

10-12 June 2024

## Hybrid Conference Programme

Start (BST)	Finish (BST)	Presenter details
Monday	/ 10 June	2024
12:00	12:45	Registration, lunch and networking
12:30	12:45	Briefing for Keynote & Session 1 speakers, microphone runners, chair, moderator & committee - Auditorium
12:45	13:00	Welcome
12:45	12:50	Wellcome Connecting Science: Nagehan Ramazanoglu Bahadir, Wellcome Connecting Science, UK
12:50	13:00	Scientific Programme Committee:
		Leeat Keren, Weizmann Institute of Science, Israel Cole Trapnell, University of Washington, USA
		Roser Vento, Wellcome Sanger Institute, UK
10.00	44.00	Itai Yanai, New York University, USA
13:00	14:00	Keynote 1 Chair: Cole Trapnell, University of Washington, USA
		Moderator: Valentina Lorenzi, Wellcome Sanger Institute, UK
13:00	14:00	Title TBC Marianne Bronner, California Institute of Technology, USA
14:00	14:05	Comfort break
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14:05	15:35	Session 1: How do cells cooperate and compete in tissues and organs? Chair: Samantha Morris, Washington University in St. Louis, USA
		Moderator: Philipp Weiler, Technical University of Munich, Germany
14:05	14:35	Addressing noise and bias in spatial transcriptomics data <u>Nir Yosef, Weizmann Institute of Science, Israel</u>
14:35	15:05	Multiscale approaches for understanding single cell spatial omics data <u>Shila Ghazanfar, The University of Sydney, Australia</u>
15:05	15:20	Title TBC TBC
15:20	15:35	Dissecting the spatiotemporal diversity of adult neural stem cells Anika Neuschulz, Max-Delbrück-Center for Molecular Medicine, UK
15:35	16:20	Refreshment break and networking
16:05	16:20	Briefing for Session 2 speakers, microphone runners, chair & moderator - Auditorium
16:20	17:50	Session 2: How does a cell's past predict its future?
		Chair: Roser Vento, Wellcome Sanger Institute, UK Moderator: Raz Ben-uri, The Weizmann Institute of Science, Israel
16:20	16:50	New genomic technologies to deconstruct and control cell identity <u>Samantha Morris, Washington University in St. Louis, USA</u>
16:50	17:20	Somatic epimutations enable single-cell lineage tracing in native hematopoiesis across the murine and human lifespan Alejo Rodriguez-Fraticelli, IRB, Spain
17:20	17:35	Deep learning-powered deciphering of gene regulatory dynamics in cortical development Darina Abaffyová, VIB-KU Leuven, Belgium
17:35	17:50	Integrating deep learning with omics data to discover small-molecule modulators of complex phenotypes Doris Fu, Cellarity, USA
17:50	18:30	Poster pitch talks for odd number posters
		Chair: Roser Vento, Wellcome Sanger Institute, UK
18:30	19:30	Poster session 1 - odd number posters with drinks reception
19:30	21:30	Dinner
19:30		Bar open (card payments only)

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Tuesday 11 June 2024				
09:15 09:30 Briefing for Session 3 speakers, microphone runners, chair & moderator - Auditorium				
09:30	11:00	Session 3: What are the cell autonomous and non-cell autonomous mechanisms of disease?		
		Chair: Leeat Keren, Weizmann Institute of Science, Israel Moderator: TBC		
09:30	10:00	An multi-omics epigenetic cell atlas of kidney <u>Kun Zhang, Altos Labs, USA</u>		
10:00	10:30	Inter-organ communication during cancer metastasis Edroaldo Lummertz da Rocha, Federal University of Santa Catarina, Brazil		
10:30	10:45	Shared molecular vulnerabilities of human cortical neurons in C9ORF72 Amyotrophic lateral sclerosis Jimmy Lee, Wellcome Sanger Institute, UK		
10:45	11:00	Spatial distribution of IL1B+ TAMs in human pancreatic cancer Federica La Terza, SR-Tiget, Italy		
11:00	11:45	Refreshment break and networking		
11:30	11:45	Briefing for Session 4 speakers, microphone runners, chair & moderator - Auditorium		
11:45	13:10	Session 4: What are the evolutionary principles of cellular ROBUSTNESS?		
		Chair: Itai Yanai, New York University, USA Moderator: Valentina Lorenzi, Wellcome Sanger Institute, UK		
11:45	12:15	Build a foundation model for single-cell omics and imaging Bo Wang, University of Toronto, Canada		
12:15	12:45	Cells within cells: establishment of photosynthetic endosymbiosis in flatworms and corals Elizabeth Hambleton. University of Vienna. Austria		
12:45	13:00	Cell-type-specific control of developmental rate across species Jess Bourn, European Molecular Biology Laboratory, Germany		
13:00	13:15	CellRank 2: Unified fate mapping in multiview single-cell data Philipp Weiler, Technical University of Munich, Germany		
13:15	14:15	Lunch and networking		
14:00	14:15	Briefing for Session 5 speakers, microphone runners, chair & moderator - Auditorium		
14:15	15:45	Session 5: How are complex phenotypes regulated by the genome?		
		Chair: TBC Moderator: Philipp Weiler, Technical University of Munich, Germany		
14:15	14:45	Transfer learning to enable predictions in network biology <u>Christina Theodoris, Gladstone Institutes, USA</u>		
14:45	15:15	How do cells integrate extrinsic signals and intrinsic state? A systems epigenetics approach Judith Zaugg, The European Molecular Biology Laboratory, Germany.		
15:15	15:30	Dissecting the spatiotemporal development of the human reproductive tract through the lens of single-cell and spatial Valentina Lorenzi, Wellcome Sanger Institute, UK		
15:30	15:45	Joint profiling of cell morphology and gene expression during in vitro neurodevelopment Adithi Sundaresh, University of Helsinki, Finland		
15:45	16:30	Refreshment break and networking		
16:15	16:30	Briefing for Session 6 speakers, microphone runners, chair & moderator - Auditorium		
16:30	17:15	Session 6: Meet the editors		
		Chair: Itai Yanai, New York University, USA		
		Moderator: Cole Trapnell, University of Washington, USA Editors TBC		
17:15	17:55	Poster pitch talks for even number posters		
		Chair: Leeat Keren, Weizmann Institute of Science, Israel		
17:55	18:10	Sponsored talk by Chan Zuckerberg Initiative Foundation		
17:55	18:10	Talk title TBC Jonah Cool, Chan Zuckerberg Initiative Foundation, USA		
18:10	19:10	Poster session 2 - even number posters with drinks reception		
19:10		Bar open (card payments only)		
19:10	21:00	Dinner		

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## Wednesday 12 June 2024 09:15 09:30 Briefing for Session 7 speakers, microphone runners, chair & moderator - Auditorium 09:30 11:00 Session 7: How can we predict what cells will do next? Chair: Cole Trapnell, University of Washington, USA Moderator: TBC 10:00 Reconstructing cellular biographies 09:30 Fei Chen, Broad Institute of MIT and Harvard, USA 10:30 Reconstructing cellular biographies 10:00 Alex Schier, Universität Basel, Switzerland 10:30 10:45 Escalating High-dimensional Imaging Using Combinatorial Channel Multiplexing and Deep Learning Raz Ben-uri, The Weizmann Institute of Science, Israel 10:45 11:00 Exploring the role of gene expression noise in cell fate regulation Reyna Edith Rosales Alvarez, Würzburg Institute of Systems Immunology, Germany 11:45 Refreshment break and networking 11:00 11:30 11:45 Briefing for Keynote, microphone runners, chair, moderator & committee - Auditorium 11:45 12:45 Keynote 2 Chair: Roser Vento, Wellcome Sanger Institute, UK Moderator: Raz Ben-uri, The Weizmann Institute of Science, Israel 4D cell atlasing of human organs Sarah Teichmann, University of Cambridge, UK 12:45 13:00 Closing remarks and prize presentation Scientific Programme Committee: Leeat Keren, Weizmann Institute of Science, Israel Cole Trapnell, University of Washington, USA Roser Vento, Wellcome Sanger Institute, UK Itai Yanai, New York University, USA 13:00 13:50 Lunch and departures 13:50 Coach departures for Stansted and Heathrow airports 14:00 Coach departures for Cambridge train station and city centre