New approaches in tuberculosis research and drug development

.....

Overview

Microorganisms universally affect health and disease, but many pathogens such as *Mycobacterium tuberculosis* (*Mtb)* remain poorly understood. The study of microorganisms has been transformed by emerging technologies that have dramatically accelerated research and led to new opportunities to address infectious diseases. In this course, we will introduce new methods in microbiology and their particular relevance for the study of *Mtb*. In particular, we will emphasize work aimed at developing new drugs and at targeting the emergence of drug resistance. India is presently the country with the most active tuberculosis cases world wide, and drug resistance is posing particularly challenging problems for public health. By preparing students across the life sciences to adopt these new approaches, we aim to contribute to a new generation of researchers equipped to develop innovative approaches to bacterial pathogenesis and drug resistance in general, and *Mtb* in particular.

Modules	**A: New approaches in tuberculosis research and drug development: December 11-15** **Number of participants for the course will be limited to fifty.**
You Should Attend If…	▪ you are a student of the life sciences, chemistry, pharmacology, or medicine at all levels (BTech/MSc/MTech/PhD) ▪ you are faculty from public health-related fields, medicine, the life sciences ▪ you are a member of an NGO, government public health worker, pharmaceutical industry and biotechnology company employee
Fees	The participation fees for taking the course is as follows: **Participants from abroad: US $150** **Industry Participants: 5000+18% GST INR** **Faculty: 2000+18% GST INR** **Students: 1000+18% GST INR** The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 h free internet facility. The participants will be provided with accommodation on payment basis.

The Faculty

Prof. Christoph Grundner, Ph.D. is on the faculty of the Center for Infectious Disease Research, Seattle, and an Affiliate Professor in the Department of Global Health, University of Washington, Seattle. His research interests include signal transduction mechanisms in *Mycobacterium tuberculosis*, chemical biology, and chemical proteomics.

Prof. Amit Singh, Ph.D. is in the Department of Microbiology and Cell Biology (MCBL) and the Centre for Infectious Disease and Research (CIDR), Indian Institute of Science (IISc) Bangalore. His research interests include mechanisms of latency, drug resistance, and HIV-TB co-infection. His research exploits biochemical, genetic, and animal models to under TB and HIV-TB co-infection.

Course Co-ordinator

Prof. Amit Singh
Phone: 080-22932604
E-mail: asingh@iisc.ac.in