

# rhine – main neuroscience network



4<sup>th</sup> Biennial Meeting

June 22 - 24, 2016

Jugendherberge Oberwesel  
Auf dem Schönberg  
55430 Oberwesel

## Wednesday, June 22

### 14:00 Introductory remarks

**Christian Fiebach**, speaker program committee  
**Jochen Roeper**, speaker rmn<sup>2</sup>

**Herbert Zimmermann**  
*Institute for Cell Biology and Neuroscience, University Frankfurt*  
**Ten years of Interdisciplinary Center for Neuroscience Frankfurt and the rise of Rhine Main Neuroscience**

### 14:30 – 15:15 Lecture

**Gerhard Schratt**  
*Institute for Physiological Chemistry, University of Marburg*  
**Role of non-coding RNA in neuronal development and homeostasis**

### Symposium I “Translational Epilepsy Research”

Chair: Felix Rosenow

#### 15:15– 15:30

**Sebastian Bauer**  
*Epilepsy Center ZNN, Frankfurt/Marburg*  
**Immunopathogenesis of temporal epilepsy: clinical and experimental data including from cerebral microdialysis**

#### 15:30 – 15:45

**Braxton Norwood**  
*Epilepsy Center ZNN, Marburg*  
**The intracellular TLRs 3,7, and 9 and epilepsy: data from ko models**

#### 15:45 – 16:00

**Karl Martin Klein**  
*Epilepsy Center ZNN, Frankfurt/Marburg*  
**MiRNA genetic variants predisposing to epilepsy**

#### 16:00 – 16:15

**Lara Costard**  
*Epimirna-Project Marburg/Frankfurt*  
**Brain stimulation induced epileptic tolerance**

### 16:15 – 16:30 Coffee break

### Symposium II “New in the Region”

Chair: Christian Fiebach

#### 16:30 – 16:50

**Christine Ecker**  
*Department of Child and Adolescent Psychiatry, University Frankfurt*  
**Translational Neuroimaging in Autism Spectrum Disorder**

#### 16:50 – 17:10

**Sergiu Groppa**  
*Clinic for Neurology, University Medical Center Mainz*  
**Human connectivity studies by the aid of invasive and non-invasive stimulation techniques**

#### 17:10 – 17:30

**Melissa Le-Hoa Vö**  
*Scene Grammar Lab, Department of Cognitive Psychology, University Frankfurt*  
**Reading Scenes: How Scene Grammar Guides Attention and Perception in the Real World**

#### 17:30 – 17:50

**Stefan Bittner**  
*Clinic for Neurology, University Medical Center Mainz*  
**Two-pore domain potassium channels regulate CNS autoimmunity**

### 17:50 – 18:00 Break

### 18:00 – 18:45 Lecture

**Moritz Helmstaedter**  
*Department of Connectomics, MPI for Brain Research, Frankfurt*  
**Cellular resolution connectomics**

### 19:00 – open end Cookout

## Thursday, June 23

### 08:00 – 09:00 Breakfast

### 09:00 – 09:45 Lecture

**Ilka Diester**  
*Optophysiology lab, University of Freiburg*  
**Rodent prefrontal cortex subsections gradually contribute to response preparation, inhibition and execution**

### Symposium III “Coding Strategies in Networks of Neurons”

Chair: Tatjana Tchumatchenko

#### 09:45 – 10:05

**Julio Hechavarria**  
*Institute for Cell Biology and Neuroscience, University Frankfurt*  
**Encoding of natural sound streams in the bat auditory cortex**

#### 10:05 – 10:25

**Hiroshi Ito**  
*MPI for Brain Research, Frankfurt*  
**Temporal spike coordination in the prefrontal-thalamo-hippocampal circuit during route decisions**

10:25 – 10:45

Jochen Triesch

Frankfurt Institute for Advanced Studies

How plasticity shapes neural coding

10:45 – 11:15 Coffee break

11:15 – 12:00 Lecture

Guillermina Lopez-Bendito

Laboratory of Cellular & Molecular Mechanisms of Brain Wiring,  
Instituto de Neurociencias, CSIC & Universidad Miguel Hernández,  
San Juan de Alicante, Spain

Understanding the role of the thalamus in the development  
and plasticity of cortical areas

## Symposium IV “From Developmental Neurogenesis to Reprogramming”

Chair: Benedikt Berninger

12:00 – 12:20

Christian Berger

Institute of Genetics, University Mainz

Regulation of quiescence in neural stem cells of drosophila

12:20 – 12:40

Vijay Tiwari

IMB Mainz

Deciphering the epigenetic code of embryonic neurogenesis

12:40 – 13 :00

Hermann Rohrer

Institute for Clinical Neuroanatomy, University Frankfurt and ESI

From neurogenesis in the autonomic nervous system to  
neuroblastoma: a perspective from developmental  
neurobiology

13:00 – 14:00 Lunch break

14:30 – 17:00 Posters and Coffee

## Symposium V “Neurobiology of Developmental Psychiatry”

Chairs: Christine Freitag, Andreas Reif

17:00 – 17:20

Sarah Kittel Schneider

Department of Psychiatry, University Frankfurt

Cell models of attention-deficit/hyperactivity disorder

17:20 – 17:40

Andreas Chiocchetti

Department of Child & Adolescent Psychiatry, Psychosomatics and  
Psychotherapy, University Frankfurt

Transcribing neuropsychiatric diseases: Co-expression  
networks of neuronal differentiation and their implication in  
autism

17:40– 18:00

Michael van der Kooij

Department of Psychiatry and Psychotherapy, University Mainz

Mitochondrial function in the nucleus accumbens connects  
anxiety to social competition

18:00 – 19:30 Dinner

19:30 – 20:15 Lecture

Elisabeth Binder

Department of Translational Research in Psychiatry, Max Planck  
Institute of Psychiatry, Munich

The interplay of genetic and epigenetic mechanisms in  
shaping risk and resilience to early adversity

20:30 – open end Party

## Friday, June 24

08:00 – 09:00 Breakfast

09:00 – 09:45 Lecture

Anthony Holtmaat

Department of Basic Neurosciences, University of Geneva,  
Switzerland

Mechanisms for plasticity in the mouse somatosensory  
cortex

## Symposium VI “The Dynamic Connectome”

Chair: Simon Rumpel

09:45 – 10:05

Thomas Deller

Institute for Clinical Neuroanatomy, University Frankfurt

The injured brain - homeostatic mechanisms allowing  
denervated neurons to 'return to work

10:05 – 10:25

Anna Chambers

Institute of Physiology, University Mainz

Long-Term dynamics of spontaneous and evoked activity  
patterns in cortical circuits

10:25 – 10:45

Matthias Kaschube

FIAS, University Frankfurt

Discrete representations in mouse auditory cortex and their  
stability under synaptic turnover

10:45 – 11:15 Coffee break

## Symposium VII “Bridging the Gap- Translational Approaches to Mental Disorders”

Chairs: Marianne Müller, Michèle Wessa

11:15 – 11:30

Barbara Vollmayr

Central Institute for Mental Health, Mannheim

Interpretation bias as marker of depression: Findings from  
animal research

11:30 – 11:45

Ulrike Basten

Department of Psychology, University Frankfurt

Cognitive biases in affective information processing:  
Personality-related differences in healthy people

11:45 – 12:00

Michèle Wessa

Dept.artment of Psychology, University Mainz

Explicit and implicit interpretation bias as marker of  
depression: Findings from human research

12:00 – 12:15

Klaus Lieb

Department of Psychiatry and Psychotherapy, University Medical  
Center Mainz

Clinical and molecular markers of therapy-response  
prediction in depression

12:15 – 13:00 Lecture

Theo Rein

Department of Translational Research in Psychiatry, Max Planck  
Institute of Psychiatry, Munich

The stress protein FKBP51 as paradigm for translational  
research: molecular actions, pharmacology, clinic

13:10

Awarding of Poster Prizes  
Concluding Remarks

13:15 – 14:00

Lunch

14:00

Departure