

The 2nd Systems Neuroscience Symposium, hosted this year by the Munich Center for Neurosciences (MCN), brings together leading researchers in sensory, cognitive, cellular and molecular neuroscience to share their recent findings with the neuroscience community.

QBI speakers include

Prof. Perry Bartlett
Dr. Charles Claudianos
Assoc. Prof. Elizabeth Coulson
Prof. Jason Mattingley
Dr. Judith Reinhard
Prof. Pankaj Sah
Dr. Ingo Schiffner
Prof. Mandyam Srinivasan

MCN speakers include

Prof. Benedikt Grothe
Prof. Martin Biel
Prof. Alex Borst
Dr. Felix Felmy
Prof. Stefan Glasauer
Dr. Donatas Jonikaitis
Dr. Jovica Ninkovic
PD Dr. Mathias Schmidt
Dr. Hiromu Tanimoto
Special Guest (Harvard):
Prof. Venkatesh Murthy

Organization

Prof. Oliver Behrend

SYSTEMS
NEUROSCIENCE
2ND QBI-MCN SYMPOSIUM

9-12 OCTOBER 2012
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MUNICH, GERMANY

Supported by



Further information available at www.mcn.lmu.de

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NEUROSCIENCE

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9-12 OCT. 2012; LMU BIOCENTER, GROSSHADERNERSTR. 2, 82152 MARTINSRIED

Objective

Together with the Queensland Brain Institute (QBI), the Munich Center for Neurosciences (MCN) and the embedded Graduate School for Systemic Neurosciences (GSN) co-founded the QBI-MCN Symposia Series. The symposia were instigated as a platform for students and faculty to explore two world-class neuroscience institutions of Australia and Germany, thereby providing opportunities for exchange in research and teaching.

The initiative aids the transition from the doctoral to the postdoctoral phase and potentially scouts for well educated students from abroad on advanced doctoral and postdoctoral levels. The inaugural symposium on Systems Neuroscience between QBI and MCN-LMU took place at the University of Queensland, Brisbane, Australia in September 2011. The event is followed by this year's meeting in Munich that showcases the Munich neuroscience community as a promising environment for well educated young scientists.

The symposia aim to enhance national and international visibility for both institutions. The future concept of collaboration embraces an exchange of MSc and PhD students for summer schools (planned for 2013), research projects including long term student exchange (1-2 years) and ongoing short-term exchange (2-3 weeks), as well as regular bilateral faculty visits.

Program

Tuesday, 9th October 2012 - Arrivals

16:30	Munich City Tour (delegates and faculty) pick-up at Carlton Astoria Hotel
19:00	Welcome Dinner (delegates and faculty) Hosted by Prof. Benedikt Grothe & Dr. Stefan Lauterbach Spatenhaus (Residenzstr. 12, 80333 Munich)

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Wednesday, 10th October 2012 - Scientific Sessions I (Room B01.027)

- 10:00 **Welcome address**
 Prof. Perry Bartlett (Director, QBI)
 Prof. Benedikt Grothe (Speaker, MCN)
 Dr. Stefan Lauterbach (Director, LMU International Office)

Session 1 - Neural Circuits (Chair: Stefan Glasauer, LMU)

- 10:15 PD Dr. Felix Felmy (MCN; LMU): *Duration of "persistent inhibition" is set by synaptic activity and passive integration*
- 10:45 Prof. Martin Biel (MCN; LMU): *Ion channel diseases of the retina: from pathomechanisms to treatment*
- 11:15 Coffee & Tea Break

Session 2 - Neurogenesis (Chair: Christian Haass, LMU)

- 11:45 Dr. Jovica Ninkovic (MCN; HMGU): *Essential role of BAF complex interacting with Pax6 in establishment of a core cross-regulatory neurogenic network*
- 12:15 Prof. Perry Bartlett (QBI): *Activation of different neurogenic precursor populations in the hippocampus: Potential for Dementia and Depression Therapy*
- 12:45 Lunch - Freshmaker (delegates and faculty)

Session 3 - Neural Regulation (Chair: Stefan Lichtenthaler, TUM)

- 14:00 Assoc. Prof. Elizabeth Coulson (QBI): *Regulation of neuronal survival and death signalling by the cleaved fragments of p75 neurotrophin receptor*
- 14:30 Dr. Charles Claudianos (QBI): *MicroRNA regulation of olfactory learning and memory in honeybees*
- 15:00 Coffee & Tea Break

Session 4 - Sensory-Motor Control (Chair: Benedikt Grothe, LMU)

- 15:30 Prof. Alexander Borst (MCN; MPI): *Genetic dissection of the fly visual course control system*
- 16:00 Dr. Ingo Schiffner (QBI): *A birds view: Control and precision in flight and landing*
- 16:30 Prof. Mandyam Srinivasan (QBI): *Of bees, birds and robots*
- 17:00 Afternoon Tea

17:30 **Strategy meeting (delegates and faculty; room D00.013)**

- 19:00 Dinner (delegates and faculty)
 Trattoria 4Mori (Heighlhofstr. 3, 81377 Munich)

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Thursday, 11th October 2012 - Scientific Sessions II (Room B01.027)

Session 5 - Cognition I (Chair: Hermann Müller, LMU)

10:00 Prof. Stefan Glasauer (MCN; LMU): *Spatial behaviour as probabilistic inference*

10:30 Prof. Jason Mattingley (QBI): *Enhanced steady-state neural responses to task-relevant features at ignored locations during visual search*

11:00 Coffee & Tea Break

Session 6 - Cognition II (Chair: Lutz Wiegrebe, LMU)

11:30 Dr. Donatas Jonikaitis (MCN; LMU): *"What" and "where" of spatial attention*

12:00 Will Harrison (QBI): *Oculomotor preparation mitigates visual crowding*

12:30 Lunch - Freshmaker (delegates and faculty)

Session 7 - Modulation (Chair: Christian Leibold)

14:00 PD Dr. Mathias Schmidt (MCN; MPI): *Unravelling the molecular mechanisms of short- and long-term stress-induced cognitive deficits*

14:30 Dr. Judith Reinhard (QBI): *Investigating neurexin and neuroligin behavioural functions in vivo using Drosophila melanogaster*

15:00 Coffee & Tea Break

Session 8 - Olfactory processing (Chair: Georg Dechant, SPIN)

15:30 Dr. Hiromu Tanimoto (MCN; MPI): *Memory formation and mushroom bodies in the fly brain*

16:00 Prof. Pankaj Sah (QBI): *Olfactory processing in the medial amygdale*

16:30 Prof. Venkatesh Murthy (MCN; Harvard University): *Feedback control of circuits and codes in the mammalian olfactory bulb*

17:00 Closing Remarks

17:05 Afternoon Tea

17:30 Joint poster session (details below; D00.003 foyer)

19:00 Informal Dinner Buffet (LMU Biocenter, D00.003 foyer)

Friday, 12th October 2012 - Excursion: Bavarian Alps

Herrenchiemsee and Kampenwand (event subject to current weather conditions)

9:00 Pick-up at hotel Carlton Astoria

21:00 Return to Munich

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Posters

QBI - Queensland Brain Institute (University of Queensland)

Amelia Douglass:

DCC Functions in multiple aspects of corpus callosum development

Shao-Chang Huang:

Prey capture ability in damselflies: function of ommatidia structure, viewing angle, and visual resolution

Gavin Taylor:

Combining the senses: Looking at the interaction of wind and vision on the honeybees' streamlining response

MCN - Munich Center for Neurosciences (LMU/ MPI/ HMGU/ TUM)

Filippo Calzolari & Julia Schwausch (Götz lab):

Clonal analysis of neural stem cell output in the adult mouse subependymal zone

Boris Chagnaud (Straka lab):

Intrinsic and network properties of a highly synchronous hindbrain motor nucleus

Graziana Gatto (Klein lab):

Receptor tyrosine phosphatase PTPRO inhibits trigeminal axon growth and branching by repressing TrkB and Ret signaling

Rene Gilster (Deubel lab):

Motor selection and visual attention in manual grasping

Lars Kunz (Grothe lab):

- 1) Metabolic maturation of auditory brainstem neurones
- 2) The impact of the endocannabinoid system on sound localisation

Christian Leibold:

Spatial behavior of mongolian gerbils in complex virtual environments

Sónia Paixão (Klein lab):

EphA4 marks a population of spinal cord dorsal interneurons required for left-right coordination of locomotion

Gregor-Alexander Pilz (Götz lab):

Amplification of progenitors in the mammalian telencephalon includes a novel radial glia cell type

Dragan Rangelov (Müller lab):

Pop-out visual search mechanisms: Not all display densities are made equal

Juhi Sardana (Kadow lab):

Eph, Ephrin and Ephexin instruct dendritic patterns of specific olfactory projection neurons in fly

Ludwig Wallmeier (Wiegrebe lab):

Echolocation vs. echo suppression: Influence of the precedence effect on the human-sonar localization of reflective surfaces

SPIN - Signal Processing in Neurons (University of Innsbruck)

Kai Kummer (Dechant lab):

Social interaction reverses both cocaine conditioned place preference and associated brain activation patterns

Claudia Schmuckermair (Dechant lab):

Behavioral and neurobiological effects of deep brain stimulation in a mouse model of high anxiety- and depression-like behavior

GSN - Graduate School for Systemic Neurosciences (LMU/ MPI/ HMGU/ TUM)

50+ additional posters by current GSN students ('GSN IntroWeek'; details in separate booklet)