

Emerging and prevalent Infections: Our preparation to tackle

(Under the aegis of MHRD-Global Initiative on Academic Network)

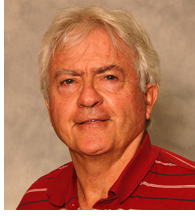
January 27th to February 6th, 2016 at IISER Mohali, Punjab

Overview

Communicable diseases account for more than 50 percent of years of life lost globally. With the advent of anti-microbials and vaccines, contemporary scientists considered abandoning efforts in studying infectious diseases. However, this standpoint has been challenged in recent past owing to the catastrophe caused by infections of various kinds. Ubiquitous infections such as herpes viruses, bacterial infections, recent epidemics of Ebola virus and swine flu virus as well as other arboviral infections such as dengue virus (DENV), chikungunya virus (CHIKV), hepatitis viruses etc pose a serious biological threat. As a result of globalization and frequent travels of people around the globe, containment of infections is next to impossible. Furthermore, tackling such situations put a huge burden on the exchequer globally. The proposed course would be of immense value in promoting education on issues related to our preparation, how effectively such cases can be managed and the destruction of life could be minimized.

Modules (Topics to be covered)	<p>Module I: Agents causing acute and chronic infection and their pathogenesis (Life style of infectious agents that cause acute and chronic infections in humans and animals. The pathogenesis and virulence factors of microbes leading to the causation of deadly and chronic diseases)</p> <p>Module II: Immune responses to infections (Basis of protective immunity against infections. Factors responsible for incapacitating infections. What makes some viruses so difficult to deal with?)</p> <p>Module III: Host, pathogen and the environmental factors affecting the disease outcome (Viruses as factors in other diseases such as Autoimmunity and Cancers. Relationship of inter-current infections to the outcome of specific infection and vaccination (for example the resident microbiome including parasite influence). Model organisms to investigate viral pathogenesis, immune response to infections and immunopathology. The pros and cons of each model organism used for infectious disease research)</p> <p>Module IV: Conventional and next generation approaches for controlling infections (Why are more persons skeptical about antiviral vaccination? Novel immunotherapies to control virus infections. Current and futures vaccination strategies and the mode of their protection. Tools and techniques to assess the response to infection and efficacy of vaccines)</p> <p>Number of participants for the course will be limited to forty.</p>
Who should attend	<ul style="list-style-type: none"> ▪ Graduate students in science stream, post-doctoral fellows, Faculty from reputed academic institutions and technical institutions. ▪ Researchers from industry, public health personnels in service and government organizations including R&D laboratories, policy makers etc
Course Fee	<p>Participants from abroad : US \$500 (For all the modules)</p> <p>Industry/Research Organizations: Any of three modules : INR 10,000/- All modules : INR 15,000/-</p> <p>Academic Institutions: All modules (Non-student) : INR 10,000 All modules (Students) : INR 5,000</p> <p>The above fee-include all instructional materials, computer use and some hands on experience to laboratory techniques, free internet facility. The participants will be provided with single bedded accommodation on payment basis. Bursaries may be provided to deserving participants.</p>

The Faculty



Prof. Barry T Rouse is a faculty in the department of Biomedical and Diagnostic Sciences at the University of Tennessee, Knoxville, USA. His research interests include Immunity and immunopathology against viral infections.



Dr Satish Devdas is a scientist in Infectious Disease Biology at the Institute of Life Sciences, Bhubaneswar. His research interest is T cell Biology during infections.



Dr. Rajeev Kaul is a faculty in the department of Microbiology at the University of Delhi South Campus, Delhi. His research interest is virology focusing on hepatitis and herpes viruses.



Dr. Arunika Mukhopadhyay is a faculty in the department of Biological Sciences, Indian Institute of Science Education and Research Mohali. Her research interest is immune signaling by Gram-negative bacteria.



Dr. Sharvan Sehrawat is a faculty in the department of Biological Sciences, Indian Institute of Science Education and Research Mohali. His research interest is investigating pathogen-specific CD8 T cell responses using novel animal models.

Local coordinator

Professor Kapil Paranjape

Course Co-ordinator

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