

## *One month training*

### *Hands on training on conventional, molecular and bioinformatics tools*

Department of Immunology and Defense Mechanism, College of Biotechnology conducted one month “*Hands on training on conventional, molecular and bioinformatics tools*” during 17.06.2019 to 16.07.2019 in collaboration with Centre of Excellence (UP), Bioinformatics Infrastructure Facility (DBT, New Delhi) and College of Veterinary Sciences, SVPUAT, Meerut. The training was planned to acquaint both under and post- graduate students of life sciences with conventional, molecular and bioinformatics tools. Training included 21 students of three states including Uttar Pradesh, Rajasthan and Uttarakhand. Trainees included 1 PhD, 9 postgraduate and 11 undergraduate students of Veterinary Sciences, Agriculture and Biotechnology from different universities and colleges. These were divided into three teams to learn methods of sterilization, microscopy, media/ biochemical/ reagents preparation, assessment of phenol coefficient, total viable count, colony forming unit estimation, processing of tissues for histological examination, estimation of protein, lipid and carbohydrates in biological samples, exposure to methods of estimation of pesticide, drug and heavy metals in biological samples, assessment of TLC, DLC, Hb and performing CBC, identification of various adulterations of milk and meat and its products, isolation of human and plant microbes in pure culture, extraction of DNA from plant/ microbes, bacterial plasmid extraction of virus RNA, cDNA preparation, application of PCR and real time PCR, preparation of competent cells and application of different bioinformatics applications like DNA, RNA and protein data bases, primer designing, alignment of sequences & submission to different data bases, preparation of phylogeny tree and its interpretation. The resource persons included faculty of College of Biotechnology and College of Veterinary Sciences viz., Dr(s). Harshit Verma, Akshay Garg, Shailja Katoch, Kaushlesh Ranjan, V. P. Singh, Prabhakar Kumar, Amit Kumar Verma, Rajesh Mandil, Rajeev Singh, Mahesh Bharti, Akhilesh K. Verma, Desh Deepak, Arbind Singh and Neelesh Kapoor. The training was organized by Dr. Pankaj Kumar (Course Director), Dr. Jitender Singh (Course-Coordinator) and Dr. Amit Kumar (Course- Coordinator) in the able guidance of Dr. Ravinder Kumar (Dean, College of Biotechnology), Dr. Rajbir Singh (Dean, College of Veterinary Sciences) and Dr. Anil Sirohi (Director Research). The *Hon’ble Vice Chancellor* of the university **Prof. R. K. Mittal**, the chief guest of the valedictory function, distributed certificates to participants and emphasized the requirement of such students need based hands on trainings to make youth of the country self-dependent in terms of knowledge and skill.



