

BaCell 3D

Basel, Switzerland
June 24-26, 2024



Day 1: Monday, June 24

12:45 – 13:45	Arrival and registration
13:45 – 14:00	BaCell3D Organizing Committee Welcome & Introduction

Session 1: BaCell3D Visionaries: Future-focused Perspectives

Chairs: Leoni Swart and Mehmet Girgin

14:00 – 14:15	Prisca Liberali (FMI, ETH Zürich) Vision Talk: Recapitulating Development & Regeneration <i>in vitro</i>
14:15 – 14:30	Ivan Martin (DBM, University of Basel) Vision Talk: Organ-on-a-chip and Microphysiological systems
14:30 – 14:45	Matthias Lütolf (IHB, Roche) Vision Talk: Disease modeling and Drug discovery
14:45 – 15:00	Barbara Treutlein (ETH Zürich) Vision Talk: Organoid Technologies
15:00 – 15:30	<i>Coffee Break</i>

Keynote Lecture

Chair: Elizabeth Kastanaki

15:30 – 16:30	Mina Gouti (Max Delbrück Center for Molecular Medicine) "Building the next generation of neuromuscular models to study disease"
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Poster Session & Networking

16:30 – 17:00	<i>Walking Break to Poster Location – ETH Zürich D-BSSE</i>
17:00 – 19:00	<i>Poster Session 1 and Refreshments + Dinner</i>
19:00 – 20:00	<i>Networking</i>

Day 2: Tuesday, June 25

8:30 – 9:15	Arrival and registration
9:15 – 9:25	BaCell3D Organizing Committee Welcome & announcements

Session 2: Recapitulating Development & Regeneration *in vitro*

Chairs: Akanksha Jain and Elizabeth Kastanaki

9:25 – 9:55	Dagmar Iber (ETH Zürich) "Recapitulating Development In Silico"
9:55 – 10:10	Cornelia Schwayer (FMI) "Yap1 prepatterns lateral inhibition during intestinal regeneration"
10:10 – 10:40	Jesse V. Veenvliet (MPI of Molecular Cell Biology and Genetics) "Connecting scales and spaces in embryo models"
10:40 – 11:10	<i>Coffee Break</i>
11:10 – 11:40	Aydan Bulut-Karslioglu (MPI for Molecular Genetics) "Adjusting the timing of mammalian development"
11:40 – 11:55	Robin Journot (Institut Curie) "Symmetry breaking and self-organization of bi-layered epithelia are orchestrated by conserved signals during development and regeneration"
11:55 – 12:10	Ali Shariati (University of California, Santa Cruz) "Self-organization of embryonic stem cells into a reproducible embryo model through epigenome editing"
12:10 – 12:25	Qianhui Yu (IHB, Roche) "Evolution of the developing human small intestinal epithelium"
12:25 – 13:30	<i>Lunch Break</i>

Session 3: Organ-on-a-chip and Microphysiological systems

Chairs: Nathalie Reinhard and JiSoo Park

13:30 – 14:00	Peter Loskill (Eberhard Karls University Tübingen) "Recapitulating Complex Immunocompetent Tissues using Organ-on-chip and Organoid Technologies"
14:00 – 14:15	Roberto Villasenor (pRED, Roche) "Reconstructing the blood-brain barrier <i>in vitro</i> to develop novel Brainshuttle therapies"
14:15 – 14:30	Merve Bulut (Leiden University Medical Center) "3D Multicellular hiPSC-Derived Vessels-on-Chip Model Unveils the Impact of Cellular Crosstalk and Shear Stress on Inflammatory Responses"
14:30 – 15:00	Jennifer Rohn (University College London) "Microenvironment matters: advanced human cell-based microtissue models for understanding bladder diseases"
15:00 – 15:30	<i>Coffee Break</i>

Panel Discussion

Chairs: Ashley Maynard and Umut Kilik

15:30 – 16:30	Stylios Lefkopoulos, Yvonne Fischer, Jenny Sandstrom, Karl Koehler, Mina Gouti, Ivan Martin, Matthias Lütolf, Barbara Truetlein
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Poster Session & Networking

16:30 – 17:00	<i>Walking Break to Poster Location – Biozentrum</i>
17:00 – 19:00	<i>Poster Session 2 and Refreshments + Dinner</i>
19:00 – 20:00	<i>Networking</i>

Day 3: Wednesday, June 26

8:30 – 9:15	Arrival and registration
9:15 – 9:25	BaCell3D Organizing Committee Welcome & Introduction

Session 4: Disease modeling and Drug discovery

Chairs: Saba Rezakhani and Sandro Nuciforo

9:25 – 9:55	Ludovic Vallier (Berlin Institute of Health) "Modelling liver diseases <i>in vitro</i> using 3D culture systems"
9:55 – 10:10	Stephanie Frenz-Wiessner (Ludwig-Maximilians-Universität München) "Bone marrow organoids from iPSCs to model the hematopoietic niche and pediatric disease"
10:10 – 10:40	Rosemarie Ungricht (Novartis) "Kidney organoids for drug discovery"
10:40 – 11:10	<i>Coffee Break</i>
11:10 – 11:25	Carlos Flores (Biozentrum) "A human bladder microtissue model to understand and fight urinary tract infections (UTIs)"
11:25 – 11:40	Aurino M. Kemas (Karolinska Institute) "Chemogenomic screening in an organotypic patient-derived 3D culture of metabolic dysfunction-associated steatohepatitis: towards new target identification for an old disease"
11:40 – 12:10	Margherita Turco (FMI) "Modelling the menstrual cycle using endometrial organoids"
12:10 – 12:25	Stavros Giaglis (DBM, University of Basel) "A Novel 3D-Synovium-Immune Microenvironment Mimics Macrophage-Synovial Fibroblast Interactions in Inflammatory Arthropathies"
12:25 – 13:30	<i>Lunch Break</i>

Session 5: Organoid Technologies

Chairs: Franziska Moos and Maren Diepenbruck

13:30 – 14:00	Gerald Schwank (University of Zürich) "Optimizing CRISPR genome editing tools for high efficiency and precision"
14:00 – 14:15	Ryan Sarkar (Goethe University Frankfurt) "SHAPE: A novel method for culturing advanced human bone marrow organoids in real microgravity for investigating innate immunity aboard the International Space Station"
14:15 – 14:30	Manya Du (MPI of Immunobiology and Epigenetics) "Direct observation of a condensate effect on super-enhancer controlled gene bursting"
14:30 – 15:00	<i>Coffee Break</i>
15:00 – 15:30	Magdalena Renner (IOB) "High-throughput retinal organoids for therapy development"
15:30 – 15:45	Jana B. Petr (ETH Zürich) "PHIROS: A microfluidic platform for long-term, high-resolution imaging of organotypic tissue slices to study astrocyte dynamics"
15:45 – 16:15	Joep Beumer (IHB, Roche) "Modeling intestinal maturation and function in engineered human organoids"
16:15 – 16:45	<i>Coffee Break</i>
16:45 – 17:00	Miriam Wandres (Max Delbrueck Center) "Light-inducible patterning of organoids: unraveling the role of WNT3A in human hippocampal development"

Keynote Lecture

Chair: Lara Grassi

17:00 – 18:00	Karl Koehler (Harvard Medical School) <i>TBD</i>
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Wrap-up & Prizes

18:00 – 18:10	Best Short Talk and Poster Prizes Presentation
18:10 – 20:00	<i>Apéro & Networking with Live Music from Zarek Silberschmidt</i>

