

17

THE SEVENTEENTH EIBSEE MEETING ON
**CELLULAR MECHANISMS OF
NEURODEGENERATION**

October 25-27, 2017

key note speakers:

C. Dobson (University of Cambridge)
H. Kettenmann (Max Delbrück Center for Molecular Medicine, Berlin)

guest speakers:

W. Annaert (VIB-KU Leuven)
K. Egan (Harvard Stem Cell Institute, Cambridge)
B. Eggen (University Medical Center, Groningen)
C. Lemere (Harvard Medical School, Boston)
E. Mrcsko, Roche Innovation Center, Basel)
W. Netzer (The Rockefeller University, New York)
A. Nordberg (Karolinska Institutet, Stockholm)
L. Petrucelli (Mayo Clinic, Jacksonville)
D. Rubinsztein (University of Cambridge)
A. Saab (University of Zurich)
D. Trotti (Thomas Jefferson University, Philadelphia)
L. Van Den Bosch (VIB-KU Leuven)
D. Walsh (Harvard Medical School, Boston)
R. Youle (National Institutes of Health, Bethesda)
T. Young-Pearse (Harvard Medical School, Boston)

national speakers:

C. Behrends, E. Düzel, D. Edbauer, D. Paquet,
S. Parhizkar, A. Rominger, H. Steiner, B. Yousefi

organized by:

C. Haass (DZNE & University of Munich)



Deutsche
Forschungsgemeinschaft



**The seventeenth Eibsee Meeting
(October 25-27, 2017)**

**CELLULAR MECHANISMS OF
NEURODEGENERATION**

funded by the

**DZNE, German Center of Neurodegenerative Diseases -
Munich**

The Hans und Ilse Breuer Foundation

SyNergy, Munich Cluster for Systems Neurology

organized by:

Christian Haass

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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. At the central station take the train to Garmisch (about 1 hr); 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.

Weather

It is fall and it may be cold already. For those who like to go on a walk: please bring your hiking boots.

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. We thank our additional sponsors F. Hoffmann-La Roche and CENiBRA for their generous financial support.



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PROGRAM

Wednesday, October 25

Arrival, Hiking, Opening Lecture

12:00 The traditional “scientific walk” around the lake (if weather permits)

15:00 – 15:15 Welcome (Christian Haass)

15:15 – 16:00 Key Note Lecture I

Helmut Kettenmann, Max Delbrück Center for Molecular Medicine, Berlin, Germany
Microglial activation in brain diseases

16:00 – 16:45 Coffee Break / Poster Session

16:45 – 18:15 Glia in health and disease

Chair: Irene Knuesel

Guest speakers

16:45 – 17:10 Bart J.L. Eggen, University Medical Center, Groningen, The Netherlands
Heterogeneity in microglia during health and disease, a genome-wide (epi)genetic approach

17:10 – 17:35 Aiman S. Saab, University of Zurich, Switzerland
Axon-glia signaling and energy metabolism in compact white matter

17:35 – 18:00 Eva Mracsco, Roche Innovation Center, Basel, Switzerland
“Omics” approaches for the development of immunotherapies

Short talk

18:00 – 18:15 Samira Parhizkar, University of Munich, Germany
Trem2-dependent amyloid seeding in a mouse model of Alzheimer’s disease

19:00 Cocktails

19:30 Dinner

Thursday, October 26

9:00 – 9:45 Key Note Lecture II

Chair: Eckhard Mandelkow

Christopher M. Dobson, University of Cambridge, UK
The amyloid state of proteins and its significance in biology and medicine

9:45 – 12:00 Translational imaging

Chair: Arthur Liesz

Guest speakers

9:45 – 10:10 Cynthia A. Lemere, Harvard Medical School, Boston, USA
Longitudinal microPET imaging of neuroinflammation in mice: taking a peek at microglia during aging, AD progression, injury and treatment

10:10 – 10:35 Agneta K. Nordberg, Karolinska Institutet, Stockholm, Sweden
Understanding the time course of Alzheimer’s disease using multi-model PET imaging

10:35 – 11:15 Coffee Break

Short talks

11:15 – 11:30 Emrah Düzel, DZNE & University of Magdeburg, Germany
Effects of Tau- and Amyloid-pathology on human brain function in preclinical Alzheimer’s disease

11:30 – 11:45 Axel Rominger, University of Munich, Germany
Amyloid- and TSPO-PET in animal models of Alzheimer’s disease

11:45 – 12:00 Behrooz H. Yousefi, Technical University of Munich, Germany
PET radiotracer development for non-invasive diagnosis of neurodegenerative diseases

Flash talks I (Poster presentations)

Chair: Christian Haass

12:00 – 12:10 Five two minute talks with one slide (selected from poster abstracts)

12:10 – 12:30 Learn from the editors

Chair: Christian Haass

12:10 – 12:20 Stella M. Hurlley, Senior Editor, Science, Cambridge, UK
Publishing your paper in Science

12:20 – 12:30 Céline Carret, Senior Editor, EMBO Molecular Medicine, Heidelberg, Germany
Transparent publishing, open science and data integrity at EMBO

12:45 – 13:45 Lunch

13:45 – 15:00 Time for Recreation

15:00 – 16:30 Cellular mechanisms of ALS and FTD

Chair: Dorothee Dormann

Guest speakers

15:00 – 15:25 Ludo Van Den Bosch, VIB-KU Leuven Center for Brain & Disease Research, Belgium
Mechanistic insights into RNA and DPR toxicity in ALS caused by repeats in C9orf72

15:25 – 15:50 Davide Trotti, Thomas Jefferson University, Philadelphia, USA
Propagation of disease-linked poly-dipeptides in C9orf72-ALS/FTD

15:50 – 16:15 Leonard Petrucelli, Mayo Clinic, Jacksonville, USA
C9orf72 – models, markers and more

Short talk

16:15 – 16:30 Dieter Edbauer, DZNE & University of Munich, Germany
Mouse models for C9orf72 ALS/FTD

Flash talks II (Poster presentations)

Chair: Christian Haass

16:30 – 16:45 Six two minute talks with one slide (selected from poster abstracts)

16:45 – 17:25 Coffee Break

17:25 – 18:55 Production and inhibition of amyloid- β peptide

Chair: Peter St. George-Hyslop

Guest speakers

17:25 – 17:50 William J. Netzer, The Rockefeller University, New York, USA
A unique class of pharmacophores modulates selective processing of APP by BACE through cellular trafficking and degradation

17:50 – 18:15 Wim Annaert, VIB-KU Leuven Center for Brain & Disease Research, Belgium
Biological and pathological relevance of γ -secretase heterogeneity in Alzheimer's disease

18:15 – 18:40 Dominic M. Walsh, Harvard Medical School, Boston, USA
A β finding the needles in a haystack of molecular complexity

Short talk

18:40 – 18:55 Harald Steiner, University of Munich, Germany
Making the final cut: γ -secretase

19:00 Dinner

20:30 Poster Session with Drinks

Friday, October 27

9:00 – 10:05 **A central role of autophagy**

Chair: Jörg Schulz

Guest speakers

9:00 – 9:25 David Rubinsztein, University of Cambridge, UK
Autophagy and polyglutamine disease proteins

9:25 – 9:50 Richard J. Youle, National Institutes of Health, Bethesda, USA
Mitochondria, autophagy and proteotoxicity connections in Parkinson's Disease

Short talk

9:50 – 10:05 Christian Behrends, University of Munich, Germany
Autophagy and neuronal proteostasis

10:05 – 10:45 Coffee Break

10:45 – 11:50 **Human iPSC-derived model systems of neurodegenerative diseases**

Chair: Thomas Miggeld

Guest speakers

10:45 – 11:10 Kevin C. Eggen, Harvard Stem Cell Institute, Cambridge, USA
New human cellular and animal models for the study of motor neuron disease

11:10 – 11:35 Tracy Young-Pearse, Harvard Medical School, Boston, USA
Using induced pluripotent stem cells to probe heterogeneity in Alzheimer's disease

Short talk

11:35 – 11:50 Dominik Paquet, University of Munich, Germany
A CRISPR-based gene editing framework allows modelling early-onset Alzheimer's disease in genetically defined human iPSC lines

12:00 Lunch

14:00 Departure

19:00 Dinner

for participants staying until Saturday, October 28