

Preliminary Program Schedule

(as of March 12th, 2010)

Tuesday

April 6th, 2010

14:00 – 16:00 Registration

16:00 – 18:00 Symposium 1

Making connections in the cerebral cortex (Chair: V. Tarabykin, Germany)

Gord Fishell (USA)

The role of activity in the integration of CGE-derived interneurons into cortical networks

Robert Nitsch (Germany)

Connecting the entorhinal cortex with the hippocampus: Does activity matter?

Victor Tarabykin (Germany)

Molecular control of cortico-fugal and cortico-cortical connections

Rüdiger Klein (Germany)

Guiding axons and modulating synaptic functions – ephrins and Ephs in the spotlight

18:00 – 18:15 Break

18:15 - 20:15 Symposium 2

Synapse assembly, structure and function (Chair: N. Emptage, UK)

Nigel Emptage (UK)

Eph receptor mobility in neuronal membranes

Casper Hoogenraad (Netherlands)

Role of microtubules in AMPA receptor transport

Antoine Triller (France)

Molecular dynamics at synapses underlying structure and function

Heinrich Betz (Germany)

Putting GABA(A) receptors to the synapse: the role of gephyrin and collybistin

Wednesday

April 7th, 2010

08:15 – 09:00 Keynote Lecture 1

Michael Hausser (UK): Dendritic computation

09:00 – 11:00 Symposium 3

Dynamic signals inside synapses: new approaches & results (Chair: V. Nagerl, France)

Xiaobing Chen (USA)

EM tomography of the PSD

Thomas Blanpied (USA)

PALM imaging of cytoskeletal dynamics inside spines

Ryohei Yasuda (USA)

FRET lifetime imaging of postsynaptic signals

Thomas Oertner (Switzerland)

Ca²⁺ imaging and activity-dependent spine neck dynamics

11:00 – 14:30: Special Interest Sessions 1 & 2

Neuron-glia metabolic interactions and energy budgeting (Chair: R. Jolivet, Switzerland)

Nathalie Rouach (France)

Astroglial connexins fuel hippocampal synapses

Julien Chuquet (Switzerland) (together with Pascale Quilichini and György Buzsáki)

In vivo imaging of glucose uptake in neurons and astrocytes during activation of the somatosensory cortex

Arnd Roth (UK) (together with Henrik Alle and Jörg R P Geiger)

Energy efficient propagation of action potentials

Renaud Jolivet (Switzerland) (together with Pierre J Magistretti and Bruno Weber)

Deciphering neuroglia compartmentalization in cortical energy metabolism

New strategies for brain repair (Chair: E. Sykova, Czech Republic)

James Fawcett (UK)

Intrinsic and extrinsic factors in regulation and plasticity after CNS injury

Eva Syková (Czech Republic)

Stem cells for treatment of brain and spinal cord injury

Mike Modo (UK)

Using biomaterials to improve brain repair

16:00 – 16:45 Keynote Lecture 2

Markus Meister (USA): Neural computations in the retina

16:45 – 17:15 Coffee Break

17:15 – 19:15 Symposium 4

Genetics, Pathogenesis and Treatment Opportunities in Parkinson's Disease (Chair: J. Schulz, Germany and

T.M. Dawson, USA)

John Hardy (UK)

Genetics of Parkinson's disease

Ted M. Dawson (USA)

Parkin and LRRK2 in the pathophysiology of Parkinson's disease

Jörg B. Schulz (Germany)

Pathophysiology of alpha-Synuclein

Frank Soldner (USA)

Induced pluripotent stem cells for the treatment of Parkinson's disease

Thursday

April 8th, 2010

08:15 – 09:00 Keynote Lecture 3

Barry Dickson (Austria): Wired for sex: the neurobiology of Drosophila courtship behaviour

09:00 – 11:00 Symposium 5

New molecules and mediators in drug-abuse (Chair: R. Moratalla, Spain)

N. Hiroi (USA)

Striatal molecules for nicotine addiction

R. Maldonado (Spain)

Molecules for morphine and cannabinoid dependence and pain control

R. Spanagel (Germany)

Striatal molecules involved in alcohol addiction

R. Moratalla and J. Naranjo (Spain)

Implication of D1 and D2 dopamine receptors in cocaine and amphetamine sensitization responses: The role of calcium

11:00 – 14:30: Special Interest Sessions 3 & 4

Repetitive Insults affecting CNS development: models for understanding neuropsychiatric disorders with delayed clinical onset (Chair: Mario Herrera-Marschitz, Chile & Antonello Novelli, Spain)

Novelli, A. (Spain)

Seafood phycotoxins as environmental stressor controlling the survival of CNS cell cultures

Herrera-Marschitz, M. (Chile)

Metabolic insults occurring at birth prime the development of the CNS and determine a tandem-like vulnerability to further postnatal insults

Tasker, A (Canada)

Low dose neonatal domoic acid: a new model of epileptogenesis

Gebicke-Haerter, P (Germany)

Developmental aspects of brain disorders on the molecular level

Sleep in neuropsychiatric disorders (Chair: C. Nissen)

P.C. Baier (Germany)

Effects of exogenous hypocretin-1 on sleep and metabolism of patients with narcolepsy/cataplexy

C. Nissen (Germany)

Sleep, memory and neuroplasticity in sleep disorders

M. Seeck-Hirschner (Germany)

Effects of daytime sleep and hypnosis on memory consolidation in patients with schizophrenia and depression.

N.N.

Genetics of sleep disorders

16:00 – 16:45 Keynote Lecture 4

Roger Nitsch (Switzerland): Immunotherapy for neurodegenerative diseases

16:45 – 17:15 Coffee Break

17:15 – 19:15 Symposium 6

New Gene therapy approaches in Parkinson's disease (Chair: M. Bähr, Germany)

Mathias Bähr (Germany)

Molecular pathophysiology and gene therapy strategies in aggregopathies

K. Mitrophanous (UK)

ProSavin – A Gene Therapy for Parkinson's Disease

N. Deglon (France)

Dopamine replacement strategy for Parkinson's disease

P. Aebischer (Switzerland)

AAV vectors to model and treat Parkinson disease

Friday

April 9th, 2010

08:15 – 09:00 Keynote Lecture 5

Massimo Scanziani (USA): Coordinating excitation with inhibition in cortical space

09:00 – 11:00 Symposium 7

Neuronal network dynamics during plasticity and sensory processing (Chair: T. Mrsic-Flogel, UK)

Juanan Burrone (UK)

Activity-dependent plasticity at the axon initial segment

Mark Hübener (Germany)

Imaging receptive field dynamics in visual cortex

Thomas Mrsic-Flogel (UK)

The structure of spontaneous and evoked population activity in mouse visual cortex

Florian Engert (USA)

The larval zebrafish – from sensory processing to motor-control

11:00 – 12:30 Special Interest Session 5

RNA dynamics controls structural plasticity and homeostasis at the synapse

Jason Dictenberg (USA)

Mechanisms for dendritic mRNA transport in activity-dependent synaptic function

Clive Bramham (Norway)

Arc and translational control of LTP consolidation in vivo

David Wells (USA)

Novel mechanism for the regulation of beta-catenin expression in the brain

Kim Raab-Graham (USA)

Switch of Metabotropic GABAB Receptor Signaling from Inhibitory to Excitatory during Homeostasis in Neurons

16:00 – 18:00 Symposium 8

Adult Neurogenesis (Chairs: S. Jessberger, Switzerland & S.W. Schwarzacher, Germany)

Sebastian Jessberger (Switzerland)

Transcriptome analysis of neural stem cells and their progeny identifies novel pathways regulating adult neurogenesis

Mirko Schmidt (Germany)

EGFL7 stimulates neuronal differentiation of neural stem cells

Chichung Lie (Germany)

Molecular control of stem cell quiescence and differentiation in adult hippocampal neurogenesis

Nora Abrous (France)

Spatial learning: a sculptor of networks

Ludwig Aigner (Austria)

Neurogenesis in the diseased brain: the role of TGF-beta signaling

18:00 – 19:30 Coffee & **Poster Session**

Saturday

April 10th, 2010

08:15 – 09:15 Keynote 6

Rick Huganir (USA): Regulation of Glutamate Receptor Function and Synaptic Plasticity in the Brain

09:15 – 09:30 Break

09:30 – 11:30 Symposium

The machinery of synaptic plasticity: new insights (Chair: D. Rusakov, UK)

Bernardo Sabatini (USA)

Use-dependent control of multi-vesicular release

Tim Ryan (USA)

Live imaging of synaptic vesicle recycling

Daniel Choquet (France)

Modulation of AMPAR surface trafficking controls short term plasticity

Dmitri Rusakov (UK)

Classical LTP relies on D-serine released from a nearby astrocyte

11:30 End of meeting and departure