

Hellenic Bioinformatics & Medical Informatics Meeting

Biomedical Research Foundation, Academy of Athens

Thursday 4 October

9.00 - 9.25

Introduction

Prof Gregory D. Skalkeas, Professor Academician, President of the Board of Trustees of Biomedical Research Foundation, Academy of Athens

Athanasios Tsouropis, Affiliated Investigator, Biomedical Research Foundation, Academy of Athens

Sophia Kossida, Biomedical Research Foundation, Academy of Athens

9.25-10.00

"The Swiss Institute of Bioinformatics and the EMBnet organisation"

L Falquet, Swiss Institute of Bioinformatics

Chairperson: Vassilis Promponas, University of Cyprus

10.00-10.25

"Faster Algorithms for Support Value Computation & Parallel Computing for Large-Scale Phylogeny Reconstruction"

A Stamatakis, Swiss Federal Institute of Technology, Lausanne

10.25-10.50

"General Reconfigurable Architecture for the BLAST algorithm"

E Sotiriades, A Dollas, Technical University of Crete

10.50-11.05

"An FPGA-based Multiprocessor System for BLAST Algorithm"

G-G Mplemenos, I Papaefstathiou, Technical University of Crete

11.05-11.25

Coffee break

Chairperson: Panayota Poirazi, FORTH-IMBB

11.25-11.50

"Prediction of beta-barrel outer membrane proteins: application to complete genomes"

PG Bagos, KD Tsirigos, SJ Hamodrakas

11.50-12.15

Genomes, Genes, Proteins and Computers: Computational Molecular Biology and Bioinformatics Research in the BRL@UCY.AC.CY

V Promponas, University of Cyprus

12.15-12.40

"Correlation of the performance of protein structure prediction algorithms with the size of the training set"

GN Tsaousis, PG Bagos, SJ Hamodrakas, University of Athens

12.40-12.55

"OMPdb: A database of beta-barrel outer membrane proteins from Gram-negative bacteria"

KD Tsirigos, PG Bagos, SJ Hamodrakas, University of Athens

12.55 - 13.55

Lunch Break



Thursday 4 October

Chairperson **Elias Manolakos, University of Athens**

- 13.55-14.10 "Upgrading gpDB: Effectors families and their interaction with G proteins"
MC Theodoropoulou, AL Elefsinioti, PG Bagos, IC Spyropoulos, SJ Hamodrakas, University of Athens
- 14.10-14.35 "Bioinformatics/Computational biology at the University of Athens: History, Current Education and Research activities, Future Perspectives"
SJ Hamodrakas, Univ. of Athenes
- 14.35-14.50 "In silico analysis of regulatory elements of WISP1 and orthologs. Regulatory Sequence comparisons with the coregulated CTGF gene."
M Kapasa, I Serafimidis, A Gavalas, S Kossida,
- 14.50-15.10 "PCA-Correlated SNPs for Structure Identification in Worldwide Human Populations"
P Paschou, E Ziv, EG Burchard, S Choudhry, W Rodriguez-Cintron, MW Mahoney, P Drineas
- 15.10-15.35 "Discovery of regularities in biological sequences and applications in sequence analysis"
K Perdikuri, University of Patras
- 15.35-16.00 "Protein Structure Prediction Using Residual Dipolar Couplings"
SI Pantos, IZ Emiris, National Kapodistrian University of Athens
- 16.00-16.20 **Coffee break**

Chairperson **Pantelis Bagos, University of Central Greece**

- 16.20-16.45 "Gene Prediction: Accurate Prediction of Translation Initiation Sites"
G Tzanis, Aristotele Univerity of Thessaloniki
- 16.45-17.10 "Multiresolution Analysis of Proteomics Images using Contourlets"
E Manolakos, University of Athens
- 17.10-17.25 "ProtCV, a tool for extracting, visualizing and validating protein clusters using mass spectra peak lists"
S Ventoura, E Giannopoulou, E Manolakos, University of Athens
- 17.25-17.50 "Identifying stress-related functional modules and extracting regulatory relationship in gene expression patterns"
M Manioudaki, P Poirazi, FORTH-IMBB



Hellenic Bioinformatics & Medical Informatics Meeting

Biomedical Research Foundation, Academy of Athens

Friday 5 October

Chairperson: *Evrpidis Sotiriades, Technical University of Crete*

- 9.00-9.30 "The impact of bioinformatics on drug discovery: past, present and future perspectives"
R Schneider, EMBL, Heidelberg
- 9.30-9.45 "Arena3D: A visualization tool for high level relationship and clustering analysis in large scale networks"
G Pavlopoulos, EMBL, Heidelberg
- 9.45-10.00 "Employing programmatic access to SRS to annotate biological entities"
E Pafilis, EMBL, Heidelberg
- 10.00-10.15 "A method for identifying the interesting abstracts from a relevant collection"
T Soldatos, EMBL, Heidelberg
- 10.15-10.30 "Pepsite: A structural method to predict peptide/protein binding"
E Petsalaki, A Stark, EG Urdiales, RB Russell, EMBL, Heidelberg
- 10.30-10.45 "Multi-Objective De Novo Drug Design Using A Novel Evolutionary Algorithm"
CA Nicolaou, CS Pattichis, University of Cyprus
- 10.45-11.00 "Contributions of GC on gene expression: recognizing the roles of GC"
S Arhondakis, Laboratory of Molecular Evolution, Stazione Zoologica A. Dohrn, Naples, Italy
- 11.00 - 11.20 **Coffee break**

Chairperson : *George Loudos, Technological Institute of Athens*

- 11.20-11.45 "A new digital architecture for dependable, ultra-low-power biomedical implants"
C Strydis, GN Gaydadjiev, S Vassiliadis, Delft University of Technology
- 11.45-12.05 "Evaluation aspects of the e-Herophilus telecardiology model"
AN Kastania, G Loudos, N Sgouros, V Stamatopoulos, S Demarias, A Gavala, C Davos, A Tsipis, C Boudoulas, S Kossida, Biomedical Research Foundation of the Academy of Athens
- 12.05-12.20 "Implantable RFID Chips: Usage Perspectives in healthcare"
E Antoniadou, P Koustas, University of Central Greece, Papageorgiou General Hospital of Thessaloniki
- 12.20-12.40 "Care Process Pathways centred Electronic Health Record for improved clinical decision quality, implementation of new knowledge and patient safety."
VG Stamatopoulos, B Manning, GE Karagiannis, Biomedical Research Foundation of the Academy of Athens
- 12.40-13.05 "Causal Discovery in Biomedicine"
I Tsamardinos, FORTH-ICS
- 13.05-14.00 **Lunch break**



Hellenic Bioinformatics & Medical Informatics Meeting

Biomedical Research Foundation, Academy of Athens

Friday 5 October

Chairperson *Vasileios Stamatopoulos* Biomedical Research Foundation, Academy of Athens

- 14.00-14.20 "Studying, teaching and applying Telepediatrics in Europe: Evaluation of the PEDITOP (www.peditop.com) Telepediatrics public health component"
AN Kastania, IA Apostolakis, Athens University of Economics and Business, National School of Public Health
- 14.20-14.40 "Multi-parametric Data Analysis and Use in Clinical Practice"
I Kontaxakis, N Sgouros, G Paraskevas, E Kararizou, EKapaki
- 14.40-14.55 "Single neuron intra-burst activity as a carrier of spatiotemporal information"
EK Pissadaki, P Poirazi, FORTH-IMBB
- 14.55-15.20 "Metabolomic Analysis of Adult Hypothyroidism Effects on Different Brain Regions"
PK Chrysanthopoulos, C Constantinou, MI Klapa, FORTH ICE-HT
- 15.20-15.35 "Artificial Intelligence based Analysis of Postprandial Triglyceride Response using Genetic and Clinical Data"
I Valavanis, National Technical University of Athens
- 15.35-16.00 "In vivo analysis of Galactose assimilation in yeast in the context of genetic perturbations using "omics" analysis"
CH Syriopoulos, A Panayotarou, C Katsikani, P Patiou, B Pesheva, K Lai, MI Klapa, FORTH ICE-HT
- 16.00 - 16.10 **Coffee Break**
- Chairperson** *Anastasios Bezerianos*, Univeristy of Patras
- 16.10-16.35 "Developing an ontology to conceptualise resistance to insecticides"
P Topalis, FORTH-IMBB
- 16.35-16.50 "VectorBase: a database of insect vectors of human diseases"
EG Dialynas, FORTH-IMBB
- 16.50-17.05 "Modeling Gene Ontology terms using Finite State Automata"
C Gkekas, F Psomopoulos, PA Mitkas, Aristotle University of Thessaloniki
- 17.05-17.20 "SoFoCles: Feature Filtering for Microarray Classification Based on Gene Ontology"
S Diplaris, G Papachristoudis, PA Mitkas, Aristotle University of Thessaloniki
- 17.20-17.45 "A Uniform Approach to Data and Workflow Integration for the Life Sciences"
L Zamboulis, N Martin, A Poulouvassilis, Birbeck Univ. London, University College London, London Knowledge Lab
- 17.45-18.00 "Molecular dynamics simulations using intelligent software agents"
I Mprouza, F Psomopoulos, PA Mitkas, Aristotle University of Thessaloniki
- 18.00-18.10 Closing remarks
Dr Alexandros Stamatakis