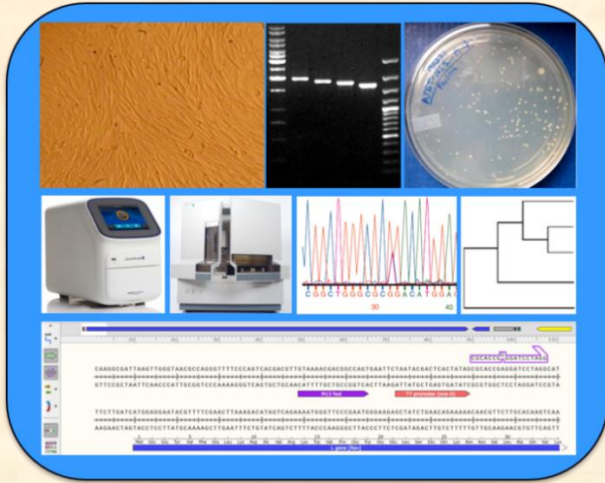


An Online 21-days Training Course on
“Integrating molecular biology and bioinformatics for clinical diagnosis”
From 10th March to 30th March, 2021



Course Director: Dr. Sushila Maan
Course Co-ordinator: Dr. Pawan Kumar
Course Faculty: Dr. Minakshi,
Dr. Aman Kumar,
Dr. Joshi V. G.,
Dr. Kanisht Batra



Department of Animal Biotechnology
College of Veterinary Sciences
Lala Lajpat Rai University of Veterinary and Animal Sciences (LUVAS), Hisar, 125 004
Haryana

Duration: 10th March to 30th March, 2021

Course Fees: Indian participants are requested to pay a sum of Rs. 2000/- (Rs. Two thousand only) for the training course while for foreign participants the registration fee is 50 USD per week. The registration fee shall be deposited in the given account details before 7th March, 2021.

Number of participants: The maximum number of participants shall not exceed 50. Selection of candidates is completely based on first come first serve basis.

Participants and eligibility: Participants are invited from ICAR Institutes/ SAU/Basic Science Institutes/ State Governments/Private Organizations from India and abroad. They can be UG/PG of Veterinary/biotechnology/life sciences having interest in the field of molecular diagnosis.

How to apply: The application for participation may be sent in duly prescribed format and it should reach to the Course Director latest by 7th March 2021 by post, fax or email.

Account Details*:

Account name: Comptroller, LUVAS, HISAR
Account no : 0353104000076270
Bank Details : I.D.B.I. Bank, Hisar
I.F.S.C code : IBKL0000353

*** Please ensure the availability of seats before submission of registration fees. The fees once deposited is non-refundable.**

All correspondence may please be addressed to:

Dr. Sushila Maan, Course Director cum Prof. & Head
Department of Animal Biotechnology, LUVAS, Hisar, Haryana- 125004, India
Phone no. 01662- 256130 (office).
Cell: 9991850394 (Dr. Pawan Kumar)
Email: hod.abt@luvas.edu.in, pkbagri.vets@gmail.com

Online training course on “Integrating molecular biology and bioinformatics for clinical diagnosis”



Dr. Sushila Maan

Course Director cum Prof. & Head

The biotechnology plays an important role in the development of diagnostic assays in response to an outbreak or critical disease response need. The tools of molecular biology and biotechnology can be used for various biomedical applications including diagnostics and therapeutics. These techniques can help in generating biologically valuable recombinant DNA (rDNA) materials. The rDNA pertains to the creation of new combinations of DNA that would not otherwise be found in biological organisms or in nature. Along with rDNA technology other tools and techniques in biotechnology are very helpful and define way to understand the molecular basis of diseases of human and animal origin. Therefore, it is important that these tools should be developed indigenously based on the problems of concern field or geographical region. Now a day’s these biotechnology tools are commonly used in the area of genomics, transcriptomics, metabolomics, metagenomics and different aspects of reproductive biotechnology for various purposes like disease specific molecular marker development, diagnosis and molecular typing of microbes, new generation vaccine development, antisense technology, molecular therapeutics, identification of breeds etc. These tools are also useful in area of forensic science, molecular medicine and to know the meat adulteration. Further, the applications of rDNA tools have entered in era of high throughput technologies. This field is revolutionizing current era and have potential to open new vistas in the field of disease management. The biomedical data is accumulated fast through newer techniques like next generation sequencing in the genomics era. Bioinformatics involves the algorithms to represent, store, and analyze this huge generated data. Translational bioinformatics which focuses on the biomarker discovery, integrates the information about molecular entities (DNA, RNA, proteins, and small molecules) with the information about clinical entities (genetics, diseases, symptoms, laboratory tests, pathology reports, and clinical images).

However, DNA based tools are yet not routinely used for diagnosis of infectious diseases of livestock, pets and poultry. Therefore, this online training course on ‘Integrating molecular biology and bioinformatics for clinical diagnosis’ is designed to provide comprehensive knowledge in the field of molecular diagnosis. The training programme will cover the theoretical aspects of molecular biology and bioinformatics techniques for better understanding of the practical events.

Course contents:

- Specimen collection, transport and storage for molecular diagnostics.
- Reagents and solutions for molecular biology experiments.
- Extraction and purification of genomic DNA/RNA from various clinical samples.
- Designing of specific primers and molecular diagnostic development.
- PCR and its variants for nucleic acid amplification.
- Gel and capillary electrophoresis.
- Recombinant DNA Technology and molecular cloning.
- DNA sequencing platforms.
- Data mining from NCBI and sequence processing.
- Bioinformatics tools and sequence analysis for disease diagnosis.
- Diagnosis and therapeutic applications of peptides.
- Luminex xMap technology.
- Cell culture technique for virus cultivation.

**E-Certificate will be provided to the registered participants who will attend all the sessions and submit the feedback.*



Organizer
Department of Animal Biotechnology
College of Veterinary Sciences
Lala Lajpat Rai University of Veterinary and Animal Sciences
(LUVAS), Hisar 125 004, Haryana

Application Form

1. Full Name: _____
2. Designation: _____
3. Gender: _____ 4. Date of birth _____
5. Present address:

6. Tel No. _____ (office) _____ (Res)
7. Email address _____

8. Teaching/ research /professional experience along with the posts held
(During last five years)

Post held	Institution	Period	Nature of duty

9. Academic records

Exam Passed	Subject/s	Year of passing	Percent/OGPA	University
Ph.D.				
Masters degree				
Bachelors degree				

10. Transaction details:

Transaction id: _____

Date and Mode of transaction: _____ (NEFT/ IMPS/ UPI/ Other)

Amount paid: _____

Bank account detail (including account holders name): _____

Date: _____

Signature of the applicant

Place: _____