International Workshop on New Approaches to Discover Vaccine and Drugs for Infectious Diseases

2nd–4th December 2024

Preliminary Programme

Day 1:

- Inauguration and Introduction by Director ICGEB, New Delhi
- Session 1: Scientific Lectures: Host parasite interaction and vaccine development for malaria
- Session 2: Scientific Lectures: Malaria Pathogenesis and Clinical Studies
- Practical Session: \textit{In vitro} culture of \textit{Plasmodium falciparum} parasite (maintenance and propagation of culture); Generation of transgenic \textit{P. falciparum} parasites (transfection by electroporation and \textit{in vitro} selection) expressing GFP fusion proteins; localization of GFP tagged proteins in these parasites by high-resolution microscopy.

Day 2

- Session 1: Scientific Lectures: Drug targets and Drug Development for Malaria; Genomics and Proteomics studies to identify new drug targets
- Session 2: Scientific Lectures: Epidemiological/Clinical studies in tuberculosis, Biology of tuberculosis and development of drug candidates
- Poster Session: Poster Presentation by selected participants
- Practical Session: \textit{In vitro} culture of \textit{Mycobacterium tuberculosis} and drug screening; Tuberculosis diagnosis using molecular/immunological methods (Interferon Gamma Release Assay or IGRA), molecular diagnostic for TB using TrueNat platform.

Day 3

- Session 1: Scientific Lectures: Protein structure determination using protein crystallization and Cryo-EM techniques
- Session 2: Scientific Lectures: Therapeutic antibodies as vaccine candidates, immuno-screening using PEPperPRINT Peptide microarray
- Practical Session: Proteomic analysis; sample preparation and analysis by LC-MS/MS for \textit{Plasmodium} and \textit{Mycobacterium}. 