

HIGHLIGHTS

In vitro Exploration:

- Dive into Cellular Investigations: Participants will immerse themselves in the fascinating realm of cellular studies, focusing on 2D, 3D and 4D cultures.
- Hands-On Experience: Gain practical, hands-on experience in the cultivation and manipulation of cells, equipping participants with valuable skills applicable to a wide range of research applications.

In silico Insights:

- Mastering Advanced Bioinformatics Tools: Explore and master the use of advanced bioinformatics tools, such as Q-SARs and Read-across methodologies, Molecular Docking.
- Holistic Understanding: Delve into integrated approaches for a comprehensive understanding of biological data, utilizing computational analysis to draw meaningful insights.

Alternative Model Organisms:

- Unlocking Potential: Participants will unlock the potential of unconventional model organisms for biological studies.
- Exploration of Attributes: Explore the unique attributes of *Hydra magnipapillata*, *Caenorhabditis elegans*, *Drosophila melanogaster*, and *Danio rerio*, understanding how these organisms can contribute to diverse research scenarios.
- Advantages and Applications: Gain insights into the advantages and varied applications of these model organisms, expanding the toolkit available for researchers in the biological sciences.

DESCRIPTION

This training shall cover three domains:

In vitro (2D, 3D and 4D cultures), *In silico* (Bioinformatics tools- q-SAR's, Read-across; integrated approaches, Molecular Docking), and Alternative model organisms (*Hydra magnipapillata*, *Caenorhabditis elegans*, *Drosophila melanogaster*, and *Danio rerio*).

ACCOUNT DETAILS:

Beneficiary: **National Centre for Alternatives to Animal Experiment**

Bank: **State Bank of India**

Branch: **Bharathidasan University**

Account Name: **The Co-ordinator, NCAAE**

Account No. **36425164198**

IFSC code : **SBIN0007014**

ORGANIZING COMMITTEE

Chief Patron

Dr. M. SELVAM

Vice-Chancellor, Bharathidasan University

Patron

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Registrar i/c, Bharathidasan University

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Department of Animal Science, BDU, Trichy - 24.

Subject Experts / Trainers

Dr. M.A. AKBARSHA

Research Coordinator, National College, Trichy.

Dr. GOPINATH PACKIRISAMY

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Dr. GURUSHANKARA

Assistant Professor, Department of Zoology, Central University of Kerala, Kasargod.

Dr. G. GIRINATH PILLAI

Scientific Officer, Zastra Innovations, Bengaluru.

Dr. B. GOWDHAMI

Research Scientist, Biological and Bioinformatics Research Centre, Trichy

Workshop on Trends in Animal Models, *In Vitro* Tools, and *In Silico* Approaches in Scientific Research

February 12 to 16, 2024

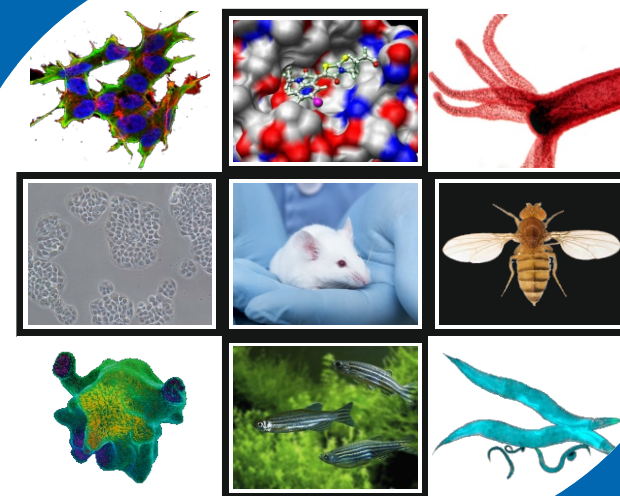
Sponsored by

RUSA 2.0 Biological Sciences

Mahatma Gandhi - Doerenkamp Centre (MGDC)
for Alternatives to Use of Animals in Life Science Education

**National Centre for Alternatives to
Animal Experiments (NCAAE)**

**& Society for Alternatives to
Animal Experiments- India (SAAE-I)**



**Department of Animal Science
Bharathidasan University
Tiruchirappalli-620 024, India**



ABOUT UNIVERSITY

Bharathidasan University was established in February 1982, and was named after the great revolutionary Tamil Poet BHARATHIDASAN (1891-1964). The motto of the University is "We will create a brave new world" (புதியதோர் உலகம் செய்வோம்). The University has a total 4 Faculties, 16 Schools, 37 Departments and 29 Specialized Research Centers. NAAC has accredited our university with an "A+" grade during the third cycle. The affiliating jurisdiction is over 8 Districts with 147 Arts & Science and Fine Arts Colleges and 11 Approved Institutions. 24 colleges are affiliated as autonomous. In different disciplines of higher education and research, the institution continues to undergo swift changes for the welfare of the students.

ABOUT MGDC & NCAAE

The University Grants Commission (UGC), Ministry of Environment and Forests (MoEF), and Medical & Pharmacy Councils, had raised concern about the use of animals in learning and research. In this backdrop, Prof. M. A. Akbarsha, Former Professor of Animal Science & Dean, Faculty of Science, established the Mahatma Gandhi - Doerenkamp Center (MGDC) for Alternatives to Use of Animals in Life Science Education in 2009 at Bharathidasan University, Tiruchirappalli, Tamil Nadu.

The center played a pivotal role in changing the attitude towards the alternatives to use of animals in academics and research communities of the country. The standalone facility of MGDC has specialized in three domains viz., *in vitro*, *in silico* and alternative model organisms, conducting research, training and outreach programs in all 3 domains to overall achieve the vision of making India as a leader in modern tools of learning and research.

In order to continue the brilliance of the center, the university expanded the MGDC into a National Center by bringing the expertise of faculties from various departments to enrich its multi-disciplinary activities. The idea of establishment of a national facility named National Centre for Alternatives to Animal Experiments (NCAAE) was further approved and funded by the UGC under CPEPA (Centre with Potential for Excellence in Particular Area) scheme. The main aim of this established centre is to promote excellence in education by launching modern tools in the field of alternatives to animal experiments. The primary focus of NCAAE is to establish the country as a leader on par with International Institute in Humane Science by adopting alternative methods to animal experiments.

ABOUT WORKSHOP

The centre aims to dive into a training program covering three important areas: Explore the versatility of alternative model organisms, understanding their unique attributes and their applications in scientific research. To discover the intricacies of *in vitro* research, gaining hands-on experience in cultivating cells and studying their behavior in controlled environmental conditions. To navigate *in silico* methodologies using advanced bioinformatics tools, exploring Quantitative Structure-Activity Relationships (Q-SARs), Read-across techniques, molecular dockings and integrated approaches for robust data analysis. This dynamic training will provide a holistic understanding of advanced research methodologies, empowering scientific pursuits.

Registration Details

Registration fee of **Rs.5,000/-**.

Eligibility: M.Sc./M.D./M.V.Sc., Ph.D., Post-docs and Early career faculty.

Paid accommodation will be arranged for outstation participants at affordable cost. Working lunch will be provided.

Last Date for Registration : **05/02/2024; 5.00 pm**

Registration Link

<https://forms.gle/WqsVK6nPgkpJMtZRA>

After the registration, shortlisted candidates will be intimated via email on 05.02.2024; 7.00 pm. The short listed candidates should pay and confirm the registration on or before 07.02.2024; 5.00 pm