

# HELLENIC BIOINFORMATICS 10

## SEPTEMBER 6-9, 2017 – HERAKLION, CRETE, GREECE

### Bioinformatics and its applications in Health, Biodiversity and the Environment

about Elixir • biodiversity • bioinformatics •  
bioprospecting • computational biology • enzyme  
discovery • genomics • metabolic engineering •  
microbiome • pharmacogenomics • phylogeny •  
structural genomics • synthetic biology • systems  
biology • text mining • functional proteomics



Abstract submission deadline: June 10, 2017  
<https://easychair.org/conferences/?conf=hbioinfo2017>

Registration deadline: June 15th, 2017  
<https://www.regonline.com/hbioinfo10>

## Organizing Committee

- Michalis Aivaliotis, Greece (co-chair)
- Sophia Ananiadou, UK
- Pantelis Angelidis, Greece
- Eleftherios Angelis, Greece
- Christos Arvanitidis, Greece
- Theodora Farmaki, Greece
- Ioannis Iliopoulos, Greece (chair)
- Dimitris Kafetzopoulos, Greece
- Ilias Kappas, Greece
- Christos Karapiperis, Greece
- George Kotoulas, Greece
- Yiannis Kourmpetis, Switzerland
- Nikos Kyrpides, USA
- Tereza Manousaki, Greece
- Pericles Mitkas, Greece
- Christos Ouzounis, Greece
- Evangelos Pafilis, Greece
- Pavlos Pavlidis, Greece
- Anastasia Politou, Greece
- Yiota Poirazi, Greece
- George Potamias, Greece
- Vasilis Promponas, Cyprus
- Zacharias Scouras, Greece
- Alexandros Stamatakis, Germany
- Nektarios Tavernarakis, Greece
- Pantelis Topalis, Greece
- Ioannis Tsamardinis, Greece
- George Tsiamis, Greece
- Ioannis Vizirianakis, Greece

## September 5: WORKSHOPS

### Proteomics Workshop – Hands-on

- **Michalis Aivaliotis**
  - Introduction to proteomics
- **M. Aivaliotis, N. Kountourakis, K. Psatha, C. Seitanidou**
  - Bioinformatics I – MS-Raw data processing
- **M. Aivaliotis, N. Kountourakis, K. Psatha, C. Seitanidou**
  - Bioinformatics II – Meta-data analysis and visualization

### Advanced RNA-Seq and ChIP-Seq data analysis – Hands-on

- **Pantelis Topalis**
  - Introduction to RNA-Seq and ChIP-Seq
- **P. Topalis, E. Dialynas, G. Papagiannakis**
  - RNA-Seq Data Analysis
- **P. Topalis, E. Dialynas**
  - ChIP-Seq Data Analysis

#### Important Notes:

- ✓ Number of maximum participants 35.
- ✓ A digital textbook and references will be provided to all participants in advance.
- ✓ All the participants need to have their own laptops. No computers will be provided by the organizers.

## September 6: TUTORIALS

### Session 1: Metagenomics

- **Alex Mitchell**, UK  
Title: *Introduction to EBI Metagenomics*
- **Folker Meyer**, USA  
Title: *MG-RAST version 4.0*

### Session 2: Phylogenomics

- **Alexandros Stamatakis**, Germany  
Title: *Phylogenomic inference methods: inferring species trees from whole-genome alignments*
- **Bastien Bousseau**, France  
Title: *Reconciliation methods: interpreting gene trees, given species trees*

### Session 3: Data Integrity

- **Ioannis Ioannidis**, USA  
Title: *Predating data: Integrity of methods and statistics*
- **Gemma Galdon Clavell**, Spain  
Title: *Misconduct and data: privacy, accountability, and responsibility in (big) data science*

#### Important Notes:

- ✓ Number of maximum participants 150.

## September 7: HEALTH

## Keynote 1

- [John Ioannidis](#), USA  
Title: *Credibility and utility of big data*

## Session 1: Medical Genomics

- [Eleftheria Zeggini](#), UK  
Title: *Progress in understanding the genomic aetiology of osteoarthritis*
- [Evangelia Petsalaki](#), UK  
Title: *Integrative study of the role of RhoGAP/GEFs in the Rho protein signaling network*

## Session 2: Neuro-Genomics

- [Panos Roussos](#), USA  
Title: *Big Data Analysis and Genetic Liability to Common Neuropsychiatric Traits*

## Session 3: Variomics

- [Mehmet Sommel](#), Turkey  
Title: *The spread of farming in the Aegean 9000 years ago: An ancient DNA perspective*
- [Stefan Laurent](#), Switzerland  
Title: *Studying the adaptive and demographic histories of natural populations using population genetics*

## Session 4: Roundtable: Role of Greek Bioinformatics in Elixir

## Keynote 2

- [Alfonso Valencia](#), Spain

Title: (TBA)

## September 8: ENVIRONMENT

## Keynote 3

- [Peter Karp](#), USA  
Title: *The Omics Dashboard for Interactive Exploration of High-Throughput Data*

## Session 5: Human Microbiome

- [Lynn Schriml](#), USA  
Title: *GSC metadata standards in action: MetaSUB and ISD*
- [Maria Pilar Francino](#), Spain  
Title: *Microbiota development in the gut of infants, children and adolescents*

## Session 6: Computational Metagenomics

- [Folker Meyer](#), USA  
Title: *A novel pipeline for high quality amplicon analysis integrated into MG-RAST*
- [Rob Finn](#), UK  
Title: *Expanding the scope and reproducibility of analysis in EBI metagenomics*

## Session 7: Environmental Microbiome

- [Daniele Daffonchio](#), Saudi Arabia  
Title: *Soil development and rhizosphere effect in a High Arctic desert chronosequence*
- [Carolyn Frank](#), USA  
Title: *Nitrogen fixation by the foliar conifer microbiome*

## Session 8: HB Society Matters

## September 9: BIODIVERSITY

## Keynote 4

- [Yves Moreau](#), Belgium  
Title: *Bayesian matrix factorization with side information and application to drug-target activity prediction*

## Session 9: Cellular Networks and Modeling

- [Ewa Szczurek](#), Poland  
Title: *Statistical and mathematical models in computational oncology*
- [Hector-Garcia Martin](#), USA  
Title: *Mathematical modeling of -omics data for biofuel production through synthetic biology*

## Session 10: PhyloGenomics

- [David Ussery](#), USA  
Title: *What is Life? Conserved Functional Domains in a Hundred Thousand Bacterial Genomes*
- [Daniel Lundin](#), Sweden  
Title: *The evolution of ribonucleotide reduction*

## Session 11: Text Mining &amp; Ontologies

- [Lars Jensen](#), Denmark  
Title: *One tagger, many uses: Simple text-mining strategies for biomedicine*

## Keynote 5

- [Periklis Papadopoulos](#), USA  
Title: *Space Technology and Space Biology*

## HBioinfo-2018 Handoff, Closing Remarks and Awards