



Hertie-Institut
für klinische Hirnforschung

Virtual Conference on Emerging Perspectives in Clinical Brain Research

**15-16
October
2020**

Registration (possible until Wed, October 14):

<https://www.hih-tuebingen.de/en/news/virtual-conference-2020/registration>

Hertie Institute for Clinical Brain Research (HIH)

Otfried-Müller-Str. 27

72076 Tübingen

Germany



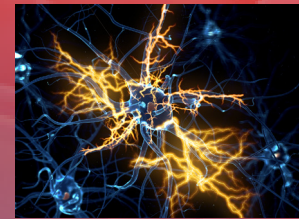


Thursday, October 15 (all times refer to CEST)

09:45 - 10:00 **Welcome to the Conference**

Holger Lerche (HIH)

**SESSION 1: Molecular and Cellular Diagnosis
and Therapy**



10:00 - 10:05 **Welcome to Session 1**

Hosts: Holger Lerche & Ulrike Naumann (HIH)

10:05 - 10:45 **Keynote Talk**

Nathalie Cartier-Lacave (Institut du Cerveau, Paris)

Impaired brain cholesterol metabolism: A therapeutic target for neurodegenerative diseases

10:50 - 11:15

Michael Heide (Max Planck Institute of Molecular Cell Biology and Genetics MPI-CPG, Dresden)

Neocortex expansion in human development and evolution and its malformations

11:20 - 11:45

Andreas Lieb (Medical University Innsbruck)

Designer receptor gene therapy targeting focal epilepsy (and beyond)

12:00 - 12:25

Gaia Colasante (San Raffaele Hospital, Milan)

Towards targeted therapy for the treatment of Dravet Syndrome

12:30 - 12:55

Marco Peviani (University of Pavia)

Towards development of theranostic platforms to investigate and modulate neuroinflammation in Amyotrophic Lateral Sclerosis

13:00 - 13:30

Discussion: Live Q&A with Session 1 speakers





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SESSION 2: Neuroprosthetics and Innovative Neurotechnologies



*Picture: courtesy
Sliman Bensmaia*

- 14:00 - 14:05** **Welcome to Session 2**
Hosts: Hans-Peter Thier & Ulf Ziemann (HIH)
- 14:05 - 14:45** **Keynote Talk**
John Donoghue (Brown University, Providence)
Brain Computer Interfaces for ACTION:
Accomplishments and Challenges Ahead
- 14:50 - 15:15** **Nir Grossman** (Imperial College, London)
Noninvasive deep brain stimulation via temporally interfering electric fields
- 15:20 - 15:45** **Emiliano Ronzitti** (Sorbonne University, Paris)
Light shaping for interrogating neuronal circuits
- 16:00 - 16:25** **Marco Capogrosso** (University of Pittsburgh)
Spinal cord stimulation for the recovery of reaching and grasping after paralysis
- 16:30 - 17:10** **Sliman Bensmaia** (University of Chicago)
Biological and bionic hands: Natural neural coding & artificial perception
- 17:15 - 17:45** **Discussion: Live Q&A with Session 2 speakers**

NETWORKING LOUNGE

17:45 - 18:30 **Get Together in Zoom Sessions**





Friday, October 16 (all times refer to CEST)

SESSION 3: Data Science in Clinical Brain Research



- 09:00 - 09:05** **Welcome to Session 3**
Hosts: Martin Giese & Ghazaleh Tabatabai (HIH)
- 09:05 - 09:45** **Keynote Talk**
Jakob Macke (University of Tübingen & Max Planck Institute for Intelligent Systems)
Machine learning for neuroscientific insight
- 09:50 - 10:30** **Keynote Talk**
Sach Mukherjee (German Center for Neurodegenerative Diseases, DZNE, Bonn)
Machine learning challenges in next-generation biomedicine
- 10:35 - 11:00** **Catherine Jutzeler** (ETH Zürich)
Pharmacological management after spinal cord injury: An opportunity for drug repurposing
- 11:15 - 11:40** **Dmitry Kobak** (University of Tübingen)
Statistical analysis of transcriptomic and multi-omic neural data
- 11:45 - 12:10** **Vittorio Caggiano** (Facebook AI Research, New York)
Movement representations to characterize Parkinson's Disease states
- 12:15 - 12:45** **Discussion: Live Q&A with Session 3 speakers**
- 12:45 - 13:00** **Closing Remarks & Summary**
Holger Lerche (HIH)

