

Introductory Remarks to Satellite Symposium (Sat3)

**GBM Study Group
'Molecular Neurobiology'**

**„Brain in a dish“ - explant and stem
cell models of neurodegenerative
diseases**

Roland Brandt and Rolf Heumann, Osnabrück and Bochum

Ex vivo models have the potential to fill the gap between studies using dissociated cells, model organisms and human patients in deciphering mechanisms and potential treatment approaches for neurologic and psychiatric disorders. They can provide important insights about the pathogenesis of neurodegenerative diseases and could represent an effective screening platform to identify novel therapeutics. In addition, stem cell-based approaches may provide the basis for therapy development.

The aim of the international symposium is to present ex vivo models and the application of neural stem cells by bringing together researchers from basic science, medicine, program-oriented research and companies. Furthermore, it will be elaborated on how pharmacological modulation affects neurodegeneration in explants. The symposium will also include a discussion of how comparable such systems are with the in vivo situation.

The satellite symposium is supported by the GBM and open to everybody.



Satellite Symposium (Sat3)

Tuesday, March 22, 2017

9:00 - 12:00, Hall 102

Chairs: Roland Brandt and Rolf Heumann,
Osnabrück and Bochum

- 09:00 **Welcome and Opening Remarks**
(Roland Brandt/Rolf Heumann)
- 09:15 Andreas Faissner, Bochum
NEURAL STEM CELLS AND THEIR NICHES:
FOCUS ON THE EXTRACELLULAR MATRIX
(Sat3-1)
- 09:45 Dieter Weiss, Rostock
FUNCTIONAL IN VITRO DISEASE MODELS
BASED ON NEURONAL NETWORKS ON
MICRO-ELECTRODE ARRAYS: COMPARING
PRIMARY MURINE AND HUMAN iPSC CULTURES
(Sat3-2)
- 10:15 Stefanie Hauck, Munich
ELUCIDATION OF THERAPEUTIC ASPECTS OF
NEURON-GLIA COMMUNICATION USING
EX VIVO EXPLANTS (Sat3-3)
- 10:45 Lidia Bakota, Osnabrück
BRAIN SLICES AS MODELS FOR NEURODEGE-
NERATIVE DISEASE AND PLATFORMS TO STUDY
THERAPEUTICS (Sat3-4)
- 11:15 Christian Humpel, Innsbruck, Austria
HOW COMPARABLE ARE BRAIN SLICES WITH
THE IN VIVO SITUATION - WITH A FOCUS ON
ALZHEIMER'S DISEASE (Sat3-5)
- 11:45 **Closing Remarks**
(Roland Brandt/Rolf Heumann)