April, 2010: Hemispherotomy for Intractable epilepsy.

3. **Dr Ashish Suri:** [1] “Management of Medulloblastoma”, National Conference of Neuro Oncology Society, New Delhi on 3-5<sup>th</sup> April, 2009. [2] Faculty, 11<sup>th</sup> Annual Conference of the Skull Base Surgery Society of India and Endoscopy Skull Base Cadaver Workshop; Hyderabad – 2-4 October 2009. [3] 12<sup>th</sup> Annual Conference of Indian Society of Vascular and Interventional Radiology; Delhi- Oct 2009.[4] ‘Surgery for Complex basilar top aneurysms’ DNA CON 2010 XII Feb, 2010 [4] CME on Malignant Brain Tumors at VIMHANS, Jan , 2010 [5] TBI Proof of Concept Study of Endogen X, India International Center, on 11<sup>th</sup> Feb, 2010. [6] Annual Conference of Indian Stroke Association; Delhi, March 2010.[6] Congress of Neurological Surgeons (USA), October 2009, New Orleans, USA. [7] 9<sup>th</sup> Workshop on Transnasal Endoscopic Skull Base Surgery; Trier, Germany, Nov. 2009.
4. **Dr Manmohan Singh:** [1] World Congress of Neurological surgeons (Boston-Sep 2009): Pineal region tumors- Results at tertiary care centre [2] Trauma conference 2009 Nov, AIIMS: Brachial plexus injuries: management and outcome [3] Visiting Faculty to the Louisiana state university health care centre: Shreveport. USA. From 14<sup>th</sup>-25<sup>th</sup>, August 2009
5. **Dr Deepak Aggarwal:** [1] Best paper award for co-authoring the study ‘Changes in ICP following response checking and suctioning in neurosurgical intensive care unit’, ‘Trauma 2009’ International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi, November, 2009 [2] received 1 second best paper, 2 third best papers as a co-author in ‘Trauma 2009’ International congress second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi, November, 2009 [3] Best paper as a co-author ‘Effect of PEEP on CVP in ventilated patients’ at DNA CON, AIIMS, New Delhi, February, 2009 [4] CNS meeting, New Orleans, ‘Computerization in developing countries’, October, 2009 [5] ATLS provider course April, 2009 [6] Editor and initiator of JPN trauma centre newsletter
6. **Dr Deepak Gupta:** [1] Lecture presented “Chiari Malformations : study of clinical prognosticator factors” at Central Military hospital, Prague, Czech Republic 29<sup>th</sup> January 2010 [2] participated and presented lectures in Comprehensive trauma life support CME at Air force Hospital, Kanpur, UP on 13-14<sup>th</sup> March 2010 [3] ATLS faculty : participated as faculty at ATLS course at JPN apex trauma centre [4] attended WFNS conference, Boston, August 2009 [5] attended ESBS congress, Rotterdam, April 2009 [6] attended Congress of neurological surgeons, New Orleans, USA, October 2010 and received top ten best paper award for “Intratatumoral radioimmunotherapy in recurrent high grade gliomas”.



7. **Dr Sumit Sinha** [1] “Giant pituitary adenomas: a series of 177 cases – proposal for a novel surgical classification”. Delhi Neurological association meeting held in February 2009 at AIIMS, New Delhi, [2] “Giant Pituitary adenomas- An Enigma Revisited: Microsurgical treatment strategies and outcome in a series of 250 patients” presented as a poster at the Annual congress of neurological surgeons, held at New Orleans, USA, October 2009 [3] “Surgical interventions in intracranial arterio-venous malformations: indications and outcome analysis in a changing scenario” presented at the 9th International Conference on Cerebrovascular Surgery, to be held on 11-13th November, 2009 at Nagoya, Japan. [4] Clipping Patterns in Acoma Aneurysms, presented at the 9th International Conference on Cerebrovascular Surgery, to be held on 11-13th November, 2009 at Nagoya, Japan. [5] Suction decompression assisted clipping of large and giant ICA aneurysms, presented at the 9th International Conference on Cerebrovascular Surgery, to be held on 11-13th November, 2009 at Nagoya, Japan. [6] “Evidence based practice in spinal trauma”. Guest Lecture delivered at the spinal meeting organized by Synthes, at New Delhi, India on December 2009.[7] “Early versus late surgery in spinal cord injury”. Guest Lecture delivered at the spinal meeting organized by Synthes, at New Delhi, India on December 2009. [8] Dilemmas in management of brachial plexus injuries. Guest Lecture delivered at the Trauma conference held at JPNA Trauma center, AIIMS, on November 2008. [9] Spine and Spinal cord injuries. Instructor for the ATLS Course, held in JPNA TRAUMA Centre on May, December 2009 [10] First Aid Management of school injuries in Children- talk for the school teachers at the Mount Caramel school, New Delhi [11] Glasgow Coma Score and Pupillary assessment- Lecture for the nurses and paramedical staff at JPN Apex Trauma Centre, on 19th May 2009

## RESEARCH

Project	Funding agency	Status
CRASH-2 (A large randomized placebo controlled trail among trauma patients with or at risk of significant haemorrhage, of the effect of antifibrinolytic treatment on death and transfusion requirement)	Extramural, UK	Completed, 2009
A multi-national, multi-label, active controlled, randomized parallel-group dose finding study to evaluate the efficacy and safely and two doses of AP 12009-G004 in adult patients with recurrent high grade glioma, administered intratumorally as continuous high-flow microperfusion over a 7 day period every other week.	Extramural, Antisense pharma	Completed 2009



Vessel size imaging by perfusion MRI in cerebral gliomas. A DST funded project	Extramural, DST	Ongoing
Cervical spondylotic myelopathy international trial. AO spine funded project	Extramural, AO Spine	Ongoing
Randomised Evaluation of Surgery with Craniectomy for Uncontrollable Elevation of Intra- Cranial Pressure (RescueICP study)- international, multicentre, prospective, randomised, controlled trial on the role of decompressive craniectomy in management of severe traumatic brain injury	Extramural, MRC, UK	Ongoing
Phase II multicentre, open label dose confirmation study of interstitial I <sup>131</sup> -chTNT 1bMoAb (COTARA) for the treatment of glioblastoma multiforme (at first relapse) by Peregrine Pharmaceuticals, Texas, USA	Extramural	Ongoing
International Infantile hydrocephalus study: A Multi-Center, Prospective, Randomized Study under the Aegis of	Extramural, International Neuroendoscopy (ISGNE) and International Society for Pediatric Neurosurgery (ISPN).	Ongoing
Study of the role of bone marrow derived mononuclear cells in peripheral nerve repair of adult rats.	Extramural, ICMR	Completed, 2010
DST-FIST Program (project code no D-221)	Extramural, DST	Ongoing
Collaborative Indo-German Program for Bilateral Training Microsurgical and Endoscopic Techniques in Neurosurgery;	Extramural, DBT	Ongoing
A Prospective, Multi-centre, double-blind, randomized, placebo-controlled, parallel-group study to assess the efficacy and safety of clazosentan in	Extramural,	Ongoing

reducing vasospasm-related morbidity and all cause mortality in adult patients with aneurysmal subarachnoid hemorrhage treated by surgical clipping.		
STICH II trial	Extramural, MRC, UK	Ongoing
Fibrillin gene in developmental cranio vertebral anomalies	Extramural, DBT	Ongoing
ISS implantation in vascular dementias	Extramural, Brainsgate	Completed, 2009
ETV vs VP shunt in infantile hydrocephalus (IIHS) study.	Extramural, multicentric	Completed, 2009
Study of Double Cortin in Glioma – Conducted at SPGPI	Extramural	Completed

## AWARDS AND HONOURS

- Prof AK Mahapatra:** [1] Awarded Bhojpuri Ratna by Bhojpuri Society of Lucknow in April 2009. [2] Tantrika Ratna award by Lucknow neuroclub on 18.12.2009 at the opening ceremony of 58th Annual conference of NSI at Lucknow, for his effort on uplifting the neurosciences, in UP during his 3 years tenure as director of SGPGI 2006-2009. [3] Director (Vice Chancellor), SGPGI, Lucknow till 28.9.2009. [4] President Indian Society of Paediatric Neurosurgery 2009-2012 [5] Member of Research Committee Dept. of Health Sciences Research Govt.of India 2009-2010, 2010-2011 [6] Member of Research Advisory Committee, AFMC, Pune 2009-10 [7] Member of selection committee – for DIRECTOR – NIMHANS.
- Dr P Sarat Chandra:** [1] Board of Director, International Brain mapping society [IBMISPS] [2] Executive and founder member Asian Epilepsy Surgery Society [3] Secretary General, 4<sup>th</sup> AESC congress, Taipei [4] Associate Editor, Neurology India [5] Executive member Indian Epilepsy Society [6] Core committee member: Guidelines for epilepsy management in India (GEMIND) [7] World Faculty 1000, International League Against Epilepsy [8] Core committee; National Tuberculosis program
- Dr A Suri:** [1] Executive Member of S.B.S.S.I. - Skull Base Surgery Society of India 2006-2009 [2] Treasurer of S.B.S.S.I. - Skull Base Surgery Society of India 2009-2012 [3] Expert for Technical Evaluation of Medical Equipment for Neurosurgery under PMSSY Scheme of Ministry of Health and Family Welfare , Govt of India
- Dr Deepak Aggarwal:** Editor and initiator of JPN Apex Trauma Centre newsletter
- Dr Deepak Gupta:** [1] Executive committee member of National Neurotrauma society, India [2] Executive committee member for Delhi Neurological Association, India

## PATIENT CARE

The dept has 2 units with a general neurosurgical ward under each unit [35 x 2 beds]. There are 2 ICU's [ICU-C/B] with 23 beds. There are now 4 elective 'state of art' operating theatres available on the 7<sup>th</sup> floor of the CN tower. Two exclusive operating theatres are available for trauma in the trauma centre. The 'brain suite': intraoperative MRI with neuronavigation, is the process of installation in the first floor of the CN center after which 3 more elective operating rooms will be made available. Facilities for world class neurosurgery are offered to include all specialities: Vascular surgery, epilepsy surgery, minimally invasive cranial and spinal neurosurgery, pediatric neurosurgery, functional neurosurgery, tumor surgeries, skull base surgeries and complex spine surgeries. All operating rooms are optimally equipped with equipment to include operating microscopes, high speed pneumatic drills, CUSA, cell saver, neuronavigation, neuroendoscopes, electrophysiology and EEG monitoring.

## VISITING SCIENTISTS

- **Prof Madjid Samii**, Sarveshwari Memorial Oration and faculty AIIMS microneurosurgery workshop, President, International NeuroSciences Institute, Germany.
- **Prof Daniel Rsoenthal**, Faculty AIIMS microneurosurgery workshop, Munich, Germany,
- **Prof Cosgrove, G. Rees**: Professor and Director, Harvard University, Boston. Topic: Epilepsy Surgery
- **Dr Yogi Pattisapu**, USA
- **Dr Ravi Ramamurthi**, Head, VHS Medical hospital, Chennai
- **Dr Suresh Nair**, Prof and Head, SCTIMST, Tiruvanthapuram

## PUBLICATIONS

1. Agrawal D, Mishra S. Post-Traumatic Intradiploic Pseudomeningocele. *Indian Pediatrics* 2010;47:272-273.
2. Agrawal D, Steinbok P. Fiducials: Achilles' heel of image-guided neurosurgery: an attempt at indigenization and improvement. *Clin Neurosurg.* 2009;56:80-3.
3. Ahmad F.U., Suri A, Garg A, Mahapatra A.K.. Post traumatic bilateral facial palsy causing severe psychosocial impairment. *Case Report: Pan Arab Journal of Neursurg.* 2009; 13:1, 125-127.
4. Ahmad FU, Mahapatra AK.. Neural tube defects at separate sites: further evidence in support of multi-site closure of the neural tube in humans. *Surg. Neuol.* 2009; 71:3; 353-356.
5. Anantha N, Kiran S, Kasliwal MK, Suri A, Mahapatra AK. Intrathoracic migration of ventriculoperitoneal shunt. *Indian J Pediatr.* 2010; 20.
6. Basheer N, Kasliwal MK, Suri A, Sharma MC, Arora A, Sharma BS. Lateral extradural, supratentorial neurenteric cyst. *J Clin Neurosci.* 2010 24.
7. Basheer N, Kasliwal MK, Suri A. Posterior communicating artery aneurysm associated with duplicated posterior communicating artery and bilateral fetal posterior cerebral arteries. *Neurol India.* 2009;57(4):514-5.

8. Borkar SA, Kasliwal MK, Suri A, Sharma BS. Cervical Hemangioblastoma with holocord syrinx. *Surg Neurol.* 2009;72(4):437-8.
9. Borkar SA, Prasad GL, Agrawal D, Sharma BS. Cerebellar hemorrhage following supratentorial decompressive craniectomy for severe traumatic brain injury. *Neurol India.* 2009;57:681-2.
10. Borkar SA, Sinha Sumit, Sharma BS. Remote site Extradural Hematoma. *J Clin Neurosci.* 2009 Aug; 16(8):1097-8.
11. Chandra PS, Gary W Mathern. Epilepsy surgery in children. Article in Medlink, 2009. <http://www.medlink.com/>
12. Chaturvedi D, Suri A, Kasliwal MK, Mahapatra AK, Mehta VS, Shridhar V, Garg A, Sarkar C, Dogra TD, Singh R. Factors Affecting the Development of Hypothalamus and Pituitary Lesions in Fatal Closed Head Injury: A Prospective Study. *J Trauma.* 2009; 15.
13. Chosdol K, Mishra A, Puri S, Srivastav T, Chattopadhyaya P, Sarkar C, Mahapatra A.K., Sinha S. 2009. Frequent loss of heterozygosity and altered expression of the candidate tumour superior gene (FAT) in human astrocytic glioma. *Biomed. Central (BMC). Cancer;* 9:5-10.
14. Dagar A, Kasliwal MK, Suri A, Kumar S, Garg A, Sharma BS. A rare case of metachronous double spinal dural arteriovenous fistula. *Neurol India.* 2010;58(1):154-5.
15. Dhandapani SS, Manju D, Vivekanandhan S, Sharma BS, Mahapatra A.K. 2009. Prognostic value of admission serum albumin levels in patients with head injury. *Pan Arab Journal of Neursurg.* 13: 1. 60-65.
16. Faiz Uddin Ahmad, Ashish Suri, Ajay Garg, Ashok Kumar Mahapatra, Veer Singh Mehta. Post traumatic bilateral facial palsy causing severe psychosocial impairment. *Pan Arabian Journal Of Neurosurgery* 2009 April; 13(1): 125-127.
17. Garg A, Suri A, Chandra PS, Kumar R, Sharma BS, Mahapatra AK. Endoscopic third ventriculostomy: 5 years' experience at the All India Institute of Medical Sciences. *Pediatr Neurosurg.* 2009;45(1):1-5.
18. Garg A.,Suri A., Chandra PS, etal. 2009. Endoscopic third ventriculostomy 5 years' experience at the All Inida Institute of Medical Sciences. *Pediatr. Neurosurg.* 45:1; 1-5.
19. Garg AK, Suri A, Sharma BS, Shamim SA, Bal CS. Changes in cerebral perfusion hormone profile and cerebrospinal fluid flow across the third ventriculostomy after endoscopic third ventriculostomy in patients with aqueductal stenosis: a prospective study. Clinical article. *J Neurosurg Pediatr.* 2009;3(1):29-36.
20. Garg AK, Suri A, Sharma BS. Ten-year experience of 44 patients with moyamoya disease from a single institution. *J Clin Neurosci.* 2010;17(4):460-3.
21. Goel RK, Ahmad FU, Vellimana AK, Suri A, Chandra PS, Kumar R, Sharma BS, Mahapatra AK. Endoscopic management of intraventricular neurocysticercosis. *J Clin Neurosci.* 2008 Oct;15(10):1096-101.
22. Goel RK, Suri V, Suri A, Sarkar C, Mohanty S, Sharma MC, Yadav PK, Srivastava A. Effect of bone marrow-derived mononuclear cells on nerve regeneration in the transection model of the rat sciatic nerve. *J Clin Neurosci.* 2009;16(9):1211-7.

23. Gupta R, Suri V, Arora R, Sharma MC, Mishra S, Singh M, Sarkar C. Suprasellar ganglioglioma presenting with diabetes insipidus in a young boy: a rare clinical presentation. *Child's Nerv Syst.* 2010;26(2):255-58
24. Jaiswal AK, Jaiswal S, Verma R, Singhal U, Sahu RN, Behari S, Mahapatra A K. Primary haemangioma of the skull: A series of three cases and review of the literature. *Pan Arab Journ. Of Neurosurgery.*
25. Jaiswal, V. Agrawal, Jaiswal A., Pandey R. & Mahapatra A.K. 2009 : Expression of estrogen and progesterone receptors in vestibular schwannomas and their clinical significance. *Journal of Negative Results in Biomedicine* 4: 1-5.
26. Kalra V, Mishra D, Suri A, Seth R, Garg A. Intraventricular neurocysticercosis. *Indian J Pediatr.* 2009;76(4):420-3.
27. Kasliwal MK, Agrawal D. Intrinsic brainstem glioma mimicking an ependymoma. *Pediatr Radiol.* 2009;39:1250.
28. Kasliwal MK, Kale SS, Gupta A, et al 2009. Outcome after hemorrhage following Gamma Knife surgery for cerebral arteriovenous malformations. *Journ. Neurosurg.* 110:5; 1003-1009.
29. Kasliwal MK, Kale SS, Gupta A, Kiran NA, Sharma MS, Sharma BS, Mahapatra AK. Outcome after hemorrhage following Gamma Knife surgery for cerebral arteriovenous malformations. *J Neurosurg* 2009 May;110(5):1003-9.
30. Kasliwal MK, Sinha Sumit, Sharma BS. Bilateral anterior cerebral artery aneurysm due to mucormycosis - a case report. *J of Clin Neurosc* 2009 Jan;16(1):156-9
31. Kasliwal MK, Sinha Sumit, Yadav OP, Kumar Rajinder, Sharma BS. Giant hemispheric calcified subdural empyema – unusual complication after nine years of ventriculoperitoneal shunt insertion. *Indian J Ped* 2009 Jun; 76(6):651-2.
32. Kasliwal MK, Suri A. Insular gliomas and lenticulostriate artery position. *J Neurosurg.* 2009;111(6):1294.
33. Kiran NA, Kale SS, Kasliwal MK, Vaishya S, Gupta A, Singh Sharma M, Shankar Sharma B, Kumar Mahapatra A 2009. Gamma Knife radiosurgery for arteriovenous malformations of basal ganglia, thalamus and brainstem a retrospective study comparing the results with that for AVMs at other intracranial locations. *Acta Neurochir (Wien)* 2009 may 5.
34. Kiran NA, Kasliwal MK, Kale SS, Singh M, Mahapatra AK. Two children with traumatic thoracic spinal epidural hematoma. *J Clin Neurosci.* 2009;16(10):1356-58
35. Kiran NA, Kasliwal MK, Suri A, Mahapatra AK. Giant posterior fossa arachnoid cyst associated with syringomyelia. *Clin Neurol Neurosurg.* 2010: 4.
36. Mahapatra A.K. 2009. Commentary. Devastating yet treatable complications of tuberculosis meningitis; the resistant TB abscess. *child's Nerv. System. Pan Arab Journal of Neurosurg.* 25: 1107.
37. Mahapatra A.K. 2009. Affordable Health Care. *E-Health*, 4: 10-11.
38. Mehta VS, Chandra PS, Singh PK, Garg A, Rath GK. Surgical considerations for 'intrinsic' brainstem gliomas: proposal of a modification in classification. *Neurol India.* 2009 May-Jun;57(3):274-81.

39. Mukherjee S, Tripathi M, Chandra PS, Yadav R, Choudhary N, Sagar R, Bhore R, Pandey RM, Deepak KK. Cardiovascular autonomic functions in well-controlled and intractable partial epilepsies. *Epilepsy Res.* 2009 May 5.
40. Mukherjee S, Tripathi M, Chandra PS, Yadav R, Choudhary N, Sagar R, Bhore R, Pandey RM, Deepak KK. Cardiovascular autonomic functions in well-controlled and intractable partial epilepsies. *Epilepsy Res.* 2009 Aug;85(2-3):261-9. Epub 2009
41. Nayak P, Mahapatra A.K. 2009. Brain death and organ donation in India, where do we stand? A personal experiences (Brief communication). *Neurosciences* 14: 447-448.
42. Nayak P.K., Das G, Parhi L, Mahapatra A.K. 2009. Traumatic spinal extradural hematoma following epidural anesthesia. *Ind. J of Neurotrauma* 6; 1 95-96.
43. Nayak P.K., Naveen K, Bal CS, Mahapatra A.K. 2009. Study of cerebral perfusion by SPECT scanning in hydrocephalus: Pre & post shunt surgery. Prospective Study. *Pan Arab Journal of Neursurg.* 13:1; 55-59.
44. Pandia MP, Bithal PK, Sharma MS, Bhagat H, Prasanna B. Use of spontaneous ventilation to monitor the effects of posterior fossa surgery in the sitting position. *J Clin Neurosci* 2009 Apr 1. [Epub ahead of print]
45. Puri Sachin, Puri Surbhi, Mahapatra A.K., Hussain Ejaz, Sarkar C, sinha S. Joshi B.H. 2009. A Review of studies on targeting interleukin 4 receptor for Central nervous system malignancy. *Current Mol. Medicine.* 9: 732-739.
46. Raj Kumar, Mahapatra A.K. 2009 Concept of brain transplant in pre-historic era. *Child's Nervous System.* 25: 393-394.
47. Raj Kumar, Mahapatra A.K. 2009. The changing epidemiology of Pediatric Head Injury and its impact on the daily clinical practice. *Child's Nervous Syst.* 25: 813-823.
48. Raj Kumar, Pande Shilpi, Srivastava A.K., Mahapatra A.K. 2009. Cervical myelocystocele: A case report. *Journ. of Pediatr. Neurol.,* 7: 321-324.
49. Raj Kumar, Shrivastava A.K., Singhal U, Saraswat Bharti, Mahapatra A.K. 2009. Compound head injury in 46 pediatric patients. *Ind. Journ. Of Neurotrauma (IJNT),* 6; 1: 43-48.
50. Ramdurg SR, Gupta DK, Suri A, Sharma BS, Mahapatra AK. Spinal intramedullary tuberculosis: a series of 15 cases. *Clin Neurol Neurosurg.* 2009; 111(2): 115-8.
51. Ramdurg SR, Gupta DK, Suri A., etal. 2009. Spinal intramedullary tuberculosis: a series of 15 cases. *Clinical Neurol. And Neurosurg.* 111:2; 115-118.
52. Sahu RN, Jaiswal AK, Sharma MS, Behari S, Jain VK. Giant solitary fibrous tumor of the middle cranial fossa. *Neurol India.* 2009;57(6):824-5.
53. Sharma BS, Kasliwal MK, Suri A, Chandra PS, Gupta A, Mehta VS. Outcome following surgery for ophthalmic segment aneurysms. *J Clin Neurosciences* Epub ahead of print, 2009.
54. Sharma BS, Kasliwal MK, Suri A, Sarat Chandra P, Gupta A, Mehta VS. Outcome following surgery for ophthalmic segment aneurysms. *J Clin Neurosci.* 2010;17(1):38-42.



55. Sharma M, Vohra A, Thomas P, Kapil A, Suri A, Chandra PS, Kale SS, Mahapatra AK, Sharma BS. 2009. Effect of risk-related protocol based preoperative chemoprophylaxis on nosocomial infection rates in a series of 31927 consecutive neurosurgical procedures (1994-2006) *Neurosurgery*,64: 1123-1131.
56. Sharma MC, Jain D, Gupta A, Sarkar C, Suri V, Garg A, Gaikwad SB, Chandra PS. Dysembryoplastic neuroepithelial tumor: a clinicopathological study of 32 cases. *Neurosurg Rev*. 2009 Apr;32(2):161-70.
57. Sharma MS, Vohra A, Thomas P, Kapil A, Suri A, Chandra PS, Kale SS, Mahapatra AK, Sharma BS. Effect of risk-stratified, protocol-based perioperative chemoprophylaxis on nosocomial infection rates in a series of 31 927 consecutive neurosurgical procedures (1994-2006). *Neurosurgery*. 2009 Jun;64(6):1123-30; discussion 1130-1.
58. Sharma MS, Vohra A, Thomas P, Kapil A, Suri A, Chandra PS, Kale SS, Mahapatra AK, Sharma BS. The effect of risk stratified protocol based perioperative chemoprophylaxis on nosocomial infection rates in a series of 31,927 consecutive neurosurgical procedures (1994-2006). *Neurosurgery* 2009 Jun;64(6):1123-30; discussion 1130-1.
59. Sharma MS, Narang KS, Sharma BS. Isolated contralateral post-ictal oculomotor nerve palsy following supratentorial craniotomy. Case report. *Acta Neurochir (Wien)*. 2009 Aug;151(8):999-1000; discussion 1000. Epub 2009 May 16.
60. Sharma S, Kalra V, Garg A, Suri V, Suri A. Gliomatosis cerebri. *Indian J Pediatr*. 2009;76(5):553-4.
61. Shukla B, Agarwal S, Suri V, Pathak P, Sharma MC, Gupta D, Sharma BS, Suri A, Halder A, Sarkar C. Assessment of 1p/19q status by fluorescence in situ hybridization assay: A comparative study in oligodendroglial, mixed oligoastrocytic and astrocytic tumors. *Neurol India*. 2009 Sep-Oct;57(5):559-66.
62. Sinha Sumit, Sharma B S. Giant Pituitary adenomas- An Enigma Revisited: Microsurgical treatment strategies and outcome in a series of 250 patients. *Br J Neurosurg*. Feb 2010; 24(1): 23–31
63. Sinha Sumit, Sharma BS. Neurocysticercosis: Review of current status and management. *J Clin Neurosci* 2009;16:867-876
64. Suri V, Das P, Pathak P, Jain A, Sharma MC, Borkar SA, Suri A, Gupta D, Sarkar C. Pediatric glioblastomas: a histopathological and molecular genetic study. *Neuro Oncol*. 2009;11(3): 274-80.
65. Tahir A, Usmani N, Ahmad FU, Salmani S, Sharma MS. Spinal meningioma containing bone: a case report and review of literature. *BMJ Case Reports* 2009; doi:10.1136/bcr.11.2008.1186
66. Tandon A, Suri A, Kasliwal MK, Mahapatra AK, Mehta VS, Garg A, Sarkar C, Dogra TD, pandey RM. Assessment of endocrine abnormalities in severe traumatic brain injury: a prospective study. *Acta Neurochir (Wien)*. 2009; 151(11):1411-7.
67. Thaker A, Tandon D.A., Mahapatra A.K. 2009. Surgery for optic nerve injury - Should nerve sheath incision supplement osseous decompression? *Skull Base*, 19 (4): 263-271.



68. Thapa A, Chandra PS, Sinha S, Gupta A, Singh M, Suri A, Sharma BS. Surgical interventions in intracranial arteriovenous malformations: Indications and outcome analysis in a changing scenario. *Neurol India*. 2009 Nov-Dec;57(6):749-55.
69. Thapa A, Chandra PS, Sinha S, Sreenivas V, Sharma BS, Tripathi M. Post-traumatic seizures-A prospective study from a tertiary level trauma center in a developing country. *Seizure*. 2010 Mar 2.
70. Tripathi M, Garg A, Gaikwad S, Bal CS, Chitra S, Prasad K, Dash HH, Sharma BS, Chandra PS. Intra-operative electrocorticography in lesional epilepsy. *Epilepsy Res*. 2010 Jan 13.
71. Tripathi M, Vibha D, Choudhary N, Prasad K, Srivastava MV, Bhatia R, Chandra PS. Management of refractory status epilepticus at a tertiary care centre in a developing country. *Seizure*. 2009 Dec 22.
72. Vaid V, Kalra S.K., Jaiswal A.K., Behari S, Jain M, Sahu R.N., Mahapatra A.K. Extra ventricular choroid plexus carcinoma: A case report of *Acta Neurochirurgica* (in press) .
73. Yerramneni VK, Chandra PS, Kasliwal MK, Sinha S, Suri A, Gupta A, Sharma BS. Recovery of oculomotor nerve palsy following surgical clipping of posterior communicating artery aneurysms. *Neurol India*. 2010 Jan-Feb;58(1):103-5

### Books

1. Neurosurgery review, Jaypee publications, Raj Kumar, Udit Singhal, AK Mahapatra, 2009

## NEURORADIOLOGY

### Education

Undergraduate Teaching: faculty of the department is part of undergraduate teaching

DM Neuroradiology course started in July 2001. Three candidates are registered for this course presently.

Short Term Training : 4 DM students and 1 consultant from ESI had short term training in this department. Residents from Neurology, Neurosurgery, Radiology have training on rotation in this department. B.Sc. (Radiography) students from Dept. of Radio-diagnosis also had training on rotation in this department.

National & International Conferences

### Lectures delivered

#### Dr. N.K.Mishra

1. 'Complications in endovascular neuro-intervention' during the 12<sup>th</sup> Annual conference of Indian Society of Vascular and Interventional Radiology held at AIIMS, New Delhi, 7-10 October, 2009.
2. Moderated and chaired the guest lecture session on neuro-intervention by visiting faculty, Dr. Rene Chapot, Essen, Germany, at the Sri Ramachandra Medical College, Porur, Chennai on 12<sup>th</sup> Nov. 2009.

3. Moderated and chaired the session on neurodegenerative disorders at the Sri Ramachandra Medical College, Porur, Chennai on 14<sup>th</sup> Nov. 2009.
4. Chaired the guest lecture on “Advances in neuroscientific knowledge base and understanding of brain functions seen through the eyes of Neuroimaging and Neurointervention” by Prof. Anton Valavanis from Univeristy Hospital, Zurich, Switzerland as the 1<sup>st</sup> annual Pierre Lasjaunias lectureship series, organized by Stroke & Neurointervention Foundation on 16<sup>th</sup> Feb. 2010 at Max Instt. Of Neurosciences, New Delhi.
5. Participated and contributed to the scientific proceedings of the live workshop on ‘flow diverters’ at Thane, Mumbai, 3-4 March 2010.
6. Chaired and moderated a session on ‘CT in management of stroke’ at the V<sup>th</sup> National Congress of Indian Stroke Association & International Stroke Conference, JLN auditorium, AIIMS, 12-14<sup>th</sup> March 2010.

### **Dr S.B. Gaikwad**

1. “Endovascular treatment of complex/giant intracranial aneurysms” during the 10<sup>th</sup> Congress of World Federation of Interventional Therapeutic Neuroradiology (WFITN), June 29-3<sup>rd</sup> July 2009, Montreal, Canada.
2. “Annual meeting of Indian Neuro-Intervention Foundation on Complications in Neurointerventions” held in Goa, at Park Hyatt, 13-16<sup>th</sup> August 2009. During this meeting presented 3 cases of complications encountered during treatment by endovascular approach, and participated in the interactive sessions during the meeting.
3. “Spinal Cord Tumor Mimics-In a symposium called “Learn from other’s mistakes - My blunders-from experts” during the 12<sup>th</sup> Annual Conference of Indian Society of Neuroradiology held in Chennai from 12<sup>th</sup> to 15<sup>th</sup> November 2009
4. “Carotid angioplasty and stenting is equally good and not inferior” during a debate on Carotid Revascularization procedures organized by NEUCON 2010 at New Delhi.
5. “Onyx embolization of cerebral AVMs” during 6<sup>3rd</sup> National Conference of the Indian Radiological & Imaging Association (IRIA), 24-26<sup>TH</sup> January 2010, Ahmedabad
6. “Carotid Angioplasty and Stenting: AIIMS Experience” and chaired a session on “Merci and Penumbra devices” at the Annual meeting of Indian Stroke Association, 12-15<sup>th</sup> March 2010, AIIMS, New Delhi.

### **Organization of Scientific Congress**

Dr S.B.Gaikwad organized the 12<sup>th</sup> Annual conference of Indian Society of Vascular and Interventional Radiology held in AIIMS, 7-10 October, 2009 as the organizing secretary.

### **Dr Ajay Garg**

1. “Imaging of Brain Tumors” during Imaging Update 2010 (Annual Congress of Delhi State Chapter of IRIA) at Safdarjung Hospital, New Delhi between February 27-28, 2010
2. “MRI in Acute Stroke” during V<sup>th</sup> National Congress of Indian Stroke Association & International Stroke Conference held at AIIMS between March 12 to 15, 2010.

3. “DWI and DTI for the Evaluation of Neonatal Brain” during one-day Seminar on Advances in MRI, held at A.I.I.M.S, New Delhi by Department of N.M.R. & M.R.I. Facility.
4. “What imaging centers in India could do” during EPILEPSY ACADEMY (ASEPA) Commission on Asian and Oceanian Affairs International League Against Epilepsy A November 7-8, 2009, AIIMS, New Delhi.

## RESEARCH

### Funded Research

Sl No.	Title of Project	Funding Agency	Date of sanction and Duration
1	Phase imaging and Diffusion tensor imaging - Novel MR Contrasts in the evaluation of cryptogenic focal epilepsy-	DST	March 2007, three years duration
2	Quantitative Vessel size imaging (VSI) in cerebral gliomas and correlation with histopathological grading and vascular endothelial growth factor expression	DBT	Oct 2007, three years duration

### Departmental Research

1. Venous drainage pattern in patients with perimesencephalic and non-perimesencephalic angioneegative sub-arachnoid haemorrhage
2. Diffusion tensor imaging and fibre tracking in spinal arteriovenous fistulae [SAVF] and feasibility study of holo cord DTI & tractography.
3. Diffusion tensor imaging in the evaluation of intractable partial seizures
4. 3D Rotational angiography in follow up of treated intracranial aneurysms

## PUBLICATIONS

### Journals

1. Gaikwad S.B., Padma M.V., Moses E.J., Sethi Kanika, Tripathi M., Bhatia R., Prasad K. & Mishra N.K. : Intra-arterial thrombolysis in basilar artery occlusions: combination of intra-arterial thrombolytics and Gp IIb / IIIa inhibitors in basilar artery thrombosis; Neurology India, vol. 57, issue 3; 313-19; May-June 2009.
2. Sandeep, Subhash Kumar, Arvind Nanda, and Edmond Moses: Case Report: Carotid–cavernous fistula due to aneurysmal rupture in a case of aortoarteritis with bilateral giant internal carotid artery aneurysms: Indian J Radiol Imaging. 19(4): 308–310; November 2009.

3. Goenka AH, Garg A. Pseudomuscular male with seizures: disseminated cysticercosis. International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases. Int J Infect Dis. 2010 Mar 20. [Epub ahead of print]
4. Sharma Sandeep : Multifocal Intradural Spinal AVF and Renal Artery Aneurysms in a Case of Klippel Trenaunay Syndrome (KTS). J Neuroimaging. 2009 Aug 7. [Epub ahead of print].
5. Sharma Sandeep ,Subhash Kumar ,Mishra NK ,Gaikwad SB. : Cerebral Miliary micro aneurysms in Poly Arteritis Nodosa - Report of 2 patients.: Accepted in Neurology India.
6. Basal Venous Pattern in the different exhaustive categories of Angionegative Subarachnoid Hemorrhage. – sent for publication to AJNR

### Abstracts

1. Gaikwad SB, NK Mishra Rizvi T, Moses E., Kumar S, Puri Ajit Singh, Sharma B, Kale S. ““Endovascular treatment of complex/giant intracranial aneurysms””. Interventional Neuroradiology Proceedings of the 10<sup>th</sup> Annual Congress of the World Federation of Interventional and Therapeutic Neuroradiology (WFITN), June 29-3<sup>rd</sup> July, 2009, Montreal, Canada.

### AWARDS AND HONOURS

1. Dr. N.K.Mishra conferred special award in recognition of his contribution to development of Neuroradiology in India the 12<sup>th</sup> annual congress of the Indian Society of Neuroradiology held at Chennai 12<sup>th</sup> – 15<sup>th</sup> Nov. 2009.
2. Dr. N.K.Mishra worked as a member of the Task Force on ‘Basic Research in Modern Biology’, Dept. of Biotechnology, Govt. of India.
3. Dr Shailesh B Gaikwad was invited as Visiting Professor, Neuroradiology section, department of Radiology, Brigham and Womens Hospital, Harvard Medical School, Boston, USA (February-July 2009). Delivered series of lectures for the PG medical students at Radiology department, Brigham and Womens’ Hospital, Boston.
4. Dr Shailesh B Gaikwad attended hands on training on 1. Advanced Vascular Reconstructive devices (VRD) & 2. Advanced TRUFILL n-BCA Liquid Embolization Training at University of Massachusetts Medical School (UMASS), New England Centre for Stroke Research, Department of Radiology, Course faculty, Prof Ajay Wakhloo, Prof Christopher M Putman, 11-12 June 2009, Worcester, MA, USA. Had a hands-on training on new interventional devices such as Penumbra, Merci, and flow diverters.
5. Dr Shailesh B Gaikwad presented neurointerventional cases and participated in the interactive sessions during the monthly endovascular Boston club meeting during the period mentioned above.

### PATIENT CARE APRIL 2009-MARCH 2010

Procedures	No.
Digital Subtraction Angiography	630
Interventional procedures	93
MRI	1915
CT Head	14199

Chest	231
Abdomen	147
Spine	563
Image guided/CT guided study	102
Emergency CT	7231
Ultrasound	1483
Plain X-rays OPD/indoor	19895
Pvt. Case reporting	3337
Total	49826

## NEUROPATHOLOGY LABORATORY

### EDUCATION

Undergraduate	-	No change
Postgraduate	-	No change
Paramedical	-	Nil
Short & long term training	-	Nil

### CME

#### Lectures delivered

1. Sarkar C. Approach to Diagnosis of Gliomas. CME in Pathology. Maulana Azad Medical College, New Delhi, 2009.
2. Sharma MC. Approach to diagnosis of muscle diseases. Postgraduate lecture series of IAPM Delhi Chapter, 2009.
3. Sharma MC. Approach to diagnosis of round cell tumors. CME in Pathology. NEIGRIHMS, Shillong, Meghalaya, 2009.
4. Suri V. FISH assay in Neuropathology: Overview. National workshop on molecular cytogenetics (solid tissue) by FISH. AIIMS, New Delhi, August 24-29 2009.
5. Suri V. Pathologic prognostic factors and use of MGMT in treatment of Glioblastomas. CME 2010 on Malignant brain tumors. VIMHANS, New Delhi, 31<sup>st</sup> January 2010.

## NATIONAL & INTERNATIONAL CONFERENCES

#### Lectures delivered

##### *International Conferences*

1. Suri V, Sharma MC, Sarkar C. Molecular profile of pediatric glioblastomas. Congress of Neurological Surgeons Annual Meeting, New Orleans, Louisiana, October 24 – 29, 2009.
2. Sarkar C. Role of Histopathology and Newer Techniques in the Diagnosis of Muscle Diseases. Asia Oceanic Myology Conference (AOMC) at Mumbai 23-24 May 2009.
3. Sharma MC. Inflammatory myopathies. Asia Oceanic Myology Conference (AOMC) at Mumbai, 23-24 May 2009.

- Sarkar C. Pathological Substrate in Epilepsy: Is it important for outcome prediction? Asian Epilepsy Academy (ASEPA), Commission on Asian and Oceanian Affairs International League against Epilepsy, Course on epilepsy surgery: evaluation, surgical procedures and rehabilitation, November 7-8, 2009, AIIMS, New Delhi.

### *National Conferences*

- Sarkar C. In quest of markers for better prognostication and therapeutics of CNS tumors. In Annual Conference of the National Academy of Medical Sciences at Chhatrapati Shahuji Maharaj Medical University, Lucknow, 31<sup>st</sup> October 2009.
- Sarkar C. Applications of Molecular Pathology in Neurological and Neurosurgical Practice. Society of Neurosciences Meeting, Pune, 15-18 March 2010.
- Sarkar C. Changing Scenario in Oncopathology Practice. Oncology Congress 2010, Dharmashila Cancer Hospital, Delhi, 17<sup>th</sup> January 2010.
- Sarkar C. Clinicopathological case discussion. Neurology: Controversies to Consensus, New Delhi, 27-18 February 2010.
- Sharma MC. LGMD Type IIa: Clinicopathological spectrum. Annual conference of IAPM, Kolkata, December 2009.
- Sharma MC. WHO 2007: New entities and controversial issues. Annual Conference of Delhi Neurological Association, AIIMS, New Delhi, 2009.
- Suri V. Effect of bone marrow derived mononuclear cells on nerve regeneration in rat sciatic nerve transection model? XXIVth Annual Conference-Delhi Chapter-IAPM UCMS and GTB Hospital, Delhi, 2009.

## **RESEARCH**

### **Funded Research**

#### *Completed*

<b>Title of the project</b>	<b>Name of the investigator</b>	<b>Funding agency</b>	<b>Total funding</b>	<b>Duration of project</b>
Acute thalamic involvement in severe head injury-An autopsy study with histopathological correlation.	Dr. Chitra Sarkar (Co-PI)	AIIMS	Rs.2.2 lacs (approx)	2006-2009
Role of Sonic Hedgehog signaling in Human Cerebellum Development	Dr. Chitra Sarkar (Co-PI)	NBRC, DBT	Rs.15 lacs (approx)	2007-2009

## Ongoing

<b>Title of the project</b>	<b>Name of the investigator</b>	<b>Funding agency</b>	<b>Total funding</b>	<b>Duration of project</b>
Glial tumors: a correlative clinicopathological study of chromosomes 1p/19q status, epidermal growth factor receptor (EGFR) amplification and p53 expression	Dr. Chitra Sarkar (PI)	ICMR	Rs.16.5 lacs (approx)	2007-2010
Study of the role of bone marrow derived mononuclear cells in peripheral nerve repair of adult rats.	Dr. Vaishali Suri (PI)	AIIMS	Rs.18 lacs (approx)	2006-2010
Efficacy and safety of AP 12009 in adult patients with recurrence or refractory anaplastic astrocytoma (WHO grade III) as compared to standard treatment with temozolomide or BCNU: A randomized actively controlled, open label clinical phase III study	Dr. Chitra Sarkar (Co-PI)	Antisense Pharma, Germany	Rs.25 lacs (approx)	2007-2010
Angiogenesis in astrocytic tumors of the brain: A clinicopathological study with special reference to expression of vascular endothelial growth factor (VEGF), and hypoxia inducible factor (HIF) – 1 alpha and correlation with vascular morphometric parameters and tumor infiltrating inflammatory cells.	Dr. Chitra Sarkar (PI)	ICMR	Rs.21 lacs (approx)	2009-2012
Glioblastomas in children: A study with special reference to molecular pathways and MGMT methylation status	Dr. Vaishali Suri (PI)	ICMR	Rs.24 Lacs (approx)	2010-2013

## DEPARTMENTAL RESEARCH

### Completed

1. Primary and secondary glioblastomas: A study of EGFR amplification, EGFR vIII mutants & p53 expression.



### *Ongoing*

1. Study of gliomagenesis: Possible involvement of CNS developmental pathway
2. Study of Limb Girdle Muscular Dystrophy (LGMD) Patients in Indian Population Using Calpain-3, Dysferlin and Sarcoglycan Protein Analysis.
3. Study of IDH-1 mutations in gliomas.
4. Study of PTEN and CDKN2 gene alterations in GBMs.
5. Study of WNT pathway in ependymomas.
6. Study of cytokines in inflammatory myopathies.

### **COLLABORATIVE RESEARCH**

#### *Completed*

1. Characterization of the properties of an amplified region of DNA in primary meningeal tumors – Dept of Biochemistry, AIIMS.
2. Analysis of FAT gene in glial tumors – Dept of Biochemistry, AIIMS.
3. Pilocytic astrocytomas : correlation of clinical features and outcome with proliferation index and angiogenesis – Dept of Neurosurgery, AIIMS.
4. Altered DNA sequences in gliomas: characterization of changes and context sequences with reference to tumor type – Dept of Biochemistry, AIIMS.

#### *Ongoing*

1. Analysis of immunomodulation property of IFN-g on classical, nonclassical MHC 1 and TGF-b expression in astrocytic tumors and their relevance in immunotherapy – Neurobiochemistry, AIIMS.
2. Study of HIC-1 in tumorigenesis and cell response – Dept of Biochemistry, AIIMS.
3. Effects of administration of human umbilical cord blood cells (HUCBG) in combination with melatonin versus HUCBG alone in rat with stroke – Dept of Neurology, AIIMS.

### **PUBLICATIONS**

1. Sharma MC, Jain D, Sarkar C, Suri V, Garg A, Sharma BS et al. Papillary tumor of the pineal region—a recently described entity: a report of three cases and review of the literature. Clin Neuropathol. 2009;28:295-302.
2. Sharma MC, Jain D, Sarkar C, Goebel HH. Congenital myopathies - a comprehensive update of recent advancements. Acta Neurol Scand. 2009;119:281-92.
3. Sarkar C, Jain A, Suri V. Current concepts in the pathology and genetics of gliomas. Indian J Cancer. 2009;46:108-19.
4. Sharma MC, Ghara N, Jain D, Sarkar C, Singh M, Mehta VS. A study of proliferative markers and tumor suppressor gene proteins in different grades of ependymomas. Neuropathology. 2009;29:148-55.

5. Sharma MC, Jain D, Gupta A, Sarkar C, Suri V, Garg A et al. Dysembryoplastic neuroepithelial tumor: a clinicopathological study of 32 cases. *Neurosurg Rev.* 2009;32:161-70.
6. Sharma MC, Jain D, Sarkar C, Bhatnagar V, Rishi A, Suri V et al. Lumbosacral Wilms' tumor as a component of immature teratoma associated with spinal dysraphism—a rare case and short literature review. *Fetal Pediatr Pathol.* 2009;28:201-8.
7. Tandon A, Suri A, Kasliwal MK, Mahapatra AK, Mehta VS, Garg A, Sarkar C et al. Assessment of endocrine abnormalities in severe traumatic brain injury: a prospective study. *Acta Neurochir (Wien).* 2009;151:1411-7.
8. Biswas A, Goyal S, Puri T, Das P, Sarkar C, Julka PK et al. Atypical teratoid rhabdoid tumor of the brain: case series and review of literature. *Childs Nerv Syst.* 2009;25:1495-500.
9. Goel RK, Suri V, Suri A, Sarkar C, Mohanty S, Sharma MC et al. Effect of bone marrow-derived mononuclear cells on nerve regeneration in the transection model of the rat sciatic nerve. *J Clin Neurosci.* 2009;16:1211-7.
10. Shukla B, Agarwal S, Suri V, Pathak P, Sharma MC, Gupta D, Sharma BS, Suri A, Halder A, Sarkar C. Assessment of 1p/19q status by fluorescence in situ hybridization assay: A comparative study in oligodendroglial, mixed oligoastrocytic and astrocytic tumors. *Neurol India.* 2009;57:559-66.
11. Puri S, Mahapatra AK, Hussain E, Sarkar C, Sinha S, Joshi BH. A review of studies on targeting interleukin 4 receptor for central nervous system malignancy. *Curr Mol Med.* 2009;9:732-9.
12. Das P, Puri T, Suri V, Sharma MC, Sharma BS, Sarkar C. Medulloblastomas: a correlative study of MIB-1 proliferation index along with expression of c-Myc, ERBB2, and anti-apoptotic proteins along with histological typing and clinical outcome. *Childs Nerv Syst.* 2009;25:825-35.
13. Tanveer N, Sharma MC, Sarkar C, Gulati S, Kalra V, Singh S et al. Diagnostic utility of skin biopsy in dystrophinopathies. *Clin Neurol Neurosurg.* 2009;111:496-502.
14. Bakhshi S, Gupta A, Sharma MC, Khan SA, Rastogi S. Her-2/neu, p-53, and their coexpression in osteosarcoma. *J Pediatr Hematol Oncol.* 2009;31:245-51.
15. Choudhari KA, Kaliaperumal C, Jain A, Sarkar C, Soo MY, Rades D et al. Central neurocytoma: a multi-disciplinary review. *Br J Neurosurg.* 2009;23:585-95.
16. Bajpai J, Gamanagatti S, Sharma MC, Kumar R, Vishnubhatla S, Khan SA et al. Noninvasive imaging surrogate of angiogenesis in osteosarcoma. *Pediatr Blood Cancer.* 2010;54:526-31.
17. Sharma MC, Jain D, Sarkar C, Bhatnagar V, Rishi A, Suri V et al. Lumbosacral Wilms' tumor as a component of immature teratoma associated with spinal dysraphism—a rare case and short literature review. *Fetal Pediatr Pathol.* 2009;28:201-8.
18. Gupta R, Suri V, Arora R, Sharma MC, Mishra S, Singh M, Sarkar C. Suprasellar ganglioglioma presenting with diabetes insipidus in a young boy: a rare clinical presentation. *Childs Nerv Syst.* 2010;26:255-8.
19. Muzumder S, Das P, Kumar M, Bhasker S, Sarkar C, Medhi K et al. Primary epithelioid angiosarcoma of the breast masquerading as carcinoma. *Curr Oncol.* 2010;17:64-9.

20. Das P, Haresh KP, Suri V, Sharma MC, Sharma BS, Sarkar C. Malignant hemangiopericytoma of pituitary fossa. *Indian J Pathol Microbiol.* 2010;53:109-11.
21. Jain V, Goel P, Kumar D, Seith A, Sarkar C, Kabra S et al. Endobronchial chondroid hamartoma in an infant. *J Pediatr Surg.* 2009;44:e21-3.
22. Sai Kiran NA, Kasliwal MK, Gupta A, Mridha AR, Sharma MC, Sharma BS. A rare case of intracranial solitary fibrous tumor of meninges: case report. *J Neurosurg Sci.* 2009;53:153-5.
23. Biswas A, Puri T, Goyal S, Kumar S, Sharma A, Paliwal P, Suri V et al. Spinal myxopapillary ependymoma with Down syndrome: exploring an unusual association. *J Pediatr Hematol Oncol.* 2010;32:e38-41.
24. Sharma S, Kalra V, Garg A, Suri V, Suri A. Gliomatosis cerebri. *Indian J Pediatr.* 2009;76:553-4.

### **PATIENT CARE**

1. Neuropathology Surgical Specimens	-	2254
2. Frozen Sections	-	308
3. Muscle biopsies :		
Total number received	-	378
Muscle enzyme histochemistry	-	1195
4. Immunohistochemistry	-	7580
5. Myelin stain	-	141
6. Diagnostic Fluorescent in situ hybridization	-	80
7. Electron Microscopy	-	320

### **AWARDS AND HONOURS**

1. Dr Chitra Sarkar was awarded the Sir Shriram Memorial Oration by the National Academy of Medical Sciences, New Delhi.
2. Dr Chitra Sarkar was elected as Fellow of the National Academy of Medical Sciences (NAMS).
3. Dr. NC Nayak Talented young Pathologist Award for year 2009 won by Dr. Vaishali Suri in XXIVth Annual Conference-Delhi Chapter-IAPM UCMS and GTB Hospital, Delhi.
4. First Prize for poster entitled “Molecular profile of oligodendrogliomas in the young” won by Dr. Shipra Agarwal at the XIIth annual conference of DNA (DNA CON- 2009)), 6<sup>th</sup> and 7<sup>th</sup> Feb 2010, Sir Ganga Ram Hospital, New Delhi.
5. First Prize for oral paper entitled “MGMT gene promoter methylation in gliomas” won by Ms. Prerana Jha at the XIIth annual conference of DNA (DNA CON- 2009)), 6<sup>th</sup> and 7<sup>th</sup> Feb 2010, Sir Ganga Ram Hospital, New Delhi.
6. Third Prize for poster entitled” Limb girdle muscular dystrophy Type 2a in India: a study based on semi-quantitative protein analysis with clinical and histopathological correlation” won by Mr Pathak Pankaj at the XIIth annual conference of DNA (DNA CON- 2009)), 6<sup>th</sup> and 7<sup>th</sup> Feb 2010, Sir Ganga Ram Hospital, New Delhi.

## SIGNIFICANT EVENTS

### Dr. Chitra Sarkar

1. Member of committee for reviewing the functioning status of deemed to be university of NBRC.
2. Nominated as Member of the Scientific Advisory Committee of Institute of Pathology, New Delhi.
3. Nominated as Member of the Chronic Disease Biology – Neurology group, DBT, New Delhi.

## VISITING SCIENTISTS

Dr Sadhan Majumder, Professor, Department of Genetics, Department of Neuro-Oncology, University of Texas MD Anderson Cancer Center, USA visited the Neuropathology lab and delivered a lecture on “Flexibility of stem/progenitor cells regulates normal development and cancer” on 23<sup>rd</sup> February 2010.

## CLINICAL PSYCHOLOGY

### EDUCATION

#### National and International Conferences

- Chairperson of ‘Presurgical evaluation: Non-Invasive: I’ session at A workshop on epilepsy Surgery, evaluation, surgical procedures and rehabilitation, sponsored by Asian Epilepsy Academy (ASEPA) Commission On Asian And Oceanian Affairs (CAOA) International League Against Epilepsy (ILAE), Indian Epilepsy Society; at All India Institute of Medical Sciences, New Delhi, India 7<sup>th</sup> to 8<sup>th</sup> November, 2009.

## RESEARCH

### Funded Research

- Generating knowledge for assessment of emerging technologies - The effects of Continuous positive airway pressure therapy for prevention of new vascular events in patients with sleep disordered breathing and stroke: A randomized controlled study. Funding agency: Department of Science and Technology, Ministry of Science & Technology, Government of India. Total funding: 69 lacs, Duration: 3 years

### Departmental Research

- Collection of normative data of:
  - Memory scale. (ongoing)
  - Adapted Minnesota test for differential diagnosis of aphasia. (ongoing)
  - Adapting scales for neuroscience centre. (ongoing)

### Collaborative Research

- ‘Study of Cognition and QOL in chronic intractable epilepsy using Functional Magnetic Resonance Imaging (fMRI). (Supervision as Co- guide) since Jan, 2010.

- Thesis for the degree of M.D (Neuroanaesthesia) June 2010 Co-guide, DM C Cardioanaesthesia, AIIMS, New Delhi. (Supervising as a co-guide). Main Guide: Dr. S.N. Das.
- Thesis for the degree of M.Ch (Neurosurgery) Jan 2010 Co-guide of Junior Resident Neurosurgery, AIIMS, New Delhi. Main Guide: Dr. Kale.
- Member doctoral committee of PhD Student of Neurobiochemistry, NS Centre, AIIMS, New Delhi. “Pharmacogenetics of schizophrenia drug therapeutics”. Since March, 2010.
- Thesis for the degree of M.D (Radiodiagnosis) March 2010 Co-guide, Junior Resident Radiodiagnosis, AIIMS, New Delhi.

## PUBLICATIONS

1. Sahu B, Chauhan S, Kiran U, Bisoi A, Ramakrishnan L, **Nehra A**. Neuropsychological function in children with cyanotic heart disease undergoing corrective cardiac surgery: effect of two different rewarming strategies. *European Journal of Cardio-thoracic Surgery* Vol 35, 2009: pp 505-510.
2. Sahu B, Chauhan S, Kiran U, Bisoi A, Ramakrishnan L, Thiruvankadam S, **Nehra A**. Neuropsychological function in patients undergoing coronary artery bypass graft surgery with cardiopulmonary bypass: The effect of two different rewarming strategies. *Journal of Cardiothoracic and Vascular Anesthesia*, Vol 23, No 1, 2009: pp 8-13.

## PATIENT CARE

Neuropsychological assessment, interpretation and therapy of various Neurosurgical and Neurological patients. It included patients of Head injury, SAH, Stroke, Parkinson’s, Dementia, Epilepsy, Referrals for Psychiatry Ward/OPD. 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 4-5hours /day. There were 4 OPD/week. Teaching of MBBS and Nursing Students. Guiding thesis/theses and research. First step towards planning of research work to be done was formulated. Started a disability board for the long standing patients of Neuroscience centre as per Government of India guidelines.

## AWARDS AND HONOURS

- Associate Member: *American Academy of Neurology*. Since Jan, 2010.
- Member: World Stroke Organization. *Membership # 5497* since March, 2010.

## SIGNIFICANT EVENTS

- 1<sup>st</sup> International workshop on Neuro Rehabilitation after Traumatic Brain Injuries (TBI), organized by Indian Head Injury Foundation with Indraprastha Apollo Hospitals, Delhi from 10<sup>th</sup> to 11<sup>th</sup> Aug, 2009, Apollo Hospital, New Delhi, India.

- A Workshop On Epilepsy Surgery, Evaluation, Surgical Procedures And Rehabilitation, sponsored by Asian Epilepsy Academy (ASEPA) Commission On Asian And Oceanian Affairs (CAOA) International League Against Epilepsy (ILAE), Indian Epilepsy Society; at All India Institute of Medical Sciences, New Delhi, India 7<sup>th</sup> to 8<sup>th</sup> November, 2009.  
‘Neuropsychological work-up and management of grief in a case of traumatic brain injury’, paper presented at 36<sup>th</sup> National Annual Conference of the Indian Association of Clinical Psychologists at NIMHANS, Bangalore, India from 1<sup>st</sup> to 3<sup>rd</sup> Feb, 2010.

## 10.6 Dr. Rajendra Prasad Centre for Ophthalmic Sciences

### Chief & Professor

Supriyo Ghose

### Professor

Raj Vardhan Azad  
Sat Pal Garg  
Atul Kumar  
Gita Satpathy  
(Ocular Microbiology)

Rasik Behari Vajpayee  
Anita Panda  
Pradeep Sharma  
Jeewan Singh Titiyal  
Sudarshan Khokhar

Vimla Menon  
Yog Raj Sharma  
Ramanjit Sihota  
Radhika Tandon

### Medical Superintendent

Shakti Kumar Gupta

### Additional Professors

Mahesh Chandra

Dilip R. Shende  
(Ocular Anaesthesiology)

G.V. Satyanarayana Murthy  
(Community Ophthalmol)  
VRS on 31.12.09  
Niranjan Nayak  
(Ocular Microbiology)

Mandeep Singh Bajaj

Rajpal

### Associate Professors

Seema Sen  
(Ocular Pathology)

Sanjay Sharma  
(Ocular Radiology)

Seema Kashyap  
(Ocular Pathology)

Namrata Sharma

Pradeep Venkatesh

Neelam Pushker

Tanuj Dada

T. Velpandian  
(Ocular Pharmacology)

Praveen Vashist  
(Community Ophthalmology)

Jasbir Kaur  
(Ocular Biochemistry)

Viney Gupta

Rohit Saxena

### Assistant Professors

Tushar Agarwal  
Bhavna Chawla

M. Vanathi  
Medha R.  
(Ocular Biochemistry)  
Resigned on 15.2.10

Rajesh Sinha  
Renu Sinha  
(Ocular Anaesthesiology)

Parijat Chandra

## EDUCATION

Undergraduates

Post graduates

Paraclinical  
Sr. Res. Assoc.

Scientists/Pool Officers/



MBBS -50	M.D.- (24 passed)	B.Sc.(H) Ophth. Course	Scientists/Pool Officers-5
	Ph.D - 23	12 students passed	
	SRs: Ophth. - 32		
	Ocular.Anaesth. - 6		

### Short and long term training

20 Ophthalmologists from various parts of the country and 23 in training of trainers programme (ECCE/ IOL) were trained in different fields of specialization.

### CME

During the year the Centre organized following Conferences/ Seminars/ Workshops on:

- CME on Invasive Mycoses: The Challenges Ahead 17/04/2009
- National Workshop on Cornea, Cataract & Refractive Surgery 29/04/09 to 30/04/09
- Oculoplasty, Orbit & Pediatric Ophthalmology 21/11/2009
- Advanced Bio-Analytical Techniques in PK studies – from Method Development to Data Interpretation 3/2/10 to 5/2/10
- National Conference of SIHAM 2010 4/3/10 to 6/3/10

The faculty of the Centre participated in, various scientific forums, **101** delivered lectures including key note addresses, chaired scientific sessions.

### RESEARCH

#### Funded Research:

#### Completed

1. LX211-01-UV: A double-masked, placebo-controlled, parallel-group, multi-center, dose-ranging study to assess the efficacy and safety of LX211 as therapy in subjects with active sight threatening, noninfectious intermediate-, anterior and intermediate-, posterior- or pan-uveitis, 2007; LX211-02-UV: A double-masked, placebo-controlled, multi-center, parallel-group, dose-ranging study to assess the efficacy and safety of LX211 as therapy in subjects with clinically quiescent sight threatening, non-infectious intermediate, anterior and intermediate, posterior- or pan-uveitis, 2007. LX211-03-UV: A double-masked, placebo-controlled, parallel-group, multi-center, dose-ranging study to assess the efficacy and safety of LX211 as therapy in subjects with active sight threatening, noninfectious intermediate-, anterior uveitis, 2007. (Name of the Principal Investigator: Prof. Rajvardhan Azad (*Lx211-01, 02, 03-UV*); Funding Agency: Lux Biosciences; Total Fund: Rs.12,00,000/-; Duration: 2007-2009).
2. Study on the prevalence, therapeutic options and outcome measures of Amblyopia. (Name of the Principal Investigator: Dr. Rohit Saxena; Funding Agency: DST; Total Fund: Rs. 23,30,000/-; Duration: 2005 - 2009).

3. Evaluation of the bio-disposition of xanthophylls in Indian donor eyes and detection of their content in commonly available fruits and vegetables. (Name of the Principal Investigator: Dr. T. Velpandian; Funding Agency: DST; Total fund: Rs. 8,00,000/-; Duration: 2006 - 2009).

### Ongoing

1. DEGAS STUDY: A Phase II prospective, randomized, multi-centre, diabetic macular edema dose ranging, comparative study evaluating the efficacy and safety of PF-523655 versus laser therapy (DEGAS). (Name of the Principal Investigator: Prof. Rajvardhan Azad; Funding Agency: Pfizer; Total Fund: Rs.16,50,000/-; Duration: May 2009 - April 2012).
2. SHIELD STUDY: A 24 week multicentre, randomized, double-masked, placebo controlled study to assess the difference in the rate of recurrent exacerbations in Behcet's patients with posterior or panuveitis treated with AIN 457 vs placebo adjunctive to standard-of-care immunosuppressive therapy. (Name of the Principal Investigator: Prof. Rajvardhan Azad; Funding Agency: NOVARTIS; Total Fund: Rs.1,80,000/-; Duration : 2010 - 2010).
3. National retinoblastoma registry. (Name of the Principal Investigator: Prof. Rajvardhan Azad; Funding Agency: ICMR; Total Fund: Rs.11,54,428/- per year; Duration: 2009 - 2012).
4. A pilot study to assess the adjunctive role of Pegaptanib sodium (Macugen) for treatment of Severe, aggressive and Posterior Retinopathy of Prematurity (ROP) (IIR). (Name of the Principal Investigator: Prof. Rajvardhan Azad; Funding Agency: Pfizer; Total Fund: Rs.4,40,000/-; Duration: 2009 - 2010).
5. A Phase 2/3 randomized, controlled, double-masked, multi-centre, comparative trial, in parallel groups, to compare the safety and efficacy of intravitreal injections of 0.3 mg Pegaptanib Sodium (Macugen®), given as often as every 6 weeks for 2 years, to Sham Injections, in subjects with diabetic macular edema (DME) Involving the Center of the Macula." Protocol No.A5751013, 2006. (Name of the Principal Investigator: Prof. Rajvardhan Azad; Funding Agency: Pfizer Limited; Total Fund: Rs.33,00,000/-; Duration: 2007- 2011).
6. A 12-month randomized, pilot study to compare the efficacy and safety of Verteporfin (Visudyne) photodynamic therapy (Standard Fluence) plus intravitreal Ranibizumab (Lucentis) versus Verteporfin (Visudyne) photodynamic therapy (Reduced Fluence) plus intravitreal Ranibizumab (Lucentis) in patients with subfoveal or juxtafoveal choroidal neovascularization secondary to age-related macular degeneration". Protocol No. CBPD952AIN03T, 2007. (Name of the Principal Investigator: Prof. Rajvardhan Azad; Funding Agency: NOVARTIS; Total Fund: Rs.3,62,730/-; Duration: 2007- 2010).
7. Phase – II multicenter, prospective, randomized, age related macular degeneration, comparator controlled, dose ranging study evaluating PF-04523655 versus Ranibizumab in the treatment of subjects with Choroidal Neovascularization (Monet Study). (Name of the Principal Investigator: Prof. Yog Raj Sharma; Funding Agency: Pfizer; Total Fund: Rs.60,000/- (*Per Month*)); Duration: 2009 - 2010).
8. Development of small interfering RNAs (siRNAs) for inhibition of Enterovirus70 and CoxsackievirusA24 viruses causing acute hemorrhagic conjunctivitis. (Name of the Principal Investigator: Prof. Gita Satpathy; Funding Agency: DBT; Total fund: Rs.49,00,000/-; Duration: 2008-2011).

9. Evaluation of polymerase chain reaction assay for Herpes Simplex Virus 1 (HSV1) detection in tear specimen of suspected viral keratitis, particularly stromal and atypical epithelial keratitis. (Name of the Principal Investigator: Prof. Gita Satpathy; Funding Agency: ICMR; Total Fund: Rs 16,00,000/-; Duration: 2007-2010).
10. Phenotypic molecular and ultrastructural study of coagulase negative staphylococci and their biofilms in device related infections. (Name of the Principal Investigator: Dr. Niranjana Nayak; Funding Agency: ICMR; Total fund: Rs. 10,110,48.-; Duration: 2009 - 2012)
11. Human pharmacology and toxicology profiling of INMAS biomedical products. (Name of the Principal Investigator: Dr. T. Velpandian; Funding Agency: DRDO; Total fund: Rs. 9,75,000/-; Duration: 2008 - 2011).
12. Dispensing characterization and pharmaceutical profiling of INMAS biomedical products. (Name of the Principal Investigator: Dr. T. Velpandian; Funding Agency: DRDO; Total fund: Rs.9,60,000/-; Duration: 2008 - 2011).
13. Detection of HPV genome in malignant ocular lesions. (Name of the Principal Investigator: Dr. Seema Sen; Funding Agency: ICMR; Total fund: Rs.14,70,000/-; Duration: 2008-2010).
14. Phenotypic characterization of limbal epithelial cells cultured on Amniotic Membrane. (Name of the Principal Investigator: Dr. Radhika Tandon; Funding Agency: ICMR; Total fund: Rs.7,22,400/-; Duration: 2008 - 2011).
15. Assessment of safety and efficacy of Relinethra CAu (an autologous bioengineered conjunctiva) in conjunctival disorder. (Name of the Principal Investigator: Dr. Radhika Tandon; Funding Agency: Reliance Life Sciences, Mumbai; Total fund: Rs. 2,00,000/-; Duration: 2008 - 2009).
16. Development of a potential biopolymer to serve as an alternative substrate of Human amniotic membrane for ex-vivo expansion of corneal epithelial stem cells. (Name of the Principal Investigator: Dr. Radhika Tandon; Funding Agency: DBT; Total fund: Rs.23,69,000/-; Duration: 2008 - 2011)
17. Evaluation of incidence and determinants of recurrence of amblyopia following cessation amblyopia therapy (Name of the Principal Investigator: Dr. Rohit Saxena; Funding Agency: ICMR; Total fund: Rs.4,42,224/-; Duration: 2009 - 2012).
18. Assessment of magnitude and progression of myopia in school going children in Delhi (Name of the Principal Investigator: Dr. Rohit Saxena; Funding Agency: DST; Total fund: Rs.34,81,000/-; Duration: 2009 - 2012).

## **Departmental Research**

### **Completed**

1. Evaluation of the efficacy of probing in nasolacrimal duct obstruction with adjunctive Mitomycin in adults.
2. Role of Multidetector CT- DCG in patients with epiphora.
3. Development of microdialysis technique to study intraocular kinetics of drugs.

4. Evaluation of Cassette dosing technique for the transcorneal penetration of drugs.
5. The role of multidetector computed tomographic dacryocystography in patients with epiphora.
6. Development of a quantitative structure property relationship using molecular dynamics for congeneric compounds for their *in vivo* intraocular penetration.
7. Evaluation of polyherbal formulation for allergic conjunctivitis.

### **Ongoing**

1. Immunohistochemical and molecular studies of Wnt/Beta Catenin signaling in Sebaceous cell carcinoma of the eyelid.
2. Regulation of apoptosis in human retinoblastoma.
3. Identification and characterization of differentially expressed genes in human retinoblastoma.
4. Molecular genetics of glaucoma
5. Prevalence of Vit.A deficiency in children and nursing mothers co-related with corneal pathology: a hospital based study.
6. A randomized prospective study of anatomic and functional outcomes in patients of central serous chorioretinopathy (CSC) with and without laser treatment.
7. A randomized prospective study for comparison of effects of pascal photocoagulation with conventional laser photocoagulation in diabetic macular edema and proliferative diabetic retinopathy.
8. Comparative evaluation of intravitreal Pan Anti-VEGF in diabetic macular edema: A randomized prospective study.
9. Comparative study of 25 gauge Vs 20 gauge system for pars plana vitrectomy in the management of rhegmatogenous retinal detachment.
10. Predictors of type 1 retinopathy of prematurity in preterm babies.
11. Comparative evaluation of intravitreal pan anti-VEGF with intravitreal selective anti-VEGF in diabetic macular edema: A randomized prospective study.
12. Results of vitreoretinal surgery at tertiary eye care centre.
13. Use of autologous bone marrow derived stem cells for rehabilitation of patients of retinitis pigmentosa and allied heredo-retinal dystrophies.
14. Bone marrow derived stem cell therapy and the trabecular meshwork: An experimental study.
15. Role of impression cytology in graft vs host disease patients.
16. Study of oral rebamipide in management of dry eye.
17. Development of animal models for postmenopausal dry eye.
18. Evaluation of cassette dosing for the intraocular penetration of drugs.
19. Modulation of transporters for the intraocular penetration of drugs.
20. Isolation and evaluation of bioactive compounds from marine origin.

21. Prediction of ocular toxicity using OMR paradigms in gold fish
22. Indian Solar UltraViolet Radiation Assessment – Project ISUVRA.
23. Evaluation of calcium dobesilate topical eye drops for ocular pathological conditions.
24. Evaluation of polyherbal formulation for ocular neovascular conditions.
25. Visual parameters in patients with regressed retinoblastoma.
26. Study of visual functions and fundus findings in orbital tumors and their alterations after surgery.
27. Lateral eyelid rotation flap for reconstruction of full thickness eyelid defects.
28. Sentinel lymph node biopsy in malignant eyelid tumors.
29. Evaluation of transrectal ultrasound, elastography and contrast enhanced sonography for detection of prostate cancer.
30. Role of MRI in characterization of sonographically indeterminate adnexal masses.
32. Radiofrequency ablation of lower limb symptomatic varicosities.
33. Role of computed tomography in staging and management of carcinoma cervix.
34. Evaluation of tear film lipidomics in selected ocular surface disorders.
35. Expression of cell cycle regulatory proteins in ocular surface squamous neoplasia.
36. Serial ultrasonic evaluation and its clinico-pathological correlation in retinoblastoma patients undergoing chemoreduction and local treatment or enucleation.
37. Randomized control trial using carboplatin 750mg/m<sup>2</sup> and 560 mg/m<sup>2</sup> for ocular salvage in group C & D retinoblastoma.
38. Malignant tumours of the eye and orbit in children: The varied clinical profile and role of tumour markers in management.
39. Evaluation of expression of P - glycoprotein in retinoblastoma.
40. 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.
41. Photoreceptor changes in aging human retina and their possible link with oxidative stress.
42. Ocular surface reconstruction with autografts of non-ocular origin.
43. Evaluation of tear-fluid constituents in various ocular pathological conditions using tandem mass spectrometry.

### **Collaborative Research:**

#### *Completed*

1. Determination of purity of anticancer drugs used IRCH (with Deptt. of Medical Oncology IRCH).
2. Development of new LC-MS/MS method for the determination of homocysteine and homocysteine thiolactone from plasma samples (with Deptt. of Sankara Nethralaya, Chennai).

3. Genetic polymorphisms of vascular endothelial growth factor and risk of 'Threshold' retinopathy of prematurity (with Deptt. of Neonatology AIIMS).

### **Ongoing**

1. Outcome of optical penetrating keratoplasty in bilaterally blind patients (with Deptt. of Psychiatry).
2. Implantation of retinal pigment epithelial cells in the 6-ODHA lesioned rat model of Parkinson's disease (with Deptt. of Neurology).
3. Determination of plasma levels of morphine and its metabolites and correlation with its pharmacodynamics (with Deptt. of Anesthesia, IRCH, AIIMS).
4. Evaluation of vitreous humor as a marker fluid in the autopsy drug level analysis (with Forensic Science Laboratory, New Delhi).
5. Evaluating the correlation of serum levels of morphine and its metabolites on pain in cancer patients (with Deptt. of Anesthesia, IRCH).
6. Estimation of levels of salbutamol and other drugs in human plasma samples (with INMAS, DRDO).
7. Quantification of plasma antitubercular drug levels in pediatric population (with Deptt. of Pediatrics).
8. Evaluation of rhythmic process of Surdershan Kriya Pranayam on cancer patients for pain management (with Deptt. of Anaesthesia, IRCH).
9. Determination of cyanocobalamin and folic acid from plasma samples (as a part of clinical and etiopathological spectrum of pancytopenia in adults) (with Deptt. of Medicine, MAMC, New Delhi).
10. Evaluation of different phototherapy devices used in the management of neonatal hyperbilirubinemia (with Deptt. of Pediatrics, AIIMS).
11. Evaluation of the quality of anticancer drugs in marketed formulations (with IRCH).
12. Development of the method for the quantification of Betaendorphin from brain microdialysate in rats (with Deptt. of Physiology, AIIMS).
13. Evaluation of extemporaneously prepared voriconazole stability and their topical penetration kinetics in patients undergoing cataract surgery (with Arvind Medical Research Foundation, Maduari)
14. Evaluation of bioactive components from algae (with Bharathidasan University, Trichy).
15. Isolation of active principles from various herbs for leishmaniasis. (with Deptt. of Lab Medicine).

### **PUBLICATIONS**

#### **Journals**

1. Agarwal R, Gupta SK, Agarwal P, Saxena R, Agarwal SS. Current concepts in the pathophysiology of glaucoma. Indian J Ophthalmol 2009; 57(4):257-66.
2. Azad RV, Mannan R, Chandra P. Role of ultrasound biomicroscopy in management of eyes with stage 5 retinopathy of prematurity. Ophthalmic Surg Lasers Imaging 2010; 41(2):196-200.

3. Azad RV. Retinopathy of prematurity – A giant in the developing world, *Indian Pediatr* 2009; 46(3):211-2.
4. Azad R, Chandra P, Patwardhan SD, Gupta A. Importance of the ‘third criterion’ for retinopathy of prematurity screening in developing countries. *J Pediatr Ophthalmol Strabismus* 2009; 46(6): 332-4.
5. Bajaj MS, Khurajam N, Sen S, Pushker N. Congenital melanocytoma manifesting as proptosis with multiple cutaneous melanocytic nevi and oculodermal melanosis. *Arch Ophthalmol* 2009; 127(7):937-9.
6. Bakhshi S, Meel R, Naqvi SG, Mohanti BK, Kashyap S, Pushker N, Sen S. Therapy and outcome of orbital primitive neuroectodermal tumor. *Pediatr Blood Cancer* 2009; 52(4):544-7.
7. Chawla B, Mannan R, Sharma N, Titiyal JS. Purse-string suture for management of late-onset infectious keratitis with scar dehiscence after radial keratotomy. *Clin Experiment Ophthalmol* 2009; 37(6):630-1.
8. Chawla B, Agarwal P, Tandon R, Titiyal JS, Sharma N, Agarwal T, Navak N, Satpathy G. *In vitro* susceptibility of bacterial keratitis isolates to fourth generation fluoroquinolones. *Eur J Ophthalmol*. 2010; 20(2): 300-5.
9. Chawla B, Sharma N, Titiyal JS, Nayak N, Satpathy G. *Aureobasidium pullulans* keratitis following automated lamellar therapeutic keratoplasty. *Ophthalmic Surg Lasers Imaging* 2010; 9:1-3.
10. Dada T, Gadia R, Aggarwal A, Dave V, Gupta V, Sihota R. Retinal nerve fiber layer thickness measurement by scanning laser polarimetry (GDxVCC) conventional and modified diameter scans in normals, glaucoma suspects, and early glaucoma patients. *J Glaucoma* 2009; 18(6): 448-52.
11. Darlow BA, Gilbert C, Quinn GE, Azad RV, Ells AL, Fielder A, Zin A. Promise and potential pitfalls of anti-VEGF drugs in retinopathy of prematurity. *Br J Ophthalmol* July 2009; 93(7):986.
12. Gupta SK, Selvan VK, Agarwal SS, Sexena R. Advances in pharmacological strategies for the prevention of cataract development. *Indian J Ophthalmol* 2009; 57(3):175-83.
13. Gupta V, Jha R, Rao A, Kong G, Sihota R. The effect of different doses of intracameral bevacizumab on surgical outcomes of trabeculectomy for neovascular glaucoma. *Eur J Ophthalmol* 2009;19(3):435-41.
14. Gupta V, Kumar R, Gupta R, Srinivasan G, Sihota R. Bilateral iridocorneal endothelial syndrome in a young girl with Down’s syndrome. *Indian J Ophthalmol* 2009; 57(1):61-3.
15. Gupta V, Jha R, Rao A, Kong G, Sihota R. The effect of different doses of intracameral bevacizumab on surgical outcomes of trabeculectomy for neovascular glaucoma. *Eur J Ophthalmol* 2009; 19(3): 435-41.
16. Halder N, Joshi S, Nag TC, Tandon R, Gupta SK. *Ocimum sanctum* extracts attenuate hydrogen peroxide induced cytotoxic ultrastructural changes in human lens epithelial cells. *Phytother Res* 2009; 23(12):1734-7.
17. Kashyap S, Pushker N, Meel R, Sen S, Bajaj MS, Khurajam N, Mehta M, Chawla B. Orbital Schwannoma with cystic degeneration. *Clin Experiment Ophthalmol* 2009;37(3):293-8.



18. Kaushal S, Prakash G, Sen S, Tandon R. Documentation of capsular opacification and incomplete cell migration barrier formation by ThinOptX IOL using Miyake-Apple view. *Cont Lens Anterior Eye* 2009; 32(4):181-3.
19. Khanduja S, Jhanji V, Sharma N, Vashist P, Murthy GVS, Satpathy G *et al.* Rapid assessment of trachoma among children living in rural Northern India. *Ophthalmic Epidemiology* 2009; 16(4): 206-11.
20. Khokhar SK, Saxena R, Microincision versus standard clear corneal cataract incisions. *J Cataract Refract Surg* 2009; 35(7):1322-3.
21. Kumar A, Sinha S. Combination photodynamic therapy and intravitreal Bevacizumab for neovascular age-related macular degeneration: the Indian experience. *Asian J Ophthalmology* 2009; 11(1): 8-11.
22. Kumar A, Kakkar A, Jindal S, Rajesh R. Combination 20 and 23 gauge transconjunctival vitrectomy: A new approach. *Indian J Ophthalmol* 2009; 57(6):459-61.
23. Madhusudhan KS, Sharma S, Srivastava DN, Thulkar S, Mehta SN, Prasad G, Seenu V, Agarwal S. Comparison of intra-arterial digital subtraction angiography using carbon dioxide by 'home made' delivery system and conventional iodinated contrast media in the evaluation of peripheral arterial occlusive disease of the lower limbs. *J Med Imaging Radiat Oncol* 2009; 53(1): 40-9.
24. Madhusudhan KS, Sharma S, Seth A. Spontaneous closure of a traumatic intrarenal pseudoaneurysm. *J Postgrad Med.* 2009; 55(2): 124-6.
25. Mathur R, Gupta SK, Mathur SR, Velpandian T. Anti-tumor studies with extracts of *calotropis procera* (Ait.) R.Br. root employing Hep2 cells and their possible mechanism of action. *Indian J Exp Biol* 2009; 47(5):343-8.
26. Mathur R, Velpandian T. Medicinal plant-based health products: Where is the medicinal constituent? *Ind J Pharmacol* 2009; 41(4); 205-6.
27. Meel R, Pushker N, Bakhshi S. Adjuvant chemotherapy in lacrimal gland adenoid cystic carcinoma. *Pediatr Blood Cancer* 2009;53(6):1163-4.
28. Mehta M, Chandra M, Sen S, Bajaj MS, Pushker N, Meel R, Ghose S. Orbital teratoma: a rare cause of congenital proptosis. *Clin Experiment Ophthalmol* 2009; 37(6):626-8.
29. Menon V, Singla MA, Saxena R, Phuljhle S. Comparative study of unilateral and bilateral surgery in moderate exotropia. *J Pediatr Ophthalmol Straismus.* 2009; 27:1-4.
30. Menon V, Jain D, Saxena R, Sood R. Prospective evaluation of visual function for early detection of ethambutol toxicity. *Br J Ophthalmol* 2009; 93(9):1251-4.
31. Nayyar R, Singh P, Panda S, Kashyap S, Gupta NP. Proptosis due to isolated soft tissue orbital metastasis of prostate carcinoma. *Ind. J Cancer* 2010; 47:74-6.
32. Paliwal P, Singh A, Tandon R, Titiyal JS, Sharma A. A novel VSX1 mutation identified in an individual with keratoconus in India. *Mol Vis* 2009; 8(5):2475-9.
33. Pandita D, Ahuja A, Velpandian T, Lather V, Dutta T, Khar RK. Characterization and in vitro assessment of paclitaxel loaded lipid nanoparticles formulated using modified solvent injection technique. *Pharmazie* 2009; 64(5):301-10.

34. Prakash G, Sharma N, Tandon R, Titiyal JS. Iatrogenic conjunctival entrapment of cilium and scleral ulceration after subtenon steroid injection. *Eye Contact Lens* 2010; 36(2): 137-8.
35. Prakash G, Sharma N, Jhanji V, Agarwal T, Titiyal JS. Impact of day care cataract surgery on inpatient services in a tertiary care ophthalmic setup. *Trop Doct* 2009; 39(3):141-4.
36. Prakash G, Jhanji V, Sharma N, Gupta K, Titiyal JS, Vajpayee RB. Assessment of perceived difficulties by resident performing routine steps in phacoemulsification surgery and in managing complications. *Can J Ophthalmol* 2009; 44(3):284-87.
37. Pushker N, Meel R, Bajaj MS, Kashyap S, Khuriajam N, Gupta S, Chandra M. Orbital abscess with unusual features. *Ophthal Plast Reconstr surg* 2009; 25(6):450-4.
38. Pushker N, Kashyap S, Bajaj MS, Meel R, Sood A, Sharma S, Konal V. Primary lacrimal sac rhinosporidiosis with grossly dilated sac and nasolacrimal duct. *Ophthal Plast Reconstr Surg* 2009; 25(3):234-5.
39. Pushker N, Bajaj MS, Mehta M, Kashyap S, Yadav P, Meel R, Sudhan M. Simultaneous occurrence of glial heterotopia and meningoceles in the orbit with clinical anophthalmia and neurological anomalies. *J Pediatr Ophthalmol Strabismus* 2009; 2:1-4.
40. Pushker N, Mehta M, Meel R, Bajaj MS. Disseminated cysticercosis with multiple bilateral orbital cysts. *Ophthal Plast Reconstr Surg* 2009;25(6):499-501.
41. Pushker N, Meel R, Bajaj MS, Kashyap S, Khuriajam N, Gupta S, Chandra M. Orbital abscess with unusual features. *Ophthal Plast Reconstr Surg* 2009; 25(6):450-4.
42. Pushker N, Bajaj MS, Mehta M, Kashyap S, Yadav P, Meel R, Sudhan M. Simultaneous occurrence of glial heterotopia and meningocele in the orbit with clinical anophthalmia and neurological anomalies. *J Pediatr Ophthalmol Strabismus* 2009; 2:1-4.
43. Pushker N, Kashyap S, Bajaj MS, Meel R, Sood A, Sharma S, Konkal VL. Primary lacrimal sac rhinosporidiosis with grossly dilated sac and nasolacrimal duct. *Ophthal Plast Reconstr Surg* 2009;25(3):234-5.
44. Pushker N, Mehta M, Bajaj MS, Chawla B, Sharma S, Sethi S, Ghose S. Nasoethmoidal cephalocele with bilateral orbital extension presenting as bilateral lower eyelid mass. *J Pediatr Ophthalmol Strabismus* 2010;47(1):64.
45. Pushker N, Meel R, Kaushal S, Bajaj MS, Mehta M, Lohia P. Congenital horizontal tarsal link with microphthalmos corrected by intermarginal suture tarsorrhaphy. *J Pediatr Ophthalmol Strabismus* 2010;47(1):51-3.
46. Radhakrishnan, Venkatraman, Bhatia R, Satpathy Panda G, Bakhshi S. Acanthoebic meningoencephalitis presenting as personality change. *Paed Inf Dis* 2009; 28(6): 555.
47. Rajappa M, Goyal A, Kaur J. Inherited metabolic disorders involving the eye: a clinico-biochemical perspective. *Eye* 2009 Oct 2. (Epub ahead of print).
48. Rajpal, Srinivas A, Azad RV, Sharma YR, Kumar A, Satpathy G, Velpandian T. Evaluation of vitreous levels of gatifloxacin after systemic administration in inflamed and non-inflamed eyes. *Acta Ophthalmol* 2009;87(6):648-52.

49. Rao A, Tandon R, Sharma N, Sihota R, Gupta V, Dada T. Herpetic keratitis and keratouveitis after mitomycin-C use in glaucoma filtering surgery: a short case series. *Eur J Ophthalmol* 2009;19(6):1088-90.
50. Rao A, Tandon R, Sharma N, Sihota R, Gupta V, Dada T. Herpetic keratitis and keratouveitis after Mitomycin-C use in glaucoma filtering surgery- A short case series. *Eur J Ophthalmol*.2009;19(6)1089-91.
51. Sabti KA, Kumar N, Azad RV. Extended internal limiting membrane peeling in the management of unusually large macular holes. *Ophthalmic Surgery, Laser & Imaging* 2009; 40(2): 185-7.
52. Saxena R, Sinha A, Sharma P, Phuljhele S, Menon V. Precaruncular approach for medial orbital wall periosteal anchoring of the globe in oculomotor nerve palsy. *JAAPOS* 2009;13(6):578-82.
53. Saxena R, Sinha A, Sharma P, Phuljhele S, Menon V. Precaruncular approach for medial orbital wall periosteal anchoring of the globe in oculomotor nerve palsy. *J AAPOS* 2009; 13(6):578-82.
54. Senthilkumari S, Velpandian T, Biswas NR, Bhatnagar A, Mittal G, Ghose S. Evidencing the modulation of P-glycoprotein at blood-ocular barriers using gamma scintigraphy. *Curr Eye Res* 2009; 34(1):73-7.
55. Sethi S, Ghose S, Pushker N, Bajaj MS, Kaur J, Kashyap S, Mehta M, Saxena P, Chawla B, Chandra M. A western blot analysis of P-glycoprotein in retinoblastoma. *Acta Ophthalmologica* 2009; 87: s244 (Abs).
56. Sethi S, Bajaj MS, Pushker N, Mehta M, Kashyap S, Sen S, Chawla B, Ghose S. Orbital and periorbital cystic lesions in Indian children: A retrospective analysis from a tertiary care centre. *Acta Ophthalmologica* 2009; 87:s244 (Abs).
57. Sharma U, Velpandian T, Sharma P, Singh S. Evaluation of anti-leishmanial activity of selected Indian plants known to have antimicrobial properties. *Parasitol Res* 2009;105(5):1287-93.
58. Sharma R, Titiyal JS, Prakash G, Sharma N, Tandon R, Vajpayee RB. Clinical profile and risk factors for keratoplasty and development of hydrops in north Indian patients with keratoconus. *Cornea* 2009;28(4):367-70.
59. Sharma P, Julka A, Gadia R, Chhabra A, Dehran M Evaluation of single-stage adjustable strabismus surgery under conscious sedation. *Indian J Ophthalmol* 2009;57(2):121-25.
60. Sharma S, Mukund A, Agarwal S, Srivastava DN. Case of a Misplaced IVC filter: A lesson to learn. *Cardiovasc Intervent Radio* 2010 Feb 26. (Epub ahead of print).
61. Sharma R, Titiyal JS, Prakash G, Sharma N, Tandon R, Vajpayee RB. Clinical profile and risk factors for keratoplasty and development of hydrops in North Indian patients with Keratoconus. *Cornea* 2009; 28(4):367-70.
62. Sharma N, Maharana P, Singh G, Titiyal JS. Pseudomonas Keratitis after collagen cross linking for keratoconus; Case report and review of literature. *J Cataract Refract Surg* 2010;36(3): 517-20.
63. Sharma N, Titiyal JS. Corneal Surgery Complication. *Ophthalmology*. 2010; 117 (1): 192-2.

64. Singh N, Kumar L, Meena R, Velpandian T. Drug monitoring of imatinib levels in patients undergoing therapy for chronic myeloid leukaemia: comparing plasma levels of responders and non-responders. *Eur J Clin Pharmacol* 2009; 65(6):545-9.
65. Tandon R, Sinha R, Moulick P, Agarwal P, Titiyal JS, Vajpayee RB. Pattern of bilateral blinding corneal disease in patients waiting for keratoplasty in a Tertiary Eye Care Centre in Northern India. *Cornea* 2010;29(3): 269-71.
66. Tanwar M, Dada T, Sihota R, Dada R. Identification of four novel cytochrome P4501B1 mutations (p.194X,p.H279D,p.Q340H, and p.K433K) in primary congenital glaucoma patients. *Mol Vis* 2009;15:2926-37.
67. Tanwar M, Sihota R, Dada T, Gupta V, Das TK, Yadav U, Dada R. Sturge-Weber syndrome with congenital glaucoma and cytochrome P450 (CYP1B1) gene mutations. *J Glaucoma* 2009 Dec 30 (Epub ahead of print).
68. Tanwar M, Dada T, Sihota R, Das TK, Yadav U, Dada R. Mutation spectrum of CYP1B1 in North Indian congenital glaucoma patients. *Mol Vis* 2009;15:1200-9.
69. Titiyal JS, Agarwal T, Jhanji V. Toric Intraocular lens versus opposite clear corneal incisions to correct astigmatism in eyes having cataract surgery. *J Cataract Refract Surg* 2009;35(10):1834-5.
70. Titiyal JS, Chawla B, Sharma N. Deep anterior lamellar keratoplasty with Intacs explantation in Keratoconus. *Eur J Ophthalmol* 2010 March 23 (Epub ahead of print).
71. Vengayil S, Panda A, Satpathy G, Nayak N, Ghose S, Patnaik D *et al*. Polymerase chain reaction (PCR) guided diagnosis of mycotic keratitis : A prospective evaluation of its efficacy and limitations. *Inv Oph Vis Sci* 2009; 50(1): 152-6.

### Chapters in Books and Monographs

1. Gupta V, Vasudevan S, Crowston JG. Post Keratoplasty Glaucoma. In: Ed(s) Vajpayee RB. *Corneal Transplantation*. 2<sup>nd</sup> ed 2009; 117-21.
2. Hari S, Sharma S, Srivastava DN. Imaging of Interstitial lung diseases. In: Diagnostic Radiology: Chest and Cardiovascular Imaging, Chowdhury V, Gupta AK, Khandelwal N. In: Ed(s) Jaypee Brothers Medical Publishers (Pvt) Ltd. 3<sup>rd</sup> ed. New Delhi, 2010: 117-33.
3. Kumar A. Macular Hole. In: Ed(s). Ramamurthy D. *Grading, Stains and Management. Ready Reckoner in Ophthalmology*. (Under the aegis of AIOS) 1<sup>st</sup> Edition. Publ. AJR Medi Solution P Ltd.; 2010: 424-5.
4. Kumar A, Banthia P. Ramamurthy D. Retinitis pigmentosa and stem cell transplantation. In: Ed(s). *Ready Reckoner in Ophthalmology* (Under the aegis of AIOS) 1<sup>st</sup> Edition, Publ. AJR Medi Solution P Ltd.; 2010: 446-7.
5. Sharma YR, Nair S. Retinal Cyst. In: Ed(s). Nema HV, Neema Nitin, Management. *Recent Advances in Ophthalmology* 9, 1<sup>st</sup> Edition, Jaypee Brothers Co., 2010: 194-203.
6. Sharma YR, Nair S. Management of Rhegmatogenous retinal detachment by Vitreoretinal Surgical Techniques. In: Ed(s). Nema HV, Neema Nitin, *Recent Advances in Ophthalmology* 9. 1<sup>st</sup> Edition. Jaypee Brothers Co., 2010: 227-35.

7. Sharma S, Thulkar. Chest in immune compromise: hematological infections and bone marrow transplant. In: (Eds.) Chowdhary V, Gupta AK, Kandelwal N. *Diagnostic Radiology: Chest and Cardiovascular Imaging*. AIIMS-MAMC-PGI Course Series. Jaypee Brothers, 2010:145-53.
8. Sharma S. Radiology in fungal infections. In: Ed(s) Mahapatra M, Seth T, Mishra. *Haematology-Education Program Book*, Jay Dee Services Inc, New Delhi, 2009: 139-51

### Books and Monographs

1. Sharma YR, Azad RV. Video-Atlas of Vitreoretinal Surgery, Jaypee Brothers, 2009.
2. Kumar A- Editor Retina Section: Ready Reckoner in Ophthalmology (Under the aegis of AIOS) Ed. By D. Ramamurthy, Publ. AJR Medi Solution P Ltd. 1<sup>st</sup> Edition, 2010.

### PATIENT CARE

	New Cases	Old Cases	Total
1. General OPD	112937	82338	195275
2. Emergency	30926	-	30926
<b>Total Cases</b>	<b>143863</b>	<b>82338</b>	<b>226201</b>

### SPECIALITY CLINICS

1. Cornea Clinic	5523	14573	20096
2. Lens Clinic	915	911	1826
3. Uvea Clinic	904	2447	3351
4. Contact Lens Clinic	1168	3878	5046
5. Glaucoma Clinic	2637	6332	8969
6. Ophthalmoplasty Clinic	3058	1568	4626
7. Paediatric Ophthalmology Clinic	804	353	1157
8. Trauma Clinic	927	858	1785
9. Retina Clinic	2621	3045	5666
10. Neuro-Ophthalmology Clinic	1771	1267	3038
11. Medical Ophthalmology Clinic	1161	1256	2417
12. Vitreo Retinal Clinic	1586	793	2379
13. Ocular Surface Disorder Clinic	75	59	134
14. Retinoblastoma Clinic	384	336	720
15. a) Orthoptic Clinic	4864	25142	30006
b) Squint Clinic	7863	28851	36714
16. Refraction	-	24063	24063
<b>Total Cases</b>	<b>36261</b>	<b>115732</b>	<b>151993</b>
<b>Grand Total of Cases</b>	<b>180124</b>	<b>198070</b>	<b>378194</b>

<b>INDOOR</b>	<b>No. Of Cases</b>
1. General Admissions	15214
2. Casualty Admissions	2083
3. Private Admissions	1198
4. Short Admissions	4989
5. Day Care Admissions	6881
<b>Total</b>	<b>30365</b>
<b>OPERATIONS</b>	
1. Major	16155
2. Day Care	6361
Total Major	22516
3. Minor	7018
<b>Grand Total</b>	<b>29534</b>
<b>Death</b>	<b>One</b>
<b>YEARLY OTHER FIGURES</b>	
1. Average Bed Occupancy Ratio	86%
2. Average length of stay	5.0 day
3. Average OPD Attendance per working day	1282
4. Average No. of Indoor Admission per day	83
5. Average No. of Surgeries per day	81
<b>Investigative Laboratories</b>	
Fluorescein Angiography + ICG	5,918
Ultrasonography	17,376
EUA	192
E.C.G.	2,092
Applanation Tonometry	17,232
Indirect Ophthalmoscopy	4,315
Goldmann Perimetry	2,599
Automated Perimetry	4,908
E.R.G.	646
VER	6,156
E.O.G.	69
ENG	19
Focimetry	4,578

Colour Vision	3,817
L.I.	4,268
Ultrasonic Pachymetry	1,658
Non Contact Tonometry	18,705
Refraction	68,524
Auto Refraction	25,798
Axial Length	16,145
Keratometry	17,562
OCT	8,867
Contact Lenses (Old + New)	5,068
Artificial Eye	552
Low Vision Aid	1,261
PRP	3,112
Nd-Yag Laser	2,415
Fundus Photography	3,147
Excimer Workup ( Lasik)	4,012
P.D.T.	129
Inj Lucentis	30
Inj Macugen	340
Retinal Camera Ret. CAM	489
Cornea Service Lab (total no of inv.)	19,437
Cornea Research Lab (total no of inv.)	10,034
Glaucoma Research Lab (total no of inv.)	43,798
<b>Ocular Radiology</b>	
Total number of X Rays	14538
Total number of RPC CTs	128
Total number of patients	8633
<b>Ocular Microbiology</b>	
Grand total	12661
Bacterial culture & sensitivity	9622
fungal culture	2165
Specimens processed for cytology	250
Specimens processed for viral Ag detecion	83
Specimens processed for chlamydia Ag detection	238



Specimens processed for PCR HSV	115
Specimens processed for conjunctivitis (PCR)	14
Specimens processed for chlamydia tissue culture	28
Specimens processed for chlamydia serology	10
Specimens processed for conjunctivitis (Ag detection)	14
Specimens processed for conjunctivitis (tissue culture)	14
Culture for acanthamoeba	108

### **Ocular Pathology**

Total number of Investigations	:	57,387
i) Blood: TLC, DLC, PBS, ESR, BT / CT	:	32,488
ii) Urine	:	8,962
iii) Histopathology, Cytopathology & Research	:	15,937

### **Ocular Biochemistry (Clinical Chemistry)**

Total number of samples (apart from research)	:	10805
Indoor	:	9507
Outdoor	:	1298

### **Ocular Pharmacology and Pharmacy**

Free drugs (Vials) supplied through Ocular Pharmacy	:	84050
MK Media	:	480

### **Eye Bank**

Total Eyes	:	719
Surgery Performed	:	470
Unsuitable for clinical	:	93
Preserved in Glycerine	:	71
Histopathology/Stem cell	:	75

#### **Culture**

#### **Registration for Keratoplasty from April 2009 – March 2010**

Total	:	724
Called for Admission	:	1208
Balance Remaining	:	282
No. of pledges in 2009	:	807

## AWARDS & HONORS

**Prof. Rajvardhan Azad:** Awarded Prof. Alim Memorial Oration by Ophthalmological Society of Bangladesh in Dhaka, 2009; awarded A.D. Grover Oration by Chandigarh Ophthalmological Society, Chandigarh, 2009; President, All India Ophthalmological Society, 2010; awarded K.R. Dutta Memorial award by AIOS, 2010; Principal Investigator, Retinoblastoma Registry Group (ICMR) – Delhi Site; Chairman & Principal Investigator, ICMR Task Force on Retinitis Pigmentosa; Member Reviewers Committee, Indian Council of Medical Research (ICMR); Reviewer: Bio Med Central Ophthalmology, London; Ophthalmic Surgery Laser & Imaging; Indian Journal of Ophthalmology; Journal of American Association Pediatric Ophthalmology & Strabismus; Clinical and Experimental Ophthalmology; British Medical Journal Ophthalmology; Indian Journal of Pediatrics; Acta Ophthalmologica; Advisor, Editorial Board, Delhi Journal of Ophthalmology; Section Editor, Retina – Indian Journal of Ophthalmology; Chief Executive Editor, Ophthalmology World Report; Member, ESI Medical Board for Associate Professor and Professor Selection Committee; Member, Selection Committee for Professor, Sanjay Gandhi PGI, Lucknow; Continued to be: i) Expert Standing Selection Committee, PGI, Chandigarh ii) Secretary, SAARC Academy of Ophthalmology, 2006 iii) Regional Secretary of Asia Pacific Academy of Ophthalmology (APAO), 2005-2009, 2009-2013.

**Prof. Yog Raj Sharma:** Peer Reviewer: Indian Journal of Ophthalmology, 2006-2009; Peer Reviewer- Ophthalmology, American Academy of Ophthalmology (AAO), 2006-2009; awarded 5<sup>th</sup> Prize AIOS 2009-young scientists' AIOS thesis research reward, AIOS, 2009; awarded Achievement Award- American Academy of Ophthalmology (AAO), 2009; Reviewer: Indian Journal of Ophthalmology 2009; Ophthalmology (AAO Journal) 2009; American Journal of Ophthalmology 2009; British Journal of Ophthalmology 2009; Pediatric Ophthalmology and strabismus, 2009; Chief Guest Editor-IJCP's inaugural issues 1999-2000; Continued to be the Consulting Editor-JK Science since 2000.

**Prof. J.S. Titiyal:** Awarded Dr. C. Shekhar Oration for outstanding work in the field of Ophthalmology by Uttarakhand State Ophthalmological Society, VI Annual State Conference. Oct. 2009, Bhimtal, (Uttarakhand); awarded Dr. Ishwarchandra Silver Jubilee Award on Outstanding contribution in the field of keratoplasty, by Vidarbha Ophthalmic Society, Oct 2009; Sewagram, (Maharashtra); awarded Dr. R.P.H. Sinha Oration "Special Situations in Phacoemulsification Surgery". Bihar Ophthalmological Society, midterm Conference Patna. Bihar, 10<sup>th</sup> May 2009; Reviewer: Indian Journal of Ophthalmology; Indian National Medical Journal of India; Editorial Board Member of Delhi Journal of Ophthalmology and Journal of Uttranchal Ophthalmological Society.

**Prof. Radhika Tandon:** Member, Task force in the priority areas of the Blindness programme in All India Ophthalmological Society; Nominated as International Health Professional of the year by International Biographical Centre, Cambridge, England; appointed member of expert committee to examine documents to be released as Medical Standards for Eye Banking in India by Directorate General of Health Services, MOHFW (Ophthalmology Section); invited by Prova Eye Bank, B. C. Memorial Eye Foundation and Disha Eye Hospital and Research Centre, Barrackpore to provide technical guidance and assistance for helping the local ophthalmic surgeons start a keratoprosthesis service at their hospital. Continued to be: Member, Core group for introduction of OSCE style examination by the National Board of Examination; Joint Secretary, Eye Bank Association of India; on the panel of examiners in Ophthalmology of Royal College of Surgeons, Edinburgh. (Since 2000 ongoing); adjunct faculty member, CMET, AIIMS;

**Prof. Atul Kumar:** Awarded UGC National Hari Om Asharam Trust Award:- “Interaction between Science & Society” 2009; Delivered First Dr. N.D. Lakhanpal Memorial Oration 2009; Referee for British Journal of Ophthalmology 2009; Member, Editorial Board, Delhi Journal of Ophthalmology, 2009; Reviewer, American Journal of Ophthalmology 2009.

**Prof. Pradeep Sharma:** Awarded Dr. S. N. Mitter Oration award for 2008-2009 by Delhi Ophthalmological Society; Section Editor of Indian Journal of Ophthalmology 2009; Reviewer: Indian Journal of Ophthalmology 2009; Ophthalmology 2009; Indian J Ophthalmology, 2009; Archives of Ophthalmology, 2009; British Journal of Ophthalmology, 2009; Eye, 2009; Ophthalmic Epidemiology, 2009; Ophthalmic and Physiological Optics, 2009; Acta Ophthalmologica, 2009. Member, Glaucoma Research Society, 2009.

**Prof. Ramanjit Sihota:** Reviewer : Indian J Ophthalmology; Archives of Ophthalmology; British Journal of Ophthalmology; Eye; Ophthalmic Epidemiology; Ophthalmic and Physiological Optics; Acta Ophthalmologica; Member of the Glaucoma Research Society.

**Dr. Shakti Kumar Gupta:** Fellow, National Academy of Medical Sciences; Fellow, Academy of Hospital Administration; President, Academy of Hospital Administration; Distinguished Fellow of Institute of Hospital Engineers, Chandigarh.

**Dr. Sanjay Sharma:** Dr. BD Handa Award of merit ‘First Prize’ conferred for the scientific paper entitled “Endovascular management of pediatric bidd chiari syndrome: A promising therapeutic option?”, 7<sup>th</sup> National Conference, Indian Society of Paediatric Radiology, 13<sup>th</sup> Sept., 2009; Elected Joint Secretary of Indian Society of Vascular & Interventional Radiologists, 2009-10; Manuscript reviewer for peer reviewed international indexed journals i) Catheterization and Cardiovascular Interventions ii) Journal of Vascular and Interventional Radiology.

**Dr. Parijat Chandra:** Reviewer: Journal of Postgraduate Medicine; Indian Journal of Ophthalmology; Eye. Member, Editorial Board, Delhi Journal of Ophthalmology; Certified for Fundus Photography and Fluorescein angiography by University of Wisconsin, USA; Certified for Fundus Photography and Fluorescein angiography by Duke University, USA.

**Dr. T. Velpandian:** Continued to be: General Secretary, Indian Pharmacological Society (Delhi Branch); Executive Secretary, Indian Hospital Pharmacist’s Association (IHPA).

**Dr. Rohit Saxena:** Elected Editor, Delhi Journal of Ophthalmology, 2009.

## **SIGNIFICANT EVENTS**

Dr. R.P. Centre continues to be the initial member of INTERSUN (WHO’s International Sun Monitoring Project). The Chief of the Centre is the Director of this WHO Collaborating Centre for Prevention of Blindness.

Project ISURVA initiated and in due course it is expected to give the data of UV radiation in Delhi region through the website.

Efforts are underway to secure and upgraded and integrated four years programme for Bachelor of Optometry and Visual Sciences at RPC along with a one year internship, and also fellowships for both these course as well as in the specialities of clinical Ophthalmology, etc.

Patient care services have been further upgraded at this Centre. Specialized procedures as complex oculoplasties and orbitotomies, advances and innovative refractive surgical and corneal procedures as

splitting the same donor cornea and utilizing them for upto 3 recipients, osteo-odonto-keratoprostheses, stem cell transplantations and sutureless keratoplasties, *ex vivo* expanded mucous membrane transplantations, and distribution outside RPC of MK Media, glycerin preserved corneas and amniotic membranes for grafting, etc. are being carried out, along with newer vitreoretinal and macular procedures including intravitreal drugs especially for ARMD and DR, and newer investigations and techniques in glaucoma, squint, and neuro-ophthalmic disorders being undertaken with gratifying results.

Further upgradation of patient care services, newer facilities have been initiated in Ocular Microbiology, Ocular Biochemistry, Ocular Pathology and Ocular Pharmacology. Department of Ocular Pharmacology is supplying corneal storage media to eye bank.

Dr. R.P. Centre is in constant collaboration with ORBIS International and major INGOS especially with regard to childhood blindness activities, and the National Forum of Vision 2020: The Right to Sight – India. The Chief RPC continues as the active Vice President of Vision 2020: India. The Centre has taken significant steps in improving the quality of services delivered to all its patients despite several constraints. All our Investigative and Clinical Service Labs. are being constantly upgraded as far as practicable.

OPD patient screening services are under way, with computerization of medical records (especially older one), along with patient data computerization of our OPD, eye casualty, and wards are all in the pipeline.

Central AC & modernization with replacement of all 5-6 lifts at RPC are being expedited as best possible.

National Eye Donation Fortnight: 25<sup>th</sup> August – 8<sup>th</sup> September 2009. Awareness drive for eye donation was launched and charts and pamphlets distributed. During this period 30 corneas were received and 12 pledges were made for eye donation.

Various strategies were made to promote eye donation and spread throughout the country. Recording of Eye donation programme on 25.8.09 was done which was telecasted at DDI on 26.8.09 at 5 pm and 27.9.09 at 6 pm. Certificates and momentos were distributed to the donor families. Awareness generated among the mortuary staff about eye donation counseling. Eye Donation & Transplant” one hour live programme telecasted on 23.8.09 in the show entitled “Total Health” from 8.30 am onwards on DD News. Public lecture on cornea donation and transplantation on 26<sup>th</sup> August 09 at LVPEI Hyderabad. Eye Donation related program to be held on 13<sup>th</sup> Sept 2009 on religious function of “Kshamawani Parv” at FICCI auditorium, New Delhi. Eye Donation related program was done by All India Radio on 31.8.09 at National Channel. Eye Donation related program held on 12<sup>th</sup> Sept 2009 at Punjab National Bank, 7 Bhikaji Cama Palace, HQ, New Delhi. from 11 am onwards.

## **VISITING SCIENTISTS**

Prof. Shalesh Kaushal - Chairman, University of Massachusetts.

Prof. Michael Trese - Vitreo-Retinal Surgeon at Royal Oak Hospital, Detroit, Michigan, USA.

Dr. Angayarkanni Narayanaswami, Reader, from the Ocular Biochemistry Division of Shankara Nethralaya, Chennai.

## 10.7 Jai Prakash Narayan Apex Trauma Centre

### Chief

M.C. Misra

### Faculty In-charge (Hospital Administration)

#### Associate Professor

Kamran Farooque (Orthopedics)

#### Assistant Professors

Babita Gupta (Anaesthesia)	Chhavi Shawney (Anaesthesia)	Sanjeev Bhoi (Emergency Medicine)
Shefali K Sharma (Em. Med.)	Vinay Gulati (Em. Med.)	Adarsh Kumar (For. Med.)
Sanjeev Lalwani (For. Med.)	Purva Mathur (Lab Med.)	S. Arul Selvi (Lab Med.)
Deepak Agrawal (Neurosurgery)	Deepak K Gupta (Neurosurgery)	G. D. Satyarthee (Neurosurgery)
Sumit Sinha (Neurosurgery)	Buddhadev Chowdhry (Ortho)	John R Bera (Ortho)
Vivek Trikha (Ortho)	Vijay Sharma (Ortho)	Atin Kumar (Radiodiagnosis)
Shivanand G. (Radiodiagnosis)	Amit Gupta (Surgery)	Biplab Mishra (Surgery)
Maneesh Singhal (Surgery)	Subodh Kumar (Surgery)	Sushma (Surgery)

### EDUCATION

#### SHORT TERM TRAINING

1. Dr. Tsewang Namgial w.e.f. 06.11.09 to 05.02.10 (3 months)

Academic activities of undergraduate and postgraduate students and paramedical staff are being conducted by faculty in JPNATC.

## CONTINUING MEDICAL EDUCATION (CME)

### Prof. M.C.Misra

#### 1. Course Director for

- Training Course in Operative Laparoscopic- Suturing Skills from 13<sup>th</sup> to 15<sup>th</sup> April 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
- Training course in Operative Laparoscopic- Basic and Advanced from 4<sup>th</sup> – 8<sup>th</sup> May 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
- Training course in Laparoscopic Hernia Surgery from 12<sup>th</sup> -14<sup>th</sup> May 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi
- Training course in Operative Laparoscopic- Basic and Advanced from 20<sup>th</sup> -24<sup>th</sup> July 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
- Training course in Laparoscopic Colorectal Surgery from 27<sup>th</sup>– 29<sup>th</sup> July 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
- Training course in Operative Laparoscopic- Basic and Advanced from 17<sup>th</sup> - 21<sup>st</sup> August 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
- Training course in Laparoscopic Hernia Surgery from 8<sup>th</sup> -10<sup>th</sup> September 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi
- Training course in Operative Laparoscopic- Basic and Advanced from 5<sup>th</sup> – 9<sup>th</sup> October 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
- Training Course in Operative Laparoscopic- Suturing Skills from 2<sup>nd</sup> – 4<sup>th</sup> November 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
- Training course in Laparoscopic Hernia Surgery from 24<sup>th</sup> – 26<sup>th</sup> November 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi
- Training course in Operative Laparoscopic- Basic and Advanced from 7<sup>th</sup> -11<sup>th</sup> December 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
- Training course in Operative Laparoscopic- Basic and Advanced from 4<sup>th</sup> – 8<sup>th</sup> January 2010 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi
- Training course in Laparoscopic Hernia Surgery from 12<sup>th</sup> – 14<sup>th</sup> January 2010 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi & EISE, New Delhi
- Training course in Operative Laparoscopic- Basic and Advanced from 1<sup>st</sup>– 5<sup>th</sup> February 2010 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi
- Training course in Laparoscopic Colorectal Surgery from 8<sup>th</sup>– 10<sup>th</sup> February 2010 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
- ATLS – India Program Promulgation, Inaugural ATLS Provider and Instructor Course, 16<sup>th</sup> – 18<sup>th</sup> April, 2009, at JPN Apex Trauma Centre, All India Institute of Medical Sciences in Collaboration with American College of Surgeons.



- ATLS – India Program Promulgation, ATLS Provider Course, 22<sup>nd</sup> to 24<sup>th</sup> April 2009, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.\*
  - ATLS – India Program Promulgation, ATLS Provider Course, 7<sup>th</sup> to 9<sup>th</sup> May 2009, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons
  - ATLS – India Program Promulgation, ATLS Provider Course, 28<sup>th</sup> – 30<sup>th</sup> May, 2009, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.
  - ATLS – India Program Promulgation, ATLS Provider Course, 23<sup>rd</sup>– 25<sup>th</sup> July, 2009, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.
  - ATLS – India Program Promulgation, ATLS Provider Course, 29<sup>th</sup> to 31<sup>st</sup> August 2009, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.
  - ATLS – India Program Promulgation, ATLS Provider Course, 17<sup>th</sup> – 19<sup>th</sup> September, 2009, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.
  - ATLS – India Program Promulgation, ATLS Provider Course, 29<sup>th</sup> 31<sup>st</sup> October 2009, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.
  - ATLS – India Program Promulgation, ATLS Provider Course, 19<sup>th</sup> – 21<sup>st</sup> November 2009, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.
  - ATLS – India Program Promulgation, ATLS Provider Course, 7<sup>th</sup> – 9<sup>th</sup> December 2009, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.
  - ATLS – India Program Promulgation, 12<sup>th</sup> ATLS Provider Course, 21<sup>st</sup> – 23<sup>rd</sup> January, 2010, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.
  - ATLS – India Program Promulgation, 15<sup>th</sup> ATLS Provider Course, 18<sup>th</sup> – 20<sup>th</sup> February, 2010, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.
  - ATLS – India Program Promulgation, 16<sup>th</sup> ATLS Provider Course in India and Inaugural Course at IMA House, Cochin, Kerala (Third site in India) under IIEMS, Kottayam, Kerala, 25<sup>th</sup> – 27<sup>th</sup> February, 2010, in Collaboration with J P N Apex Trauma center, AIIMS New Delhi and American College of Surgeons.
  - ATLS – India Program Promulgation, ATLS Provider Course, 11<sup>th</sup>– 13<sup>th</sup> March, 2010, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons.
  - ATLS – India Program Promulgation, ATLS Provider Course, 18<sup>th</sup>– 20<sup>th</sup> March, 2010, at J P N Apex Trauma center, AIIMS New Delhi in Collaboration with American College of Surgeons
2. Organizing Chairman, of Fourth AIIMS Surgical Week International Minimal Access Surgery Conference, CME cum Live Workshop, Endosurg 2010 from 26<sup>th</sup> to 28<sup>th</sup> March 2010 at All India Institute of Medical Sciences.
  3. Organizing Chairman, 2<sup>nd</sup> Live Operative Workshop and CME on Morbid Obesity on 13<sup>th</sup> November 2009 held at Dr. Ramalingaswami Board Room, All India Institute of Medical Sciences, New Delhi.



4. Organizing Chairman, 2nd International Conference, CME cum Live Workshop in Association with Indian Society for Trauma and Acute Care (ISTAC) held from **12th–15th November 2009** at the JPN Apex trauma Center and All India Institute of Medical Sciences, New Delhi, with the theme of the conference “Safe Emergency Care in Disasters”.

### **Guest Faculty & Invited Lectures**

1. India Chair, Course Director for the promulgation of Advanced Trauma Life Support (ATLS) Course in India, April 2009.
2. Invited to participate as an expert in Total Health Programme by Doordarshan News, New Delhi on 19.04.09 at 7.45 AM.
3. Invited to participate and deliver a guest/demonstrate operations during the Surgical Meet on Surgical/Urology and a Workshop on Minimal Invasive Surgery from 25<sup>th</sup> to 26<sup>th</sup> April, 2009 at BPKIHS, Dharan, Nepal.
4. Nominated as a member of the Committee for monitoring of construction of the Advanced Trauma Centre at PGIMER, Chandigarh.
5. Invited Co-Organizer of FIRST Training Course on Medical Preparedness for Emergency Medical Response to CBRN Casualties, Organized in Collaboration with National Disaster Management Authority (NDMA), Defense Research and Development Organization (DRDO) from 20 – 22 May 2009 at JPN Apex Trauma Centre, AIIMS, New Delhi.
6. Invited as a Guest Faculty in the forthcoming First North East Zonal Continuing Medical Educational Programme in Guwahati from 30 to 31<sup>st</sup> May 2009.
7. Co-organizer and National Faculty, International Conference Cum Live Operative Workshop on Advanced Laparoscopy, Jointly organized under Society of Endoscopic and Laparoscopic Surgeons of India (SELSI) and Societe Internationale d’Urologie (Indian Chapter), North Zone – Urological Society of India, 4 – 6 June 2009 at Srinagar, J & K, India.
8. Invited to deliver Welcome Address at a function Organized by the Association of Surgeons of India, on the occasion of Official launch of ASI Website and the Release of Patient Safety Manual, at the Dr. Ramalingaswami Board Room, All India Institute of Medical Sciences, New Delhi on 11<sup>th</sup> July 2009.
9. Congress President, Mid-Term Conference, CME Cum Live Workshop, Indian Hernia Society, 17 – 18 July 2009, held at Auditorium, Coimbatore Medical College, Avinashi Road, Coimbatore, Tamil Nadu. Delivered Presidential Oration on “Laparoscopic Incisional/Ventral Hernia Repair – Standard of Care in the Current Millennium”.
10. Invited to deliver a talk on Hospital Contingency Disaster Planning during Course for Hospital Administration held at National Institute of Health and Family Welfare, Munirka, New Delhi on 20<sup>th</sup> July 2009 from 2 – 5 PM.
11. Invited by the National Institute of Health and Family Welfare to participate in the Panel discussion on “Quality of Care in Hospitals” during the 11<sup>th</sup> Professional Development Course in Management,

Public Health and Health Sector Reforms for District Medical Officers, on 4<sup>th</sup> August 2009 from 2 – 5 PM.

12. Participated as an Invited International Faculty and Guest Speaker at the “SHANGHAI INGUINAL and VENTRAL HERNIA FORUM” Organized at the 6<sup>th</sup> People’s Hospital in Shanghai, China on 20 – 22 August 2009.
13. Invited by the Ministry of Health & Family Welfare to visit of Technical Committee for Appraisal of Jawaharlal Nehru Medical College of Aligarh Muslim University, Aligarh for upgradation in the Second phase of PMSSY on 25<sup>th</sup> August 2009.
14. Invited as a Guest Faculty in TECH & TECH 2009 International Conference of Surgical Technology and Techniques held in Bangalore on 29<sup>th</sup> & 30<sup>th</sup> August 2009.
15. Invited as a National Faculty at the Quartasept Centennial (175 Years) Jubilee Celebrations of the Madras Medical College (MMC), Hospital and Society of Endoscopic and Laparoscopic Surgeons of India, South Zone International Conference, Organized by the Department of Endocrine Surgery, MMC, Chennai, 4 – 6 September 2009
16. Invited to Chair a Scientific Session during 3<sup>rd</sup> Annual National Conference of Society for Wound Care and Research, 4 – 6<sup>th</sup> September 2009, Organized by the Department of Burns, Plastic and Maxillofacial Surgery, VMMC and Safdarjung Hospital, New Delhi, held at India Habitat centre, New Delhi.
17. Invited as Operating Faculty and Chair of the “Minimal Access Congress” from 4 – 6<sup>th</sup> September 2009, Organized by Madras Medical College, Chennai.
18. Visit to Ladakh from 10<sup>th</sup> to 13<sup>th</sup> September 2009 to attend the serious and chronic patients.
19. IMRCS Part 3 Examinations from 14<sup>th</sup> to 18<sup>th</sup> September 2009 at New Delhi.
20. Invited as a National Faculty to deliver a guest lecture in a workshop on TEACH VIP Manual for health Administrators in Northern region of India from 06<sup>th</sup> - 08<sup>th</sup> October 2009 at Chandigarh.
21. Visit to Karad on 29<sup>th</sup> September 2009 to inspect the physical and other teaching faculties available at Krishna Institute of Medical Sciences
22. Invited to participate at the ATLS International Meeting in Chicago on 10<sup>th</sup> and 11<sup>th</sup> October 2009. Attended 95<sup>th</sup> Clinical Congress of American College of Surgeons, Chicago, 12 – 14<sup>th</sup> October 2009.
23. Invited to participate as an Operative Faculty in 2<sup>nd</sup> International live Multi-specialty Laparoscopic Surgery Workshop cum Conference of SELSI SELSICON 2009 held in Agra on 24<sup>th</sup> to 25<sup>th</sup> October 2009.
24. Invited as a Guest Faculty at the ICSIS-GOLDEN CON-2009 Pre-Conference Live Workshop at International College of Surgeons on 29<sup>th</sup> October 2009 at Amritsar.
25. Invited to Chair a Scientific Session on 5<sup>th</sup> November 09 during 2<sup>nd</sup> India Disaster Management Congress organized by National Institute of Disaster Management 4 – 6 November 2009 at Vigyan Bhawan, New Delhi.

26. Invited as a Guest National Faculty as a resource person during Pre-conference Live Operative Workshop and 35<sup>th</sup> Annual Conference of UP Chapter of Association of Surgeons of India, 6 – 8 November 09. Performed Live Surgery on a Bilateral Groin Hernia (Totally Extraperitoneal repair) on 6<sup>th</sup> November 09 and delivered a Guest lecture on “Trans-vaginal Cholecystectomy on 7<sup>th</sup> November 09.
27. Invited as an External Expert and Resource person to Audit the last decade of work by the Department of Endocrine Surgery, Sanjay Gandhi Postgraduate Institute, Lucknow on 12<sup>th</sup> November 2009
28. Guest Speaker at the “Health Conclave 2009” Managing Challenges of 21<sup>st</sup> Century in Healthcare Organizations” 18<sup>th</sup> and 19<sup>th</sup> November 09, Organized by International Institute of Health Management Research (IIHMR), New Delhi, held at India Habitat Center. Spoke on “Capacity building in trauma Care – A huge challenge.
29. Invited Guest Lecture during Annual National Conference of Indian Association of Clinical Medicine, Khajuraho, 28 – 30 November 2009. Delivered talk on “Endoscopic Vs Laparoscopic Management of CBD Stones”.
30. Invited to participate in Live Operative workshop on Advanced Minimal Invasive Surgery including liver surgery and transplantation on the occasion of National Liver Day from 2<sup>nd</sup> to 6<sup>th</sup> December 2009 at Tripoli, Libya.
31. Invited as a Guest of Honour at the Inaugural Function of the Multi-Specialty Conference on 13<sup>th</sup> December 2009, Organized by the Delhi Medical Association, held at Maulana Azad Medical College, Delhi.
32. Invited as a Guest Faculty in Live Operative Workshop on Laparoscopic Procedure in Adults & Children “LAPCON 2009” Conference on 19<sup>th</sup> & 20<sup>th</sup> December 2009 at Aligarh.
33. Invited as a National Guest Faculty to perform Live Demonstration of TEP Repair of Groin Hernia and Laparoscopic Cholecystectomy during Laparocon 2009 Organized by the Department of Surgery, Rama Medical College, Kanpur on 20<sup>th</sup> December 2009. Delivered a Guest Lecture on “Laparoscopic colo-rectal surgery”.
34. Invited to deliver prestigious “Dr. Kini Memorial Oration” at ASICON 2009, 69<sup>th</sup> Annual Conference of Association of Surgeons of India held in Coimbatore from 27 – 30 December 09. Oration delivered on 28<sup>th</sup> December 09 at 12 – 12:45 PM, the Topic was “Challenges in Management of Polytrauma: Capacity Building Of Trained Human Resource To Improve Trauma Care In India: A Huge Challenge ATLS India Program-Journey so far.
35. Invited as Co-Chairperson “Surgery Track” during Global Health Summit on 2<sup>nd</sup> and 3<sup>rd</sup> January 2010, Organized by Association of American Physicians of India (AAPI), held at Hotel Maurya Sheraton, New Delhi.
36. Invited to participate the training programme on Management of Serial Bomb Blast and also share the expertise and knowledge during the panel discussion on “Integrated approach on Management of Serial Bomb Blast-Key Issues” on 15<sup>th</sup> January 2010 at PGIMER, Chandigarh.

37. Invited Guest Faculty during “Laparocon – 2010”, 2<sup>nd</sup> Regional Congress & Live Workshop on Laparoscopic Surgery & Endourology, January 16 & 17, 2010 under the banner of SELSI, Organized by Surgeons’ Club, Satna & Shri Sadguru Seva Sangh Trust, Jankikund, Chitrakoot, Madhya Pradesh. Performed Live Surgery on Laparoscopic Groin hernia repair both TEP and TAPP and Laparoscopic cholecystectomy on Acute Cholecystitis.
38. Invited Guest Faculty during “Laparocon – 2010”, 2<sup>nd</sup> Regional Congress & Live Workshop on Laparoscopic Surgery & Endourology, January 16 & 17, 2010 at Jankikund, Chitrakoot, Madhya Pradesh.
39. Invited to attend the workshop “Implementing United Nations legal instruments: towards improving road safety in developing countries” on 21<sup>st</sup> & 22<sup>nd</sup> January 2010 at New Delhi.
40. Invited as a Guest Technical Expert for a discussion during Live Telecast on “Thyroid disorders” on Lok Sabha TV on 23<sup>rd</sup> January 2010 from 6 – 7 PM.
41. Appointed Inspector by the Medical Council of India to inspect facilities at Smt. NHL Municipal Medical College, Ahmedabad for starting of MD (Emergency Medicine) course. Inspection was carried out on 25<sup>th</sup> January 2010.
42. Invited as a Member of Indian Advisory Committee for the Indo-Australian Workshop on Road Traffic Injury (June 2010 in Sydney, Australia) by the Indian Council of Medical Research (ICMR), held on 11<sup>th</sup> February, 2010 at 10.30 A.M. in Taj Deccan, Hyderabad.
43. Invited as an Expert “to participate in Health Show on Stone in Gallbladder” by Doordarshan Kendra, Mandi House, New Delhi on 5<sup>th</sup> February 2010. 30 minute Program recorded for telecast on 13 February 2010 at 4:00 PM.
44. Invited to deliver “Key-Note address” and a Guest Lecture during a CME on “Emerging trends in medicine” on 13-14 Feb 2010 organized by Military Hospital, Jodhpur and Rajasthan. Topic of Key – note address – Emerging trends in Surgery – Big Surgeons – Big Incisions to Scar less surgery.
45. Invited to speak on “Accident and Emergency Services & Role of Hospitals in Disaster Management” and” during 83<sup>rd</sup> Training course in Hospital Administration for Senior Hospital Administrators, organized by the National Institute of Health and Family Welfare, Munirka, New Delhi, on 18<sup>th</sup> February 2010.
46. Appointed Inspector by the Medical Council of India to inspect facilities at Padmashree Dr. D. Y. Patil Medical College, Navi Mumbai to verify compliance report regarding increase of Postgraduate seats in General Surgery. Inspection was carried out on 22<sup>nd</sup> February 2010.
47. Course Instructor, India Chair, ATLS – India Program Promulgation, 1<sup>st</sup> ATLS Provider Course, 24<sup>th</sup> – 27<sup>th</sup> February, 2010, at Indian Institute of Emergency Medical Services, Cochin, Kerala in Collaboration with American College of Surgeons.
48. Invited to attend the CME on “Trauma Management in Armed Forces” from 5<sup>th</sup> to 6<sup>th</sup> March 2010 at Bagdogra.

49. Invited to attend the Annual Conference Northern Chapter of Association of Surgeons of India from 5<sup>th</sup> to 7<sup>th</sup> March 2010 at PGIMER, Chandigarh.

**Dr. Amit Gupta**

1. Conference Secretary - Trauma 2009, International conference, CME cum Live Workshop & Inaugural conference of the Indian Society Trauma and Acute Care (ISTAC) 12<sup>th</sup> – 15<sup>th</sup> Nov. 2009.
2. Workshop Director: Workshop on Hospital Preparedness in Mass Casualty in Trauma 2009, International conference, CME cum Live Workshop & Inaugural conference of the Indian Society Trauma and Acute Care (ISTAC) 12<sup>th</sup> – 15<sup>th</sup> Nov. 2009
3. Workshop Director: AIIMS Trauma Workshop 2009, Indo-US Emergency Medicine Summit 2009, October 2009, Coimbatore, India.
4. Jt. Secretary: Fourth AIIMS Surgical week and Endosurg-2010, International CME cum Live Workshop. 26<sup>th</sup> – 28<sup>th</sup> March 2010.
5. Organizing Secretary: ASICON CME organized by ASICON Education Foundation, ASI Delhi Chapter at JPN Apex Trauma Center, AIIMS on 26<sup>th</sup> July 2009.

**Dr. Biplab Mishra**

1. Joint organizing Secretary- Trauma 2008, International conference, CME cum Live Workshop, 13-15 November 2009.

**Dr. Maneesh Singhal**

1. Course director for Maxillofacial Workshop at Trauma 2009, International conference, CME cum Live Workshop & 2<sup>nd</sup> Annual conference of the Indian Society Trauma and Acute Care (ISTAC) 12<sup>th</sup> – 15<sup>th</sup> Nov. 2009.
2. Co-organising Secretary - Trauma 2009, International conference, CME cum Live Workshop & 2<sup>nd</sup> Annual conference of the Indian Society Trauma and Acute Care (ISTAC) 12<sup>th</sup> – 15<sup>th</sup> Nov. 2009.
3. Joint- Secretary: Fourth AIIMS Surgical week and Endosurg-2010, International CME cum Live Workshop. 26<sup>th</sup> – 28<sup>th</sup> March 2010.

**Dr. Subodh Kumar**

1. Organising Secretary - ASICON CME organized by ASICON Education Foundation, ASI Delhi Chapter at JPN Apex Trauma Center, AIIMS on 26<sup>th</sup> July 2009.
2. Secretary Finance - Trauma 2009, International conference, CME cum Live Workshop & 2<sup>nd</sup> Annual conference of the Indian Society Trauma and Acute Care (ISTAC) 12<sup>th</sup> – 15<sup>th</sup> Nov. 2009.
3. Co-organising Secretary: Fourth AIIMS Surgical week and Endosurg-2010, International CME cum Live Workshop. 26<sup>th</sup> – 28<sup>th</sup> March 2010.

## **Dr. Sushma Sagar**

1. Course director for Maxillofacial Workshop at Trauma 2009, International conference, CME cum Live Workshop & 2<sup>nd</sup> Annual conference of the Indian Society Trauma and Acute Care (ISTAC) 12<sup>th</sup> – 15<sup>th</sup> Nov. 2009.
2. Scientific Convener - Trauma 2009, International conference, CME cum Live Workshop & 2<sup>nd</sup> Annual conference of the Indian Society Trauma and Acute Care (ISTAC) 12<sup>th</sup> – 15<sup>th</sup> Nov. 2009.
3. Joint- Secretary: Fourth AIIMS Surgical week and Endosurg-2010, International CME cum Live Workshop. 26<sup>th</sup> – 28<sup>th</sup> March 2010.

## **National and International Conferences**

### **Lectures Delivered**

## **Dr. Amit Gupta**

### **International**

1. Fluid Therapy in Trauma. In 1<sup>st</sup> Balanced Fluid Therapy Conference held on 21<sup>st</sup> November 2009 at Kuala Lumpur. Malaysia.

### **National**

1. Hospital Contingency Planning. In Workshop on Hospital Preparedness in Mass Casualty in Trauma 2009, International conference, CME cum Live Workshop & Inaugural conference of the Indian Society Trauma and Acute Care (ISTAC) 12<sup>th</sup> – 15<sup>th</sup> Nov. 2009
2. Treatment of Heat & Blast and Injuries in Training for Emergency Medical Response to CBRN Casualties, Course designed by NDMA and DRDE Gwalior, organized at JPN Apex Trauma, AIIMS, New Delhi. 29<sup>th</sup> – 31<sup>st</sup> July 2009.
3. Management Strategies in Abdominal Trauma – Responders in ASICON CME organized by ASICON Education Foundation, ASI Delhi Chapter at JPN Apex Trauma Center, AIIMS on 26<sup>th</sup> July 2009.
4. Designing and running an Emergency Department in 82<sup>nd</sup> Training Course on Hospital Administration Organized by National Institute of Health and Family Welfare, Govt. of India. 6-24 July 2009.
5. Treatment of Heat & Blast and Injuries caused by chemical and nuclear agents in Training for Emergency Medical Response to CBRN Casualties, Course designed by NDMA and DRDE Gwalior, organized at JPN Apex Trauma, AIIMS, New Delhi. 19<sup>th</sup> – 22<sup>nd</sup> May 2009.
6. An Insight into the functioning of an Apex Trauma Center, delivered at the Department of Hospital Administration, All India Institute of Medical Sciences, New Delhi, India on May 1<sup>st</sup> 2009.
7. Abdominal Trauma, in 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> ATLS Courses held at Apex Trauma Center, AIIMS. ATLS ® India Program. Advanced Trauma Life Support Course of the American College of Surgeons – Committee on Trauma (ACS-COT), USA. (April to August 2010)
8. Initial Assessment and Management of a Multiply Injured Patient, as Course Director Candidate in 7<sup>th</sup> ATLS Course held at Apex Trauma Center, AIIMS. ATLS ® India Program. Advanced



Trauma Life Support Course of the American College of Surgeons – Committee on Trauma (ACS-COT), USA. (September 2010)

9. Geriatric Trauma. In 8<sup>th</sup> ATLS Course held at Apex Trauma Center, AIIMS. ATLS ® India Program. Advanced Trauma Life Support Course of the American College of Surgeons – Committee on Trauma (ACS-COT), USA. (September 2010)
10. Pediatric Trauma. In 9<sup>th</sup> and 10<sup>th</sup> ATLS Course held at Apex Trauma Center, AIIMS. ATLS ® India Program. Advanced Trauma Life Support Course of the American College of Surgeons – Committee on Trauma (ACS-COT), USA. (October - December 2010)
11. Thoracic Injuries. In ATLS Courses held at Apex Trauma Center, AIIMS and Dr. RML Hospital. ATLS ® India Program. Advanced Trauma Life Support Course of the American College of Surgeons – Committee on Trauma (ACS-COT), USA. (January – February 2010)
12. Trauma Shock. In The Inaugural ATLS Course held at IEMS, Cochin. ATLS ® India Program. Advanced Trauma Life Support Course of the American College of Surgeons – Committee on Trauma (ACS-COT), USA. (February 2010)
13. ATLS Course Overview and Transfer to Definitive Care. As Course Director of 2<sup>nd</sup> ATLS Course held at IEMS, Cochin. ATLS ® India Program. Advanced Trauma Life Support Course of the American College of Surgeons – Committee on Trauma (ACS-COT), USA. (April 2010)

#### **Dr. Biplab Mishra**

1. Airway and ventilator management: Comprehensive Trauma Life Support workshop, CME on ‘Emergencies in Everyday Practice’, 7 Airforce Hospital, Kanpur, 13-14/3/10.
2. Management of Shock: Comprehensive Trauma Life Support workshop, CME on ‘Emergencies in Everyday Practice’, 7 Airforce Hospital, Kanpur, 13-14/3/10.
3. Thoracic and abdominal trauma: Comprehensive Trauma Life Support workshop, CME on ‘Emergencies in Everyday Practice’, 7 Airforce Hospital, Kanpur, 13-14/3/10.
4. Endotracheal intubation and establishment of patent airway (skill station): Comprehensive Trauma Life Support workshop, CME on ‘Emergencies in Everyday Practice’, 7 Airforce Hospital, Kanpur, 13-14/3/10.
5. FAST (Focused Assessment Sonography in Trauma, skill station): Comprehensive Trauma Life Support workshop, CME on ‘Emergencies in Everyday Practice’, 7 Airforce Hospital, Kanpur, 13-14/3/10.
6. DPL (Diagnostic Peritoneal Lavage, skill station): Comprehensive Trauma Life Support workshop, CME on ‘Emergencies in Everyday Practice’, 7 Airforce Hospital, Kanpur, 13-14/3/10.
7. Multidisciplinary management of a thoracic firearm injury with an unusual injury pattern: Trauma 2009, 13-15 November 2009, JPNATC, AIIMS.
8. Successful management of a case of thoracoabdominal impalement by a metallic bar: Is surgical approach important? Trauma 2009, 13-15 November 2009, JPNATC, AIIMS.
9. ‘Willpower overcomes everything’ - CME and annual meeting - Indian Ostomy Society (IOS), 25/10/09. Invited as Chief Guest.



10. 'Evaluation and management of fresh wounds'- CME on Advances in Wound Care, AIIMS, 6/9/09.
11. Multidisciplinary management of a thoracic firearm injury with an unusual injury pattern: 'Advances in Trauma Care', ASICON CME, ASI Delhi Chapter, 26/7/09.
12. Successful management of a case of polytrauma with pelvic fracture leading to nonresponsive hemorrhagic shock: 'Advances in Trauma Care', ASICON CME, ASI Delhi Chapter, 26/7/09.
13. Management of a right atrial rupture secondary to blunt trauma chest: 'Advances in Trauma Care', ASICON CME, ASI Delhi Chapter, 26/7/09.

**Dr. Maneesh Singhal**

1. Thermal Injuries. In Inaugural Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 16<sup>th</sup> – 18<sup>th</sup> April 2009 at Apex trauma center AIIMS, New Delhi.
2. Shock. In 2<sup>nd</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 22<sup>nd</sup> – 24<sup>th</sup> April 2009 at Apex trauma center AIIMS, New Delhi.
3. Shock. In 3<sup>rd</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 7<sup>th</sup> – 9<sup>th</sup> May 2009 at Apex trauma center AIIMS, New Delhi.
4. Shock. In 4<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 28<sup>th</sup> – 30<sup>th</sup> May 2009 at Apex trauma center AIIMS, New Delhi.
5. Shock. In 5<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 23<sup>rd</sup> – 25<sup>th</sup> July 2009 at Apex trauma center AIIMS, New Delhi.
6. Shock. In 6<sup>th</sup> Advanced Trauma Life Support (ATLS) provider Course organized in association with American College of Surgeons – Committee on Trauma, USA, 29<sup>th</sup> – 31<sup>st</sup> August 2009 at Apex trauma center AIIMS, New Delhi.
7. Thermal Injuries. In 7<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 17<sup>th</sup> – 19<sup>th</sup> September 2009 at Apex trauma center AIIMS, New Delhi.
8. Shock. In 9<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 19<sup>th</sup> – 21<sup>st</sup> November 2009 at Apex trauma center AIIMS, New Delhi.
9. Shock. In 1<sup>st</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 23<sup>rd</sup> – 25<sup>th</sup> November 2009 at Dr. Ram Manohar Lohia Trauma Care Center, New Delhi.

10. Initial assessment and Management. In 10<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 7<sup>th</sup> – 9<sup>th</sup> December 2009 at Apex trauma center AIIMS, New Delhi.
11. Shock. In 3<sup>rd</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 28<sup>th</sup> – 30<sup>th</sup> January 2010 at Dr. Ram Manohar Lohia Trauma Care Center, New Delhi.
12. Thermal Injuries. In 13<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 11<sup>th</sup> – 13<sup>th</sup> March 2010 at Apex trauma center AIIMS, New Delhi.

**Dr. Subodh Kumar**

1. Thoracic Trauma. In Inaugural Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 16<sup>th</sup> – 18<sup>th</sup> April 2009 at Apex trauma center AIIMS, New Delhi.
2. Thoracic Trauma. In 2<sup>nd</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 22<sup>nd</sup> – 24<sup>th</sup> April 2009 at Apex trauma center AIIMS, New Delhi.
3. Thoracic Trauma. In 3<sup>rd</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 7<sup>th</sup> – 9<sup>th</sup> May 2009 at Apex trauma center AIIMS, New Delhi.
4. Laparoscopic Anatomy of Groin Hernia. In Training course in Laparoscopic Hernia Surgery from 12<sup>th</sup> -14<sup>th</sup> May 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi. Treatment of Pulmonary Damage caused by Chemical agents. In in Training for Emergency Medical Response to CBRN Casualties, Course designed by NDMA and DRDE Gwalior, organized at JPN Apex Trauma, AIIMS, New Delhi. 20<sup>th</sup> – 22<sup>nd</sup> May 2009.
5. Thoracic Trauma. In 4<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 28<sup>th</sup> – 30<sup>th</sup> May 2009 at Apex trauma center AIIMS, New Delhi.
6. Has the anatomy of groin hernia changed in the last decade? In HERNIACON 2009 from 17<sup>th</sup> – 18<sup>th</sup> July, 2009 at Coimbatore, Tamil Nadu.
7. Thoracic Trauma. In 5<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 23<sup>rd</sup> – 25<sup>th</sup> July 2009 at Apex trauma center AIIMS, New Delhi
8. Sternotomy/ Thoracotomy in Bleeding into chest In ASICON CME organized by ASICON Education Foundation, ASI Delhi Chapter at JPN Apex Trauma Center, AIIMS on 26<sup>th</sup> July 2009.
9. Treatment of Pulmonary Damage caused by Chemical agents. In in Training for Emergency Medical Response to CBRN Casualties, Course designed by NDMA and DRDE Gwalior, organized at JPN Apex Trauma, AIIMS, New Delhi. 29<sup>th</sup> – 31<sup>st</sup> July 2009.

10. Initial Assessment and Management. In 6<sup>th</sup> Advanced Trauma Life Support (ATLS) provider Course organized in association with American College of Surgeons – Committee on Trauma, USA, 29<sup>th</sup> – 31<sup>st</sup> August 2009 at Apex trauma center AIIMS, New Delhi.
11. Role of Laparoscopy in Abdominal Trauma. In SELSI-SZ-CON from 4<sup>th</sup> – 6<sup>th</sup> September 2009 at Chennai, Tamil Nadu.
12. Laparoscopic Anatomy of Groin Hernia. In Training course in Laparoscopic Hernia Surgery from 8<sup>th</sup> -10<sup>th</sup> September 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
13. Thoracic Trauma. In 7<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 17<sup>th</sup> – 19<sup>th</sup> September 2009 at Apex trauma center AIIMS, New Delhi.
14. Treatment of Pulmonary Damage caused by Chemical agents. In in Training for Emergency Medical Response to CBRN Casualties, Course designed by NDMA and DRDE Gwalior, organized at JPN Apex Trauma, AIIMS, New Delhi. 28<sup>th</sup> – 30<sup>th</sup> October 2009.
15. Thoracic Trauma. In 8<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 29<sup>th</sup> – 31<sup>st</sup> October 2009 at Apex trauma center AIIMS, New Delhi.
16. Thoracic Trauma. In Trauma Alter Workshop in 5<sup>th</sup> INDO-US Emergency Medicine Summit & 4<sup>th</sup> Annual ACET Assembly from 31<sup>st</sup> October – 1<sup>st</sup> November, 2009 at Coimbatore.
17. Disaster Management- The Indian Perspective. In Workshop on Hospital Preparedness in Mass Casualty in Trauma 2009, International Conference, CME cum Live Workshop & 2<sup>nd</sup> Annual conference of the Indian Society Trauma and Acute Care (ISTAC) 12<sup>th</sup> – 15<sup>th</sup> Nov., 2009 at Apex trauma center AIIMS, New Delhi.
18. Role of laparoscopy in trauma. In Trauma 2009, International Conference, CME cum Live Workshop & 2<sup>nd</sup> Annual conference of the Indian Society Trauma and Acute Care (ISTAC) 12<sup>th</sup> – 15<sup>th</sup> Nov. 2009 at Apex trauma center AIIMS, New Delhi.
19. Thoracic Trauma. In 9<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 19<sup>th</sup> – 21<sup>st</sup> November 2009 at Apex trauma center AIIMS, New Delhi.
20. Thoracic Trauma. In 1<sup>st</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 23<sup>rd</sup> – 25<sup>th</sup> November 2009 at Dr. Ram Manohar Lohia Trauma Care Center, New Delhi.
21. Laparoscopic Anatomy of Groin Hernia. In Training course in Laparoscopic Hernia Surgery from 24<sup>th</sup> -26<sup>th</sup> November 2009 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
22. Thoracic Trauma. In 10<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 7<sup>th</sup> – 9<sup>th</sup> December 2009 at Apex trauma center AIIMS, New Delhi.

23. Shock. In 2<sup>nd</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 4<sup>th</sup> – 6<sup>th</sup> January 2010 at Dr. Ram Manohar Lohia Trauma Care Center, New Delhi.
24. Laparoscopic Anatomy of Groin Hernia. In Training course in Laparoscopic Hernia Surgery from 12<sup>th</sup> -14<sup>th</sup> January 2010 at Minimally Invasive Surgery Training Centre, AIIMS, New Delhi.
25. Thoracic Trauma. In 11<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 21<sup>st</sup> – 23<sup>rd</sup> January 2010 at Apex trauma center AIIMS, New Delhi.
26. Shock. In 12<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 18<sup>th</sup> – 20<sup>th</sup> February 2010 at Apex trauma center AIIMS, New Delhi.
27. Thoracic Trauma. In 1<sup>st</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 25<sup>th</sup> – 27<sup>th</sup> February 2010 at Indian Institute of Emergency Medical Services, Cochin, Kerala.
28. Initial Assessment of Trauma. In 1<sup>st</sup> CME of Academic Council on 10<sup>th</sup> March, 2010 at Max Hospital, New Delhi.
29. Thoracic Trauma. In 13<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course organized in association with American College of Surgeons – Committee on Trauma, USA, 11<sup>th</sup> – 13<sup>th</sup> March 2010 at Apex trauma center AIIMS, New Delhi.

**Dr. Sushma Sagar**

1. Integrated approach on Management of Serial bomb blast-medical management. Training programme for bomb blast management at National Institute of Disaster Management (NIDM); 30<sup>th</sup> March 2010, Delhi.
2. First aid to trauma and road accident victims; - Training programme at National Institute of Disaster Management (NIDM); 15<sup>th</sup> March 2010, Delhi.
3. Musculoskeletal Trauma in 13<sup>th</sup> Advanced Trauma Life Support (ATLS) provider Course 11<sup>th</sup>-13<sup>th</sup> March 2010 at Apex trauma center AIIMS, New Delhi.
4. Injury due to Burns and Cold in 12<sup>th</sup> Advanced Trauma Life Support (ATLS) provider Course 18<sup>th</sup>-20<sup>th</sup> February 2010 at Apex trauma center AIIMS, New Delhi.
5. Injury due to Burns and Cold in 11<sup>th</sup> Advanced Trauma Life Support (ATLS) provider Course 21<sup>st</sup>-23<sup>rd</sup> January 2010 at Apex trauma center AIIMS, New Delhi.
6. Injury due to Burns and Cold in 9<sup>th</sup> Advanced Trauma Life Support (ATLS) provider Course 19<sup>th</sup>-21<sup>st</sup> November 2009 at Apex trauma center AIIMS, New Delhi.
7. An approach to maxillofacial trauma in the Maxillofacial Workshop organized during Trauma 2009, 12-15<sup>th</sup> November 2009 JPNATC, AIIMS.
8. Injury due to Burns and Cold In 8<sup>th</sup> Advanced Trauma Life Support (ATLS) provider Course 29<sup>th</sup>-31<sup>st</sup> October 2009 at Apex trauma center AIIMS, New Delhi.

9. Disaster Health Management - Key issues. Training programme at National Institute of Disaster Management (NIDM); 29<sup>th</sup> September 2009, Delhi.
10. Trauma in Women. In 7<sup>th</sup> Advanced Trauma Life Support (ATLS) provider course 17<sup>th</sup> – 19<sup>th</sup> September 2009 at Apex trauma center AIIMS, New Delhi.
11. Burn Wound Management & Newer Dressing Materials. CME- Advances in Wound Care 6<sup>th</sup> September 2009, AIIMS.
12. Initial assessment and management of acute trauma patients. In Wound Care Con -2009 4<sup>th</sup>-6<sup>th</sup> Sept., India Habitat Center organized by Burns, Plastic and Surgery Deptt., SJH Delhi.
13. Trauma in Women. In 6<sup>th</sup> Advanced Trauma Life Support (ATLS) provider Course 29<sup>th</sup> – 31<sup>st</sup> August 2009 at Apex trauma center AIIMS, New Delhi.
14. Advances in Trauma Care -"Golden hour vs silver hour" ASICON CME, ASI Delhi Chapter, 26<sup>th</sup> July 2009, JPNATC, AIIMS.
15. Injury due to Burns and Cold in 5<sup>th</sup> Advanced Trauma Life Support (ATLS) provider Course 23<sup>rd</sup> – 25<sup>th</sup> July 2009 at Apex trauma center AIIMS, New Delhi.
16. Injury due to Burns and Cold in 3<sup>rd</sup> Advanced Trauma Life Support (ATLS) Provider Course 7<sup>th</sup> – 9<sup>th</sup> May 2009 at Apex trauma center AIIMS, New Delhi.

**Dr. S. Arulselvi**

1. Taken following lectures for DNB students through teleconferencing sessions (using infrastructure of IGNOU): Point of care coagulation testing.
2. Appraiser (examiner) duty for DNB (pathology) exams in Apollo hospital on 22.10.09

**Dr. Shivanand Gamanagatti**

1. Vascular Interventions of Genitourinary tract: "Genitourinary imaging" AIIMS-MAMC-PGI imaging course series: 2009 (CME) held at PGI Chandigarh, on April 02-03, 2009.
2. Percutaneous Vertebroplasty Vs Percutaneous Kyphoplasty at annual registry meet cum complication meeting combined with CME on "Advances in interventional Radiology Lessons from Trials and Registries" held at AIIMS, New Delhi on April 25 and 26, 2009.
3. MDCT techniques and Anatomy of thorax. AIIMS-MAMC-PGI imaging course series: Chest and Cardiovascular Imaging 2009 (CME) held at MAMC, New Delhi, on November 6-7, 2009.
4. Embolisation of giant SMA aneurysm an Unusual Case at 11th annual conference of ISVIR held in AIIMS, Delhi from October 7 to 10, 2009

**International Conferences**

1. Ultrasound Guided Central venous Access. : Radiology Workshop. International Conference Trauma , Held in JPNA TC, AIIMS, New Delhi , November 12-15, 2009
2. Embolisation techniques in trauma; Live Video demonstration at Radiology Work shop, International Conference Trauma , Held in JPNA TC, AIIMS, New Delhi , November 12-15, 2009

3. Plain X Ray in Major Trauma : International Conference Trauma , Held in JPNATC, AIIMS, New Delhi , November 12-15, 2009

**Dr. Atin Kumar**

1. 'Imaging of genitourinary trauma'. AIIMS-MAMC-PGI Imaging Course on Genitourinary Radiology, Chandigarh, April, 2009.
2. 'Imaging of chest trauma' AIIMS-MAMC-PGI 3<sup>rd</sup> Course Series. Third Imaging Course on Chest & Cardiac Radiology, MAMC, New Delhi, November 6<sup>th</sup>, 2009.
3. 'Imaging of chest trauma' Annual conference of Haryana state chapter of IRIA. Rohtak. 21<sup>st</sup> March 2010.
4. 'Imaging of abdominal trauma' at TRAUMA 2009: International conference, CME cum live workshop. JPNATC, AIIMS, New Delhi. 12<sup>th</sup> – 15<sup>th</sup> Nov 2009.
5. 'Imaging of chest trauma' at TRAUMA 2009: International conference, CME cum live workshop. JPNATC, AIIMS, New Delhi. 12<sup>th</sup> – 15<sup>th</sup> Nov 2009.
6. FAST in trauma: Radiology workshop at TRAUMA 2009: International conference, CME cum live workshop. JPNATC, AIIMS, New Delhi. 12<sup>th</sup> – 15<sup>th</sup> Nov 2009.

**Dr. Adarsh Kumar**

1. Guest Speaker CME, FORENSIC MEDICON-2010 during 31<sup>st</sup> Annual Conference of Indian Academy of Forensic Medicine held in Bhopal on 6-8 Feb 2010 on the topic "Legal Aspect of Medical Practice in Present Scenario" and delivered a talk on RTI Directives vis-a-vis MIC Guidelines- issues thereof.
2. Member, Organising Committee & Editor, Souvenir and Proceedings TRAUMA -2009, the 2<sup>nd</sup> National Conference of ISTAC from 12-15<sup>th</sup> Nov. 2009.
3. Invited Speaker in National Seminar on Emerging Scenario in Forensic Science held at Institute of Forensic Science and Criminology, Bundelkhand University Jhansi on 23<sup>rd</sup>-24<sup>th</sup> October 2009, on the topic "Emerging issues in medicolegal functioning with special reference to Forensic Engineering".
4. Invited Speaker in Plenary Session on "Medicolegal Aspects of Medical Documents" during the 2<sup>nd</sup> Annual Conference of National Foundation of Clinical Forensic Medicine held at KMC, Manglore on 18-20 Sep. 2009.
5. Co-chaired scientific session on "Forensic Pathology" during CLINFORENSICON at Manglore on 18<sup>th</sup> -20<sup>th</sup> Sep. 2009.
6. Invited to attend 21<sup>st</sup> International Conference of International Academy of Legal Medicine at Lisbon, Portugal (26-30 May 2009). Presented the paper "Profile of Natural Deaths in Medicolegal cases during 2001-08: 8- years retrospective study in South Delhi region of India". Attended pre-congress Advance course on 'The forensic investigation of human remains from armed conflicts'. Also Co-chaired the session on Forensic Anthropology.



7. Delivered to Police Officers from India as well as abroad during Advance Course on Scientific Investigation through Central Detective Training School, Chandigarh on 12<sup>th</sup> -13<sup>th</sup> Aug. 2009.
8. Delivered to M.Sc. Forensic Science students on “Death & Postmortem Changes” at Allahabad Agricultural University, Allahabad on 30<sup>th</sup> Sep., 2009.
9. Delivered to M.Sc. Forensic Science students on “Forensic Medicine-various aspects of basic functioning with special reference to Death” at Bundelkhand University, Jhansi on 27<sup>th</sup> Nov., 2009.
10. Delivered on “Forensic Odontology and it’s use in Crime Investigation” during Induction Course in Forensic Science for Delhi Higher Judicial Service Officers at L.N.J.N. National Institute of Criminology & Forensic Science, New Delhi on 22<sup>nd</sup> Dec, 2009.
11. “Guest Lecture” on “Forensic Examination of Injuries & Medicolegal significance of Fire-arm Injuries” during 83<sup>rd</sup> Course on Forensic Science & Criminology for officers of the rank of Judicial Magistrates, State Police service officers, Public Prosecutors etc. at L.N.J.N. National Institute of Criminology & Forensic Science, New Delhi on 19<sup>th</sup> Jan, 2010.
12. “Guest Lecture” on “Medicolegal Cases & Postmortem Examination-Know how?” during Workshop for the doctors, pharmacists & police inspectors of the District G.B. Nagar at Sector -6, NOIDA on 16<sup>th</sup> March, 2010
13. “Guest Lecture” on “Legal Aspects of Medical Care & Acts relevant to hospitals” during Training Course on Hospital Administration for Chief Medical Superintendents of the State of Uttar Pradesh at NIHFWS, New Delhi on 18<sup>th</sup> March, 2010
14. Delivered Special Public Lecture in Hindi on Medico-Legal Investigation organized by Hindi Sansthan, Bhopal on 14<sup>th</sup> Feb. 2010.

**Dr. Deepak Kumar Gupta**

1. Chiari Malformations : study of clinical prognosticator factors at Central Military hospital, Prague, Czech Republic 29<sup>th</sup> January 2010
2. Conducted Comprehensive trauma life support CME at Air force Hospital, Kanpur, UP on 13-14<sup>th</sup> March 2010. Delivered lecture on Head injury management, Spine injury management and Demonstrated and taught Clinical skills for emergency resuscitate care to Air force Doctors.
3. ATLS faculty: conducted advanced trauma workshops at JPN apex trauma centre as a faculty and gave guest lectures and demonstrative clinical skills to ATLS participants /students.
4. Convention enhanced delivery in recurrent high grade gliomas: AIIMS experience at Delhi neurological association meeting 6<sup>th</sup> March 2010.
5. Dorosolumbar spinal trauma: management dilemmas and decision making: Annual national neurotrauma conference, Jaipur (7-9<sup>th</sup> August 2009).

**Dr. Purva Mathur**

1. Hospital Infection Control workshop, organized by the Department of Laboratory at the Trauma 2010, congress.



### **Dr. Vijay Sharma**

1. Miniopen rotator cuff tear our experience Hainan island China 2009.
2. Musculoskeletal trauma for the General Surgeons ASI 2009 New Delhi.
3. Kocher Langenbach Approach for the acetabulum Acetabular Course New Delhi 2009.
4. Optimal management of radial head fractures Elbow Symposium SDOS 2009 New Delhi.
5. Management of compound fractures Woundcon 2009 AIIMS.
6. Extremity Trauma Indo US Summit 2009 Coimbatore.
7. Reduction Techniques in Acetabular Surgery PUNCON 2010 Patiala.
8. Low Backache Community Lecture Indian Habitat Centre New Delhi 2010.
9. Applied anatomy, muscular forces displacing the fractured fragments and Arterial blood supply of the proximal humerus. DOACON 2010 AIIMS New Delhi.
10. Approaches for the fixation of the pelvic fractures Trauma Symposium Amritsar March 2010.
11. Radiology of the Acetabulum Trauma Symposium Amritsar March 2010.
12. Reduction Techniques in acetabular Surgery Trauma Symposium Amritsar March 2010.
13. Evaluation of monitor 100 in measurement of erythrocyte sedimentation rate – presented in hematology conference held in AIIMS, November, 2009.

### **Dr. Babita Gupta**

1. Fat Embolism Syndrome: The Masquerader presented in Trauma 2009 held in New Delhi (First Prize).
2. A novel technique of managing airway in failed Percutaneous tracheostomy presented in Trauma 2009 held in New Delhi (Second Prize).
3. Perioperative Complications in Cervical spine Injuries: A Retrospective analysis presented in Critical Care Conference held in January 2010 in Hyderabad.
4. Lecture on Management of Airway delivered in Indo-US Emergency Medicine Summit held in Coimbatore in October 2009.
5. Participated in debate Supraglottic airway devices versus fiberoptic intubation in Trauma 2009 Conference held in November 2009.
6. Participated in Panel discussion on Nitigritty in Surgical ICU in APCC 2009 held in January 2010.
7. Course Director of ABCDE workshop concentrating on management of trauma victims was conducted in “Trauma 2009” conference held in New Delhi in Nov 2009.
8. Successfully completed FCCS Provider and Instructor Course in January 2010

## **Dr. Vivek Trikha**

### **Lectures Delivered**

1. “Management of Tibial Condyle Fractures” Guest Lecture in VI<sup>th</sup> Middle East Ortho Conference in Arab Health Congress at Dubai, UAE on 26<sup>th</sup> January, 2010.
2. “Acetabular Fracture Fixation in Young Adults” Guest Lecture in VI<sup>th</sup> Middle East Ortho Conference in Arab Health Congress at Dubai, UAE on 25<sup>th</sup> January, 2010.
3. “ORIF in Calcaneal Fracture” Faculty Guest Lecture in NEOSCON 2010 at Lachung, Sikkim, India on March 12<sup>th</sup>, 2010.
4. Conducted Workshop on Pelvis and Acetabular Fractures in NEOSCON, Lachung, Sikkim March 11-13<sup>th</sup> 2010.
5. “Calcaneal Fracture” Faculty Lecture in NZIOACON 2010 Feb. 19-21, 2010, Jammu, J&K.
6. “Late Complications of Pelvis Fracture” Faculty Lecture in Pelvis Workshop of NZIOACON 2010 Feb 19-21, 2010, Jammu, J&K.
7. “Radiology of Proximal Humerus Fractures” Lecture in DOACON Workshop on PHILOS, Jan 9<sup>th</sup>, 2010.
8. “Complex Acetabular Fracture” Faculty Lecture in DOACON 2009 on Jan 9-10<sup>th</sup>, 2010.
9. “Evaluation of Functional, Outcome of Complex Acetabular Fractures” Podium Presentation in IOACON 2009 Bhubaneshwar Orissa 24<sup>th</sup> - 28<sup>th</sup> Nov. 2009.
10. “Surgical Management of Displaced Intraarticular Calcaneus Fractures - the Best Foot forward?” Podium Presentation at IOACON 2009, Bhubaneshwar Orissa 24<sup>th</sup> - 28<sup>th</sup> Nov. 2009.
11. “Locking Plate Construct for osteosynthesis of complex intra-articular distal femoral fractures”. Podium Presentation at IOACON 2009, Bhubaneshwar Orissa 24<sup>th</sup> - 28<sup>th</sup> Nov. 2009
12. “Unusual Sites of Presentations of tubercular osteomyelitis” Poster Presentation at IOACON 2009, Bhubaneshwar Orissa 24<sup>th</sup> - 28<sup>th</sup> Nov. 2009
13. “Pelvis Fracture Management” Traumacon 2009 at JPN Apex Trauma Centre, Delhi on 13<sup>th</sup> Nov, 2009.
14. “Role of Trochanteric Flip in Acetabular and Hip Fractures” Podium Presentation in TRAUMACON 2009, 15<sup>th</sup> August, 2009, Mumbai.
15. “Pelvi-Acetabular Injuries Management” Faculty Lecture in MIDCON 2009 Delhi, 2<sup>nd</sup> August, 2009.

### **RESEARCH**

#### **Prof. M.C.Misra**

#### **Funded Research**

Title: Cost Effectiveness Analysis and Comparison of Single Stage Vs Two Stage management of Patients with concomitant Gall Stone Disease and Common Bile duct Stones – A Randomized Controlled Trial.

## **Collaborative Research**

### ***Completed***

1. A prospective randomized comparison of TAPP vs. TEP repair in patients undergoing laparoscopic inguinal hernia repair.
2. A prospective randomized control trial of sutured vs. tacker fixation of mesh in patients undergoing laparoscopic Incisional Hernia repair.
3. Prospective Evaluation of laparoscopic Skills Acquisition in a Short Term Focussed Training Programme on a Phantom Model using Porcine Gall Bladder.

### ***Ongoing***

1. Chronic groin pain and quality of life after laparoscopic inguinal hernia repair using heavy weight vs. light weight meshes.
2. Comparison of long term outcome and quality of life after laparoscopic incisional and ventral hernia repair with suture or tracker mesh fixation.
3. Comparison of chronic groin pain and quality of life after laparoscopic inguinal hernia repair – TEP vs TAPP
4. Chronic groin pain, testicular function and quality of life after laparoscopic and open inguinal hernia repair.
5. A randomized controlled study of comparison of single stage vs two stage treatment for patients with gall stones and common bile duct stones.
6. To evaluate the endovenous laser ablation in the treatment of varicose veins.
7. A prospective study on radiological evaluation in patients with vascular malformations in patients with vascular malformations of the extremities.
8. Comparison of various imaging modalities in the diagnosis and staging of the periampullary tumors and study of various perioperative factors in predicting the outcome of the patients with periampullary tumors.
9. Laparoscopic suturing skills acquisition – a comparison between trained and novice surgeons.
10. Major Trauma Outcome Study in a level – I Trauma Centre.

## **Dr. Babita Gupta**

### ***Ongoing Projects***

1. A prospective controlled double blind study on the efficacy of tranexamic acid versus aprotinin to reduce blood loss in traumatic spine surgeries. (Ongoing Project).
2. Department of Microbiology, JPNATC in collaboration with Department of Anesthesia conducting a study titled “Evaluation of serum Procalcitonin levels for diagnosis of sepsis in trauma patients admitted in ICU.

3. Randomised, prospective, controlled trial to study the role of parenteral Glutamine (Gln) and Omega3 fatty acid supplemented total parenteral nutrition (TPN) or enteral nutrition in the clinical outcome in critically ill trauma patients in the ICU”.
4. Analgesic efficacy of intra articular Bupivacaine and Morphine: a comparison of three different dosages of Morphine in arthroscopic knee surgeries.
5. Prospective versus intravenous two drug analgesia in thoracic trauma”, randomised comparison of efficacy and safety of thoracic epidural analgesia with bupivacaine and opioid in two different concentrations (AIIMS funded Project).

### **Dr. Amit Gupta**

#### ***Completed***

1. Comparison of Sustained silver ion releasing foam based dressing with conventional paraffin gauze dressing in donor area.
2. Ultrasonic debridement of post traumatic wounds.

#### ***Ongoing***

- Prospective Randomized Control trial of early versus late Tracheostomy in critically ill Trauma Patients, Funded by all India Institute of Medical Sciences, New Delhi.
- Immunological changes in patients of shock due to Trauma. Sponsored by Indian council of Medical Research, New Delhi, India.
- Study on the use of Tranexamic acid in patients Undergoing Surgery: Safety and effectiveness, Funded by all India Institute of Medical Sciences, New Delhi.
- 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.
- A randomised, prospective, controlled trial to study the role of parenteral Glutamine (Gln) and Omega3 fatty acid supplemented total parenteral nutrition (TPN) or enteral nutrition in the clinical outcome in critically ill trauma patients in the ICU.
- A study of the causes and pathologic features of traumatic deaths.
- To study the role of virtopsy (Postmortem CT scan)in predicting the cause of death in trauma patients by comparing the findings of postmortem CT scan and conventional autopsy
- To study of the feasibility of management of occult pneumothoraces without intercostal drainage tube.

### **Dr. Biplab Mishra**

#### ***Completed***

1. Feasibility of fast track discharge in breast cancer patients undergoing definitive surgery & impact on quality of life.
2. Percutaneous management of malignant biliary obstruction.

3. Comparison of Sustained silver ion releasing foam based dressing with conventional paraffin gauze dressing in donor area.
4. Ultrasonic debridement of post traumatic wounds.

### ***Ongoing***

- The causes and pathologic features of traumatic deaths.
- The role of virtopsy (Postmortem CT scan) in predicting the cause of death in trauma patients by comparing the findings of postmortem CT scan and conventional autopsy.
- The feasibility of management of occult pneumothoraces without intercostal drainage tube.
- Role of CECT and splenic artery embolization in management of blunt splenic injury.

### **Dr. Maneesh Singhal**

### ***Completed***

1. Comparison of Sustained silver ion releasing foam based dressing with conventional paraffin gauze dressing in donor area.
2. Ultrasonic debridement of post traumatic wounds.

### ***Ongoing***

- Epidemiological study in the pathway of Maxillofacial Fractures seen at a tertiary care hospital of North India
- To study Epidemiology and Trauma scoring in patients presenting in level 1 Trauma center
- Cosmetic outcome following Breast oncoplasty
- A Randomised Controlled Trial of Early versus Late Tracheostomy in Critically ill Trauma Patients
- To study of the feasibility of management of occult pneumothoraces without intercostal drainage tube.
- A study of the causes and pathologic features of traumatic deaths.
- To study the role of virtopsy (Postmortem CT scan) in predicting the cause of death in trauma patients by comparing the findings of postmortem CT scan and conventional autopsy.
- 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.
- A randomised, prospective, controlled trial to study the role of parenteral Glutamine (Gln) and Omega3 fatty acid supplemented total parenteral nutrition (TPN) or enteral nutrition in the clinical outcome in critically ill trauma patients in the ICU.
- Safety and efficacy of Transemic Acid in patients undergoing surgery post trauma.

## **Dr. Subodh Kumar**

### ***Completed***

1. A prospective randomized comparison of TAPP vs TEP repair in patients undergoing laparoscopic inguinal hernia repair.
2. A prospective randomized control trial of sutured vs tacker fixation of mesh in patients undergoing laparoscopic incisional hernia repair.
3. Comparison of Sustained silver ion releasing foam based dressing with conventional paraffin gauze dressing in donor area.
4. Ultrasonic debridement of post traumatic wounds.

### ***Ongoing***

- Role of computed tomography and splenic artery embolisation in blunt splenic trauma.
- Major Trauma Outcome Study in a level – I Trauma Centre.
- To study Epidemiology and Trauma scoring in patients presenting in level 1 Trauma center
- Comparison of chronic groin pain, testicular functions and quality of life after open and laparoscopic inguinal hernia repair- a prospective randomized control trial.
- Comparison of various imaging modalities in the diagnosis and staging of the periampullary tumors and study of various perioperative factors in predicting the outcome of the patients with periampullary tumors.
- Chronic groin pain and quality of life after laparoscopic inguinal hernia repair using heavy weight vs light weight meshes.
- Comparison of chronic groin pain and quality of life after laparoscopic inguinal hernia repair- TEP vs TAPP
- Comparison of long term outcome and quality of life after laparoscopic incisional and ventral hernia repair with suture or tacker mesh fixation
- Molecular and immunohistochemical study of aberrant crypt foci and colorectal carcinomas.
- 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.
- A randomised, prospective, controlled trial to study the role of parenteral Glutamine (Gln) and Omega3 fatty acid supplemented total parenteral nutrition (TPN) or enteral nutrition in the clinical outcome in critically ill trauma patients in the ICU.
- A Randomised Controlled Trail of Early versus Late Tracheostomy in Critically ill Trauma Patients.
- The role of virtopsy (Postmortem CT scan) in predicting the cause of death in trauma patients by comparing the findings of postmortem CT scan and conventional autopsy.

- The feasibility of management of occult pneumothoraces without intercostal drainage tube.
- Safety and efficacy of Transxemic acid in patients undergoing surgery post trauma.
- A study of the causes and pathologic features of traumatic deaths.

### **Dr. Sushma Sagar**

#### ***Completed***

1. Comparison of Sustained silver ion releasing foam based dressing with conventional paraffin gauze dressing in donor area.
2. Ultrasonic debridement of post traumatic wounds.

#### ***Ongoing***

- Major Trauma Outcome Study in a level – I Trauma Centre.
- Epidemiological study in the pathway of Maxillofacial Fractures seen at a tertiary care hospital of North India
- To study Epidemiology and Trauma scoring in patients presenting in level 1 Trauma center
- Cosmetic outcome following Breast oncoplasty
- A Randomised Controlled Trial of Early versus Late Tracheostomy in Critically ill Trauma Patients
- To study of the feasibility of management of occult pneumothoraces without intercostal drainage tube.
- A study of the causes and pathologic features of traumatic deaths.
- To study the role of virtopsy (Postmortem CT scan) in predicting the cause of death in trauma patients by comparing the findings of postmortem CT scan and conventional autopsy.
- 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.
- A randomised, prospective, controlled trial to study the role of parenteral Glutamine (Gln) and Omega3 fatty acid supplemented total parenteral nutrition (TPN) or enteral nutrition in the clinical outcome in critically ill trauma patients in the ICU.
- Safety and efficacy of Transemic Acid in patients undergoing surgery post trauma.

### **Dr. Atin and Dr. Shivanand**

#### ***Completed***

- Differentiating recurrent gliomas from post radiotherapy changes: Utility of advanced MRI techniques and their correlation with 99m tc-glucoheptonic acid (GHA) brain SPECT
- Role of MDCT in staging of laryngeal carcinoma with limited MRI correlation
- Comparison of MDCT, Endoscopic Ultrasound, MRI & PET-CT in evaluation of pancreatic malignancy



- MRI in evaluation of chronic wrist pain
- Percutaneous management of patients with malignant biliary obstruction
- The Role of Multidetector Computed Tomographic Dacryocystography In Patients with Epiphora

### ***Ongoing***

- Comparison of CT & MRI including diffusion weighted MRI in renal mass lesions.
- Cysts, tumors and tumor like lesions of the jaw: Evaluation by panoramic radiographs and MDCT with limited MRI correlation
- A prospective study on radiological evaluation in patients with vascular malformations of extremities
- Role of computed tomography and splenic artery embolisation in patients with blunt splenic injury
- MRI evaluation of internal derangement of the knee
- Radiofrequency ablation of lower limb symptomatic varicosities.
- Percutaneous radiofrequency ablation of painful benign bone tumors and metastasis
- Comparison of accuracy of image guided and palpation guided core needle biopsy in palpable breast masses.
- Clinical utility of breast ultrasound as an adjunct to mammography in diagnostic breast imaging.

### **COLLABORATIVE RESEARCH**

#### ***Completed***

- To study the clinical and neurodevelopmental profile in children with tuberous sclerosis (with department of pediatric neurology)
- Comparison of minimally invasive techniques and conservative treatment in vertebral collapse (with orthopedics)
- Clinico-radiological evaluation of total knee arthroplasty short term retrospective-prospective study (with orthopedics)

#### ***Ongoing***

- Study of non alcoholic fatty liver disease and atherosclerosis in asian Indians (with department of Medicine)
- Evaluation of testicular blood flow and volume in patients undergoing laparoscopic inguinal hernia repair (with department of surgery).
- Evaluation of pancreatic tumors (with department of surgery).
- Abdominal fat estimation in patients of obstructive sleep apnoea (with department of medicine).
- Effect of continuous positive airway pressure on cardiovascular biomarkers in patients with obstructive sleep apnoea (with department of medicine).

- To study the effect of cricoids split with or without rib grafting in cases of subglottic stenosis for laryngotracheal stenosis (with department of otorhinolaryngology)
- Oxidative stress, carotid intimal media thickness & endothelial dysfunction in renal transplant recipients and effect of therapy with N acetyl cysteine (with department of nephrology)
- Effect of N-Acetylcysteine on Oxidative stress, endothelial dysfunction & carotid intimal media thickness in chronic peritoneal dialysis patients – An open labeled randomized trial (with department of nephrology)
- Study of non alcoholic fatty liver disease and atherosclerosis in Asian Indians (with medicine)
- Arthroscopic and MR evaluation of elbow in patients with rheumatoid arthritis (with orthopedics)
- Intralesional autologous bone marrow stem cell injection in avascular necrosis of femoral head: Follow up with bone scan, PET scan and MRI (with orthopedics)
- Plain radiograph and MR imaging of patients with tennis elbow (with orthopedics)
- MDCT evaluation of spinal trauma : preoperative an post operative evaluation (with orthopedics)
- Randomized controlled trial of Radiofrequency ablation versus Percutaneous acetic therapy for the treatment of small hepatocellular carcinoma (with gastroenterology)
- Randomized control trial of Transarterial chemoembolisation (TACE) versus TACE plus oral chemotherapy in the treatment of Unresectable Hepatocellular carcinoma. (with gastroenterology)
- Randomized control trial of Transarterial chemotherapy (TAC) versus Oral chemotherapy in the treatment of Unresectable Hepatocellular carcinoma. (with gastroenterology)
- Randomized Control Trial of N-Acetylcysteine in Prevention of Renal Failure in Hepatocellular Carcinoma patients undergoing Transarterial Chemotherapy and Transarterial Chemoembolisation. (with gastroenterology)
- Randomized control trial of Oral chemotherapy versus supportive therapy in the treatment of Unresectable Hepatocellular carcinoma. (with gastroenterology)
- Liver stiffness estimation by transient elastography in cirrhosis and non-cirrhotic portal hypertension (with gastroenterology)
- MRI based protocol for the management of infected pancreatic necrosis (with gastroenterology)
- Pattern of peripheral arterial diseases in tertiary care surgical practice (Indian scenario) (with surgery)
- Safety and efficacy of autologous stem cells in prevention of amputation in patients with chronic critical limb ischemia (with surgery)
- A comparative Evaluation of changes in ultrasonographic dimensions of masseter muscle with EMG activity prior and subsequent to twin block therapy (with dental surgery)
- USG evaluation of Intimal-medial thickness of carotid artery in patients with SLE (with medicine)
- Estimation of standard liver volume in the Indian population (with GI surgery)

- Role of intraoperative ultrasound in GI malignancies: comparison with conventional imaging techniques (with GI surgery)
- Ultrasound doppler evaluation of EHPVO patients follow up (with GI surgery)
- Ultrasound evaluation cervical lymph nodes in patients with carcinoma of esophagus (with GI surgery)

### **Dr. Deepak Kumar Gupta**

- Principal investigator: Intratumoral radioimmunotherapy using Cotara compound in recurrent high grade gliomas (ongoing study).
- Chief co investigator : RESCUEicp study in refractory intracranial hypertension ( MRC, UK Cambridge)
- Chief co investigaro: AP12009 intratumoral immunotherapy in anaplastic astrocytomas( Antisense study)

### **PUBLICATIONS**

1. Bansal V K, Misra M C, Krishna A, Buess GF. Transanal excision of anorectal lesions. Editorial. Tropical Gastroenterology 2010 March.
2. Jindal V, Khan RN, Panwar R, Bansal VK, Misra MC Nationwide study of early outcomes after incisional hernia repair (Br J Surg 2009; 96: 1452- 1457). Br J Surg. 2010 Apr; 97 (4):617-8; author reply 618.
3. Misra MC, Khan RN, Bansal VK, Jindal V, Kumar S, Noba AL, Panwar R, Kumar A. Laparoscopic pericystec tomy for hydatid cyst of the liver. Surg Laparosc Endosc Percutan Tech. 2010 Feb; 20(1): 24-6. PMID: 20173616
4. Jindal V, Misra MC, Bansal VK, Choudhury N, Garg SK, Khan RN, Krishna A, Panwar R, Rewari V. Technical Challenges in Laparoscopic Cholecystectomy in Situs Inversus. J Laparoendosc Adv Surg Tech A. 2010 Feb 16. [Epub ahead of print] PMID: 20156123
5. Bansal VK, Misra MC, Garg P, Prabhu M. a prospective randomized trial comparing two-stage versus single– stage management of patients with gallstone disease and common bile duct stones. Surg Endosc. 2010, Feb 5. [Epub ahead of print] PMID: 20135172
6. Bansal VK, Misra MC, Bhowate P, Kumar S. Laparoscopic management of common bile duct “Stentolith” Trop Gastroenterol. 2009 Apr-June; 30(2): 95-6.
7. Sharma S, Sankhyan N, Kumar A. Teaching NeuroImages: Macrocephaly with subcortical calcifications in vein of Galen aneurysmal malformation. Neurology. 2009 May 26;72(21)
8. Gadodia A, Kumar A, Sankhyan N, Sharma S, Vasisht N. Images in neurology. Neurodegeneration with pantothenate kinase syndrome: retinal and magnetic resonance imaging findings. Arch Neurol. 2009 June;66(6):798-9.
9. Sahu JK, Sharma S, Kamate M, Kumar A, Gulati S, Kabra M, Kalra V. Lead Encephalopathy in an Infant Mimicking a Neurometabolic Disorder. J Child Neurol. 2010 March; 25(3):390-2. Epub 2009 Jul 25.

10. Kumar J, Seith A, Kumar A, Madan K, Guleria R. Chest wall and mediastinal nodal aspergillosis in an immunocompetent host. *Diagn Interv Radiol*. 2009 Sep; 15(3):176-8.
11. Kumar A, Kumar J, Garg M, Farooque K, Gamanagatti S, Sharma V. Posttraumatic subacute ascending myelopathy in a 24-year-old male patient. *Emerg Radiol*. 2009 Sep 4. [Epub ahead of print]
12. Madhusudhan KS, Sharma R, Kandpal H, Kumar A, Gamanagatti S, Jain V, Chumber S. A rare case of combined soft-tissue and intraosseous arteriovenous malformation of the hand with diffuse periosteal elevation: imaging appearances. *Br J Radiol*. 2009 Nov; 82(983):e219-24.
13. Goenka A, Kumar A, Sharma R. MR Spectroscopy for the differentiation of recurrent glioma from radiation induced change. *Am J Roentgenology* 2009 Dec;193(6):W569-570
14. Kumar A, Goenka AH, Choudhary A, Sahu JK, Gulati S. Disseminated cysticercosis in a child: whole-body MR diagnosis with the use of parallel imaging. *Pediatr Radiol*. 2010; 40(2):223-7.
15. Sharma S, Sankhyan N, Kabra M, Kumar A. Hypomelanosis of Ito with hemimegalencephaly. *Dermatol Online J*. 2009; 15(11):12.
16. Sharma SK, Gupta V, Kadiravan T, Banga A, Seith A, Kumar A, Saxena R, Thabab MM, Gulati V, Bhatia I, Kavimandan AA. A prospective study of risk factor profile & incidence of deep venous thrombosis among medically-ill hospitalized patients at a tertiary care hospital in northern India. *Indian J Med Res*. 2009; 130(6):726-30.
17. Choudhary A, Sharma S, Sankhyan N, Gulati S, Kumar A. Unidentified bright objects in Neurofibromatosis Type 1. *Indian J Pediatr*. 2010 Jan 20. [Epub ahead of print]
18. Choudhary A, Sharma S, Sankhyan N, Gulati S, Kalra V, Banerjee B, Kumar A. Midbrain and Spinal Cord Magnetic Resonance Imaging (MRI) Changes in Poliomyelitis. *J Child Neurol*. 2010 Feb 5. [Epub ahead of print]
19. Laparoscopic pericystectomy for hydatid cyst of the liver. Misra MC, Khan RN, Bansal VK, Jindal V, Kumar S, Noba AL, Panwar R, Kumar A. *Surg Laparosc Endosc Percutan Tech*. 2010 Feb;20(1):24-6.
20. Kallmann syndrome in an adolescent boy. Jana M, Kumar A. *Pediatr Radiol*. 2010 Mar 12. [Epub ahead of print]
21. Paul SB, Chalamalasetty SB, Vishnubhatla S, Madan K, Gamanagatti SR, Batra Y, Gupta SD, Panda SK and Acharya SK. Clinical Profile, Etiology and Therapeutic Outcome in 324 Hepatocellular Carcinoma Patients at a Tertiary Care Center in India. *Oncology* 2009; 77: 162-17.
22. Gadodia A, Gamanagatti S, Neyaz Z. Segmental cystic renal disease: Sonographic and CT findings. *J Clin Ultrasound*. 2009 Sep 15.
23. Bajpai J, Sharma M, Sreenivas V, Kumar R, Gamanagatti S, Khan SA, Rastogi S, Malhotra A, Bakhshi S. VEGF expression as a prognostic marker in osteosarcoma. *Pediatr Blood Cancer*. 2009 Dec; 53(6):1035-9.

24. Bajpai J, Gamanagatti S, Sharma MC, Kumar R, Vishnubhatla S, Khan SA, Rastogi S, Malhotra A, Bakhshi S. Noninvasive Imaging Surrogate of Angiogenesis in Osteosarcoma. *Pediatr Blood Cancer*. 2009 Nov 3.
25. KS Madhusudhan, DN Srivastava, S Gamanagatti. Giant hemangioma of liver presenting as deep vein thrombosis of the lower limbs. *J Postgrad Med*. 2009;55(4):290-291.
26. Mukund A, Gamanagatti S. Ethanol ablation of renal cell carcinoma for palliation of symptoms in advanced disease. *J Palliat Med*. 2010 Feb;13(2):117-20.
27. D'souza N, Gupta B, Sawhney C, Chaturvedi A. Misdirected central venous catheter. *J Emerg Trauma Shock* 2010;3:209-10.
28. Gupta B, Farooque K, Jain D, Rakesh Kapoor Improper tube fixation causing a leaky cuff. *J Emerg Trauma Shock* 2010;3:182-4
29. B Behera, Mathur P, Gupta B. Blood culture gram stain, acridine orange stain and direct sensitivity based antimicrobial therapy of blood stream infection in patients with trauma 2010; 28: 138-42.
30. Extradural haematoma with Delayed onset pneumocephalus & Counter-coup injury. Yashpal S Rathore, Deepak Gupta, G D Sathyarthi, A K Mahapatra" *Indian Journal of Neurotrauma* (2010).
31. Thoracolumbar fractures: management issues and recommendations. Deepak Kumar Gupta, N Basheer, AK Mahapatra . *Indian journal of neurotrauma* (2010)
32. Assessment of 1p/19q status by fluorescence in situ hybridization assay: a comparative study in oligodendroglial, mixed oligoastrocytic and astrocytic tumors. Bhaskar Shukla, Shipra Agrawal, V Suri, P Pathak, MC Sharma, Deepak Gupta, BS Sharma, A suri, C Sarkar. *Neurology India* Sept-Oct 2009 ( vol 67, issue 6)
33. Spinal intramedullary Tuberculosis: a series of 15 cases. Ramdurg SR, Gupta DK, Suri A, Sharma BS, Mahapatra AK. *Clin Neurol Neurosurg* 2009 111(2):115-8.

## ABSTRACTS

1. Gupta A, Peckler B, Lasseter M, Jai N, Kumar S, Mishra B, Sagar S, Singhal M. An Evaluation of the use of a Universal Emergency Services Number in the National Capital Territory of India- A survey study of the possibility of the use of a universal emergency service number in Delhi. Presented at the 16<sup>th</sup> World Congress of Disaster and Emergency Medicine. 12<sup>th</sup> – 16<sup>th</sup> May 2009. Victoria, Canada. Abstracted in *Pre Hospital and Disaster Medicine*, Vol.24, No.2 Mar-April 2009.
2. Sushma Sagar, Singhal M, Mahesh C Misra, Subodh Kumar, Amit Gupta; Need for Standardized training for doctors and Nurses in Trauma care –A perspective from a developing nation .16<sup>th</sup> World Congress on Disaster and Emergency Medicine 12th-15<sup>th</sup> May 2009, Victoria BC ,Canada. Abstracted in *Pre Hospital and Disaster Medicine*, Vol.24, No.2 Mar-April 2009.
3. S Kumar , A Gupta, B Mishra, S Sagar, M Singhal, G Saurabh; Our experience of Thoracic trauma at Level -1 Trauma Center .16<sup>th</sup> World Congress on Disaster and Emergency Medicine 12th-15<sup>th</sup> May 2009, Victoria BC ,Canada. Abstracted in *Pre Hospital and Disaster Medicine*, Vol.24, No.2 Mar-April 2009.

4. Neeraj Gupta, Subodh Kumar, Biplab Mishra, Amit Gupta, Maneesh Singhal, Sushma Sagar; Cardiac injury- Our experience at level 1 trauma center 12<sup>th</sup>-15<sup>th</sup> November ,Trauma 2009, JPN Apex trauma center, AIIMS.
5. Neeraj Gupta, Subodh Kumar, Biplab Mishra, Amit Gupta, Maneesh Singhal, Sushma Sagar – Obstructing duodenal hematoma following blunt trauma Abdomen- case series 12<sup>th</sup>-15<sup>th</sup> November, Trauma 2009,JPN Apex trauma center, AIIMS.
6. Chetan M, Neeraj K, Subodh K, Biplab M, Amit G, Maneesh S, Sushma S; Laparoscopy its diagnostic and therapeutic roles in abdominal trauma 12<sup>th</sup>-15<sup>th</sup> November ,Trauma 2009,JPN Apex trauma center, AIIMS.
7. Chetan M, Neeraj K, Subodh K, Biplab M, Maneesh S, Amit G, Sushma S; Traumatic diaphragmatic rupture and hernia- diagnosis and management 12<sup>th</sup>-15<sup>th</sup> November ,Trauma 2009,JPN Apex trauma center, AIIMS.
8. Satyavrat A, Sushma S, Maneesh S Biplab M, Subodh K, Amit G; Burden of Maxillofacial trauma at level 1 trama center 12<sup>th</sup>-15<sup>th</sup> November ,Trauma 2009,JPN Apex trauma center, AIIMS
9. Bansal VK, Subodh K, Misra MC, Rehan Khan, Goswami A. Prospective Non Randomised Study of Heavy weight Polypropylene Mesh in Laparoscopic Incisional/Ventral Hernia Repair” at Annual Conference of Delhi State Chapter of ASI at New Delhi in November 2009.
10. Krishna A, Subodh K, Bansal VK, Misra MC, Rehan Khan, Goswami A. Totally Extra-Peritoneal Repair Versus Trans-Abdominal Pre-Peritoneal Repair for Inguinal Hernia Repair” at National conference of Indian Hernia Society at Coimbatore Medical College Coimbatore in July 2009.
11. Panwar R, Bansal VK, Subodh K, Misra MC, Rehan Khan, Goswami A. Mesh fixation in laparoscopic incisional hernia repair: Tackers vs Polypropelene sutures” at National conference of Indian Hernia Society at Coimbatore Medical College Coimbatore in July 2009.
12. Panwar R, Bansal VK, Subodh K, Misra MC, Rehan Khan, Goswami A. Laparoscopic repair of incisional and ventral Hernias- our experience at National conference of Indian Hernia Society at Coimbatore Medical College Coimbatore in July 2009.
13. S Sagar SagarR; Psychiatric morbidity in bomb blast victims-the results from developing country Abstracted in World Journal of Prehospital and Disaster Medicine Volume 24 No.2 March-April 2009.
14. Chandrashekhara SH, Kapoor K, Mukund A, Arora R, Kumar A, Gamangatti S. Diffusion Tensor MR Imaging (DTI) in Cervical Spine Trauma: Illustrated Pictorial Review. As proceedings of Radiological Society of North America 95<sup>th</sup> Scientific Assembly and Annual Meeting November 29 - December 4, 2009. Page 489.
15. Chandrashekhara SH, Prasad KR, Narendrababu G, Goyal A, Gamangatti S, Atin Kumar. Post-traumatic Hypoperfusion Complex: Identification and Significance. As proceedings of Radiological Society of North America 95<sup>th</sup> Scientific Assembly and Annual Meeting November 29 - December 4, 2009. Page 823



16. Chandrashekhara SH, Kapoor K, Mukund A, Arora R, Kumar A, Gamangatti S. Spinal Cord diffusion weighted imaging (DWI) and diffusion tensor MR imaging (DTI) in cervical spinal trauma. As proceedings of Radiological Society of North America 95<sup>th</sup> Scientific Assembly and Annual Meeting November 29 - December 4, 2009. Page 822

## ARTICLES

1. Gupta A, Peckler B, Stone MB, Secko M, Murmu LR, Aggarwal P, Galwankar S, Bhoi S. Evaluating emergency ultrasound training in India. *J Emerg Trauma Shock* 2010;3:115-7
2. Pawar R, Sagar S, Kumar S, Singhal M, Gupta A. Evaluation and Management of Diabetic Foot. *J. Surg. Sci* 2010; 1(1): 38-42.
3. Mathur P, Gupta A, Kumar S, Sagar S. Surgical Intensive Care Unit associated Infections: Epidemiology, Prevention and Management. *J. Surg. Sci* 2010; 1(1): 48-51.
4. Chhavi Sawhney, Nita D'Souza, Biplob Mishra, Babita Gupta, Subir Das
5. Management of a massive thoraco-abdominal impalement: a case report, *Scandnavian Journal of Trauma, Resuscitation and Emergency Medicine*, October 2009.
6. Chetan Merchant, Sushma Sagar, Maneesh Singhal. Ultrasound enhanced Trauma Management. *Journal of Postgraduate Medical Education, Training and Research* Vol. IV.No. 6, November-December, 2009:92-94
7. Pawar R, Sagar S, Kumar S, Singhal M, Gupta A. Evaluation and Management of Diabetic Foot. *J. Surg. Sci* 2010; 1(1): 38-42
8. Misra MC, Khan RN, Bansal VK, Jindal V, Kumar S, Noba AL, Panwar R, Kumar A. Laparoscopic pericystectomy for hydatid cyst of the liver. *Surg Laparosc Endosc Percutan Tech*. 2010 Feb;20(1):24-6. PMID: 20173616.
9. Bansal VK, Misra MC, Bhowate P, Kumar S. Laparoscopic management of common bile duct "Stentolith". *Trop Gastroenterol*. 2009 Apr-Jun;30(2):95-6.
10. Jindal V, Misra MC, Bansal VK, Choudhury N, Garg SK, Khan RN, Krishna A, Panwar R, Rewari V. Technical Challenges in Laparoscopic Cholecystectomy in Situs Inversus. *J Laparoendosc Adv Surg Tech A*. 2010 Feb 16. [Epub ahead of print] PMID: 20156123.
11. Pawar R, Sagar S, Kumar S, Singhal M, Gupta A. Evaluation and Management of Diabetic Foot. *J. Surg. Sci* 2010; 1(1): 38-42.
12. Mathur P, Gupta A, Kumar S, Sagar S. Surgical Intensive Care Unit associated Infections: Epidemiology, Prevention and Management. *J. Surg. Sci* 2010; 1(1): 48-51.
13. Chetan Merchant, Sushma Sagar, Maneesh Singhal. Ultrasound enhanced Trauma Management. *Journal of Postgraduate Medical Education, Training and Research* Vol. IV.No. 6, November-December, 2009:92-94
14. Pawar R, Sagar S, Kumar S, Singhal M, Gupta A. Evaluation and Management of Diabetic Foot. *J. Surg. Sci* 2010; 1(1): 38-42



15. Mathur P, Gupta A, Kumar S, Sagar S. Surgical Intensive Care Unit associated Infections: Epidemiology, Prevention and Management. *J. Surg. Sci* 2010; 1(1): 48-51.
16. Posttraumatic subacute ascending myelopathy in a 24-year-old male patient. Kumar A, Kumar J, Garg M, Farooque K, Gamanagatti S, Sharma V. *Emerg Radiol*. 2009 Sep 4. [Epub ahead of print]
17. Evaluation of susceptibility methods for polymyxin. Mathur P, Behera B, Das A, Kapil A, Sharma V. *International Journal of Infectious Diseases* (2009).
18. Coagulation studies in patients with orthopedic trauma. Rangarajan K, Subramanian A, Gandhi JS, Saraf N, Sharma V, Farooque K. *J Emerg Trauma Shock*. 2010 Jan; 3(1):4-8.
19. Stiff elbow Garg B, Dua a, Sharma V, Kotwal PP *Punjab Journal of Orthopaedics* (2009).
20. Anterior Cruciate Ligament Injuries: Female Scenario Garg B, Dua a, Sharma V *Punjab Journal of Orthopaedics* (2009).
21. Behera B, Mathur P, Sharma V, Farooque K. Septic arthritis of the knee joint caused by *Salmonella enterica* serotype Enteritidis following trauma in a child with *Thalassemia major*. A case report. *Indian Journal of Pediatrics*.
22. Kasliwal MK, Agrawal D. Intrinsic brainstem glioma mimicking an ependymoma. *Pediatr Radiol*. 2009; 39:1250.
23. Agrawal D, Steinbok P. Fiducials: Achilles' heel of image-guided neurosurgery: an attempt at indigenization and improvement. *Clin Neurosurg*. 2009; 56:80-3.
24. Ahmed S, Khan S, Agrawal D, Sharma BS. Out come in Head Injured patients: Experience at a level 1 Trauma Centre. *IJNT* 2009; 2:119-122
25. Agrawal D, Mishra S. Post-Traumatic Intradiploic Pseudomeningocele. *Indian Pediatrics* 2010; 47:272-273.
26. Tripathi AK, Agrawal D, Sedain G. Hydrocephalic holoprosencephaly: An oxymoron? Insights into etiology and management. 2009; 4:41-42.
27. Borkar SA, Prasad GL, Agrawal D, Sharma BS. Cerebellar hemorrhage following supratentorial decompressive craniectomy for severe traumatic brain injury. *Neurol India*. 2009; 57:681-2.
28. Kanchana Rangarajan, Arulselvi Subramanian, Jatin S Gandhi, Namit Saraf, Vijay Sharma, Kamran Farooque. Coagulation studies in patients with orthopedic trauma. *Journal of Emergency Trauma and Shock*. 2010. 13: 11.

## CHAPTERS IN BOOKS

1. Surgical Approaches-Acetabulum Vijay Sharma, Vivek Trikha, Lalit Maini published in the book *The Acetabular Fracture during the IOA Acetabular Course* New Delhi.
2. Kumar A, Gamanagatti S. Imaging of urinary tract trauma. *Diagnostic Radiology Series. Urogenital Radiology*. Third Edition 2009. Editors Khandelwal NK, Gupta AK, Choudhary V. Jaypee Brothers.

3. Kumar A, Gamanagatti S. Imaging of chest trauma. Diagnostic Radiology Series. Cardiovascular and Chest imaging. Third edition 2009. Editors: Choudhary V, Gupta AK, Khandelwal NK. Jaypee Brothers.
4. Shivanand Gamanagatti, Ashu Seith Bhalla. Bronchial artery embolization. In AIIMS-MAMC-PGI Imaging Course Series, Diagnostic Radiology-Chest and Cardiovascular Imaging, 3<sup>rd</sup> edn , Jaypee Publishers, New Delhi: 315-327, 2009.
5. Gamanagatti S, Srivastava DN. Vascular Interventions of Genitourinary tract: 3rd edition Jaypee Brothers : “Urogenital imaging” AIIMS-MAMC-PGI imaging course series: 2009
6. Hari S, Kumar A. Retroperitoneum. In : Diagnostic Radiology : Genitourinary Imaging, Khandelwal N, Chowdhury V, Gupta AK, Eds : Jaypee Brothers Medical Publishers (Pvt.) Ltd., 3rd ed. New Delhi; 2009; 408 – 434.
7. Srivastava DN, Atin Kumar and Shivanand Gamanagatti. MDCT Chest: Technique and Anatomy. In: Diagnostic Radiology: Chest and Cardiovascular Imaging, Chowdhury V, Gupta AK, Khandelwal N, Eds : Jaypee Brothers Medical Publishers (Pvt) Ltd. 3rd ed. New Delhi, 2010; 13 – 27.
8. Tripathi R M, K Adarsh. A 5-year Comparative Study of Fatal Poisoning Cases at Chandigarh Region of India. Int J Med Toxicol & Legal Med 2009; 11(3):28-34
9. Dhingra V, Sharma P K , K Adarsh. Biomedical Waste Hazards and their Management in Forensic Laboratories – An overview in Indian context. Int J Med Toxicol & Legal Med 2009; 12(1):13-17.
10. Jaiswal AK, K Adarsh, Dhingra V. Detection and identification of Profenophos – An organo Phosphorous insecticide in autopsy material.. J Indian Acad Foren Med 2009; 31(4): 368-370.
11. Yadav A, Kumath M, Khanna M, Mishra A, Khakha A, K. Adarsh. Psychological Autopsy – A need of the future. Medicolegal Update 2010; 10(1):73-76.
12. K Adarsh, K Arvind, Kumath M. Fatality due to Sodium Fluoride ingestion – suicide or Accident? J of Can. Soc. For. Sc. ,2009 ; 42 (1):69-74
13. Bedi S, Arya S, Sharma DK, Singh S, Lathwal A, K Adarsh. Hospital support services outsourcing – The know how. Int J Med Toxicol & Legal Med 2009; 12(2):13-19.
14. Rijal L, Ansari T, Trikha V, Yadav CS. Birth Injuries in caesarean sections. Cases of fracture femur and humerus following caesarean section. Nepal Med Coll J. 2009; 11(3): 207-8.
15. Varshney MK, Rastogi S, Khan SA, Trikha V. Is Sclerotherapy better than Intralesional Excision for treating Aneurysmal Bone Cysts? Clin Orthop Relat Res. 2009, Oct. 23 Epub.
16. Trikha V, Khatri DL, Singh B, Ajay KV: Complex dislocation of the first metatarsophalangeal joint. Chin J Traumatol. 2009 Oct 1;12(5):318-20.
17. Neogi DS, Trikha V, Mishra KK, Rohilla N, Yadav CS. Biological Plate Fixation of comminuted subtrochanteric fractures with Dynamic Condylar Screw: a clinical study. Acta Orthop Belg. 2009 Aug;75(4):497-503.

18. Behera B, Mathur P. Erroneous reporting of vancomycin susceptibility for Staphylococcus spp. by Vitek software version 2.01. Jpn J Infect Dis. 2009 Jul;62(4):298-9.
19. Behera B, Mathur P, Das A, Kapil A. Ertapenem susceptibility of extended spectrum beta-lactamase-producing Enterobacteriaceae at a tertiary care centre in India. Singapore Med J. 2009 Jun; 50(6):628-32.
20. Behera B, Das A, Mathur P, Kapil A, Gadepalli R, Dhawan B. Tigecycline susceptibility report from an Indian tertiary care hospital. Indian J Med Res. 2009 Apr;129(4):446-50.
21. Mathur P. Septic arthritis of the knee joint caused by Salmonella enterica serotype Enteritidis following trauma in a child with Thalassemia major. A case report. Indian Journal of Pediatrics.
22. Mathur P. Empyema caused by optochin sensitive Streptococcus mitis in the course of varicella: Case report with a brief Review of Literature Indian Journal of Pediatrics.
23. Mathur P. Blood culture Gram stain, Acridine orange stain and direct sensitivity based antimicrobial therapy of bloodstream infection in trauma patients. Ind J Med Microbiol.

## AWARDS & HONOURS

### Dr. Adarsh Kumar

1. Awarded Honorary Diploma in Forensic Medicine by International Academy of Legal Medicine at Portugal on 30<sup>th</sup> May 2009.
2. The paper “Determination of Quinolphos in biological samples using High Performance Thin Layer Chromatography (HPTLC) published in Malayasian Journal of Forensic Pathology & Sciences 2008; 3(4):89-114 was awarded with “Certificate of Merit’ under Dr. P.D. Sethi Award -2008 in June 2009.
3. Member, National Consultant Panel of CLINFORNSICON-2009 having the theme as “Help Doctors to Help Law” organized at KMC, Manglore on 18-20, Sept., 2009.
4. Elected General Secretary of Indian Academy of Forensic Medicine during 31<sup>st</sup> Annual Conference of Indian Academy of Forensic Medicine at Bhopal held on 6-8, Feb. 2010.

### Dr. Deepak Agrawal

1. Received best poster award for study titled ‘Outcome in Head Injured patients: Indian Experience’ at the annual NSI conference held at Jaipur in December 2009.
2. Received best paper award for co-authoring the study titled ‘Changes in ICP following response checking and suctioning in neurosurgical intensive care unit’ at ‘Trauma 2009’ International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
3. Received second best paper award for co-authoring the study titled ‘Does PEEP effect central venous pressure in mechanically ventilated patients?’ at ‘Trauma 2009’ International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
4. Received third best paper award for co-authoring the study titled ‘To assess the effect of camera surveillance in improving compliance with hand washing practices in the ICU setting’ at ‘Trauma

2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009

5. Received third best paper award for co-authoring the study titled 'Foley's catheter or external condom catheter-which is better in bed-ridden head injured male patients' at 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
6. Received best paper award for co-authoring the study titled 'Effect of PEEP on CVP in ventilated patients' at DNACON, AIIMS, New Delhi 7-8 February, 2009
7. Awarded the AANS travelling fellowship to attend the annual CNS meeting in New Orleans 23-29 October 2009 and present the study titled 'Computerization in developing countries'
8. Successfully completed ATLS provider and instructor course held in JPN Apex trauma Centre in April 2009
9. Editor and initiator of JPN Apex Trauma Centre newsletter

#### **Dr. Deepak Gupta**

1. Top ten best paper award for paper award ( neurooncology) entitled Intratumoral radioimmunotherapy in recurrent high grade gliomas : Congress of neurological surgeons annual meeting, New Orleans, USA 24-29<sup>th</sup> October 2009.
2. WFNS international traveling fellowship for World federation of neurological surgeons conference, Boston ( August 2009)
3. European skull base surgeons travelling fellowship for ESBS congress, Rotterdam, April 2009
4. Congress of neurological surgeons travelling fellowship, New Orleans, USA ( October 2010)

#### **Dr. Vivek Trikha**

1. AO Trauma Fellowship at Innsbruck, Austria in Sep-Oct 2009.
2. North Zone IOA Fellowship for the year 2009-10.

#### **Dr. Shivanand Gamanagatti**

1. Editorial member of World Journal of Radiology.
2. Editorial member of Journal of Thoracic Diseases.
3. Selected as Member of National Academy of Medical Sciences.

#### **Dr Atin Kumar**

1. Selected as Member of National Academy of Medical Sciences

#### **Dr. Amit Gupta**

1. Qualified as Course Director, ATLS ® India Program. Advanced Trauma Life Support Course of the American College of Surgeons – Committee on Trauma (ACS-COT), USA.
2. Qualified as Course Faculty, ATLS ® India Program. Advanced Trauma Life Support Course of the American College of Surgeons – Committee on Trauma (ACS-COT), USA.

3. External Examiner ship: External Examiner for M.B.B.S. Final Professional Surgery Practical Examination at the C.S.M.M. University (Erstwhile King George's Medical University), Lucknow, India 2009 – 2010
4. Appointed as Course Faculty: Course on Preparedness for Emergency Response to CBRN Casualties – Developed by DRDE, Gwalior and National Disaster Management Authority, Govt. of India.
5. Member, Committee to review Post – Doctoral Course in Trauma Surgery, under chairmanship of Addl. DGHS, Directorate General of Health Services, Govt. of India. 2009
6. Member, Working Group for development of Training program in Disaster Medicine for doctors. An ICMR – NDMA Initiative 2009.
7. Member, Global Advisory Board, Journal of Emergency Trauma and Shock (JETS), Medknow Publications.
8. Chairman, Technical committee to review and grade Emergency Services of Delhi Hospitals, under the Emergency Medical Council, Govt. of NCT Delhi. 2009
9. Member Committee to draft the EMS Legislation for Govt. of NCT Delhi. Under the Emergency Medical Council, Govt. of NCT Delhi. 2009
10. Member (Technical) Project Review Committee. PPP Project for Ambulance Services in Delhi. Government of National Capital Territory (NCT) of Delhi. 2008-09
11. Member of CBRN co-ordination committee of National Disaster Management Authority, Govt. of India.
12. Awarded membership of World Association for Disaster and Emergency Medicine (WADEM), USA.2009-10

**Dr. Biplab Mishra**

1. Faculty for Advanced Trauma Life Support(ATLS) course, India certified by the American College of Surgeons- Committee on Trauma
2. 1<sup>st</sup> prize for Oral paper presentation by Neeraj Gupta,Subodh Kumar,Biplab Mishra,Amit Gupta,Maneesh Singhal,Sushma Sagar titled Cardiac injury- Our experience at level 1 trauma center in Trauma 2009, 12<sup>th</sup>-15<sup>th</sup> November JPN Apex trauma center,AIIMS

**Dr. Maneesh Singhal**

1. 1<sup>st</sup> prize for Oral paper presentation by Neeraj Gupta, Subodh Kumar, Biplab Mishra, Amit Gupta, Maneesh Singhal, Sushma Sagar titled Cardiac injury- Our experience at level 1 trauma center in Trauma 2009, 12<sup>th</sup>-15<sup>th</sup> November JPN Apex Trauma Center, AIIMS.
2. Faculty for Advanced Trauma Life Support (ATLS) course, India certified by the American College of Surgeons- Committee on Trauma
3. Identified as International Course Director for Advanced Trauma Life Support (ATLS) courses by the American College of Surgeons- Committee on Trauma, USA

### **Dr. Subodh Kumar**

1. National Program Coordinator for Advanced Trauma Life Support (ATLS) – India program in association the American College of Surgeons- Committee on Trauma, USA
2. Identified as International Course Director for Advanced Trauma Life Support (ATLS) courses by the American College of Surgeons- Committee on Trauma, USA
3. Awarded membership of World Association for Disaster and Emergency Medicine (WADEM), USA.
4. First prize for Oral paper presented by Neeraj Gupta, Subodh Kumar, Biplab Mishra, Amit Gupta, Maneesh Singhal, Sushma Sagar entitled “Cardiac injury- Our experience at level 1 trauma center” at Trauma 2009, JPN Apex trauma center, AIIMS.
5. Appointed as Course Faculty: Course on Preparedness for Emergency Response to CBRN Casualties – Developed by DRDE, Gwalior and National Disaster Management Authority, Govt. of India
6. Member of CBRN co-ordination committee of National Disaster Management Authority, Govt. of India.
7. Member Editorial Board- Journal of Society for Wound Care and Research (JWSCR)
8. Reviewer- of Tropical Gastroenterology, a peer review journal indexed in Pubmed.

### **Dr. Sushma Sagar**

1. Member Editorial board AIIMS annual report (2008-2009).
2. Associate Editor Journal of Society for Wound Care and Research (JWSCR)
3. Awarded membership of World Association for Disaster and Emergency Medicine (WADEM).
4. Awarded membership of European Society for Trauma and Emergency Surgery (ESTES) .
5. Faculty for Advanced Trauma Life Support(ATLS) course, India certified by the American College of Surgeons- Committee on Trauma
6. Prize in Debate competition for Staff and Faculty members organized by Hindi section AIIMS during Rajbhasha Hindi Protsahan Saptah
7. 1<sup>st</sup> prize for Oral paper presentation by Neeraj Gupta,Subodh Kumar,Biplab Mishra,Amit Gupta,Maneesh Singhal,Sushma Sagar titled Cardiac injury- Our experience at level 1 trauma center in Trauma 2009, 12<sup>th</sup>-15<sup>th</sup> November JPN Apex trauma center,AIIMS.Prize in Debate competition for Staff and Faculty members organized by Hindi section AIIMS during Rajbhasha Hindi Protsahan Saptah
8. 1<sup>st</sup> prize for Oral paper presentation by Neeraj Gupta,Subodh Kumar,Biplab Mishra,Amit Gupta,Maneesh Singhal,Sushma Sagar titled Cardiac injury- Our experience at level 1 trauma center in Trauma 2009, 12<sup>th</sup>-15<sup>th</sup> November JPN Apex trauma center,AIIMS.
9. Co-ordinator from Trauma center for Health exhibition on AIIMS Institute Day the 25<sup>th</sup> -27<sup>th</sup> September 2009



10. Faculty member: Save Life Foundation (NGO) for training of Police personnel & bystanders to provide First Aid to trauma victims
11. Faculty for Advanced Trauma Life Support(ATLS) course, India certified by the American College of Surgeons- Committee on Trauma
12. Prize in Debate competition for Staff and Faculty members organized by Hindi section AIIMS during Rajbhasha Hindi Protsahan Saptah

**Dr. S. Arulsevi**

1. Received best paper award in the study titled Clinical Course and Outcome in Acutely Injured Patients with Thrombocytopenia at 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
2. Presented poster on "The Leucocyte Count, Immature Granulocyte Count and Immediate Outcome in Head Injury Patients" at 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
3. Received best paper award for co authoring the study titled " Fresh frozen plasma – audit of its use and correlation to mortality in trauma patients" at 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
4. Received best poster award for the study (co authored) titled " Challenges of Blood Transfusion Services in a Level 1 Trauma Centre" setting' at 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
5. Initiated new Pathology Laboratory, as an extension of Lab Medicine in JPNATC. Fully Functional from 22 2 10
6. Asst Editor to Journal of Laboratory Physicians.

**SIGNIFICANT EVENTS**

**Dr. Deepak Gupta**

1. Selected as executive committee member of National Neurotrauma society , India
2. Executive committee member for Delhi Neurological Association, India

**Dr. Vijay Sharma**

1. Table instructor **AO** Pelvis Course 16-19 April 2009, New Delhi
2. Successfully cleared provider and instructor ATLS Course 22-28 April 2009 New Delhi. Now became faculty of ATLS and teaching in ATLS courses.
3. Became Life Member Punjab Orthopaedic Association 2009.
4. Executive member for the year 2009-10 Indian Federation of Sports Medicine(IFSM)
5. Faculty ATLS American college of Surgeons.



## PATIENT CARE

### DEPARTMENT OF SURGERY

1. TOTAL PATIENTS ATTENDED : 44,456  
( 5-6 Patients /hr)
2. TOTAL SURGICAL PATIENTS ATTENDED ED : 33,420
3. TOTAL SURGICAL CASES ADMITTED(>24hrs) : 1273
4. OPERATIVE PROCEDURES DONE UNDER ANESTHESIA : 1354
5. MORTALITY RATE: : 132 / 1273  
(10.36%)
6. FOLLOW UP OPD ATTENDANCE : 10,450

### DEPARTMENT OF RADIOLOGY

#### Details of Investigations for the period 1<sup>st</sup> April 2009 to 31<sup>st</sup> March 2010

S. No.	Investigation	Number
1.	Plain X ray (including emergency)	53618
2.	Portable X ray	15063
3.	CT	18010
4.	Ultrasound including Doppler and guided interventions	6499
5.	Digital Subtraction Angiography including interventional procedures	121
6.	MRI	1575
	<b>TOTAL</b>	<b>94886</b>

### DEPARTMENT OF MEDICAL RECORD SECTION

*Faculty In-Charge*  
**Dr. Adarsh Kumar**

*Jr. M R O*  
**Mr. Raju Yohunna**

*M R T*  
**Mr. Saurabh & Mr. Aditya**

*Receptionists*  
**Mr. Shailendra Jaiswal &  
Ms. Kakujiyoti Borha**

*M R A*  
**Mr. Rajender Singh & Mr. Tasvir Singh**

Beside abovementioned regular staff few D E O & Sulabh workers are also helping in day-to-day management of various functions of medical record section. With a view to streamline the functioning of various activities in existing manpower; the areas were further distributed to Mr. Raju Yohunna (Medical Records Division), Mr. Shailendra Jaiswal (Central Registration Counter) & Ms. Kakujiyoti (Follow-up OPD).

The complete statistical data for the period is as under.

<b>I. Total Bed Strength of facility</b>	:	<b>186</b>
Ward beds	:	<b>120</b>
ICU beds 2 <sup>nd</sup> floor	:	<b>16</b>
ICU beds 3 <sup>rd</sup> floor	:	<b>20</b>
Triage	:	<b>30</b>
<b>II Statistics at a Glance</b>		
Total No. of Casualty Attendance	:	<b>44161</b>
Average per day	:	<b>121 patients</b>
Total No. of Admissions	:	<b>5046</b>
Average per day	:	<b>14 patients</b>
Average Length of Stay (ALS)	:	<b>10.7 (Per patient per days)</b>
Total No. of Follow-up OPD Cases	:	<b>23998</b>
<b>III Total No. of Casualty Cases</b>	:	<b>44161</b>
Male Cases	:	<b>33702</b>
Female Cases	:	<b>10459</b>
<b>IV Total No. of Follow-up OPD Cases</b>	:	<b>23998</b>
New	:	<b>9146</b>
Old (Re-visit)	:	<b>14852</b>
<b>V Total No. of Admissions</b>	:	<b>5046</b>
Specialty- wise break-up		
Orthopedics	:	<b>1504</b>
Surgery	:	<b>1491</b>
Neuro- Surgery	:	<b>2048</b>
Em. Medicine	:	<b>3</b>
<b>VI Total No. of Operations performed</b>	:	<b>4307</b>
Major	:	<b>3608</b>
Minor	:	<b>699</b>
Specialty- wise break-up		
Orthopedics	:	<b>1733</b>
Surgery	:	<b>1378</b>
Neuro- Surgery	:	<b>1196</b>
<b>VII Total Deaths</b>	:	<b>990</b>
Deaths Under 48 Hours	:	<b>490</b>
Deaths Over 48 Hours	:	<b>500</b>
Gross Death Rate	:	<b>2.2%</b>
Net Death Rate	:	<b>10.9%</b>

Key changes, Initiatives, up-gradation and improvements undertaken during period under reporting by MRS through its various subsections i.e. Emergency Reception, Casualty registration, Follow-up OPD Registration & Main Medical Records division are as follows:

### **Emergency Reception**

By virtue of its location, the CRC (MRS) initiated and undertook the function of Emergency Reception of JPNATC. Approximately 400-500 enquiries are attended daily at first hand and about 80% of

these are sorted out at this level. It is providing information regarding patient care; follow up, trauma centre function, staff schedule, organizational structure, hospital administration and related services to Patients, Relatives/Attendants, Police, Media, AIIMS staff and General Public. The result of successful disposal of most of the enquiries at this level is that other departments are spared of facing these enquiries directly thus saving their precious manpower, man hour and disruption of work. As a result they can concentrate more on their own functions instead of replying to enquiries. Satisfaction of a majority of visitors query at the entrance itself reduces the rush and crowd inside Trauma centre thus helping in better management of all existing facilities.

### **Casualty Registration Counter (CRC)**

1. Introduction of Newly designed Patient Registration Form.
2. Introduction of fully- computerized Casualty Registration Card.
3. Introduction of Tricolor Wrist Band with Bar Code for patients.
4. Introduction of Bar Code Stickers for all Radiology and Lab Tests.
5. Introduction of standby re-designed manual Registration Card for Casualty patients.
5. Introduction of re-designed Medical Certificates.
6. Introduction of re-designed Fitness Certificates.
7. Introduction of newly designed Annexure to Essentiality Certificates.
8. Introduction of Form 'C' (Rule 14) and forwarding of compiled information of Foreigner Patients to FRRO, R.K. Puram
9. Receipt of Midnight Census and further compilation.
10. Monthly Statistical & demographic data preparation of total patients Registration as well as total admissions in ICUs and Wards

### **Follow-up OPD Registration Counter**

1. Introduction of 'Queue Management System' with computerized Token No. issued to patients as per Specialty, Consultant and Room No. with large display screens installed in waiting areas and Doctor's room for all concerned.
2. Introduction of Bar Code stickers on OPD Cards as well as Files for easy detection by bar code scanners at Consultant's table for computerized records.

### **Main Medical Records Division**

In addition to above, **Medical Record Section (MRS) of JPNATC is the FIRST Govt. Hospital** who had started Online Registration of Deaths at NDMC since last year is running successfully & also coordinating the amendments pertaining to deceased after due legal procedure. **MRS** is regularly disposing of summons from various Hon'ble Courts in Delhi as well as other neighboring states. Total 166 such summons were handled during this period. MRS is also handling various Insurance Policy matters of patients who attended JPNATC in both case whether alive or dead. Total 62 cases were disposed off during this period. During the preceding year MRS has entertained police requests for issuing X-rays; & coordinating for collection of X-rays from Radio-diagnosis unit & handing over

to police. The MRS is furthermore involved in issuing information (for assistance/ compensation etc.) to Delhi State/ Central Govt. pertaining to the patients/victims attended JPNATC during the year. The replies of questions raised under Right to Information Act 2005 by various applicants, were also provided by MRS on a frequent basis. MRS has provided the basic framework as well as continuous inputs to computer facility; so as to computerize whole registration process in a phased manner. Steel Compactors have been installed for safe custody of medico-legal & postmortem registers as well as complete treatment records of patients/deceased at JPNATC.

## 11.1 B.B. Dikshit Library

### Chairperson

Chitra Sarkar

### Chief Librarian

K. P. Singh

### TIMINGS AND MEMBERSHIP

The library is open round the clock on all days of the week including Sundays and holidays, w.e.f. 1 August 2003. It has 2325 regular members on its roll and an average of 400 readers visit the library every day.

### Services

The library continued to extend the following services to the users. These services are not only modernized and updated but also further strengthened.

#### 1. Book alert service

This is a monthly service, listing new books, monographs and pamphlets added to the library in a particular month.

#### 2. Periodical alert service

This is a fortnightly service, listing new periodicals received in the library during the previous fortnight.

#### 3. Interlibrary loan services

Interlibrary loan services with several local libraries are being maintained to help users procure documents that are not available in the library.

#### 4. Reprographic services

The library has five machines to meet the demands of the readers, viz. one 5834, one Duplex Digital Copier Model WC PRO-35, two WC5638 and one WC 7242 Color of Xerox India Ltd. During the year 73,728 pages were photocopied, on payment basis, as a service to the readers.

#### 5. CD-ROM printout services

During the year 8,760 computer printout pages containing articles and other useful literature were made available to the readers on payment basis.

### Book bank

The Book Bank continues to serve the undergraduates and interns. The total membership of the Book Bank is 101. The Book Bank has more than 2,735 books, which are issued on a long-term basis to the students.

### **Audiovisual section**

The library has four colour television sets and four video cassette recorders. The number of video cassettes available in the library is 308. This section also has four audio cassette playback decks and 109 audio cassettes.

### **CD-based services**

The library has a collection of 945 CD ROMs of different digital books/journals. It can be used by the readers within the library. Different encyclopedias and dictionaries have also been available on CD-ROMs.

### **Library automation**

The library has centralized server with 16 terminals, 10 laser printers, one network line printer. The various housekeeping operations (viz. acquisition, cataloguing, series control and circulation) have been automated. The library is using a commercially available software package named LS-Premia.

### **Computerized thesis search**

About 5,311 theses received so far in the library can be retrieved through a computer search. Information about each thesis such as author, title, department, guide's name, co-guides and other bibliographical details are available on the computer.

### **Online journals**

The library received 568 online journals in the current year, made available to it through the publishers along with print versions.

### **OPAC (Online public access catalogue)**

All the records from 1985 onwards are searchable through computers; 5,311 theses received so far in the library can also be retrieved through OPAC. The searchable databases (through OPAC) include video cassettes, audio cassettes and compact discs. Six online public access terminals are placed in the lobby at the entrance of the library where users can search bibliographic databases and find specific information online. Information about journals and recent arrivals can also be retrieved through OPAC.

### **Internet**

This facility is available in the library from 10 a.m. to 10 p.m. from Monday to Friday and from 10 a.m. to 8.30 p.m. on Saturdays. Twenty-two nodes are available to the users.

### **New additions**

The library added 331 new books, 1290 bound volumes of journals, 227 pamphlets/reports, 252 new theses and now has a total of 71,827 books, 67,786 bound journals and 17,032 pamphlets/reports.

The library subscribed to 761 journals in various fields of health sciences; 568 of these were received online along with their print versions. Nineteen journals subscribed in print and electronic version on behalf of the National Drug Dependence Treatment Centre (NDDTC), Ghaziabad are also received in the library.

## AWARDS, HONOURS AND SIGNIFICANT EVENTS

Besides the internet facility, the library has started its own Wi-Fi facility for wireless internet use within the library. This facility has been provided to all students and faculty members of AIIMS.

1. **Mr K. P. Singh**, Chief Librarian attended one day seminar on ‘Scholarly Information and Communication in Web Environment’, 23 May 2009, organized by SLA at India Habitat Centre, New Delhi; presented a paper ‘Digital Right Management for IPR’ at National Conference on Current problem of Library and Information Services in Electronic Age, 5 June 2009, organized by IILM Greater Noida (UP); attended 1-day International Seminar on ‘Libraries at Crossroads’, 9 October 2009, organized by SLA-SMSMC-IIHMR at SMS Medical College, Jaipur; presented a paper ‘Computerization of Library Services in Digital Era’ at National Conference on Problems of College Libraries in Digital Era, 24–25 October 2009, organized by Aggarwal College, Ballabgarh, Faridabad (Haryana).
2. **Mr K.P. Singh** and **Kalpana**, published a paper ‘Copyright issues: An overview’ in the proceedings of 2nd National Research Conference on Library: A Temple of Learning and Knowledge House, 16 January 2010, organized by Guru Nanak Institute of Management Studies at Mumbai.
3. **Mr M. K. Vishwakarma**, Librarian Gd-I attended an International Workshop on ‘Design and Development of Digital Libraries using open source Software’, 14-18 December 2009, organized by TISS-SAARC Documentation Centre, Tata Institute of Social Sciences, Mumbai; attended Workshop on ‘Capacity building in Knowledge Environment’, 18–19 December 2009, organized by TISS-IFLA, Tata Institute of Social Sciences, Mumbai.
4. **Mr Jahangir Khan**, Librarian Gd-II attended a 1-day seminar on ‘Scholarly Information and Communication in Web Environment’ 23 May 2009, organized by SLA at India Habitat Centre, New Delhi; attended 1-day International Seminar on ‘Libraries at Crossroads’, 9 October 2009, organized by SLA-SMSMC-IIHMR at SMS Medical College, Jaipur; presented a paper ‘Application and use of Wi-Fi Network Technology by Faculties & Research Scholars in AIIMS’ 28–30 January 2010, National Convention-2010 of Medical Library Association of India, at HIHT University, Dehradun.
5. **Rakesh Rawat**, DEO and Jahangir Khan (Librarian Gd-II), presented a paper ‘Re-engineering of Library and Information Services through Automation and Internet Connectivity at AIIMS: A case study’ 28–30 January 2010, National Convention-2010 of Medical Library Association of India, at HIHT University, Dehradun.



## 11.2 Cafeteria

### Chairman

Deputy Director (Administration)

### Faculty-in-charge

O.P. Kharbanda

### Accounts Officer

S. K. Gupta

### General Manager

S. K. Kaushik

### Deputy General Manager

K. K. Sharma

### AIMS AND OBJECTIVES

The AIIMS cafeteria, established in 1972, provides wholesome food at reasonable prices to the employees of AIIMS. In 1983 it was registered with the Director of Canteen, Department of Personnel and Training, Government of India. In October 1991, the cafeteria was taken over by AIIMS and all employees are treated at par with other AIIMS employees. The cafeteria is being run in accordance with guidelines issued by the Department of Personnel and Training, Government of India from time to time on a no-profit, no-loss basis, without any financial assistance from the Institute.

### MANAGEMENT COMMITTEE

A management committee is constituted by Director, AIIMS for policy decisions pertaining to the Cafeteria. The members of the committee during the year were:

- |     |  |                  |
|-----|--|------------------|
| 1.  | Deputy Director (Administration)               | Chairperson      |
| 2.  | Professor S. Rastogi                           | Member           |
| 3.  | Professor V. K. Paul                           | Member           |
| 4.  | Professor Bir Singh                            | Member           |
| 5.  | Shri Sandeep Lal, Sr F.A.                      | Member           |
| 6.  | Smt Basanti Dalal, F.A.                        | Member           |
| 7.  | Shri B. S. Anand, S.E.                         | Member           |
| 8.  | Shri S. K. Gupta, Accounts Officer             | Member           |
| 9.  | Smt Preeti Ahluwalia, Welfare Officer          | Spl. Invitee     |
| 10. | Dr (Smt) Parmeet Kaur, Chief Dietician         | Member           |
| 11. | Representative of RDA                          | Member           |
| 12. | Representative of Officers' Association        | Member           |
| 13. | Representative of Nurses' Union                | Member           |
| 14. | Representative of Karamchari Union             | Member           |
| 15. | Representative of FAIMS                        | Member           |
| 16. | Professor O. P. Kharbanda                      | Member Secretary |
| 17. | Shri S. K. Kaushik, General Manager, Cafeteria | Member           |

## SERVICES

The cafeteria runs 7 units for services to about 9000 employees of the Institute. These are

1. Main cafeteria (24-hour service) near Jawahar Lal Nehru Auditorium
2. Main operation theatre cafeteria on 9th floor of the main hospital
3. Cardiothoracic Neurosciences Centre cafeteria on 2nd floor of the centre
4. Dr Rajendra Prasad Centre operation theatre cafeteria on 5th floor of the centre
5. Jaiprakash Narain Apex Trauma Centre
6. Faculty room cafeteria near the main cafeteria
7. Dr B.R. Ambedkar Institute Rotary Cancer Hospital cafeteria on 3rd floor of the center

In addition, the cafeteria provides services to the Director, Dean, Deputy Director (Administration), Medical Superintendent and Faculty Members for their day-to-day as well as special requirements for important meetings. It also provides catering services for examinations conducted by the Examination Section at AIIMS as well as for meetings at AIIMS of the Institute body, Governing body and other Standing Committees.

## STAFF STRENGTH

Eighty-four employees (regular/ad hoc/temporary) are on the rolls in the cafeteria. Catering services were provided for official meetings, conferences and symposia held at AIIMS.

### *Medical checkup of Cafeteria employees*

All the Cafeteria employees got medically checked being food handlers.

## ANNUAL TURNOVER

The total turn over of the cafeteria is approximately Rs 1 crore 87 lakhs.

## DEVELOPMENT ACTIVITIES

Several changes were introduced in the cafeteria during the year. Complete renovation of the Faculty Room has been done with best ambience and amenities by installing latest technology equipments for service to the Faculty Members.

### *Future plans*

A proposal for complete renovation of the cafeteria has been prepared so as to be equipped with the latest technology. This will allow food preparation and handling to be done in a more healthy and hygienic manner.

## 11.3 Central Animal Facility

### Professor-in-Charge

D.N. Rao

### Senior Veterinary Officer

P.K. Yadav

### Veterinary Officer

Vijender Singh

The activities of the facility during 2009–10 are listed below.

#### SMALL ANIMALS (RODENTS)

The following small animals (average/month) have been maintained throughout the year:

Rats (Wistar)	2,031
Rats (Sprague Dawley)	220
Mice (Swiss)	785
Rabbits (New Zealand)	135
Guinea Pigs (Dunkin Hartley)	145

A total of 4,421 small animals (rats, mice, rabbit and guinea pigs) were supplied to various departments and considerable numbers of animals were also sold to other institutions in Delhi and outside, i.e. rats 467, mice 150 and guinea pigs 226. Rabbits (55) were purchased from the Diseases free Small Animal house, College of Veterinary Sciences, CCS Haryana Agricultural University, Hissar, Haryana for breeding purposes.

#### LARGE ANIMALS (SHEEP)

The sheep colony housed 3 sheep for research work of the Department of Microbiology.

#### NON-HUMAN PRIMATES (MONKEYS)

##### Census report

Total number of monkeys on 1 April 2009	67
Number of deaths	18
Born in the colony	9
Sold to National Brain Research Centre	5
Total number of monkeys on 31 March 2009	53

##### Breeding programme

Breeding of monkeys was done in cage and open run. A total of 12 female monkeys were mated. Nine infants were born. Monkeys have three indoor runs that are used for providing exercise to all those that are housed in cages.

## Rehabilitation facility

A programme for rehabilitation of monkeys was started in 2000. All monkeys that had been used in experiments for 3–5 years and old monkeys were put in open run and monkeys cages. Most of these monkeys were permanently rehabilitated (after experiment with old monkeys) to animal welfare organizations.

## Clinical procedures conducted

Blood samples collected	89
Physical examination, testing for tuberculosis and weight	99
Haematology	89
Blood chemistry	89
X-ray	105
Other procedures	255

(Management of trauma, obstetrics procedures, ASD treatment, etc.)

## EXPERIMENTAL SURGERY

Fifty-seven surgical procedures and radiological investigations were performed by various departments (including Surgery, Biomedical Engineering Unit, Neurosurgery, Paediatric Surgery, and Endocrinology and Metabolism) on small and large animals in the Central Animal Facility.

## INSTITUTIONAL ANIMAL ETHICS COMMITTEE (IAEC)

During the year (2009–10), the IAEC cleared 81 projects on small animals (rodents) and 1 project (continuing) on large animals (monkeys).

## SERVICES PROVIDED

A wing has been operational for maintaining animals belonging to the departments of Microbiology, Biomedical Engineering Unit, Biochemistry, Biotechnology, Paediatric Surgery, Reproductive Biology, Anatomy, Psychiatry, Pathology, Laboratory Medicine, Neurosurgery, and Endocrinology and Metabolism. This facility housed the following number of animals: Rats 100, Mice 250, Rabbits 30, Guinea pigs 2 and Monkeys 5.

The facility provided laboratory support to various investigators for vacuum drying of sera and storage of serum samples, haematology, clinical biochemistry, X-ray and Microscope facility.

## SIGNIFICANT EVENTS

**Dr P.K. Yadav** attend the training programme for training on Laparoscopic Neutering at Thane Municipal Corporation, Maharashtra, 14–16 July 2008; attended the CPCSEA National Conference on Ethical use of Animals in Research and Education and Dissemination of Norms & Guidelines of CPCSEA at Dr Marri Chenna Reddy Human Resource Development Institute, Hyderabad, Andhra Pradesh, 29–30 January 2009; Delivered lecture ‘Care, breeding and management of laboratory animals’ at 1- and 2-week training programme on animal welfare of the National Institute of Animal Welfare, Ministry of Environment and Forest.

**Dr P.K. Yadav** and **Mr Dhananjay Kumar**, Animal House Attendant assisted with animals in the Minimally Invasive Surgery Training Centre, Department of Surgical Disciplines, AIIMS.

## 11.4 K.L. Wig Centre for Medical Education and Technology

### **Professor-in-charge**

Siddharth Datta Gupta

### **Coordinator**

O. P. Kharbanda

### **Educationist**

B. V. Adkoli (on leave)

### **Education Media Generalist**

Yogesh Kumar

### **Adjunct faculty**

Twenty-three faculty members covering all undergraduate disciplines besides Dental, Nursing, Hospital Administration and Computer Facility

## **EDUCATION**

### **Undergraduate, postgraduate, paramedical**

**Mr Yogesh Kumar** conducted 10 sessions (2 hours each) for MSc Nursing students of College of Nursing, AIIMS on topics related to media and communication.

### **Continuing medical education**

#### *Conferences/workshops organized*

CMET organized 18 in-house workshops on Tips and Tricks in Word and Powerpoint (5), Information retrieval in health sciences (1), Bioethics (1), Animation in Powerpoint (1), Excel (1), Digital photography (1), Video editing (1) and Nursing updates (7) for the faculty, junior, senior residents and secretarial staff. Adjunct faculty participated as resource persons/delivered lectures.

CMET also provided space and facility to conduct 11 CMEs/workshops organized by other departments of AIIMS.

#### *Lectures delivered*

#### **Dr Kalpana Luthra**

- National workshop on ‘Assessment methods for learning, evaluation in Basic Medical Sciences’, AIIMS, September 2009
- Problem-based learning, Aligarh Muslim University, November 2009
- Endocrinology—importance of applied knowledge vis-a-vis lifestyle diseases, Workshop for teachers, Central Council of Homeopathy, December 2009.

#### **Dr Nalin Mehta**

- ‘Medical Ethics—The core of Doctor–Patient relationship’, Seminar on Doctor–Patient relationships, Dehradun, April 2009.

- ‘Group Dynamics’, Workshop on Research Methodology, Subharti Medical College, Swami Vivekanand Subharti University, Meerut (UP), July 2009.
- ‘Introduction and Group Dynamics’, ‘SAQs and SEQs in Assessment’, ‘Problem Based learning and its Assessment’, ‘Oral Assessment’, National workshop on Assessment Methods for Learning Evaluation in Basic Medical Sciences, AIIMS, September 2009.
- ‘Improving Practical Assessment—Use of OSPE’ at Workshop on Medical Education organized at Maharishi Markandeshwar Institute of Medical Sciences and Research (MMIMSR), Mullana, Ambala, October 2009.

### Mr Yogesh Kumar

- National Conference on Health Professionals’ Education (NCHPE 2009), Maharashtra University of Health Sciences, Pune in collaboration with FAIMER, December 2009.
- Pre-conference workshop on ‘Scientific communication’, National Conference on Health Professionals’ Education (NCHPE 2009), Maharashtra University of Health Sciences, Pune in collaboration with FAIMER, December 2009.
- 16th International Conference and Exhibition on Terrestrial & Satellite Broadcast. Theme: Broadcasters and New Media Technologies, Broadcast Engineers Society of India, New Delhi, January 2010.

## PUBLICATIONS

### Journals

1. Adkoli BV, Sood R. Faculty development and medical education units in India. A survey. *Natl Med J India* 2009;22:28–32.
2. Adkoli BV. An educationist teaching healthcare professionals? *Natl Med J India* 2009; 22: 163–4.
3. Srinivas DK, Adkoli BV. Faculty development in medical education in India. The need of the day. *Al Ameen J Med Sci* 2009;2:6–13.
4. Adkoli BV, Gupta V, Sood R, Pandav CS. From reorientation of medical education to development of medical educator. *Indian J Public Health* 2009;53:218–22.
5. Goel A, Vankat R, Kumar A, Adkoli BV, Sood R. Structured internship programme for undergraduate students: Easy transition to clinical work. *Natl Med J India* 2010;23:160–2.

## SERVICES

### Media production during 2009–10

Type of media	Number of jobs
Clinical photography	1046
Outdoor coverage	136
X-ray, specimen, gel, etc.	2020
Photographic prints (A4 colour)	1610
Scanning of images (slides, documents)	4475
Video recording, editing (non-linear) including tape to CD conversion	402
Designing/printing of large format posters	1153

### Highlights of media work

- Institute day 2009: Played a leading role in organizing the exhibition. Its theme was 'Good health good life'. More than 200 posters and 6 video stations were displayed.
- A large number of visuals on AIIMS were designed for presentation at important offices such as the Prime Minister's office, Ministry of Health and Family Welfare and Planning Commission.
- A practical manual was designed for the Department of Biochemistry.



## 11.5 Computer Facility

### Deputy Director and Head

R.S. Tyagi (up to 24 March 2010)

### Professor in-charge

P. P. Kotwal (from 25 March 2010)

### Systems Analysts

S. Kailash

S.N. Ragu Kumar

Satish Prasad

### Senior Programmers

Sushil Kumar Meher

Sanjay Gupta

V.K. Jindal

S.P. Singh

Vinay Pande

### Programmers

Hari Shankar

Pawan Kumar

Manoj Kumar Singh

Tripta Sharma

Sanjeev Kumar

Amit Bhatti

Ankita Saini

Shyama Barua

Sushma Dhama (up to October 2009) Amit Kumar Yadav (up to October 2009)

## EDUCATION

### Postgraduate

Computer programming classes covering both theory and practical aspects were conducted for postgraduate students of the Department of Biotechnology, students of the College of Nursing, and bioinformatics classes for students of the Department of Biotechnology and taught Linux and C language, Database Structure I, II and Hidden Markov Models (HMM). The facility also conducted classes for MD (Biophysics) students on Mathematics and programming language. Also provided training for Armed Force officers deputed to study Medical Informatics for a 2-year period using new course modules.

### Undergraduate

A three-month course on basics of computers, internet, Windows applications, computer-aided learning, database and biostatistics was conducted for final year students of BSc (Hons) Nursing at AIIMS. A computer course was conducted for students of BSc Nursing (Post-certificate).

### Continuing medical education

Members of the facility participated in and delivered lectures in continuing medical education programmes, symposia, international and national conferences. Members of the facility also guided various software projects for students of Computer Applications (leading to BCA, BE, BTech and MCA) from various engineering colleges in and outside Delhi.

## SERVICES

### Hospital computerization

The following software design, development and implementation activities were done by the computer facility during this year.

Continuous maintenance and enhancement/upgradation of modules developed for Dr BRA IRCH OPD (New and Old patients) and Inpatients, New patients OPD registration for Main hospital, Dental OPD at CDER, Casualty registration, Admission registration (for both short and long admission) for the Main hospital and centres including RP Centre (Casualty). The screens were made bilingual (English and Hindi) and captions on registration card were printed in both English and Hindi. Also modules for discharge summaries for clinical departments such as Gastroenterology, Orthopaedics, Cardiothoracic and Vascular Surgery, Prosthodontic and Maxillofacial department of CDER and Physical Medicine and Rehabilitation.

Software for Main Hospital for OPD registration, Central Admission and Casualty (since 1992) for Main Hospital and software for Dental Centre have been developed. Functionalities covered for all these modules are available

The software related activities at the various centres includes:

1. **BRA IRCH:** Successfully implemented computerized registration of OPD (new and old patients), inpatients, Day care registration, Appointment for Day care patients and their discharge, e-billing, discharge of inpatients at Medical Oncology and Radiation Oncology and laboratory registration of outpatients and inpatients online and report generation of patients for peripheral smear, multiple myeloma and bone marrow which are also stored in the database of patients for retrieval anytime from any location. All these modules are running successfully. The modules implemented earlier are continuously monitored, maintained and upgraded as per the requirements of the end users.
3. **CT and NS Centre:** Successfully implemented electronic registration of new patients both for OPD and clinics at Cardiac and Neurosciences Centre since February 2009. Continuous maintenance of these modules was done. A LAN based discharge summary for Neurosurgery in-patients has been developed and is running successfully. Also software for operation theatre notes and operation theatre list have been implemented and are running successfully.

### Academic Section Management and Information System

Complete automation of the Student Information and Management System for MB,BS courses covering all functionalities from the entry of students to the course till completion. This was demonstrated to Dean and Sub-Dean (Academics). The system is ready for implementation.

Module for the Hostel Section for updating the waiting list and room allotment for students and residents has been demonstrated to Director, Dean, Hostel Superintendent, Students Union and Residents besides other senior officers of AIIMS. It has been implemented and is running successfully.

### Research section

The modules automated and running successfully include

1. Administration including (i) Research project management, (ii) recruitment management, (iii) project employee management, (iv) project employee EHS management, and (v) research fellowship management

2. Accounts including (i) payroll and tax management, (ii) grand register, (iii) cash book, (iv) ledger, (v) TA/DA reimbursement, and (vi) balance sheet.
3. Stores including requisition, supply order and financial transaction.

### **Administrative computerization**

- Continued the payroll processing, administrative, accounts and finance systems using in-house software development.

### **Examination section computerization**

- Computer Facility has coordinated and conducted twice computerized online counseling for MD/MS/MDS and the selection of Junior Residents (non-Academic) for 2009–10.
- Hosted all examination results and notices online in the AIIMS website servers.

### **Emergency laboratory (Laboratory medicine)**

Study and solution of Analyzer interface to the centralized database (Emergency Laboratory Information Management Systems [ELIMS]) have been developed and is under implementation.

### **IT infrastructure and Networking, Internet and Intranet management activities**

1. Implemented the User Id based internet access system, also demonstrated it to all computer facility staff.
2. Conducted an END point protection system demonstration at computer facility.
3. Prepared the Network audit and ISMS audit requirement study and RFP proposals, tendering, demonstrations, presentation, evaluation analysis, and award contract: Study, design, development and co-ordination done.
4. Network based endpoint antivirus system: Requirement study, RFP proposal development, Technical specification development and co-ordination in technical specification committee, tender document preparations, demonstration and evaluation analysis through evaluation committee co-ordination, draft of award contract, and implementation plan and execution.
5. Facility Management for Wireless Networking: System requirement, contract development, implementation of support systems and call centers for student support.
6. Web portal RFP proposal development in consultation with all departments and centres at AIIMS.
7. Proposal for DHCP and authentication systems for wired network.
8. New webmail system testing and installation done.
9. Unified Treat Management system version upgradation and installation done for security of computer networks.
10. User room upgradation done with new personal computer and internet for students and doctors.
11. Conducted website content provider meetings with all departments for continuous updating and upgradation of the AIIMS website and its updating policies.

12. Based on meetings of content providers the Web portal RFP proposal is under development in consultation with all the department and centres.
13. Successfully implemented the 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 946 students have availed this facility and during the next year all the students at hostels will be enrolled for this facility.

#### **Details of wireless connection users (course-wise) up to March 2010**

Course	Number
1. BSc	52
2. DM	8
3. Junior residents	189
4. MCh	8
5. MSc	77
6. MB,BS	206
7. MD	31
8. MS	8
9. PhD	170
10. Director office, DDA, Computer facility	20
11. Senior residents	177
<b>Total</b>	<b>946</b>

#### **Details of wireless connection users (location-wise) up to March 2009**

Location	Number
Number 1	31
Number 2	33
Number 3	41
Number 4	38
Number 5	36
Number 6	54
Number 7	107
Number 8	94
Number 9	61
Number 10	54
Number 11	14
RPC-1	48
RPC-2	21
F-type	15
Faculty transit accommodation	24
Type III, Ayurvigyan Nagar	59
Computer facility	11
Masjid Moth Resident doctors	145
Masjid Moth Nurses	60
<b>Total</b>	<b>946</b>

14. Co-ordination of the training program for concerned staff and officers on the Indian Government tenders information system for online tender information of AIIMS.
15. Implementing Wi-Fi zone at B.B. Dikshit Library for internet and online journal access for students
16. Networking requirements study for Brain Lab, Neurosciences facility
17. Networking requirements study for ADMIN, Radiology new OPD
18. Continuation of UTM based perimeter network security and webmail facility.
19. The website of *www.aiims.edu*, *www.aiims.ac.in* are being maintained in-house by the facility.
20. Internet facility for faculty and students was maintained 24x7x365 days on the AIIMS network at around 2400 nodes
21. Full commissioning of 45 Mbps (1:2) leased line with Radio link backup facility from Education and research network (ERNET India, Ministry of information and communication technology, GOI)
22. Creation and maintenance of users accounts for 700 aiims.ac.in domain email users.
23. The total number of visitors to AIIMS website were approx. 24 lakhs during 2009–10.
24. Maintenance of Web server, Proxy server, Messaging server 24x7x365 days.
25. Provision of new internet connections to faculty and officers on regular basis.
26. Facility management and call maintenance for internet and network users complaints and resolution.
27. The software modules for the website are developed in house. Some of the modules developed were: Design, Development and Modifications in the entrance exam's online information system.
28. Technical co-ordination for online journal access and provision of journal access using internet and PC at the Duty rooms and common rooms for scholars and senior/junior residents.

### **Details of Pages Updated and Created on AIIMS Webstie**

Details	No. of pages
Total under departments and centres	600
Conferences, workshops, lectures and orations	250
Recruitment for faculty and other posts	40
Admission notices, results and others under 'Current events'	650
Director's speech, Members of Institute body and other committees	41
RTI information, notices, health information, hostel, central facilities, etc.	210
Administration, Academic, About AIIMS, Annual report, etc.	1092
Total	2883

### Other web-based activities

Data uploaded on Exam server	130 MB (approx)
Number of email users at aiims.ac.in	665
Number of tenders uploaded on <a href="http://tenders.gov.in">http://tenders.gov.in</a> website	1,080
Number of virus mails detected	40,932
Number of valid mails	16,84,668
Number of spam mails detected and filtered	1,06,31,748
Total data transferred	3 TB approx.
Number of internet nodes	2400 approx

### Other facilities

The following were maintained during the year:

1. Email and FTP facility
2. Medical and educational information access facility
3. Laser printing and scanning
4. Consultancy for software and hardware

### PUBLICATIONS

Pathni RK, Satpathy S, **Kailash S.** Need for tele-follow-up: A study at a public sector quaternary referral hospital in India. *J Telemedicine Telecare* 2009;15:255–9.

### SIGNIFICANT EVENTS

**Mr S. Kailash** was nominated by the Ministry of Communication and Information Technology, Government of India to attend a meeting of Project Review and Steering Group (PRSG) for Projects ‘Development of Framework for Logging and Analysis of Network Traffic for Securing Network Infrastructure at Assam, Gauhati and Manipur Universities; Co-Chairman, Scientific session on HMIS, Meta Analysis and Bayesian Statistics, 27th Annual National Conference of ISMS, Varanasi, 27–29 November 2009; Course coordinator for MSc and MD Biophysics teaching programme for Numerical Analysis, Mathematics and Computer software; Project Leader for system study, analysis, design, software development, and implementation of software for Main Hospital, BRA IRCH, CN, CT Centre, CDER and RP Centre;

**Mr Satish Prasad** was the Database administrator of the Administrative Local Area Network (Netware server) which caters to Administration and Finance having more than 70 nodes; Course Coordinator and teaching faculty of MSc, BSc and Post-certificate Information Technology classes of Nursing College; Took classes of MS Office and Internet for Disaster Management course of Indian Red Cross Society (Master course affiliated to I.P. University); Presented paper: ‘Internet based information on biology of cancer stem cells’, 29th Annual Convention of Indian Association for Cancer Research and Symposium on Biology of Cancer Stem Cells, Cancer Institute, Amrita Institute of Medical Sciences and Research, Kochi, 20–23 February 2010.

**Mr Vinay Pande** took classes of MBiotech, MSc, BSc Computer Science and Medical Informatics; maintained software for AIIMS Finance and Administration and electronic filing of AIIMS tax, Analyzed, designed, developed and implemented the software for pay fixation of AIIMS faculty as per the 6th Pay Commissions' recommendations; Paper accepted for presentation: 'Cyber security: From petty cyber crimes to cyber terrorism, and the Indian cyber security scenario', NCNIS-2010, SMIT, Sikkim; took classes of IT in Disaster Management and Cyber Terrorism for course of Indian Red Cross Society (Masters course affiliated to I.P. University); Continued as national Treasurer of Indian Association of Medical Informatics-IAMI (2008-09).

**Mr S.K. Meher** coordinated and conducted twice the computerized online counseling for PG MD/MS/MDS and the selection of Junior Residence (non Academic) for the year 2009-10; Presented paper at APAMI 2009 (CoMHI 2009), Hiroshima, Japan, November 2009, received scholarship for presenting the paper; invited lecture on 'DBMS', ICMR workshop: Introduction to Bioinformatics; attended 12th International Conference on Information Technology, Bhubaneswar, December 2009; attended National *Conference on Human computer interaction* and Image Processing (NCHIP '10), *Vidya* Academy of Science and Technology, *Thrissur, Kerala*, March 2010; attended New strategies from HP experts on how to maximize data center performance, reduce data center operational costs for a leaner, greener data center, HP Medical Archive solution, Intel Nehalem Processor presentation by HP in New Delhi; Dell server with embedded management, scalable storage system, New Delhi; MySQL delivers. Without sacrificing performance, scalability or essential functionality by SCO; Convention on Computing for Nation Development, CSI, New Delhi; Symposium on 'Cloud Computing', CSI, New Delhi; Symposium on 'Green Computing', CSI, New Delhi.

**Mr Sanjay Gupta** attended 12th International Conference on Information Technology, Bhubaneswar, 19-24 December 2009; attended National *Conference on Human computer interaction* and Image Processing (NCHIP '10), *Vidya* Academy of Science and Technology, *Thrissur, Kerala*, 18-19 March 2010.

**Ms Tripta Sharma** developed Software for two international microbiology research projects: (i) Influenza Disease Burden in Rural India and (ii) Direct and Indirect Protection from Influenza Vaccine.



## 11.6 Electron Microscope Facility

### Officer-in-charge

Shashi Wadhwa

### Associate Professor

Taposh K. Das

T.C. Nag

### Technical Officer

Rajesh Pathania

### Technical Assistant

Mr Sandeep Arya

### EDUCATION

1. Sixteen MSc (P) Biosciences students from Jamia Millia Islamia, New Delhi visited EM laboratory on 21 November 2009.
2. Twelve students and their teacher from Navyug School, Laxmi Bai Nagar, New Delhi, visited EM laboratory on 2 February 2010.
3. One WHO fellow from Burma visited EM laboratory, 1–8 April 2009.
4. A training programme on Scanning electron microscopy (SEM) and Transmission electron microscopy (TEM) was conducted for 15 MTech (Nanotechnology) and MSc (Nanoscience) students of Amity Institute of Nanotechnology, Amity Campus, Noida, 2–6 March 2010.
5. Six PG Anatomy students attended the EM course, 15 January–19 February 2010 (only on Fridays).
6. Sixteen MBiotech students of the Department of Biotechnology, AIIMS, received 2 weeks training, 17–28 August 2009.
7. One MSc student of Department of Biotechnology, Cochin University of Science and Technology, Cochin was given short-term training in EM for 2 months (May–June 2009).
8. One BTech second year student from Thapar University, Patiala was given short-term training in EM, 5 June–16 July 2009.

### Continuing Medical Education

1. The 25th National Training Programme in Electron Microscopy for Scientific Investigators was held from 26 October to 7 November 2009. Seventeen candidates from different parts of the country participated in this training programme.

In all, 14 lectures were delivered by Prof Shashi Wadhwa, Dr Taposh K. Das and Dr T.C. Nag to the participants of the above courses.

## RESEARCH

### *Funded projects*

#### *Ongoing*

1. Mechanism of Müller glial activation in aging human retina. T. C. Nag. Funded by AIIMS for 2 years (2008–10). Funds: Rs 2 lakhs.
2. To study the regional differences in amyloid beta induced microglia activation *in vivo*. Taposh K. Das. Funded by AIIMS for 1 year (2009–10). Funds: Rs 1 lakh.

### *Departmental projects*

#### *Ongoing*

1. Effect of amyloid-beta on the morphology and protein profile of the rat hippocampus. Taposh K. Das.
2. Role of oxidative stress in fluorosis. Taposh K. Das.
3. Microtubule changes in aging human photoreceptors. T. C. Nag.

### *Collaborative projects*

#### *Ongoing*

1. Development of a potential biopolymer to serve as an alternative substrate of human amniotic membrane for *ex-vivo* expansion of corneal epithelial stem cells (with Stem Cell Facility) T. C. Nag.
2. Phenotypic, molecular and ultrastructural studies of coagulase negative *Staphylococcus* sp. and their biofilm in device-related infections (with RP Centre). T. C. Nag.
3. Studies on pharmacological and molecular mechanisms to investigate an angiotensin type I receptor blocker Irbesartan in experimental model of ischaemia–reperfusion injury (with Pharmacology). T. C. Nag.
4. Cardioprotective mechanism of telmisartan in experimental model of myocardial infarction in streptozotocin-induced diabetic rats (with Pharmacology). T. C. Nag.

## PUBLICATIONS

### *Journals*

1. Halder N, Joshi S, Nag TC, Tandon R, Gupta SK. Ocimum sanctum extracts attenuate hydrogen peroxide induced cytotoxic ultrastructural changes in human lens epithelial cells. *Phytotherapy Res* 2009;23:1734–7.
2. Goyal S, Arora S, Mittal R, Joshi S, Nag TC, Ray R, *et al*. Myocardial salvaging effect of telmisartan in experimental model of myocardial infarction. *Eur J Pharmacol* 2009;619:75–84.
3. Nag TC, Wadhwa S. Observations on the synaptic ribbon morphology in retinas of two human subjects at autopsy. *Ann Anat* 2009;191:556–62.
4. Tanwar V, Sachdeva J, Kishore K, Mittal R, Nag TC, Ray R, *et al*. Dose-dependent actions of curcumin in experimentally induced myocardial necrosis: a biochemical, histopathological, and electron microscopic evidence. *Cell Biochem Funct* 2010;28:74–82.

5. Tanwar M, Sihota R, Dada T, Gupta V, Das TK, Yadav U, *et al.* Sturge-Weber syndrome with congenital glaucoma and cytochrome P450 (CYP1B1) gene mutations. *J Glaucoma* 2009 (Epub ahead of print).
6. Singh P, Suman S, Chandna S, Das TK. Possible role of amyloid-beta, adenine nucleotide translocase and cyclophilin-D interaction in mitochondrial dysfunction of Alzheimer's disease. *Bioinformation* 2009;3:440–5.
7. Tanwar M, Dada T, Sihota R, Das TK, Yadav U, Daeda R. Mutation spectrum of CYP1B1 in north Indian congenital glaucoma patients. *Mol Vis* 2009;15:1200–9.
8. Rai S, Aggarwal KK, Mitra B, Das TK, Babu CR. Purification, characterization and immunolocalization of a novel protease inhibitor from hemolymph of tasar silkworm, *Antheraea mylitta*. *Peptides* 2010;31:474–81.
9. Sansanwal P, Shukla AA, Das TK, Chauhan SS. Truncated human cathepsin L. encoded by a novel splice variant, exhibits altered subcellular localization and cytotoxicity. *Protein Pept Lett* 2010;17:238–45.

## PATIENT CARE

### Special laboratory facilities

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

Facility	Users (n)		Specimens analysed	
	Internal	External	Internal	External
Transmission electron microscope	170	376	751	1601
Scanning electron microscope	42	204	229	1152
Immuno-electron microscope	6	32	11	68
Elemental analysis (EDAX)	5	42	21	49

## AWARDS, HONOURS AND SIGNIFICANT EVENTS

**Professor Shashi Wadhwa** was made a Fellow of the Electron Microscopy Society of India; delivered the 'Golden Jubilee Seminar Lecture', University of Burdwan, 16 November 2009; invited as chief guest at inaugural session of 23rd National Workshop on Scanning Electron Microscopy and delivered inaugural lecture at the University Science Instrumentation Centre, University of Burdwan, 17 November 2009; member of the Executive Committee of the Electron Microscope Society of India (EMSI).

**Dr Taposh K. Das** delivered lectures on 'Routine techniques in electron microscopy' and 'Advanced techniques in electron microscopy', TERI University, New Delhi, 29–30 April 2009; attended 1-day workshop on 'Imaging in nanoscale', IIT, Mumbai, 17 February 2010.

**Dr T. C. Nag** received travel award to attend IBRO-APRC Advanced School of Neurosciences, National Institute of Physiological Sciences, Okazaki, Japan, 15–26 February 2010 and received training on cryo-tomography and 3-D reconstructions of synapses from serial ultrathin sections; co-author of paper 'Ultrastructural studies of airway remodeling in an experimental mouse allergic

asthma model' that received 'Hitachi best poster presentation award' under life sciences category at the International Conference on Advances in Electron Microscopy and related techniques and XXXI Annual Meeting of the EMSI, BARC, Mumbai, 8–10 March 2010; participated in International Conference on Advances in Electron Microscopy and Related Techniques, BARC, Mumbai, 8–10 March 2010.

## 11.7 Central Workshop

### Faculty Co-ordinator

**Shashi Kant**

### Chief Technical Officer

**Adarsh Kumar Sharma**

### Senior Technical Officer

**Kalu Ram**

### Technical Officers

**Swaraj Kumar**

**Harinder Pal**

**Nitin Srivastava**

The Central Workshop is mainly engaged in the repair and maintenance of instruments used for medical education, scientific research and hospital services. There are various branches looking after the above mentioned areas. Each section is headed by a technical officer with supporting staff. In spite of increased load of above-mentioned activities, it has also continued to cater for fabrication and design of new instruments. It has the following sections:

1. Electronic
2. Electrical
3. Refrigeration
4. Mechanical
5. Fine instrument
6. Carpentry
7. Painting

### STAFF STRENGTH

The Central Workshop has the following staff:

Technician (Grade I)	7	Store Clerk (UDC)	1
Technician (Grade II)	6	Assistant (NS)	1
Workshop Assistant (Painter)	2	UDC	1
Workshop Assistant	7	Peon	1
Khalasi	6		

### FABRICATION AND GUIDANCE

The Central Workshop has been able to continue to help the research activities of the Institute by modification of instruments and fabrication of useful gadgets. In many cases it has been possible to design and fabricate items, that were previously bought from outside by departments, with locally available components. A total of 152 jobs of fabrication were carried out. Some of the important specialized fabrication jobs done for various departments include:

1. Operation stand (Department of Anatomy)
2. Filter plate (attachment of MRI machine) (Department of NMR)
3. Wet box (Perspex) (Department of Anatomy)
4. Metal dies (Centre for dental education and research)

5. Hip spica stand	(Department of Orthopaedics)
6. Camera stand	(Department of Anatomy)
7. Adjustable chin rest	(Department of Neurology)
8. Saline bottle carrier	(Department of CTVS)
9. Laparoscope cold knife	(Department of Surgery)
10. Pelvitrainer	(Department of Obstetrics and Gynaecology)
11. Prospex stand	(Director's office)
12. Moist chamber	(Department of Pathology)
13. T piece	(Institute Rotary Cancer Hospital)
14. Stilette	(Institute Rotary Cancer Hospital, New Emergency ward and Department of CTVS)
15. Motor shaft	(RP Centre for Ophthalmic Sciences)
16. Hallo pin	(Department of Orthopaedics)
17. Metallic stand	(Department of Pathology)
18. Acrylic chamber	(Institute Rotary Cancer Hospital)
19. Tripod stand	(Department of Anatomy)
20. Guide screw wire	(Centre for dental education and research)
21. Stroke machine	(Centre for dental education and research)
22. Top of hammer in teflon	(Department of Orthopaedics)
23. Testicle balls (prosthesis)	(Department of Paediatric Surgery)
24. Sample tray/specimen carrying tray	(Department of Paediatric Surgery)
25. Ampoule cutter	(Multiple departments)
26. Paediatric rolls	(Main operation theatre 6 and 7)
27. Operation theatre mattress	(MTP operation theatre)
28. Hand rest stand for arthroscopy	(Orthopaedic operation theatre)
29. Cushion for settee	(CNC blood bank)

## **REPAIR AND MAINTENANCE**

The Central Workshop has carried out repair and maintenance of all types of biomedical equipment including blood pressure instruments, electrosurgical units, ECG machines, infusion pumps, multiparameter monitors, defibrillators, patient warmers, operation theatre tables, refrigerators, ice machine, cold labs, water chillers, cryostats, deep freezers, UV spectrophotometer, electronic weighing machines, audiometer, ultrasound therapy unit, operation theatre light, tissue processor, cold centrifuge, microscope, needle destroyer, water bath, X-ray view box, OT care machine, suction machine, oxygen regulator flowmeter, servo stabilizer, boilers, hot plates, tabletop centrifuge, microwave ovens, incubators, patient bed, patient trolley, loading trolley, intravenous stands, wheel chair, side screen, bedside locker, push carts, stainless steel drum, surgical instruments, etc.

The Central Workshop has also economically and successfully repaired many electronic types of equipments declared irreparable by the manufacturing companies. These include patient monitors, defibrillators, infusion pumps, patient warmers, etc.

The Central Workshop has also undertaken repair and painting jobs of all hospital furniture such as patient beds, patient lockers, intravenous stands, instruments trolleys, loading trolleys, fowler beds, etc. During 2009–10, the Central Workshop attended to a total of 5,830 repair jobs.

### **SHORT-TERM TRAINING**

The Central Workshop has been actively involved in providing guidance and imparting short-term summer training (4–6 weeks) to sixteen BTech students from Dronacharya College of Engineering, Gurgaon and Career Institute of Technology and Management, Faridabad.



## 11.8 Hostel Section

### Superintendent of Hostels

H.H. Dash

### Deputy Superintendent of Hostels

S. K. Khandelwal  
L.R. Murmu  
C. Venkatarthikeyan

M. V. Padma  
Buddhadev Choudhary  
Nirmal Kalra  
Rachel Andrews

### Administrative Officer

Ravi Chauhan

### Senior Warden

S. P. Pandey

### Warden

Mohan Sharma

Remani Thomas

### Deputy Wardens

Seema Pruthi

Sat Prakash Kalia

### Assistant Wardens

Suchita Kumari  
Rani Varghese

Sukhpal Mallick  
Triptha Sharma

### Junior Wardens

Babu Lal Meena  
Nirmala  
Sunil Devi

Dinesh Desai  
Rajesh Rawat

### Ministerial Staff

Neelam Rani  
Assistant (NS)  
Sudhir Thakur  
LDC

D. Poongothai  
LDC

Vimal Thakral  
UDC  
Veena Bhatia  
LDC

### Subordinate Staff

Eleven women and men office attendants each are posted in the hostel section.

There are several halls of residents with a capacity of 1217 (approx.) single/double rooms and 175 married residences and 396 residences for nursing students/staff nurses. These are spread over different hostels and residences in the Main campus, Masjid Moth, Ayurvigyan Nagar, Faculty Transit Accommodation Hostel and Jai Prakash Narain Apex Trauma Centre Hostel (Raj Nagar).

## RESIDENCES

Sl. No.	Hostel	Location	Single room	Double/Three/Four/Five seater	Guest rooms capacity (with 2 beds)	Total
<b>Gents hostel</b>						
1.	I (Charak)	Main Campus	62	3	–	68
2.	II (Jivak)	Main Campus	55	2	1	60
3.	III (Sushruta)	Main Campus	70	6	1	83
4.	IV (Madhava)	Main Campus	52	7	–	66
5.	V (Nagarjuna)	Main Campus	52	5	–	62
6.	VI (Vagbhatta)	Main Campus	69	7	–	83
7.	VII (Ashwini)	Main Campus	110	2	1	113
8.	VIII (Bharadwaj)	Main Campus	108	1	1	111
9.	RPC-I (Dhanwantri)	Main Campus	72	–	1	73
10.	MMRDH (Single)	Masjid Moth	154	–	6	160
11.	JPNATC	Raj Nagar	56	–	2	58
12.	NNH	Masjid Moth	160	94+4+0+0	2	396
	Staff nurses		34			
				<b>Total</b>		<b>1,333</b>
<b>Ladies Hostels</b>						
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	1	47
4.	Ladies Hostel XI	Main Campus	–	15+0+0+0	–	30
				<b>Total</b>		<b>280</b>
<b>Married Quarters</b>						
1.	F type	Ansari Nagar West	–	9 (two seater)	–	17
2.	MMRDH	Masjid Moth	42	–	–	42
3.	A.V. Nagar	A.V.Nagar	80	–	–	80
4.	FTA	A.V.Nagar	29	–	–	29
5.	JPNATC	Raj Nagar	7	–	–	7
				<b>Total</b>		<b>176</b>
				<b>Grand Total</b>		<b>1,788</b>

## SIGNIFICANT EVENTS

1. Installation of reverse osmosis system in hostel nos. IX, X and XI.
2. Renovation of store in hostel no. II, renovation of mess in hostel no. VII, and renovation of lavatories in hostel no. IX, renovation of first floor co-operative mess in hostel no. IV.
3. Renovation of attached bathrooms from third floor in New Nurses Hostel, Masjid Moth.
4. Replacement of two lifts in Resident Doctor's Hostel in Masjid Moth.
5. Replacement of two lifts in New Nurses Hostel in Masjid Moth.
6. Allotment status and update waiting list of hostels installed on AIIMS website.
7. All the computers of hostel section have been connected through LAN/networking.

## **FUTURE PLANS**

1. Construction of new hostel with modern amenities to accommodate 1000 students and resident doctors.
2. Installation of air conditioners in hostel section or to shift the office to another building with proper roof as the existing office has a tin roof.

## 11.9 Institution Ethics Committee

### Chairperson

J. P. Wali

### Member-Secretary

Renu Saxena

### Ethics Committee Members

The members were:

1. Professor J.P. Wali, New Delhi, Chairman
2. Professor Rani Kumar, Dean, AIIMS, Member
3. Professor Suneeta Mittal, Head, Department of Obstetrics and Gynaecology, Member
4. Professor Y.K. Gupta, Head, Department of Pharmacology, Member
5. Justice S.R. Singh, New Delhi, Member
6. Dr Ganga Prasad Vimal, New Delhi, Member
7. Dr Vijay Kumar, Indian Council of Medical Research, New Delhi, Member
8. Dr Sushma Yadav, Professor, Dr B.R. Ambedkar Chair in Social Justice, Indian Institute of Public Administration, New Delhi, Member
9. Dr Peush Sahni, Editor, The National Medical Journal of India, AIIMS, Member
10. Professor Renu Saxena, Head, Department of Hematology, Member-Secretary

Special invitees: Dr Sunil Chumber, Dr Ravindar Kumar Batra and Dr A. B. Dey

An **Institution Ethics Sub-Committee** was formed in July 2008 to assist the **Institution Ethics Committee** in evaluation of ethical issues of DM/MCh/PhD/MD/MS/MDS/MHA/MBiotech/MSc thesis/dissertation. Its members were:

1. Professor Ravinder Kumar Batra, Department of Anaesthesiology, AIIMS, Chairman
2. Professor Renu Saxena, Head, Department of Haematology, AIIMS, Convenor
3. Professor Kamal Kishore, Department of Pharmacology, AIIMS, Member
4. Dr Kalpana Luthra, Associate Professor, Department of Biochemistry, AIIMS, Member
5. Professor Arvind Bagga, Department of Paediatrics, AIIMS, Member
6. Professor Ashok Kumar, Department of Obstetrics and Gynaecology, Maulana Azad Medical College, New Delhi, Member
7. Dr Vineet Ahuja, Associate Professor, Department of Gastroenterology, AIIMS, Member
8. Professor Praveen Aggarwal, Department of Emergency Medicine, AIIMS, Member

9. Dr Raju Sharma, Additional Professor, Department of Radiodiagnosis, AIIMS, Member
10. Dr Pradeep Venkatesh, Associate Professor, Dr R. P. Centre for Ophthalmic Sciences, AIIMS, Member
11. Dr Rajinder Parshad, Additional Professor, Department of Surgery, AIIMS, Member
12. Professor Shashi Kant, Centre for Community Medicine, AIIMS, Member
13. Dr Rakesh Yadav, Associate Professor, Department of Cardiology, AIIMS, Member
14. Dr Rakesh Mahajan, Senior Vascular Surgeon, Apollo Hospital, New Delhi, Member
15. Dr Sanjay Thulkar, Associate Professor, Department of Radiodiagnosis, Dr BRA IRCH, AIIMS, Member
16. Dr Sunil Chumber, Sub-Dean (Academic), AIIMS, Member-Secretary

## **EDUCATION**

### **Continuing Medical Education**

Two Workshops on ‘How to plan a research project and write a protocol’ were held for DM/MCh/PhD/MD/MS/MDS/MHA/MBiotech/MSc students.

#### *Lectures delivered*

##### **Dr Renu Saxena**

- Ethics in Medical Research, Symposium on Bioethics, Indian Council of Medical Research, New Delhi.
- Ethics in Human Research, Workshop on Designing Clinical Research, Clinical Epidemiology Unit (CEU), AIIMS, 23–24 January 2010.
- Role of ethics in governance: A case of AIIMS, National Seminar on Ethical Dimensions of Governance, India International Centre, New Delhi, 15–16 February 2010.
- Selection of topic and guide, Workshop on How to Plan a Research Project and Write a Protocol, AIIMS, 29 August 2009.

##### **Dr Ravinder Kumar Batra**

- Protocol, research and Thesis, CME on Bedside Teaching, Research Methods and Evaluation for Consultants, AIIMS, New Delhi, 27–28 June 2009.
- Protocol, research and Thesis, CME on Bedside Teaching, Research Methods and Evaluation for Consultants, Southern Railway Headquarter Hospital, Perumber, Chennai, 18–19 July 2009.
- Protocol, research and Thesis, CME on Bedside Teaching, Research Methods and Evaluation for Consultants, Command Hospital Air Force, Bangalore, 25–26 July 2009.
- Ethical issues in clinical research, National Clinical Research Training Course, Clinical Research Training Centre, AIIMS, New Delhi, 25 August 2009.
- ‘How to write protocol, do research including ethics and write thesis’ for DNB candidates, AIIMS, New Delhi, 8 November 2009.

The other talks delivered by the ethics committee members at AIIMS on 29 August 2009 were as follows:

- |  |                      |
|--|----------------------|
| 1. Introduction and need for this workshop                         | Dr R. C. Deka        |
| 2. Purpose and process of thesis                                   | Dr Ravinder K. Batra |
| 3. Study design and types of study                                 | Dr Kalpana Luthra    |
| 4. Presentation, review of the protocol and ethical considerations | Dr Sunil Chumber     |
| 5. Submission of the protocol                                      | Dr Ravinder K. Batra |

### Short term training

Three months training in ‘Ethics in Research’ was provided to one student.

The number of meetings of ethics committee held were as follows:

Institution Ethics Sub-Committee for Thesis and Dissertation	12
Institution Ethics Committee	11

Number of projects reviewed by the Institution Ethics Committee and Institution Ethics Sub Committee

**New:** 319

**Old:** 178

**Progress report:** 15

**Completion report:** 10

**Thesis:** 299

In addition the ethics committee continued to receive notification of serious adverse reactions, six monthly progress report and completion report, etc.

The Institutional Ethics committee Standard Operating Procedures (SOPs) were modified as per need and made available on the AIIMS website

### SIGNIFICANT EVENTS

**Dr Ravinder K. Batra** was faculty facilitator in National Conference on Health Professional’s Education, Good Teaching Practices: Sharing Best Practice in Teaching, Learning and Assessment, Pune, 10–13 December 2009; also attended the Workshop on Biomedical Communication and Medical Ethics; Expert Group member, Thesis Review Committee and Examination Ethics Committee, National Board of Examinations, Ministry of Health, Government of India.

## 12.1 Finance Division

### Senior Financial Advisor

Sandeep Lall

### Financial Advisor

Basanti Dalal

### F&CAO

Sunil Kumar

### Account Officers

Bhom Singh  
N.D. Sharma  
M.K. Bhatt  
S.S. Yadav

S.K. Gupta  
M.S. Negi  
R.K. Sharma

S. Khurana  
M.J. Radjan  
D.P. Gangal

The Institute gets grants under the Heads 'Plan' and 'Non-Plan' from the Government of India, Ministry of Health and Family Welfare. In addition, Plan grants are received for National Drug Dependence Treatment, VVIP care and College of Nursing, etc. 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 Superspecialities Centres/Departments/Research Projects as per their projections/ requirements.

Finance Division of the Institute monitor/control the expenditure against the above funds/budget by obtaining monthly expenditure from the respective centers/units/departments and also administers day to day financial matters, payment of salaries to faculty and staff, payment of personal claims, pension and GPF in respect of the employees of the Institute. At the time of making the payment, all the checks which have been prescribed by the Government of India are being exercised by the respective DDOs. Apart from this Finance Division do the internal audit.

All the above works are executed by the Financial Advisor, Finance and Chief Accounts Officers (F&CAOs)/Accounts Officer under the overall control of Senior Financial Advisor.



**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**  
**BALANCE SHEET AS ON 31.03.2010**

**AIIMS(Main) (A)**

<u>LIABILITIES</u>		<u>2009-10</u>	<u>2008-09</u>	<u>ASSETS</u>		<u>2009-10</u>	<u>2008-09</u>
<u>AIIMS(MAIN)</u>				<u>AIIMS(MAIN)</u>			
<u>1</u>	<u>BALANCE</u>			<u>1</u>			
a)	Amount due but not paid (Scheme Cell)	325606	44500	a)	CASH IN HAND Imprest (AIIMS CASHIER)	281524	246024
2	<u>CAPITAL GRANTS FROM GOVT. OF INDIA</u>			b)	Amount due but not paid (Scheme Cell)	325606	44500
i)	Upto 2008-2009	7673964850		2	<u>Cash at Bank</u>		
ii)	During 2009-10 (AIIMS)	1108500000		a)	(i) AIIMS (Main)	569420504	
iii)	Less on account of Machinery & Equipment condemned during 09-10	43758236			(ii) Unspent Balance of Specific Grants remained with AIIMS (Main)	265639973	835060477
iv)	Less Books weeded out during 2009-10	15598		b)	Scheme Cell	168733316	131137563
v)	Less on account of furniture condemned during 2009-10	2784255		3	GPF BANK ACCOUNT After correction of 2008-09	180803780	17231023
vi)	Less on account of vehicle condemned during 09-10	2027542		4	NPS Bank Account	111781410	23713651
vii)	Adjustment of 2008-09 (vehicle condemned)	224545	8734103764	5	Investment (Appendix-C)	2275611889	1870911889
3	Grant received from Ministry of Welfare for P.M.R.-ADIP Scheme	1218	1218	6	Silver Jubilee Fund	200000	200000
4	Centralised Accident and Trauma Services	29142	29142	7	Sundry Debtors Scheme Cell (Appendix-B)	3287461	3440306
5	Diabetes Control	420000	420000	8	Misc. Deposits (Appendix-E)	330986	330986
				9	Recoverable Advances Car	2536265	2535716

6	AIDS	2400000	2400000	2400000	ii) Motor Cycle-Scooter	1089163	970183
7	<u>NON-INSTITUTE SCHEMES</u> Unspent balance of grants received for specific purpose (APPENDIX-A)	437660749	358040749		iii) Bicycle	131031	129028
					iv) Computer Advance	3847234	3594493
					v) House Building Advance	15986718	18772400
8	Donated Vehicles Up to 2009-2010	3036507	3036507		10 Outside Recoveries		3955237
					11 Employee Insurance Scheme	598481	
9	Donated books Upto 2008-09	143673	143673		12 Furniture & Fixture (AIIMS) Upto 2008-2009	178089	
		8935	152608		During 2009-2010	2788245	
					Furniture condemned During 2009-2010	2784255	178089
10	Donations (Appendix-C)	10902514	10902514		13 Machinery & Equipment AIIMS (MAIN) Upto 2008-2009	3786530888	
					During 2009-2010	353380219	
					Equipment received during 2009-2010	630083782	
					Machinery Condemned during 2009-10	43758236	3786530888
12	Employees Insurance Schemes			1053941	B AIDS	820600	820600
13	Outside Recoveries	46884192			C NACO Machinery & Equipment purchased	1932605	1932605
14	Deposit Work Starford India	1589098	1589098		14 Advance Payments Material & Supply (Non-Plan) Upto 2008-2009	6874126	
					During 2009-2010	16023211	
					Less Material & Supply received During 2009-2010	12528481	6874126
						10368856	

(c)	Surekha Vishram Sadan	1985	1985		<b>B</b>	For Foreign purchase of Machinery & Equipment (PLAN)	
<b>15</b>	Security Deposits/ Earnest Money				a)	Upto 2008-2009	602464686
a)	Upto 2008-09	86269575			b)	During 2009-2010	473641302
b)	During 2009-10	41076843			c)	Less equipment received During 2009-2010	630083782
c)	Payment against receipts Upto 2008-09	33126289			<b>C</b>	Advance payment to P&AO for purchase of Building Material	446022206
d)	Payment against receipts of year 2009-10	2070000	92150129	86269575	a)	Upto 2008-2009	77768512
<b>16</b>	Caution Money				b)	During 2009-2010	4927237
a)	Upto 2008-09	1222133			c)	Less Adjustment in 2009-2010	47216521
b)	Receipts during 2009-10	57000	1279133	1222133	<b>D</b>	Temporary Contingent Advance	35479228
<b>17</b>	G.P.F. Account (Appendix F) After correction of 2008-09				a)	Upto 2008-2009	2864021
<b>18</b>	NPS (Appendix F)				b)	During 2009-2010	8257502
<b>19</b>	Pot Fund				c)	Adjustment during 2009-2010 of previous year	2580365
a)	i)Upto 2008-2009	1134058	2353997245	1800424488	<b>E</b>	Private Firms for stores	5883976
b)	ii)During 2009-10	421734	1555792	1134058	a)	Upto 2008-2009	2912705
<b>20</b>	N.A.C.O. Machinery & Equipment				b)	Less adjustment during 2009-2010	2340897
a)			1932605	1932605	<b>F</b>	Secretary, NDMC for AC plant for Administrative Block	6455784
<b>21</b>	Revolving funds				a)	Upto 2008-2009	730000
a)	Upto 2008-09	91613974			b)	Adjusted during 09-10	730000
b)	i) Receipt dg. 09-10	66966878			<b>G</b>	Secretary, NDMC for security for electric connection	670950
c)	ii) Expenditure dg. 09-10	51937651	106643201	91613974	<b>H</b>	P. & AO (for procurement of stores)	3650167
<b>22</b>	Post Partum Programme				a)	Upto 2008-09	2600000
a)	Upto 2008-09	87105			b)	During 2009-10	1638200
b)	Receipts during 2009-10	1200000	649830	87105	c)	Adjustment of advances made during 2009-10	4611967
c)	Expenditure during 2009-10	637275			<b>23</b>	V.V.I.P.	3650167
<b>23</b>	V.V.I.P.		1207055	1207055			

<b>24</b>	VVIP Care at Parliament House Annex Upto 09-10	7600	7600	<b>I</b>	Custom duty for Machinery & Equipment Upto 2008-09 8545721 Add during 2009-10 41566242	50111963	8545721
<b>26</b>	Cochelear Patient treatment A/c			<b>J</b>	For Books & Journals		
a)	Upto 2008-09	24025526		a)	Upto 08-09	30098044	
b)	Receipt dg. 09-10	30852600		b)	Add during 09-10	35878527	
c)	Expenditure dg. 09-10	16722000		c)	Adjustment of advance made during 09-10	1755842	30098044
	Expenditure against advance payment	11472000	26684126	<b>K</b>	For Cochelear Implant Patient Treatment A/c	64220729	
<b>27</b>	Janani Suraksha Yojana(JSY) A/c			a)	Upto 08-09	21388000	
a)	Receipt dg. 09-10	25000		b)	Add during 09-10	15453000	
b)	Expenditure dg. 09-10	-	25000	c)	Adjustment during 09-10	11472000	21388000
<b>28</b>	WHO-in-Country Fellowship A/c			<b>L</b>	M/s Shreve Cement Ltd. for purchase of cement for construction		
a)	Receipt dg. 09-10	1912000		a)	Upto 08-09	1503458	1503458
b)	Expenditure dg. 09-10	772729	1139271	b)	Adjustment during 09-10	1503458	0
				<b>M</b>	Central Public Works Department, SJHPD for Nallah	118000000	118000000
				<b>N</b>	Central Public Works Department, SJHPD for Dr.Hostel	1181250	1181250
				<b>O</b>	Central Public Works Department, SJHPD for construction of sub-station	5000000	5000000
				<b>P</b>	M/s Delhi Metro Rail Corporation	60842700	60842700
				<b>Q</b>	New Delhi Municipal Corporation for augmenting L.T-Line in Eastern & Western Campus	12755500	12755500
				<b>R</b>	New Delhi Municipal Corporation for HT Transformer and laying of cable	7463500	7463500
				<b>S</b>	Covering of Nallah	153383000	153383000

<b>T</b>	Central Public Works Department for Lift	14000000	14000000
<b>U</b>	Central Public Works Department for Surgical Ward	1711770	1711770
<b>V</b>	Caryair Equipment India Private limited for building construction	192602	192602
<b>W</b>	Indian Oil Corporation for Lubricant Diesel Oil		
a)	Upto 08-09	4974786	
b)	Add during 09-10	2920253	4974786
<b>X</b>	New Delhi Municipal Corporation for Building Construction		
a)	Upto 08-09	18723000	
b)	Add during 09-10	10600	18723000
<b>Y</b>	Upgrading Architectural cell of Engineering Services Department at AIIMS	45132	45132
<b>Z</b>	Chief Controller of Accounts (M/s Deepak Elect. Co.) for Electric works	190890	190890
<b>AA)</b>	Chief Controller of Accounts (M/s Sanico Ind.) for Electric works	98486	98486
<b>AB)</b>	Chief Controller of Accounts (M/s Surya Roshmi) for Electric works	266165	266165
<b>AC)</b>	M/s Blue Star Ltd. (for A/c works) for maintenance	1742488	1742488
<b>AD)</b>	M/s Blue Star Ltd. (for A/c works) for Const.	222853	222853
<b>AE)</b>	M/s Compton Greaves Ltd. (for Electric Works)	180807	180807
<b>AF)</b>	M/s Universal comfort (for A/c work)	1262512	1262512
<b>AG)</b>	M/s Carrier Air Conditioning (for A/c work)	2415422	2415422
<b>AH)</b>	Central Public Works Department (Civil Works)		
a)	Upto 08-09	1313000	

b)	Add during 09-10	1313000	-	1313000
AI)	M/s Videocon Ind. Ltd.(A/c work)		1083247	1083247
AJ)	M/s Voltas Ltd. for A/c work		859688	859688
AK)	Chief Controller of Accounts for purchase of stores		3343957	3343957
AL)	M/s Inderprastha for CNG Pipeline		10405000	10405000
AM)	Directorate General Supply & Disposal for A/c work		2976242	2976242
AN)	M/s LG Elect. Split A/c for A/c & Electric Work		1192355	1192355
AO)	Ex. Engg. SJH(CPWD) for sewage Treatment plant		11344542	11344542
AP)	M/s Hitachi flames for A/c work)		1032950	1032950
AQ)	M/s HSCC Ltd. for construction		1000000	
AR)	Justice Lokeshwar Pd. for Arbitration fee		22201	
AS)	Registrar, Guru Govind Singh Univ. for consultancy fee		18000	
<b>15</b>	<b>Books &amp; Publications</b>			
i)	Books & periodicals (purchased)			
a)	Upto 2008-2009	210680026		
b)	During 2009-2010	14302686		
c)	Less books weeded out during 2009-10	15598		
e)	Adjustment of advance made during 2007-08	1755842	226722956	210680026
ii)	Books donated			
a)	Upto 2008-2009	143673		
b)	During 2009-2010	8935	152608	143673
<b>16</b>	<b>Building Construction</b>			
	AIIMS (Main)			
a)	Upto 2008-2009	221018182		
b)	during 2009-2010	271476578		
c)	Add Adjustment during 09-10	47216521		
d)	Add Adjustment during 09-10	1313000		

e)	Add Adjustment during 09-10	1503458						
f)	Add Adjustment during 09-10	730000					2532421369	2210181812
<b>17</b>	<b>Advance Payment</b>							
i)	Indian Iron & Steel Company					572139		572139
ii)	Tata Iron & Steel Company					654154		654154
iii)	Hindustan Steel Limited					520295		520295
iv)	Indian Iron & Steel Company					594000		594000
<b>18</b>	<b>Land Account</b>							
	Upto 2009-10						112832263	112832263
<b>19</b>	<b>Vehicles</b>							
<b>A</b>	<b>Vehicle (purchased for AIIMS)</b>							
a)	Upto 2008-2009			31453773				
b)	During 2009-10							
i)	Transport Office			2293778				
ii)	Hospital Store							
c)	Less Vehicles condemned during 09-10			2027542				
d)	Adjustment of 2008-09			224545			31944554	31453773
<b>B</b>	<b>Vehicles donated for AIIMS</b>							
a)	Upto 2009-10					3036507		3036507
<b>22</b>	<b>Hospital receipts recoverable from outside patients</b>							
a)	Upto 2008-09			3342775				
b)	During 2009-10			5234861				
c)	Amount recovered during 2009-10			4282365			4295271	3342775
<b>23</b>	<b>Amount recoverable from the cashier</b>							
a)	Upto 2008-09			307426				
b)	During 2009-10			-				
c)	Recovery			-			307426	307426
<b>1</b>	<b>POOR PATIENT A/C</b>							
a)	AIIMS (Main)							
	Cash/Bank						1175983	1137133
<b>1</b>	<b>POOR PATIENT A/C</b>							
a)	AIIMS (Main)							
	Opening Balance							
i)	Cash/Bank							1137133



ii) FDR's	943112	b) FDR's	984180	943112
b) Receipts				i)
Grants	158815			iii)
FDR's	-			iv)
Interest on	41068			i)
FDR's	119965			ii)
Payments				
Closing Balance				
Cash/Bank	1175983			
FDR's	984180			
	1137133			
	943112			

**PATIENT/TREATMENT/ACCOUNTS**

AIIMS 49928749 37120305

**PATIENT/TREATMENT/ACCOUNTS**

<b>1</b> AIIMS				
a) Opening Balance	37120305			
b) Receipts				
(i) Grants	64246164			
(ii) Interest	1430530			
(iii) Payments	52856486			
(iv) Bank Charges	11764			
c) Closing Balance	49928749		37120305	

**HOSTELS**

i) Security Deposits				
Upto 2008-09	1603780			
ii) receipts during				
2009-10	1406500		18666	8991
less refunds	1070500		304695	202429
during 2009-10			3792601	3165924
	1939780			
	1603780			

**EXCESS OF INCOME OVER EXPENDITURE**

<b>1</b> AIIMS (Main)				
(i) Upto 2008-09	310470852			
(ii) During 2009-2010 (-)	6651060		310470852	
	303819792			

**HOSTEL**

<b>2</b> Upto 2008-09	1773564			
During 2009-10	402618		1773564	
<b>Sub-Total (A)</b>	12392749433		10517513462	
			12392749433	10517513462

**DR. RAJENDER PRASAD CENTRE FOR OPHTHALMIC SCIENCES(B)**

<b>1</b>	<b>Balances</b>	<b>1</b>	<b>CASH IN HAND</b>	<b>20000</b>	<b>20000</b>
	Amount due but not paid	-	Imprest		
<b>2</b>	<b>Capital Grant from Govt. of India</b>		Cash at Bank	57013488	32586560
a)	Upto 2008-2009	747423010			
b)	During 2009-2010	150000000			
c)	Furniture condemned during 2009-10	394900			
d)	Machinery & Equipment condemned During 2009-2010	31832025		134184	
e)	Vehicle condemned During 2009-2010	896357			
<b>3</b>	<b>NPCB as per last year Balance Sheet</b>	25629000		38284	50000
<b>4</b>	<b>Donated vehicle</b>	896357		1070945	1474385
<b>5</b>	<b>Vehicle purchase under DBCS/NPCB</b>	455574			
(i)	<b>Non-RPC Scheme</b>		Computer Advance		
a)	ICMR		Upto 2008-09	16500	
b)	Upto 2008-2009	1691799	Paid during 2009-10	60000	16500
c)	Received during 2009-2010	2512750	Recovered during 07-08	55500	
	Expenditure during 2009-2010	1183771			
(ii)	<b>USP</b>				
a)	Upto 2008-2009	2604119			
b)	received during 2009-2010	34808			
c)	Expenditure during 2009-2010	2638927		683267103	608663187
(iii)	<b>Savers International</b>				
a)	Upto 2008-2009	529215		5872266	5872266
b)	received during 2009-2010	757333			
c)	Expenditure during 2009-2010	1120971		97518642	93698325
(iv)	<b>DST Evaluation Tear Fluid Surgeries</b>			7002852	7002852

a)	Upto 2008-2009 received during 2009-2010	417077				8	ICMR (M&E)	605150	605150
b)	Expenditure during 2009-2010	417077	0	417077		9	Vehicles		
c)						i)	RPC Vehicle	3178768	
(v)	Indeve	3559				ii)	Vehicle purchase during 09-10	700132	3178768
a)	Upto 2008-2009 received during 2009-2010	-				iii)	Vehicles Condemned	896357	2982543
b)	Expenditure during 2009-2010	3559	3559	3559		b)	Donated Vehicles		
c)						ii)	Upto 2009-10	1351931	
(vi)	<u>ORBIS PECP</u>						Vehicle purchased under NRCB	1351931	1351931
a)	Upto 2008-2009 received during 2009-2010	73452				10	Furniture & Fixture		
b)	Expenditure during 2009-2010	-				i)	Upto 2008-09	2746234	
c)		30000	43452	73452		ii)	During 2009-10	447742	
(vii)	<u>Collabrative Study DES</u>					iii)	Furniture condemned		
a)	Upto 2008-2009 received during 2009-2010	145323					During 2009-10	394900	2746234
b)	Expenditure during 2009-2010	-				11	Sundry debtors	76253	76253
c)		1453000	2323	145323		12	Advance Payment made to Foreign Purchase		
(ix)	<u>NAB</u>					i)	Upto 2008-09	50836792	
a)	Upto 2008-2009 received during 2009-2010	5567				ii)	Advance during 2009-10	80175188	
b)	Expenditure during 2009-2010	1260000	769713	5567		iii)	Machinery & Equipment received during 2009-10	50836792	50836792
c)		495854				13	<u>Material &amp; Supply</u>		
(x)	<u>LCIF</u>					i)	Upto 2008-09	2294114	
a)	Upto 2008-2009 received during 2009-2010	3044	3044	3044		ii)	Advance payment made to foreign purchase 2009-10	5652098	
b)	Expenditure during 2009-2010					iii)	Material received during 2009-10	4863409	2294114
c)								3082803	3082803
(xii)	<u>NPCB-SSU</u>								
a)	Upto 2008-2009 received during 2009-2010	35307	1930	35307					
b)	Expenditure during 2009-2010	114693	3044	3044					
c)		148070							
(xiv)	<u>DBT-MUTIONAL(M.A.)</u>								
a)	Upto 2008-2009 received during 2009-2010	226355							
b)	Expenditure during 2009-2010	717000							
c)									

	during 2009-2010	731507	211848	226355
(xv)	<u>MBDILLYLILLY</u>			
a)	Upto 2008-2009	54421		
b)	received during 2009-2010	38800		
c)	Expenditure during 2009-2010	61164	32057	54421
xvi)	<u>DOS-Training</u>			
a)	Upto 2008-2009	43300		
b)	received during 2009-2010	856700		
c)	Expenditure during 2009-2010	900000	0	43300
xvii)	<u>CSIR</u>			
a)	Upto 2008-2009	-		
b)	received during 2009-2010	2649412		
c)	Expenditure during 2009-2010	2649412	0	0
xviii)	<u>NIAF</u>			
a)	Upto 2008-2009	1192310		
b)	received during 2009-2010	65000		
c)	Expenditure during 2009-2010	22745	1234565	1192310
xix)	<u>CRP</u>			
a)	Upto 2008-2009	8194		
b)	received during 2009-2010	47000		
c)	Expenditure during 2009-2010	54000	1194	8194
xx)	<u>DBCS</u>			
a)	Upto 2008-2009	15		
b)	received during 2009-2010	310500		
c)	Expenditure during 2009-2010	297915	12600	15
xxii)	<u>Allargan International</u>			
a)	Upto 2008-2009			
b)	received during 2009-2010	-		
c)	Expenditure during 2009-2010	-	0	0
xxiii)	<u>Neema-International Pilot study</u>			

a)	Upto 2008-2009 received during 2009-2010	14343	-	14343	14343
b)	Expenditure during 2009-2010				
c)					
xxiv)	<u>Workshop</u>				
a)	Upto 2008-2009 received during 2009-2010	45044	8900	31600	45044
b)	Expenditure during 2009-2010	22344			
c)					
xxv)	<u>DST/DBT (Stem)</u>				
a)	Upto 2008-2009 received during 2009-2010			0	0
b)	Expenditure during 2009-2010				
c)					
xxvi)	<u>WHO Short term Training Programme</u>				
a)	Upto 2008-2009 received during 2009-2010	1191	-	1191	1191
b)	Expenditure during 2009-2010				
c)					
xxvii)	<u>Evaluation Study on glaucoma</u>				
a)	Upto 2008-2009 received during 2009-2010	5800	-	5800	5800
b)	Expenditure during 2009-2010				
c)					
xxviii)	<u>ORP-VISION2020</u>				
a)	Upto 2008-2009 received during 2009-2010			0	0
b)	Expenditure during 2009-2010				
c)					
xxix)	<u>Multifocal IOL</u>				
a)	Upto 2008-2009 received during 2009-2010	97236		4675	97236
b)	Expenditure during 2009-2010	92561			
c)					
xxx)	<u>DST(CYCLO)</u>				
a)	Upto 2008-2009 received during 2009-2010	22186	-		
b)	Expenditure during 2009-2010				
c)					

xxxii)	during 2009-2010				
a)	<u>Reliance/Clinical Research</u>				
b)	Upto 2008-2009	75519			22186
c)	received during 2009-2010	55419			
	Expenditure				
	during 2009-2010	56663	74275		75519
xxxiv)	<u>Clinical Evaluation B&amp;C (AM0)</u>				
a)	Upto 2008-2009	17213			
b)	received during 2009-2010	117600			
c)	Expenditure				
	during 2009-2010	134813	0		17213
xxxv)	<u>Cataract Surgery (NPCB)</u>				
	<u>NPCB Eye Camp</u>				
a)	Upto 2008-2009	202364			
b)	received during 2009-2010	160221			
c)	Expenditure				
	during 2009-2010	362585	0		202364
xxxvi)	<u>CGD In Primary Angle</u>				
	<u>Closure Glucoma</u>				
a)	received during 2008-2009	41445			
b)	During 2009-2010	-			
c)	Expenditure				
	during 2009-2010		41445		41445
xxxvii)	<u>FAME Study</u>				
a)	Upto 2008-2009	1526957			
b)	received during 2009-2010	1004730			
c)	Expenditure				
	during 2009-2010	1206297	1325390		1526957
xxxviii)	<u>CLINICAL STUDY ON KRECTRO</u>				
	<u>CONJECTIVITIS (Allergan India Ltd.)</u>				
a)	Upto 2008-2009				
b)	received during 2009-2010	45000			
c)	Expenditure				
	during 2009-2010	45000	0		0
xxxix)	<u>PDT-Visudone</u>				
a)	Upto 2008-2009				
b)	received during 2009-2010	5392			
c)	Expenditure				

	during 2009-2010	5392	5392
xii)	<u>AKROSOFT (BAUCH &amp; LOMB)</u>		
a)	Upto 2008-2009	798	
b)	received during 2009-2010	-	
c)	Expenditure during 2009-2010	798	798
	<u>DME</u>		
xlii)			
a)	Upto 2008-2009	367279	
b)	received during 2009-2010	1242106	
c)	Expenditure during 2009-2010	1221790	367279
	<u>WHO DSTG</u>		
xliii)	(SEIND/NCD 001 BB06)		
a)	Upto 2008-2009	12050	
b)	received during 2009-2010	-	
c)	Expenditure during 2009-2010	12050	12050
	<u>INMAS Humas Pharmacology</u>		
xliv)			
a)	Upto 2008-2009	265549	
b)	received during 2009-2010		
c)	Expenditure during 2009-2010	5549	265549
	<u>INMAS Biomedical Products</u>		
xlv)			
a)	Upto 2008-2009	455000	
b)	received during 2009-2010		
c)	Expenditure during 2009-2010	399958	455000
	<u>Lux-PRA International</u>		
xlvi)			
a)	Upto 2008-2009	3814	
b)	received during 2009-2010	173901	
c)	Expenditure during 2009-2010	47810	3814
	<u>Indigen (LSTM)</u>		
xlvii)			
a)	Upto 2008-2009	1108105	
b)	received during 2009-2010	939076	
c)	Expenditure	-	



xlvi)	during 2009-2010	1900437	146744	1108105
a)	WHO G.S.	15956		
b)	Upto 2008-2009 received during 2009-2010			
c)	Expenditure during 2009-2010		15956	15956
xlix)	<u>Pink Eye (Baush &amp; Lomb)</u>			
a)	Upto 2008-2009	119176		
b)	received during 2009-2010			
c)	Expenditure during 2009-2010	119176	0	119176
l)	<u>Evaluation Polyherbal (ozone)</u>			
a)	Upto 2008-2009	615		
b)	received during 2009-2010	107640		
c)	Expenditure during 2009-2010	108255	0	615
li)	<u>Evaluation on Polyherbal in AOD</u>			
a)	Upto 2008-2009	66029		
b)	received during 2009-2010	150000		
c)	Expenditure during 2009-2010	49477	166552	66029
l)	<u>Acute bacterial Conjenctivities</u>			
a)	Upto 2008-2009	203795		
b)	received during 2009-2010	39900		
c)	Expenditure during 2009-2010	188062	55633	203795
l)	<u>DNB Examination</u>			
a)	Upto 2008-2009	5000		
b)	received during 2009-2010			
c)	Expenditure during 2009-2010		5000	5000
l)	<u>ROP Workshop</u>			
a)	Upto 2008-2009	5290		
b)	received during 2009-2010	181532		
c)	Expenditure during 2009-2010	159203	27619	5290
l)	<u>PVD Study/VRI</u>			
a)	Upto 2008-2009	507622		

b)	received during 2009-2010	650450		
c)	Expenditure during 2009-2010	222014	936058	507622
d)	<u>Posudex Allergan Internation</u>			
a)	Upto 2008-2009	176285		
b)	received during 2009-2010	742476		
c)	Expenditure during 2009-2010	127919	790842	176285
d)	<u>ABN AMRO Natra Raksha</u>			
a)	Upto 2008-2009	92080		
b)	received during 2009-2010			
c)	Expenditure during 2009-2010	10000	82080	92080
d)	<u>Lux-201 Omnicare</u>			
a)	Upto 2008-2009	296630		
b)	received during 2009-2010	925207		
c)	Expenditure during 2009-2010	247237	974600	296630
d)	<u>AMD View II Study</u>			
a)	Upto 2008-2009	2313228		
b)	received during 2009-2010	8405422		
c)	Expenditure during 2009-2010	1175701	9542949	2313228
d)	<u>FTG</u>			
a)	Upto 2008-2009	244441		
b)	received during 2009-2010			
c)	Expenditure during 2009-2010	244441	0	0
d)	<u>High Precision Bio Analytical</u>			
a)	Upto 2008-2009	25000		
b)	received during 2009-2010	68810		
c)	Expenditure during 2009-2010		93810	25000
d)	<u>NCDR</u>			
a)	Upto 2008-2009	-		
b)	received during 2009-2010	25079		
c)	Expenditure			

d)	during 2009-2010	25079	0	0
a)	<u>RH</u>	-		
b)	Upto 2008-2009 received during 2009-2010	3200		
c)	Expenditure during 2009-2010	3200	0	0
d)	<u>Phase II age related macular degeneration</u>			
a)	Upto 2008-2009	-		
b)	received during 2009-2010	360000		
c)	Expenditure during 2009-2010	141273	218727	0
d)	<u>Bacterial Corneal Ulcer</u>			
a)	Upto 2008-2009	-		
b)	received during 2009-2010	108000		
c)	Expenditure during 2009-2010	3240	104760	0
d)	<u>Novartis Shield study</u>			
a)	Upto 2008-2009	-		
b)	received during 2009-2010	90000		
c)	Expenditure during 2009-2010	2700	87300	0
d)	<u>OEU</u>			
a)	Upto 2008-2009	-		
b)	received during 2009-2010	270000		
c)	Expenditure during 2009-2010	114670	155330	0
d)	<u>MK Media Corneal Transplant</u>			
a)	Upto 2008-2009	-		
b)	received during 2009-2010	1397660		
c)	Expenditure during 2009-2010	78944	1318716	0
d)	<u>Symposium Workshop</u>			
a)	Upto 2008-2009	-		
b)	received during 2009-2010	343000		
c)	Expenditure			

during 2009-2010	342200	800	0
d) ROP Macugen			
a) Upto 2008-2009	-		
b) received during 2009-2010	110000		
c) Expenditure during 2009-2010	107665	2335	0
<u>D</u> <u>DEGAS</u>			
a) Upto 2008-2009	-		
b) received during 2009-2010	888562		
c) Expenditure during 2009-2010	574926	313636	0
d) <u>Administrative Charges</u>			
a) Upto 2008-2009	-		
b) received during 2009-2010	735323		
c) Expenditure during 2009-2010	564725	170598	0
d) <u>Treatment of dry eye</u>			
a) Upto 2008-2009	-		
b) received during 2009-2010	75000		
c) Expenditure during 2009-2010	46600	28400	0
6 <u>Refund of Security Deposits</u>			
a) Upto 2008-2009	1651000		
b) received during 2009-2010	450000		
c) Expenditure during 2009-2010	30000	2071000	1651000
7 <u>A.I.I.M.S. Remittance</u>			
As per last year			
Remitted 2009-10	214290	214290	214290
<u>Outside Recoveries</u>			
Upto 2008-09			
Remitted 2009-10	11288	11288	11288
<u>Poor Patient A/c</u>			
1 Cash	116808		
2 Receipts			
i) Interest	5168		
ii) Donation	97181		
	<u>Poor Patient A/c</u>		
	Cash/Bank	104014	116808

iii)	Payments	115143	104014	116808
3	Closing Balance			

**EXCESS OF INCOME OVER EXPENDITURE**

a)	Upto 2008-2009	19065750		
b)	During 2009-2010	12165488		
c)	Mat. & Supply	4863409	26367829	19065750

<b>Sub-Total (B)</b>		943170222	810590125	810590125
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**EXCESS OF EXPENDITURE OVER INCOME**

1	Amount due but not paid (Cashier)			
i)	Office contingency	1000		
2	Capital Grant from Govt. of India			
ii)	Upto 2008-2009	3083195509		
	During 2009-2010	28000000		

iii)	Less Machinery Condemed	46154893		
ii)	Less Furniture Condemed	288520	3316752096	3083195509

3	Amount transfer from IRCH	1478400	1478400	
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4	Cost of the vehicle donated by Sai Bhakta Samaj	613384	613384	
5	CT Patient A/c Machinery & Equipment Transfer Sai Bhakta Samaj	49025000	49025000	

6	Neurology Patient A/c			
i)	Upto 2008-2009	17143584		
ii)	Receipt during 2009-2010	20965829		
iii)	Less refund/Exp. 2009-2010	16215915	21893498	17143584

7	Outside recoveries/ Institute Recovery			
i)	Upto 2008-2009	303187		
ii)	2009-2010 (-)	142	303045	303187

**CARDIO-THORACIC & NEURO SCIENCES CENTRE (C)**

1	Cash in hand			
a)	Imprest (CNC Cashier) 2009-2010	40000		40000
b)	Amount due but not paid	1000		4400

2	Cash at Bank		168444476	171281243
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3	Recoverable Advance			
a)	Computer	785350		318450
b)	Car	613864		705056
c)	Cycle	-		450
d)	Scooter	953820		985046
e)	House Building Advance	6601555		7102076

4	Mach. & Equip.			
i)	Upto 2008-2009	2328023369		
ii)	(-) Adj. S.O. No.100/38/CNC/ NP/08-09	191250		
iii)	(+) Adj. S.O. NO.100/45/CNC/ Card/07-08	2100000		
iv)	During 09-10	65339793		

v)	Mach. & Equip. Recd. Agt. Payment (+)	287888195		
vi)	(-) Mach. Condmdned	46154893	2637005214	2328023369

Machinery & Equipment Transfer

8	<u>Donations</u>						From CT Patient A/C		
i)	Upto 2008-2009	2619170					<u>Advance payment for</u>	49025000	49025000
ii)	Receipt during 2009-2010	-					<u>Foreign purchase</u>		
iii)	Less expenditure 2009-2010	258928	2360242	2619170			<u>Machinery &amp; Equipment</u>		
							Upto 2008-2009	245826444	
9	<u>Security Deposits</u>						(+)Adj. S.O. NO.100/38/ CNC/NP/08-09	191250	
i)	Upto 2008-2009	24589964					(-)Adj. S.O. No.100/45/CNC/ Card/07-08	2100000	
ii)	During 2009-2010	8335000					During 09-10	195803931	
iii)	Less refund	4910000	28014964	24589964			Less equip. recd. 09-10	287888195	245826444
10	<u>Thallium</u>								
i)	Upto 2008-2009	604028					<u>Building construction</u>		
ii)	During 2009-2010	1481250					Upto 2008-2009	223193840	
iii)	Less Expenditure 2009-2010	1311596	773682	604028			During 2009-2010	20297693	223193840
11	<u>Heart Transplant Donation</u>								
i)	Upto 2008-2009	274919					<u>Advance against works</u>		
ii)	During 2009-2010	-					<u>Amount due from</u>		
iii)	Less Expenditure 2009-2010		274919	274919			outside patients		
							Upto 2008-2009	1728361	
12	<u>Lab Test</u>						During 2009-2010	154105	
i)	Upto 2008-2009	3106495					Less amount Recd.	429921	1728361
ii)	During 2009-2010	5715905					<u>Vehicles</u>		
iii)	Less Expenditure 2009-2010	3073572	5748828	3106495			Ambulance ORBO	2025954	2025954
13	<u>Cardiac Test</u>								
i)	Upto 2008-2009	6607472					<u>Furniture &amp; Fixture</u>		
ii)	During 2009-2010	3974650					Upto 2008-09	669777	
iii)	Less Expenditure 2009-2010	4361997	6220125	6607472			During 2009-10	1629210	
							Furniture condemned	288520	669777
							<u>POOR PATIENT A/C</u>		
1	<u>N.S. Centre</u>								
a)	Cash/Bank	95562					N.S. CENTRE		
b)	Donations	23729					Cash/Bank	104900	95562
c)	Payments	14391							

d)	Closing Balance	104900	95562	
	<u>C.T.PATIENTA/C</u>			
	<u>ANGIOGRAPHYPATIENTA/C</u>			
	<u>C.T.PATIENTA/C</u>			
	1	Fixed Deposits	306900000	250000000
	2	Cash at Bank	19675665	16978464
	<u>ANGIOGRAPHYPATIENTA/C</u>			
	1	Cash recoverable from Sh. Dal Chand Verma, Cashier	3245441	3245441
	2	Fixed Deposits	74300000	50000000
	3	Cash in hand	13114110	32769115
	<u>GAMMAKNIFE PATIENTA/C</u>			
	1	Fixed Deposit	136800000	117500000
	2	Cash at Bank	27927424	21748291
	<u>NEUROSURGERYPATIENTA/C</u>			
	1	Fixed Deposits	31800000	32000000
	2	Cash at bank	3410417	3831850

**EXCESS OF INCOME OVER EXPENDITURE**

1	<b>C.N.C.</b>			
a)	Excess of income over expenditure(08-09)	15960716		
b)	Excess of expenditure Over income (2009-10)	10538929	5421787	15960716
2	<b>C.T. PATIENTA/C</b>			
i)	Upto 2008-09	266978464		
ii)	Add excess of income over expenditure 08-09	61501529		
iii)	Less fresh cheques issued against cancelled cheques	1904328	326575665	266978464



3	ANGIOGRAPHY PATIENT A/C										
i)	Upto 2008-09	86014556									
ii)	(-) Excess of income over expenditure 2009-10	5443714									
iii)	Less fresh cheques issued against cancelled cheques	798719	90659551	86014556							
4	GAMMA KNIFE PATIENT A/C										
i)	Upto 2008-2009	139248291									
ii)	during 2009-10	25479133									
iii)	Cancelled Cheque		164727424	139248291							
5	NEURO SURGERY PATIENT A/C										
i)	Upto 2008-09	35831850									
ii)	(-) Excess of expenditure over income 2009-10	397707									
iii)	Fresh Cheques	223726	35210417	35831850							
	<b>Sub-Total (C)</b>		4056158927	3733694951							3733694951
<b><u>Dr.B.R.A. INSTITUTE ROTARY CANCER HOSPITAL(D)</u></b>											
1	Capital Grant										
i)	Upto 2008-09	1315225483									
ii)	Add During 2009-10	90000000									
iii)	Correction for the year of 2008-09	30948296									
	Less : Condemnation of Furniture as per CSD/ Store Section										
	Letter No.1-4/2004-05/Budget Vol-VI	168180	1436005599	1315225483							
2	R. T. Revolving Fund										
i)	Upto 2008-2009	4938984									
ii)	Add during 2009-2010	3346830									
iii)	Less payment during 2009-10	765861	7519953	4938984							
3	Medical Oncology Fund										
i)	Upto 2008-2009	1358745									
ii)	Add during 2009-2010	634910	1993655	1358745							
	Computer Advance Upto 08-09										228020
	During 09-10										100000
	Less recoveries										42243
	Car/HBA/Scooter Advance Upto 08-09										145651
	During 09-10										168000
											228020
											285777
											10982296
											111476
											11093772
											10982296
											285777

(iii)	Less recoveries	51330	262321	145651
<b>5</b>	Mach. & Equip.			
a)	Upto 2008-2009	634234209		
b)	Add during 2009-10	35040522		
c)	Add. Adjustment of Advances(LCs) During 2009-10	277002634		
d)	Add Custom Duty adjusted During 2009-10	1952970		
e)	Correction for the year 08-09	18574917		
f)	Correction for the year 08-09	17454545	984259797	634234209
6	Advance Payments to foreign purchase for Machinery & Equipment			
a)	Upto 2008-09	334329950		
b)	Add during 2009-2010(+)	43688249		
c)	Less adjustment of advances (LCs) during 2009-10	277002634		
d)	Correction for the year 08-09	17776216		
e)	Correction for the year 08-09	17454545	65784804	334329950
8	Security Deposited NDMC as per Audit objection during 2004-05 vide objection under SAR advised vide Para No.2.6		2626000	2626000
9(i)	Building Construction Upto 2008-09		294456915	294456915
10	Vehicle			
a)	Upto 2008-2009	1909596		
b)	Less : Condemnation of Furniture as per CSD/Store Section Letter No.-1-4/2004-05/Budget Volume-VI	-		
		168180	1741416	1909596
11	Capital Works			
a)	Upto 2008-09	20862462		
b)	During 2009-10	4188937	25051399	20862462
12	Advance payment to Custom Duty & PDA Account			
(i)	Upto 2008-09	13350660		
(ii)	Add during 2009-10	3800000		
(iii)	Less Custom Duty adjust.			

1952970

15197690

13350660

during 2009-10  
POOR PATIENT A/C

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

Cash/Bank

1

POOR PATIENT A/C

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

Cash/Bank

- a)
- b)
- i)
- ii)
- iii)
- c)

2036817  
353560  
609412  
580237

2419552

2036817

PATIENT TREATMENT A/C

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

Opening Balance  
after adjustment of 2008-09

- a)

28571796

PATIENT TREATMENT A/C

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

Cash/Bank

- a)

28967307

26686499

Short Term Investment

- b)

6000000

6000000

6000000

FDR

- c)

Receipts

- d)

48549953

- f)

353853

- ii)

Cheque Cancelled

- iii)

Dly. Interest

- iv)

Interest

- v)

Payments

- vi)

Miscellaneous payment

- c)

82294

- i)

44788934

- ii)

82463

- iii)

Cash/Bank

- i)

26686499

- ii)

Short Term Investment

- iii)

FDR's

6000000

28967307

6000000

40463

HMC/PF A/C

Cash/Bank

40463

EXCESS OF INCOME OVER EXPENDITURE

Upto 2008-09

19394943

12932153

798701

30948296

2177501

19394943

EXCESS OF EXPENDITURE OVER INCOME

1482843222

1377922279

Sub-Total (D)

1482843222

1377922279

**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE & UNDCP PROJECT (E)**

<b>1</b>	Capital fund of DAC												
a)	Upto 2008-2009	152694597											
b)	Machinery & Equipment	727083											
c)	Furniture	248757											
d)	Books & Publication	636026											
e)	Bks & Pub. Adv.	2102364											
f)	Custom Duty Adv.	400000	156808827	152694597									
<b>2</b>	Institute Recovery												
i)	Upto 2008-09	113215											
ii)	2009-10	-	113215	113215									
<b>3</b>	Security Deposit												
a)	Upto 2008-09	265000											
b)	During 2009-10	15000											
c)	Refund 2009-10	25000	255000	265000									
<b>4</b>	Furniture & Fixture												
a)	Upto 2008-09	3229891											
b)	During 2009-10	248757	3478648	3229891									
<b>5</b>	Building Construction												
a)	Upto 2008-09	101953715											
b)	During 2009-10	-	101953715	101953715									
<b>6</b>	Vehicle												
a)	Upto 2008-09	5653867											
b)	During 2009-10	-	5653867	5653867									
c)	Vehicle condemned												
<b>7</b>	Outside recovery												
a)	Upto 2008-09	40708											
b)	During 2009-10	-	40708	40708									
<b>8</b>	Car Advance												
a)	Upto 2008-09	17280											
b)	Adjustment during 2009-10	17280	0	17280									
<b>9</b>	Material & Supply												
a)	Upto 2008-09	-											
b)	Refund	-											
c)	Add during 2009-10	365000	365000	365000									
<b>10</b>	Books Advance												
a)	Upto 2008-09	-											
b)	Refund	-											

c) Add during 2009-10 2102364 2102364 0  
**II** Custom Duty Advance  
a) Upto 2008-09 - -  
b) Refund - -  
c) Add during 2009-10 400000 400000 0

**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.) (UNDCP PROJECT)**  
Cash in hand 464680 239532

**EXCESS OF EXPENDITURE OVER INCOME**

UNDCP 168302

**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE (N.D.D.T.C.) (UNDCP PROJECT)**  
Opening balance 239532 407834

1 NDDTC  
Upto 2008-09 17258820  
Less During 2009-10 5809822 11448998 17258820

2 NATIONAL DRUG DEPENDENCE TREATMENT PROJECT (UNDCP) 225148

**Sub-Total (₹)** 169090720 170739466

**J.P.N. APEX TRAUMA CENTRE (₹)**

1 Cash at Bank 7809730 445047

1 Capital Grants  
(i) Upto 08-09 1293126140  
(ii) During 09-10 794400000  
(iii) Less transferred to Income & Exp. A/c 473474159

(iv) Correction (08-09) 38179005 1652230986 1293126140

2 Security deposit  
(i) Upto 2008-09 6094968  
(ii) During 2009-10 5155000  
(iii) Refund during 2009-10 6770000 4479968 5555000

(PTA/C, ATLS)  
(i) Upto 2008-09 82300  
(ii) During 2009-10 12190988  
(iii) Refund during 2009-10 7555403 4717885 622268

**Construction of Building**  
2 Advance paid to M/s HSCC  
3 Advance to M/s HSCC during 2008-09 towards construction of buildings Add during 2009-10 121912064 121912064

4 Machinery & Equipment L/C Advances on M&E during 08-09 30322411

(ii)

(ii)	L/C advance during 09-10	154658421			
(iii)	Less advance adjusted dg. 2009-10	95085238	89895594	30322411	
(b)	Custom duty advance upto 2008-09	4968650			
(ii)	Add during 09-10	10000000			
(iii)	Less adjusted dg. 09-10	9047250	5921400	4968650	
(c)	PDA advance upto 08-09	1392730			
(ii)	Less adjusted during 09-10	323000	1069730	1392730	
5(i)	Construction of Building transferred from AIIMS(M)		449825743	449825743	
(ii)	Capital Works upto 07-08 during 2009-10		10572435	10572435	
(iii)	Add during 2009-10		40301899	40301899	
			12208256		
6	Land Account transferred from AIIMS(M) Account		9900000	9900000	
			44410794		
7 A	Machinery & Equipments				
(i)	Upto 2008-09	657627983			
(ii)	Add during 09-10	98643429			
(iii)	Machinery & Equipment received during 2009-10	95085238	851356650	657627983	
B	Custom duty adjusted				
(ii)	Upto 08-09	37126719			
	Adjusted during 09-10	9047250	46173969	37126719	
C(i)	PDA adjusted upto 08-09	1678690			
(ii)	Adj. during 09-10	323000	2001690	1678690	
8	Furniture & Fixtures				
(i)	Upto 08-09	5326924			
(ii)	Add during 09-10	1004941	6331865	5326924	





(iv)	Less adjusted dg. 2009-10	4040000	3040000
(v)	Advance paid to DGS&D during 2008-09	469471	469471
(vi)	Advance Paid to Voltas 09-10	184589	184589
(vii)	Advance paid to Voltas 09-10	184589	184589
	Less adjustment		
7	Advance to New Delhi Municipal Corporation upto 07-08		0
(i)	During 08-09		6444500
8	Advance to Directorate General of Supply & Disposal		469471
9	Advance to Voltas		184589

**EXCESS OF EXPENDITURE OVER INCOME**

**EXCESS OF INCOME OVER EXPENDITURE**

1	CENTRE FOR DENTAL EDUCATION & RESEARCH		
i)	Upto 08-09	3490344	
ii)	Excess of Income over expenditure 2009-10	97504	3490344
	<b>Sub-Total (G)</b>	<b>465433959</b>	<b>427804748</b>
	<b>Grand Total (A) to (G)</b>	<b>21209138302</b>	<b>18409666326</b>

**Note:**

- The accounts have been prepared on actual Receipts and Expenditure basis.
- No depreciation on Machinery & Equipment, vehicles etc. has been provided as the Institute is fully funded by the Govt. of India.
- A statement showing the expenditure made by various Project Investigators during 2009-10 is attached at Appendix-A-1. It may be mentioned that on completion of Research Projects, the equipments are either returned to the funding agencies or used in the Departments.
- Institute is exempted from Income-Tax under Section 8G(5)(vi) of the Income Tax Act, 1961.
- The amount shown under four patient Accounts viz. C.T. Patient A/c, Angio Patient A/c, N.S. Patient Account and Gammaknife Patient A/c on the asset side of the Balance Sheet represents the amount as "Excess of Income over Expenditure" and the same is invested in term deposits. The amount is accumulated during the previous years on introduction of package charges in the year 1995. Package was introduced for convenience of patients and to ensure that quality products are used at reasonable rates. The package rates included service charges and ICU charges which were approved by Standing Finance Committee and ratified by Governing Body. Later on it was decided not to levy such charges from the patients and was withdrawn in the year 2000. During that period(1995-2000) accumulated balance amount and also the earned interest were invested in term deposits. 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 years as such in the absence of a guideline regarding its utilisation. Institute is in the process of framing some guidelines for using this accumulated amount.

(Smt. Basanti Dalal)  
Financial Advisor

(Sandeep Lal)  
Senior Financial Advisor

(R.C. Deka)  
DIRECTOR

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**  
**RECEIPTS & PAYMENT ACCOUNT**  
**FOR THE YEAR 2009-2010**

**AIIMS(Main) (A)**

<b><u>RECEIPTS</u></b>	<b><u>2009-10</u></b>	<b><u>2008-09</u></b>	<b><u>PAYMENTS</u></b>	<b><u>2009-10</u></b>	<b><u>2008-09</u></b>
<b>1</b>			<b>1</b>		
<b><u>OPENING BALANCES</u></b>			<b><u>Grants transferred to the Centres/Schemes Cell</u></b>		
<b>A</b>			<b><u>Dr. R.P. Centre</u></b>		
i) Cash at bank	609833159		i) PLAN	150000000	70000000
(a) AIIMS (MAIN)			ii) Non-Plan	480000000	330000000
(b) Unspent Balance of specific grants remained with AIIMS(M) Scheme Cell	223462880	71531660 192600145	<b>B</b>		
	833296039 131137563		<b><u>C.N. Centre</u></b>		
			i) Plan	280000000	260000000
			ii) Non-Plan	1075900000	740000000
<b>B</b>			<b>C</b>		
<b><u>CASH IN HAND (IMPREST)</u></b>			<b><u>N.D.D.T.C.</u></b>		
i) AIIMS (Main)			i) Plan	83300000	75000000
(a) Balance as per cash book of the cashier	553450		<b>D</b>		
(b) Excess paid by the cashier	307426	222024	<b><u>Scheme Cell</u></b>		
	246024		i) Grants against receipts	478286742	349613920
			ii) Non Plan grant for National Service Scheme	50000	
<b>C</b>			<b>E</b>		
<b><u>AMOUNT LYING UNDISBURSED</u></b>			<b><u>Dr.B.R.A.I.R.C.H.</u></b>		
i) AIIMS (Main)	44500	47200	a) Plan	9000000	8500000
ii) Scheme Cell			b) Non-Plan	42080000	26750000
<b>D</b>			<b>F</b>		
<b><u>POOR PATIENT A/C</u></b>			<b><u>J.P.N.APEX TRAUMA CENTRE</u></b>		
i) AIIMS (Main)	1137133	1132516	Plan	79440000	44000000
a) Cash/Bank	943112	400226			
b) FDRs			<b>G</b>		
<b>E</b>			<b><u>CENTRE FOR DENTAL EDUCATION &amp; RESEARCH</u></b>		
<b><u>PATIENT TREATMENT A/C</u></b>			Plan	82200000	10000000
AIIMS	37120305	27786829			
<b>F</b>			<b>2</b>		
<b><u>Hostels</u></b>			<b><u>ADMINISTRATIVE EXPENDITURE</u></b>		
a) Cash in hand	8991	18221	<b>AIIMS (MAIN)</b>		
b) Cash at bank	202429	732202			
c) FDR's	3165924	2223103			

**2 GRANTS FROM GOVT. OF INDIA**

2	PLAN	2505100000	2180000000	2999687905	1929134498
a)	NON-PLAN	6360000000	4354200000	16426033	15614269
b)	N.D.D.T.C.	833000000	750000000	7867010	9687144
c)					
3	Miscellaneous Receipts	302475713	112045786	158228	560480
4	Hospital Receipts	118685629	130350597		
5	Interest	40379679	66689587	428910438	285896228
6	Licence Fee	21341031	17305909	308552136	315022491
7	Tuition Fee /Examination Fee	5288069	4633276	942713707	697329812
8	Employees Health Scheme (EHS)	22604568	10425849	45712951	35067164
9	Pot Fund	421734	306114	2788245	51126
10	Employees Insurance Scheme	14239814	6812741	14302686	12227020
11	GPF	349108915	245262226	15892236	6508285
12	Out side recoveries	336013800	179980162	349108915	245262226
13	Security Deposits/ Earnest Money	41076843	35684731	83429751	66290027
14	Caution Money	57000	54700		
15	Leave Salary & Pension contribution			831200	1364200
a)				680000	516700
b)				6000	6000
c)				2066850	550800
d)				1325200	1170000
e)					
16	Recoverable Advances				
a)	Car	830651	1275864		
b)	Scooter/Motor Cycle	561020	674625		
c)	Bicycle	3997	1500		
d)	H.B.A.	4852532	5165164		
e)	Computer	1072459	869076		
17	NACO				
i)	Expenditure out of grant received for specific purpose (Scheme Cell)			475685206	
ii)	Appendix-A				
	Add undisbursed for 2008-2009 paid now				44500

HIV Sentinel Surveillance Project		2943706		Less undisbursed for 2009-10	325606	475404100	439970251
<b>18</b> Post Partum Programme (Incentive money)		400000	1200000			637275	738000
<b>19</b> Encashment of Short Term Deposit		1800000000	2500000000	College of Nursing			68630
<b>20</b> Grants received for specific purpose Appendix-A (Scheme Cell)		443593253	520463834	<u>PLAN</u>		353380219	267520604
<b>21</b> Schemes		349613920	478286742	a) Machinery & Equipment			1600000
i) Grants against receipt				b) Expenditure of Urology (Plan) against IRCH receipts		271476578	153988031
ii) Grants transfer from A.I.L.M.S. Non-Plan		28891049	34944217	c) Building Construction			
iii) Direct received		1118605	567040				
<b>22</b> Miscellaneous Donations (Appendix-D)		60006547	66966878	<b>16</b> Purchase of Vehicles		2293778	536416
<b>23</b> Revolving Funds		10494000	20947206	(a) Transport Office			
<b>24</b> New Pension Scheme				(b) Hospital Store			
				<b>17</b> Advance Payments		16023211	10944119
				a) Material & Supply (NP) for foreign purchase		473641302	636644327
				b) Machinery & Equipment(Plan) for foreign purchase			
				c) PAO for procurement of Stores		2600000	2400000
				d) P. & A.O. etc. for Building material		4927237	60608519
<b>25</b> Investment withdrawn & re-invested				e) Temporary/Contigent Advances		8257502	2797271
A				f) Private firms for stores		2912705	2450334
(i) Dr.K.L. Wig		26010		g) Custom Duty for		41566242	2079901
(ii) Zenith Finance & Co.				Machinery & Equipment			
(iii) Kamani Charity trust				h) For Books & Journals		35878527	23652608
<b>B</b> Donation				i) For cochelar Implant Pt. Treatment		15453000	14424000
(i) Dr. K.L. Wig				j) M/s Metro Rail Corporation Ltd.			842700
(ii) Zenith Finance & Co.		42990		k) Chief Controller of Accounts, (M/s Deepak Elect. Co.) for Electric works			190890
(iii) Kamani Charity trust		32887000	30852600				
<b>26</b> Cochelar Implant Patient Treatment A/c							

27	Deposit Work						98486
(a)	Starford India						
(b)	Rajgarhia Vishram Sadan	69000	1500000		Chief Controller of Accounts, (M/s Sanico Ind.) for Electrics works		
(c)	Surekha Vishram Sadan		34015				
28	Received from IRCH (Plan) for Urology		1600000		Chief Controller of Accounts, (M/s Surya Roshni) for Electric works		266165
29	Settle ment of construction a/c of IRCH		1800000		M/s Blue Star Ltd. (for A/c works) for Maint.		1742488
30	Resource Maint. Grant (Obst. & Gynae)	557700			M/s Indian Oil Corporation for lubricant Diesel Oil	2920253	1780106
31	Janani Suraksha Yojana(JSY)	25000			M/s Blue Star Ltd. (for A/c works) for Construction		222853
32	Angio CTVS Patient A/c	91000			M/s Crompton Greave Ltd.(for Elect. Works)		180807
33	WHO-in-Country fellowship	1926000			M/s Universal comfort (for A/c work)		1262512
					M/s carrier Air Conditioning (for A/c work)		2415422
					Central Public Works Department, Civil works		1313000
					M/s Videocon Ind. Ltd.(A/c work)		1083247
					M/s Voltas Ltd. for A/c work		859688
					Chief Controller of Accounts for purchase of stores		3343957
					M/s Indraprastha for CNG Pipeline		10405000
					DGS&D M/s Rashmi Ind. for A/c work		2976242
					M/s LG Elect. Split A/c for A/c & Elect. Work		1192355
					Ex. Engg. SJH(CPWD) for sewage Treatment plant		11344542
					M/s Hitachi flames for A/c work)		1032950
					M/s HSCC for construction ad)Secy., NDMC for construction	1000000	10600

ae)	Justice Lokeshwar Prasad for arbitration fee	22201	18215216
af)	Registrar, Guru Govind Singh Univ. for consultancy fee	18000	1400000
<b>18</b>	Security Deposit/ Earnest Money		183962271
(i)	Payment made against the receipts upto the year 2008-09	33126289	
(ii)	During 2009-10	2070000	
<b>19</b>	Outside recoveries	285174371	
<b>20</b>	Investment of short term deposit	2500000000	1800000000
<b>21</b>	NACO HIV Sentinel Surveillance Project		2943706
<b>22</b>	Miscellaneous Donations (Appendix-D)	307700	522581
<b>23</b>	Investment		37000
(i)	Dr.K.L. Wig(SBI)		17000
(ii)	Zenith Finance & Co.(SBI)		15000
(iii)	Kamani Charity Trust		
<b>24</b>	Pot Fund		
<b>25</b>	Revolving Funds	51937651	39390883
<b>26</b>	New Pension Scheme	69909349	35801016
<b>27</b>	Excess paid by the Cashier		
<b>28</b>	Cochelar Inplant Patient A/c	16722000	17977000
<b>29</b>	Deposit Work		
a)	Starford India		
b)	Rajgarhia Vishram Sadan	62122	723391
c)	Surekha Vishram Sadan		32030

30	Deposit Linked Insurance Scheme	120000		180000
31	Transfer to I.R.C.H. for Settlement of construction a/c of IRCH			1800000
32	Resource Maint. Grant. (Obst. & Gynae.)	557700		
33	WHO-in-Country fellowship	772729		
34	WHO-in-country fellowship to RPC			14000
35	Angio CTVS Patient A/c	91000		
36	Janani Suraksha Yojna(JSY)	0		
<b>POOR PATIENT ACCOUNTS</b>				
1	AIIMS	119965		909536
<b>PATIENT TREATMENT ACCOUNTS</b>				
1	AIIMS	52856486		42276594
2	Bank clearing charges	11764		8090
<b>HOSTELS</b>				
1	Security refunds	1070500		1155000
2	Miscellaneous Expenditure	360		60726
<b>CLOSING BALANCES</b>				
<b>A CASH AT BANK</b>				
1	a) AIIMS(Main) 569420504			
	b) Unspent Balance of Specific Grants remained with AIIMS (Main) 265639973			
2	Schemes Cell	168733316	835060477	131137563

1 **POOR PATIENT ACCOUNTS**  
a) AIIMS 158815  
b) Interest 41068  
c) FDRs 500000

1 **PATIENT TREATMENT ACCOUNTS**  
(a) AIIMS 64246164  
(b) Interest 1430530

1 **HOSTELS**  
Receipts during 2009-10  
i) Security Deposits 1391500  
ii) Miscellaneous Receipts 63270  
iii) Interest earned 164188  
iv) Refund of Income Tax on FDRs wrongly deducted by Bank 586



<b>B CASH IN HAND (IMPREST)</b>			
1	AIIMS (Main)		
a)	Balance as per cash book of the cashier	588950	
b)	Excess paid by the cashier	307426	246024
<b>C AMOUNT LYING UNDISBURSED</b>			
1	AIIMS (Main)		
2	Scheme Cell	325606	44500
<b>D POOR PATIENT ACCOUNT</b>			
1	AIIMS (Main)		
(a)	Cash/Bank	1175983	1137133
(b)	FDR's	984180	943112
<b>E PATIENT TREATMENT A/C</b>			
	AIIMS	49928749	37120305
<b>F HOSTELS</b>			
1	Cash in hand	18666	8991
2	Cash at Bank	304695	202429
3	FDR's	3792601	3165924
<b>Sub-Total(A)</b>		<b>14939348746</b>	<b>11157077871</b>

**DR. RAJENDER PRASAD CENTRE FOR OPHTHALMIC SCIENCES(B)**

<b>I OPENING BALANCES</b>				
A	Cash at bank	32586560	31108947	249173341
<b>B CASH IN HAND (IMPREST)</b>				
	(a) Pay & allowances		409251527	
	(b) Daily Wages		4172866	9498709
	Travelling Expenses	20000	2281696	1626930
<b>C POOR PATIENT A/C</b>				
	Cash/Bank	116808	12770927	10103043
	Capital Works	45258	3820317	3974420
<b>I GRANT-IN-AID</b>				
	Maintenance of Buildings		4651014	4121891

i) Plan	150000000			VI	Material & Supply(NP)	170566992	167621040
ii) Non-Plan	480000000	630000000	400000000	VII	Repair & Maintenance of Machinery & Equipment (Non-Plan)	3424512	6340081
				VIII	Refund of Security	30000	145000
				IX	<u>Mach. &amp; Equip. (Plan)</u>	64797486	
				i)	Actual Payment		
				ii)	Advance Payment made to Foreign Purchase	80175188	
				iii)	Vehicle purchase during 09-10	700132	65582020
				X	Furniture & Fixture	447742	443645
				XI	<u>Payment towards Non-RPC Schemes</u>		
				1	ABN AMRO NATRA Raksh	10000	11920
				2	Acuate Bacterial Conjunctivities	188062	26922
				3	Administrative charges received through Projects	564725	
				4	AMD View Study	1175701	1057186
				5	Bacterial Corneal Ulcer Eye	3240	
				6	CGH in primary angle closure of glaucoma		263999
				7	Clinical Evaluation AOD	49477	309692
				8	Clinical Evaluation on Blink & Clean (AMO)	134813	68300
				9	Clinical Evaluation OXONE	108255	106413
				10	Clinical study of keratitis Conjunctivities (Allergen India Pvt. Ltd.)	45000	45000

■ GRANT-IN-AID (SCHEMES)

1	ABN AMRO NATRA Raksh	104000	
2	Acuate Bacterial Conjunctivities	230717	
3	Administrative charges received through Projects	39900	
4	AMD View Study	735323	
5	Bacterial Corneal Ulcer Eye	8405422	
6	CGH in primary angle closure of glaucoma	108000	
7	Clinical Evaluation AOD	15000	
8	Clinical Evaluation on Blink & Clean (AMO)	117600	
9	Clinical Evaluation OXONE	107640	
10	Clinical study of keratitis Conjunctivities (Allergen India Pvt. Ltd.)	45000	

11	Collaborative study on dry eye Syndrome(DES)	-	250000	143000	197548
12	CRP	47000	187500	54000	201500
13	CSIR	2649412	1548959	2649412	1548959
14	DBT/MA	717000	797000	731507	572547
15	DEGAS	888562	-	574926	-
16	DME	1242106	1404538	1221790	1153419
17	DNB Examination		15000		10000
18	DST Evaluation of Tear fluid		600000	417077	419980
19	DST/DBT (Stem)			-	46817
20	Evaluation study of Glaucoma			-	40000
21	FAME Study	1004730	1018976	1206297	960992
22	FTG	244441	15000	244441	15000
23	High Precision Bil Analtial(HP-BAF)	68810	25000	-	-
24	ICMR	2512750	675008	1183771	663698
25	INDEGEN(LSTM)	939076	1247417	1900437	3338749
26	INMAS Biomedical Products			55042	30000
27	INMAS Human Pharmacology				
28	LUX 201 Omnicare	925207	526835	260000	219451
29	LUX 211 PRA International	173901	246154	247237	230205
30	M.K. Media corneal Transplant	1397660		129905	274877
31	MBDLILY-LILLY	38800	75169	78944	85227
32	Multifocal IOL		150000	61164	211941
33	NAB	1260000	1419185	92561	2155550
34	NCDRC	25079	10000	495854	10000
35	Neema Intermation			25079	20000
36	Novartis Shield study	90000		-	
37	NPCB DOS Training	856700	450000	2700	
38	NPCB Eye Camp	160221	176000	900000	485527
39	NPCB/DBCS	310500	180500	362585	253636
40	NPCB-SSU	114693	100000	297915	180485
41	OEU	270000		148070	152200
42	ORBIS PECP		1228947	114670	-
				30000	1441453

43	ORP VISION 2020	-		43	ORP VISION 2020		10467
44	PDT Visdune Pilot Study	96489		44	PDT Visdune Pilot Study		92894
45	Pediatric eye care	100000	360000	45	Pediatric eye care		100000
46	Ph-II age related macular degeneration menet study(ARMID)			46	Ph-II age related macular degeneration menet study(ARMID)	141273	
47	Pink Eye(Bausch & Lomb)			47	Pink Eye(Bausch & Lomb)	-	59664
48	Posudurex Allergan International	742476	742476	48	Posudurex Allergan International	119176	
49	PVD/VRT Study	650450	650450	49	PVD/VRT Study	127919	1843
50	Reliance Relianatra	55419	55419	50	Reliance Relianatra	222014	312604
51	ROP Macugen	110000	110000	51	ROP Macugen	56663	144364
52	ROP Workshop	181532	181532	52	ROP Workshop	107665	
53	RTI	3200	3200	53	RTI	159203	51710
54	Sight Saver	757333	757333	54	Sight Saver	3200	-
55	Symposium Workshop	343000	343000	55	Symposium Workshop	1120971	1177964
56	Treatment of Dry eye Allergan International	75000	75000	56	Treatment of Dry eye Allergan International	46600	41097
57	USP	34808	34808	57	USP	2638927	141406
58	WHO-SEIND			58	WHO-SEIND	-	67950
59	Workshop	8900	8900	59	Workshop	22344	35500
IV	NIAF	65000	65000	XI	NIAF	22745	27323
V	Hospital Receipts I/c Various kits	128281488		XII	AIIMS Recoveries Remitted	75507347	54618623
VI	Security Deposits	450000		XIII	Outside Recoveries remitted	37952102	13005203
VII	Interest on Recoverable Advance	219997		XIV	Difference of Dr./Cr. Advice	99519	
VIII	Miscellaneous Receipts	3866075			Recoverable Advance		
IX	AIIMS Recovery Received	75507347		a)	Car		159000
				b)	Scooter		30000
				c)	Cycle		-
				d)	H.B.A.		-

X	Outside Recovery received	37952102	13004568	e)	Computer	60000	249000	50000
XI	Interest on CLTD	1265364	1962009					
XII	Difference of Dr./Cr. Advice (LC Margin)	9297856						
XII	<u>Recoverable Advance</u>							
a)	Car	24816						
b)	Scooter	41716						
c)	Cycle	-						
d)	H.B.A.	403440						
e)	Computer	21000	347640					
	<b><u>POOR PATIENT ACCOUNT</u></b>							
	Receipts							
a)	Interest	5168	2330		Payment		115143	96169
b)	Donation	97181	165389					
					<b><u>CLOSING BALANCES</u></b>			
					<b><u>CASH AT BANK</u></b>		57013488	32586560
					<b><u>CASH IN HAND (IMPREST)</u></b>		20000	20000
					<b><u>POOR PATIENT ACCOUNT</u></b>			
					Cash/Bank		104014	116808
	<b>Sub-Total (B)</b>	<b>949189569</b>	<b>638197462</b>				<b>949189569</b>	<b>638197462</b>

**CARDIO-THORACIC & NEUROSCIENCES CENTRE (C)**

<b>1</b>	<b><u>OPENING BALANCES</u></b>			<b>1</b>	<b><u>ADMINISTRATIVE EXPENDITURE</u></b>			
A	<b><u>Cash at bank</u></b>			a)	Pay & Allowances (Non-Plan)		884276127	549614043
i)	C.N. Centre	171281243	158648226	b)	Wages		12748740	24192176
ii)	CT Patient A/c	16978464	12970986	c)	Travelling Allowance		1510335	1308353
a)	Bank	250000000	230000000					
b)	FDR							

iii) Angiography A/c														
a) Bank	32769115	2803934												18013112
b) FDR	50000000	75000000											10772465	166557398
													209326361	-
iv) Gamma Knife patient A/c														
a) Bank	21748291	3304760												185941729
b) FDR	117500000	119138203											65339793	67648684
														-
v) Neuro Surgery patient A/c														1037303
a) Bank	3831850	10902678												14552478
b) FDR	32000000	32000000												20644166
<b>B</b> <u>CASH IN HAND (IMPREST)</u>														
i) C.N. Centre	40000	40000												
ii) CT Patient A/c	4400													
<b>C</b> <u>POOR PATIENT A/C</u>														
i) N.S. Centre	95562	81429												
a) Cash/Bank														
<b>2</b> <u>GRANT-IN-AID</u>														
a) Plan	280000000	260000000												
b) Non-Plan	1075900000	740000000												3304867
<b>3</b> a) Miscellaneous Receipts	14889154	20225453												
b) Transfer from IRCH		-												340000
c) Private Ward	29094008	25122183												267000
d) X-Ray	2469420	2876930												243100
e) C.T.Scan charges	1633490	1013090												60000
f) Ultra sound	115800	110200												1500
<b>4</b> Interest on F.Ds.	3870381	8520766												3496000
<b>5</b> Security Deposit/ Earnest Deposit	8335000	7259000												17314
<b>6</b> Donations	-	615100												43624
														-
<b>2</b> <u>Stores (Non-Plan)</u>														
a) Repair & Maintenance of Machinery & Equipment														18013112
b) Material & Supply														166557398
c) ORBO														-
d) Stem Cell														
<b>3</b> <u>Stores (PLAN)</u>														
a) C.N. Tower														1037303
b) Machinery & Equipment (Advance Payment)														185941729
c) M&E against EFC														67648684
d) Stem Cell														-
e) Furniture & Fixtures														1037303
<b>4</b> Building maintenance														14552478
<b>5</b> Building construction (Plan)														20644166
<b>6</b> Office Contingencies	4198995													
(i) Payment of undisbursed amount for 2008-09	4400													
(ii) Less amount due but not paid due but not paid during 09-10	1000													
<b>7</b> <u>Recoverable Advance (Non-Plan)</u>														
a) Car														340000
b) Scooter/Motor Cycle														267000
c) House Building Advance														243100
d) Computer														60000
e) Bi-cycle														1500
<b>8</b> Refund of Security Deposit														3496000
<b>9</b> Donation														17314
<b>10</b> Heart Transplant														43624

7	Refund and Recoveries	1325749	992524	11	Neurology Patient A/c	16215915	8796602
8	Neurology Patient A/c	20965829	8966566	12	Blood Test	3073572	5677505
9	Thallium Test	1481250	3188750	13	Cardio Test	4361997	2167191
10	Levy charges	520870	384460	14	Thallium Test	1311596	3888642
11	Rent Charges/Licence Fee	774021	771972	15	Amount sent to P.A.O.(GPF)	492000	230000
12	GPF	96676457	67480773	16	GPF	96184457	67250773
13	New Pension Schemes	11422743	6798561	17	New Pension Schemes	11422743	6798561
14	<u>Recoverable Advances</u>			18	EHS	3784030	1528840
a)	Bicycle	450	1050	19	Outside Recovery	98618546	44241865
b)	Scooter	325226	334202	20	Amount Sent to PAO	1440	720
c)	Car	91192	107492	21	Pot Fund	33600	30740
d)	House Building	1748621	1334262	22	Water charges	39922	38880
e)	Computer	103100	36900	23	Amount sent to Main Institute(Computer Advance)	2400	2000
15	Cardio Test	3974650	3530335	24	Amount sent to PAO (Computer Advance)	12000	12000
16	Blood Test/Lab. Charges	5715905	5058760	25	NACO Fund(Expenditure)	101500	102639
17	EHS	3783960	1528910	26	Amount sent to Main Inst. (Festival Advance)	-	600
18	Outside Recovery	98619926	44242645	27	Amount sent to DARC Gzb. (Con. Adv.)	6000	
19	Institute Recovery (Computer Advances)	2400	2200				
20	Water Charges	39910	38892				
21	Pot Fund	33600	30740				
22	Institute Recovery (Computer Advances)	12000	12000				
23	NACO Fund Receipt	101551	102506				
24	Institute Recovery (Festival Advance)	6000	600				



<u>C.T. PATIENT A/C</u>		<u>C.T. PATIENT A/C</u>	
1 a)	Patient's Receipts during 2009-2010	292452490	214173507
b)	Patients' Refund 09-10	43868697	-
c)	Add poor patients treatment out of interest earned during 2009-2010	5100786	50
		253684579	1904328
2 a)	Interest during 2009-10	24022544	
b)	Poor patients treatment expenditure 09-10	5100786	
3	Cancelled Cheques	3068749	
		5219802	
<u>ANGIOGRAPHY PATIENT A/C</u>			
1	a) Patient's Receipts 2009-10	185353181	159186415
	b) Patients refunds	28355875	
c)	Poor Patient's treatment out of interest earned during 2009-10	788308	-
2 a)	Interest during 2009-10	5443802	100
b)	Poor Patient's treatment expenditure 08-09	788308	798719
3	Cancelled Cheques	-	
		2189121	
<u>GAMMAKNIFE PATIENT A/C</u>			
1	Patient Receipts 2009-10	19071030	5426989
	Refund to Patients	1315000	941000
2	Interest	14091092	-
3	Cancelled Cheque	-	
<u>ANGIOGRAPHY PATIENT A/C</u>			
1	Purchase for stores		144078074
2	CT A/c from Angio Pt. A/c adjustment/correction carried out in compliance of audit para No.A.2.1		10000000
3	Bank Charges		840
4	Fresh Cheque		941433
<u>GAMMAKNIFE PATIENT A/C</u>			
1	Purchase for Stores		7002642
2	MRI Charges		821000
3	Bank Charges		1450

**NEUROSURGERY/PATIENT A/C**

<b>1 a)</b> Patient Receipts 2009-10	54858160		
<b>b)</b> Payment return in N/s PT. A/c from CNC A/c	65000 16908531		
<b>c)</b> Patient Refund			
<b>d)</b> Add Poor patient Treatment out of interest earned during 2009-10	701467	38716096	34956844
<b>2</b> Fixed/CLTD			
a) Interest 09-10	2614750		
<b>b)</b> Poor patient treatment expenditure 2009-10	701467	1913283	763377
<b>3</b> Cancelled Cheques		211040	615931

**POOR PATIENT ACCOUNTS**

N.S. Centre  
Donation

23729

25243

**NEUROSURGERY/PATIENT A/C**

<b>1</b> Purchase for Stores Store payment N/S PT. A/c instead of CNC A/c	41173076	43118719
<b>2</b> Bank charges	65000	630
<b>3</b> Fresh Cheques	50	287631

**POOR PATIENT ACCOUNTS**

N.S. Centre

14391

11110

**CLOSING BALANCES**

**CASH AT BANK**

<b>i)</b> C.N. Centre	168444476	171281243
<b>ii)</b> C.T. Patient A/c		
(a) Bank	19675665	16978464
(b) FDRs	306900000	250000000
<b>iii)</b> Angiography A/c		
a) Bank	13114110	32769115
b) FDRs	74300000	50000000
<b>iv)</b> Gamma Knife Patient A/c		
a) Bank	27927424	21748291
b) FDRs	136800000	117500000
<b>v)</b> Neuro Surgery Patient A/c		
a) Bank	3410417	3831850
b) FDRs	31800000	32000000

<b>B</b>	<b>C.N. Centre</b>				
i)	Imprest		40000		40000
ii)	Cash in Hand with cashier		1000		4400
<b>D</b>	<b>POORPATIENTACCOUNT</b>				
i)	N.S. Centre		104900		95562
	Cash at Bank				
<b>Sub-total (C)</b>			<b>2873298173</b>	<b>2318293279</b>	<b>2873298173</b>

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

				<b>Head</b>	
<b>1</b>	<b>OPENING BALANCES</b>				
<b>A</b>	<b>Cash at bank</b>				
	a) Cash/Bank	27792396	34272417	1 Pay & Allowances	279047433
				2 Amount lying undisturbed less amount due but not paid	170822003
<b>B</b>	<b>POOR PATIENT A/C</b>				
	a) Cash/Bank	2036817	1821020	3 Expenditure under TA/DA	1401876
				4 Contingency Bills	2743069
<b>C</b>	<b>PATIENT TREATMENT A/C</b>				
	a) Cash/Bank after adjustment of Audit Para No.A.1.6	28571796	11991652	5 Medical Oncology	765861
	b) Short Term Investment			6 RT Revolving Funds	2340625
	c) FDR's			7 Maintenance of Building	7711653
				8 Recoverable Advance	268000
		6000000	1000000	(a) Computer Advance	
			6000000	(b) Scooter Advance	
<b>D</b>	<b>HMCPEA/C</b>				
	Cash/Bank		11000	9 Material & Supply	122035355
				10 Outsourcing	15128033
				11 <b>PLAN</b>	
	Grant in Aid			(i) Advance Payment to foreign purchase for M&E	43688249
	1 Plan	9000000	101974917		46048051
	2 NON-PLAN	420800000	26750000		
	3 ICMR	421175000	375000	(ii) Machinery & Equipment	35040522
	4 HSCC		1800000	(iii) Custom Duty & PDA (Advance)	3800000
	5 Interest Received	1097828	1980810	(iv) Capital Works	4188937
	6 Misc. Hospital Receipt	18726744	13862049	(v) Vehicle	8570446
				(vi) Furniture and Fixtures	111476
	7 RT Revolving Fund	3346830	3415409	12 AIIMS Recoveries Remitted	35856357
				13 Outside Recoveries Remitted	23632782
	8 Medical Oncology Fund	634910	601855		94978
	9 AIIMS Recoveries	35856357	19884665		19884665
	10 Outside Recoveries	23632782	11957741		11957741

11 Recoverable Advances									
(a) Car/Scooter/Advance Recoveries	18000	29116							
(b) Scooter Advance Recoveries	33330								
(c) Computer Advance Recoveries	42243	31320							
<b><u>POOR PATIENT ACCOUNTS</u></b>									
(a) I.R.C.H.	353560	290300						580237	635245
(b) Interest on FDR's	609412	562742							2000
<b><u>PATIENT TREATMENT ACCOUNTS</u></b>									
Receipt during 2009-10	48549953	45172567						44788934	39945429
a) Cheque Cancelled	353853	569924						82463	92145
b) Dly Interest		15838							
c) Interest	82294	1254900							
<b><u>HMC/PFA/C</u></b>									
1 Receipt during 2009-10	1006074							958886	
2 Refund	3000							20725	
<b><u>CLOSING BALANCES</u></b>									
A <u>CASH AT BANK</u>								46936817	27792396
<b><u>POOR PATIENT ACCOUNT</u></b>									
								2419552	2036817
<b><u>PATIENT TREATMENT A/C</u></b>									
a) Cash/Bank								32686499	28967307
b) Short term investment								6000000	6000000
c) FDRs									
<b><u>HMC/PFA/C</u></b>									
D Cash/Bank								40463	
<b>Sub-Total (D)</b>									
	709934179	535364242						709934179	535364242

**NATIONAL DRUG DEPENDENCE TREATMENT CENTRE & UNDCP PROJECT (E)**

**1 OPENING BALANCES**

**A Cash at bank**

i) a) N.D.D.T.C.

b) UNDCP

1	Grant-in-Aid (DAC)	83300000	75000000	9897962	17215421	54505378	34422765
2	Hospital Receipt	353520	361822	407834	239532	28215267	25178030
3	Interest on FDR			75000000		5818040	2115256
4	Security Deposit			361822		636026	1869838
5	Grant (Pilot Project)					248757	396925
6	Miscellaneous Receipt						1179461
7	Temporary Advance Refund						3324648
9	Car Advance Recovery						
10	Security Earnest Money						
11	Transfr from UNDCP						

**Insitute Recovery**

1	GPF Subscription & Advance	7384074	4598515	4598515	7384074	7384074	4598515
2	Conveyance	20500	41786	41786	20500	20500	41786
3	HBA	206288	236142	236142	206288	206288	236142
4	Licence fee	57975	54183	54183	57975	57975	54183
5	Officer Association	2600	2360	2360	2600	2600	2360
6	EIS	44645	44285	44285	44645	44645	44285
7	EHS	219630	94940	94940	219630	219630	94940
8	Society						
9	Computer Advance	8004	11204	11204	8004	8004	11204
10	Faculty	800	800	800	800	800	800
11	New Pension Scheme	438391	264514	264514	438391	438391	264514
12	Miscellaneous Recovery						
	Karamchari Union		1080	1080			1080

**Outside Recovery**

1	Income Tax	4770311	1677595	1677595	4770311	4770311	1677595
2	GPF						
3	LJC	45236	37956	37956	45236	45236	37956
4	Court Rec.	46411	54116	54116	46411	46411	54116
5	Society	2368008	1738097	1738097	2368008	2368008	1738097
6	Bihar Relief Fund		33438	33438			33438

**NATIONAL DRUG DEPENDENCE TREATMENT**

**CENTRE (N.D.D.T.C.)  
(UNDCP PROJECT)**

1 Grant-in-Aid

1358496

992570

1 a) TA

b) DA

121097

11900

353282

108500

**NATIONAL DRUG DEPENDENCE TREATMENT**

**CENTRE (N.D.D.T.C.)  
(UNDCP PROJECT)**

1 a) TA

b) DA

121097

11900

353282

108500

2	Miscellaneous Receipt	80650			
		24866			
	2 a) Miscellaneous/Office Contingency				
	b) Office contingency		57900		72208
	c) Honorarium				16150
	d) Refreshment		37990		86381
	e) Hiring accom.				45200
	f) Printing material				
	Stationary		19973		11663
	g) Correspondence				
	h) Salary		549662		105005
	i) Transportation				41335
	j) Medicine		92477		
	3 Bank Charge				500
	4 Refund to WHO		180715		113064
	5 Transfer to NDDTC		86500		
	6 Outstanding(Temporary Advance)				288234
	<b><u>CLOSING BALANCES</u></b>				
	<b>A <u>CASH AT BANK</u></b>				
	i) N.D.D.T.C.		11047879		17215421
	ii) UNDCP		464680		239532
	<b>Sub-Total (E)</b>	<b>121326561</b>	<b>96074409</b>	<b>121326561</b>	<b>96074409</b>

**J.P.N.APEX TRAUMACENTRE (F)**

<b>A</b>	<b>Cash at bank</b>				
	J.P.N.A.T. Centre				
<b>1</b>	<b><u>GRANT-IN-AID</u></b>				
	Plan				
a)	EFC	445047	21957766	56619050	40301899
b)	Non-EFC	794400000	440000000	61599882	34441322
				98643429	17463499

Other Receipts				5	Recurring & Outsourcing	25993570	1977077
a) Hospital	7804224	7753981	6	HSCC			
b) Security deposit	5155000	6380000					
c) Interest on TDR	740317	3775037	7 a)	Pay & Allowance		156803629	
d) Miscellaneous Receipt	12190988	2986436	7 b)	Recurring & Outsourcers	274857146	54067187	
			8	Material & Supply	115224004	123488103	
			9	Furniture & Fixtures	1004941	744864	
			10	Capital Works			
			11	Machinery & Equipment			
			a)	Letter of credit Advance	154658421	48891425	
			b)	PDA advance			
			12	Refund Security	6770000	1865000	
			13	Deposit/PTA/C/ATLS	7555403	2364168	
			14	Advance paid as Custom Duty	10000000		
				<u>CLOSING BALANCES</u>			
				<u>CASH AT BANK</u>	7809730	445047	
			<b>Sub-Total (F)</b>		<b>820735576</b>	<b>482853220</b>	<b>482853220</b>

**CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)**

**1 OPENING BALANCES**

A	<u>Cash at bank</u>			1	Pay & Allowances	7491000	1981760
	CDER	4800935	1864040		Office expenses	2154000	3018903
	<u>Cash in hand</u>	5000			Bank charges	13972	
1	<u>Grant in aid</u>			2	Material & Supply	27379000	32739280
	Plan (EFC)	82200000	19300000				
	Plan (Non-EFC)		80700000	3(a)	Maintenance of Building	4576411	
2	Security Deposit	2084000	1839742	(b)	Maintenance	2199000	6343499
3	Interest on STDTR by bank	485612	575172	(c)	Capital Works		



4	Miscellaneous Receipt	535178	110800	15883986	25680195
5	Hospital Receipt	1817420	1062642	25438345	26188764
<b>4</b>	<b>Machinery &amp; Equipment</b>				
(i)	Actual Payment				
(ii)	Advance payments made to Foreign purchases				
<b>5</b>	<b>Advance paid to HSCC</b>				
<b>6</b>	<b>Advance paid to NDMC</b>				
<b>7</b>	<b>Advance paid to DGS&amp;D</b>				
<b>8</b>	<b>Advance paid to Voltas Ltd.</b>				
<b>9</b>	<b>Security Refund</b>				
	<b><u>CLOSING BALANCES</u></b>				
<b>A</b>	<b><u>CASH AT BANK</u></b>				
		2107815			4800935
<b>B</b>	<b><u>CASH IN HAND (IMPREST)</u></b>				
		5000			5000
	<b>Sub-Total (G)</b>	<b>91928145</b>	<b>105452396</b>	<b>91928145</b>	<b>105452396</b>
	<b>GRAND TOTAL (A) TO (G)</b>	<b>20505760949</b>	<b>15333312879</b>	<b>20505760949</b>	<b>15333312879</b>

(Smt. Basanti Dalal)  
Financial Advisor

(Sandeep Lall)  
Senior Financial Advisor

(R.C. Deka)  
DIRECTOR

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**  
**INCOME AND EXPENDITURE ACCOUNT**  
**FOR THE YEAR 2009-2010**

**AIIMS(Main) (A)**

<u>EXPENDITURE</u>	<u>2009-10</u>	<u>2008-09</u>	<u>INCOME</u>	<u>2009-10</u>	<u>2008-09</u>
<b><u>NON-PLAN</u></b>					
1 Pay & Allowances	1929134498	1218187969		3014269246	2253869772
2 Stipend	9687144	5666711			
3 Travelling Allowances	15614269	12193800		127265504	125569837
1 Pay & Allowances	2999687905	1929134498			
2 Stipend	7867010	9687144			
3 Travelling Allowances	16426033	15614269		119638125	127265504
4 Pensionary Benefits	428910438	285896228		5288069	4633276
5 Material & Supply	959221285	710639750			
6 Office Contingency	311132501	317957405		22604568	10425849
7 Repair & Maintenance of Machinery & Equipment	45712951	35067164		21341031	17305909
8 Maintenance of Buildings	83429751	66290027		40379679	66689587
9 New Pension Scheme		69909349		302475713	112045786
i) Less Receipts		20947206			
10 L.S.P.C.					
i) Less Receipts		158228			
11 Deposit Linked Insurance Scheme		120000			
		180000			

<u>HOSTELS</u>		<u>HOSTELS</u>					
1	Miscellaneous Expenditure	360	60726	1	Miscellaneous Receipts	67035	63270
				2	Interest	335943	164774
<u>EXCESS OF INCOME OVER EXPENDITURE</u>				<u>EXCESS OF EXPENDITURE OVER INCOME</u>			
1	AIIMS (Main)	402618	167318	1	AIIMS(Main)	6651060	43698824
2	Hostel						
<b>Sub-Total (A)</b>		<b>4902031223</b>	<b>3396562025</b>			<b>4902031223</b>	<b>3396562025</b>

DR. RAJENDER PRASAD CENTRE FOR OPHTHALMIC SCIENCES(B)

1	Pay & Allowances	409251527	249173341	1	Non-Plan	480000000	330000000
2	Daily Wages	4172866	9498709	2	Hospital Receipts	128281488	114124152
3	Travelling Allowances	2281696	1626930	3	Interest on Recoverable Advances	219997	213155
4	Material & Supply	164914894	165403278	4	Miscellaneous Receipts	3866075	2915223
5	Office Expenses	12770927	10103043	5	Interest on CLTD	1265364	1962009
6	Maintenance of Buildings	4651014	4121891				
7	Repair & Maintenance	3424512	6340081				
8	Cash withdrawal Tax						
9	Cheque Book Charges						
<u>EXCESS OF INCOME OVER EXPENDITURE</u>				<u>EXCESS OF EXPENDITURE OVER INCOME</u>			
	Dr. R. P. Centre	12165488	2947266				
<b>Sub-Total (B)</b>		<b>613632924</b>	<b>449214539</b>			<b>613632924</b>	<b>449214539</b>

CARDIO-THORACIC & NEURO SCIENCES CENTRE (C)

<u>Non-Plan</u>									
1	Pay & Allowances & Wages	897024867	573806219				1075900000	740000000	
2	Travelling Expenditure	1510335	1308353						
3	Material & Supply	209326361	166557398			33312718			
4	Office Contingency	4198995	3309267			Amount received from outside patients 2009-2010	429921		
5	Repair & maintenance of Machinery & Equipment	10772465	18013112			Amount due 2009-10	154105	33036902	29318323
6	Maintenance of Buildings	18023034	14552478			Misc. Receipts	14889205	20225320	
						Rent Charges/ Licence Fee	774021	771972	
						Refund & Recoveries	1325749	992524	
						Interest earned	3870381	8520766	
						Levy Charges	520870	384460	
<u>C.T. PATIENT A/C</u>									
1	Purchase for Stores	214173507	216701908			Patient's Receipts CT A/c from Angio Pt. A/c	253684579	197308470	10000000
2	Bank Charges	50	3463			Interest during 2009-2010	18921758	29209626	
						Cancelled Cheque	3068749	5219802	
<u>ANGIOGRAPHY/PATIENT A/C</u>									
1	Purchase for Stores CT A/c from Angio Pt. A/c	159186415	144078074			Patient's Receipts	157785614	150699416	
			10000000						
2	Bank Charges	100	840			Interest during the year 2009-2010	4655494	6228288	
						Cancelled Cheques	2189121	3057824	

GAMMA KNIFE PATIENT A/C

1	Purchase of Stores	5426989	7002642	1	Patient Receipts	17756030	15976500
2	MRI Charges	941000	821000	2	Interest	14091092	8653920
3	Bank Charges		1450				

GAMMA KNIFE PATIENT A/CNEURO SURGERY PATIENT A/C

1	Purchase of Stores Store payment from N/S Pt. A/c instead of CNC A/c	41173076	43118719	1	Patient Receipts	38716096	34956844
		65000					
2	Contingency			2	Fixed/CLTD Interest	1913283	763377
3	Bank Charges	50	630	3	Cancelled Cheques	211040	615931

NEURO SURGERY PATIENT A/CEXCESS OF INCOME OVER EXPENDITURE

1	C.N. CENTRE		22666538	1	CNC	10538929	
2	CT PATIENT A/C	61501529	25032527	2	ANGIO PATIENT A/C		
3	ANGIO PATIENT A/C	5443714	5906614	3	NEURO SURGERY PT. A/C	397707	6783197
4	GAMMA KNIFE PATIENT A/C	25479133	16805328				

EXCESS OF EXPENDITURE OVER INCOME

**Sub-Total (C) 1654246620 1269686560**

**1654246620 1269686560**

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

1	Pay & Allowances	279047433	170822003	1	Grant-in-aid (Non-Plan)	420800000	267500000
2	Expenditure of TA/DA	1401876	1261243	2	Hospital Receipts	18726744	13862049
3	Material & Supply	122035355	87437843	3	ICMR	375000	375000
4	Maintenance of Building	7711653	7199258	4	Interest Receipts	1097828	1980810
5	Outsourcing	15128033	11762560				
6	Contingency Expenditure	2743069	2878669				

7 Transfer to CNC

EXCESS OF INCOME OVER EXPENDITURE

EXCESS OF EXPENDITURE OVER INCOME

I.R.C.H.

12932153 2356283

**Sub-Total (D)**

**440999572 283717859**

**440999572**

**283717859**

NATIONAL DRUG DEPENDENCE TREATMENT CENTRE & UNDCP PROJECT (E)

<b>1</b>	Pay & Allowances	54505378	34422765	<b>1</b>	Grant-in-aid (Plan)	83300000
					Machinery & Equipment	727083
<b>2</b>	Wages	5818040	2115256		Motor Vehicle	248757
					Furniture	636026
					Books & Publications	2102364
					(Advance)	79185770
					Custom Duty Adv.	400000
<b>3 i)</b>	Material & Supply	28215267	25639008	<b>2</b>	Grant (Pilot Project)	353520
	2009-10				Hospital Receipt	3103073
<b>4</b>	Pilot Project			<b>4</b>	Miscellaneous Receipt	86500
				<b>5</b>	Transfer (UNDCP)	992570
					Grant-in-aid (Plan)	1358496
					Miscellaneous Receipt	24866
						80650

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

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

<b>1</b>	TA	121097	353282	<b>1</b>	Grant-in-aid (Plan)	1358496
<b>2</b>	DA	11900	108500	<b>2</b>	Miscellaneous Receipt	24866
<b>3</b>	Misc./Office Contingency	77873	145221			
<b>4</b>	Transfer to NDDTC a/c	86500				
<b>5</b>	Refund to WHO	180715	113064			
<b>6</b>	Bank Charges		500			

7	Pay & Allowances	549662	105005		
8	Correspondences				
9	Refreshment	37990	86381		
10	Transportation		41335		
11	Outstanding (Temporary Advance)		288234		
12	Medicine	92477			
<b><u>EXCESS OF INCOME OVER EXPENDITURE</u></b>					
1	N.D.D.T.C.		6691921	NDDTC	5809822
2	UNDCP Project	225148		UNDCP	-
<b>Sub-Total (E)</b>		<b>89922047</b>	<b>70110472</b>		<b>89922047</b>

<b><u>J.P.N. APEX TRAUMA CENTRE (F)</u></b>					
1	Material & Supply	115224004	123488103	1 Plan	473474159
2	Manpower	25993570	17463449	2 Miscellaneous (Hospital Receipts)	7804224
3	Recuring & Outsourcing		56044264	3 Interest on TDR	740317
4	Pay & Allowances	274857146	156803679		
5	Engg. Maintenances etc.	61599882			
<b><u>EXCESS OF INCOME OVER EXPENDITURE</u></b>					
J.P.N. APEX TRAUMA CENTRE		4344098	11529018		
<b>Sub-Total (F)</b>		<b>482018700</b>	<b>365328513</b>		<b>482018700</b>

<b>Sub-Total (E)</b>		<b>89922047</b>	<b>70110472</b>		<b>89922047</b>
<b>Sub-Total (F)</b>		<b>482018700</b>	<b>365328513</b>		<b>482018700</b>
					<b>365328513</b>



**CENTRE FOR DENTAL EDUCATION AND RESEARCH (G)**

<b>1</b>	Pay & Allowances (Plan)	7491000	1981760	<b>1</b>	Grant in Aid (Plan)	40975173	44083442
<b>2</b>	Material & Supply (Plan)	31955411	32739280	<b>2</b>	Interest on STDR by Bank	485612	575172
<b>3</b>	Maintenance of Building	2199000	6343499	<b>3</b>	Miscellaneous Receipts	535178	110800
<b>4</b>	Office Expenses	2154000	3018903	<b>4</b>	Hospital Receipts	1817420	1062642
<b>5</b>	Bank Charges	13972					

**EXCESS OF INCOME OVER EXPENDITURE**

CENTRE FOR DENTAL  
EDUCATION & RESEARCH

1748614

**Sub-Total (G) 43813383 45832056 43813383 45832056**

**Grand Total (A) to (G) 8226664469 5880452024 8226664469 5880452024**

(Smt. Basanti Dalal)  
Financial Advisor

(Sandeep Lall)  
Senior Financial Advisor

(R.C. Deka)  
DIRECTOR

## ALLINDIA INSTITUTE OF MEDICAL SCIENCES

STATEMENT SHOWING THE EXPENDITURE OF THE GRANT RECEIVED  
FOR THE SPECIFIC PURPOSE FOR THE YEAR 2009-10

S.No.	Funding Agency	Opening Balance		Receipt	Total	Expenditure	Adjustments		Balance	
		Credit	Debit				Credit	Debit	Credit	Debit
1	ICMR	55046036	0.00	146909841	201955877	145067343			56,888,534	
2	C.S.I.R.	16233951	0.00	29606729	45840680	30930651			14,910,029	
3	DST	41932961	0.00	58802397	100735358	36988704			63,746,654	
4	UNICEF	29693725	0.00	0.00	29693725	18516.00			278,421.25	
5	D.B.T.	129561438	0.00	109749382	239310820	116139757	92880		123,078,183	
6	W.H.O.	14989359	0.00	20419484	35408843	21129880			14,278,963	
7	U.G.C.	1008973	0.00	600000	7008973	4677016			2,331,957	
8	Ministry of Health and Family welfare	6506798	0.00	2230140	8736938	4979095			3,757,843	
9	Ministry of Environment & Forest	622762	0.00	0.00	622762	613944			8,818	
10	Dabur Research Foundation	571120	0.00	0.00	571120	7956			563,164	
11	DEPTT. OF ELECTRONICS	82137	0.00	0.00	82137	25767			56,370	
12	Himalaya Drug Co.	133504	0.00	140000	273504	199010			74,494	
13	International Atomic Energy Agency	2011219	0.00	784964	2796183	1196245			1,599,938	
14	Convatee Sayibb	2328	0.00	0.00	2328	0.00			2,328	
15	Rajiv Gandhi Foundation	-989	0.00	0.00	-989	0.00				-989
16	Directorate of Education (NSS)	29097	0.00	50000	79097	8539			70,558	
17	Torrent Pharma	49741	0.00	0.00	49741	0.00			49,741	
18	INDO-US	759033	0.00	0.00	759033	10000			749,033	
19	Ford Foundation	458594	0.00	0.00	458594	0.00			458,594	
20	Fulford India Ltd.	45335	0.00	0.00	45335	28080			17,255	
21	National Thalassaemia Welfare Society	29745	0.00	60000	89745	41800			47,945	
22	INCLN	0.00	9386	140670	131284	158749	27104			-361
23	Institute of Cancer Research UK co-ordination Committee	0.00	5625	0.00	-5625	0.00				-5,625

24	Central Council for Research in Yoga And Naturopathy	452170	0.00	1912803	2364973	1691307			673,666
25	Ranbaxy/Eliilly & company pvt Ltd	3023816.	0.00	911310	3935126	1211689			2,723,437
26	NATIONAL INSTITUTE OF HEALTH, USA	5427622	0.00	2784673	8212295	3736265			4,476,030
27	NIE	28629416	0.00	13448878	42078294	19328453			22,749,841
28	INSA	25331	0.00	0.00	25331	0.00			25,331
29	SRB-Clinical Pharmacology	0.00	3154100	0.00	-3154100	0.00			-3,154,100
30	Panacea biotech Ltd.	127593	0.00	50400	177993	147703			30,290
31	Revolving Funds for Drugs. / SNMC	195710	0.00	0.00	195710	0.00			195,710
32	Atomic Energy Regulatory Board	516981	0.00	0.00	516981	129352			387,629
33	Pfizer Ltd.	1126240	0.00	2449291.85	3575531.85	1256618.00			2,318,913.85
34	NATCO Pharma India	352	0.00	613118	613470	254225			359,245
35	University of Maryland	106007	0.00	0.00	106007	15725			90,282
36	Glaxo India Ltd.	217377	0.00	0.00	217377	0.00			217,377
37	Ministry of Defence (D.R.D.O)	3095872	0.00	1175620	4271492	3918477			353,015
38	MBI Kits.	0.00	0.00	498000	498000	440647			57,353
39	Nova Nordisk India Pvt Ltd.	138865	0.00	220706	359571	100368			259,203
40	Indian Institute of Technology	0.00	25437	159613	134176	32376			101,800
41	Cystic Fibrosis/World Wide, USA	184650	0.00	0.00	184650	98381			86,269
42	CONARD, USA	591	0.00	0.00	591	0.00			591
43	The Cancer Foundation	12305	0.00	141307	153612	109367			44,245
44	Novartis India Ltd.	2301886	0.00	1494784.38	3796670.38	930139			2,866,531.38
45	Maharishi Ayurveda	31302	0.00	0.00	31302	47280			-15,978
46	UN International Drug and crime Control Programme	1033214	0.00	0.00	1033214	469332			563,882
47	Russan Pharma Ltd Mumbai	196505	0.00	0.00	196505	33558			162,947
48	Central Council for Research in Ayurveda & Sidha	1034319	0.00	981840	2016159	54113			1,962,046
49	Ministry of Social Justice and Empowerment	77882	0.00	0.00	77882	0.00			77,882
50	Quintiles Spectral India	3453163	0.00	3633381.86	7086544.86	2993435			4,093,109.86
51	Ministry of Communication and Information & Technology	1976472	0.00	786000	2762472	2214614			547,858
52	University of Bergen, Norway	1128442	0.00	4295479	5423921	4368219			1,055,702
53	Zydas Healthcare Ltd	0.00	398	0.00	-398	0.00			-398.00
54	Oxford University, UK	2937420	0.00	1454225	4391645	1257486			3,134,159
55	Federation of Obstetric & Gynaecological	0.00	276	0.00	-276	0.00			-276

56	Amil Pharmaceutical India Ltd.	0.00	331	0.00	-331	0.00	0.00															-331	
57	Pharmacia India Pvt. Ltd	269594	0.00	72324	341918	341081																83	7
58	INCTR USA	1004984	0.00	645190	1650174	1494658																155,516.00	
59	Emcare Pharmaceutical Ltd.	0.00	2259	0.00	-2259.	5000.00	92880															85621	
60	Delhi State Control Society/AIDS	23055	0.00	465213	488268	344533																143,735	
39	Bharat Biotech International Ltd	12241	0.00	0.00	12241	0.00																12,241	
40	L.G. Chemicals India Pvt Ltd.	0.00	668	0.00	-668	0.00																	-668
41	Woekhardt, Mumbai	21169	0.00	0.00	21169	710																20,459	
42	NSD (Security Deposit)	1699150	0.00	504000	2203150	466500																1,736,650	
43	Sanofi Pasteur India Pvt Ltd	15834	0.00	110837	126671	3325																123,346	
44	Johnson & Johnson	298484	0.00	646710	945194	872499																72,695	
45	Beijing Toshihi Pharmaceuticals Co. Ltd.	180235	0.00	0.00	180235	0.00																180,235	
46	C.P.W.W. Jerusalem	6534	0.00	0.00	6534	0.00																6,534	
47	AVENTIS PHARMACEUTICALS, USA	14135	0.00	0.00	14135	0.00																14,135	
48	Dr. Reddys Lab. Pvt. Ltd.	127308	0.00	100000	227308	206806																20,502	
49	Hindustan Latex Family Planning Promotion	0.00	7020	0.00	-7020	0.00																	-7,020
50	SIRO CLIN PHARMA PVT. LTD	247612	0.00	3668688	3916300	1970594																1,945,706	
51	Charak Pharma (P) Ltd.	439407	0.00	100666	540073	76646																463,427	
52	INCLIN & USAID	0.00	127905	0.00	-127905	216675	344604															24	
53	SAVING NEWBORN LIVES, USA	72067	0.00	0.00	72067	62965																9,102	
54	DANIDA RESEARCH COUNCIL	19	0.00	0.00	19	0.00																19	
55	THE MICRONUTRIENT INITIATIVE, ASIA	0.00	4702	0.00	-4702.	0.00																	-4,702
56	Ministry of Health And Family Welfare (N.A.C.O)	3277180	0.00	3704131	6981311	3504459																3,476,852	
57	The University of Alabama, USA	66384	0.00	58368585	58434969	11090395	589275															46,755,299	
58	Indian council of Philosophical Research	4920	0.00	0.00	4920	0.00																4,920	
59	Sterling Synergy System (P) Ltd.	63580	0.00	0.00	63580	0.00																63,580	
60	Reliance Clinical Research Services (P) Ltd.	704043	0.00	1952613.64	2656656.64	838831																1,817,825.64	
61	KLPE USA	16473	0.00	0.00	16473	0.00																16,473	
62	Vulimini Ramalingaswami Foundation	0.00	6508	0.00	-6508	0.00																	-6,508
63	Texas A&M Research Foundation (TAMRF) USA	16237	0.00	0.00	16237	0.00																16,237	
64	Biomerieux India (P) Ltd.	12011	0.00	0.00	12011	0.00																12,011	
65	Media Lab Asia	0.00	11301	0.00	-11301	0.00																	-11,301
66	University of Warwick U.K	131707	0.00	0.00	131707	127243																4,464	
67	National AIDS Control Organisation	0.00	0.00	1074000	1074000	1073944																56	

68	BHARAT SERUMS AND VACCINES LTD.	0.00	10000	0.00	-10000	0.00								
69	CD PHARMA INDIA PRIVATE LIMITED	611867	0.00	251430	863297	709914								153,383
70	CODMAN & SHURTLIFF, INC., USA	142138	0.00	0.00	142138	100000								42,138
71	KHANDELWAL LABORATORIES LTD.	805	0.00	0.00	805	0.00								805
72	Directorate General of Health Services	294280	0.00	143662	437942	382553								55,389
73	Lajolla Pharmaceutical Company, California	472013	0.00	95441	567454	77093								490,361
74	Institute De Recherches Internationales Servier (IRIS), France	70569	0.00	0.00	70569	70569								0.00
75	BONE & JOINT DECADE INDIA	130	0.00	0.00	130	0.00								130
76	Eli Lilly	110710	0.00	0.00	110710	91207								19,503
77	ANTISENSE PHARMA GmbH, GERMANY	58692	0.00	111228	169920	166581								3,339
78	I.S.H.T.M	457627	0.00	500000	957627	654008								303,619
79	National Institute of Nutrition (NIIN) Hyderabad	109	0.00	0.00	109	0.00								109
80	Peregrine Pharmaceuticals, USA	385912	0.00	1091877	1477789	377469								1,100,320
81	B.A.R.C	0.00	0.00	570300	570300	299020								271,280
82	Ozone pharmaceuticals Ltd.	166034	0.00	200000	366034	154110								211,924
83	Ovation Pharmaceuticals, USA	1869	0.00	212737	214606	144314								70,292
84	DELHI TAPEDIK UNMULAN SAMITTI	13249	0.00	0.00	13249	2425								10,824
85	JOHN HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH (JHBSPH)	2138211	0.00	8629603	10767814	10670351								97,463
86	Cimigene International Pvt. Ltd	360479	0.00	516214	876693	122311								754,382
87	FREEDOM TRIAL	86253	0.00	0.00	86253	0.00								86,253
88	DIGENE CORPORATION, USA	111302	0.00	0.00	111302	69118								42,184
89	Ministry of Health & Family Welfare (AYUSH)	0.00	0.00	1777862	1777862	956506								821,356
90	KOBE, JAPAN	10221	0.00	0.00	10221	0.00								10,221
91	AYUSH, Ministry of Health and Family Welfare	280486	0.00	0.00	280486	381741								116,312
92	Troika Pharmaceutical Ltd	25414	0.00	0.00	25414	0.00								25,414
93	International Paediatrics Nephrology Association	233083	0.00	366935	600018	180620								419,398
94	National Perinatal Epidemiology Unit,	715291	0.00	2629964	3345255	2041472								1,303,783
95	ABBOTT VASCULAR, USA	554656	0.00	0.00	554656	71754								482,902
96	European Commission	687974	0.00	7386634	8074608	5256319								2,818,289
97	Synergy Network India Pvt Ltd,	551	0.00	0.00	551	0.00								551
98	Solvey Pharma Ltd.	13465	0.00	0.00	13465	0.00								13,465
99	Relisys Medical Devices Ltd.	-3433	0.00	0.00	-3433	0.00								-3,433
100	PPD Pharmaceutical Development India Pvt. Ltd.	155715	0.00	379087	534802	536656								-1,854
101	Auxilium Technical & Management Services Pvt. Ltd	400	0.00	0.00	400	0.00								400

102	M/S ASPREVA PHARMACEUTICAL CORPORATION, CANADA	0.00	58064	95892	37828	79644					
103	CLINIRx RESEARCH PVT. LTD .GURGAON, HARYANA	1256288	0.00	129031	1385319	1255512				129,807	
104	Central Council for Research in Unani Medicine	1280977	0.00	2505000	3785977	2501606				1,284,371	
105	CLINCYTE, USA	665	0.00	0.00	665	0.00				665	
106	M/S Markansas Research Division	0.00	4745	0.00	-4745	0.00					-4,745
107	THRESHOLD PHARMACEUTICALS, USA	0.00	3136	0.00	-3136	0.00					-3,136
108	London School of Hygiene & Tropical Medicine, UK	357841	0.00	0.00	357841	0.00		220616		137,225	
109	GlaxoSmith Kline Asia Private Ltd	1697748	0.00	1451828	3149576	1064663				2,084,913	
110	AJINOMOTA CO. JAPAN	43855	0.00	0.00	43855	0.00				43,855	
111	The International Society for Paediatric Neurosurgery (ISPNE)	20763	0.00	0.00	20763	20355				408	
112	MSD (India) Pvt. Ltd.	239866	0.00	90000	329866	2700				327,166	
113	Solumiks Herbaceuticals Limited	13	0.00	0.00	13	0.00				13	
114	Cadila Health care Id.	306394	0.00	0.00	306394	135636				170,758	
115	AO Spine International, USA	0.00	0.00	153399	153399	31602				121,797	
116	Shire Human Genetic Therapies, Inc., USA	1318115	0.00	2062391	3380506	740193				2,640,313	
117	Centocor Research & Development, USA	176898	0.00	331639	508537	422898				85,639	
118	Neeman Medical International Asia Ltd.	237385	0.00	0.00	237385	0.00				237,385	
119	Apothecaries Ltd	435	0.00	0.00	435	0.00				435	
120	PAREXEL INTERNATIONAL LTD., U.K.	1169113	0.00	941273.87	2110386.87	564485				1,545,901.87	
121	OXIGENE, USA	177894	0.00	427195.84	605089.84	359302				245,787.84	
122	Hindustan Latex Limited	52457	0.00	300000	352457	290233				62,224	
123	Dept of Information Technology	0.00	0.00	530000	530000	244095				285,905	
124	Ovrseas associates	190	0.00	0.00	190	0.00				190	
125	Glaxo Smith Kline	0.00	0.00	388069	388069	311973				76,096	
126	The Medical Research Council, UK	0.00	0.00	79201	79201	78296				905	
127	Biogen Idec Limited, UK	729543	0.00	509032	1238575	564376				674,199	
128	Global Cancer Concern India	3647	0.00	0.00	3647	0.00				3,647	
129	N.C.Pvt. Ltd	46625	0.00	0.00	46625	9508				37,117	
130	N.C.T.	67473	0.00	166646	234119	165979				68,140	
131	NAIP	146459	0.00	692753	839212	498549				340,663	
132	UNIVERSITY OF CALGARY, CANADA	57187	0.00	0.00	57187	0.00				57,187	
133	CORVENTIS, USA	237930	0.00	629580	867510	212904				654,606	

134	BRITISH COUNCIL, UK	1204950	0.00	2895002	4099952	2035856			2,064,096	
135	The Service de Dermatologie, France	0.00	8445	0.00	-8445	0.00				-8,445
136	MERCK SERONO INTERNATIONAL S.A., SWITZERLAND	0.00	0.00	1066508	1066508	31877			1,034,631	
137	University of Western Australia	30180	0.00	0.00	30180	24000			6,180	
138	Centre For Chronic Disease Control	5290	0.00	196000	201290	200880			410	
139	Lupin Limited	8386	0.00	0.00	8386	0.00			8,386	
140	Coloplast	29855	0.00	0.00	29855	35630				-5,775
141	Piramal Life Sciences	52933	0.00	110271	163204	70201			93,003	
142	Criterion	76376	0.00	805311	881687	377730			503,957	
143	M/sARCHIMEDES DEVELOPMENT LTD., UK	360105	0.00	713753	1073858	724224			349,634	
144	University of Nottingham, UK	9	0.00	124130	124139	4662			119,477	
145	BRISTOL MEYER SQUIBB INDIA PRIVATE LIMITED	178322	0.00	456502	634824		434137		200,687	
146	Brains Gate Ltd. ISRAEL	56271	0.00	246321	302592	185318			117,274	
147	JIV DAYA FOUNDATION	155852	0.00	371900	527752	356202			171,550	
148	QED PHARMACEUTICAL SERVICES PVT. LTD	97000	0.00	49489	591890	14847			577,043	
149	Amgen Technology Private Limited	43005	0.00	635386	678391	144182			534,209	
150	ACE PHARMACEUTICALS BV, NETHERLAND	758722	0.00	0.00	758722	428193			330,529	
151	Actelion Pharmaceuticals Ltd, Switzerland	210616	0.00	1116257	1326873	1536870	220616		10,619	
152	Macleods Pharmaceutical Ltd.	0.00	0.00	20000	20000	14292			5,708	
153	Department of Health and Human Services Centers for disease control, USA	0.00	0.00	19930060	19930060	3947153			15,982,907	
154	PHARM-OLAM INTERNATIONAL, LTD.	0.00	0.00	47520	47520	13138			34,382	
155	MERK & CO, INC. USA	0.00	0.00	2430344.	2430344	650240			1,780,104	
156	Central Scientific Instruments Organisation	445099	0.00	0.00	445099	244306			200,793	
157	McMaster University, Canada	0.00	0.00	90675	90675	82049			8,626	
158	Institute of Genomics & Integrative Biology	0.00	0.00	1000000	1000000	494798			505,202	
159	India Medtronic Pvt. Ltd	0.00	0.00	35565	35565	27527			8,038	
160	Society of American Gastrointestinal and Endoscopic Surgeons	0.00	0.00	1409706	1409706	447787			961,919	
161	Sun Pharmaceuticals	0.00	0.00	82179	82179	64520			17,659	
162	GW Pharma Ltd. U.K.	0.00	0.00	44335	44335	35074			9,261	
163	Lady Tata Memorial Trust	0.00	0.00	96000	96000	96000				
164	Liver Foundation	0.00	0.00	95512	95512	6847			88,665	



165	EMMES Corporation, Maryland, USA	0.00	0.00	234549.00	234549.00	31257.00			203,292.00
166	The Energy and Resources Institute	0.00	0.00	150000.00	150000.00	70880.00			79,120.00
167	Albert David Ltd	0.00	0.00	150000.00	150000.00	4500.00			145,500.00
168	Sanat Product Ltd	0.00	0.00	318476.00	318476.00	9554.00			308,922.00
169	IADVL	0.00	0.00	427000.00	427000.00	12810.00			414,190.00
	<b>TOTAL</b>	<b>358040749.25</b>	<b>3440306.00</b>	<b>555458051.44</b>	<b>910058494.69</b>	<b>475685206.00</b>	<b>902771.00</b>	<b>902771.00</b>	<b>437660749.69</b>
									<b>-3287461</b>

**(Smt. Basanti Dalal)**  
**Financial Advisor**

**APPENDIX - A1**

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**

**RESEARCH SECTION**

**Statement of Expenditure Made for Purchasing Equipment during the  
Financial Year 2009-2010**

<b>S.No.</b>	<b>Code No.</b>	<b>Project Investigators</b>	<b>Month</b>	<b>Amount</b>
1	D236	Dr. A.B.Dey	JUN.09	18,000
2	D236	Dr. A.B.Dey	SEP.09	99,790
3	D236	Dr. A.B.Dey	DEC.09	83,000
4	I575	Dr. A.B.Dey	NOV.09	48,000
5	N1124	Dr. Arti Kapil	MAR.10	403,399
6	I508	Dr. B.K. Mohanti	OCT.09	42,058
7	I508	Dr. B.K. Mohanti	MAR.10	14,850
8	N1123	Dr. Balram Bhargava	OCT.09	642,245
9	N935	Dr. Balram Bhargava	MAR.10	81,320
10	N935	Dr. Balram Bhargava	MAY.09	25,480
11	N1077	Dr. C.S. Bal	SEP.09	14,900
12	N1145	Dr. C.S. Bal	NOV.09	103,425
13	N892	Dr. D.K. Mitra	MAR.10	1,697
14	N914	Dr. D.K. Mitra	MAR.10	-3,523
15	I499	Dr. D.N. Rao	MAR.10	5,962
16	N1073	Dr. D.N. Rao	JAN.10	331,011
17	N1073	Dr. D.N. Rao	MAR.10	-11,063
18	D253	Dr. D.S. Arya	DEC.09	413,322
19	N1068	Dr. D.S. Arya	MAR.10	809
20	I570	Dr. S.B. Ray	JUN.09	48,038
21	I570	Dr. S.B. Ray	AUG.09	35,398
22	I570	Dr. S.B. Ray	FEB.10	198,230
23	I570	Dr. S.B. Ray	MAR.10	-931
24	N1157	Dr. G.C. Khilnani	FEB.10	18,165
25	I496	Dr. Gita Satpathy	MAR.10	559
26	N940	Dr. H.K. Prasad	MAR.10	-1,597
27	D230	Dr. J.S. Tyagi	AUG.09	204,810
28	N1062	Dr. J.S. Tyagi	NOV.09	507,250

29	N1062	Dr. J.S. Tyagi	DEC.09	341,182
30	N1113	Dr. J.S. Tyagi	FEB.10	91,480
31	N1151	Dr. J.S. Tyagi	FEB.10	960,780
32	N1151	Dr. J.S. Tyagi	MAR.10	-27,359
33	N930	Dr. J.S. Tyagi	MAR.10	-6,609
34	N915	Dr. Jayasree Sengupta	MAR.10	1,278
35	I532	Dr. K. Anand	MAY.09	45,618
36	I532	Dr. K. Anand	JUN.09	37,497
37	I532	Dr. K. Anand	SEP.09	296,400
38	I625	Dr. K. Anand	MAR.10	532,728
39	N089	Dr. Kabita Chatterjee	AUG.09	48,880
40	N1125	Dr. Kalpana Luthra	JUL.09	186,908
41	N1125	Dr. Kalpana Luthra	SEP.09	128,000
42	N1125	Dr. Kalpana Luthra	DEC.09	1,235,507
43	N1125	Dr. Kalpana Luthra	FEB.10	214,930
44	N1125	Dr. Kalpana Luthra	MAR.10	-20,410
45	N1156	Dr. Kameshwar Prasad	MAR.10	52,875
46	N1163	Dr. Kameshwar Prasad	MAR.10	143,576
47	N958	Dr. Kameshwar Prasad	MAR.10	1,210,566
48	N1082	Dr. Kunzang Chosdol	SEP.09	853,994
49	N1082	Dr. Kunzang Chosdol	MAR.10	573
50	I560	Dr. M.L. Khurana	JUN.09	18,956
51	I516	Dr. Madhulika Kabra	MAR.10	225
52	N1008	Dr. Madhulika Kabra	MAY.09	18,200
53	N962	Dr. Madhulika Kabra	JUN.09	21,000
54	N962	Dr. Madhulika Kabra	OCT.09	63
	N962	Dr. Madhulika Kabra	MAR.10	-170,000
55	N962A	Dr. Madhulika Kabra	MAR.10	958
56	N962C	Dr. Madhulika Kabra	MAR.10	-115,214
57	N962D	Dr. Madhulika Kabra	MAR.10	10,486
58	N1169	Dr. N.C. Chandra	MAR.10	146,250
59	N992	Dr. N.C. Chandra	JAN.10	402,500
60	N992	Dr. N.C. Chandra	MAR.10	5,028
61	N934	Dr. N.K. Mehra	AUG.09	143,932
62	N934	Dr. N.K. Mehra	OCT.09	7,313
63	N934	Dr. N.K. Mehra	MAR.10	-7,305

64	N972	Dr. N.K. Mehra	MAR.10	-7,275
65	N982	Dr. N.K. Mehra	MAY.09	55,120
66	N982	Dr. N.K. Mehra	OCT.09	18,700
67	D233	Dr. N.R. Jagannathan	NOV.09	52,512
68	D233	Dr. N.R. Jagannathan	DEC.09	60,265,929
69	D233	Dr. N.R. Jagannathan	MAR.10	-63,773,534
70	I583	Dr. Neena Khanna	DEC.09	22,356
71	N1122	Dr. Neerja Bhatla	OCT.09	839,061
72	N1122	Dr. Neerja Bhatla	JAN.10	7,999
73	N1071	Dr. Neeta Singh	OCT.09	59,400
74	N1071	Dr. Neeta Singh	FEB.10	3,350
75	N1057	Dr. Govind Makharia	AUG.09	69,520
76	I474	Dr. O.P. Kharbanda	JUL.09	7,500
77	I604	Dr. O.P. Kharbanda	JAN.10	1,788
78	N1081	Dr. Pramod Garg	OCT.09	76,950
79	N1081	Dr. Pramod Garg	DEC.09	413,322
80	I581	Dr. Pratima Ray	JAN.10	802,090
81	I581	Dr. Pratima Ray	MAR.10	-19,178
82	N1002	Dr. Pratima Ray	MAY.09	195,199
83	N1002	Dr. Pratima Ray	JAN.10	150,642
84	N1002	Dr. Pratima Ray	FEB.10	12,690
85	N1002	Dr. Pratima Ray	MAR.10	-91,730
86	D239	Dr. Punit Kaur	JUL.09	209,474
87	D239	Dr. Punit Kaur	MAR.10	45,545
88	I380	Dr. Punit Kaur	AUG.09	10,238
89	I380	Dr. Punit Kaur	SEP.09	19,950
90	I380	Dr. Punit Kaur	JAN.10	32,400
91	N1019	Dr. R.Lakshmy	NOV.09	141,220
92	N1019	Dr. R.Lakshmy	MAR.10	531
93	I552	Dr. Rashmi Mathur	MAY.09	99,563
94	I552	Dr. Rashmi Mathur	MAR.10	-2,610
95	N1005	Dr. Radhika Tandon	MAY.09	29,981
96	N1005	Dr. Radhika Tandon	JUL.09	279,448
97	N1005	Dr. Radhika Tandon	FEB.10	469,139
98	N1005	Dr. Radhika Tandon	MAR.10	-22,282
99	N1011	Dr. Rajesh Malhotra	MAR.10	41,340

100	N1097	Dr. Rajesh Malhotra	AUG.09	7,500
101	N1097	Dr. Rajesh Malhotra	SEP.09	18,700
102	N1097	Dr. Rajesh Malhotra	OCT.09	185,496
103	N1097	Dr. Rajesh Malhotra	NOV.09	100,340
104	N1097	Dr. Rajesh Malhotra	JAN.10	413,322
105	I600	Dr. Rajiv Kumar	MAR.10	4,286
106	I509	Dr. Rama Chaudhary	MAR.10	1,246
107	D232	Dr. Randeep Guleria	MAR.10	-17,783
108	N921	Dr. S.K. Kabra	JUN.09	49,712
109	D216	Dr. S.K. Panda	MAR.10	723
110	D220	Dr. S.K. Panda	JUN.09	6,119,655
111	N967	Dr. S.K. Panda	DEC.09	131,625
112	N984	Dr. S.K. Panda	MAR.10	-18,253
113	N830	Dr.S.K. Sharma	DEC.09	74,880
114	N911	Dr.S.K. Sharma	MAY.09	350,000
115	N911	Dr.S.K. Sharma	SEP.09	350,000
116	N1044	Dr. Sarman Singh	JUN.09	435,955
117	N906	Dr. Sarman Singh	JUL.09	239,500
118	N906	Dr. Sarman Singh	MAR.10	583
119	N1106	Dr. Savita Yadav	MAR.10	1,117
120	D022A	Dr. Shashi Wadhwa	DEC.09	698,009
121	D022A	Dr. Shashi Wadhwa	FEB.10	458,143
122	D022A	Dr. Shashi Wadhwa	MAR.10	-23,591
123	N1085	Dr. Shashi Wadhwa	APR.09	303,418
124	N1085	Dr. Shashi Wadhwa	NOV.09	2,252,339
125	N1085	Dr. Shashi Wadhwa	DEC.09	-2,483,086
126	N1085	Dr. Shashi Wadhwa	FEB.10	343,496
127	N1088	Dr. Shinjini Bhatnagar	JUL.09	17,000
128	N1088	Dr. Shinjini Bhatnagar	AUG.09	189,592
129	N1088	Dr. Shinjini Bhatnagar	SEP.09	320,835
130	N737	Dr. Shinjini Bhatnagar	SEP.09	54,080
131	N737	Dr. Shinjini Bhatnagar	OCT.09	16,640
132	N869A	Dr. Shinjini Bhatnagar	AUG.09	141,440
133	N869A	Dr. Shinjini Bhatnagar	SEP.09	126,880
134	I435	Dr. Shobha Broor	MAY.09	357,600
135	I435	Dr. Shobha Broor	JUN.09	42,000

136	I435	Dr. Shobha Broor	JUL.09	29,474
137	I435	Dr. Shobha Broor	SEP.09	372,263
138	I435	Dr. Shobha Broor	OCT.09	92,579
139	I435	Dr. Shobha Broor	DEC.09	3,006,179
140	I435	Dr. Shobha Broor	MAR.10	3,041,430
141	I521	Dr. Shobha Broor	NOV.09	30,938
142	I521	Dr. Shobha Broor	MAR.10	30,096
143	N1051	Dr. Shobha Broor	MAR.10	-67,050
144	N1099	Dr. Shobha Broor	AUG.09	39,850
145	N1099	Dr. Shobha Broor	SEP.09	405,763
146	N1099	Dr. Shobha Broor	OCT.09	154,366
147	N1099	Dr. Shobha Broor	DEC.09	880,246
148	N1099	Dr. Shobha Broor	JAN.10	103,894
149	N1099	Dr. Shobha Broor	MAR.10	251,071
150	N1100	Dr. Shobha Broor	SEP.09	45,950
151	N1100	Dr. Shobha Broor	DEC.09	25,800
152	N1100	Dr. Shobha Broor	JAN.10	290,291
153	N945	Dr. Sneha Anand	APR.09	696,800
154	D192	Dr. Subrata Sinha	MAR.10	95,125
155	D240	Dr. Sujata Sharma	JUL.09	50,625
156	N1128	Dr. Suneeta Mittal	MAR.10	427,944
157	I589	Dr. Tulika Seth	SEP.09	55,328
158	I589	Dr. Tulika Seth	NOV.09	6,500
159	I589	Dr. Tulika Seth	DEC.09	22,984
160	I589	Dr. Tulika Seth	JAN.10	6,500
161	I589	Dr. Tulika Seth	MAR.10	41,800
162	N985	Dr. V.K. Paul	JUL.09	38,000
163	N364	Dr. V. Raina	MAY.09	19,000
164	I447	Dr. Y.D. Sharma	MAR.10	140
165	N995	Dr. Y.K. Gupta	FEB.10	153,718
166	N995	Dr. Y.K. Gupta	MAR.10	159,327
167	N1033	Dr. Sushma Bhatnagar	MAY.09	19,968
168	N1033	Dr. Sushma Bhatnagar	AUG.09	38,272
169	D247	Dr. Manjari Tripathi	JUL.09	116,400
170	D247	Dr. Manjari Tripathi	MAR.10	-413
171	N994	Dr. Manjari Tripathi	JUL.09	96,400

172	N704	Dr. Sandeep Gularia	DEC.09	28,600
173	N948	Dr. Arvind Bagga	MAR.10	-2,934
174	N949	Dr. Arvind Bagga	NOV.09	44,500
175	N949	Dr. Arvind Bagga	DEC.09	70,594
176	N949	Dr. Arvind Bagga	MAR.10	-1,625
177	I558	Dr. Rima Dada	SEP.09	371,164
178	I558	Dr. Rima Dada	FEB.10	21,608
179	N831	Dr. G. Karthikeyan	JUL.09	13,100
180	N000	Sh. S.P. Mahla	JUN.09	111,989
181	N000	Sh. S.P. Mahla	JUL.09	19,946
182	N000	Sh. S.P. Mahla	SEP.09	58,732
183	N000	Sh. S.P. Mahla	OCT.09	8,201
184	N000	Sh. S.P. Mahla	NOV.09	10,950
185	N000	Sh. S.P. Mahla	DEC.09	2,400
186	N1149	Dr. Seema Sood	MAR.10	349,688
187	N1012	Dr. V.K. Sharma	MAY.09	17,800
188	N1012	Dr. V.K. Sharma	FEB.10	42,228
189	N1154	Dr. Parthaprasad Chattopadhyay	MAR.10	1,752,478
190	I572	Dr. Sharmistha Dey	MAY.09	199,687
191	D196	Dr. Rashmi Mathur	JUN.09	47,555
192	N1105	Dr. Sanjeev Sinha	APR.09	80,790
193	N824	Dr. Sanjeev Sinha	MAR.10	-10,342
194	N872	Dr. Sanjeev Sinha	MAR.10	54,800
195	I551	Dr. Seema Sen	SEP.09	63,990
196	I609	Dr. Anant Mohan	MAR.10	199,680
197	N1059	Dr. Anant Mohan	APR.09	199,680
198	I616	Dr. Ritu Duggal	MAR.10	76,950
199	N1007	Dr. Ritu Duggal	FEB.10	48,880
200	N1007	Dr. Ritu Duggal	MAR.10	9,345
201	N1021	Dr. Balram Airan	JUN.09	49,793
202	N1021	Dr. Balram Airan	FEB.10	225,813
203	N1021	Dr. Balram Airan	MAR.10	-364,457
204	N808	Dr. Balram Airan	JUL.09	57,740
205	I546	Dr. S. Vivekanandhan	AUG.09	-211,150
206	N1022	Dr. S. Vivekanandhan	MAY.09	29,981
207	N1022	Dr. S. Vivekanandhan	JUL.09	112,003



208	N947	Dr. S. Vivekanandhan	APR.09	104,490
209	N947	Dr. S. Vivekanandhan	SEP.09	211,150
210	N960	Dr. Ajay Garg	FEB.10	45,675
211	N1065	Dr. Urvashi B. Singh	MAR.10	-4,199
212	N938	Dr. S.C. Mahapatra	MAR.10	-13,958
213	N1053	Dr. Ritu Gupta	OCT.09	-612,948
214	N1053	Dr. Ritu Gupta	NOV.09	-64,320
215	N1053	Dr. Ritu Gupta	MAR.10	-76,474
216	N944	Dr. Ritu Gupta	MAR.10	10,350
217	N1015	Dr. Sujata Mohanty	MAY.09	29,981
218	N1015	Dr. Sujata Mohanty	JUL.09	218,623
219	N1015	Dr. Sujata Mohanty	MAR.10	79,715
220	N890	Dr. Ravinder Goswami	OCT.09	85,100
221	N1141	Dr. Sanjeev Sharma	NOV.09	1,368,616
222	N1141	Dr. Sanjeev Sharma	FEB.10	-18,134
223	N1141	Dr. Sanjeev Sharma	MAR.10	-27,262
224	N867	Dr. Deepak Kumar Gupta	SEP.09	18,900
225	D221	Dr. B.S. Sharma	SEP.09	599,984
226	N1095	Dr. B.S. Sharma	OCT.09	460,512
227	N1095	Dr. B.S. Sharma	NOV.09	199,913
228	N1095	Dr. B.S. Sharma	FEB.10	184,822
229	N1095	Dr. B.S. Sharma	MAR.10	262,768
230	N895	Dr. Vandana Jain	JUL.09	60,800
231	N895	Dr. Vandana Jain	MAR.10	12,150
232	N986	Dr. Rajesh Khadgawat	NOV.09	9,880
233	I582	Dr. Purva Mathu	OCT.09	49,920
234	N1110	Dr. Pratap Sharan	MAR.10	-8,698
235	I619	Dr. S. Arulselvi	MAR.10	199,125
236	D259	Dr. A. Srinivasan	FEB.10	113,374
237	D259	Dr. A. Srinivasan	MAR.10	59,231
238	N736	Dr. A. Srinivasan	MAR.10	11,270
239	N1147	Dr. Ashish Suri	MAR.10	3,012,763
240	N861	Dr. Ashish Suri	DEC.09	9,250
241	N861	Dr. Ashish Suri	MAR.10	98,270
242	I584	Dr. Nand Kumar	FEB.10	17,700
243	N1056	Dr. Alpana Sharma	MAY.09	427,001

244	N1056	Dr. Alpana Sharma	SEP.09	92,375
245	N1098	Dr. T.C. Nag	JUN.09	24,685
246	N1098	Dr. T.C. Nag	NOV.09	690,390
247	N1098	Dr. T.C. Nag	FEB.10	71,942
248	N1098	Dr. T.C. Nag	MAR.10	-52,641
249	D228	Dr. Alok Thakar	SEP.09	47,070
250	C619	Dr. Sandeep R Mathur	JUL.09	250,000
251	C619	Dr. Sandeep R Mathur	SEP.09	60,000
252	D246	Dr. Sanjay Kumar Sood	DEC.09	1,730,290
253	D246	Dr. Sanjay Kumar Sood	MAR.10	62,708
254	N1023	Dr. Gurpreet Gulati	JUL.09	219,333
255	N1006	Dr. Anita Dhar	MAY.09	-3,337,797
256	N1006	Dr. Anita Dhar	AUG.09	15,000
257	N1115	Dr. Rakesh Yadav	DEC.09	13,800
258	N950	Dr. Uma Kumar	MAY.09	42,187
259	I602	Dr. Anita Saxena	JUN.09	305,650
260	I602	Dr. Anita Saxena	AUG.09	93,860
261	I602	Dr. Anita Saxena	MAR.10	39,480
262	D263	Dr. Ashok Kumar Jaryal	MAR.10	1,437,366
263	N1087	Dr. Ashok Kumar Jaryal	NOV.09	1,373,055
264	N1140	Dr. Rajeev Kumar	SEPT	9,600
265	I594	Dr. Atul Kumar	DEC.09	44,096
266	N1138	Dr. Virinder Kumar Bansal	OCT.09	302,880
267	D252	Dr. Garima Shukla	MAR.10	595,870
		<b>GRAND TOTAL</b>		<b>47,749,391</b>

(Smt. Basanti Dalal)  
Financial Advisor

## Appendix B

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

S.No.	Funding Agency	Debit
1	Rajiv Gandhi Foundation	989
2	INCLEN	361
3	Institute of Cancer Research UK co-ordination Committee	5625
4	SRB-Clinical Pharmacology	3154100
5	Maharishi Ayurveda	15978
6	Zydas Healthcare Ltd	398
7	Federation of Obstetric & Gynaecological	276
8	Aimil Pharmaceutical India Ltd.	331
9	L.G. Chemicals India Pvt Ltd.	668
10	Hindustan Latex Family Planning Promotion	7020
11	THE MICRONUTRIENT INITIATIVE, ASIA	4702
12	Vulimini Ramalingaswami Foundation	6508
13	Media Lab Asia	11301
14	BHARAT SERUMS AND VACCINES LTD.	10000
15	Relisys Medical Devices Ltd.	3433
16	PPD Pharmaceutical Development India Pvt. Ltd.	1854
17	M/S ASPREVA PHARMACEUTICAL CORPORATION, CANADA	41816
18	M/S Markansas Research Division	4745
19	THRESHOLD PHARMACEUTICALS, USA	3136
20	The Service de Dermatologie, France	8445
21	Coloplast	5775
		<b>3287461</b>

(Smt. Basanti Dalal)  
Financial Advisor

## Appendix-C

### ALL INDIA INSTITUTE OF MEDICAL SCIENCES STATEMENT SHOWING THE DONATIONS & INVESTMENTS AS ON 31-03-10

<u>S.NO.</u>	<u>PARTICULARS &amp; MODE OF INVESTMENT</u>	<u>AMOUNT OF DONATION</u>	<u>AMOUNT OF INVESTMENT</u>
1	AIIMS ROTARY CANCER HOSPITAL	70000	70000
2	MISC. DONATION - HEAMOTOLOGY UNDER Dr. A.K. SARAYA	8000	8000
3	Dr. A.K. SARAYA		
4	ANNONYMOUS DONORS	70000	70000
5	DR. B.B. DIXIT LIB.	10000	13700
6	CHACHAMA DONORS	150000	199600
7	MJ. GENERAL S.L. BHATIA	10000	9800
8	MJ. GENERAL AMIR CHAND	150000	149660
		100000	100000
9	SARUP CHAND HANS RAJ	20000	19500
10	RAJ KUMARI AMRIT KAUR	25000	25000
11	KATHERINE SORAL FREYMAN	5000	5000
12	DR. S.L. KALRA	6000	5800
13	R.L. RAJGARHIA	850000	850000
14	SMT. PRAKASH WATI DONATION	13800	13800
15	SMT. KRIPAL KAUR (UNIT TRUST)	6000	5908
16	LALA KHUSHI RAM	247753	247753
17	S.P. VIRMANI (FIXED DEPOSIT)	1500	1500

18	EAST INDIA COMMERCIAL PVT. LTD CALCUTTA (FIXED DEPOSIT) SRB	320000	280000
19	DR. KANTI KAPILA (UNIT TRUST)	10079	10002
20	DR. V. RAMALINGASWAMI (UNIT TRUST)	8000	7996
21	SR. S. SABHARWAL (UNIT TRUST)	10000	9951
22	DR. N.H. KASWANI (UNIT TRUST)	10000	9990
23	DR. V. HINGORANI	15000	15000
24	KUMUDINI KRISHNA MOORTHY	15000	15000
25	G.D. RADHAKRISHNA (SARWESHWARI MEMORIAL ORATION, UNIT TRUST)	20000	19987
26	P.L. TANDON (FIXED DEPOSIT)	15000	15000
27	XV INTERNATIONAL CONGRESS OF PEADIATRICS (UNIT TRUST)	40000	40000
28	RAM LOBHAYA DONATION (FIXED DEPOSIT)	15000	15000
29	SUBHASH MEMORIAL FOUNDATION (V.L. TELEKAR DONATION)	10101	10101
30	SMT. INDIRA SATYANAND	10000	10000
31	SH. K.V. SUBA RAO	10000	10000
32	NEWZELAND HIGH COMMISSION	10000	10000
33	AKHILESH MITTAL (SUMITH MOHAN SADAN DAYAL TRUST)	20000	20000
34	PREMALATA KAPOOR	10000	10000
35	DWARKA PRASAD TRUST	50000	50000
36	LATE. SH. D.R. BAHRI	15000	15000
37	SEWA RAM	15000	15000
38	FACULTY BENEVELENT FUND	60065	60065
39	V-RANGA MEMORIAL TRUST	50000	50000

40	SH. DORABJI TRUST	10000	10000
41	CORPUS FUND	30000	30000
42	AIIMSONIANS	10000	10000
43	SARLAATAM PRAKASH	15000	15000
44	K.L. WIG RESEARCH FOUNDATION	100000	100000
45	V.K. MITTAL	130000	130000
46	SNEHLATA SONI	15000	15000
47	AIIMSONIAN OF AMERICA	129850	129850
		151630	151630
		126471	126471
48	SMT. LEELA WATI SALWAN	15000	15000
49	DR. D.K. GUPTA	100000	100000
50	J.R. CHAWLA	15000	15000
51	URMIL SHARMA IN R/O SHYAM SHARMA	15000	15000
52	SMT. SUSHILA WATI MALHOTRA	500000	500000
53	BASANTI KUMARI	100000	100000
54	ORTHOPAEDICS FUND	250000	250000
55	DR. S.B. ROY	125000	125000
56	MR. R.V. KANDHARI	100000	100000
57	DR. B.K. KAPOOR	125000	125000
58	SMT.SAVITRI UGGARSEAN	100000	100000
59	VIMAL LAUMAS	200000	200000
60	MRS. PRAMADA BAJAJ	200000	200000

61	DR. V. RAMALINGASWAMI	100000	100000
62	DR. N.C. NAYAK	100000	100000
63	DR. H.D. TANDON	100000	100000
64	PROF. N. GOPINATH (CTVS)	1200000	1200000
65	PROF. L.K. BHUTANI ORATION	500000	500000
66	BINEY ROHTAGI & SMT. SHAKUNTALA	36000	-
67	Dr. K.L. WIG (SBI)	36990	37000
68	ZENITH FINANCE & CO. (SBI)	17000	17000
69	KAMANI CHARITY TRUST (SBI)	15000	15000
70	SMT. KAUSHALYA THAPAR (UNITI TRUST)	12000	12017
71	SMT. BRIJ RANI SAWHENY (UNIT TRUST)	22501	22472
72	KAMLA B.K. ANAND	100000	100000
73	SH. G.D JHANGINI	25500	25602
74	DR. B.K. ANAND (UNIT TRUST)	5000	4995
75	R.S. NANDA	78274	78274
76	GPF INVESTMENT	2173193465	
77	NPS INVESTMENT	91900000	
	<b>TOTAL</b>	<b>10902514</b>	<b>2275611889</b>

**(Smt. Basanti Dalal)**  
**Financial Advisor**



## Appendix-D

### ALL INDIA INSTITUTE OF MEDICAL SCIENCES

#### Details of Misc. Donations as on 31.3.2010

<u>S.NO.</u>	<u>DEPARTMENT</u>	<u>OP. BAL. AS ON</u>	<u>GRANT</u>	<u>TOTAL</u>	<u>EXPD.</u>	<u>CL. BAL AS ON</u>
		<u>1/4/2009</u>				<u>31-03-2010</u>
1	R & AL	19475		19475		19475
2	PSYCHIATRY	28495		28495		28495
3	HEAMATOLOGY	12380		12380		12380
4	ORTHO	65586		65586		65586
5	IMMUNOLOGY	824		824		824
6	PAED SURGERY	32041		32041		32041
7	INSTT. MISC.	137338		137338		137338
8	DERMATOLOGY	15974		15974		15974
9	IRCH DR. V. KOCHUPILLAI	10460		10460		10460
10	LEPROSY PATIENT	115785		115785		115785
11	IRCH DR. A.K. BASU	17651		17651		17651
12	CN CENTRE	20418		20418		20418
13	BB DIXIT LIB	3324		3324		3324
14	EMP. WELFARE FUND	125139		125139		125139
15	PMR POOR FUND	34199		34199		34199
16	SURGERY	501		501		501
17	K.L. WIG CEMET	12021		12021		12021
18	N/MEDICINE	19571		19571		19571

<b>19</b>	CEU	30000	30000	30000	30000
<b>20</b>	DR. NK MEHRA	597235	597235	597235	597235
<b>21</b>	I.C.G.E.B. DR. T.P SINGH	444630	444630	444630	444630
<b>22</b>	DR. VEENA KALRA	74682	74682	74682	74682
<b>23</b>	LEVER CLINIC - GASTRO	2865	2865	2865	2865
<b>24</b>	DR. N.P. GUPTA -UROLOGY	4982	4982	4982	4982
<b>25</b>	DR. N. KOCHUPILLAI-POOR PT.	120000	120000	120000	120000
<b>26</b>	PEAD. GENETICS	399760	421500	307700	513560
<b>27</b>	MRS. USHA SHARMA	176600	176600	176600	176600
<b>28</b>	MISC. RECEIPT		145540	145540	145540
		<b><u>2521936</u></b>	<b><u>567040</u></b>	<b><u>307700</u></b>	<b><u>2781276</u></b>

(Smt. Basanti Dalal)  
Financial Advisor

## Appendix-E

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**  
**Details of Misc. Deposits as on 31.3.2010**  
**2009-2010**

<b>S.NO.</b>	<b>NAME OF THE DEPARTMENT</b>	<b>AMOUNT</b>
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
<b>TOTAL</b>		<b>330986</b>

**(Smt. Basanti Dalal)**  
**Financial Advisor**

## Appendix - F

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES**  
**Details of GPF Investment**  
**2009-2010**

Opening Balance of Investment as on 1.4.2009	1783193465
Investment during 2009-10	878200000
Add Closing Cash Book Balance after correction of 2008-09	180803780
	2842197245
Investment matured during 2009-10	488200000
	2353997245

### **Details of NPS Investment 2009-2010**

Opening Balance of Investment as on 1.4.2009	77200000
Investment during 2009-10	29700000
	106900000
Investment matured during 2009-10	15000000
	91900000
Closing Cash Book Balance as on 31.3.2010	111781410
	203681410

**(Smt. Basanti Dalal)**  
**Financial Advisor**

## 12.2 Audit Report

### **Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of All India Institute of Medical Sciences (AIIMS), New Delhi for the year ended 31 March 2010**

We have audited the attached Balance Sheet of All India Institute of Medical Sciences (AIIMS), New Delhi as at 31 March 2010 and the Income & Expenditure Account/Receipts & Payment 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. These financial statements are the responsibility of the AIIMS's management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/CAG's Audit Reports separately.
3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.
4. Based on our audit, we report that:
  - i We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;
  - ii The Balance Sheet and Income & Expenditure Account/Receipt & Payment Account dealt with by this report have not been drawn up in the format approved by the Ministry of Finance.
  - iii In our opinion, proper books of accounts and other relevant records have been maintained by the AIIMS in so far as it appears from our examination of such books.
  - iv We further report that :

#### **A Balance Sheet**

##### **A.1 Assets**

##### **A.1.1 Understatement of assets by Rs. 1.60 crore (GPF)**

Institute had made investment of Rs. 71.60 crore including premium paid in Government securities of SBI but had shown only Rs. 70.00 crore in the GPF Investment Account (included in Rs. 87.82 crore Appendix F). This resulted in understatement of Investment in GPF Account by Rs. 1.60 crore and overstatement of expenditure in GPF Account.

**A.1.2 Overstatement of Assets by Rs. 11.49 lakh (Cardio-thoracic & Neuro Sciences Centre)**

Four ambassador cars with purchase value of Rs. 13.17 lakh were condemned and auctioned during the year but the amount of Rs. 1.68 lakh had not been reduced from the head “Vehicles” on the asset side and “capital fund” on the liabilities side of balance sheet. This resulted in overstatement of head “Vehicles” on the asset side and capital fund on the liabilities side by Rs. 11.49 lakh.

**A.1.3 Overstatement of Assets by Rs. 21.00 lakh (CN Centre)**

C.N. centre had cancelled the supply order of a machinery and equipment worth Rs. 21.00 lakh for the year 2007-08 against which an advance was lying under the head “Advance payment for foreign purchase for Machinery and equipment”. However, the centre, after deducting the amount from the above head, wrongly added the amount of Rs. 21.00 lakh in the head “Machinery and equipment”. This has resulted in overstatement of head “Machinery and equipment” by Rs. 21.00 lakh. Moreover, the amount of Rs. 21.00 lakh was to be reduced from the Capital Fund in the liabilities side as the same was capitalised during the year 2007-08. As this was not reduced by the centre, this also resulted in overstatement of capital fund by Rs. 21.00 lakh.

**A.1.4 Understatement of assets by Rs. 60.00 lakh (Dr. BRA Institute Rotary Cancer Hospital)**

IRCH had shown closing balance of Rs. 3.27 crore in its Patient Treatment’s receipt and payment account but in the balance sheet the centre had shown it as Rs. 2.67 crore by wrongly deducting the FDR of Rs. 60.00 lakh in liabilities side and asset side of balance sheet. This has resulted in understatement of both liabilities and asset by Rs. 60.00 lakh.

**A.1.5 Overstatement of Assets by Rs. 1.93 lakh (Dr. BRA Institute Rotary Cancer Hospital)**

Furniture of Rs. 1.93 lakh was condemned and auctioned during the year by the centre but the amount had not been reduced from the head “Furniture and Fixtures” on the asset side and “capital fund” on the liabilities side of balance sheet. This resulted in overstatement of head “Furniture and Fixtures” and capital fund by Rs. 1.93 lakh.

**A.1.6 Fixed assets**

No depreciation was provided on fixed assets resulting in overstatement of assets and understatement of capital fund.

The schedule of fixed assets showing the opening balance, additions, deletion, depreciation and closing balance have not been prepared.

**A.1.7 Investments-Non adherence to the approved pattern of investment for G. P. Fund accumulations.**

The investment of accumulated funds of General Provident fund balance of Rs. 217.32 crore was not made as per the pattern prescribed by the Ministry of Finance vide notification no. F.5 (88)/2006- PR dated 14.8.2008.

**A.1.8 Understatement of assets by Rs. 1.00 crore**

The Institute had not taken interest of Rs. 1.00 crore earned on the FDR of Rs. 13.00 crore, matured on 30.03.2010, in the GPF account. This resulted in understatement of closing balance of GPF account by Rs. 1.00 crore on the asset as well as liabilities side of balance sheet

## **A.2 Liabilities**

### **A.2.1 Understatement of liabilities – Capital Fund by Rs. 9.57 crore (AIIMS Main)**

The Institute had shown assets of Rs. 120.42 crore created during the year while capitalised only Rs. 110.85 crore on the liabilities side. This needs to be reconciled.

### **A.2.1 Overstatement of liabilities – Capital Fund by Rs. 92.57 lakh (Rajender Prasad Centre)**

(b) RP Centre had shown assets of Rs. 1407.43 lakh created during the year while capitalised Rs. 1500.00 lakh on the liabilities side. This needs to be reconciled.

### **A.2.1 Understatement of liabilities – Capital Fund by Rs. 30.71 lakh (C.N. Centre)**

(c) C.N Centre had shown assets of Rs. 2830.71 lakh created during the year while capitalised Rs. 2800.00 lakh on the liabilities side. This needs to be reconciled.

### **A.2.1 Overstatement of liabilities – Capital Fund by Rs. 31.71 lakh (Dr. BRA IRCH)**

(d) IRCH had shown assets of Rs. 868.29 lakh created during the year while capitalised Rs. 900.00 lakh on the liabilities side. This needs to be reconciled.

### **A.2.2 Understatement of liabilities (Dr. BRA Institute Rotary Cancer Hospital)**

IRCH had not shown the earnest money and security deposit outstanding as on 31.03.2010 to be refunded to the various contractors as liabilities in the balance sheet. The amount could not be quantified in audit.

## **B Income and Expenditure Account**

### **B.1 Income**

#### **B.1.1 Overstatement of Income by Rs. 31.03 lakh (N.D.D.T.C.)**

N.D.D.T.C. had shown Misc. receipt of Rs. 31.03 lakh as income instead of Rs. 1.03 lakh in the Income and Expenditure account. This resulted in overstatement of Income by Rs. 30 lakh and overstatement of excess of income over expenditure.

## **C. General**

**C.1.1** The Institute and its all centres are capitalising the advances in the liabilities side of balance sheet given for the purchase of machinery and equipment and for other purposes. However, the amount should only be capitalised after the actual receipt of machinery and equipment. This had resulted in overstatement of assets as well as capital fund in the liabilities side of balance sheet in respect of all centres. This practice should be discontinued.

**C.1.2** The Institute is not maintaining separate Receipt and Payment account and balance sheet for General Provident Fund (GPF) in its accounts and only showing the consolidated figures of GPF account in the main balance sheet on both sides. In the absence of separate balance sheet true liabilities and assets could not be ascertained.

## **D. Grants in aid**

The institute is mainly financed from the grants of Government of India. During the year 2009-10 the institute received grants of Rs. 894.84 crore {Plan Rs. 250.51 crore and Non-

Plan Rs. 636.00 crore and Rs. 8.33 crore (Plan) for N.D.D.T.C.)). It also had its own income of Rs. 73.53 crore. The total plan expenditure was Rs. 162.44 crore and Rs. 107.92 crore was utilised for giving advances for various purposes. The total non plan expenditure was Rs. 711.88 crore and Rs. 2.97 crore was given to suppliers etc. as advances. The institute received grants for various schemes for Rs. 55.55 crore and incurred an expenditure of Rs. 47.57 crore.

Out of the grants-in-aid of Rs. 8.33 crore received during the year (Rs. 1.58 crore was received in March), N.D.D.T.C. could utilise a sum of Rs. 0.48 crore leaving a balance of Rs. 1.10 crore as unutilised grant as on 31 March 2010.

**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 and Income and Expenditure Account /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 2010; and
  - b. In so far as it relates to Income and Expenditure Account of the surplus for the year ended on that date

**For and on behalf of the C &AG of India**

**Director General of Audit  
Central Expenditure**

**Place: New Delhi  
Date: 03.11.2010**



## **Annexure –I to Audit Report**

### **1. Adequacy of internal audit system**

- The Institute did not have any internal audit manual.
- During 2009-10, out of 70 units only nine units were audited by the internal audit wing of the Institute.

### **2. System of physical verification of fixed assets**

- The physical verification of fixed assets had not been conducted during 2009-10 and as such, the actual existence of fixed assets included in the accounts could not be assured.
- The physical verification of stationery, books and publications and consumable items was conducted for the year 2009-10.

### **3. Regularity in payment of statutory dues**

- As per the accounts, no statutory dues over six months were outstanding.

**Replies/comments to the Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of All India Institute of Medical Sciences (AIIMS) for the year ended 31<sup>st</sup> March 2010**

**A.1.1 Understatement of assets by Rs. 1.60 crore (GPF)**

The face value of the investment was shown in the balance sheet (excluding premium). The understatement of investment in GPF Account as pointed out will be rectified in the next year balance sheet.

**A.1.2 Overstatement of Assets by Rs. 11.49 lakh (C.N.C, I.R.C.H & N.D.D.T.C)**

Due to oversight the figures have not been inserted in the Balance Sheet. The necessary correction in this regard will be carried out by reducing the assets and Capital Funds in the Balance Sheet for the year 2010-11.

**A.1.3 Overstatement of Assets by Rs. 21.00 lakh (CN Centre)**

The point has been noted and the necessary correction in this regard will be made in the Annual Accounts of CNC for the year 2010-11.

**A.1.4 Understatement of assets by Rs. 60.00 lakh (Dr. BRA Institute Rotary Cancer Hospital)**

Discrepancy pointed out by the Audit has been noted and necessary correction in this regard will be made in the Annual Accounts for the year 2010-11.

**A.1.5 Overstatement of Assets by Rs. 1.93 lakh (Dr. BRA Institute Rotary Cancer Hospital)**

Discrepancy pointed out by the Audit has been noted and necessary correction in this regard will be made in the Annual Accounts for the year 2010-11.

**A.1.6 Fixed assets**

The Institute prepares its accounts on actual receipt and expenditure basis. Further, no depreciation on Machinery & Equipment, Vehicles etc. has been provided as the AIIMS is fully funded by Government of India. A foot-note in this regard has already been given in the Balance Sheet to justify the action taken.

**A.1.7 Investments-Non adherence to the approved pattern of investment for G. P. Fund accumulations.**

All investment has been made to safe the funds of the employees. The investment of the accumulated funds to the tune of Rs 178 .32 crores during the year 2008-09 could not be made as per the Ministry of Finance, notification. No.F 5 (53) /2002-ECB & PR dated 24 -01-2005 ( Copy enclosed ) not 24-01-2008 as mentioned in audit report, due to the receipt of Ministry of Fin , Deptt of Expenditure notification No. 7(2) /E .coord /2007 dated 15-01-2008. Para 3 of the ibid letter reads as under:-

“It has also been brought to the notice of the Government that, in recent times, there is an emerging practice of inviting competitive bids for placing bulk deposits with banks. As consequence, there is undesirable competition amongst banks leading to arbitrary hikes in deposit rate (even for short periods) which have consequences for the economy. **“It is therefore, advised that the practice of inviting competitive bids for bulk deposits should**

**be discontinued forthwith. Any department/Ministry or any of the agencies/entities/ bodies referred to in para 2 above should place their bulk deposits with the banks (s) with whom they have regular course of business, including public sector banks". Keeping in view above investment was mainly made in public sector banks.**

Since the matter was not free from the doubt, a reference was made to Dept of Expenditure, Min. of Finance seeking clarification whether the pattern of investment stated in Ministry of Finance, notification. No.F 5 (53) /2002-ECB & PR dated 24 -01-2005 was still relevant after the issue Ministry Of Fin , Deptt of Expenditure notification No. 7(2) /E .coord /2007 dated 15-01-2008. It was clarified by the Ministry Of Fin, Dept of Economic affairs vide No F .No 3/ 42//EM /2009 dated 22-09-2009 (copy enclosed) that Dept of Economics Affairs notification ( since revised ) on 14-08-2008 ( copy enclosed) would be applicable for the pattern of investment to be followed by the non govt. Provident Funds , superannuation Funds and Gratuity Funds etc while the Dept.of Expenditure order dated 15-01-2008 would be applicable for keeping the normal funds in the accounts with the public sector banks

**Accordingly, during the year 2009 -10 total investment to the tune of Rs 87.82 crore (Rs 48 .82 crore maturity amount out of Rs 178. 32 crore plus Rs 39.00 crore surplus GPF available after meeting the requirement of GPF advances, GPF Withdrawals & Final settlement of GPF cases) has been made in accordance with the investment pattern as mentioned Govt. of India Deptt of Economic Affairs OM No. 5(88)/2006 –PR dated 14<sup>th</sup> August, 2008.**

#### **A.1.8 Understatement of assets by Rs. 1.00 crore**

Interest amount of Rs.1,00,27,662/- on the FDR of Rs.13.00 crore which was due on 30.03.10 was not taken into account as the same was not received from the GPO Jhunjhunu by ending of the year 2009-10 due to some technical problem.

In this regard GPO Jhunjhunu suggested us to open an account in nearest Post Office in Delhi for transfer the maturity amount plus interest to avoid the bank charges/collection charges.

Accordingly, to avoid loss to the Institute, account was opened in Post Office and the total money with interest for the processing period amounting to Rs.1,04,36,077/- instead of Rs. 1,00,27, 662/- was transferred into account only on 06.5.2010 by GPO Jhunjhunu hence, there is no loss of interest. The interest amount in question will be reflected in the annual accounts for the year 2010-11 as the accounts are maintained in AIIMS on cash basis.

#### **A.2.1 Understatement of liabilities – Capital Fund by Rs. 9.57 crore (AIIMS Main)**

The point has been noted and the necessary correction in this regard will be made in the Annual Accounts for the year 2010-11.

#### **A.2.1(b).Overstatement of liabilities – Capital Fund by Rs. 92.57 lakh (Rajender Prasad Centre)**

The point has been noted and the necessary correction in this regard will be made in the Annual Accounts of RPC for the year 2010-11.

**A.2.1(c).Understatement of liabilities – Capital Fund by Rs. 30.71 lakh (C.N. Centre)**

The point has been noted for future compliance in the Annual Accounts for the year 2010-11 onwards.

**A.2.1(d).Overstatement of liabilities – Capital Fund by Rs. 31.71 lakh (Dr. BRA IRCH)**

The point has been noted and the necessary correction in this regard will be made in the Annual Accounts of IRCH for the year 2010-11.

**A.2.2 Understatement of liabilities (Dr. BRA Institute Rotary Cancer Hospital)**

In compliance with Audit observation Earnest Money and Security Deposit outstanding at the end of financial year to be refunded to contractors would be shown separately in the Balance Sheet in liability side.

**B.1.1 Overstatement of Income by Rs. 31.03 lakh (N.D.D.T.C.)**

The point has been noted and the necessary correction in this regard will be made in the Annual Accounts for the year 2010-11.

**C.1.1 The Institute and its all centres are capitalising the advances in the liabilities side of balance sheet given for the purchase of machinery and equipment and for other purposes. However, the amount should only be capitalised after the actual receipt of machinery and equipment. This had resulted in overstatement of assets as well as capital fund in the liabilities side of balance sheet in respect of all centres. This practice should be discontinued.**

The present accounting system for capitalising the advances given for procurement of Machinery and equipment and for other purpose is in vogue in the Institute from several years and audit never objected the existing practise .However, the point has been noted for future compliance.

**C.1.2 The Institute is not maintaining separate Receipt and Payment account and balance sheet for General Provident Fund (GPF) in its accounts and only showing the consolidated figures of GPF account in the main balance sheet on both sides. In the absence of separate balance sheet true liabilities and assets could not be ascertained.**

The separate account for GPF in AIIMS (Main) Balance Sheet will be depicted in the next year accounts i.e 2010-11.

**D. Grants in aid**

**Facts – No comments.**





