Advances in Computational Biology
Fostering collaboration among women scientists

Thursday, 28th November 2019

8:00 - 9:00	REGISTRATION
9:00 - 9:25	**WELCOME** - *Chair: Rosa M. Badia* - **Janet Kelso**, Group leader, Max Planck Institute for Evolutionary Anthropology - **Alison Kennedy**, Director, STFC Hartree Centre - **Núria López Bigas**, ICREA Research Professor and Group leader, Institute for Research in Biomedicine Barcelona - **Carla Conejo**, Scientific Projects Leader, Area of Knowledge, Education and Research at Fundació Catalunya La Pedrera - **Àngels Chacón**, Minister of Business and Knowledge, Government of Catalonia
9:25 - 10:10	**KEYNOTE TALK** - *Chair: Janet Kelso* **Christine Orengo (UCL). CATH Functional families - insights into impacts of genetic variations.**
10:10 - 11:10	**Plenary session 1** - *Chair Janet Kelso* - **Compute02:** An RPCA (Robust Principal Component Analysis) based approach for protein-protein interaction hot-spot prediction, **Divya Sitani** - **BioMed03:** Predicting synthetic lethal interactions using conserved patterns in protein interaction networks, **Frances Pearl** - **BioSeq01:** Characterization of Selenoprotein Gene Expression across Tissues and Individuals, **Aida Ripoll-Cladellas**
11:10 - 11:40	Coffee break
11:40 - 13.00	**Plenary session 2** - *Chair: Alison Kennedy* - **BioSeq06:** Go low with ATLAS: a tool for maximizing insight from minimal sequencing depth, **Vivian Link** - **BioSeq02:** Tools for transforming multiomics data into disease models, **Ana Conesa** - **BioSeq05:** Genomic based drug repurposing screen for Rett syndrome, **Irene Unterman** - **Compute05:** DLMF: Deep Logistic Matrix Factorization with multiple information integration for drug-target interaction prediction, **Sarra Itidal Abbou**
13:00 - 14:00	Lunch + **Poster session I**
14:00 - 14:45	**KEYNOTE TALK** - *Chair: Alison Kennedy* **Marie-Christine Sawley (Intel). Data centric large scale computing, a powerful scientific instrument for life and science.**
14:45 - 16:05	**Plenary sessions 3** - *Chair: Rosa M. Badia* - **BioSeq03:** Widespread sexual dimorphism in genetic architecture in UK Biobank, **Elena Bernabeu** - **BioSeq04:** Fine-mapping UK Biobank traits GWAS using bayesian algorithms and chromatin annotation data, **Erola Pairo-Castineira** - **Compute03:** Automated extraction of color pattern and anatomical characteristics in dairy cows, **Jessica Nye** - **Compute04:** The human heart seen by the eyes of a computer scientist, **Marta Garcia-Gasulla**
	Group Picture
16:10 - 17:10	Coffee Break + ***Meeting with Women Leaders*** (prior confirmed registration) + **Poster session I**

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17:10 - 18:50	**Plenary session 4** - *Chair: Núria López-Bigas* - **BioMed05:** Insight into genetic predisposition to chronic lymphocytic leukemia from integrative epigenomics, **Renée Beekman** - **BioMed01:** OncodriveCLUSTL: a sequence-based clustering method to identify cancer drivers, **Claudia Arnedo-Pac** - **BioMed02:** Detecting aberrant integrations of viral DNA that promote major restructuring of cancer genome architecture, **Eva G Alvarez** - **Compute01:** Discriminating Early- and Late-Stage Cancers Using Multiple Kernel Learning on Gene Sets, **Arezou Rahimi** - **BioMed04:** Mechanistic approach for optimal model selection in cancer research, **Inmaculada Álamo-Álvarez**
18:50 - 19:20	Theatre Performance
20:30	***Networking Conference Dinner*** (prior registration, 7 Portes Restaurant)

Friday, 29th November 2019

9:00 - 9:45	**KEYNOTE TALK** - *Chair: Núria López-Bigas* **Natasa Przulj (BSC, ICREA). Towards Data-Integrated Medicine.**
9:45 - 10:45	**Plenary session 5** - *Chair: Mar Albà* - **BioSeq26:** Dynamic hyper editing underlines temperature adaptation in Drosophila, **Ilana Buchumenski** - **BioSeq29:** Benchmarking coevolution methods, **Rocío Rama Ballesteros** - **BioMed21:** Computational challenges associated to plasmid mediated AMR spread, **Alice Ledda**
10:45 - 11:15	Coffee Break
11:15 - 12:35	**Plenary session 6** - *Chair: Marta Melé* - **BioMed22:** Cell-intrinsic core-regulatory circuits driving tumor-related phenotypes with the I3-OncoNet cycle, **Julia Puig** - **BioSeq28:** Single-cell transcriptomics analysis reveals the dynamics of alternative polyadenylation during cell cycle progression, **Mireya Plass** - **Compute15:** An atomistic molecular dynamics simulations approach to the study of h-LDHA inhibition, **Antonia Vyrkou** - **BioSeq27:** Comparative epigenomics determines the enhancer sequence code of pluripotent embryonic stem cells and facilitates the creation of synthetic enhancers, **Jennifer Mitchell**
12:35 - 14:45	Lunch + **Poster session II**
14:45 - 15:45	***Panel discussion:*** Challenges of Artificial Intelligence in Biomedical Research (ACM-WE & RSG-Spain)
15:45 - 16:10	**Closing remarks and Best Poster and Oral presentation awards** - *Chairs: Janet Kelso, Alison Kennedy and Núria López-Bigas*
16:10 - 17:00	Guided visit to La Pedrera (*prior registration*)
16:10 - 17:30	***Networking activity*** (RSG-Spain)