

CAAST-Advance Centre for Livestock Health
Certificate Course on Animal Cell Culture and Viral Bioassays
January 23 to February 12, 2020
ICAR-IVRI, Hebbal Campus, Bengaluru– 560024

REPORT ON THE CERTIFICATE COURSE

Certificate course on “Animal Cell Culture and Viral Bioassays” was organized at IVRI, Bengaluru from 23.1.2020 to 12.2.2020. A total of ten candidates participated in the certificate course. All the candidates had completed post-graduation in Microbiology, Biochemistry, Biotechnology or Parasitology. Of these participants, 60% were females and 40% were males. Of them, five were Assistant Professors, one was a scientist, two MVSc students and two MSc post graduates in life sciences. Prior to commencement of the course, a pre-training evaluation of all the participants was conducted.

The certificate course started with the inauguration of the course on 23.02.2020. Dr.Aniket Sanyal, Joint Director, Bengaluru campus inaugurated the training program. The certificate course basically encompassed all aspects of animal cell culture such as media preparation, culturing of adherent and suspension mammalian cells, production and scaling up of FMD virus using the BHK cells, plaque assay, virus titration, serum neutralization test for quantifying antibodies, 2D-MNT for vaccine matching, inactivation of virus for antigen preparation, virus inactivation & concentration, antigen quantification by ultracentrifugation method. It also covered practicals on subculturing of BHK-21 cells, isolation of PBMCs, cell counting by hemocytometer, immunofluorescence imaging, insect cell revival, maintenance, production of VLPs using insect cells, preservation of mammalian and insect cells, cloning of gene, calculation of virus titres using Reed and Meunch and Spearman Karber methods. All the participants were taught, provided facility to carry out cell culture and virus production work independently. Trainees were explained in details about various aspects of cell culture techniques, identification of cell culture contaminants, trouble shooting, and hybridoma technology in the form of series of lectures given by scientists. In addition, the recent techniques like insect cell expression system for producing recombinant proteins were also shown to the participants of the certificate course. The participants showed keen interest in learning the techniques, and were active, enthusiastic and interactive. On the last day of the course, post-training evaluation of all the participants was carried out which showed enhancement of the knowledge of participants in cell culture techniques and viral bioassays. The feedback of the participants indicated that the course was very useful and informative and they expressed their willingness to have more such courses from the institute.

On the last day 12.2.2020, the valedictory function was held and all the participants were awarded with a course completion certificate under the chairmanship of the Joint Director, IVRI Campus, Bengaluru. The course was organized by Dr.B.P.Srineevasa, Dr.P.Saravanan and Dr.R.P.Tamilselvan as Course Director and Course Co-Directors, respectively. The certificate course was organized under the guidance of the Director, ICAR-IVRI, Joint Director, ICAR-IVRI Campus, Bengaluru, Joint Director (Academic) and Nodal Officer, CAAST-ACLH and PI, CAAST-ACLH.

