

rhine – main neuroscience network



2nd Biennial Meeting

June 20 - 22, 2012

Jugendherberge Oberwesel
Auf dem Schönberg
55430 Oberwesel

Wednesday, June 20

14:00

Introductory remarks
Klaus Lieb, Mainz
Helmuth Steinmetz, Frankfurt

14:15 – 15:00 **Lecture**

Nicola di Stefano
Dept. of Neurology, Neurosurgery & Behavioral Sciences, *University of Siena*
Tissue damage in MS: insights from MRI

Symposium I "Reorganization of cortical networks in Multiple Sclerosis" Chair: Frauke Zipp

15:00– 15:20

Bernhard Baier
Department of Neurology, Mainz
Reorganization of cortical networks in Multiple Sclerosis

15:20 – 15:40

Mathias Wahl
Department of Neurology, Frankfurt
Interhemispheric disconnection of the motor system in early relapsing remitting multiple sclerosis (RRMS)

15:40 – 16:00

Enzo Tagliazucchi
Department of Neurology, Frankfurt
Graph theoretical analysis of topological functional organization during resting state in multiple sclerosis (an fMRI study)

16:00 – 16:15

Nina Bauer
Winner of poster prize FTN/IAK Symposium 2011
Institute for Physiology & Pathophysiology, Mainz
Myelin Basic Protein synthesis is regulated by small non-coding RNA715

16:15 – 16:40

Coffee break

Symposium II "Network disregulation in schizophrenia" Chair: Jochen Roeper

16:40 – 17:00

Torfi Sigurdsson
Institute of Neurophysiology, Frankfurt
Network dysfunction in genetic mouse models of schizophrenia

17:00 – 17:20

Peter Uhlhaas
MPI for Brain Research, Frankfurt
NMDA-hypofunctioning and Neural Synchron Deficits in Schizophrenia

17:20 – 17:40

Jochen Roeper
Institute of Neurophysiology, Frankfurt
Subtype-selective dysregulation of dopamine midbrain neuron in a striatal D2-overexpression mouse model of schizophrenia

17:40 – 18:00

Coffee break

18:00 – 18:45 **Lecture**

Gereon Fink
Department of Neurology, University Hospital Köln
Recovery of function after stroke: Is there any way to overcome the translational roadblock?

19:00 – open end

Cookout

Thursday, June 21

07:30 – 09:00

Breakfast

09:00 – 09:45 **Lecture**

Ofer Yizhar
Department of Neurobiology, Weizmann Institute of Science, Israel
Optical control and recording of neural circuit dynamics

Symposium III "Optogenetics in cognitive and systems neuroscience" Chair: Pascal Fries

09:45 – 10:05

Ilka Diester
Ernst-Strüngmann-Institute, Frankfurt
Optogenetics in rodents and non human primates

10:05 – 10:25

Christian Schultheis
Institute of Biochemistry, Frankfurt
Unraveling the neuronal basis of behavior by optogenetics in *Caenorhabditis elegans*

10:25 – 10:45

Hartwig Spors
MPI of Biophysics, Frankfurt
Illuminating olfaction – searching for functional connectivity in vivo by replacing odors with light

10:45 – 11:00

Coffee break

Symposium IV “New in the region”

Chair: Robert Nitsch

11:00 – 11:15

Benedikt Berninger
Institute for Physiological Chemistry and FTN, Mainz
Voluntary or forced neurogenesis

11:15 – 11:30

Alf Giese
Clinic for Neurosurgery, Mainz
Resistance of malignant gliomas to surgical and oncological treatment

11:30 – 11:45

Raffael Kalisch
Neuro Imaging Center, FTN, Mainz
Fear not

11:45 – 12:00

Michael Siniatchkin
Clinic for Child and Adolescent Psychiatry, Frankfurt
Photosensitivity: from visual distress to epileptic seizures

12:15 – 12:30

Matthias Kaschube
Frankfurt Institute for Advanced Studies, Frankfurt
From cortical self-organization to visual perception

12:30– 14:00

Lunch break

14:00 – 17:00 Posters and Coffee

Symposium V “Synchronizing neuronal networks”

Chair: Heiko Luhmann

17:00 – 17:20

Pascal Fries
Ernst-Strüngmann-Institute, Frankfurt
Distinct frequency-defined brain networks subserve distinct functional roles

17:20 – 17:40

Albrecht Stroh
Institute for Microscopic Anatomy and Neurobiology, FTN, Mainz
Making waves: Initiation and propagation of slow oscillation-associated cortico-thalamic Ca²⁺waves in vivo

17:40 – 18:00

Heiko Luhmann
Institute for Physiology and Pathophysiology, Mainz
Synchronized activity in the somatosensory cortex of newborn rodents

18:00 – 19:30

Dinner

19:30 – 20:15 Lecture

Ulf Eysel
Department of Experimental Physiology, Bochum
The retinal lesion model of visual plasticity

20:30 – open end

Party

Friday, June 22

07:30 – 09:00

Breakfast

09:00 – 09:45 Lecture

Andreas Engel
Department of Neurophysiology and Pathophysiology, Hamburg
Spectral fingerprints of large-scale communication in the brain

Symposium VI “Towards circuits in Model Organisms” Chair: Gerhard Technau

09:45 – 10:05

Carsten Duch
Institute for Zoology, Mainz
Calcium Channel Function in Drosophila Motoneurons

10:05 – 10:25

Sara Kuntz
Institute for Zoology, Mainz
Analysis of a Working Memory for Visual Orientation in Drosophila

10:25 – 10:45

Sina Tootoonian
MPI for Brain Research, Frankfurt
Full-rank ultra-sparse encoding of odors in the locust olfactory system

10:45 – 11:00

Coffee Break

Symposium VII “Multimodal imaging and translational neuroscience” Chair: Klaus Lieb

11:00 – 11:20

André Bastos
Ernst-Strüngmann-Institute Frankfurt
Bottom-up vs top-down interactions

11:20 – 11:40

Christian Fiebach
Department of Psychology, Frankfurt
Neural Bases of Individual Differences in Working Memory Capacity

11:40 – 12:00

Christian Kell
Department of Neurology, Frankfurt
Speech networks in health and disease

12:00– 12:20

Mathias Schreckenberger
Department of Nuclear Medicine, Mainz
PET Imaging in Neuropharmacology Research

12:20 – 12:40

Oliver Tüscher
Clinic for Psychiatry and Psychotherapy, Mainz
Neural systems of impulse control

12:40 – 13:25 Lecture

Andreas Meyer-Lindenberg
Central Institute of Mental Health, Mannheim
Brain mechanisms of risk for mental illness

13:25

Awarding of Poster Prizes, Concluding Remarks

13:45 – 14:30

Lunch

14:30

Departure