

# Annual Report 2021

## Achievements and Highlights

- DHR/ICMR is established on the 7th floor of MSB and operational. It was inaugurated by Honourable AMC (WS), Shri. Suresh Kakani, in August 2021.
- The department successfully completed desk top surveillance for continued NABL accreditation till April 2022.
- BACTEC FX 200 (automated blood culture system) has been installed and is operational. This is expected to improve the sensitivity and quality of blood culture results.
- Scaling up of HIV viral load testing in public sector – supported by NACO and MDACS.
- The department has actively participated as a testing centre in vaccine trials and in various other research projects for COVID-19.
- Participated in BCG vaccine trail along with community medicine department which has been completed successfully.
- Participated in “Latent Tuberculosis Infection” project along with Public Health Department (MCGM) which is completed successfully. The project was supported by Share India.
- A project to assess the operational feasibility of TATA MDCHECK TM for detecting SARS-CoV-2 has been completed. The project was supported by FIND (India).
- Department is recommended for certification of liquid culture and DST for first and second line anti-TB drugs including PZA and Levofloxacin by National Tuberculosis Institute of Central TB Division, the certifying body. As per programmatic recommendation, follow up cultures are currently in it’s ambit.

## Awards and Honors

- Covid testing laboratory and other staff members were felicitated and appreciated for their contribution by multiple organizations.

## Community Care

- Providing counseling and HIV antibody testing services for direct walk in clients.
- Counselors following up with PLHIV for increased linkage to care and support.

## Donations and Grants

MDACS- 2,15,000/-for ICTC-M, EQAS and ART activities

NACO/MDACS-4,00,000/- for Viral load testing and 1,25,000/- for HSS-ANC and HSS-HRG Programme

FIND India- Equipment – Automated nucleic acid extraction machine and other equipment for Pandemic related diagnostic activity

## Education

The department carried out undergraduate training for MBBS, B.Sc.(OT) , B.Sc. (PT), BPMT, and B.Sc.(nursing) students. Post graduate training was provided to MD (Microbiology), M.Sc. (Microbiology) by research, and PGDMLT and Ph.D. students until lockdown and online thereafter.

The pass percentage for M.D in 2021 was 100 %.

Library (Departmental Library ) Books – 239

Journals – IJMM, JPGM (now e-prints only)

Fellowship course in Infection Prevention and Control with specific reference to Hospital Acquired Infection which is approved by MUHS is continued.

## Publication

- Ranjana Thate, Nayana Ingole, Vaishali Solanke – Surase, Shrikala Acharya, Gita Nataraj -Achieving UNAIDS Viral Suppression Goal: Experience from a Tertiary Care Public Hospital, Western India. Journal of the Association of Physician of India. Dec 2021;Vol 69:77-80 December 2021
- Sukanya Verma , Gita Nataraj , Shashir Wanjare , Preeti Mehta - Utility of VITEK2 in Rapid Speciation and Antifungal Susceptibility Testing of Yeasts in a Resource Constrained Setting. International Journal of Health Sciences and Research November 2021;Vol.11; Issue: 11
- Dr. Priyanka Sing, Dr Swapna Kanade, Dr Gita Nataraj. Performance of loop-mediated isothermal amplification (LAMP) assay for diagnosis of extra-pulmonary tuberculosis and anti-TB treatment initiation. The International Journal of Mycobacteriology, 2021;10:373-8
- Dr Bhavana Patil, Dr Swapna Kanade, Dr Gita Nataraj. Rifampicin resistant tuberculosis in paediatric patients:prevalence and risk factors. International Journal of Scientific Research. Vol 10, Issue 04, April 2021.
- Dr. Swapna Kanade, Dr. Gita Nataraj. Effectiveness of flipped small group teaching in understanding practical knowledge in microbiology. Indian Journal of Research, Feb 2021, Vol 10, Issue
- Bajpai D, Shah D, Bose S, Deb S, Gandhi C, Modi T, Rao N, Kumar K, Saxena N, Katyal A, Patil A, Thakare S, Pajai AE, Nataraj G, Jamale TE. Development and longevity of antibodies against SARS-CoV-2 in kidney transplant recipients after symptomatic COVID-19. Transpl Infect Dis. 2021 Aug;23(4):e13646. doi: 10.1111/tid.13646. Epub 2021 Jun 1. PMID: 34028939; PMCID: PMC8209871.
- Nayana Ingole, Gita Nataraj Comparison of CBNAAT and conventional real time RT PCR for HIV 1 viral load testing Indian J Med Microbiol <https://doi.org/10.1016/j.ijmmb.2021.05.007>
- Gupta, N.; Kaur, H.; Yadav, P.D.; Mukhopadhyay, L.; Sahay, R.R.; Kumar, A.; Nyayanit, D.A.; Shete,A.M.; Patil, S.; Majumdar, T.; et al. Clinical Characterization and Genomic Analysis of Samples from COVID-19 Breakthrough Infections during the Second Wave among the Various States of India. Viruses 2021, 13, 1782. <https://doi.org/10.3390/v13091782>
- R Nanavati, D Mascarenhas, M Goyal, A Haribalakrishna, G Nataraj A single-center observational study on clinical features and outcomes of 21 SARS-CoV infected neonates from India European Journal of Pediatrics 2021 ; 180 (6) :1895-1906
- Dr. Swapna Kanade, Dr. Priyanka Prasad, Dr. Supriya Paranjpe, Dr. Nayana Ingole, Dr. Gita Nataraj Department of Microbiology, Seth G S Medical College and KEM Hospital, Mumbai. Principles of medical management of Covid-19. The MCGM experience. 2021 Chapter11. Basic Microbiological Investigations (Antigen and Antibody) in COVID-19. Page: 90-99
- Dr. Anuja Joshi, Dr. Anjali Swami,Dr. Gita Nataraj, Dr. Sujata Baveja Chapter SARS CoV 2 Variants In Principles of Medical Management of COVOD 19-MCGM Experience Editors Dr. Mohan Joshi, Dr. Ramesh Bharmal, Dr.Alok Sharma MCGM 2021;pg 90-99

## Research

- Utility of Xpert Xpress SARS-CoV-2 assay for rapid detection of SARS-CoV-2 in a tertiary care center.
- Retesting of rifampicin resistant tuberculosis in newly diagnosed pulmonary tuberculosis patients.
- Is there an association between Tuberculosis and COVID-19 - A questionnaire based study.
- Comparison of Xpert MTB/RIF®, Line Probe Assay and culture in diagnosing Pulmonary Tuberculosis using samples collected by bronchoscopy.
- Oral swab as an alternative specimen for diagnosis of Tuberculosis
- Comparison of Gastric lavage/ sputum and Stool specimens in the diagnosis of Paediatric Pulmonary Tuberculosis- A pilot study
- Utility of rapid antigen test for COVID-19 at a tertiary care centre.
- Persistent positivity of SARS-CoV-2 RNA
- IPC interventions and strategies in a burns unit
- Prevalence of invasive aspergillosis in hematological patients in a tertiary care hospital.
- Clinico-Microbiological relevance of significant bacteriuria in kidney transplant patients.
- Seroprevalence of Hepatitis D in HBsAg positive patients at a tertiary care hospital
- Utility of laboratory diagnostic tests in women suspected of Genital Tuberculosis attending a tertiary care teaching hospital.
- Evaluation of diagnostic performance of Xpert MTB/RIF Ultra assay in suspected Tuberculous meningitis cases in tertiary care setting
- Fosfomycin susceptibility in Enterobacteriaceae and Enterococcus species causing Urinary tract infections.
- Incidence and risk factors for catheter related blood stream infections in dialysis patients.
- Prevalence of Hepatitis A and E in acute viral hepatitis patients.

## Looking Ahead

Rapid identification of microorganisms ( 10 minutes ) - MALDI-ToF

Expanding the capacity of molecular testing

