

4th Challenges in Computational Biology meeting: Single Cell Data Analysis

A virtual satellite meeting of the German Conference on Bioinformatics

Friday, 18 September 2020

Welcome Address

09:00 - 09:10* Organizers

Session 1:

Chair: Ina Koch

09:10 - 09:45	Julia Mahamid	EMBL-Heidelberg	Molecular views into cellular functions by in-cell cryo-electron tomography.
09:55 - 10:30	Junaid Akhtar	JGU, Mainz	Low amount ChIP-Seq using tagmentation assisted fragmentation of chromatin.

Session 2:

Chair: Pablo Mier

10:40 - 11:15	Andreas Kurtz	Charité - Universitätsmedizin	Cell, cell type and cell line handling in a database of pluripotent stem cells.
11:25 - 12:00	Antonio del Sol	Université du Luxembourg	Single cell-based multiscale modelling in stem cell research.
12:10 - 12:45	Sumeet Pal Singh	Université Libre de Bruxelles	Asynchronous cellular aging revealed by machine learning based classification of single-cell data.

12:45 - 14:00 *Mittagspause*

Session 3:

Chair: Miguel Andrade

14:00 - 14:35	Maria Colome	Technical University of Munich	Analysis and integration of single cell epigenomics data.
14:45 - 15:20	Federico Marini	CTH & IMBEI, Mainz	It takes two to tango: exploration and interpretation of RNA-seq data, made interactive and reproducible.
15:30 - 16:05	Luca Pinello	Harvard University	Single-cell trajectories reconstruction, exploration and mapping of omics data with STREAM.

Session 4:

Chair: Jean-Fred Fontaine

16:15 - 16:50	Stefan Legewie	IMB, Mainz	Modelling cellular signalling variability based on single-cell data: the TGFb/SMAD signaling pathway.
17:00 - 17:35	Benedikt Berninger	King's College	Reprogramming cell identity in the nervous system: what single-cell transcriptomics can teach us.
17:45 - 18:20	Natalia Soshnikova	IMM, Mainz	Single-cell analysis revealed the factors controlling specification and differentiation of the gastric epithelial progenitors.

Talks 35 min incl. discussion (30+5) followed by 10 min buffer breaks

*Times are CET. If you are attending from a different time zone, we acknowledge that it might be difficult for you to attend the entire event.

Mainz, Germany, 18 September 2020