

Scientific Program

Monday, 17th February

12:00 Arrival

13:00 **Thomas Rudel**
Welcome and Introduction

Session 1: Respiratory Tract I

(Chair: K. Gadekar & A. Akash)

13:30 – 14:00 **Isabelle Dupin**, University of Bordeaux
Using patient-derived adult stem cells to build pulmonary organoid models for chronic obstructive diseases understanding

14:00 – 14:30 **Vivek Thacker**, University Clinic Heidelberg
Microphysiological models for Tuberculosis

14:30 – 14:45 **Camilla Tvedt Ekanger**, University of Bergen
Comparison of Air-Liquid Interface transwell and Airway Organoid Models for Human Respiratory Virus Infection Studies

14:45 – 15:00 **Mara Fischer**, Charité Berlin
Moving towards an immunocompetent human lung organoid model for *Streptococcus pneumoniae* infection

15:00 – 16:30 **Poster Session**/Coffee Break

16:30 – 17:00 **Perspective: Jennifer Rosowski**, Charité Berlin
on Emerging 3R networks in Berlin

Session 2: Blood-Brain-Barrier (BBB)

(Chair: M. Guedes, M. Neyazi)

17:00 – 17:30 **Maria Bernabeu**, EMBL Barcelona
Building bioengineered models to understand BBB disruption in cerebral malaria

17:30 – 17:45 **Nadine Vollmuth**, University of Alabama
Estrogen signaling contributes to Group B Streptococcal disruption and invasion of brain endothelial cells

17:45 – 18:00 **Fatemeh Nosratabadi**, University of Würzburg
The *Neisseria meningitidis* Capsule Plays a Crucial Role in Impairing Efflux Transporter Function in Brain Endothelial Cells

18:30 Get-Together

Tuesday, 18th February Part 1

08:30

Arrival

Session 3: Infection and Immunity

(Chair: T. Bruchhardt & F. Nosratabadi)

09:00 – 09:30

Sina Bartfeld, TU Berlin

Infection, Innate Immune Signaling and Cancer in the Gut - Organoids as Model

09:30 – 10:00

Thaddeus Stappenbeck, Cleveland Clinic

Intestinal stem cells – current challenges and new approaches to function

10:00 – 10:15

Daniela Zdziebło, Fraunhofer TLZ-RT/University Clinic Würzburg

Advanced *in vitro* models for infection studies of the small intestine

10:15 – 10:30

Claire Charlet-Faure, CelVivo

Refining Disease Models: Reproducible and *In Vivo*-Like Cultures with ClinoStar

10:30 – 11:00

Coffee Break

Session 4: Urothelial Models

(Chair: L. Kafuri Cifuentes & P. Köhling)

11:00 – 11:30

Jennifer Rohn, University College London

Good guys or bad guys? – a 3D human urothelial microtissue model to study pathogens and commensals in urinary tract infection

11:30 – 11:45

Pargev Hovhannisyan, University of Würzburg

Dual RNA-seq unveils novel host-pathogen interactions between *Chlamydia trachomatis* and human primary fallopian tube cells

11:45 – 12:15

Alfredo Pezzicoli, GSK

Advancing Human 3D Epithelial In Vitro Models to Study Bacterial Pathogenesis and Evaluate Immune Interventions

12:15 – 12:30

Helene Mehling, University of Würzburg

Advanced human UV mucosal infection models as validation tools for vaccine development

Tuesday, 18th February Part 2

12:30 – 14:00 Lunch

Session 5: Respiratory Tract II

(Chair: A. Arold & A. Binder-Beste)

14:00 – 14:30 **Dorothee Viemann**, University Clinic Würzburg
Age- and cell-type-specific metabolic programming shapes respiratory and systemic immune responses against the Influenza A virus

14:30 – 15:00 **Leonie Swart**, University of Basel
Human lung microtissues to study bacterial infection and treatment

15:00 – 15:15 **Susanna Ricci**, University of Siena
Air-Liquid Interface respiratory model for infection studies with *Streptococcus pneumoniae*

15:15 – 15:30 **Mindaugas Paužolis**, Innsbruck Medical/University of Würzburg
SARS-CoV-2 tropism to intestine but not gastric epithelial cells is defined by limited ACE2 expression

15:30 – 16:15 **Poster Session/Coffee Break**

Session 6: Models and Therapy

(Chair: M. Fischer & L. Stelz)

16:15 – 16:45 **Tengku Ibrahim Maulana**, Max Delbrück Center Berlin
Reconstructing the tumor microenvironment on chip for cell therapy testing

16:45 – 17:00 **Elena Ekrami**, University of Würzburg
Microglia infected with oncolytic vaccinia efficiently eliminated human neuroblastoma lines (SK-N-AS and SH-SY5Y) in cell and 3D culture models

17:00 – 17:15 **Ayse Güven**, Stemcell Technologies
Airway Organoids and Advanced Tissue Models: Powerful Tools for Studying Host-Pathogen Interactions and Drug Discovery

18:30 Wine Tasting + Cold Cuts

Wednesday, 19th February

08:30 Arrival

Session 7: Host Pathogen Interactions

(Chair: T. Bruchhardt & P. Köhling)

09:00 – 09:30 **Jerry Wells**, University of Wageningen
Stem Cell-Derived Organ and Tissue Models for Infection Studies

09:30 – 09:45 **Maria Guedes**, University of Würzburg
An organoid-based model reveals a novel UPEC receptor in the prostate

09:45 – 10:00 **Mastura Neyazi**, University of Würzburg/TU Berlin
Analysis of innate immune response of gastrointestinal epithelium to EPEC infection using human organoid-derived monolayers

10:00 – 10:15 **Oliver Dietrich** (via Zoom), University of Otago, New Zealand
Phage DNA modification by arabinosyl-hydroxy-cytosine is widespread across host genera

10:15 – 10:45 Coffee Break

Session 8: Skin Models

(Chair: H. Mehling & M. Neyazi)

10:45 – 11:15 **Florian Groeber Becker**, Fraunhofer TLZ-RT
Stromal matrixes for Epithelial Tissue Engineering

11:15 – 11:30 **Markus Engstler**, University of Würzburg
Tissue tropism in African trypanosomes

11:30 – 11:45 **Fiorenza Rancan**, Charité Berlin
Ex vivo human skin infection models for the development of novel antimicrobial treatments

11:45 **Poster Prize & Final Remarks**

12:30 – 13:30 Departure
