

Monday, June 27 - Wednesday, June 29

Monday, June 27

8 am

8:30am - 9:00am (30 Min)

Coffee & Registration

9 am

9:00am - 9:05am (5 Min)

Welcoming Remarks

Christoph Bock

Principal Investigator CeMM and MedUni Vienna

- 9:05am - 9:35am (30 Min)

State of the Human Cell Atlas

Principal Investigator

Head Genentech Research and Early Development

CeMM and MedUni Vienna Human Cell Atlas and Genentech

Sarah Teichmann

Head of Cellular Genetics and Senior Group Leader / Human Cell Atlas and Wellcome Sanger Institute Human Cell Atlas and Wellcome Sanger Institute

- 9:35am - 9:45am (10 Min)

Overview of the Meeting

Aviv Regev

Head Genentech Research and Early Development

Human Cell Atlas and Genentech

Sarah Teichmann

Head of Cellular Genetics and Senior Group Leader / Human Cell Atlas and Wellcome Sanger Institute Human Cell Atlas and Wellcome Sanger Institute

9:45am - 11:05am (1 Hour, 20 Min)

Plenary Session 1 - Exciting Advances

Christoph Bock

Principal Investigator CeMM and MedUni Vienna

Lars Steinmetz

Professor Stanford University Prisca Liberali

Group Leader
Friedrich Miescher Institute

Bonnie Berger

Simons Professor of Mathematics Massachusetts Institute of Technology Jay Shendure

Principal Investigator University of Washington

11 am

11:05am - 11:35am (30 Min)

Coffee Break



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Monday, June 27

11:35am - 12:55pm (1 Hour, 20 Min)

Plenary Session 2 - Atlases are Taking Shape

Holger Hevn

Group Leader Spanish National Centre for Genomic Analysis

Muzlifah Haniffa Principal Investigator Wellcome Sanger Institute

Principal Investigator Allen Institute for Brain Science

Dana Pe'er Principal Investigator Memorial Sloan Kettering **Fabian Theis** Professor

Helmholtz Zentrum München

12 pm

12:55pm - 2:25pm (1 Hour, 30 Min)

Lunch

2 pm

2:25pm - 2:55pm (30 Min)

Lightning Talks

Katrina Gold

Senior Research Manager Wellcome

Anand Kumar Andiappan

Principal Investigator Singapore Immunology Network Jian Shu

Assistant Professor Harvard Medical School

Margo Emont Postdoctoral Associate BIDMC

Cecilia Domenguez Conde Human Technopole

Research Group Leader

Özgün Gokce Principal Investigator

LMU University Hospital MUNICH

2:55pm - 3:40pm (45 Min)

Plenary Session 3 - Multimodal Profiling and Applications (Part 1)

Katrina Gold

Senior Research Manager

Wellcome

Nikolaus Rajewsky

Principal Investigator

Max Delbruck Center for Molecular Medicine

Ponpan Matangkasombut

Principal Investigator

Mahidol

Xiao Wang

Principal Investigator

Broad Institute of MIT and Harvard

3 pm

3:40pm - 4:10pm (30 Min)

Coffee Break

4 pm

4:10pm - 4:55pm (45 Min)

Plenary Session 3 - Multimodal Profiling and Applications (Part 2)

Orit Rozenblatt-Rosen

Head, Cellular and Tissue Genomics Genentech

Jonathan Weissman

Principal Investigator Whitehead Institute and MIT Alexander van Oudenaarden

Principal Investigator Hubrecht Institute

Mariana Boroni

Principal Investigator INCA



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4:55pm - 5:10pm (15 Min)

Close of Day 1

Christoph BockPrincipal Investigator CeMM and MedUni Vienna

5 pm

5:10pm - 6:40pm (1 Hour, 30 Min)

Social Hour



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8 am

8:30am - 9:00am (30 Min)

Coffee Break

9 am

9:00am - 10:30am (1 Hour, 30 Min)

Plenary Session 4 - Opportunities and Challenges Using and Accessing Data

Alexandra Chloe Villani

Principal Investigator Massachusetts General Hospital

Arathi Mani

Software Engineer Chan Zuckerberg Initiative

Malte Luecken

Postdoctoral Researcher Helmholtz Munich **Nils Gehlenborg**

Principal Investigator Harvard Medical School

Nir Yosef

Principal Investigator UC Berkeley

Evan Biederstedt

Research Scientist Harvard Medical School Jonah Cool

Science Officer, Program Lead Chan Zuckerberg Initiative

Irene Papatheodorou

Team Leade EMBL-EBI

10 am

10:30am - 10:35am (5 Min)

Introduction to Breakout Session 1

John Randell

Chief Alliance Officer Human Cell Atlas

- 10:35am - 11:05am (30 Min)

Coffee Break

11 am

11:04am - 12:35pm (1 Hour, 31 Min)

Breakout Session 1 - Toward the Draft Atlas v1.0

Kerstin Meyer

Principal Staff Scientist Wellcome Sanger Institute

Katy Borner

Distinguished Professor Indiana University

Patricia Severino

Principal Investigator Hospital Israelita Albert Einstein

Dana Pe'er

Principal Investigator Memorial Sloan Kettering Alexandra Chloe Villani

Principal Investigator Massachusetts General Hospital

David Osumi-Sutherland

Group Leader EMBL/EBI

Benedict Paten

Associate Professor, UC Santa Cruz Genomics Institute Nir Yosef

Principal Investigator UC Berkeley

Shyam Prabhakar

Senior Group Leader Genome Institute of Singapore

Ajay Pillai

Program Director NHGRI/NIH

11:05am - 12:35pm (1 Hour, 30 Min)

Breakout 1.3: Cell ontologies, annotation & metadata - Katy Borner & David Osumi-Sutherland

Katy Borner

Distinguished Professor Indiana University David Osumi-Sutherland

Group Leader EMBL/EBI



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- 11:05am - 12:35pm (1 Hour, 30 Min)

Breakout 1.2: Computational querying of the atlas - Dana Pe'er & Nir Yosef

Dana Pe'erNir YosefPrincipal InvestigatorPrincipal InvestigatorMemorial Sloan KetteringUC Berkeley

- 11:05am - 12:35pm (1 Hour, 30 Min)

Breakout 1.5: User-friendly access to HCA data & atlases - Ben Paten & Ajay Pillai

Benedict PatenAjay PillaiAssociate Professor,Program DirectorUC Santa Cruz Genomics InstituteNHGRI/NIH

- 11:05am - 12:35pm (1 Hour, 30 Min)

Breakout 1.4: Modeling genetic variation - Shyam Prabhakar & Patricia Severino

Shyam PrabhakarPatricia SeverinoSenior Group LeaderPrincipal InvestigatorGenome Institute of SingaporeHospital Israelita Albert Einstein

- 11:05am - 12:35pm (1 Hour, 30 Min)

Breakout 1.1: Good practices for making organ-level atlases - Kerstin Meyer & Alexandra-Chloe Villani

Alexandra Chloe Villani
Principal Investigator
Massachusetts General Hospital

Kerstin Meyer
Principal Staff Scientist
Wellcome Sanger Institute

12:35pm - 2:05pm (1 Hour, 30 Min)

Lunch

1 pm

1:00pm - 2:00pm (1 Hour)

Gut Cell Atlas Social Hour

- 2:05pm - 2:55pm (50 Min)

Welcome and Keynote Lecture

Dana Pe'erElaine FuchsPrincipal InvestigatorProfessorMemorial Sloan KetteringRockefeller University



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- 2:55pm - 3:45pm (50 Min)

Breakout Session 1 Report Back and Biological Networks Sessions - Bridging Data Production and Computational Integration outline

John Randell

Chief Alliance Officer Human Cell Atlas

3 pm

3:45pm - 4:10pm (25 Min)

Coffee Break

4 pm

4:10pm - 5:45pm (1 Hour, 35 Min)

Biological Networks Session 2: Liver, Lung, Breast, Reproduction, Genetic Diversity

Dana Pe'er

Principal Investigator Memorial Sloan Kettering

4:10pm - 5:45pm (1 Hour, 35 Min)

Biological Networks Session 4: Development, Nervous System, Organoid, Eye, Genetic Diversity

Fabian Theis

Professor

Helmholtz Zentrum München

4:10pm - 5:45pm (1 Hour, 35 Min)

Biological Networks Session 3: Kidney, Adipose, Immune, Genetic Diversity

Aviv Regev

Head Genentech Research and Early Development Human Cell Atlas and Genentech

4:10pm - 5:45pm (1 Hour, 35 Min)

Biological Networks Session 5: Skin, Musculoskeletal, Heart, Genetic Diversity (Zoom)

Malte Luecken

Postdoctoral Researcher Helmholtz Munich

4:10pm - 5:45pm (1 Hour, 35 Min)

Biological Networks Session 1: Gut, Pancreas, Oral & Craniofacial, Genetic Diversity

Nir Yosef

Principal Investigator UC Berkeley



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5 pm — 5:45pm - 6:00pm (15 Min)

Coffee Break

6 pm 6:00pm - 6:45pm (45 Min)

Biological Networks Session Report Back

John Randell Chief Alliance Officer Human Cell Atlas

7 pm — 7:05pm - 9:00pm (1 Hour, 55 Min)

Dinner - Salon Plafond



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8 am

— 8:30am - 9:00am (30 Min)

Coffee Break

9 am

9:00am - 9:05am (5 Min)

Welcome and Overview of Day 3

9:05am - 10:05am (1 Hour)

Plenary Session 5 - Toward Medical Impact

Joachim Schultze

Director Systems Medicine Deutsche Zentren der Gesundheitsforschung

Alexander Marson Faculty UCSF Mark Mccarthy

Principal Fellow and Executive Director Genentech

Eliezer Van Allen

Professor Dana-Farber Cancer Institute

10 am

10:05am - 10:35am (30 Min)

Coffee Break

10:34am - 12:05pm (1 Hour, 31 Min)

Breakout Session 2 - Toward Medical Impact

Aravinda Chakravarti

Principal Investigator NYU Grossman School of Medicine

Heinrich Jasper

Principal Fellow and Director

Genentech

Antonia Mueller

Principal Investigator Medical University of Vienna

Michal Schwartz

Professor Weizzmann Institute of Science Daniel McArthur

Director, Centre for Population Genomics

Garvan Institute of Medical Research

Karuna Ganesh

Medical Oncologist Memorial Sloan Kettering Cancer Center

Ido Amit

Principal Investigator
Weizmann Institute of Science

Barbara Treutlein

Principal Investigator ETH Zurich

Diether Lambrechts

Group Leader VIB-KU Leuven

Sam Behjati

Wellcome Sanger Institute Wellcome Sanger Institute

- 10:35am - 12:05pm (1 Hour, 30 Min)

Breakout 2.5: Neurological disorders - Michal Schwartz & Ido Amit

Michal Schwartz

Ido Amit

Professor Weizzmann Institute of Science Principal Investigator Weizmann Institute of Science



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- 10:35am - 12:05pm (1 Hour, 30 Min)

Breakout 2.3: Cell-based immunotherapy - Diether Lambrechts & Antonia Müller

 Diether Lambrechts
 Antonia Mueller

 Group Leader
 Principal Investigator

 VIB-KU Leuven
 Medical University of Vienna

- 10:35am - 12:05pm (1 Hour, 30 Min)

Breakout 2.2: Regenerative medicine - Barbara Treutlein & Heinrich Jasper

Barbara TreutleinHeinrich JasperPrincipal InvestigatorPrincipal Fellow and DirectorETH ZurichGenentech

- 10:35am - 12:05pm (1 Hour, 30 Min)

Breakout 2.4: Precision oncology - Karuna Ganesh & Sam Behjati

Karuna Ganesh Sam Behjati

Medical Oncologist Wellcome Sanger Institute
Memorial Sloan Kettering Cancer Center Wellcome Sanger Institute

- 10:35am - 12:05pm (1 Hour, 30 Min)

Breakout 2.1: Genetic diseases and genomic risk factors - Aravinda Chakravarti & Daniel McArthur

Aravinda Chakravarti Daniel McArthur

Principal Investigator Director, Centre for Population Genomics NYU Grossman School of Medicine Garvan Institute of Medical Research

12:05pm - 1:35pm (1 Hour, 30 Min)

Lunch

1 pm

- 1:35pm - 2:20pm (45 Min)

Breakout Session 2 - Report Back

Kerstin Meyer Principal Staff Scientist Wellcome Sanger Institute



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2 pm

2:20pm - 3:50pm (1 Hour, 30 Min)

Plenary Session 6 - Results of the EU Horizon 2020 Pilot Projects **Timo Trefzer**

Sarion Bowers

Carlos Simón

INCLIVA

Principal Investigator

Christoph Bock

Principal Investigator

Head of Pollicy Wellcome Sanger Institute

Charité and BIH Berlin **Roser Vento Tormo**

Postdoctoral Scientist

Group Leader

Wellcome Sanger Institute

Diego Balboa Alonso

Postdoctoral Associate Centre for Genomic Regulation

Sabrina Ladstätter

Senior Postdoctoral Fellow

СеММ

Postdoctoral Associate Wellcome Sanger Institute

Barbara Treutlein

Principal Investigator ETH Zurich

3 pm

3:50pm - 4:20pm (30 Min)

CeMM and MedUni Vienna

Coffee Break

4 pm

4:20pm - 5:20pm (1 Hour)

Plenary Session 7 - Future Perspectives

Christoph Bock Principal Investigator

CeMM and MedUni Vienna

Karuna Ganesh

Medical Oncologist Memorial Sloan Kettering Cancer Center Jürgen Knoblich

Principal Investigator Austrian Academy of Sciences **Barbara Engelhardt**

Professor

Princeton University

5 pm

5:20pm - 5:35pm (15 Min)

Close Meeting

5:35pm - 6:30pm (55 Min)

Social Hour