

Preliminary Program Schedule

Tuesday March 31st, 2009

15:00 – 17:00

Registration

17:00 – 17:30

Welcome Cocktail

17:30 – 18:15

Opening Lecture: Seth Grant (UK)

Evolution of synapses and the emergence of behaviour

Wednesday April 1st, 2009

08:15 – 09:00

Keynote Lecture: Andreas Lüthi (Switzerland)

To fear or not to fear: dissecting emotional memory circuits in the amygdala

09:00 – 11:00

Symposium: Molecular mobility inside and outside the synaptic cleft: microscopic mechanisms behind synaptic signal formation

Chair: Dmitri Rusakov (UK)

Daniel Choquet (France): Lateral mobility of synaptic receptors

Jeremy Henley (UK): Cellular trafficking of neurotransmitter receptors during synaptic plasticity

Alexander Dityatev (Italy): Extracellular matrix and synaptic plasticity

Dimitri Rusakov (UK): Electrodifusion inside the synaptic cleft

11:30 – 13:00

Special Interest Session: Limbic systems integrating fear and anxiety

Chair: Günther Sperk (Austria)

Francesco Ferraguti (Austria): Neural basis of fear learning

Nicolas Singewald (Austria): Reversal of impaired fear extinction: neural correlates

Werner Sieghart (Austria): GABAA receptor subtypes modulating fear and anxiety

Günther Sperk (Austria): NPY receptors in anxiety

13:00 – 14.30

Special Interest Session: Death and regeneration at the Huntington's war-front

Chair: Jose Naranjo (Spain)

Ernesto Carafoli (Italy): Calcium deregulation and mitochondrial stress in Huntington striatal neurons

Britt Mellström (Spain): Calcium- and cAMP-insensitive DREAM mutants regulate the onset of Huntington disease

Rosario Moratalla (Spain): Molecular phenotype of striatal TH+ neurons and the regulation of their appearance

Jiayi Li (Sweden): Impaired neurogenesis in Huntington's disease

Philip M. Beart (Australia): GABAergic striatal neurons exhibit prominent caspase-independent, mitochondrially mediated programmed cell death

- 16:00 – 16:45 **Keynote Lecture: Tim Ryan (USA)**
Dissecting membrane traffic and molecules at nerve terminals
- 16:45 – 17:15 Coffee Break
- 17:15 – 19:15 **Symposium: Neuronal migration and specification: novel concepts**
Chair: Michael Frotscher (Germany)
Xiao-bing Yuan (China): Guidance of cortical radial migration by gradients of diffusible factors
Victor Tarabykin (Germany): Molecular control of cell fate specification in the cerebral cortex
Victor Borrell (Spain): Mechanisms for the tangential dispersion of radially migrating cortical neurons
Michael Frotscher (Germany): Reelin controls the development of the cerebral cortex by stabilizing the leading processes of migrating neurons.
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Thursday
April 2nd, 2009

- 08:15 – 09:00 **Keynote Lecture: Robert Nitsch (Germany)**
Phospholipid signaling at the glutamatergic synapse: A role for plasticity related gene 1 (PRG-1)
- 09:00 – 11:00 **Symposium: Neuronal damage and repair in multiple sclerosis**
Chairs: Mathias Bähr and Frauke Zipp (Germany)
Frauke Zipp (Germany): Neuronal damage and repair in the inflamed central nervous system
Mathias Bähr (Germany): Neuroprotective strategies in MS
Jacqueline Trotter (Germany): Oligodendrocyte and myelin fate in inflammation of the brain
Heinz Wiendl (Germany): Modulation of CNS degeneration and inflammation by ion channels
- 11:30 – 13:00 **Special Interest Session: Biomaterials and stem cells for treatment of spinal cord injury**
Chair: Eva Sykova (Czech Republic) (Chair)
Zheng Gang Zhang (USA): Scaffolds promote recovery of function after traumatic brain injury
Eva Sykova (Czech Republic): Stem cells and biomaterials - combined therapy for spinal cord injury
Gary Brook (Germany): Development of collagen-based scaffolds for promoting nervous tissue repair
Rebecca Matsas (Greece): Myelinating peripheral glia for repair of the injured spinal cord
- 16:00 – 16:45 **Keynote Lecture: Pierre-Marie Lledo (France)**
Synaptogenesis of adult-born neurons in the mouse olfactory bulb
- 16:45 – 17:15 Coffee Break

17:15 – 19:15

Symposium: Adult neurogenesis

Chairs: Herbert Zimmermann and Stephan Schwarzacher (Germany)

Luca Bonfanti (Italy): Adult neurogenesis in mammals, with and without germinal layers

Sebastian Jessberger (Switzerland): Molecular stem cell diversity in the adult brain

H. Georg Kuhn (Sweden): Growth factor regulation of neurogenesis in the adult mammalian brain

Herbert Zimmermann (Germany): Purinergic signaling in adult subventricular zone neurogenesis

Speaker to be announced: Influence of learning on hippocampal neurogenesis

19:30

Gala Dinner

Friday

April 3rd, 2009

08:15 – 09:00

Keynote Lecture: Magdalena Götz (Germany)

Glial cells as neural stem cells: new views on reactive gliosis and repair

09:00 – 11:00

Symposium: Control of neurotransmitter release

Chairs: Jens Rettig and Nils Brose (Germany)

Michela Matteoli (Italy): The role of SNAP-25 in vesicle fusion and calcium modulation

Christian Rosenmund (USA): Live imaging of Munc13 function in synaptic vesicle priming

Jens Rettig (Germany): Quantifying the calcium dependence of the synaptic vesicle priming process by TIRF microscopy

Nils Brose (Germany): SNARE regulation by Complexins in synaptic vesicle fusion

11:00 – 11:30

Coffee Break

11:30 – 13:00

Special Interest Session: Fat times for neuronal signaling: the roles of protein palmitoylation in neural development and synaptic activity

Chairs: Alexander Dityatev (Italy) and **Evgeni Ponimaskin** (Germany)

Evgeni Ponimaskin (Germany): Palmitoylation of adhesion molecules and modulation of neuronal morphology

Nicholas Davis (USA): Neuronal palmitoyl-proteomics: Dynamic modulation of palmitoylation at the synapse

Masaki Fukata (Japan): Synaptic palmitoylation of PSD-95 mediates AMPA receptor homeostasis

16:00 – 18:00

Symposium: Control of estrogen production in the brain

Chair: Gabriele M. Rune (Germany)

Luke Ramage-Healey (USA): Local changes in steroid production in the forebrain during social interactions

Jacques Balthazart (Belgium): Genomic and non-genomic controls of estrogen synthase (aromatase) in the brain

Gabriele M. Rune (Germany): Aromatase activity in hippocampal dendritic spines

Deepak P. Srivastava (USA): Molecular mechanisms underlying estrogen-induced wiring plasticity

18:00 – 20:00

Poster Session

Saturday
April 4th, 2009

08:15 – 09:00

Keynote Lecture: Menahem Segal (Israel)
Stress, Plasticity and the hippocampus

09:00 – 11:00

Closing Symposium: Superresolution meets neurobiology: studying live synapses beyond the diffraction limit

Chair: Valentin Nägerl (Germany)

Antoine Triller (France): Synapse metastability and short term plasticity

Olivier Thoumine (France): Imaging of the dynamic assembly of functional post-synapses triggered by neurexin/neuroligin binding

Katrin Willig (Germany): Principles and applications of far-field nanoscopy using stimulated emission depletion (STED) microscopy

Valentin Nägerl (Germany): Live-cell imaging of synapses by STED microscopy

End of the meeting