

KIT and University of Freiburg

NeuroConnect 2026

– Organoid Neurophysiology Workshop –

March 26th, 2026, 12:00-20:00 h

Seminar room at the Präsidium Building, KIT Campus South
(B 11.30, Engelbert-Arnold-Straße 2, 76131 Karlsruhe)

Program

11:30 – 13:00	Registration
12:00 – 13:00	Lunch
13:00 – 13:30	Welcome Prof. Dr. Simone Mayer, ZOO-SZN, KIT Prof. Dr. Andrea Robitzki, Head of Division I, KIT Prof. Dr. Lutz Hein, Dean, Medical Faculty Freiburg
13:30 – 14:30	Scientific session 1 (Chair: Prof. Dr. Jasmin Aghassi-Hagmann): Basic science perspectives on neural organoids
13:30 – 13:50	Building advanced neuromuscular organoids to study human disease Prof. Dr. Mina Gouti (Max-Delbrück-Centrum für Molekulare Medizin (MDC))
13:50 – 14:10	Input-driven plasticity in human bioengineered neural organoids Dr. Patapia Zafeirou (University of Göttingen)
14:10 – 14:30	Electrophysiology inside neural spheroids using mesh micro-electrode arrays Dr. Peter Jones (NMI Natural and Medical Sciences Institute at the University of Tübingen)
14:30 – 15:00	Coffee break

15:00 – 16:00	Transfer session (Chair: Prof. Dr. Sebastian Randel): Leveraging neural organoids for societal impact
15:00 – 15:15	Foil-based arrays to monitor and intervene with organoids, brain slices and CAM assays Prof. Dr. Thomas Stieglitz (University of Freiburg)
15:15 – 15:30	MEMS-based neural interfaces for in vitro and in vivo applications Dr. Patrick Ruther (University of Freiburg)
15:30 – 15:40	Translation in Neurotechnology: Challenges & Examples Dr. Jörn Rickert (KIT - IPQ)
15:40 – 16:00	Ethical perspectives on organoid neurophysiology Dr. Alexander Bagattini (KIT – ARRTI)
16:00 – 17:00	Scientific session 2 (Chair: Prof. Dr. Andreas Vlachos): Medical perspectives on neural organoids
16:00 – 16:20	Understanding and targeting the brain myeloid cells to treat diseases Dr. Maximilian Frosch (Universitätsklinikum Freiburg)
16:20 – 16:40	Towards a data driven characterization of neurological diseases Dr. David Schafflick (Universitätsklinikum Freiburg)
16:40 – 17:00	Human to Human – H2H – human brain tissue molecular neuromedicine Prof. Dr. Jürgen Beck (Universitätsklinikum Freiburg)
17:00 – 19:00	Poster pitches (60 seconds) and poster session
19:00 – 20:00	Dinner

Participation is free of charge, **registration is mandatory** for all participants.

Confirmed Speakers

Dr. PD Alexander Bagattini	KIT, Academy for Responsible Research, Teaching, and Innovation
Prof. Dr. Jürgen Beck	Universitätsklinikum Freiburg, Department of Neurosurgery
Dr. Maximilian Frosch	Universitätsklinikum Freiburg, Institute of Neuropathology
Prof. Dr. Mina Gouti	Max-Delbrück-Centrum für Molekulare Medizin (MDC), Stem Cell Modeling of Development & Disease
Dr. Peter Jones	NMI Natural and Medical Sciences Institute at the University of Tübingen, Biomedical Micro and Nano Engineering

Dr. Jörn Rickert	KIT, Institute of Photonics and Quantum Electronics (IPQ)
Dr. Patrick Ruther	University of Freiburg, Department of Microsystems Engineering – IMTEK, Microsystem Materials Laboratory
Dr. David Schafflick	Universitätsklinikum Freiburg, Klinik für Neurologie und Neurophysiologie
Prof. Dr. Thomas Stieglitz	University of Freiburg, Department of Microsystems Engineering – IMTEK, BrainLinks-BrainTools Center
Dr. Patapia Zafeirou	Universitätsmedizin Göttingen, Department of Pharmacology and Toxicology

KIT Hosts

Prof. Dr. Jasmin Aghassi-Hagmann, KIT, Institute of Nanotechnology (INT)
 Prof. Dr. Simone Mayer, KIT, Zoological Institute, Systemic Cellular Neurobiology (ZOO-SZN)

Program Committee

Prof. Dr. Simone Mayer (KIT)
 Prof. Dr. Jasmin Aghassi-Hagmann (KIT)
 Prof. Dr. Andreas Vlachos (University of Freiburg)
 Dr. Simon Binder (University of Freiburg)

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