

# 21

THE TWENTY-FIRST EIBSEE MEETING

# CELLULAR MECHANISMS OF NEURODEGENERATION

December 6-8, 2023

## Keynote speakers

G. Di Paolo (Denali Therapeutics, South San Francisco)

B. Ryskeldi-Falcon (MRC Laboratory, Cambridge, UK)

M. Ward (The National Institutes of Health, Bethesda)

## International speakers

T. Iwatsubo (University of Tokyo)

E. McDade (Washington University School of Medicine, St. Louis)

P. Scheltens (Amsterdam UMC)

N. Shneider (Columbia University, New York)

J. TCW (Boston University)

P. Verstreken (VIB Center for Brain & Disease Research, Leuven)

T. Young-Pearse (Brigham and Women's Hospital, Boston, USA)

H. Zetterberg (University of Gothenburg)

## Young Investigator Keynote speakers

X. Xiang (Chinese Academy of Science, Shenzhen)

A. Yang (University of California, San Francisco)

## National speakers

S. Cappello, K. Dyar, N. Franzmeier, A. Harbauer,  
M. Jucker, I. Kolabas, C. Madry, J. Ninkovic, J. Priller,  
M. Prinz, K. Schlepckow

## Organized by

C. Haass (DZNE & LMU Munich)

The 21st Eibsee Meeting  
(December 6-8, 2023)

## **CELLULAR MECHANISMS OF NEURODEGENERATION**

organized and funded by the

DZNE, German Center for Neurodegenerative Diseases - Munich

SyNergy - Munich Cluster for Systems Neurology

The Hans und Ilse Breuer Foundation

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organizer

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## Location



## Travelling

**by train:** Take the train to Garmisch (via Munich). In Garmisch please take a taxi to the hotel (about 15-20 min drive).

**by plane:** From Munich airport take the S-Bahn to Munich Central station (Hauptbahnhof Hbf). At the central station take the train to Garmisch (about 1h 50 min); from here take a taxi to the hotel.

**by car:** From Munich take the highway to Garmisch. In Garmisch follow the signs to Eibsee. The hotel is at the end of the road right at the foot of the Zugspitze. It takes approx. 1h 20 min.

## Weather

It is winter and for those who like to go on a walk, please bring your hiking boots with you.

## Acknowledgements

We greatly appreciate funding of the Eibsee Meeting by the Hans and Ilse Breuer Foundation, the German Center for Neurodegenerative Diseases (DZNE) and SyNergy - Munich Cluster for Systems Neurology

# PROGRAM

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## Wednesday, December 6

**12:00** The traditional “scientific walk” around the lake (if weather permits, we meet in the lobby)

**15:00** **Welcome**  
Christian Haass, DZNE and LMU Munich, Germany

**15:10 – 15:50** **Keynote Lecture I**  
*Chair: Christian Haass*

Michael Ward, The National Institutes of Health (NIH), Bethesda, USA  
Mining iPSCs for mechanisms of neurodegenerative diseases

**15:50 – 17:40** **Topic I - Biomarker**  
*Chair: Anna-Sophia Wahl-Ommer*

15:50 – 16:10 Henrik Zetterberg, University of Gothenburg, Sweden  
Update on biofluid-based biomarkers for neurodegenerative dementias

*16:10 – 16:40 Coffee Break*

16:40 – 17:00 Eric McDade, Washington University, St. Louis, USA  
CSF biomarkers of proteostasis in ADAD

17:00 – 17:20 Nicolai Franzmeier, Institute for Stroke and Dementia Research, Munich, Germany  
Understanding mechanisms of tau propagation and spread in neurodegenerative diseases using neuroimaging

17:20 – 17:40 Mathias Jucker, University of Tübingen, Germany  
Brain A $\beta$  deposition and biomarkers of neurodegeneration

**17:40 – 18:20** **Young Investigator Keynote Lecture I**  
*Chair: Regina Feederle*

Xianyuan Xiang, Chinese Academy of Sciences, Shenzhen, China  
Linking normal microglial functions to brain diseases

*18:30 Cocktails*

*19:00 Dinner*

## Thursday, December 7

**9:00 – 9:40** **Young investigator Keynote Lecture II**  
*Chair: Arthur Liesz*

Andrew Yang, University of California UCSF, San Francisco, USA  
Decoding communication across the blood-brain barrier

**9:40 – 12:10 Topic II - Systems Neurology (SyNergy Scientists)**

*Chair: Thomas Misgeld*

9:40 – 10:00 Jovica Ninkovic, Helmholtz Munich, Germany  
Role of Neuroinflammation in Brain Regeneration

10:00 – 10:20 Ilgin Kolabas, Helmholtz Munich, Germany  
Distinct molecular profiles of skull bone marrow in health and neurological disorders

*10:20 – 10:50 Coffee Break*

10:50 – 11:10 Kenneth Dyar, Helmholtz Munich, Germany  
Novel arginine and lysine glycation free adducts are biomarkers for PARK7-related early-onset familial Parkinson's disease

11:10 – 11:30 Angelika Harbauer, Max Planck Institute for Biological Intelligence, Martinsried, Germany  
Mitochondrial Health Maintenance in Neurons

11:30 – 11:50 Silvia Cappello, LMU Munich, Germany  
Cellular Crosstalk in Neurodevelopmental Disorders

11:50 – 12:10 Josef Priller, Technical University of Munich (MRI), Germany  
Neuronal and glial responses to the absence of microglia

**Flash talks I (selected poster presentations)**

*Chair: Sarah Jäkel*

12:10 – 12:25 Five two-minute talks with one slide

*12:30 – 13:30 Lunch*

*13:30 – 15:00 Time for a recreation*

**15:00 – 15:40 Keynote Lecture II**

*Chair: Martin Dichgans*

Gilbert Di Paolo, Denali Therapeutics Inc., South San Francisco, USA  
Lysosomal functions of progranulin and therapeutic approaches for GRN-associated frontotemporal dementia

**15:40 – 17:30 Topic III - Treatment strategies**

*Chair: Johannes Levin*

15:40 – 16:00 Takeshi Iwatsubo, University of Tokyo, Japan  
Alzheimer's disease: from molecular pathology to disease-modifying therapy targeting Abeta

16:00 – 16:20 Kai Schlepckow, DZNE Munich, Germany  
Therapeutic modulation of TREM2

*16:20 – 16:50 Coffee Break*

16:50 – 17:10 Neil Shneider, Columbia University, New York, USA  
Silencing FUS and other rare genetic forms of ALS

17:10 – 17:30 Philip Scheltens, Amsterdam UMC University Medical Centers, Netherlands  
Treatments for Alzheimer's: beyond amyloid

**Flash talks II (selected poster presentations)**

*Chair: Angelika Harbauer*

17:30 – 17:45 Five two-minute talks with one slide

*18:00 Dinner*

**19:30 Poster session (with free drinks)**

**Friday, December 8**

**9:00 – 9:40 Keynote Lecture III**

*Chair: Lena Burbulla*

Benjamin Ryskeldi-Falcon, MRC Laboratory of Molecular Biology, Cambridge, UK  
Structures of TDP-43 amyloid filaments in human neurodegenerative disease

**9:40 – 11:40 Topic IV - Mechanisms and model systems**

*Chair: Florence Bareyre*

9:40 – 10:00 Christian Madry, Charité - Universitätsmedizin Berlin, Germany  
Role of Kir2.1 K<sup>+</sup> channels for TREM2 signaling in microglia in Alzheimer's disease

10:00 – 10:20 Julia TCW, Boston University, USA  
Deciphering functional mechanisms of Alzheimer's disease genetic risk using iPSC models

*10:20 – 10:40 Coffee Break*

10:40 – 11:00 Patrik Verstreken, VIB Center for Brain & Disease Research, Leuven, Belgium  
Targeting synaptic decline in neurodegeneration

11:00 – 11:20 Marco Prinz, Universitätsklinikum Freiburg, Germany  
The myeloid side of the brain

11:20 – 11:40 Tracy Young-Pearse, Brigham and Women's Hospital and Harvard Medical School, Boston, USA  
Microglial function, phosphoinositide signaling and inflammasome activation: Implications for Alzheimer's disease

*12:00 – 14:00 Lunch*

*14:00 Departure*

*19:00 Dinner*

*for participants staying until Saturday, December 9*