

ORGANISING COMMITTEE

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Cardinal Cleemis Catholicos**
Major Archbishop of Trivandrum

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Trivandrum

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Mar Ivanios College, Trivandrum

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College, Trivandrum

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Assistant Professor, Department of
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Assistant Professor, Department of
Zoology Mar Ivanios College, Trivandrum

Mrs. Vyshnavi N

Assistant Professor, Department of
Zoology Mar Ivanios College, Trivandrum

Google Maps-Mar Ivanios College,
Bethany Hills, Thiruvananthapuram,
Kerala



REGISTRATION FEES

Students & Research Scholars **10,000**

Faculty Members **15,000**

Last date of the registration : 28/08/2024

Workshop Date : 2 to 6 September 2024

**Selection will be limited to the first 12
applications**

MODE OF PAYMENT

Registration fee can be remitted through onine
mode (Net Banking, NEFT, RTGS)

Ac No :5837101000783
For International Fund Transfer
Branch Name : Nalanchira
SWIFT Code : CNRBINBBTDC
Branch Code: 5837
IFSC Code: CNRBOOO5837



ACCOMMODATION DETAILS

ACCOMMODATION FACILITIES WILL BE PROVIDED TO THE
PARTICIPANTS ON DEMAND BASIS AND PARTICIPANTS HAVE TO
MAKE PAYMENT SEPARATELY FOR THE ACCOMMODATION
PROVIDED. THE REGISTRATION FEE COLLECTED DOESNT INCLUDE
THE FEE FOR ACCOMMODATION.

REGISTRATION FORM

<https://forms.gle/BfQNoWTWtKKVt35M6>

Contact us

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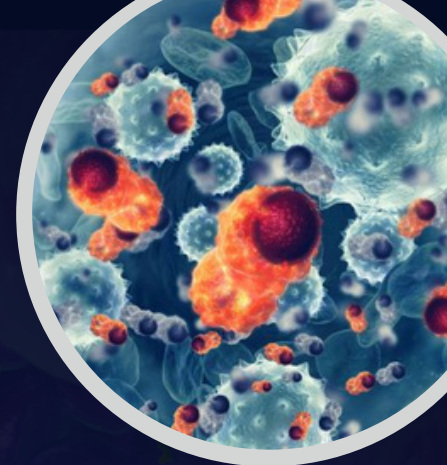
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For further inquiries

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<https://ctimlab.in/>



NATIONAL WORKSHOP ON ANIMAL CELL CULTURE AND MOLECULAR BIOLOGY TECHNIQUES

02 to 06 September 2024

PG & Research Department of
ZOOLOGY



**MAR IVANIOS COLLEGE
(AUTONOMOUS)**

Excellence in Higher Education Since 1949

NIRF 2023 - 45th Rank

Reaccredited with A++ Grade by NAAC

Nalanchira P O, Thiruvananthapuram

Kerala, India

In association with



**The Kerala State Higher Education Council
Thiruvananthapuram, Kerala**

MAR IVANIOS COLLEGE

Mar Ivanios College owes its existence to the far sighted vision of the servant of God Archbishop Mar Ivanios of Trivandrum. Started in June 1949 as a college affiliated to the erstwhile University of Travancore, it stands affiliated to the University of Kerala since 1957. The University Grants Commission (UGC) granted the college with Autonomy status in June 2014. Mar Ivanios College is the first Institution in the University of Kerala, which received accreditation from NAAC. The college has been re-assessed and re-accredited with A++ grade by NAAC in the fifth cycle. In the NIRF Rankings (for Arts & Science Colleges) 2017, 2018, 2019 and 2022 the college was placed 36th, 29th, 48th and 45th respectively, by the National Institutional Ranking Framework (NIRF).

DEPARTMENT OF ZOOLOGY

The Department of Zoology is one of the oldest departments in the college which can boast of a legacy of academic scholars and students who have taken studies to an elevated level of research. The department has been running both the under graduate and post graduate courses successfully and it has become one of the most sought after departments in the college. Students from across the state come seeking something different from the college since the syllabus and curriculum offers areas different from similar institutions.

SCOPE OF THE WORKSHOP

Animal cell culture and molecular biology tools are core laboratory techniques in many life science laboratories across the world. Animal cell culture is an essential and handy technique that has been sparingly taught at the graduate and postgraduate level. In the pharmaceutical industry, cell culture is used to produce a significant proportion of biopharmaceuticals as well as monoclonal antibodies for diagnostic use. In addition, the use of animal cells is expanding in a wide range of other applications such as drug screening, issue engineering, gene therapy, toxicology and traditional applications such as virology. To study basic cell biology and biochemistry, cell culture is used as a primary system. Such techniques are used in cell and molecular biology research and studies. By providing state-of-art animal cell culture and molecular biology training at Mar Ivanios College, we are intended to expose participants to the applications of animal cell culture and basic molecular biology tools in scientific fields. Participants will be provided with hands-on training in animal cell culture techniques and later it will be supported with theory sessions. This training course will be beneficial to academicians and researchers who wish to take up projects based on mammalian cell culture.

HIGHLIGHTS OF THE WORKSHOP

ANIMAL CELL CULTURE



What will you learn?

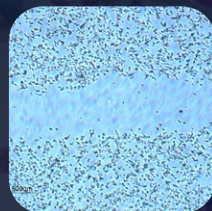
- An overview of cell culture laboratory and equipment
- Basic Microscopy and pipette handling
- Aseptic techniques and good cell culture practice (GCCP)
- Identification of cell culture contaminants and control
- Culture media and growth requirements for animal cells
- Propagation and maintenance of cells in vitro
- Subculturing and cell counting
- Resuscitation/thawing and cryopreservation of cells

CELL VIABILITY ASSAY

Measurement of cell viability and proliferation forms the basis for numerous in vitro assays of a cell population's response to external factors.

What will you learn?

- Acquaintance on MTT protocol and procedure
- Drug dilution methods and calculation



What will you learn?

- Acquaintance on scratch wound assay protocol and procedure
- Image capturing with microscope and plate preparation

MIGRATION ASSAY

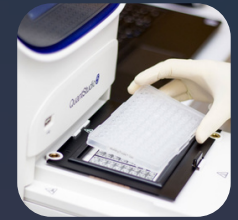
The wound-healing assay (scratch wound assay) is an established technique that can be used to investigate collective migration and wound healing in vitro.

qRT PCR

Quantitative real time polymerase chain reaction (qRT-PCR) is a method by which the amount of PCR product can be determined, in real-time, and is very useful for investigating gene expression.

What will you learn?

- RNA isolation and Quantification
- cDNA synthesis
- Primer Designing
- qPCR- Preparation of reaction mixture
- Acquaintance with qPCR software



WESTERN BLOT

Western blotting is a laboratory technique used to detect a specific protein in a blood or tissue sample.

What will you learn?

- Protein isolation
- Protein quantification using MS Excel
- Basic calculations
- Gel Electrophoresis
- Electrotransfer
- Imaging basics
- Troubleshooting ideas

