

Microbiology

STAFF

Faculty

Dr. Prasanta Kr. Maiti	MD, DGO, DCP	Professor & Head
Dr. Raja Ray	MD, Ph D, DTM&H.	Professor
Dr. Kumkum Bhattacharya	MD	Professor (Joined on 09/09/2016)
Dr. Kalidas Rit	MD	Associate Professor
Dr. Hirak Jyoti Raj	MD	Assistant Professor
Dr. Nupur Pal	MD, DCH	Assistant Professor
Dr. Suranjan Pal	MD, DNB	Demonstrator
Dr. Arani Debnandi	MD	Demonstrator

Officers transferred out

Dr. Manash Sarkar	MD, DTM&H	Professor & MSVP	To Murshidabad Med. Col.
Dr. Roumi Ghosh	MD, DNB	Assistant Professor	To ESI Med. Col. Joka

Non-teaching staff

A) Medical Technologist: 1 Mallika Dubey 2 Bhabataran Manna 3 Ramkrishna Shaw 4 Subrata Biswas 5 Ajit Kr Pal 6 Kumar Kanti Somchowdhury 7 Jagadishwar Sashmal 8. Mr. Debabrata Chakrabarty [Transferred to Dept. of Pathology from Oct, 2016].

Mr. Biswanath Das is working as Data Entry Operator of IDSP

B) Group D staff: 1 Sandhya Guha 2 Gopal Sardar 3. Pradyut Nava Barua 4. Rama Dutta 5. Rajendra Mullick 6. Kapildeo Mullick 7. Sarajuk Das 8. Moti Mallick

C) Viral Resaerch & Diagnostic Laboratory (VRDL) staff: Dr. Raja Ray (Research Scientist, Med), Dr. Susmita Chatterjee (Res. Scientist, Non-med.), Jayeeta halder (Res. Asstt., Non-med.), Mr Santasri Dan (Lab Technician), Mr. Tirtha Sahoo (Lab Technician).

MD students

3rd Year (2014-17)	2nd Year (2015-18)	1st Year (2016-19)
Dr. Arjun Dutta Dr. Tamas Das Dr. Munmun Sarkar Dr. Anjan Kr. Das	Dr. Indraneel Saha Dr. Abirlal Sanyal Dr. Anjum Namhata Dr. Tanusri Haldar	Dr. Arpit Saha Dr. Sangita Pal Dr. Nishar Akhtar

REGULAR ACADEMIC ACTIVITIES

- Teaching and organizing examinations of MBBS, MD, DMLT, BPT, DCLT, B Sc Nursing.
- Organizing Journal club, Seminars and guiding thesis for MD & Ph D candidates.
- Organizing summer projects for M. Sc. (Microbiology/ Biotechnology) students of different colleges of W.B. and other states, approaching to our institute.

DEPARTMENT NEWS

- Electron Microscope has started functioning.
- DST-FIST sponsored automated blood culture system (Bac-T-Alert & VITEK) installed,
- VRDL established,
- AMRSP (ICMR) project of Rs. 50 Lakhs in 5 yrs, is going to be implemented very soon.
- Microbiology labs situated at Emergency Building 3rd. floor have been shifted to UCM Building
- Organized 11th State Conference of IAMM (WB-Microcon 2016) , CME & Workshops, / 1st Get-together of PG-Group Microbiologist during 21st – 23rd Oct. 2016.
- Participants from the department received 1st & 2nd prize for presentation in award session at WB-Microcon-2016 (Presenters: Dr. Hirak Jyoti Raj & Archi Ghosh)
- Presentation of Jayeeta Halder selected as "Paper Of Excellence" at 1st Regional Science & Technology Congress-2016, Presidency Division, Department of Science & Technology, Govt. Of West Bengal.

FACULTY NEWS

Prof. P.K. Maiti

- Examiner & paper setter for MBBS, MD (Microbiology) examinations of WBUHS.
- Adjudicator for MD theses from WBUHS.
- MCI Inspector for UG at Banda, U.P. , Sanathnagar, Telangana & Vishakhapatanam, A.P.; PG inspection at Jodhpur
- Under his supervision one candidate completed Ph.D. thesis this year and two more are continuing research, three other candidates are preparing for Ph D Registration
- Reviewer of articles for Indian Journal of Medical Microbiology , Journal of Indian Medical Association, Indian Journal of Medical Research & Medical Glory.
- Conferred Honorary Fellow of Indian Mycology Society (FIMS).
- Member of B.O.S., WBUHS , Pharmaco-vigilance Committee & Purchase Committee & Medical Research Unit of IPGMER; also Acting in-charge of "Electron Microscopy"; Member of interview team for engagement of M.T.(Lab.) held on 7-9 Dec.'16
- Chairperson in a session at "National Symposium on Microbial Diversity and its Impact" held on Feb. 18-19th, 2016 at Calcutta University.
- Received UNESCO Chair Bioethics (HAIFA) Certificate and credited 13 hours CME by WB Medical Council by participating "3T Plus ETTC Training course in Bioethics for Medical And Dental Teachers", held on 21-23 Jan. 2016 at WBUHS organized by UNESCO & WBUHS
- Convener of 1st get-together for Microbiologists associated with UCM/IPGMER
- Organizing President of 11th State Chapter Conference of IAMM, organized by IPGMER & acted as resource person in CME & Workshop. He also presented the Theme lecture on " Nurture Good Bacteria, Corner Bad Bacteria". He was co-author of four papers of which two received awards.
- Acted as Invited Faculty & Resource Person of Microcon 2016 held in PGIMER, Chandigarh where he chaired a session on " Molecular / Rapid techniques and Immunology". He presented a paper and was co-author of nine papers.
- Presented Guest Lecture on " Nano-adjuvant : new ray of hope against anti-microbial resistance" in National Seminar on "Application of nano-materials and allied fields" Organized by Institute of Science Education and Culture (ISEC) & Birla Industrial and Technological Museum (BITM) on 3rd Sept.'16
- Co-author of three papers presented in 1st. Regional Science & Technology Congress 2016, Presidency Division, West Bengal. of which one has been selected as "Paper Of Excellence".
- Expert in Microbiology for Pre-PhD seminar (Microbiology) of Dr. Swagata Ganguly at WBUHS.

Prof. Raja Ray

- Paper setter for MD(Microbiology), MBBS, DMLT, BSc. Nursing & Internal examiner,MD(Microbiology,IPGMER,2016),Internal Examiner MBBS (IPGMER,2016),External examiner

for MBBS (RIMS, Imphal, Feb, 2016) and Silchar Medical College, Feb, 2016, DMLT (Saroj Gupta Cancer Centre and Welfare Home). BSc. Nursing of WBUHS (External and Internal Examiner, 2016).

- Adjudicator of MD Thesis from WBUHS, Jan 2016.
- Expert in Microbiology for Pre-PhD seminar (Microbiology) at WBUHS (Sept, 2016).
- Selected Chairperson for Project Evaluation by Joint Director Public Health and Communicable disease on Mosquito surveillance to forecast and control outbreaks of mosquito borne viral and parasitic diseases in and around Kolkata (Nov, 2016).
- Served as Member, Medical Board constituted by MSVP, IPGMER on 3/10/2016 for management of a neurology patient admitted in Dept of Physical Medicine. Member of interview team for engagement of M.T. (Lab.) held on 7-9 Dec. '16
- Received certificate of co-authorship in paper presented on 14th Nov, 2016 at 1st Regional Science and Technology Congress, 2016 held at the National Institute of Teacher's Training and research, Kolkata
- Received training at National Institute of Virology, Pune for setting up VRDL lab at IPGMER (Sept, 2016)
- MCI Inspector for PG at Apex Medical College, Indore (PG), Kanyakumari Govt. Medical College, Kanyakumari (UG), Muzaffarnagar Medical College, Western UP (PG), Nizams Institute of Medical Sciences, Hyderabad (PG), Dr Ram Manohar Lohia Institute of Medical Sciences, UP (PG) during 2016
- Member of RNTCP, Nodal Microbiologist, IDSP, Principal Investigator, VRDL, Member Secretary, Hospital Infection Control Committee & Member Drug and Therapeutics Committee; Member of Hostel Supervisory Committee of IPGMER
- Reviewer of articles for Indian Journal of Public Health.
- Judge, Scientific session, 10th IAMM State Conference, Dec 2015 and, Convener, Scientific Committee 11th West Bengal IAMM State Conference.

Dr Kalidas Rit

- In-Charge, CSSD, Serology Lab, SSKM Hospital.
- Examiner/ Scrutinizer of MBBS, BDS, DMLT, B.Sc. Nursing & Paper setter for BPT & DMLT.
- Convener Souvenir Committee 11th IAMM State conference, WB-MICROCON -2016.

Dr Hirak Jyoti Raj

- Member of Hospital Infection Control Committee of IPGMER, VRDL & ART Core Committee.
- Examiner in 2ND Professional MBBS (Regular and Supplementary, WBUHS) and DMLT Examination (WBSMF)
- He served as scrutinizer in MD examination (WBUHS)
- Received training at National Institute of Virology, Pune for setting up VRDL lab at IPGMER (Sept, 2016) as Co-PI of the project
- Speaker in different seminars and orientation programs in IPGMER.
- Joint Secretary, 11th IAMM State conference, WB-MICROCON -2016.
- Co-Guide in MD thesis works and Co-Investigator in DST (WB-state) project.
- Presented oral paper in Award session of 11th IAMM State conference, WB-MICROCON -2016 and received first prize.

Dr. Nupur Pal

- Coordinator of short projects in Microbiology
- She served as scrutinizer in MBBS examination (WBUHS)
- Co-Guide in MD thesis works
- Principal investigator for operational research project, RNTCP, titled "To study the burden of non-tuberculous mycobacterial infection among immunocompetent pulmonary tuberculosis and suspected extrapulmonary cases."
- Convenor, Reception Committee, 11th IAMM State conference, WB-MICROCON -2016.

Dr. Suranjan Pal

- Treasurer, 11th IAMM State conference, WB-MICROCON -2016.

Dr. Arani Debnandi

- Convenor ,Refreshment Committee, 11th IAMM State conference, WB-MICROCON -2016.

CONFERENCE & WORKSHOP ATTENDED

- Five PGTs Dr. Arjun Dutta, Dr. Tamas Das, Dr. Indranil Saha, Dr. Abirlal Sanyal & Dr. Nishar Akhtar attended 40th National Conference & Workshops of IAMM (Microcon2016) at Chandigarh.

AWARDS & ACHIEVEMENTS

- Dr. Jayeeta Halder received certificate for best presented topic of the session in National Conference of Microbiology at Pondicherry (Microcon 2015).
- Dr Hirak Jyoti Raj received the First prize in Oral Paper presentation (Award session), in 11th IAMM State conference, WB-MICROCON-2016.
- Dr. Archi Ghosh received the Second prize in Oral Paper presentation (Award session), in 11th IAMM State conference, WB-MICROCON-2016.
- Presentation of Jayeeta Halder has been selected as "Paper Of Excellence" at 1st Regional Science & Technology Congress-2016, Presidency Division, Department of Science & Technology, Govt. Of West Bengal.
- Received three cash prizes @ Rs. 5000 for selected innovative works presented at 40th National Conference of Microbiology (Microcon-2016, at Chandigarh).

PUBLICATIONS**Journal articles**

- 1 Haldar J , Mukherjee P, Mukhopadhyay S, Maiti PK. Isolation of bacteria from diabetic foot ulcers with special reference to anaerobe isolation by simple modified candle jar technique. Ind J Med Res; (Accepted for publication;2015)
- 2 Lalbiaktluangi, Bipasa Chakraborty, Jayeeta Halder, Prasanta Kumar Maiti, Raja Ray . Isolation of anaerobes in deep seated pressure ulcers using a novel innovative technique of anaerobe isolation . Journal of Evolution of Medical and Dental Sciences/ eISSN- 2278-4802, pISSN- 2278-4748/ Vol. 4/ Issue 98/ Dec. 07, 2015 Page 16329 .Jemds.com
- 3 Haldar J, Pal N, Ray R, Maiti PK. Use of an Innovative Simple Method for Anaerobiosis in the Diagnosis and management of Infections in Two Unusual Cases. Annals of Medical and Health Sciences Research. (2016) Vol.6(1):56-58
- 4 Bipasa Chakraborty, Kalidas Rit, Rupali Dey, Satadal Das, Prasanta Kumar Maiti. An unusual case of chronic nonhealing periorbital ulceration due to a new species of Corynebacterium sp. strain UCL557. Med J DY Patil Univ 2016;9:377-81
- 5 Ghosh Prabir,Chakraborty Bipasa, Maiti PK, Ray Raja. Comparative Evaluation of Loop Mediated Isothermal Amplification and Conventional Methods in diagnosis of extrapulmonary tuberculosis.(Accepted for publication,Dec2016).Annals Pub Trop Med and Public Health.Published by Walters Kluser, Medknow.
- 6 Chakraborty B, Chatterjee S, Ray R, Pal NK, Patra SK, Maiti PK. Rethink on recommended concentrations of disinfectants in the light of biofilm, based on in vitro study. Int J Health Allied Sci 2016;5:154-7.

- 7 Ghosh R, Mishra P, Sen S, Maiti PK, Chatterjee G. Experience of varied presentation of chronic progressive disseminated histoplasmosis in immunocompetent patients: A diagnostic conundrum. *Indian J Dermatol* 2016;61:580-83.
- 8 De A, Raj H J, Haldar J, Mukherjee P, Maiti PK.. Biofilm colonization in chronic treatment refractory infections presenting with discharging sinuses: A study in a tertiary care hospital of Eastern India. : Accepted for publication in " *Journal of Laboratory Physicians(JLP)*" vol.9. Issue2 April-June 2017 pg.1-7.

Papers presented in National Symposium on Microbial Diversity and its Impact organized by Indian Mycological Society at CU, on Feb 18-19th, 2016:

1. Arani Debnandi, Roumi Ghosh, Prof. Prasanta kr. Maiti. Hyalohyphomycosis Caused By *Scedosporium* Spp. In A Case Of Renal Transplant Recipient
2. Bipasa Chakraborty, Hirak jyoti Raj, Prof. Prasanta Kr. Maiti. A Case Of Low Invasive Chronic Subcutaneous Mucormycosis
3. Hirak Jyoti Raj, Asmita Dey, Prof. Prasanta Kr. Maiti. Study On Fungal Biofilms Using Atomic-Force Microscope
4. Jayeeta Haldar, Prof. Prasanta Kr. Maiti., Prof. Raja Roy. New Method Of Anaerobiosis Applicable For Soil Bacteriology
5. Nupur Pal, Prof. Prasanta Kr. Maiti. Rhinocerebral Invasive Aspergillosis Of An Immunocompetent Women
6. Roumi Ghosh, Prof. Prasanta Kr. Maiti. Disseminated Histoplasmosis: Experience Of Two Unusual Clinical Presentations.

Papers presented in 40th National Conference of IAMM (MICROCON 2016) at Chandigarh, held on 25-27th Nov, 2016:

1. Isolation and Identification of Anaerobes from Periodontitis using Two Step Combustion Modified Candle Jar System. RehanaParveen, JayeetaHaldar, Sudipta Chatterjee, Prof. Raja Ray, Prof. P. K.Maiti..
2. Biofilm Study of *P. acnes* in Two Step Combustion Modified Candle Jar System. Jayeeta Haldar, Rehana Parveen, Prof. G. Chaterjee, Prof. P. K. Maiti
3. In-vitro study on potential efficacy of acriflavine in the prevention of conjugal transfer of drug resistance in bacteria. Tamas Das, Raja Ray, P K Maiti.
4. Nanotechnology in search of resistant proof drug potentiator to combat superbugs. Raja Ray, Archi Ghosh , Sriparna Dey, Prasanta Kumar Maiti.
5. How to obtain longlife readymade media for bacterial culture. Prabir Ghosh, Munmun Sarkar, Prof. Raja Ray, Prof.Prasanta Kumar Maiti.
6. Anti-microbial role of silver nitrate before and after nano conversion. Prasanta Kumar Maiti, Archi Ghosh, Raja Ray, Sriparna Dey.
7. A novel biofilm intervention strategy by a coat of preformed biofilm structure. Arjun Dutta, Susmita Chatterjee , Sriparna De, Prasanta Kr. Maiti..
8. Nanotoxicity and antimicrobial property of graphene based nanohybrid: Synthesis and property evaluation. Sriparna Dey, Smita Mohanty, S K Nayak, M Saur, Prasanta K Maitia, Dipankar Chattopadhaya.
9. Electron microscopic observation to the effects of nano-silver particles on *E. coli*, *S. aureus*, *P. aeruginosa* and *C. albicans*. Archi Ghosh, Raja Ray, Sriparna De, Prof. P. K. Maiti.
10. Geriatric urinary tract infections: a community based study among patients attending tertiary care hospital. Abirlal Sanyal, Prof.Raja Ray, Prof. Manash Sarkar
11. Multidrug resistant bacteria producing biofilms within Life saving ventilators. Indraneel Saha, Prof. Raja Ray.

11th State Chapter Conference of IAMM held at IPGMER on 23.10.16.

Papers in Award Sessions:

1. Bio-control of biofilm colonization on device surfaces. HIRAK JYOTI RAJ, ARJUN DUTTA, SUSHMITA CHATTERJEE, PRASANTA KR. MAITI. (Received first prize in Award session)
2. Nano-antimicrobials : the perfect antibiotic potentiators for combating drug resistance bacteria. ARCHI GHOSH, RAJA RAY, PRASANTA KUMAR MAITI (Received second prize in Award session)
3. *Slackia exigua*, an unusual anaerobic pathogen for periodontitis, isolated by modified candle jar technique. REHANA PARVEEN, JAYEETA HALDAR, SUDIPTA CHATTERJEE, Prof. P. K. MAITI.
4. Incidence of CLABSI at an ITU of a tertiary care hospital. INDRANEEL SAHA, Prof. RAJA RAY.

Papers in Free Paper Sessions:

5. Comparative study of automated BACT / ALERT -3D system versus conventional system for bacteriological identification of sepsis in a tertiary care hosp. NISHAR AKHTAR ; Prof. RAJA RAY
6. Modified storage technique for obtaining long-life readymade media. MUNMUN SARKAR, PK MAITI.

Papers presented in 1st. Regional Science & Technology Congress 2016, Presidency Division, West Bengal. Held at NITTTR, Kolkata on 13-14th Nov, 2016.

1. Innovation of simpler technique for anaerobic culture. JAYEETA HALDAR, POULAMI MUKHARJEE, REHANA PARVEEN, Prof. RAJA RAY, Prof. PK MAITI. [selected as "Paper Of Excellence"].
2. A novel biofilm intervention strategy by a coat of preformed biofilm structure. REHANA PARVEEN, ARJUN DUTTA, SUSMITA CHATTERJEE, Prof. P.K. MAITI
3. Bacterial killing by Nano magic. ARCHI GHOSH, RAJA RAY, ABHISHEK ADHYA, Prof. P. K. MAITI.

MD theses submitted in 2016

1. Quality assessment of different solid culture media in terms of average bacterial colony size of appropriate bacterial growth and some steps for quality improvement. : Dr. MUNMUN SARKAR. Guide: Dr. P.K MAITI.
2. In vitro demonstration of biofilm inhibition characteristics of one preformed biofilm to colonization of other biofilm producers. Dr. ARJUN DUTTA. Guide: Dr. P.K MAITI.
3. In-vitro study on potential efficacy of acriflavine and other molecules in the prevention of transfer of drug resistance in clinical nosocomial bacterial isolates. Dr. TAMAS DAS. Guide: Dr. RAJA RAY.
4. A microbiological study of recurrent urinary tract infections with special references to biofilm colonization. Dr. ANJAN KUMAR DAS. Guide: Dr. MANASH SARKAR.

Ongoing research work for MD theses

1. Difference in Growth and Drug susceptibility between in-vitro and in-vivo simulating growing conditions with special reference to common non-fastidious respiratory pathogens Dr. ANJUN NAMHATA ; Guide: Prof. PK MAITI, Dr. HJ RAJ.
2. A microbiological study of puerperal & post-abortal sepsis with reference to anaerobic and aerobic flora. Dr. TANUSRI HALDAR; Guide: Dr. KALIDAS RIT, Dr. NUPUR PAL, Prof. SUDIP SAHA (G&O)
3. A study of geriatric urinary tract infections, with special reference to electrolyte imbalance in a tertiary care hospital .Dr. ABIRLAL SANYAL; Guide: Prof. MANAS SARKAR, Prof. RAJA RAY
4. Study of microbiological profile of device associated infection in critically ill patients with respect to resistogram study and biofilm forming ability at a tertiary care hospital. Dr. INDRANEEL SAHA; Guide: Prof. RAJA RAY, Dr. RAJAT CHOUDHURI.
5. Effects of Nano-silver particles on viability and cell morphology of *E. coli*, *S. aureus*, *P. aeruginosa* and *C. albicans*. ; Dr. ARPIT SAHA Guide: PK MAITI & NUPUR PAL.

6. Evaluation of bacterial contents in some commonly used Probiotic medicines and foods. Dr.Sangeeta Pal, Guide: PK Maiti, Kumkum Bhattacharya, Hirak Jyoti Raj
7. Comparative study of Sensitivity of BacT/AlerT-3D automated detection system supplemented with Vitek-2 compact identification and AST determination system versus conventional system for bacteriological identification and antimicrobial susceptibility test (AST) of cases of sepsis at a tertiary-care hospital. Dr. Nishar Akhtar. Guides: Prf. Dr Raja Ray, Dr.Kalidas Rit.

PhD thesis work

- Form conversion of Malassezia: a clinico-mycological study. By Dr. Asis Manna. Guide: Dr. PK Maiti & Dr. DN Gangopadhyay.
- A new anaerobiosis technique using a candle-jar enriched with chemicals for combustion of residual oxygen: validation and its application to determine the incidence of anaerobic infections from different clinical materials. By Jayeeta Halder, Guide: Prof. PK Maiti & Prof. Raja Ray.
- A bio-molecular approach towards anti-microbial resistance of bacteria within medical device associated biofilms. By Susmita Chatterjee. Guide: Dr. PK Maiti, Dr. S Chowdhury, Dr. S Law. (Ph.D. awarded in 2015)

Other ongoing project work

- DST (State) Project entitled " Simple innovative techniques for isolation of anaerobic bacteria on the surface of the agar plates using modified candle jar ". Principal Investigator: Prof. P.K. Maiti. [Completed]
- Nano-Mission Project, DHR, Govt. of India: " In-vitro evaluation of nano-silver particles as antimicrobial agents by direct action or as synergistic agent with some conventional antibiotics" Principal Investigator: Prof. P.K. Maiti, Co-PI: Prof. Mitali Chatterjee.
- DST (State) Project entitled "Evaluation of different in-house developed fastidious anaerobic broth as culture media and their use in cost-effective manner" Principal Investigator: Prof. P.K. Maiti.
- VRDL Project on 'Establishment of a network of Laboratories for Managing Epidemics and Natural Calamities'. An ICMR-DHR funded Project at inception phase.PI-Prf Raja Ray,Co-PI-Dr.Hirak Jyoti Raj.

Short projects conducted

- Culture of Anaerobic bacteria using newer technique (Jan-Feb '16) by Mou Chatterjee, B. Tech student of Heritage Institute of Technology. Guide: Dr. Arani Debnandi.
- Use of Antimicrobials in Bacterial Infections (Jan-Feb '16) by Niniva Datta, B. Tech student of Heritage Institute of Technology. Guide: Dr. Roumi Ghosh.
- Study of different anti-microbial susceptibility testing methods (Jan-Feb '16) by Taniya Ghosh, B. Tech student of Heritage Institute of Technology. Guide: Dr. Roumi Ghosh.
- Inoculum standardization and colony size scoring for microbiology research (Feb-April '16) by Rana Das, B.Sc (Hons.) 8th Semester student of Amity Institute of Biotechnology, Amity University, Uttar Pradesh. Guide: Dr. Nupur Pal.
- Isolation of anaerobes from clinical materials by a new technique and identification by conventional methods as well as molecular technique by Debasmita Ray of School of Tropical Medicine, Kolkata. Guide: Dr. Nupur Pal.

SERVICE INFORMATION

Laboratory Tests in Microbiology Laboratory from 01/12/2015 – 30/11/2016 (Total = 1,03,436)

Test	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec, 2015	Total
Bacteriology (Total = 24,774)													
Urine	957	998	1116	973	844	2056	1164	1081	1571	1261	1533	2244	15798
Throat swab	06	04	02	01	03	01	01	02	03	01	03	05	32
Wound	106	104	126	91	91	106	158	143	195	156	170	292	1738
Blood culture (conventional)	107	103	92	79	115	130	138	167	240	127	252	282	1932
Body fluids*	98	60	88	88	80	86	76	98	206	272	231	609	1992
Sputum	101	73	100	85	71	78	92	96	110	98	105	501	1510
Other swabs	09	11	12	06	13	09	12	19	10	09	05	47	162
CSF	10	08	07	09	16	09	12	19	47	60	66	63	326
OT swab	45	60	18	20	20	75	105	210	195	90	250	196	1284
Serology (Total = 73,077)													
RA	79	58	79	72	64	74	61	51	65	56	63	98	820
ASO	104	67	104	54	55	78	69	70	84	69	62	124	940
CRP	193	194	202	197	154	250	207	180	366	467	343	490	3243
Widal	19	15	19	12	30	25	35	36	82	72	65	60	470
VDRL	458	343	480	396	428	488	527	412	364	244	450	444	5034
HBsAg	1783	1519	1743	1647	6692	1771	1896	1862	2794	2372	2673	3957	30709
HCV	1475	1359	1401	1390	5625	1467	1649	1620	2692	2300	2590	3850	27418
HAV	8	-	-	-	-	-	-	-	-	-	-	6	14
HEV	8	-	-	-	-	-	-	-	-	-	-	6	14
Mantoux	99	118	118	84	102	133	92	132	98	50	62	171	1259
Dengue	53	10	25	31	26	41	58	195	734	708	648	329	2858
JE	21	15	8	13	13	17	18	49	38	37	40	29	298
Miscellaneous (Total = 5,585)													
Malaria	73	36	65	18	06	60	68	176	190	136	165	123	1116
Fungal	19	12	25	26	39	29	41	44	68	52	07	84	446
AFB stain	202	216	209	213	219	226	203	227	221	217	228	213	2584
AFB Culture	66	54	62	54	54	61	72	99	34	25	29	18	628
Slit skin	18	37	32	24	38	31	28	33	34	26	28	27	356
India ink preparation	17	18	16	20	22	18	19	15	11	23	19	18	213
Blood culture (automated)	10	04	07	04	31	54	12	18	09	52	41	00	242

N.B.: Tests done in Central Lab during evening & night shift are not included in this census.