

Science Academies' lecture workshop on "Emerging and Re-emerging infectious diseases"
on 16th and 17th September, 2016 at St Joseph's college.

Total participants approved by IAS: 150; No. actually participated: 189 (Students: 172; Teachers: 5; Resource Persons: 8; Supporting Staff: 4)

The Department of Microbiology, St. Joseph's College (Autonomous), Bengaluru in association with the Indian Academy of Sciences organised a two day lecture workshop on "Emerging and Re-emerging infectious diseases" on 16th and 17th September, 2016. Dr. Saumitra Das (Department of Microbiology and Cell Biology, IISc, Bengaluru) was the Convener of the workshop. He helped us in deciding the theme and selected the panel of eminent speakers for the workshop.

The programme on the first day started with an inaugural ceremony which included a prayer song and college anthem by the students followed by welcome address by Dr Syed Wajeed, HOD, Department of Microbiology. His address was followed by an inaugural speech by Fr. Dr. Victor Lobo SJ, Principal, St Joseph's College (Autonomous). The key note address was delivered by Dr. Saumitra Das who proceeded with the technical session. The title of his talk was "**Hepatitis C virus infection: our strategies to fight back.**" He beautifully explained the mechanism of replication of the virus and how newer drugs can be synthesized targeting various steps in the replication to help kill the pathogens. The second speaker was Dr. Uday Kumar Ranga (Molecular Biology and Genetics Unit, JNCASR, Bengaluru). The title of his talk was "**Duplicate and replicate: a new trick up the sleeve of HIV-1 subtype C.**" He spoke about HIV-1 Subtype C which is most prevalent in India.

The afternoon session started with Dr. Hemalata Balram (Molecular Biology and Genetics Unit, JNCASR, Bengaluru). The title of her talk was "**Metabolism in the malarial parasite *Plasmodium falciparum*.**" She shed light on ways drugs can be synthesized in order to inhibit key enzymes in their metabolic pathway. The last speaker of the day was Dr. Utpal Tatu (Department of Biochemistry, IISc, Bengaluru). The title of his talk was "**A heated discussion on malaria.**" He talked about ways of preventing *P. falciparum* by targeting their heat shock proteins.

The second day session started with Dr. Sandhya Visweswariah (Department of Molecular Reproduction, Development and Genetics, IISc, Bengaluru) lecture on "***Mycobacterium tuberculosis: communication is the key.***" She spoke about how tuberculosis arises and how it can be prevented by education and knowledge, west being a successful example of it. Next speaker of the day was Dr. Rahul Roy (Department of Chemical Engineering, IISc, Bengaluru) who spoke on "**Quantitative single virus genomics to understand flavivirus evolution and life cycle.**"

Post lunch sessions started with Dr. Mary Dias (Department of Microbiology, St. John's Medical College, Bengaluru). The title of her presentation was "**Diagnosis of emerging and re-emerging infectious diseases.**" She spoke about emerging and re-emerging diseases and what they are. She

walked us through the factors that influenced the re-emergence of diseases. Dr. Popy Dutta and Ms. Mamatha (Department of Microbiology, St Joseph's college, Bengaluru) made a presentation of disease cause by Zika and Ebola virus. All the session were informative with highlights on the latest research advances followed by interactive session. The workshop was concluded with an open discussion session. The curious questions of the participant were answered by Dr. Saumitra Das. He also highlighted the importance and benefits of such workshop.

The workshop was a great success among the participants and we got a good feedback about it. It was indeed a very insightful experience. There were around 5 different colleges who participated in the workshop and the participants were both students and faculty members from colleges. Some of the participating colleges are Indian Academy College, Vijaya College, CMR Institutes of Management Studies, Kristu Jayanti College and Oxford College.