

Online Symposium
Minerva-Gentner Symposium 2020

Single Cell Analysis: from Development to Disease

Sunday May 31, 2020

10:00-14:25, German time (break 12:10-12:40)

11:00-15:25, Israel time (break 13:10-13:40)

Introduction: **Karen B. Avraham**, Tel Aviv University

Plenary speaker: **Eileen Furlong**, EMBL, Heidelberg:
Regulatory changes during embryogenesis as single cell resolution

Session 1: Development Deciphered by Single Cell Analysis

Jan Philipp Junker, Max Delbrück Center for Molecular Medicine, Berlin: *Simultaneous lineage tracing and transcriptome profiling in single cells*

Shalev Itzkovitz, Weizmann Institute: *Spatial transcriptomics of mammalian tissues*

Dominic Grun, Max Planck Institute of Immunology and Epigenetics, Freiburg: *A human liver cell atlas: revealing cell type heterogeneity and adult liver progenitors by single-cell RNA-sequencing*

Simon Haas, Heidelberg Institute for Stem Cell Technology and Experimental Medicine: *Mapping blood stem cell commitment at the single cell level*

Ron Shamir, Tel Aviv University: *Proliferation and differentiation in early embryonic lineages*

Session 2: Genomics in Single Cell Analysis and Technologies

Shai Shen-Orr, Technion: *Modeling biological processes as quantifiable units*

Tal Shay, Ben-Gurion University: *Splicing bias of single immune cells*

Martin Vingron, Max Planck Institute for Molecular Genetics: *Looking at high-dimensional data using correspondence analysis*

Micha Drukker, Helmholtz Zentrum München: *BART-seq: cost-effective massively parallel targeted sequencing for genomics and transcriptomics*

Ran Elkon, Tel Aviv University: *Inference of cell types involved in the pathology of complex diseases using single-cell transcriptomes*

Closing for the day: **Omri Wurtzel**, Tel Aviv University

Monday June 1, 2020

10:00-14:20, German time (break 12:05-12:35)

11:00-15:20, Israel time (break 13:05-13:35)

Introduction: **Omri Wurtzel**, Tel Aviv University

Session 3: From Populations to Cellular Dynamics

Naomi Habib, Hebrew University: *Deciphering the cellular landscape of the Alzheimer's brain by single nucleus RNA-seq*

Oren Ram, Hebrew University: *Code of early differentiation using high sensitive single cell assays*

Efrat Shema, Weizmann Institute: *Single-cell and single-molecule epigenomics: genome-regulation at unprecedented resolution*

Gerd Meyer zu Horste, Westfälische Wilhelms-University, Münster: *Applying single cell transcriptomics to cerebrospinal fluid cells in neurological disorders*

Asaf Madi, Tel Aviv University: *Single cell T-cell exhaustion and checkpoint blockade immunotherapy*

Itay Tirosh, Weizmann Institute: *Charting human tumors by single cell RNA sequencing*

Session 4: Disease Mechanisms by Single Cell Analysis

Nir Friedman, Hebrew University: *Single cell genomics of single cell organisms*

Naama Geva-Zatorsky, Technion: *The undisclosed interactions with our tiniest gut residents*

Daniel Lipka, DFKZ German Cancer Research Center, Heidelberg: *Single cell transcriptomics and epigenomics allow the dissection of cellular hierarchies and disease mechanisms in hematopoiesis*

Merav Cohen, Weizmann Institute, Tel Aviv University: *Molecular insight into cellular crosstalk during development and disease*

Tomer Kalisky, Bar-Ilan University: *Cellular heterogeneity and splice isoform switching in kidney development and tumorigenesis*

Closing the symposium: **Karen Avraham**, Tel Aviv University