

Single Cell Biology

9-12 November 2020

Virtual Conference Agenda

Start (GMT)	Finish (GMT)	Presenter details
Monday, 9 November		
13:00	13:05	Welcome
<p><i>Scientific Programme Committee:</i> <i>Ellen Rothenberg, California Institute of Technology, USA</i> <i>Sarah Teichmann, Wellcome Sanger Institute, UK</i> <i>Fabian Theis, Helmholtz Munich, Germany</i> <i>Itai Yanai, New York University, USA</i></p>		
13:05	14:35	Session 1: Disease
Introduction to the session <i>Chair: Sarah Teichmann, Wellcome Sanger Institute, UK</i>		
13:05	13:25	Putting cells into context with spatial transcriptomics and single-cell RNA-Seq Itai Yanai, New York University, USA
13:25	13:45	Mapping mammalian cell landscapes by single cell mRNA-seq Guoji Guo, Zhejiang University School of Medicine, China
13:45	13:55	Single-cell multi-omics reveals the epigenetic encoding of glioma cell states <i>Federico Gatti, Weill Cornell Medicine, USA</i>
13:55	14:05	Multi-modal single-cell profiling reveals colonic CD8+ topography in IBD <i>Agne Antanaviciute, University of Oxford, UK</i>
14:05	14:35	Q&A <i>Chair: Sarah Teichmann, Wellcome Sanger Institute, UK</i> <i>Moderator: Fabian Theis, Helmholtz Munich Germany</i>
14:35	14:55	Break
14:55	15:10	Lightning talks for poster sessions 1 & 2
15:10	15:40	Poster session for sessions 1 & 2
15:40	16:00	Break
16:00	17:40	Session 2: Modelling Development
Introduction to the session <i>Chair: Session chair: Fabian Theis, Helmholtz Munich, Germany</i>		
16:00	16:20	Temporal & spatial dynamics of human endometrium one cell at a time Roser Vento, Wellcome Sanger Institute, UK
16:20	16:40	Single-cell recording of lineage and transcriptional regulation in direct reprogramming Samantha Morris, Washington University, USA
16:40	17:00	Human organ development through the lens of single cell genomics Barbara Treutlein, ETH Zurich, Switzerland
17:00	17:10	Mutating ASD risk genes in human brain organoids <i>Amanda Kedaigle, Broad Institute of MIT and Harvard, USA</i>
17:10	17:40	Q&A <i>Chair: Fabian Theis, Helmholtz Munich Germany</i> <i>Moderator: Ellen Rothenberg, California Institute of Technology, USA</i>
17:40	17:50	Comfort Break
17:50	18:30	Networking with SpatialChat

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Tuesday, 10 November

13:00	14:30	Session 3: Dissecting Development
Introduction to the session <i>Chair: Itai Yanai, New York University, USA</i>		
13:00	13:20	Deconvoluting disease mechanisms by developmental genetics and single cell transcriptomics Kathy Cheah, The University of Hong Kong, China
13:20	13:40	Studying human liver development using single cell analyses and organoids Ludovic Vallier, University of Cambridge UK
13:40	13:50	Dissection of the global gene regulatory network governing cardiac neural crest development <i>Shashank Gandhi, California Institute of Technology, USA</i>
13:50	14:00	Cell cycle progression is not responsible for the transcriptional rewiring and loss of self-renewal capacity in ex vivo cultured human Haematopoietic Stem Cells <i>Carys Johnson, Cambridge Stem Cell Institute, UK</i>
14:00	14:30	Q&A <i>Chair: Itai Yanai, New York University, USA</i> <i>Moderator: Fabian Theis, Helmholtz Munich, Germany</i>
14:30	14:55	Break
14:55	15:05	Lightning talks for poster sessions 3 & 4
15:05	15:35	Poster session for sessions 3 & 4
15:35	15:55	Break
15:55	17:25	Session 4: Mapping Development
Introduction to the session <i>Chair: Ellen Rothenberg, California Institute of Technology, USA</i>		
15:55	16:15	Dissecting the regulatory switches driving cell fate trajectories during embryonic development one cell at a time Eileen Furlong, EMBL, Germany
16:15	16:35	Decoding the developing human immune system Muzz Haniffa, Newcastle University, UK
16:35	16:45	Using single-cell RNA sequencing to map lymphoid cell state and differentiation across human fetal haematopoietic organs <i>Simone Webb, Newcastle University, UK</i>
16:45	16:55	Single-cell transcriptome of gastrulating human embryo <i>Elmir Mahammadov, Helmholtz Munich, Germany</i>
16:55	17:25	Q&A <i>Chair: Ellen Rothenberg, California Institute of Technology, USA</i> <i>Moderator: Sarah Teichmann, Wellcome Sanger Institute, UK</i>
17:25	17:35	Comfort Break
17:35	18:30	Networking with SpatialChat

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Wednesday, 11 November

13:00	14:30	Session 5: Computational Approaches
		Introduction to the session <i>Chair: Sarah Teichmann, Wellcome Sanger Institute, UK</i>
13:00	13:20	Integrated analysis of single-cell data across modalities and technologies Rahul Satija, New York University, USA
13:20	13:40	Modeling cellular response across perturbations and spatial context Fabian Theis, Helmholtz Zentrum München, Germany
13:40	13:50	Revealing dynamics of gene expression variability in cell state space <i>Dominic Grün, Max Planck Institute of Immunobiology and Epigenetics, Germany</i>
13:50	14:00	Joint modeling of transcriptome and surface proteome enhances single-cell data analysis <i>Zoe Steier, University of California, Berkeley, USA</i>
14:00	14:30	Q&A <i>Chair: Sarah Teichmann, Wellcome Sanger Institute, UK</i> <i>Moderator: Itai Yanai, New York University, USA</i>
14:30	14:50	Break
14:50	15:05	Lightning talks for poster session 5
15:05	15:35	Poster session for session 5
15:35	15:55	Break
15:55	17:25	Session 6: Cell Dynamics
		Introduction to the session <i>Chair: Ellen Rothenberg, California Institute of Technology, USA</i>
15:55	16:15	Long-term single-cell quantification: New tools for old questions Timm Schroeder, ETH Zurich, Switzerland
16:15	16:35	A rate-limiting process: T cell activation from a single-cell perspective <i>Arianne Richard, University of Cambridge, UK</i>
16:35	16:45	Single-cell resolution of the human germinal centre reveals novel B cell states and antibody maturation dynamics <i>Hamish King, Queen Mary University of London, UK</i>
16:45	16:55	Reconstructing foetal blood development at the single-cell level through somatic mutations <i>Anna Maria Ranzoni, University of Cambridge, UK</i>
16:55	17:25	Q&A <i>Chair: Ellen Rothenberg, California Institute of Technology, USA</i> <i>Moderator: Sarah Teichmann, Wellcome Sanger Institute, UK</i>
17:25	17:35	Comfort Break
17:35	18:30	Networking with SpatialChat

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Thursday, 12 November

13:00	14:30	Session 7: Spatial Tech
		Introduction to the session <i>Chair: Fabian Theis, Helmholtz Munich, Germany</i>
13:00	13:20	Imaging the transcriptomes in tissue and disease Joakim Lundberg, KTH Royal Institute of Technology, Sweden
13:20	13:40	Spatial maps of molecularly defined cell types by in situ sequencing Mats Nilsson, Stockholm University, Sweden
13:40	13:50	Spatially resolved cell atlasing via integration of spatial and single nucleus transcriptomics <i>Omer Bayraktar, Wellcome Sanger Institute, UK</i>
13:50	14:00	A human single-cell atlas of the Substantia nigra reveals novel cell-specific pathways associated with the genetic risk of Parkinson's disease and neuropsychiatric disorders <i>Viola Volpato, DRI at Cardiff University, UK</i>
14:00	14:30	Q&A <i>Chair: Fabian Theis, Helmholtz Munich, Germany</i> <i>Moderator: Itai Yanai, New York University, USA</i>
14:30	14:50	Break
14:50	15:05	Lightning talks for poster sessions 6, 7 and 8
15:05	15:35	Poster session for sessions 6, 7 and 8
15:35	15:55	Break
15:55	17:35	Session 8: Cell Dynamics / New Technology
		Introduction to the session <i>Chair: Itai Yanai, New York University, USA</i>
15:55	16:15	Pairing droplet microfluidics with FACS for ultra-high-throughput single-cell analysis Polly Fordyce, Stanford University, USA
16:15	16:25	Live-seq: Measuring transcriptomes of live cells <i>Wanze Chen, EPFL, Switzerland</i>
16:25	16:35	Probing multicellular mechanisms of immune modulation with massively parallel single-cell mRNA-seq <i>Sisi Chen, Caltech, USA</i>
16:35	16:45	Generalizing RNA velocity to transient cell states through dynamical modeling <i>Volker Bergen, Helmholtz Munich, Germany</i>
16:45	16:55	Leveraging time-lapse and kinship information in single cell RNA Sequencing <i>Arne Wehling, ETH Zurich, Switzerland</i>
16:55	17:25	Q&A <i>Chair: Itai Yanai, New York University, USA</i> <i>Moderator: Ellen Rothenberg, California Institute of Technology, USA</i>
17:25	17:35	Closing remarks
		Scientific Programme Committee: <i>Ellen Rothenberg, California Institute of Technology, USA</i> <i>Sarah Teichmann, Wellcome Sanger Institute, UK</i> <i>Fabian Theis, Helmholtz Munich, Germany</i> <i>Itai Yanai, New York University, USA</i>