











DST- "Synergistic Training Program Utilizing The Scientific and Technological Infrastructure (STUTI) – 2023

Training program on

# **Advanced Techniques In Biomedical Research**

#### Convener



Prof. Prakash Babu Phanithi
Department of Biotechnology
and Bioinformatics
School of Life Sciences
University of Hyderabad

16<sup>th</sup> to 22<sup>nd</sup> January 2023 School of Life Sciences University of Hyderabad Registration Deadline (07-01-2023)

DST-STUTI PMU Coordinator



Dr. Suhel Parvez
Department of Medical
Elementology and Toxicology
Jamia Hamdard
New Delhi, India

### Co-conveners



Prof. Santosh R Kanade
Department of Plant Sciences
School of Life Sciences
University of Hyderabad



Dr. Prakash Prabhu
Department of Biotechnology
and Bioinformatics
School of Life Sciences
University of Hyderabad



Dr. Santosh Kumar Padhi Department of Biochemistry School of Life Sciences University of Hyderabad



**Dr. Arunasree MK**Department of Animal Biology
School of Life Sciences
University of Hyderabad

Jointly organized by

Society for Neurochemistry, India (SNCI)
School of Life Sciences, University of Hyderabad
Gachibowli, Hyderabad, T.S., India

#### **About University of Hyderabad (UoH)**

The University of Hyderabad, a premier institution of postgraduate teaching and research in the country, was established by an Act of Parliament (Act No. 39 of 1974) in 1974 as a Central University, wholly funded by the University Grants Commission, is a unitary University situated at Gachibowli, Hyderabad. The University's scenic and serene campus is spread over a vast stretch of land measuring about 2,000 acres, on the old Hyderabad-Bombay road. Amidst the picturesque environment of the campus, several buildings catering to the academic needs, support facilities and residential requirements of the campus community have been constructed over the years.

The UoH was accorded with the Institution of Eminence status by the Government of India to the University of Hyderabad in September 2019 in recognition of the university's standing, ability and potential to move into the league of the world's best institutions. With additional funding and autonomy, we are positioned to figure in the World's 500 Best Universities in the next few years. The University has been ranked 4th among all universities in the country. The National Institute of Ranking Framework (NIRF) ranked it 11th over all for 2019.

#### **About School of Life Sciences**

School of Life Sciences was founded in 1977 with the vision of Promoting interdisciplinary teaching and research. Over the years, the School of Life Sciences has steadily progressed towards achieving academic excellence. The infrastructural facilities were greatly expanded through the plan funds of DBT-BUILDER, UPE, UGC, DBT, DST as well as extra-mural funding attracted by the faculty of the School of Life Sciences.

#### **About Society for Neurochemistry, India (SNCI)**

The Society for Neurochemistry, India (SNCI) was founded in 1979, with the University of Hyderabad as its Headquarters with a clear mandate to train young minds for the techniques in neurochemistry/neuroscience. The SNCI organizes its annual meetings in different parts of the country. During annual meetings, young students are encouraged to award the best poster and best oral presenter. The society is very keen to organise workshops along with the annual meetings to provide hands on training to the young neuroscience researchers. Young students are motivated to pursue careers in neuroscience and neurochemistry.

# **INFRASTRUCTURE**

**Equipment 1 Fluorescence Activated Cell Sorter** 





**Equipment 2 Ion Torrent Next Generation Sequencing** 

**Equipment 3 Confocal Microscopy** 





Equipment 4 High-performance Liquid Chromatography (HPLC)

Contact: (🖂 prakash@uohyd.ac.in; 👀 9441583525 Landline: 040-23134584/4684

### LECTURES AND DEMONSTRATIONS



Technical lecture and demonstration on "Primary neuronal culture: A model for studies in vitro"

By Prof. Anand K. Kondapi **Department of Biotechnology & Bioinformatics** School of Life Sciences, UOH

#### Technical lectures on

"Evaluation protein stability, determination of secondary analysis of heme-proteins (Circular dichroism)"



Protein-ligand interaction studies, protein stability and 11. enzyme kinetics by fluoresence spectrometer (using 96-well platee reader)"

> By Dr. Prakash Prabhu **Department of Biotechnology & Bioinformatics** School of Life Sciences, UOH

**Demonstrations on** Circular dichroism and Fluorescence spectrometer

> Bv Dr. Insaf Ahmed Qureshi Department of Biotechnology and Bioinformatics School of Life Sciences, UOH



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### LECTURES AND DEMONSTRATIONS

Lecture on <u>"Applications of flow cytometry in basic</u> and applied biological Research"

Dr. Roy Karnati
Department of Animal Biology
School of Life Sciences, UOH





Demonstration on "Fluorescence Activated Cell Sorter (FACS)"

By
Dr. Radheshyam Maurya
Department of Animal Biology
School of Life Sciences, UOH

Lecture on "Next generation sequencing sechnologies: Past, present, and future"

Prof. Sreenivasulu Kurukuti Department of Animal Biology School of Life Sciences, UOH





Demonstration on "Next generation sequencing (NGS)"

By
Dr. Arunasree MK
Department of Animal Biology
School of Life Sciences, UOH

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# LECTURES AND DEMONSTRATIONS

Brief session on "Next generation sequencing (NGS) analysis"

> By Dr. M. Muthamilarasan **Department of Plant Sciences** School of Life Sciences, UOH





Lecture on "Real time PCR: An effective tool for life science and clinical research"

By Prof. Ravi Kumar Gutti **Department of Biochemistry** School of Life Sciences, UOH

> Demonstration on Real time PCR: Kathirvel, Ph.D. Research Scholar **Department of Biochemistry** School of Life Sciences, UOH

Lecture on "Principles and applications of high performance liquid chromatograpy (HPLC)"

> Dr. Santhosh Kumar Padhi **Department of Biochemistry** School of Life Sciences, UOH



Demonstration on HPLC:

Ghufrana Asami, Ph.D. Research Scholar **Department of Biochemistry** School of Life Sciences, UOH















# REGISTRATION FORM

Registration details of the training program (No registration fees) DST-STUTI will provide lodging and boarding for the selected participants.

- ✓ Young Faculty Members / Post-Doctoral Researchers / Ph.D. Research Scholars in Life Sciences and Chemistry.
- ✓ Candidates should send their CV and recommendation letter duly forwarded by their Supervisor / Mentors / Head of the Department.

Passport size **Photo** 

Name	
Date of Birth	
Qualifications	
Designation	
Teaching experience in years	
Research Experience in years	
Department/University	
Mobile Number	
E Mail Address	

To complete the registration procedure, enclose a brief write up on how this program will be useful for teaching and research, fill all the details listed above along with the signatures and send us the pdf file to 20ltph13@uohyd.ac.in; 20ltph11@uohyd.ac.in; on or before 07-01-2023.

All the above information provided is true and to the best of my knowledge. If, selected, I agree to abide by the rules and regulations of the program organized by School of Life Sciences, University of Hyderabad, Hyderabad, T. S., India.

> Candidate Signature

Supervisor / HOD Signature







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