
Sunday 15 July 2018

12:00 - 14:00	Arrival and Registration ATC Reception	
14:00 - 14:15	Welcome Remarks ATC Auditorium	
14:15 - 15:45	Session 1: Single-cell/ single-organism studies Chair: Markus Elsner ATC Auditorium	
14:15 - 14:45	Single Cell Genomics and the Tabula Muris Stephen Quake <i>Stanford University, United States of America</i>	1
14:45 - 15:00	Microfluidic single-cell chromatin profiling to study emergence of drug resistance in cancer Kevin Grosselin <i>ESPCI Paris, France</i>	2
15:00 - 15:20	Coffee break ATC Foyer	
15:20 - 15:45	Flash Talks Session Chair: Maria Southall ATC Auditorium	
15:20 - 15:30	Fundamental Research: Beneyton #29/ Kukhtevich #67/ Jongen #61 ATC Auditorium	
15:30 - 15:45	Technology Development: Constantinou #39/ Gielen #27/ Obst #88/ Ostromohov #92/ Shvydkiv #109/ Heymann #53/ Tan #112/ Tovar #36 ATC Auditorium	
15:45 - 17:00	Poster Session I (even numbers) ATC Helix A	

EMBL Conference: Microfluidics

17:00 - 20:00 Dinner and 2018 FIFA World Cup Russia™ Final
EMBL Canteen

Monday 16 July 2018

09:00 - 11:45	Session 1 (cont.) ATC Auditorium	
09:00 - 09:30	Translating Single-Cell Genomics to the Clinic Alex Shalek <i>Massachusetts Institute of Technology, United States of America</i>	3
09:30 - 09:45	Imaging and Sequencing Single cells Aaron Streets <i>University of California, Berkeley, United States of America</i>	4
09:45 - 10:15	Reconstructing human organ development using single-cell transcriptomics Barbara Treutlein <i>Max Planck Institute for Evolutionary Anthropology, Germany</i>	5
10:15 - 10:30	Single cell analysis reveals functional heterogeneity within plasmacytoid dendritic cells and identifies environmental cues that drive type I IFN production Jurjen Tel <i>Eindhoven University of Technology, The Netherlands</i>	6
10:30 - 11:00	Coffee break ATC Foyer	
11:00 - 11:30	Elucidating the regulatory mechanisms of myogenic/adipogenic/dermal lineage commitment and differentiation Angela Wu <i>Hong Kong University of Science and Technology, Hong Kong</i>	7
11:30 - 11:45	Investigating the epigenetic heterogeneity and tumor microenvironment in early prostate tumors at single-cell resolution Ece Eksi <i>Oregon Health and Science University, United States of America</i>	8

EMBL Conference: Microfluidics

11:45 - 15:15	Session 2: Droplet-based microfluidics Chair: Kyle Legate ATC Auditorium	
11:45 - 12:15	Single-cell analysis with droplet microfluidics David Weitz <i>Harvard University, United States of America</i>	9
12:15 - 12:30	Cutting edge droplet microfluidic technology for revolutionising antibody discovery and production Dale Starkie <i>UCB, United Kingdom</i>	10
12:30 - 13:00	Microfluidics against microbes Piotr Garstecki <i>Institute of Physical Chemistry Polish Academy of Sciences, Poland</i>	11
13:00 - 14:30	Lunch ATC Foyer	
14:30 - 14:45	High-throughput therapeutic protein evolution using phenotypic screening in microfluidic droplets Thomas Fryer <i>University of Cambridge, United Kingdom</i>	12
14:45 - 15:15	Droplet-microfluidics in antibody discovery and personalized medicine Christoph Merten <i>EMBL Heidelberg, Germany</i>	13
15:15 - 17:20	Session 3: Novel Microfluidic Modules & Applications Chair: Abraham Lee ATC Auditorium	
15:15 - 15:45	Electrophoretic Cytometry for Targeted Proteomics Amy Herr <i>University of California, Berkeley, United States of America</i>	14

Programme

- 15:45 - 16:00 **A high-throughput microfluidic platform to screen live CRISPR edited human cells by surface marker expression** 15
David Philpott
University of Toronto, Canada
- 16:00 - 16:30 **Coffee break & Meet the Speakers**
ATC Foyer
- 16:30 - 17:00 **Organoids Microfluidic Analysis Platform (MAP) and Ultrafast Photonic PCR on Chip for Personalized Precision Medicine** 16
Luke Lee
University of California, Berkeley, United States of America
National University of Singapore, Singapore
- 17:00 - 17:15 **Flash Talks Session**
Chair: Maria Southall
ATC Auditorium
- 17:00 - 17:05 **Biomedical Applications: Chen #35/ Mahler #83/ Peñaherrera #94**
ATC Auditorium
- 17:05 - 17:15 **Diagnostics: Hemmateenejad #52/ Roy #100/ Folli #46**
ATC Auditorium
- 17:15 - 18:30 **Poster Session II (odd numbers)**
ATC Helix A
- 18:30 - 00:00 **BBQ and Party**
ATC Terrace

Tuesday 17 July 2018

09:00 - 09:45	Session 3 (cont.) ATC Auditorium	
09:00 - 09:30	Deep Phenotyping Enabled by Microfluidics and High-Throughput Quantitative Microscopy Hang Lu <i>Georgia Institute of Technology, United States of America</i>	17
09:30 - 09:45	High throughput error-correction code DNA sequencing: concept, chemistry, microfluidics, and prototype Yanyi Huang <i>Peking University, China</i>	18
09:45 - 12:15	Session 4: Diagnostics/ analysis/ synthesis/ separation Chair: Jonathan Faiz ATC Auditorium	
09:45 - 10:15	The Revolution Will Be Compartmentalized Brian Paegel <i>The Scripps Research Institute, United States of America</i>	19
10:15 - 10:30	Sub-pg/mL, Multiplexed Detection of Cytokines on a Mobile-Phone, High Throughput Digital Droplet ELISA Venkata Yelleswarapu <i>University of Pennsylvania, United States of America</i>	20
10:30 - 11:00	Coffee Break & Meet the Speakers ATC Foyer	
11:00 - 11:30	Biomimetics - attempts to learn from nature Andreas Manz <i>KIST Europe, Germany</i>	21
11:30 - 11:45	Optofluidic platforms for high throughput and precision measurements in flow cytometric detection Stavros Stavrakis <i>ETH Zürich, Switzerland</i>	22

Programme

11:45 - 12:15 **Peptides and lipid membranes: Permeation, partitioning, pore formation** 23
Petra Dittrich
ETH Zürich, Switzerland

12:15 - 12:30 **Closing remarks**
ATC Auditorium

12:30 - 12:30 **Packed Lunches & Departure**
ATC Foyer

Poster Removal (Please remember to collect your poster. Posters which have not been collected will be disposed of after the meeting.)

Feedback Questionnaire. Check your inbox when the meeting ends! You will find an E-Mail with the link to the online feedback questionnaire. Please take time to complete it!