



Technical Programme

Day 1 24-11-2025

09:45 -10:30 **INAUGURAL PROGRAMME**

10.30AM-10.45 AM : Tea Break

10:45 -11:45 **KEYNOTE ADDRESS**

Drug Discovery from the Sea: Perspectives on Past Success Stories and Future Opportunities

Dr. William H. Gerwick

Distinguished Professor of Oceanography and Pharmaceutical Sciences, Scripps Institution of Oceanography and Skaggs School of Pharmacy and Pharmaceutical Sciences, University of California at San Diego, USA

Session 1: 11.45AM-06.00 PM

Chair: Prof. William H. Gerwick

Co-Chair: Dr. Sukanya V.S.

Summing up: Prof. I.S. Bright Singh and Team

11:45 -12.30 PM Green Deal-Biodiversity Strategy-Exploring Cyanobacterial Biodiversity in Italy within the framework of the National Biodiversity Center.

Dr. Valeria Costantino

Full Professor of Organic Chemistry, Pro-Rector ERASMUS Program Vice-President European University Foundation (EUF), Italy (Online)

12.30- 01.00 PM Mass Spectrometry-Based Mining of the Marine Mycobiome: From Complex Extracts to Bioactive Leads

Dr. Raphael Reher

Professor, Institute of Pharmaceutical Biology and Biotechnology, Philipps-Universität Marburg, Germany (Online)

1.0PM-2.0 PM :Lunch Break



- 02.00- 02.45 PM Application of Medicinal Chemistry Approaches to Improve the Biological Properties of Marine Natural Products
Dr. Jehad Almaliti
*Professor of Drug Discovery and Medicinal Chemistry at The University of Jordan
(Online)*
- 02.45- 03.30 PM Functional Geography and the Importance of Biodiversity Conservation for Marine and Medicinal Plant Natural Products Discovery and Development
Dr. Benjamin C. Naman
*Associate Researcher, Scripps Institution of Oceanography University of California at San Diego, USA, and Director, San Diego Botanical Garden
(Online)*
- 03.30PM-03.45 PM :Tea Break**
- 03.45- 04.30 PM Quantitative NMR: Basic Principles and Application to Drugs and Pharmaceuticals
Prof. Inder Pal Singh
Professor, National Institute of Pharmaceutical Education and Research, Punjab, India
- 04.30- 05.15 PM Use of Natural Products for the Therapy of Diseases in Livestock and Companion Animals
Dr. Sujith V.S.
Associate Professor, Department of Veterinary Pharmacology and Toxicology, College of Veterinary and Animal Sciences, Kerala
- 05.15- 06.00 PM Sea-to-Cell: 3D Culture Systems as Translational Tools in Marine Drug Discovery and Validation
Dr. Sukanya V. S.
Scientist (Mammalian Cell and Tissue Engineering) CVJ Centre for Synthetic Biology and Biomanufacturing



Day 2 25-11-2025

Session 2: 09:30AM-4.0PM:

Chair: Prof. Inder Pal Singh

Co-Chair: Prof. Sajeevan T.P.

Summing up: Prof. I.S. Bright Singh and Team

09:30 -10:30: Enhanced Discovery of New Marine Cyanobacterial Metabolites through Combined Genomic and Artificial Intelligence Methodologies

Dr. William H. Gerwick

Distinguished Professor of Oceanography and Pharmaceutical Sciences, Scripps Institution of Oceanography and Skaggs School of Pharmacy and Pharmaceutical Sciences, University of California at San Diego, USA

10:30 -11:00 AM Marine natural products and biomaterials towards preventive healthcare in aquaculture: Tools, Devices and Protocols

Prof. I.S. Bright Singh

University Emeritus Professor, National Centre for Aquatic Animal Health, CUSAT

11.00AM-11.15 PM : Tea Break

11.15- 11.45 AM Harnessing Artificial Intelligence to De-Risk and Accelerate Drug Discovery

Dr. Unnikrishnan U.

Principal Scientist and Head (Ops), CVJ Centre for Synthetic Biology and Biomanufacturing

11.45- 12.15 AM Multiomics approach for accelerated discovery of marine bioactive compounds

Dr. Niladri Sekhar Chatterjee

Senior Scientist, Central Institute of Fisheries Technology

12.15- 12.45 PM Revisiting Nature's Chemical Repertoire: Expanding the Functional Landscape of Marine Natural Products

Prof. Sajeevan T. P.

Professor, Department of Marine Biology, Microbiology and Biochemistry, CUSAT

12.45- 01.15 PM Neuroprotective Nutraceuticals for Cognitive Health: Advancing Towards Clinical Application

Dr. Baby Chakrapani P.S.

Associate Professor and Honorary Director, Centre for Neurosciences, Department of Biotechnology, CUSAT

01.15 PM-2.0 PM :Lunch Break



- 02.00- 02.30 PM Deciphering Natural Product Structures: Chromatography and Mass Spectrometry in Characterization
Dr. Franklin John
Associate Professor, Dept. of Chemistry, Sacred Heart College, Thevara
- 02.30- 03.00 PM Zebrafish model: A versatile platform for marine bioactive molecule discovery
Dr. Jayesh Puthumana
Assistant Professor, National Centre for Aquatic Animal Health, Cochin University of Science and Technology, Kochi, Kerala
- 03.00- 03.30 PM Bioprocess technology for marine natural product discovery
Mr. Shubin S.P.
Assistant Professor, National Centre for Aquatic Animal Health, Cochin University of Science and Technology, Kochi, Kerala
- 03.30- 04.00 PM Tropical marine cyanobacteria and microalgae for aquatic animal health and nutrition
Prof. Valsamma Joseph
Professor, National Centre for Aquatic Animal Health, Cochin University of Science and Technology, Kochi, Kerala
- 04.00- 04.30 PM **PANEL DISCUSSION AND CLOSING CEREMONY**
Dr. William Gerwick
Prof. I.S. Bright Singh
Dr. Inderpal Singh
Dr. Unnikrishnan K.

04.30PM-04.45 PM :Tea Break