

## REPORT ON INDO-US WORKSHOP

A 7-days workshop on “Molecular Epidemiology of Infectious Diseases: Translational Research from Bench to Bedside to the Field” was organized by the Department of Biochemistry, JSS Medical College, JSS Academy of Higher Education & Research from Monday, 21<sup>st</sup> March 2022 to 27<sup>th</sup> March 2022. This workshop was conducted in association with Public Health Research Institute of India (PHRII), Mysuru, Karnataka. This workshop was supported in part by the funds received from (1) Global Infectious Diseases (GID) Research Training Program, which is a scheme under National Institute of Health (NIH), Fogarty International Center, USA; (2) Department of Science and Technology (DST), Government of India, under Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI) scheme; and (3) Defence Research and Development Organization (DRDO), Government of India, New Delhi. AAN Scientific and SciEx had also provided additional financial assistance for this workshop.

Dr. Anjali Arun, who is one of the trustees of PHRII, and the dignitaries Dr. Purnima Madhivanan, Dr. Karl Krupp, Dr. Kerry Cooper and Dr. Matam Vijay-Kumar from USA and the team from JSS AHER consisting of director research Dr. Prashant Vishwanath, Vice-Principal and Head, Department of Biochemistry Dr. M.N. Suma and the organizing secretary Dr. SubbaRao V. Madhunapantula had inaugurated the workshop on 21<sup>st</sup> March 2022 in the Board Room of JSS Medical College. Thirty participants from different states of the country had attended this workshop to gain knowledge and experimental skills in molecular epidemiology. In addition, participants were provided hands-on skills in molecular biology techniques such as (a) PCR and Realtime PCR; (b) Analysis of gene sequence data; (c) Confocal microscopy; and various methods of conducting public health research studies using appropriate statistical tools. In addition, participants had attended focused sessions on manuscript and grant writing. Experts from University of California (Prof. Lee Riley), University of Arizona (Dr. Purnima Madhivanan, Dr. Karl Krupp, Dr. Kerry Cooper), and University of Toledo (Prof. Matam Vijay\_Kumar) delivered expert lectures and conducted workshop sessions on first 3-days of this 7-days event.

The scientific sessions were proceeded immediately after the inauguration. The first two sessions, which were given by Prof. Lee Riley from University of California at Berkeley was live telecasted. Post lunch the sessions were taken by public health researcher Dr. Purnima Madhivanan, which were followed by a session on grant writing by Dr. Karl Krupp. Day-2 of the workshop was initiated by Dr. Purnima Madhivanan followed by sessions on genome sequencing platforms comparison by Dr. Kerry Cooper. Day-2 program was concluded by a session on manuscript writing by Dr. Karl Krupp. Day-3 of the workshop was started by couple of lectures by Dr. Matam Vijay-Kumar followed by an oral presentation session to select the candidates for the award of Best Abstract Presentation Award. Participants had submitted abstracts on their research projects to participate in the Best Abstract Presentation Award competition. Judges Dr. Kerry Cooper, Dr. Matam Vijay-kumar, Dr. Prasanna Kumar S. and Dr. Ravindra had assessed the presentations and selected two best presentations for the award.

Hands on sessions were provided to the participants from 4<sup>th</sup> day till 7<sup>th</sup> day, by the staff and research scholars of CEMR laboratory. Dr. Akila Prashanth, Dr. SubbaRao V. Madhunapantula, Dr. Rajeshkumar Thimmulappa, Dr. Prasanna Kumar S. and Dr. Devanand D. had delivered technical talks on PCR and its applications in disease diagnosis and treatment monitoring, Primer design, Multiplex PCR, RT-PCR,

Applications of RT-PCR and Western blotting. In addition, technical team from Leica and Jess had demonstrated various steps involved in using confocal microscope and western blotting.

By conducting an assessment test on various scientific sessions of the 7-days training program, the organizers have assessed the knowledge gained by the participants. The workshop was concluded by a valedictory function on day 7 of the workshop. Participants expressed their satisfaction and appreciated all the efforts by the organizing committee in their feedback session.

In total the 7-days workshop was a successful event, which helped the participants not only in gaining knowledge and hands-on training but also provided various opportunities to interact with experts in the field from USA as well as in India.



Inauguration of the workshop by Dr. Anjali Arun and Other



Participants with Jess instrument



Participants in the CEMR Laboratory



Participants attending Dr. Lee Riley's live session



Dr. Purnima Madhivanan's session on epidemiological concepts



Dr. Karl Krupp's session on grant writing



Dr. Kerry Cooper's session on gene sequencing technologies



Dr. Matam Vijay-Kumar's session on Gut microbiome



Workshop participants in CEMR Lab