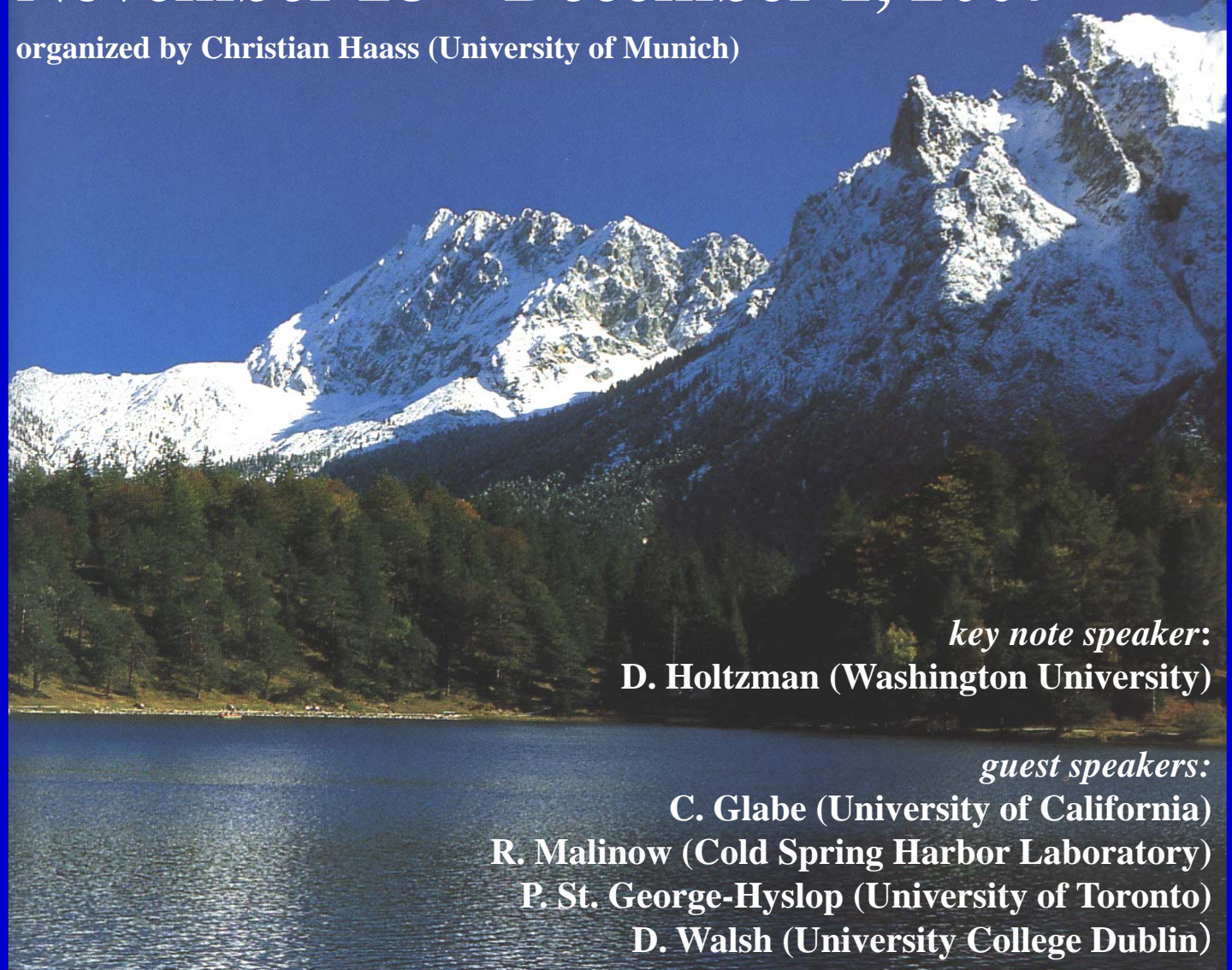


**The seventh EIBSEE Meeting**  
**on**  
**CELLULAR MECHANISMS OF**  
**ALZHEIMER'S DISEASE**

**November 28 – December 1, 2007**

organized by Christian Haass (University of Munich)



*key note speaker:*

**D. Holtzman (Washington University)**

*guest speakers:*

**C. Glabe (University of California)**

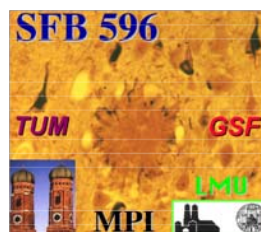
**R. Malinow (Cold Spring Harbor Laboratory)**

**P. St. George-Hyslop (University of Toronto)**

**D. Walsh (University College Dublin)**

Deutsche  
Forschungsgemeinschaft

**DFG**



&



HANS UND ILSE  
**BREUER**  
**STIFTUNG**  
FRANKFURT/MAIN

**The seventh Eibsee Meeting  
(November 28 – December 1, 2007)**

**"CELLULAR MECHANISMS OF  
ALZHEIMER´S DISEASE"**

**funded by the DFG  
&  
The Hans und Ilse Breuer Foundation**

**\*\*\*\*\***

**organized by:  
Christian Haass  
Laboratory of Neurodegenerative Disease Research  
Adolf Butenandt Institute  
University of Munich  
Schillerstr. 44  
80336 Munich  
Germany**

**Phone: ++49-89-2180-75471  
Fax: ++49-89-2180-75415  
e-mail: christian.haass@med.uni-muenchen.de  
<http://haass.web.med.uni-muenchen.de>**

## Location

***Eibsee Hotel***  
Am Eibsee 1-3  
D-82491 Grainau  
Phone: ++49-8821-9881-0  
Fax: ++49-8821-82585  
Email: [info@eibsee-hotel.de](mailto:info@eibsee-hotel.de)  
[www.eibsee-hotel.de](http://www.eibsee-hotel.de)



## Travelling

**by train:** take the train to Garmisch (via Munich). In Garmisch please take a cab 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 cab 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's winter and there will be a chance for snow (in the skiing area on top of the Zugspitze snow is guaranteed). For those who like to go on the walk: please bring your hiking boots.

## Acknowledgements

We thank our sponsors ELAN, F. Hoffmann-La Roche AG, MSD Meso Scale Discovery, Boehringer Ingelheim and New England BioLabs GmbH for their generous financial support.



# PROGRAM

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## **Wednesday, November 28**

Arrival, Hiking, Opening Lecture

14:00 The traditional “Scientific walk“ around the lake (if weather permits)

**16:30 – 17:15 Welcome & Presentation of the Hans and Ilse Breuer Award**

16:30 **Welcome** (C. Haass)

16:45 **Presentation of the Hans and Ilse Breuer Award for Alzheimer’s Disease Research**  
(P. Breuer, Breuer Foundation)

17:00 **Laudatio for N.N., Recipient of the third Hans and Ilse Breuer Award**  
(E.-M. Mandelkow)

**17:15 – 18:15 Key Note Lecture**

**David M. Holtzman, Washington University, St. Louis, USA**

Dynamic assessment of endogenous and exogenous modulators of amyloid- $\beta$  metabolism in vivo

*18:15 Cocktails*

sponsored by the Hans und Ilse Breuer Foundation

*19:30 Dinner*

## **Thursday, November 29**

**9:00 – 12:35 Secretases I**

*Chair:* E. Mandelkow

9:00 – 9:25 P. St. George-Hyslop, University of Toronto, Canada  
SORL1: Defects in saving APP from PS1 cause AD

9:25 – 9:50 H. Steiner, University of Munich, Germany  
Functional and structural analysis of  $\gamma$ -secretase

9:50 – 10:15 G. Multhaup, University of Berlin, Germany  
Conformation and processing of APP: Novel insights from GxxxG mutants

10:15 – 10:40 C. Kaether, Leibniz Institute for Age Research, Jena, Germany  
Rer1 and  $\gamma$ -secretase

*10:40 – 11:20 Coffee Break/Poster Session*

- 11:20 – 11:45 C. Haass, University of Munich, Germany  
Modulation of  $\gamma$ -secretase activity – the German amyloid platform
- 11:45 – 12:10 S. Weggen, University of Mainz, Germany  
FAD PS1 mutations: Loss-of-function hypothesis and effects on  $\gamma$ -secretase modulators and inhibitors
- 12:10 – 12:35 J. Walter, University of Bonn, Germany  
 $\gamma$ -secretase activity in membrane lipid and protein metabolism

*12:45 – 13:45 Lunch*

*13:45 – 15:00 Time for recreation (hiking, swimming, sauna)*

**15:00 – 18:35 Secretases II**

*Chair: U. Müller*

- 15:00 – 15:25 P. Saftig, University of Kiel, Germany  
ADAMs and BACE proteases: Functions in the central nervous system
- 15:25 – 15:50 F. Fahrenholz, University of Mainz, Germany  
New approaches for  $\alpha$ -secretase activation
- 15:50 – 16:15 S. Lichtenthaler, University of Munich, Germany  
Access of APP to its secretases: Novel control mechanisms
- 16:15 – 16:40 C. v. Arnim, University of Ulm, Germany  
APP and BACE interaction at the cell surface

*16:40 – 17:20 Coffee Break/Poster Session*

- 17:20 – 17:45 M. Simons, University of Göttingen, Germany  
Processing of the amyloid precursor protein
- 17:45 – 18:10 C. Pietrzik, University of Mainz, Germany  
Functional analysis of lipoprotein receptors on the processing of “Swedish” APP variant
- 18:10 – 18:35 D. Hartmann, University of Bonn, Germany  
The “receptor protease” ADAM 10

*19:00 Dinner*

**Friday, November 30**

**9:00 – 10:15 APP function and transport**

*Chair: H. Steiner*

- 9:00 – 9:25 S. Kins, University of Heidelberg, Germany  
APP/APLPs function and trafficking
- 9:25 – 9:50 U. Müller, University of Heidelberg, Germany  
APP: Functions beyond amyloid
- 9:50 – 10:15 T. Hartmann, University of the Saarland, Homburg, Germany  
APP processing in lipid rafts

*10:15 – 10:55 Coffee Break/Poster Session*

**10:55 – 12:35 Aggregation and Oligomers**

*Chair: G. Multhaup*

- 10:55 – 11:20 C. Glabe, University of California, Irvine, USA  
Targeting amyloid oligomers in Alzheimer Disease
- 11:20 – 11:45 D. Walsh, University College Dublin, Ireland  
Abeta oligomers are potent synaptotoxins
- 11:45 – 12:10 E.M. Mandelkow, Max-Planck-Unit for Structural Molecular Biology, Hamburg, Germany  
Tau, neuronal traffic, and synaptic degeneration
- 12:10 – 12:35 E. Mandelkow, Max-Planck-Unit for Structural Molecular Biology, Hamburg, Germany  
Structure of Tau and mechanism of aggregation

*12:45 – 13:45 Lunch*

*13:45 – 15:00 Time for recreation (hiking, swimming, sauna)*

**15:00 – 15:50 Tools to Study Protein Aggregation**

*Chair: S. Lichtenthaler*

- 15:00 – 15:25 A. Giese, University of Munich, Germany  
Structural characterization of  $\alpha$ -synuclein oligomers by confocal single particle FRET
- 15:25 – 15:50 B. Schmidt, Technical University of Darmstadt, Germany  
Do the pleiotropic effects of amyloid ligands and gamma-secretase modulator provide Swiss Knives or Dirty Tools for Alzheimer's Disease?

**15:50 – 18:35 Neuronal Toxicity and Regeneration**

*Chair: F. Fahrenholz*

- 15:50 – 16:15 R. Malinow, Cold Spring Harbor Laboratory, USA  
Is pre- or postsynaptic release of Abeta responsible for synapto-depressive effects
- 16:15 – 16:40 M. Jucker, University of Tübingen, Germany  
Induction of cerebral amyloidosis in transgenic mice

*16:40 – 17:20 Coffee Break/Poster Session*

- 17:20 – 17:45 J. Herms, University of Munich, Germany  
Synaptic failure in neurodegenerative diseases: In vivo and in vitro findings on spine dynamics
- 17:45 – 18:10 O. Garaschuk, Technical University of Munich, Germany  
In vivo cortical network function in Alzheimer's disease
- 18:10 – 18:35 M. Götz, University of Munich, Germany  
Glial cells generate neurons – new views on reactive gliosis

*19:00 Dinner*

**Saturday, December 1, 2007**

*Departure*