

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)

ICAR CAFT Course in VETERINARY MICROBIOLOGY

"Combating AMR in Livestock and Poultry: Recent Advances in Surveillance, Diagnostics and Therapeutics"

February 1-21, 2023



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 assavs. 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.

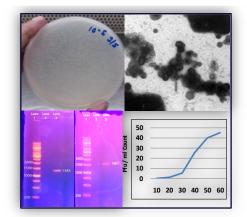
The ICAR had established Regional Research Centre on FMD, at this department in 1969 which has been adjudged as the best AICRP Centre of ICAR-Directorate of FMD consecutively for four years (2010-11 to 2013-14) and again in 2020. Since 1995, as ICAR Centre for Advanced Studies/Faculty Training the department has successfully organized 34 trainings to train the faculty from various SAUs, SVUs and ICAR institutions in India.

College of Veterinary Sciences (COVS) at Hisar 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, Hisar was established by Government of Haryana in December, 2010.

ABOUT THE COURSE

Antimicrobial resistance (AMR) has been globally recognized as an emerging threat to public health linked diseases. Additionally, AMR is expected to impact economies, leading to reduction in global Gross Domestic Products, increased poverty, decline in global livestock and poultry production as well as exports. This course will act as a prerequisite in generating the national capacity of scientists/ academicians working in different State Agricultural Universities/ State Veterinary Universities and ICAR institutes to combat the issue of anti microbial resistance.



NUMBER OF SEATS: 25

Last date for receiving applications: December 15, 2022

Selected candidates will be informed by: December 30, 2022

Department of Veterinary Microbiology, College of Veterinary Sciences Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, Haryana

COURSE CONTENTS

This course covers the following broader topics:

- 1. An overview on National Action Plan on AMR
- 2. Preparedness for Anti Microbial Resistance: ICAR's Action Plan
- 3. Isolation and Identification of Bacteria for Antimicrobial Resistance studies using Conventional and Automated Approaches
- Isolation of bacteriophages from waste water against multidrug resistant pathogen using spot test and application of phages as sensors in new generation diagnostic platforms
- 5. Detection of Interferon gamma as a Diagnostic tool for Bovine Tuberculosis
- 6. Multi-omics approaches to fight antimicrobial drug resistance
- 7. An Exploratory Analysis of Antimicrobial Resistance Databases
- 8. Potential of immunoglobulins and host defense peptide to overcome the use of antibiotics in livestock
- 9. Design and synthesis of antimicrobial peptides and *in vitro* testing for bacterial inhibition studies
- 10. Nanoparticles: An alternative antimicrobial agent against bacterial pathogens
- 11. Antibiotic resistome in clinical and environmental settings
- 12. Applications of next generation sequencing to capture resistome in microbes
- 13. Antibiotic sensitivity testing of yeasts & bacteria by disc diffusion and automated methods
- 14. Digital Anti-Microbial Resistance data management and analysis by application of WHONET software
- 15. Detection of Anti-microbial residues in foods of animal origin
- 16. CRISPR-Cas9 System: A synthetic approach to combat antimicrobial resistance
- 17. Combating Anti-microbial Resistance using Ethnoveterinary practices
- 18. Biosafety and Biosecurity aspects in Clinical Microbiology Laboratory
- 19. Therapeutics for antimicrobial resistance: Lessons from past and implications for future
- 20. Expression and characterization of single domain antibody clones by SDS PAGE and Western Blotting

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:

- A. Visit website: https://cbp.icar.gov.in
- B. If new user, create User Id using "Create New Account" link on home page and login.
- C. Then click on "Participate in Training" link and apply for particular training. 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.
- D. 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. For a confirmed place, the printout of online application forwarded by the competent authority of your institution must reach Hisar by December 15, 2022.

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 LUVAS and back by the shortest route on production of valid travel documents. Boarding and lodging shall be arranged by LUVAS.

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.

ADDRESS FOR CORRESPONDENCE

CAFT Director and Course Director,

ICAR Centre of Advanced Faculty Training, Department of Veterinary Microbiology, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar-125004, Haryana. Tel Office: 01662-256104; 01662-256132. E-mail: hod.vmc@luvas.edu.in;

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COURSE DIRECTOR

Dr. Rajesh, Senior Scientist & Head, Department of Vety. Microbiology, LUVAS, Hisar Email: <u>rchhabra59@rediffmail.com;</u> <u>hod.vmc@luvas.edu.in;</u> Mobile: 9466171440

COURSE COORDINATORS

- Dr. Swati Dahiya, Scientist, Department of Veterinary Microbiology, LUVAS, Hisar Email: <u>swatidahiya@luvas.edu.in</u>; Mobile: 08607537608
- Dr. Akhil Kumar Gupta, Scientist, Department of Veterinary Microbiology, LUVAS, Hisar. E-mail:<u>drakki1984@gmail.com</u> Mobile: 8708417050

HOW TO REACH HISAR

Hisar is well connected through buses (day and night) 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 05:40 Hours); 14731/ Kisan Express (Departure from Old Delhi Station at 14.00 Hours); 14085/Tilak Bridge Sirsa Express (Departure from New Delhi at 17:30 Hours).