Program: Meeting of the GBM Study Group „Molecular Neurobiology“

„Dynamics of the Nervous System in Health and Disease“

20.9. – 22.9. 2018, Marburg

Venue: Deutscher Sprachatlas, Pilgrimstein 16, 35037 Marburg

Organisers (in alphabetical order):
J.W. Bartsch, R. Brandt, H.G. Breitinger, T. Hucho, S. Kins, S. Lichtenthaler, M. Rust

Thursday, September 20, 2018

from 13:30 – 14:30 Welcome and Registration

14:30 Opening

Jörg W. Bartsch Spokesperson of GBM-Section ‘Molecular Neurobiology’

Michael Bölker Vice-President of Philipps-University of Marburg

Carsten Culmsee Executive Board of CMBB (Center for Mind, Brain and Behavior), Research Campus Central Hessen

Session I: Cytoskeletal dynamics in Neurons (Chair: Marco Rust)

(kindly supported by DFG, GRK2213 “Membrane Plasticity in Tissue Development and Remodeling”)

15:00 - 15:30 Pirta Hotulainen, Minerva Foundation Institute for Medical Research, Helsinki, Finland
Actin in synaptic plasticity and learning

15:30 – 16:00 Kristin Michaelsen-Preusse, Zoological Institute, Braunschweig University, Germany
Local translation of actin binding proteins in the fragile x syndrome

16:00 – 16:30 Coffee Break

16:30 – 17:00 Elena Marcello, Dept. of Pharmacological and Biomolecular Sciences, Milan University, Italy
ADAM10 and actin: an inner dialogue in the frame of the spine

17:00 – 17:15 Lena Hoffman, Institute of Pharmacology and Clinical Pharmacy, University of Marburg
Role of the actin-regulating protein cofilin1 in mitochondrial and cellular resilience
17:15 – 17:30 Sophie Meyer, Institute of Physiological Chemistry, University of Marburg 
*The actin-binding protein Profilin1 restricts the basal radial glia pool in mice*

17:30 – 18:00 Business Meeting (SG Molecular Neurobiology, all GBM members)

Dinner (Buffet)

**Keynote Lecture (held in the „Fürstensaal“, Landgrafenschloss)**

19:30 Milos Pekny, Department of Clinical Neuroscience at Institute of Neuroscience and Physiology, University of Gothenburg, Sweden

*Targeting reactive astrogliosis in neurological diseases and CNS regeneration*

(kindly supported by Leica Microsystems)

20:30 Get together (Foyer of the Fürstensaal)
Friday, September 21, 2018

Session II: Molecular Mechanisms of Neurodegeneration and Neuroinflammation
(Chair: Stefan Kins, Roland Brandt)

9:00 – 9:30  Lucia Chavez-Gutierrez, KU Leuven, Belgium
Protein dynamics and the risk of Alzheimer's disease

9:30 – 10:00 Michael Heneka, DZNE and University of Bonn
Innate Immunity in Alzheimer's disease

10:00 – 10:15 Simone Eggert, University of Kaiserslautern
APP gene family members function as synaptic adhesion molecules

10:15 – 10:45 Coffee Break

10:45 – 11:00 Dieter Petit, KU Leuven, Belgium
An emerging role for the NCT ectodomain in the modulation of Aβ length through direct interaction with APP

11:00 – 11:30 Graziella Cappelletti, University of Milan
Microtubule dysfunction in Parkinson's disease: from pure protein to human brain

11:30 – 12:00 Markus Morawski, University of Leipzig
Protective properties of the specialized neuronal extracellular matrix

12:00 – 12:30 Ali Ertürk, ISD and LMU Munich
Disease mechanisms in transparent mice

12:30-12:45 Shadaan Zulfiqar, University of Marburg
Investigating isoform-specific effects of APOE in Alzheimer's Disease progression using isogenic patient iPSC-derived neural cells

13:00 – 15:30 Lunch (Buffet) and Poster Viewing

Session III: Neuroproteomics and Novel Methods in Molecular Neuroscience
(Chair: Jörg W. Bartsch)

15:30 – 16:00 Monika Brill, Technical University Munich
Microtubule poly-glutamylation as a possible regulator of neuromuscular synapse elimination
Christian Gach, University of Osnabrück
*The Cytoskeleton under Stress: Live-cell Imaging Indicates a Primary Role of Microtubule Destabilization in Neurodegeneration*

Thomas Enzlein, Mannheim University of Applied Sciences
*Assessment of Alzheimer Amyloid Plaque Composition by MALDI mass spectrometry imaging*

Coffee Break

Dominik Paquet, ISD and LMU Munich
*Investigating neurodegenerative and neurovascular diseases in CRISPR-edited stem-cell derived human brain cells*

Fabian Raudzus/Hendrik Schöneborn, University of Bochum
*Remote Control of Neuronal Cell Signaling by Cytoplasmic Magnetic Nanoparticles*

Johannes Vogt, Institute of Microscopic Anatomy and Neurobiology, JGU Mainz
*Role of bioactive phospholipids at central synapses: implication for psychiatric disorders*

Silvia Cappello, Max-Planck-Institute for Psychiatry, München, Germany
*Molecular and cellular mechanisms regulating human neurogenesis*

Dinner (Buffet) and Music

Night Sightseeing (German and English)

Meeting points:
English Guide: Marktplatz (Brunnen)
German Guide: Kornmarkt (unter der Linde)
please see map
Saturday, September 22, 2018

Session IV: Molecular Mechanisms of Signal Reception in Molecular Neuroscience
(Chair: Tim Hucho)

9:00 – 9:30 Dominik Oliver, University of Marburg
*Control of Neuronal Excitability by Phosphoinositide Pathways*

9:30 – 10:00 Carmen Villmann, University of Würzburg
*Impaired glycinergic inhibition in neurological diseases*

10:00 – 10:15 Jan Kullman, St Jude Children’s Research Hospital, Memphis, USA/Institute of Physiological Chemistry, University of Marburg
*Oxygen-Tension and the VHL-Hif1α Pathway Comprise a Developmental Switch Controlling the Onset of Neuronal Polarization and Germinal Zone Exit*

10:15 – 10:30 Peter Soba, ZMNH (Hamburg)
*Microtubule dynamics are regulated by conserved Tao kinase activity to control dendrite development*

10:30 – 11:00 Coffee Break

11:00 – 11:15 Daniela Mauceri, University of Heidelberg
*VEGFD regulates the balance between dendritic structural plasticity and maintenance.*

11:15 – 11:45 Hans Ulrich Zeilhofer, Zürich
*Investigating spinal sensory circuits through intersectional gene manipulation*

11:45 – 12:00 Closing remarks, End of Meeting