

30 Days Hands-on Training on

“Molecular diagnostic techniques for detection of infectious disease pathogens”

under the DHR-ICMR sponsored institutional support project titled “Capacity Building and Development of Skilled Human Resources in the field of Zoonotic Diseases under One Health Initiatives” with project ID 2024-1023

Organized by

Department of Animal Biotechnology, College of Veterinary Science, AAU, Khanapara, Guwahati-781022.

From: 14th February to 13th March, 2025

Zoonotic diseases highlight the intricate and fascinating dynamics that have emerged in nature. It is well documented that over 60% of known human infectious diseases can be transmitted from animals, with three-quarters of new or emerging infectious diseases originating from animal sources (NCEZID, USA). The North-Eastern Region of India, which shares five international borders, presents a continuous threat to both livestock and human populations due to the potential influx of exotic and transboundary diseases through its porous borders. This area is particularly susceptible to various infectious diseases driven by its unique climatic conditions, dense forests, and limited access to healthcare in certain areas. Additionally, the exposure of free-ranging domestic animals and birds to wildlife in adjacent fringe regions exacerbates the challenge of managing zoonotic diseases.

Furthermore, there is a significant shortage of skilled personnel in infectious disease research and diagnosis, particularly regarding zoonotic diseases, in the North-Eastern region. The College of Veterinary Science, AAU, located in Guwahati, serves as a premier institution equipped with excellent teaching and research facilities, and it can play a critical role in advancing research in infectious diseases and producing well-trained professionals to help bridge this gap.

To address this need, a training program will be organized with the objective of developing skilled human resources. This initiative will provide hands-on training to 25 selected participants, including teachers, researchers, biomedical workers, veterinary and medical officers, and veterinary, medical, or biomedical research scholars. The training will focus on molecular diagnostic techniques, molecular characterization, and epidemiological investigations of pathogens, particularly zoonotic pathogens.

Ultimately, this training program aims not only to enhance knowledge and technical abilities but also to create opportunities for future academic and research careers in the field of infectious diseases.

Contents of the hands-on training: (Mostly practical and few theory classes)

Introduction to molecular diagnostics; Laboratory design and Good Laboratory Practices; Biosafety and biological waste management; Classification of different zoonotic diseases: Concepts on One Health; Microbiological specimen collection, preservation, transport and processing of samples for clinical diagnosis; Collection of blood and tissues for diagnosis of Tuberculosis, Anthrax and Brucellosis; Collection of samples for diagnosis of rabies; Polymerase Chain Reaction (PCR), Reverse Transcriptase PCR (RT-PCR) and Real-Time PCR for disease diagnosis; Primers and Probe designing by using Bioinformatics tools; Isothermal amplification reaction for disease diagnosis; Gene chip technology and high-throughput sequencing technology; Identification of bacteria by cultural, morphological and biochemical tests; Anti-microbial resistance and Antibiotic sensitivity test; Collection, fixation, processing and Staining of tissues for routine histopathological examination; Detection, isolation and identification of important pathogens of zoonotic importance from animal, human and environmental sources including foods of animal origin; Overview of emerging parasitic diseases; Faecal examination technique for detection of helminth ova/egg and protozoan cyst/oocysts; Collection of blood samples, smear preparation and staining techniques for detection of haemoprotozoan parasites; Collection, preservation, Fixation, staining, mounting of helminths and arthropod for their identification.

Application procedure:

One can directly apply online by using the web link <http://vetbifg.ac.in/icmrhrd.php>

Download the application form from the link and upload the soft copy of the filled and signed application form through the mentioned link. For any other queries you can email to hod-abt.cvsc@aau.ac.in OR dipak.deka@aau.ac.in

No need to send hard copies of the applications. For any clarification, the interested applicants may contact Dr. Girin Hazarika (9954063163) or Dr. Chandra Bhattacharya (9435180061).

Application Fee:

Application process and the training is free of cost. A screening committee will finalized the list of selected applicants who will be allowed to register in the training program.


No TA/DA will be provided to the participants from the organizer to attend this training.

Lodging & Food:

Lodging for the selected candidates may be arranged in the College Guest house on twin sharing basis. The charges for accommodation must be paid directly in the Guesthouse at the time of check out (AC room @ Rs. 750/-day/person, Non-AC room @ Rs.400/-day/person). Only session tea will be served in the department for the participants during the training days. Breakfast, lunch and dinner will be available in the university guest house on payment basis.

Last Date of Application:

Last date of application is **9th February 2025**. List of the selected candidates will be posted in the website <http://www.vetbifg.ac.in/> on **10th or 11th February 2025**. Also selected candidates will be intimated through email or over phone.


24.01.2025
Head (i/c)
Deptt. of Animal Biotechnology
College of Veterinary Science
A.A.U., Khanapara, Guwahati-22

Organizer:

Dr. Dipak Deka

Associate Professor & Head (i/c), Project Coordinator, ALSBT Hub, PI, DHR-ICMR Project,
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College of Veterinary Science, AAU, Khanapara, Guwahati, Assam – 781022.

NOMINATION FORM FOR TRAINING

Training Code: [DHR-ICMR – 2024-25/03]

1. Name of the applicant:
2. Sex: Male/Female:
3. Age (in years):
4. Highest Qualifications & Discipline (Graduate/ PG/PhD):
5. Designation (current status):
6. Name of organization/department:
7. Category: Teacher/ Researcher/ Veterinary Or Medical Officer/ Post-graduate scholar etc.
8. Address for communication:
9. Telephone No.:
10. WhatsApp No.:
11. E-mail address:
12. Have you attended similar training earlier?

If yes, furnish details:

13. Details of working experience, if any:
14. Do you require accommodation? (Yes / No)

Signature of the applicant

Nomination:

I do hereby nominate _____ for participating in the training programme on “**Molecular diagnostic techniques for detection of infectious disease pathogens**” organized by the Department of Animal Biotechnology, College of Veterinary Science, A.A.U., Khanapara, Guwahati-781022 from 14th February to 13th March, 2025.

Office seal

Signature of the Nominating Authority

NB: Already passed out or independent candidate can avoid nomination part but need to fill the rest.