

Systems 1st QBI-MCN Symposium Neuroscience

28-30 September 2011

Level 7 Auditorium, Queensland Brain Institute, Building 79, Upland Road,
The University of Queensland, St Lucia Campus, Brisbane QLD 4072

Scientific Program

Wednesday 28 September 2011

- 16:15 Opening remarks by:
Professor Perry Bartlett (Director, QBI) and Professor Paul Greenfield (Vice-Chancellor, UQ)
- 16:30 Professor Perry Bartlett (Director, QBI); "Neuroscience at the Queensland Brain Institute"
- 16:45 Professor Benedikt Grothe (Director, MCN); "The neuroscience landscape in Munich"
- 17:00 **Keynote Lecture** (Chair: Perry Bartlett)
Professor Mark Hübener (MPIN); "Learning to see: Imaging structural and functional plasticity in the visual cortex"

18:00 **Cocktail Reception** QBI Terrace Level 7

Thursday 29 September 2011

Session 1: Sensory systems (Chair: Geoff Goodhill)

- 8:30 Justin Marshall (QBI); "Stomatopod vision – why is it so complex?"
- 8:55 Armin Bahl (MPIN); "Visual control of walking speed in *Drosophila melanogaster*"
- 9:20 Allen Cheung (QBI); "Animal spatial navigation: need for a 'cognitive map'?"
- 9:45 Ilona Grunwald Kadow (MPIN); "Formation and function of olfactory neural circuits underpinning innate behavior"
- 10:10 Judith Reinhard (QBI); "Plasticity of olfactory receptors modulated by sensory experience"

10:35 **Morning tea** QBI Terrace Level 7

Session 1: Sensory systems cont. (Chair: Justin Marshall)

- 11:05 Benedikt Grothe (LMU); "Dynamics of binaural hearing"
- 11:30 Christian Leibold (LMU); "Chasing the phase: modelling of binaural coincidence detection"
- 11:55 Lutz Wiegrebe (LMU); "Fast and focussed: spatio-temporal processing in bat sonar"

12:20 **Lunch** QBI Reception Lawn

Session 2: Cellular systems (Chair: Charles Claudianos)

- 13:20 Magdalena Götz (LMU,HCM); "Neurogenic fate acquisition in adult neurogenesis"
- 13:45 Perry Bartlett (QBI); "Stimulation of latent, neurogenic stem cells in the hippocampus"
- 14:10 Silvia Cappello (HCM); "A new mouse model of 'double cortex': the role of RHOA in cortical development"
- 14:35 Helen Cooper (QBI); "Neogenin: a molecular determinant of Radial progenitor polarity and function"

15:00 **Afternoon tea** QBI Terrace Level 7

Session 2: Cellular systems cont. (Chair: Fred Meunier)

- 15:30 Pia Johansson (HCM); "The developing choroid plexuses act as signaling centres capable of influencing the behavior of neuronal progenitor cells"

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- 15:55 Massimo Hilliard (QBI); "Axonal regeneration proceeds through axonal fusion in *Caenorhabditis elegans* neurons"
- 16:20 Linda Richards (QBI); "The development of commissural projections from the cingulate cortex"
- 16:45 Geoff Goodhill (QBI); "Mechanisms of axonal gradient detection"
- 17:10 **Poster session** **L7 seminar room and interaction area**
Wine & Cheese, Beer Tasting Competition
- 19:00 **Dinner in groups** **Selected restaurants**

Friday 30 September 2011

Session 3: Molecular systems

(Chair: Linda Richards)

- 8:30 Rüdiger Klein (MPIN); "Molecular mechanisms of repulsive guidance of pathfinding cells and axons"
- 8:55 Charles Claudianos (QBI); "The neurexin/neurologin complex in the synapse: a role in mediating sensory response"
- 9:20 Sonia Paixao (MPIN); "Genetic analysis of EphA4 in cortical and spinal control of locomotion"
- 9:45 Elizabeth Coulson (QBI); "Signalling neuronal death and survival through the neurotrophin receptors"
- 10:10 Fred Meunier (QBI); "The role of *munc18* in neuronal communication"

10:35 **Morning tea**

QBI Terrace Level 7

Session 4: Cognitive systems

(Chair: Ottmar Lipp)

- 11:05 Heiner Deubel (LMU); "Attention for the preparation of saccades, manual reaching, and grasping"
- 11:30 Oliver Baumann (QBI); "Distinct neural networks underlie encoding of categorical versus coordinate spatial relations during active navigation"
- 11:55 Donatas Jonikaitis (LMU); "Remapping of visual attention"

12:20 **Lunch**

Session 4: Cognitive systems cont.

(Chair: Judith Reinhard)

- 13:20 Bruno van Swinderen (QBI); "Visual competition and brain dynamics in the fly and the bee"
- 13:45 Pankaj Sah (QBI); "Excitatory GABA-ergic transmission in the amygdala: a role in fear learning"
- 14:10 Ottmar Lipp (UQ PSYCH); "The extinction of human fear learning: differences across domains of fear"
- 14:35 Reinhard Flessner (UQ International); "Collaborative funding opportunities – Germany and Australia"

15:00 **Afternoon tea**

QBI Terrace Level 7

Queensland Brain Institute & Munich Center for Neurosciences

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Scientific Program

Friday 30 September 2011 cont.

- 15:30** Tour of QBI research laboratories (3 parallel tours, 10 people per group)
Facilities to visit: cellular/molecular laboratories, electrophysiological laboratories, rodent facilities, marine laboratories, insect laboratories, honeybee facility, cognitive laboratories, imaging facilities (PET, fMRI)
- 16:00** Group workshops to discuss future collaborative projects, joint funding options, and student/staff exchange
L3 meeting room: Sensory function and plasticity focus group
L4 meeting room: Vision, cognition, navigation focus group
L5 meeting room: Molecular mechanisms focus group
L7 seminar room: Neurogenesis focus group
Other focus groups: L6 reading room and faculty offices
Please identify likely collaborators and join the relevant focus group.
- 17:30** Closing remarks
Professor Benedikt Grothe (LMU)
Professor Perry Bartlett (QBI)
- 19:00** **Dinner at Customs House for invited guests**
Pre-dinner drinks in the Art Gallery at 7PM
Dinner in the Lady Thies Room at 7:30PM
Customs House is situated at 399 Queen Street, Brisbane