

**4th European Conference on Translational Bioinformatics: Biomedical
Big Data Supporting Precision Medicine. Precision Medicine
Granada 11th-12th November 2019**

Monday, November 11th

10.15 – 10.45 Registration & Welcome

10.45 – 11.00 Welcome and introduction
Joaquin Dopazo, FPS; INB PRB2-ISCIII/ELIXIR-ES; CIBERER. Sevilla, Spain

11.00 – 13.00 Session 1. Chair: Alfonso Valencia

11.00 – 11.30 **Maria J Martin**, EMBL-EBI, UK
#Lect.1: The role of data resources in advancing Biomedical and Translational research

11.30 – 12.00 **Augusto Rendon**, Director of Bioinformatics at Genomics England, London, UK

#Lect.2: Bioinformatics to enable the virtuous cycle of genomic medicine
12.00 – 12.30 **Fátima Al-Shahrour**, CNIO; INB PRB2-ISCIII/ELIXIR-ES; Madrid, Spain
#Lect.3: Targeting cancer heterogeneity with in silico drug prescription tools.

12.30 – 13.00 **D. Crispin Keable**, HPC & Quantum technical leader, Atos UK&I
#Lect. Sponsor Atos: Impacts of quantum computing on computational biology

13.00 – 14.30

Lunch & Posters

14.30 – 16.00 Session 2. Chair: Ferran Sanz

14.30 – 15.00 **Alfonso Valencia**, BSC; INB PRB2-ISCIII/ELIXIR-ES; ICREA. Barcelona, Spain. #Lect.4: Title

15.00 – 15.30 **Emmanuel Barillot**, Institut Curie, Paris, France
#Lect.5: Proteomic characterisation of Medulloblastoma

15.30 – 16.00 **Arcadi Navarro**, Univ. Pompeu Fabra
#Lect.6: Genomic Big Data, pleiotropy and senescence. Impacting health through sharing Short presentation.

16.00 – 16.40

Coffee Break & Posters

16.40 – 18.10 Session 3. Chair: Fátima Al-Shahrour

16.40 – 17.10 **Ferran Sanz**, IMIM; UPF; INB PRB2-ISCIII/ELIXIR-ES. Barcelona, Spain. #Lect.7: *Characterizing depressive profiles in Twitter*

17.10 – 17.40 **Clare Turnbull**, The Institute of Cancer Research, London, UK
#Lect.8: Deriving intelligence from routinely collected clinical data applied alongside genomic data: the UK experience

17.40 – 17.55 Paulina Rybakowska, et al., *“Analysis of high-dimensional mass cytometry data – challenges and solutions in order to obtain high quality data”*

17.55 – 18.10 Judith Pérez Granado, Janet Piñero and Laura I. Furlong, *“Exploring the genetic architecture of Major Depression: low agreement between the results of candidate gene studies and GWAS”*

18.15 – 19.15 Round Table. Chair: Joaquin Dopazo

20.30

Gala Dinner

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Tuesday, November 12th

09.45 – 11.00 Session 4. Chair: Pedro Carmona-Saez

- 09.45 – 10.15 **Inna Kuperstein**, Institut Curie, Paris, France
#Lect.9: *Atlas of Cancer Signaling Network: a resource of multi-scale biological maps to study disease mechanisms*
- 10.15 – 10.45 **Laura I. Furlong**, Research Programme on Biomedical Informatics (GRIB), IMIM, UPF.
#Lect.10: The DisGeNET platform of disease genomics to support variant interpretation
- 10.45 – 11.00 Ernesto Aparicio-Puerta, María Belén García Ortega, Juan Antonio Marchal and Michael Hackenberg, *“Circulating miRNAs as biomarkers to discriminate early and late stage melanoma patients”*
- 11.00 – 11.40 **Coffee Break & Posters**

11.40 – 13.10 Session 5. Chair: Clare Turnbull

- 11.40 – 12.10 **Joaquin Dopazo**, FPS; INB PRB2-ISCI/ELIXIR-ES; CIBERER. Sevilla, Spain
#Lect.11: Artificial intelligence for learning biological mechanisms from genomic data
- 12.10 – 12.40 **Carlos Loucera**, FPS, Clinical Bioinformatics Research Area, Sevilla, Spain
#Lect.12: Interpretable Machine Learning: bridging the gaps in systems Biology
- 12.40 – 12.55 Elena Espinosa, Lorena Aguilera-Cobos, Rafael Núñez-Serrano, Dario Guerrero, Rocio Bautista, Manuel Manchado and M. Gonzalo Claros
“Increasing flatfish supply on a diet: from genomics to fisheries by means of bioinformatics”
- 12.55 – 13.10 Sergio Díaz Del Pino, Roberto Trelles Martinez, Esteban Pérez Wohlfeil and Oswaldo Trelles, *“Towards the intelligent diagnosis of hematological diseases”*
- 13.10 – 14.30 **Lunch & Posters**

14.30 – 16.30 Session 6. Chair: Ignacio Rojas

- 14.30 – 15.30 **Rich Caruana**, Microsoft Research
#Lect.13: Friends Don't Let Friends Deploy Black-Box Models: the Importance of Intelligibility in Machine Learning for HealthCare
- 15.30 – 16.00 **Francisco Ortuño**, FPS, Clinical Bioinformatics Research Area, Sevilla, Spain. #Lect.14: Introducing advanced tools based on genomics data for the decision of treatments in cancer - A personalized medicine experience in the Andalusian Health System (SAS)
- 16.00 – 16.15 Jordi Martorell Marugán et al. *“In-depth exploration of the Interferon signature in Autoimmune Diseases”*
- 16.15 – 16.30 Elena Carnero-Montoro, et al., *“Epigenome-Wide Comparative Study Reveals Key Differences Between Mixed Connective Tissue Disease and Related Systemic Autoimmune Diseases”*

16.30

Closing remarks.