



**DST-SERB Sponsored  
One Day Virtual Research Training  
on “Zebrafish Use in Biological  
Research”**

**25<sup>th</sup> January 2021**



**Molecular Toxicology Laboratory  
Department of Biotechnology  
Bharathiar University  
Coimbatore-46  
Tamil Nadu, India.**

## About the Programme

*“Good ideas don’t have owners—they belong to everyone”*  
- James Peter Taylor

Zebrafish is an excellent *in vivo* model for studying development, diseases, drug screening, and toxicity. George Streisinger, a pioneer in zebrafish research created homozygous diploid zebrafish clones for the first time in 1981, making them an important vertebrate model. Zebrafish has multitudinous advantages over other models including low cost maintenance, high fecundity, transparent and rapid developmental stage, and easy genetic manipulation.

With more than 3250 institutes across 100 countries utilizing zebrafish in various disciplines, it is integral for the budding research scholars to have exposure in this model. This programme aims to address the knowledge gap by teaching essential techniques used in zebrafish research for the research scholars.

## Program Schedule

1. Zebrafish in Biological Research
2. Toxtrac for Zebrafish Behavioural Research
3. Staining Techniques in Zebrafish Larvae
4. Whole-mount Immunohistochemistry in Zebrafish Larvae

## Target Audience

This course is aimed for research scholars in Tamil Nadu who wish to work in zebrafish or incorporate the same in future.

10 participants will be selected for this virtual training based on their application.

## Venue

The training will be conducted virtually and participants are required to have access to a good internet connection.

## Registration Link

<https://forms.gle/X4iC8s9w7bZt2tN9A>

Last date to send their application is 20.01.2021  
**No registration fee.**

## For further details Contact

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## **DST-SERB Sponsored One Day Virtual Research Training on “Zebrafish Use in Biological Research”**

The Molecular Toxicology Laboratory, Department of Biotechnology, Bharathiar University is conducting a DST-SERB Sponsored One Day Virtual Research Training on “**Zebrafish Use in Biological Research**” on 25<sup>th</sup> January 2020. This workshop will introduce the participants to the techniques like staining, behavior analysis and immunohistochemistry in zebrafish larvae. This course is aimed at research scholars who would like to incorporate these techniques in their research.

*Ten participants will be selected based on their application.*

**Target Audience:** Research scholars who are currently working or planning to work in zebrafish.

**Registration Fees:** There is no registration fee. Certificate will be provided for the participants on successful completion of the training.

**Convenor:**

- Dr. P. Ekambaram, Associate Professor, Department of Biotechnology, Bharathiar University

**List of Sessions:**

- Zebrafish in Biological Research
- ToxTrac for zebrafish behavioural Research
- Staining techniques in zebrafish
- Whole-mount immunohistochemistry in zebrafish larvae

**Registration Procedure:** Interested research scholars can register by filling the provided google form. You will be asked to upload your resume, along with a recent photo, and a write-up (minimum 100 words) on how this workshop will be useful for your research and/or career development.

**Registration Deadline: 20<sup>th</sup> January, 2021**

**Venue:** The training will be conducted virtually and participants are required to have access to a good internet connection

**About Bharathiar University:** The Bharathiar University, located near the foothills of Marudhamalai, was established at Coimbatore by in February, 1982. The university is named after the great national poet Subramania Bharathi, with the motto "Educate to Elevate". It has 14 schools with around 40 departments along with 133 affiliated colleges providing graduate, master courses along with M.Phil., and Ph. D. Bharathiar University was ranked 21<sup>st</sup> overall in India by National Institutional Ranking Framework of 2020 and 13<sup>th</sup> among universities.

**About Biotechnology Department:** The Department of Biotechnology was instituted in 1989. It has 8 labs focusing on various aspects of biotechnology. The department is engaged in various innovative projects in the disciplines mentioned, funded by different agencies like DRDO, DBT, UGC, DST, CSIR, TNCSTE, UKIERI, DIPAS, RUSA, ICMR and AICTE. To cap, our department is identified for financial assistance by DST-FIST and UGC-SAP (Phase II) Program.

**About Molecular Toxicology Laboratory:** Our primary area of research is to elucidate the molecular mechanisms involved in the xenobiotic toxicity in both *in vivo* and *in vitro* models. This includes toxicity induced by nanoparticles and other emerging contaminants in zebrafish model systems and their effect on oxidative stress and epigenetic mechanisms. Further, we are exploring the phytochemicals to ameliorate the toxicity. We have reported the molecular mechanism involved in the anticancer effect of Emodin and the role of STAT3 signaling mechanism in hepatocellular carcinoma.