



Advanced 3-days hands-on training workshop

IMPACT 2025

Integrated Monitoring of Pathogens and AMR in
Clinical Wastewater

Molecular approaches for pathogen and AMR monitoring



Wastewater



Molecular
Surveillance



AMR



Pathogens

Antimicrobial resistance (AMR) monitoring at the Virus Research and Diagnostic Laboratory (VRDL) Centers through hospital wastewater surveillance and customization of indigenous AMR detection assays

2nd cohort training for VRDL staffs



Raspuri, NCBS- TIFR,
GKVK Campus, Bangalore - 560065



May 12- 14, 2025
9 am - 7 pm

Organized by:



Knowledge Partners



Ground Partners



Day 1 (12th May 2025)

08:15 AM – 09:15 AM: Breakfast, 1st Floor, NCBS Canteen

08:30 AM -09:30 AM: REGISTRATION (Malgova, 2nd floor SLC, NCBS)

Inaugural Session (Malgova, 2nd floor SLC, NCBS)

09:30 AM – 09:35 AM: Welcome Remarks and Setting the Workshop Context
Dr. Shivranjani Moharir
Senior Scientist, Tata Institute For Genetics and Society (TIGS)

09:35 AM – 09:50 AM: Public Health Surveillance and Pandemic Preparedness
Dr. LS Shashidhara
Centre Director, National Centre for Biological Sciences (NCBS)

09:50 AM – 10:10 AM: Inaugural Address
Dr. Rakesh Mishra
Director, Tata Institute For Genetics and Society (TIGS)

10:10 AM – 10:30 AM: ICMR's Perspectives *(Online)*
Dr. Anoop Velayudhan
Scientist E, Division of Communicable Diseases,
ICMR Headquarters, Delhi

10:30 AM – 10:45 AM: Group Photo and Interactions

10:45 AM – 11:00 AM: Break for Tea/ Coffee

11:00 AM -11:45 AM: Wastewater surveillance for AMR pathogens
Dr. Shivranjani C Moharir, Senior Scientist, TIGS

11:45 AM -12:10 PM: Technical session on sample collection

12:15 PM -01:00 PM: TIGS insectary and lab visit

01:00 PM -02:00 PM: Lunch, 1st Floor, NCBS Canteen

02:00 PM – 02:30 PM: Assemble for bus pickup and start for STP site visit

02:30 PM – 04:30 PM: Site visit at Jakkur STP
STP site visit, sample collection and sample inactivation

04:30 PM – 04:45 PM: Break for Tea/ Coffee

05:00 PM – 06:30 PM: Biosafety Level 2 (BSL-2) Visit

06:30 PM – 07:00 PM: Demo on PEG precipitation of collected samples

07:00 PM – 07:15 PM: Briefing for next day and grouping

07:15 PM – 08:30 PM: Dinner, 1st Floor, NCBS Canteen

Day 2 (13th May 2025)

08:00 AM – 9:00 AM: Breakfast, 1st Floor, NCBS Canteen

All the sessions will be held in Rasपुरi, NCBS unless specified

09:00 AM – 10:00 AM: Talk on ‘Sample processing, nucleic acid extraction and q-PCR’

10:00 AM – 01:00 PM: Hands-on experiments
Batch 1 - DNA extraction from wastewater samples
Batch 2 - RNA extraction from wastewater samples

01:00 PM - 02:00 PM: Lunch, 1st Floor, NCBS Canteen

02:00 PM – 04:15 PM: Hands-on experiments
Batch 1 - Setting of qPCR for AMR detection
Batch 2 - Setting of qPCR for viral pathogen detection

04:15 PM – 04:30 PM: Break for Tea/ Coffee

04:30 PM - 05:30 PM: Next Generation Sequencing (NGS) Facility Visit

05:30 PM – 06:30 PM: qPCR Data Analysis

06:30 PM – 07:00 PM: Discussion

07:15 PM – 08:30 PM: Dinner, 1st Floor, NCBS Canteen

Day 3 (14th May 2025)

08:00 AM – 09:00 AM: Breakfast, 1st Floor, NCBS Canteen

All the sessions will be held in Rasपुरi, NCBS unless specified

09:00 AM – 09:30 AM: Talk on ‘NGS data analysis and interpretation’

09:30 AM – 01:00 PM: Hands-on experiments
Batch 1 - RNA extraction from wastewater samples
Batch 2 - DNA extraction from wastewater samples

01:00 PM - 02:00 PM: Lunch, 1st Floor, NCBS Canteen

02:00 PM – 03:30 PM: Hands-on experiments
Batch 1 - Setting of qPCR for viral pathogen detection
Batch 2 - Setting of qPCR for AMR detection

03:30 PM – 04:30 PM: Learning Engagement: Trivia time, quiz, intergroup activities, prize distribution, felicitation and certificate distribution
 Dr. Sufia Sadaf,
 Program Manager, Public Health Surveillance-Outreach, NCBS

04:30 PM – 04:45 PM: Break for Tea/ Coffee

04:45 PM – 05:30 PM: qPCR Data Analysis

05:30 PM – 06:00 PM: Talk on ‘The road ahead: putting clinical wastewater AMR surveillance into action across VRDLs in India
 Dr. Siddharth Bhatia, Project Research Scientist-II, TIGS

07:15 PM – 08:30 PM: Dinner, 1st Floor, NCBS Canteen



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