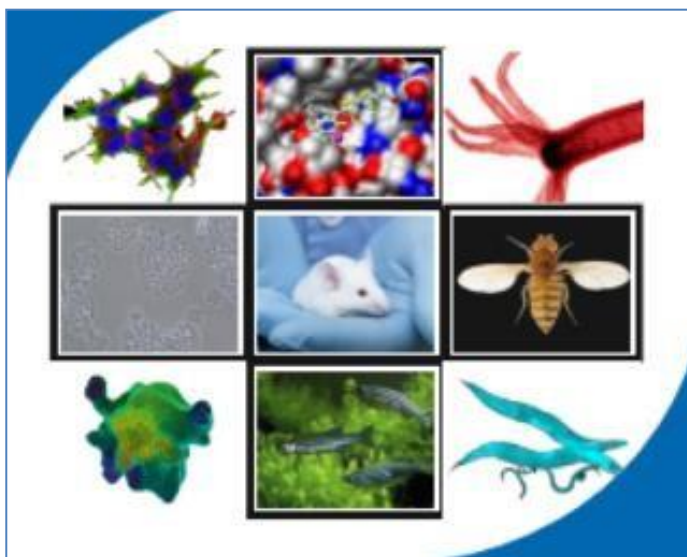


Workshop on
**Trends in Animal Models, *In Vitro* Tools, and *In Silico*
Approaches in Scientific Research**

February 12 to 16, 2024



Sponsored by

RUSA2.0 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).**

The workshop, titled "*Workshop on Trends in Animal Models, In Vitro Tools, and In Silico Approaches in Scientific Research*" was sponsored by RUSA 2.0 Biological Science and co-organized by MGDC, UGC-NCAAE, SAAE-I, and the Department of Animal Science at Bharathidasan University in Tiruchirappalli. Attracting scholars from throughout India, 22 participants were chosen from a pool of 27 applicants from various States and districts in Tamil Nadu. The workshop explored the most recent advancements in these three critical fields of scientific research: animal models, *in vitro* tools (cell-based techniques), and *in silico* approaches (computer modeling and simulation). This rigorous program encouraged information sharing, the investigation of new approaches, and collaboration, with the ultimate goal of advancing scientific research.



Day 1:

The workshop began with an inauguration ceremony featuring a welcome address by Prof. K. Emmanuel Rajan, an Inaugural address was delivered by Hon'ble Vice Chancellor Prof. M. Selvam, where a keynote address was delivered by Prof. M.A. Akbarsha, and a vote of thanks was proposed by Prof. B. Kadalmani. Following this, Prof. M.A. Akbarsha presented an overview of the three domains of 3R's. In the afternoon sessions, participants were divided into 3 Batches. Batch-I got hands-on training on cell culture, while Batch-II and III were given hands-on training on *Hydra*, and Zebrafish models, respectively.



Day 2:

Day 2 featured with an invited talk by Dr. H.P. Gurusankara (Central University of Kerala) on "*Drosophila melanogaster* as a Model" followed by hands-on training in *Drosophila melanogaster* determination of sex and mutant varieties. In the afternoon session, participants from different batches were shuffled to get hands-on training in respective model system.



Day 3:

On Day 3 Prof. K. Balamurugan (Alagappa University) delivered an invited talk on "*Caenorhabditis elegans*: An Overview," followed by demonstrations. In the afternoon session, participants continued hands-on training in the respective model systems.



Day 4:

On day 4: Dr. M. Rajalakshmi (Holy cross college, Trichy) gave a lecture on "Overview of Bioinformatics," and Dr. S. Kiran Kumar (SRM Institute of Technology) presented on "Overview of Zebrafish Model." Participants were then divided into two groups for hands-on sessions on staining procedures and MTT assay, RNA isolation, purification, c-DNA synthesis and also an *in silico* demonstration were provide to the participants.



Day 5:

The final day included an invited talk by Prof. Gopinath Packirisamy (IIT Roorkee) on "3D and 4D Cell Culture," followed by a demonstration on carbon dots and interpretation of gene expression in the afternoon.



In the valedictory ceremony, Prof. B. Kadalmani, welcomed the gathering. The valedictory address was delivered by Registrar (i/c) Prof. R. Kalidasan and by Prof. Gopinath Packirisamy. Prof. M.A. Akbarsha offered felicitation. The workshop report was presented by Prof. S. Achiraman, and the vote of thanks was proposed by Dr. Mahesh Kandasamy followed by certificate distribution.



Beneficiaries

- ❖ Southwest University (China)
- ❖ Ramaiah University of Applied Sciences, Bangalore
- ❖ Alagappa University, Karaikudi
- ❖ National College (Autonomous), Trichy
- ❖ Tamil Nadu Open University, Chennai
- ❖ Karpagam Academy of Higher Education, Coimbatore
- ❖ Jamal Mohamed College, Trichy
- ❖ Bharathidasan University, Trichy
