

Introductory Remarks to Satellite Symposium

3rd Schram Foundation Symposium „Neuronal differentiation, synapses and neural circuits“

Renato Frischknecht and Alexander Gottschalk (Magdeburg and Frankfurt/Main)

In 2000, Dr. Armin Schram generously donated part of his assets to establish a new Foundation, the Schram Foundation, in order to support basic research in the neurosciences in Germany. Meanwhile, 15 different projects have been funded, chosen in a highly competitive process. The first and second symposia of the Foundation, held in 2009 and 2011 as Satellites to the biennial meeting of the German Neuroscience Society, were very well attended and provided a platform to present and discuss projects, which had been supported by the Schram Foundation. In addition, keynotes by prominent neurobiologists were given.

The third symposium will also follow this outline, and cover aspects of synapse structure and dynamics, as well as mechanisms of neurogenesis, differentiation and circuit function. Two keynote lectures will open and close the symposium: Daniel Choquet (Bordeaux, France) will discuss the regulation of post-synaptic AMPA receptor trafficking in health and disease. Harvey McMahon (Cambridge, UK) will address the function of proteins that mediate alterations in membrane shape, in synaptic transmission and beyond.

The keynotes frame two sessions: The first one, about molecular aspects of plasticity and synaptic function, will include Renato Frischknecht (Magdeburg), who will report on the influence of the extracellular matrix on synaptic plasticity and network activity, followed by Volker Haucke (Berlin), who will capitalize on mechanisms and proteins of the endocytic machinery involved in synaptic vesicle recycling and protein sorting. The second session, "Neurogenesis, Differentiation and Networks", will feature Dorothea Schulte (Frankfurt), presenting new insights about the role of TALE transcription factors in regulating adult neurogenesis. Jens Schwamborn (Münster), will portray his work on neural stem cell differentiation, and Marlene Bartos (Freiburg) will shed light on the role of perisomatic versus dendritic inhibition in microcircuits of the dentate gyrus.

The symposium will be heralded and faded out by remarks of Heinrich Betz (Heidelberg/Göttingen), Eckart Gundelfinger (Magdeburg) and Armin Schram (Hamburg). The Symposium will be held in the lecture hall of the Max Planck Institute for Experimental Medicine in Göttingen (<http://www.em.mpg.de/index>). Attendance is complimentary.



Satellite Symposium

Tuesday, March 12, 2013

13:00 – 19:00, Lecture Hall of MPI for
Experimental Medicine (Hermann-Rein-Str. 3, Göttingen)

Chair: Renato Frischknecht and Alexander Gottschalk

- 13:00 **Opening Remarks**
(Heinrich Betz / Eckart D. Gundelfinger /
Armin Schram)
- 13:10 Daniel Choquet, Bordeaux, France
NANOSCALE IMAGING OF AMPAR
TRAFFICKING IN HEALTH AND DISEASE
- 14:05 Renato Frischknecht, Magdeburg
ROLE OF THE PERISYNAPTIC EXTRACELLULAR
MATRIX IN SYNAPTIC PLASTICITY AND
NETWORK ACTIVITY
- 14:35 Volker Haucke, Berlin
MOLECULAR MECHANISM OF SYNAPTIC
VESICLE CYCLING
- 15:05 **Coffee Break and Poster Session**
- 16:00 Dorothea Schulte, Frankfurt/Main
TRANSCRIPTIONAL REGULATION OF ADULT
NEUROGENESIS: NOVEL ROLES FOR
TALE-HOMEODOMAIN TRANSCRIPTION
FACTOR
- 16:30 Jens Schwamborn, Münster
NUCLEAR TRANSLOCATION OF CELL FATE
DETERMINANTS INDUCES NEURAL STEM CELL
DIFFERENTIATION
- 17:00 Marlene Bartos, Freiburg
FUNCTIONAL PROPERTIES OF PERISOMATIC
VERSUS DENDRITIC INHIBITION IN DENTATE
GYRUS MICROCIRCUITS
- 17:30 **Break and Poster Session**
- 17:50 Harvey Mc Mahon, Cambridge, UK
ROLE OF MEMBRANE SHAPE CHANGES,
GUIDED BY PROTEINS, IN BIOLOGY
- 18:45 **Closing Remarks**
(Heinrich Betz / Eckart D. Gundelfinger /
Armin Schram)