

Short Course on Basic Techniques on Molecular Biology and Bioinformatics (24th October to 2nd November, 2016)

The short course on Basic Techniques on Molecular Biology and Bioinformatics was organized by the Department of Biotechnology (DBT), GOI, funded Bioinformatics Centre and Institutional Level Biotech Hub, College of Fisheries, Central Agricultural University (Imphal), Lembucherra, Tripura during 24th October to 2nd November, 2016. The course was inaugurated by Dr. J. K. Jena, Hon'ble Deputy Director General (Fisheries Science), ICAR, New Delhi, on 24th October, 2016. The other members such as Prof. J. R. Dhanze, Prof. R. K. Saha and both the coordinators Dr. A. D. Upadhyay and Dr. Janmejy Parhi of the Bioinformatics Centre and Institutional Level Biotech Hub were present on the dais. Honorable DDG (Fisheries Science) in his inaugural speech highlighted the pace of changes taking place in societal needs, agricultural resources, climate change and technological advancement in the country and he emphasised on focused efforts on long term planning for fisheries development. He further highlighted the need and importance of short course for students. During interaction session with faculties, students and participants several issues such as employment opportunities for fisheries professionals, status of Fisheries Colleges in the Country and role of academic institutions in over all development of the students were discussed.





Inauguration of short course by Dr. J.K. Jena, Hon'ble DDG (Fisheries), ICAR, New Delhi

The short course was organized for 4th year B.V.Sc. students of the College of Veterinary Science and Animal Husbandry, Tripura University, R. K. Nagar, Tripura. A batch of 31 students participated in the course. Initially, the participants were given hands on basic molecular techniques such as isolation of nucleic acids (DNA and RNA), quantification using Bio spectrometer, cDNA synthesis, Agarose Gel Electrophoresis, PCR, Molecular Cloning, Blue-white screening, etc in the DBT supported Institutional Level Biotech Hub of the College. The basic objective of the session was to expose the students about principles of molecular biology techniques and practical demonstration of those techniques. Further, based on students' interest and demand some advanced techniques such as Real Time PCR were explained and demonstrated.

Thereafter, participants were trained on different aspects of bioinformatics such as the importance of bioinformatics and its application in life sciences, NCBI database, gene expression and analysis, multiple sequence alignment and phylogenetic tree analysis using Clustal Ω , protein structure prediction and different protein sequence analysis using Swiss model and PSIPRED tools, hands on SPSS-22 software for data analysis, Introduction of databases on Livestock and literature search techniques, Database Management etc in the DBT supported Bioinformatics Centre.

During the training programme one guest lecture on “Applications of Biotechnology and Bioinformatics in Veterinary Science” was delivered by Dr. Prabodh Bora, Professor and Coordinator, Bioinformatics Centre, Department of Microbiology, College of Veterinary Science, Assam Agricultural University, Khanapara, Guwahati.



Trainees performing molecular biology techniques

Lecture on overview of bioinformatics techniques and its application



Lecture on application of SPSS-22 software in data analysis



Lecture on “applications of biotechnology and bioinformatics in veterinary science” delivered by . by Dr. Prabodh Bora

Assessment of Training Program and Valedictory function: The course was assessed by pre-training and a post-training test of the participants and average score obtained by the

participants was 5.344 in pre-training test and was 14.019 after completion of the short course out of total 20 marks. The valedictory function of the short course was held on 2-11-2016 and Dr. S.S. Nagra Director Instruction, CAU (Imphal) was the Chief Guest and Dr. S.K. Chakraborty, Principal Scientist, Head (Rtd), FRM Division, ICAR-CIFE, Mumbai was the Guest of Honour. Dr. Pramod Kumar pandey, Dean, COF CAU (I), presided over the valedictory function. During the programme a Practical Manual on “Molecular Biology Techniques” was released and certificate to the participants were distributed.

