

# **CENTRE FOR INNOVATION IN INFECTIOUS DISEASE RESEARCH, EDUCATION, AND TRAINING (CIIDRET)**

## **Annual Report 2018-19**

### **Major Activities and Achievements**

Centre for Innovation in Infectious Disease Research, Education, and Training (CIIDRET) established under the ordinance XV-A of the University of Delhi since October 2015 has received due approvals of the Academic Council and the Executive Council. As per its mandate, it has initiated several activities, which include interaction with college students of science stream to inspire them to take up research and Innovation as their career. CIIDRET has organized Public Lectures by international and national scientists who are leaders in their field in different areas of scientific research. CIIDRET has organized Industry-Academia Interaction through 'Entrepreneurship Guest Public Lecture Series', which includes lectures by Entrepreneurs and the facilitators of Innovation. CIIDRET has been providing state-of-the-art Proteomic and Genomic analytical facilities along with expert advice to scientists from both academia and Industry, and offers consultancy to the Biotech Industry. CIIDRET organizes Hands-on training courses covering different aspects of Genomics and Proteomics in collaboration with Industry Experts under the scheme 'Continuing Education and Skill Enhancement for Innovation in Biotechnology (CIIDRET-CESEIB).

CIIDRET has developed an ultra-large phage-displayed human antibody (scFv) library comprising of 10 billion clones. This library has been successfully used for selecting binders to a clinically important human target protein. This library is now being included in a Mission project on snakebite treatment by Department of Biotechnology, Govt. of India.

### **Honors/Distinctions/Awards**

Prof. Vijay K. Chaudhary Director, CIIDRET:

- Is Co-Chairman of the DBT Task Force on "Infectious Disease Biology."
- Is Co-Chairman of the DBT NER Technical Expert Committee (TEC) Medical Biotechnology-II
- Is Chairman of the ICMR Monitoring Committee on "Health Technology Acceleration and Commercialization (HTAC)."
- Is Member, DBT Expert Group on Technology Transfer Organization (TTO)

Dr. Amita Gupta is Joint-Secretary of the Bacteriophage Society of India.

### **Publications/ Patents / provisional patents / technology transfers**

#### **Patents filed:**

- An antibody fragment library, and uses thereof; Vijay K. Chaudhary, Amita Gupta, Vaishali Verma. PCT application no. PCT/IN2018/050802.
- A process for immobilizing polypeptides; Vijay K. Chaudhary, Amita Gupta, Vaishali Verma, Charanpreet Kaur, Payal Grover. PCT no. PCT/IN2018/050722
- Process for purifying emulsion PCR mixture, and implementations thereof; Vaishali Verma, Amita Gupta Vijay K. Chaudhary. Indian Patent Application no. 201811038157, 8 October 2018.

### **Posters/Oral presentations:**

- Vaishali Verma secured First position in Oral presentation entitled “Monobiotinylated Proteins as reagents for improved immunoassays” at International Conference on Advances in Biosciences and Biotechnology held at Jaypee Institute of information technology, Noida on 2nd February 2019.
- ImPACT: Immunization-free Phage-based Antibody Cloning Technology. Verma, V., Gupta, A., Chaudhary, V.K. at Nextgen Genomics, Biology, Bioinformatics and Technologies Conference held from 30th September - 2nd October 2018 at Jaipur, India.

### **Conference/Workshop/Lectures Organized**

- Organized lecture by Dr Mark Feinberg, President and CEO, International AIDS Vaccine Initiative titled “Enabling Global Access to Monoclonal Antibodies Through Innovative Technology and Partnerships” on 28th March 2019, at 3.30 P.M at UDSC.
- Organized lecture by Dr. Ashutosh Pastor, Manager, Foundation for Innovation and Technology Transfer (FITT), the Indian Institute of Technology Delhi on "Bio-Entrepreneurship: How to Kick Start your Startup" and by Dr. Sarita Ahlawat, the BIRAC\_BIG Innovator, TBIU, IIT-Delhi & Head- Living Science Group, on "Life in the start-up world: developing new technologies and a science communication platform" on 28 January 2019 at 4.00 P.M at UDSC.
- Organized DBT-sponsored brain storming meeting on “Strategies for Treatment Modalities for Snake Bite with special focus on Recombinant Antibodies” at CIIDRET under the aegis DBT- funded Centre of Excellence on “Antibody Technology Research for Therapeutic and Diagnostic applications”.
- Organized lecture by Dr. Devin Sok, the Director of Antibody Discovery and Development for IAVI (International AIDS Vaccine Initiative), at Scripps Research Institute, la Jolla, California, USA, on " Antibody Discovery against variable pathogens " at UDSC on 14th November 2018 at 3.30 PM.
- Organized lecture by Prof. Christopher Broder, Director, Emerging Diseases Graduate Programme, Uniformed Services University of Health Sciences, Bethesda Maryland, USA entitled "Nipah virus and Hendra virus: Basic Science to Global Countermeasures" on 9th August 2018.

### **Presentation in Conferences**

- Prof. Vijay K. Chaudhary delivered lecture at Haffkine Institute for Training, Research and Testing on 4 January, 2019.
- Prof. Vijay K. Chaudhary delivered a lecture entitled Antibodies in Diagnostics: Rapid Tests for Rural India at 88th Annual Session of The National Academy of Sciences, India (NASI) in a symposium in Science, Technology and Ecosystem for Sustainable Rural Development jointly organized by Mahatma Gandhi Chitrakoot Gramoday Vishwavidyalaya (MGCGV) & Deendayal Research Institute (DRI), Chitrakoot, Satna, M. P on 6-8th December 2018.
- Prof. Vijay K. Chaudhary delivered a lecture entitled Genome Sequencing - Gel to NGS and Beyond at Department of Biotechnology, Ministry of Science & Technology, Govt. of India, on 17th September 2018.
- Prof. Vijay K. Chaudhary delivered a lecture entitled “The Magic of Antibodies” at National Conference on Recent Trends in Zoological Research in North-East India, North-Eastern Hill University, Shillong, jointly organized by Department of Zoology (NEHU) & Zoological Society (Kolkata) on 19th April 2018.