

# Day 1, August 25, 2021



**9:00 AM - 9:05 AM EDT**

**Welcoming Remarks**

Speaker and Session Chair: Gary Bader

**9:05 AM - 9:20 AM EDT**

**State of HCA Developmental & Pediatric Cell Atlas**

Speakers: Aviv Regev and Sarah Teichmann

**9:20 AM - 9:35 AM EDT**

**Introduction to Developmental and Pediatric cell atlas projects**

Speakers: Sten Linnarsson and Deanne Taylor

**9:35 AM - 9:50 AM EDT**

**Single cell flows over developmental manifolds**

Speaker: Amos Tanay

**9:50 AM - 10:05 AM EDT**

**Tracing and perturbing cell lineages in human brain organoids**

Speaker: Barbara Treutlein

**10:05 AM - 10:35 AM EDT**

**Keynote Talk 1 : Organoids do model human development and disease**

Keynote: Hans Clevers

**10:35 AM - 10:50 AM EDT**

**Break**

**10:50 AM - 12:20 PM EDT**

**-Breakout Session 1-**

**Abnormal development in humans**

Breakout Session Leaders: Heather Etchevers and Stephane Zaffran

**Regulatory mechanisms in development**

Breakout Session Leaders: James Briscoe and Jesse Gillis

**Imaging and spatial transcriptomics technologies and applications**

Breakout Session Leaders: Ali Erturk and Hiroki Ueda

**12:20 PM - 12:40 PM EDT**

**Break**

**12:40 PM - 12:55 PM EDT**

**-Lightning Talk Session 1-**

Chair: Alain Chedotal

**Control of tissue development and cell diversity by cell cycle-dependent transcriptional filtering**

Speaker: Maria Abou Chakra

**Cataloguing intestinal origins at single cell resolution with application to in utero disease**

Speaker: David Fawcner-Corbett

**A high-resolution human fetal lung atlas for identification of key epithelial regulators**

Speaker: Peng He

**12:55 PM - 1:55 PM EDT**

**Poster Session Viewing 1**

**1:55 PM - 2:00 PM EDT**

**Close Day 1**

Speaker: Bruce Aronow

## Day 2, August 26, 2021



**9:00 AM - 9:05 AM EDT**

**Welcome Day 2**

Speaker and Session Chair: Bruce Aronow

**9:05 AM - 9:35 AM EDT**

**Keynote Talk 2 : Challenging dogma and forcing fate: explorations into the mammalian embryo and embryo-derived stem cells**

Keynote: Anna-Katerina Hadjantonakis

**9:35 AM - 10:25 AM EDT**

**Breakout Session 1 Report back**

**10:25 AM - 10:40 AM EDT**

**Break**

**10:40 AM - 12:10 PM EDT**

**-Breakout Session 2-**

**Regenerative medicine**

Breakout Session Leaders: Guoji Guo and Jason Rock

**Clinical genetics - use of development and pediatric single-cell atlas data to identify disease causing variants in patients**

Breakout Session Leaders: Helen Firth and Sarah Henrickson

**Single cell genetics to highlight genes, pathways, cell types and tissues**

Breakout Session Leaders: Gray Camp and Xiao Chen

**12:10 PM - 12:30 PM EDT**

**Break**

**12:30 PM - 1:20 PM EDT**

**Breakout Session 2 Report back**

Chair: Dana Pe'er

**1:20 PM - 1:35 PM EDT**

**-Lightning Talk Session 2-**

Chair: Alain Chedotal

**STI1 modulates a specific stage of early embryonic development and is a master post-genomic regulator of stemness**

Speaker: Jacqueline Boccacino

**Changes in endocrine cell composition and islet vascular and immune compartments during postnatal human pancreas development**

Speaker: Diane Saunders

**Integrative single cell analysis of cardiogenesis identifies developmental cellular trajectories and prioritizes noncoding mutations in congenital heart disease**

Speaker: Lakshman Sundaram

**1:35 PM - 2:35 PM EDT**

**Poster Session Viewing 2**

**2:35 PM - 2:40 PM EDT**

**Close Day 2**

Speaker: Dana Pe'er

**Day 3, August 27, 2021**



**9:00 AM - 9:05 AM EDT**

**Welcome Day 3**

Speaker: Sarah Teichmann

**9:05 AM - 10:35 AM EDT**

**-Breakout Session 3-**



### **Understanding cellular decision making during development**

Breakout Session Leaders: Cantas Alev and Anne Grapin-Botton

### **Lineage tracing, recording, clonal evolution, tagging and its applications**

Breakout Session Leaders: Samantha Morris and Nozomu Yachie

### **Challenges of studying an organ from development to aging at the single cell level**

Breakout Session Leaders: Arnold Kriegstein and Christine Seidman

**10:35 AM - 10:55 AM EDT**

**Break**

**10:55 AM - 11:45 AM EDT**

**Breakout Session 3 Report back**

Chair: Sarah Teichmann

**11:45 AM - 12:00 PM EDT**

**Break**

**12:00 PM - 12:15 PM EDT**

**Making Progress on Childhood Diseases: CZI Pediatric Networks for the HCA**

Speaker: Jonah Cool

**12:15 PM - 1:30 PM EDT**

**Ethics Session**

Chairs: Jonah Cool and Bartha Knoppers

Panelists: Helen Firth, Bartha Knoppers, Dimitri Patrinos, Vasiliki Rahimzadeh and Deanne Taylor

**1:30 PM - 1:40 PM EDT**

**Break**

**1:40 PM - 2:10 PM EDT**

**Keynote 3 : Decoding the developing immune system**

Chair: Alain Chedotal

Keynote: Muzlifah Haniffa

**2:10 PM - 2:20 PM EDT**

**Closing Remarks and Meeting summary-Preview of 2022 meeting**

Speakers: Bruce Aronow, Gary Bader, Alain Chedotal and Deanne Taylor