

Hands-on Training Programme on
Basic Molecular Genetic Techniques and
Bioinformatics Tools for Life Science
Research – Module I and II (Two separate
trainings each of five days duration)
(Module I – Nov 26-30, 2024 and Module II – Dec 02-06, 2024)

KVASU



School of Applied Animal Production and Biotechnology
Kerala Veterinary and Animal Sciences University

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Kerala, India

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The School of Applied Animal Production and Biotechnology (SAAPBT), College of Veterinary and Animal Sciences (CVAS), Mannuthy, Thrissur (Kerala Veterinary and Animal Sciences University) is pleased to announce a hands-on training program on **“Basic Molecular Genetic Techniques and Bioinformatics Tools for Life Science Research – Modules I and II.”** These are two separate training sessions, each five days long, starting on November 26, 2024, at Mannuthy, Thrissur.

Background

Over the last decade, the SAAPBT has conducted more than 20 training programs on Molecular Genetic Techniques and Bioinformatics Tools. These programs have benefited more than 200 participants, including faculty members, post-graduate and PhD scholars from veterinary, agricultural, medical, and pure science research and teaching fields. Building on this experience, SAAPBT is now organizing a training program titled **“Basic Molecular Genetic Techniques and Bioinformatics Tools for Life Science Research”** at SAAPBT, College of Veterinary and Animal Sciences, Mannuthy, Thrissur. This program is designed for faculty members, researchers, and professionals from government and private institutions who are involved in biological sciences research or teaching. It is particularly valuable for those working in molecular genetics laboratories. The training is relevant to a broad range of disciplines, including veterinary science, agriculture, medicine, and basic scientific research. **The training is divided into two modules, and participants have the option to choose either one of the modules or both. Each module provides focused training, and participants will receive a certificate for each module completed.**

The program includes about 25 hours of theory and 14 hours of practical sessions. Each session begins with an introductory lecture followed by hands-on training, allowing participants to directly apply the theoretical knowledge they've learned. This blended approach helps trainees develop a strong understanding of molecular genetic techniques and bioinformatics tools, as well as the practical skills to use them in their laboratories. By the end of the program, participants will be better equipped to incorporate these techniques into their research or teaching. A comprehensive training manual covering all sessions will also be provided.

Programme Fee

Each module will have a program fee of Rs 3,000/- for students and Rs 6,000/- for others (faculty, researchers & professionals etc.). Both modules together will have a program fee of Rs. 6,000/- for students and Rs 12,000/- for others. Participants will receive separate certificates for each module completed. The program fee can be paid via a **DEMAND DRAFT** drawn in favour of **“Course Director-Training, School of Applied Animal Production and Biotechnology”** payable at SBT, Ollukkara.

Who Should Attend?

The course is open to faculty members, research scholars, postgraduate students, and professionals from government or private institutions involved in research or teaching in the biological sciences.

Lodging

Accommodation will be provided to participants upon request at nominal charges on a shared basis, subject to availability.

Travel

KVASU-SAAPBT is located in the CVAS campus, Mannuthy, Thrissur, approximately 7.7 km from Thrissur Railway Station and 50.4 km from Kochi International Airport. Travel and accommodation expenses (TA and DA) must be borne by the participants or their sponsoring organizations.

Content

MODULE I

- Genome organisation and function
- Principles of DNA isolation
- Agarose gel electrophoresis
- Polyacrylamide gel electrophoresis
- Biological Databases and Resources
- Polymerase chain reaction and primer designing
- Molecular Biology Techniques for disease diagnosis
- DNA Sequencing and submission to databases
- Phylogenetic Analysis

MODULE II

- RNA isolation and cDNA synthesis
 - Restriction Endonuclease Analysis
 - High-Resolution Melt Curve Analysis
 - Real-time polymerase chain reaction
 - Introduction to Next Generation Sequencing
 - Basic concepts of Epigenetics and Recombinant Protein Production
 - Basics of Microsatellite and Metagenomic Analysis
 - Enzyme-linked immunosorbent assay (ELISA)
 - Cell culture techniques
 - Bioinformatics tools in protein prediction and drug discovery
- **How to Apply?**

A scanned copy of the completed application (in the enclosed format) should be sent via email to iosaapb@kvasu.ac.in. The selected applicant must submit the demand draft to the Course Director upon reporting for the training.

Important Dates

Module I: November 26-30, 2024

Module II: December 02-06, 2024

Last date to receive applications: 11-11-2024

Number of seats available: 14

For further information, please contact:

Dr C N Dinesh,
Course Director (Training),
SAAPBT, CVAS, Mannuthy,
Thrissur, Kerala - 680 651
Mobile: 9447227119
E-Mail: iosaapb@kvasu.ac.in

HANDS ON TRAINING PROGRAMME ON “BASIC MOLECULAR GENETIC TECHNIQUES AND BIOINFORMATICS TOOLS FOR LIFE SCIENCE RESEARCH” – Module I and II

(Application to be sent to the mail ID of Course Director - iosaapb@kvasu.ac.in)

Whether applying for Module I or Module II or Both Modules (Please put a tick mark (✓) against the preferred one or both).

Module I – Nov 26-30, 2024	
Module II – Dec 02-06, 2024	

APPLICATION FORM

1	Full name (in CAPITAL)	
2	Designation	
3	Address	
4	Mobile No (WhatsApp No)	
5	Email	
6	Age	
7	Sex (Male/Female/others)	
8	Nature of job (Student/Teaching/Researcher/ Professional etc.)	
9	Area of specialisation	
10	Educational qualification	
11	Teaching/ Research/ Professional experience (mention post held) during last 5 years	
12	Details of the training fee paid- For One Module Rs 3,000/- for students Rs 6,000/- for others	Amount paid (Rs):
		DD No & date:
13	Signature of applicant with date	
14	Forwarded by the competent authority (Signature, date and office seal)	