

“Basic Techniques in Biotechnology and Bioinformatics”

Organized by

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

From: 4th to 11th February, 2025

About the training

There have been a number of major advances in Biotechnology, Molecular Biology and Bioinformatics in the past few years. The techniques of molecular biology represent a new tool for research and diagnosis. They have been used routinely since the middle of 1980s. New technologies either improve existing techniques or develop new approaches to old questions in order to generate information more quickly, easily, accurately or in a more easily repeatable fashion than existing methods.

Biotechnological methods along with Bioinformatics tools offer considerable advantage over the conventional methods applied to biomedical sciences with their wide application in diverse areas of research and diagnosis of infectious diseases. Following introduction of nucleic acid amplification and sequencing techniques, a number of nucleic acid based molecular techniques have been developed which are applicable in diverse areas of biology, *viz.* identification and differentiation of species, typing and sub-typing of microbes for molecular epidemiological study, diagnosis of infectious diseases, understanding cancer biology, forensic sciences, etc. The major advantages of using molecular methods include their rapidity, accuracy, reliability and requirement of a very minute quantity of samples for processing.

This training programme has been proposed with a view to train selected teachers, researchers and biomedical practitioners on application of Basic techniques in Biotechnology and Bioinformatics specifically giving hands on experience. It is also advisable to bring own laptop for a better experience of the Bioinformatics practicals.

The training will not only merely help to develop technical skills but also provide opportunities in future academic and research career and prospects for collaboration.

Contents of the hands-on training:

Theory lectures:

Introduction to Molecular Biology Techniques, *In-vitro* Amplification of DNA by Polymerase Chain Reaction (PCR), Real-Time PCR, DNA Sequencing Technologies, Molecular Cloning, Introduction to Bioinformatics, Recent advances in Veterinary Vaccine Development, Nanoparticles in Biology and Medicine and two invited guest lectures.

Practical sessions:

Genomic DNA Extraction from Blood, PCR (Polymerase Chain Reaction), Plasmid isolation, Gel Electrophoresis, Extraction of RNA from Blood, c-DNA preparation, Real-time PCR, Molecular cloning, Designing of PCR Primers and Probes, BLAST, Sequence alignment and Phylogenetic analysis etc.

Application procedure:

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

Download the application form from the link, fill and get it signed accordingly and upload the soft copy of the filled and signed application form through the mentioned link **ONLY** in JPEG/JPG format. For any other queries you can email to nabaassam@gmail.com OR dipak.deka@aau.ac.in.

No need to send hard copies of the applications to any mail ID. For any clarification, the interested applicants may contact Naba Kumar Deka (6901119256).

Application Fee:

Registration fee of Rs. 1000.00 (excluding accommodation) may be paid by the selected applicants at the time of registration on the first day of the training in the form of Demand Draft/ Bankers Cheque drawn in favour of DIRECTOR OF RESEARCH (VETERINARY), AAU payable at Khanapara. No TA/DA will be admissible to the participants to attend the training.

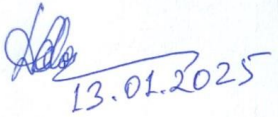
Lodging & Food:

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). Working lunch along with session tea will be served in the department to the participants during the training days.

Last Date of Application:

Last date of application is 29th **January 2025**. List of the selected candidates will be posted in the website <http://www.vetbifg.ac.in/> on 30th Jan or 1st February, 2025. Also selected candidates will be intimated through email.

Organizer:



Head
Deptt. of Animal Biotechnology
College of Veterinary Science
A.A.U., Khanapara, Guwahati-22

Dr. Dipak Deka
Assoc. Professor & Head (i/c)
Coordinator, DBT-ASLBT Hub
Department of Animal Biotechnology,
College of Veterinary Science, AAU, Khanapara-22

NOMINATION FORM FOR TRAINING
Training Code: [ALSBT Hub – 2024-25/03]

1. Name of the applicant:
2. Gender: Male/Female/Others:
3. Designation:
4. Highest Qualification:
5. Name of the organization/department:
6. Category: Teacher/Researcher/Post-graduate scholar
7. Address for communication:
8. Telephone No.:
9. WhatsApp No.:
10. E-mail address:
11. Have you attended similar training earlier?
If yes, furnish details:
12. Details of working experience, if any:
13. Do you require accommodation?

Signature of the applicant

Nomination:

I do hereby nominate _____ for participating in the training programme on “**Basic Techniques in Biotechnology and Bioinformatics**” organized by the DBT-funded Advance Level State Biotech Hub (Assam), College of Veterinary Science, A.A.U., Khanapara, Guwahati from 4th to 11th February, 2025.

Office seal

Signature of the Nominating Authority

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