

Tamil Nadu Veterinary And Animal Sciences University



**National Workshop on  
“Genomics in Biological,  
Production and  
Diagnostic Research”**

**03–07 March 2025**

**Organized by**

**Bioinformatics Centre  
Madras Veterinary College  
Chennai – 600007, Tamil Nadu**



Research Stations, one Institute of Animal Nutrition, 20 Veterinary University Training and Research Centres, four KVKs, three FTCs, one Veterinary University Training and Diagnostic Centre, one Ethno-Veterinary Herbal Training and Research Centre, one Central Feed Technology Unit, one Agricultural Technology Information Centre, one Veterinary & Animal Sciences Information Service Centre and several Research and Service Laboratories spread across the state to disseminate the research findings and new technologies to the farming community, as well as to take care of research and extension needs of the livestock and poultry sectors.

**Madras Veterinary College**

Madras Veterinary College is located in Vepery, Chennai and the College, one of the oldest Veterinary institutions in India, was established in 1903. The College became affiliated with the University of Madras in 1935, the first college



to offer the bachelor's degree in Veterinary Medicine in India and then affiliated with Tamil Nadu Agricultural University. In 1989, the College has become a constituent unit of TANUVAS. At present, the College has 32 departments/units and offering various degree and diploma courses in Veterinary and Animal Sciences.

**Bioinformatics Centre**

The Bioinformatics Centre at Madras Veterinary College was established as one of the nodes in the Bioinformatics Network (BTISNet) as Distributed Information Sub Centres (SubDICs) in the year 1990-1991 with the objective to harness the scientific knowledge of rapid advancement in bioinformatics and sustainable utilization of biological resources for the betterment.



The Centre provides computational facilities and bioinformatics related services to cater the needs of Faculties, Scientists, Research Scholars, Technical staff and Students of Veterinary, Animal and Life Sciences in the field of Bioinformatics.

The Centre is equipped with the state-of-the-art facilities in terms of hardware, software, information storage and retrieval and an in-house wet-lab to carry out molecular biology studies. Major activities of the Centre include human resource development, research, information retrieval, database creation, etc.

So far, this Centre has trained more than 2800 scientists, research scholars, faculties, technical staff and students in the area of bioinformatics. Presently, a PG diploma course in Bioinformatics (Distance mode) is being offered by

The first Veterinary and Animal Sciences University in Asia was established on 20<sup>th</sup> September 1989 with its head quarters in Chennai with the name “**Tamil Nadu Veterinary and Animal Sciences University**” (popularly abbreviated as **TANUVAS**) and is functioning with a mandate to impart education, the advancement of learning and research and undertake extension to rural people in co-operation with the government departments.

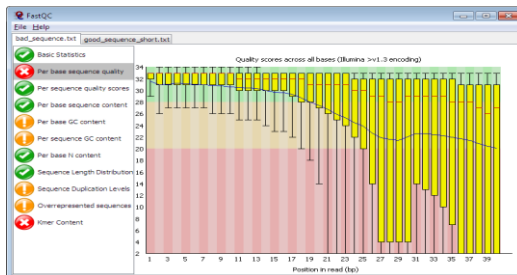
Recently, TANUVAS has been accredited by the Indian Council of Agricultural Research (ICAR) with Grade ‘A’. As per NIRF-Ranking (2024), TANUVAS is 17<sup>th</sup> amongst the Agriculture and allied sectors and is the first amongst the State Veterinary University. TANUVAS is the first veterinary university in the country to bag the “Sardar Patel Outstanding ICAR Institution Award” in the year 2011. Presently, TANUVAS has seven Veterinary Colleges, one College of Food and Dairy Technology, one College of Poultry Production and Management and one Post Graduate Research Institute in Animal Sciences as constituent institutions. Moreover, the University also has 10

this Centre, as well as project guidance/internship in different areas of bioinformatics is being provided to the students of external institutions also.

Research in the area of genomics, proteomics, molecular interactions and optimization, epitope prediction, database creation, modeling, comparative genomics, virtual Screening and simulation are being carried out at this Centre.

### Objectives of the Workshop

- To provide fundamental concept in Bioinformatics and tools in Bioinformatics and Genomics Research to the participants.
- To workshop will elaborate on various tools in sequencing, NGS data processing, phylogenetics analysis and genomics work flow.



**Contents:** The broad areas to be covered during various sessions include lectures and practical demonstrations which will be based on the following themes:

- I. Bioinformatics and its Applications
- II. Next Generation Sequencing workflows
- III. Eukaryotic and Prokaryotic Genomics
- IV. Transcriptomics and Genomics in animal breeding

The participants will work on proprietary softwares like Lasergene DNASTAR and Biovia Discovery studio. In addition, participants will be familiarized with popular open source softwares such as MEGA, Galaxy server, etc.

Topics such as analysis of NGS sequence data, prediction of virulence genes and antibiotic resistance genes in bacterial genomes, multi locus sequence typing of microbes, microbial metagenomics, eukaryotic genome analysis, genomics based selection etc., will be covered in the workshop.

**Level of Participants:** Faculties, Scientists, Technical Staff, Research scholars and Students.

**Prerequisites:** Knowledge of computer operation with biological background is preferable.

**Number of Participants:** 25 [*Only on first-come, first-served preferential basis*]

**Registration Fee:** Rs.2500/- + Applicable GST (now 18%: Rs.450) [Participants from India]

**Payment of Fee:** The fee (Rs.2950/-) may be paid through Electronic mode (IMPS/NEFT/ RTGS/UPI) to A/C.No. **570502010008183** of **Union Bank of India**, MVC Vepery branch, Chennai-600 007, IFS Code: **UBIN0557056** or by Demand Draft drawn in favour of **“The Coordinator, SF Scheme on Human Resource Development, Bioinformatics Centre”** payable at **Chennai** on any nationalised bank.

### Registration (with fee details):

[https://docs.google.com/forms/d/e/1FAIpQLSeOYUWLCuI0N9uJyWWgjj3V1JMwcb7Fie5UV3iTxPdLpgRTA/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSeOYUWLCuI0N9uJyWWgjj3V1JMwcb7Fie5UV3iTxPdLpgRTA/viewform?usp=sf_link)



**Note:** *Registration as well as furnishing payment receipt thro' email is mandatory for providing the Selection letter*

**Accommodation and Food:** Accommodation would be provided at MVC Campus on payment basis on prior request, subject to availability. Participants have to make their own arrangement for food.

### Convenor:

**Dr. C. Soundararajan, Ph.D.,**  
Dean, Madras Veterinary College

### Organising Secretary:

**Dr. K. Vijayarani, Ph.D.,**  
Professor and Head  
Bioinformatics Centre, MVC

### Co-organising Secretaries:

**Dr. K. Anbukumar, Ph.D.,**  
Assistant Professor,  
Bioinformatics Centre, MVC

**Dr. P.L. Sujatha, Ph.D.,**  
University Deputy Librarian, MVC

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**Last date for Registration:**  
**26.02.2025**