

## **REFERRAL SERVICES**

### ***Histopathology laboratory***

The Histopathology laboratory received 3,858 surgical pathology specimens during the year under report. These specimens included 1354 skin biopsies, 80 Neurosurgical biopsies, 82 bronchoscopic biopsies, 156 prostate biopsies, 35 soft tissue tumors, 163 kidney biopsies, 785 cancer surgical biopsies, 138 bone marrow biopsies, 140 bladder biopsies, 211 GIT biopsies and 714 Misc. specimens.

Special histochemical stains and immunohistochemistry was routinely done for diagnostic purpose. In addition, IF and EM examination was also done as necessary.

Preparation of Teaching Histopathology sets for undergraduate and post graduate students of other institutions are also being made at this lab.

**Staff:** Dr. Sujala Kapur, Dr. Avninder Singh, Dr. Sharmila Mishra, Mr. Surander Pal, Mrs. Karuna, Mrs. Krishna, Mr. Shivraj Singh, Mr. Ishwar Singh, Mrs. E. Sharda, Mr. Daya Sagar, Mr. Anil Verma.

### ***Cytopathology laboratory***

The Cytopathology laboratory caters to the patients referred by the clinicians of Safdarjang hospital. In the year under report, 542 cases of FNAC of palpable masses, 40 radiologically guided aspirates, 40 cases of fluid cytology and 78 Pap smears were received. Routine stains like Giemsa were employed for all cases and Pap, PAS, mucicarmine, Alcian Blue and AFB were used as necessary.

**Staff :** Dr. Usha K. Burra, Dr. Bharat Rekhi, Ms. Mariamma Jaganath, Mr. Satpal, Mr. Raj Singh

### ***Electron Microscopy laboratory***

Electron Microscopy laboratory receives samples for ultrastructural diagnosis from various hospitals in Delhi. Samples for ultrastructural studies are also received from different research institutes and universities from Delhi and other states. In addition, several scientists in the Institute also use EM for their research work. During the year under report, 88 samples were received and processed for electron microscopy.

**Staff:** Dr. Arun Kr. Jain, Mrs. Asha Rani Srivastava, Mrs. Anita Bhatia, Mr. Madan Lal

### ***HIV/AIDS laboratory***

From April 2004 to March 2005, a total of 5,445 blood units were received from blood banks for screening of HIV and HCV. Of these, 2,925 blood units were received from volunteer blood donors and 2,520 from replacement donors. The positivity for HIV was found to be 0.495% while for HCV the positivity was 0.60%.

**Staff:** Dr. A. Mittal, Mrs. Rosamma, Mrs. Bindu, Mr. Chandrika Prasad.

### ***Confocal Laser Scanning Microscopy laboratory***

Total of 284 images were acquired on confocal laser scanning microscope to study ER/PR expression of human/mouse sperm cells, *Chlamydia* inclusion bodies in endocervical cell samples / mouse genital tract secretions, macrophages interaction with *Mycobacterium leprae*.

**Staff:** Dr. S. Saxena, Dr. S. Verma, Mr. P. D. Sharma, Mr. Rajinder Kumar

### ***Flow Cytometry laboratory***

In total 4,452 samples of blood, cervical cells, kala-azar patients, sperm cells, leukemic patients, TB bacteria were acquired and analysed for surface antigen expression, intracellular cytokine response, ER/PR expression and apoptosis.

**Staff:** Dr. Aruna Mittal, Dr. S. Verma, Mr. P.D. Sharma, Mr. Rajinder Kumar

### ***Tumor Biology laboratory***

A total of 840 specimens were received in Tumour Biology laboratory during the year under report for diagnostic and referral services from Departments of Cancer Surgery, Urology and Surgery of Safdarjang Hospital and also other hospitals of Delhi. Of these, 795 specimens were from Department of Cancer Surgery and Department of Surgery comprising of 152 breast specimens, 26 ovarian specimens and rest other soft tissue specimens. From the Urology Department, 296 specimens were received. Out of these 156 being prostate and 140 bladder specimens. Blood has been collected from 60 patients of familial or early age onset breast cancer for genomic analysis. 18 cases of urinary bladder cancer have been studied for cytotoxicity assessment. Besides 163 kidney biopsies have been received from Department of Nephrology, Safdarjang Hospital, Kalawati Saran Hospital and R.M.L. Hospital for light microscopic, immunofluorescence and electron microscopic examination.

**Staff:** Dr. Sunita Saxena, Dr. Anju Bansal, Dr. Zahida Qamri, Mr. Jagdish Pant, Mrs. Valsamma Mathews, Mr. Sazid Hussain.

### ***Molecular Biology laboratory***

During the year, 50 blood samples and 20 bone marrow samples were obtained from kala-azar patients and 12 tissue samples and 12 blood samples were collected from PKDL patients. These samples were analysed for detection of *Leishmania donovani* by PCR, Elisa and DAT.

**Staff:** Dr. Poonam Salotra, Mr. G. Sreenivas, Mr. N. A. Ansari, Ms. Ruchi Singh, Mr. B.V.S Raju, Mr. P. D. Sharma, Mr. Anish Saxena, Mr. Ramchander Chhetri

### ***Tissue Culture / Microbiology laboratory***

During the year, a total no. of 218 clinical swabs (endocervical/urethral) were collected for detection of *C. trachomatis* infection in females & other STD pathogens by different assays. In addition, 66 cervical lavages and blood samples were collected for immunological and molecular studies. Endometrial curettage tissue was collected from 31 spontaneous aborters. These tissue samples were analysed for detection of *C. trachomatis* by IHC and PCR.

**Staff:** Dr. A. Mittal, Dr. S. Rastogi, Mrs. Madhu Bhadwar, Mrs. Asha Rani, Mr. Ajit Lehra, Mr. Kamal Dev.

### ***Cell Biology laboratory***

This laboratory has been established to develop keratinocyte culture for application in burns. The laboratory has a dedicated Tissue Culture Facility with equipment conforming to Bio-Safety Level-2. In addition, the laboratory has also been engaged in activities towards the establishment of *Mycoplasma* quarantine protocol for cell cultures.

**Staff :** Dr. L.K. Yerneni.

### ***Biochemistry / DCP laboratory***

Biochemistry laboratory has Direct Current Plasma Atomic Emission Spectrometer. It is mainly involved in trace element analysis and analysis of organic pollutants.

**Staff:** Dr. Jagjit Kaur Sindhu, Dr. Madhu Bhatnagar, Mr. T. D. Joshi, Mrs. Kamlesh, Mr. Manoj Sejwal.

### ***Animal House Division***

The IOP Animal Facility continues to cater the needs of the IOP scientists. In accordance with the CPCSEA guidelines, the least number of animals that are necessary to maintain the stock in addition to the actual number of animals used for experimentation are only maintained in the Animal House Division.

During the period under report, the stock and experimental animals in the IOP Animal House Division included 87 Balb c mice, 43 C<sub>3</sub>H mice, 17 rats and 13 hamsters. Fellow scientists namely Dr. S. Jayaraman, Dr. S. Rastogi and Dr. Poonam Salotra performed experiments for their respective and SAC and IAEC approved research projects.

**Staff:** Dr. S. Jayaraman, Mr. Kuldeep Sharma, Mr. Bala Dutt.

### ***Medical Education Technology Division***

The Division of M.E.T has continued its efforts towards the preparation of teaching sets on topics relating to Pathology and its allied subjects. In addition to the preparation of teaching sets, the Division continued to undertake the work of photomicrography, taking clinical photographs of patients, gross-specimens and digital images for scientists and research students from our Institute, ICMR and other scientific institutes for presentation of their work in various national and international seminars and conferences. Some of the existing teaching atlases are in the process of being converted in digital format.

### **Participation in Scientific Exhibition**

MET Division provided photography and other audio-visual facilities for the various scientific activities held from time to time. It collaborated with the Publication and Information Division of ICMR in providing high quality digital posters for display in various scientific meetings.

### **Name and number of teaching sets sold during the year**

Sl. No.	Name of the set	No. of sets sold
1	General Pathology	3
2	Soft tissue tumor	2
3	Bone-tumor	1
4	Tumor of salivary gland	1
5	Colposcopy set	1
6	Dermato-Pathology	1
7	ENT set	1
8	Breast lesion	1
9	Growth abnormalities and neoplasia	1
	Total	12

**Staff:** Mr. Ramesh Joshi, Mr. Prem Sagar Sharma, Mr. Moti Lal, Mr. Chandni Prasad, Mr. Pushap Raj, Mr Suresh.

### ***Library***

The Institute library continues to cater the needs of the Institute's staff students and the research staff by subscribing to **52** journals. The faculty of the Safdarjung hospital also used the facility. The library serves the scientific staff, DNB and Ph.D. students, WHO fellows and trainees by getting books, journals and reprints through inter-library loan from Safdarjung Hospital Library, NIC, National Medical Library, INSDOC and other as requested by the Scientific and Administrative staff of the Institute. The library also receive inter-library loan request on E-Mail and sending the photocopy of the same by post at free of cost. The photocopy facility for the scientists and students is being continued.

**The Bulletin Board at the library displays forthcoming events, Institutional activities and scientific information and reports during the week. The Bulletin Board is updated on weekly basis.**

The Institute library has **2,850** books pertaining to Pathology, Breast Cancer, Computer Science, Infectious Diseases, Toxicology, Electron Microscopy, Confocal Microscopy, sub-branches of Pathology and other specialized medical subjects. The Medline service offline (1966-2001), C N A (online) and PUB-MED online services are also provided for the scientific staff of the Institute. JCCC and J-Gate Custom content for Consortia through informatics India Ltd. is used for resource sharing of other ICMR Libraries. The Facility allows the user to be more flexible in meeting their needs.

Local Area Network (LAN) facility with 2 nodes terminal Internet connection has been installed in the library for Internet browsing and e-mail access.

The IOP Newsletter (Quarterly) is being continued and till April, eleven issues have been published and distributed.

E-Mail:- [ioplibrary@rediffmail.com](mailto:ioplibrary@rediffmail.com)

**Staff:** Dr. S. Jayaraman, Mrs. Anita Sharma, Mrs. Sangeeta Batra and Mr. Dharmender

### ***Computer Division***

The computer staffs have made their contribution with the renewed spirits with the addition of LAN facility during the year. With the introduction of LAN facility, the institute has been included in the map of networking of ICMR Institutes. Thanks to the generous support of the Council both in terms of administrative & Technical, the

institute apart from getting the facility also got its staff trained for the added technology the networking facility which was once a dream could be realised and definitely helped in data transfer and analysis. The computer section has one more digital photocopier during the year that is of great help in printing the voluminous data and research papers required by the scientific fraternity. The Institute has addition of latest model of computers which has been utilised optimally.

**Staff:** Dr. Arun Kr. Jain, Mr. Shiv Prakash , Ms. Seema Sharma.