

Schedule at a Glance MONDAY - 21 November

- 08:45 09:00 Morning Welcome
- 09:00 10:00 Keynote Presentation: *A Mechanistic View of Oncogenic K-Ras Biology* **Ruth Nussinov**, PhD, National Cancer Institute, Maryland, USA
- 10:00 10:30 Coffee Break

10:30 12:30 **Protein Session**

- 10:30 Biomolecular Dynamics in Complex in vivo Environments Garegin Papoian
- 10:55 Discovery of Protein Isoforms for Different Stages of Prostate Cancer Luis Rueda
- 11:10 Analysis of cell-cycle regulatory linear motifs bound by the pRb retinoblastoma tumor suppressor Lucia Chemes
- 11:25 Identification and Substantiation of Specificity Determining Residue Networks using small Datasets and MI-promiscuity Facundo Orts
- 11:40 Residue-covariation networks cluster similar functional domains Franco Simonetti
- 11:55 Validation of Assembly and alignment-free method for chloroplast next generation sequences data Raúl Martín Amado Cattáneo
- 12:10 SwissProt Select: The New Protein Superfamily Database for Reliable Function Assignation Nicolás Stocchi
- 12:20 DEPICTViz Differential Expression and Protein InteraCTions Visualization Tool Nalvo F. Almeida

12:30 14:30 Lunch on Own

14:30 16:30 Data Session

- 14:30 Tech Talk, EMBL-EBI, Overview of EMBL-EBI Services and How We Work with Industry
- 14:50 Systematic assessment of multi-gene predictors of pan-cancer tumour sensitivity to drugs exploiting gene expression data Pedro J. Ballester
- 15:10 Drug targets prioritization for neglected diseases SantiagoVidela
- 15:30 A Data-Driven Approach to Estimating the Number of Clusters in Hierarchical Clustering Antoine Emil Zambelli
- 15:45 A novel approach for highly-diverse multi-omics data fusion applied to tomato germplasm selection Georgina Stegmayer
- 16:00 Pasteur_galaxy: An open and sustainable Galaxy instance for NGS data analysis Oussama Souiai
- 16:15 Graphing genomes in 2D, applications of multivariate statistics on the genomic composition Maria Camila Martinez
- 16:30 17:00 Coffee Break
- 17:00 18:00 Keynote Presentation: Coding for running speed and computing displacement in the mammalian brain's GPS

Emilio Kropff, PhD, Researcher at the National Research Council (CONICET), Leloir Institute IIBBA, Buenos Aires, Argentina

18:00 19:30 Networking and Posters, Odd Poster Presentations Poster Abstracts - <u>http://tinyurl.com/zh55g8m</u>



Schedule at a Glance Tuesday– 22 November

- 08:45 09:00 Morning Welcome and Announcements
- 09:00 10:00 **Keynote Presentation**: Birdsong to study neural control and biomechanics in a learned sensorimotor task

Ana Amador, PhD, University of Buenos Aires and IFIBA, National Research Council (CONICET), Buenos Aires, Argentina

10:00 10:30 Coffee Break

10:30 12:30 Machine Learning and Data Mining Session

- 10.30 Tech-Talk, CITES, Latin American Business Incubator located in Sunchales, Santa Fe, Starting UP Bioinformatics
- 10:50 Ranking factors involved in diabetes remission after bariatric surgery using machinelearning integrating clinical and genomic biomarkers - Søren Brunak
- 11:10 Advanced data mining reveals a non-canonical mode of interaction for MHC class II I ligands Morten Nielsen
- 11:30 Novel microRNA discovery from genome-wide data: a computational pipeline with unsupervised machine learning Georgina Stegmayer
- 11:50 NetPhosPan: a pan specific predictor for phosphorylation site predictions Emilio Fenoy
- 12:03 Machine Learning Tools to Computationally Identify Genomic Elements Melissa Woghiren
- 12:16 TAXOFOR: Taxonomic Assignment of 16S rDNA sequences using Fourier Analysis Guillerm Luque y Guzman Saenz
- 12:30 14:30 Lunch on Own

14:30 16:30 **Disease Session**

- 14:30 Multi-Cohort Analysis Identifies Cross-Tissue Gene Signature to Predict Lung Function and TFS in Patients with Idiopathic Pulmonary Fibrosis - Scott Madeleine
- 14:50 Differential network analysis for the identification of common and specific regulatory mechanisms between idiopathic dilated cardiomyopathy and ischemic cardiomyopathy Mariana Recamonde-Mendoza
- 15:10 A bioinformatics approach shows significant overlap of molecular pathology in early p preeclampsia with endometrial diseases Maria Rabaglino
- 15:30 Diagno: an online Clinical Genomics Diagnosis tool Patricio Yankilevich
- 15:45 MultiOmics: an R package to infer genomics and epigenomics mechanisms involved with cancer disease progression Martin Abba
- 16:00 In silico prediction of biological targets of small molecules by a chemical similarity approach Andreas Schüller
- 16:15 Transcriptomic analysis of drug resistant isolates of the parasitic trematode Fasciola hepatica Jose Tort
- 16:30 17:00 Coffee Break
- 17:00 18:00 EMBO Lecture Keynote Presentation: Systematic Patterns in Millions of 20 Yearlong Individual Patient Disease Trajectories

Søren Brunak, PhD, Professor, Research Director Novo Nordisk Foundation Center for Protein Research, University of Copenhagen

18:00 19:30 Networking and Posters, Even numbered posters to be presented, view poster abstracts at http://tinyurl.com/zh55g8m



Schedule at a Glance Wednesday - 23 November

08:4509:00Morning Welcome and Announcements09:0010:00Keynote Presentation: Data Visualization in Bioinformatics: Exploring
the 'Dark' Proteome

Sean I. O'Donoghue, PhD, CSIRO & Garvan Institute of Medical Research, Sydney, Australia

10:00 10:30 Coffee Break

10:30 12:30 Genes Session

- 10:30 Tech Talk: Heritas, Bioinformatics for clinical diagnostics
- 10:50 Extreme learning machines for discovering gene regulatory networks from temporal profiles of expression Mariano Rubiolo
- 11:15 Dynamics of tRNA fragments and their targets in aging mammalian brain Andrey Grigoriev
- 11:40 Exploring the human virome, new tools, new insights Alejandro Reyes AND Seeking informative regions in viral genomes Jaime Leonardo Moreno
- 12:05 Bioinformatic sequence analysis tools for the search for new short peptide in "noncoding" sequences - Luciana Ines Escobar
- 12:17 Prediction of microRNA targets in Echinococcus Natalia Macchiaroli

12:30 14:30 Lunch on Own

14:30 16:30 Systems Session

- 14.30 Bioinformatic mapping of microRNAs related with cervical cancer on Human Latinoamerican Genomic Variants Milena Guerrero Flórez
- 14:53 An integrative method to unravel the host-parasite interactome: an orthology based approach Yesid Cuesta Astroz
- 15:15 Universal attenuators and their interactions with feedback loops in gene regulatory networks Dianbo Liu
- 15:30 Combining miRNA and their regulators to understand the formation of diapause as transgenerational defense against pathogens in C. elegant Alberto Jesus Martin
- 15:45 Cellular Information Processing: pre-equilibrium signalling, cooperatively effects and membrane receptor trafficking Federico Sevlever
- 16:00 Evaluation of Anti-biofilm activity of synthetic peptides analogous to human cathelicidin LL-37 in clinical isolates of Staphylococcus app Fredy Alexander Guevara Agudelo
- 16:15 From in silico modelling to comprehension of agroecosystems: towards a complex index to study of microbial diversity and its relation of soil health Arsenio J Rodriguez

16:3017:00Awards and Closing