

# ICAR CENTRE OF ADVANCED FACULTY TRAINING

(Established in the year 1995 AD vide  
O.O.No.1-2/93 (CAS)/UNDP dated 11.11.1994)

IN

## VETERINARY MICROBIOLOGY



## ICAR 36<sup>th</sup> CAFT Course ON

### “Modern Diagnostic and Control Approaches to Safeguard Livestock Health”

**JANUARY 4-24, 2024**

*Organized by*

**Dept. of Veterinary Microbiology  
Lala Lajpat Rai University of  
Veterinary and Animal Sciences  
Hisar-125004, Haryana**

### About the Department and University

Established as Department of Bacteriology & Hygiene in 1965, the department has taken a lead role for teaching and research in Veterinary Microbiology and Immunology. The pioneering and first-time lead studies have been made in the fields of poxviruses, salmonellae, foot-and-mouth disease virus, bluetongue virus, equine herpesvirus, bovine rotaviruses, buffalo immunology, phage display technology for nanobody production, monoclonal antibody-based assays, molecular diagnostic tests, etc. The faculty and students have won several awards, honours and recognition, including Rafi Ahmad Kidwai Memorial Prize, Hari Om Trust Award, ICAR Team Award, National Professor and National Fellows, besides Commonwealth Doctoral Scholarships and Post-Doctoral Fellowships.

The ICAR had established Regional Centre for epidemiological studies on FMD, at this department in 1969 which has been adjudged as the best AICRP Centre of ICAR-Directorate of FMD consecutively for four years (2010-11 to 2013-14). Since 1995, as ICAR Centre for Advanced Studies/Faculty Training the department has successfully organized 35 Trainings/ Refresher courses on various aspects of Veterinary Microbiology to train the faculty from various SAUs, SVUs and ICAR institutions across India.

College of Veterinary Sciences is one of the oldest Colleges in Northern India. From Lyallpur (currently in Pakistan), the Campus at Hisar was shifted consequent to partition of India. Lala Lajpat Rai University of Veterinary and Animal Sciences (LUVAS), Hisar was established by the state government of Haryana in December, 2010 in pursuance of the Haryana Act No. 7 of 2010 notified on 7th April, 2010.

### About the Course

The livestock sector plays a pivotal role in India's economy contributing significantly to agricultural productivity, rural livelihoods and national food security. Ensuring the health and well-being of livestock is crucial for sustainable livestock production. Infectious diseases pose a substantial threat to the health and productivity of livestock.

Furthermore, some infectious diseases in livestock such as brucellosis, bovine tuberculosis, glanders and anthrax can also have zoonotic implications posing risks to human health. Accurate and timely diagnosis along with appropriate control measures are the cornerstone of effective disease management. The recent diagnostic tools enable early detection, surveillance, prediction and monitoring of diseases, facilitating the timely disease control by implementing vaccination, biosecurity and other preventive measures.

The 36<sup>th</sup> ICAR CAFT program, "Modern Diagnostic and Control Approaches to Safeguard Livestock Health" aims to address the urgent need for advanced training in diagnostic and control methods. This program will equip researchers and livestock professionals with the knowledge and skills required to effectively diagnose and manage diseases using modern techniques. By emphasizing cutting-edge diagnostic tools and control strategies, the training program will empower participants to mitigate the impact of infectious diseases, enhance livestock productivity, and safeguard public health. By capacity building, promoting disease diagnosis, and implementing comprehensive control strategies, we can enhance our ability to manage infectious diseases in livestock, thereby protecting both animal and human health.

This way, the combined efforts of the faculty and trainees in this Course is an attempt to train the participant-scientists of State Agricultural/ Veterinary Universities and ICAR institutes, who may help-build the capacity of their respective state institutions, so that possibility of enhancement of farm-incomes through specialised focus on livestock sector could be turned into reality.

### Course Contents

1. Emerging and Reemerging diseases of livestock in India
2. Foot-and-Mouth Disease status in India: Historical developments and way ahead
3. Bacteriophage isolation from natural resources against antibacterial resistant pathogens affecting livestock industry

4. Phage display technology as a tool for development of new generation diagnostics and therapeutics
5. Recent trends in diagnosis of Hemorrhagic Septicemia in bovine
6. Latex agglutination test as a pen side test for detection of Trypanosomiasis
7. Brucellosis in livestock: diagnosis and control measures
8. Pathological Insights: Harnessing histopathological techniques for infectious disease diagnosis
9. Conventional and automated methods for identification of mastitis causing pathogens
10. Recent trends in development of multiplex assays for diagnosis of infectious diseases
11. Detection of abortogenic pathogens using multiplex real time PCR assays
12. *Morbillivirus caprinae* infection in small ruminants: Epidemiology, diagnosis and control
13. Serological and molecular methods for detection of Bovine viral diarrhoea virus infected cattle
14. Emerging and reemerging poxviruses of veterinary importance
15. Bioinformatic tools for genetic typing of porcine rotavirus
16. Expression & characterization of a novel immunobiological reagent bovine IL-17A
17. Novel diagnostic Methods for Johne's Disease in Livestock
18. Use of Next Generation Sequencing in disease diagnosis
19. Advancements in vaccine development against Anthrax
20. Designing and synthesis of antimicrobial peptides
21. Standardization and evaluation of diagnostic assays and their use
22. FMD-HS bivalent vaccine: A success story in Haryana
23. Use of reverse genetics as a approach to develop viral vaccines
24. Ethanoveterinary practices for management of infectious diseases
25. Trends in animal disease forecasting & forewarning in India
26. Glanders in India: Recent trends and emerging challenges
27. Recent breakthroughs in Strangles and Glanders detection
28. Policies regarding prevention and control of infectious diseases in India

## Eligibility

- The candidate should be from ICAR-AU system including from private ICAR-accredited Colleges/Universities (Not more than two).
- Should have Master's degree in Veterinary Sciences and allied disciplines including Basic Sciences under ICAR-AU system.
- Working not below the rank of Asstt. Prof./ Scientist or equivalent in the concerned subject and should have completed the prescribed probation period as per rules

## How to Apply

### Steps for submission of online application form

- A. **Visit website:** <https://cbp.icar.gov.in/> Login as candidate using your User Id & Password. To create User Id use "<https://cbp.icar.gov.in/signUp.aspx>" link on home page.
- B. **To Participate in Training:** After login, click on "Participate in Training" link and fill the Performa. Take a printout of filled application form, duly sign it and get it forwarded by the competent authority of your institution. **Then scan and upload the approved copy at the above mentioned portal.**
- C. **An Advance copy** (printout of online filled application form duly signed by you) **may be sent immediately to Course Director** for booking a provisional place in the Training which shall not confer any right. For a confirmed place, the printout of online application forwarded by the competent authority of your institution **must reach Hisar by 15<sup>th</sup> December 2023.**
- D. Selected candidates will be informed upto 27<sup>th</sup> December 2023.

## T.A., Boarding and Lodging

The participants will be paid train or bus fare (or by any other means of transport in vogue), restricted to AC-II tier train, for the journey from the place of duty to the LUVAS and back by the shortest route on production of valid travel documents. The boarding and lodging shall also be arranged by the host institute.

## Weather

The Weather during January at Hisar will be cold (winter season). The participants are advised to carry woollen clothes.

## Registration Fee

Registration fee (non-refundable): Rs. 1000/- per participant (Rs. 5000/- in case of candidates from private ICAR-accredited Colleges/Universities) is to be deposited in cash at the time of registration.

## How to reach Hisar

Hisar is well connected through buses 24x7 from neighbouring states as well as Delhi [Inter State Bus Terminus (ISBT) at Kashmiri Gate]. Trains for Hisar could be taken from Delhi: 12555/Gorakhdham SF Express (Departure from New Delhi at 05:30 Hours); 14731/Kisan Express (Departure from Old Delhi Station at 14:00 Hours); 14085/Sirsa Express (Departure from New Delhi at 18:20 Hours).

### Course Director

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### Course Coordinators

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