



UNIVERSITY
OF IOANNINA

1st International Symposium on Advanced Drug Discovery



Pioneering Peptide-Based and Small Molecule Innovations in
Therapeutics, Diagnostics, and Theranostics

April 19-21, 2024

Scientific and Technological Park of Epirus

Ioannina, Greece

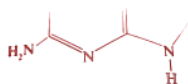


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This symposium is supported by the project “PROGRAMMABLE, CANCER TARGETED AND CANCER RESPONSIVE THERAPEUTICS AND THERANOSTICS (PROTECT)” which is funded by the Hellenic Foundation for Research and Innovation (H.F.R.I.) under the “1st Call for H.F.R.I. Research Projects to support Faculty Members & Researchers and the Procurement of High- and the procurement of high-cost research equipment grant” (Project Number: 991).





19/04/2024

9:00 **Arrival and Registration**

9:30 **Welcome and Opening Remarks**

Alexandros Kachrimanis

Governor of Epirus

Anna Batistatou

Rector, Professor, Department of Medicine, University of Ioannina, Greece

Andreas Tzakos

Professor, Department of Chemistry, University of Ioannina, Greece

PART ONE: TALKS FROM INVITED SPEAKERS

10:00 **The cycle from bench to bedside and repeat: What have we learnt in the last 30 years.**

Vasso Apostolopoulos, *Distinguished Professor, Institute for Health and Sport, Victoria University, Australia.*

10:45 **Peptide Mimetics AT1R antagonists.**

Thomas Mavromoustakos, *Professor, Department of Chemistry, National and Kapodistrian University of Athens, Greece*

11:15 **Myelin peptides in multiple sclerosis: The basis for development of novel vaccines.**

Ioannis Matsoukas, *Professor, NewDrug PC, Patras Science Park, Greece*

11:35 **Development of mitoxantrone-GnRH conjugates for the treatment of hormone-dependent cancer.**

Theodore Tselios and Georgia Biniari, *Professor/Researcher, Department of Chemistry, University of Patras, Greece*

11:55 **Coffee Break**

12:25 Peptide Analogues of the Integrin Receptor $\alpha\text{IIb}\beta\text{3}$ as Potent Antiplatelet Agents.

Alexandros Tselepis, Professor, Department of Chemistry, University of Ioannina, Greece

12:45 Molecular targeting and theranostic applications for cancer (focus on PSMA targeting).

Christos Liolios, Scientific Researcher, Institute of Pharmaceutical Research & Technology (IFET), Athens, Greece

13:05 Computational Drug Repurposing utilizing Interaction Fingerprint data and Machine Learning techniques.

Vassilios Panagiotopoulos, Researcher, Cloudpharm PC, Athens, Greece

13:25 Development of peptide carriers bearing the -Lys-Aib-X motif and their potential applications.

Vassilios Tsikaris, Professor, Department of Chemistry, University of Ioannina, Greece

13:45 Solid-Phase Synthesis of Thiol-containing compounds as a tool in Peptide-Based Drug Development.

Spyridon Mourtas, Assistant Professor, Department of Chemistry, University of Patras, Greece

14:05 Light Lunch Break

15:05 Liberty Blue 2.0 Microwave Peptide Synthesizer. The next generation In Peptide synthesis for cleaner and longer peptides with a new level of robustness based on High Efficiency Solid Phase Peptide synthesis (HE-SPPS).

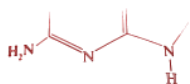
Ioannis Prionistis, Chemist, Northern Greece Sales and Support Manager, Hellamco SA.

15:20 NMR structural studies of bioactive compounds.

Ioannis Gerothanassis, Professor, Department of Chemistry, University of Ioannina, Greece

15:40 Enviromed: a computational platform for ecotoxicity related predictions of chemical compounds.

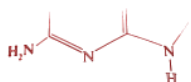
Evangelos Tsoukas, Researcher, Cloudpharm PC, Athens, Greece



- 16:00** **Effect of sequence reversal on α -helical protein folding.**
Efstratios Mylonas, Assistant Professor, Department of Chemistry, University of Ioannina, Greece
- 16:20** **Structure-based modeling of the gut bacteria-host protein interactome.**
Christos Chasapis, Researcher, Institute of Chemical Biology, National Hellenic Research Foundation, Athens, Greece
- 16:40** **Probing the Interactions between Irbesartan and Drug Carrier within Lipid Bilayers.**
Eleni Chontzopoulou, Researcher, Cloudpharm PC, Athens, Greece
- 17:00** **Evaluation of the interaction of Cu(II) with peptide models of tau protein. Contributing to its role in Alzheimer disease.**
Gerasimos Malandrinos, Professor, Department of Chemistry, University of Ioannina, Greece

PART TWO: FLASH TALKS FROM YOUNG RESEARCHERS

- 17:20** **QM/MM studies on the relay system of ACE2.**
Nikitas Georgiou, PhD Candidate, Department of Chemistry, National and Kapodistrian University of Athens, Greece
- 17:25** **Docking studies of drugs acting on Myasthenia Gravis.**
Eleftherios Massios, MSc student, Department of Chemistry, National and Kapodistrian University of Athens, Greece
- 17:30** **Extracting possible peptide structures from Epirus Plants.**
Ektoras Apostolou, MSc student, Department of Chemistry, National and Kapodistrian University of Athens, Greece
- 17:35** **NMR structural characterization of manan (polymannose) conjugate with the myelin oligodendrocyte glycoprotein 35-55 epitope (MOG35-55).**
Nikoleta Zoupanou, MSc student, Department of Chemistry, National and Kapodistrian University of Athens, Greece
- 17:40** **Novel Theragnostic Photosensitizers for pH-Responsive Therapy and Lipid Droplet Targeted Cancer Treatment.**
Stavroula Kyrkou, PhD Candidate, Department of Chemistry, University of Ioannina, Greece



PART THREE: ROUND TABLE

17:45 **Round table for the Greek Peptide Society**

18:30 **DAY ONE: CLOSING REMARKS**

20/04/2024

8:50 **Arrival and Registration**

9:20 **Welcome and Opening Remarks**

Andreas Tzakos

Professor, Department of Chemistry, University of Ioannina, Greece

TALKS FROM INVITED SPEAKERS

9:30 **Precision diagnostics in breast cancer with focus on new age diagnostics and novel biomarkers for advanced breast cancer.**

Timothy Crook, BSc PhD MBBS FRCP, Department of Brain Sciences, Hammersmith Hospital, Imperial College London, London, UK

10:10 **Innovative methods to tackle gliomas.**

Nelofer Syed, Professor, Department of Brain Sciences, Hammersmith Hospital, Imperial College London, London, UK

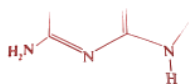
10:50 **Novel promising agents to combat glioblastoma.**

Georgios Alexiou, Associate Professor, Department of Neurosurgery, School of Medicine, University of Ioannina, Greece

11:10 **Clinical Drug Development.**

Gregory Sivolapenko, Professor, Laboratory of Pharmacokinetics, Department of Pharmacy, University of Patras, Greece

11:30 **Coffee Break**



I.S.A.D.D. 2024

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- 12:00** **DESI - MS Imaging for Biomedical Research, Molecular visualization and spatial distribution of compounds provide mechanistic insight. A tool for Glioma Biomarkers.**
Ioannis Prionistis, Chemist, Northern Greece Sales and Support Manager, Hellamco SA.
- 12:10** **Metabolomics and multi-omics in the discovery of disease biomarkers.**
Emmanuel Mikros, Professor, Faculty of Pharmacy, Department of Pharmaceutical Chemistry, National and Kapodistrian University of Athens, Greece
- 12:30** **Surgical management of glioblastoma. Recent advancements and future trends.**
Spyridon Voulgaris, Professor, Department of Neurosurgery, School of Medicine, University of Ioannina, Greece
- 12:50** **Targeting MYC-MAX complex formation: Establishment of an in vitro cell-free assay and identification of novel inhibitors.**
Ervelina Dalani, Researcher, Biomedical Research Institute, Foundation for Research and Technology, Greece
- 13:05** **KMT2C loss leads to signaling rewiring, cell cycle adaptation and sensitivity to PLK1 inhibition.**
Theodoros Rampias, Researcher C, Biomedical Research Foundation, Academy of Athens, Greece
- 13:20** **A Tribute to the 14-year-old Aggelos.**
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- 13:30** **DAY TWO: CLOSING REMARKS**
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21/04/2024

8:00 **Arrival**

DISCUSSION, REPORTING & EXPLOITATION ON THE PROTECT-991 PROJECT RESULTS



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