

4th QBI-MCN symposium

13th July 2018

The University of Queensland's
Queensland Brain Institute
Brisbane QLD Australia

The fourth symposium between the Queensland Brain Institute (QBI) and the LMU Munich Center for Neurosciences (MCN) brings together their leading researchers in circuits, cognitive, and cellular and molecular neuroscience to share their recent findings with the Australian neuroscience community. Join us for a series of lectures, topic-specific sessions, and a poster session with wine and cheese. Participants are also invited to attend a social event after the symposium.

Registration is FREE, but RSVP is essential for catering purposes. Participants are invited to bring a poster for display. Please include author(s) and poster title when registering.

Register at:

qbi.uq.edu.au/QBI-MCN18

MCN participants include:

Professor Oliver Behrend
Professor Herwig Baier
Professor Harald Luksch
Professor Leo van Hemmen
Dr Jean-Francois de Backer
Dr Martin Spacek
Dr Hernan Lopez-Schier

Leonie Baier
Duncan Mearns
Manuel Stemmer
Michael Forsthofer
Ella Lattenkamp
Margarete Überfuhr

QBI participants include:

Professor Pankaj Sah
Professor Justin Marshall
Professor Mandyam Srinivasan
Professor Geoff Goodhill
Dr Susannah Tye
Dr Roger Marek
Dr Margreet Ridder
Dr Miriam Henze
Dr Fabio Cortesi
Dr Wen-Sung Chung

Dr Fanny De-Busserolles
Dr Sam Powell
Dr Lilach Avitan
Dr Martyna Grabowska
Cong Wang
Kieran Lawson
Debajyoti Karmaker
Mahadeesh Mandiyam
Tessa Borloo

Supported by



Queensland Brain Institute



Graduate School of
Systemic Neurosciences
LMU Munich



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Program

8:00 Register: QBI Foyer, Queensland Brain Institute, Building 79, The University of Queensland

8:30 Welcome and future directions: Pankaj Sah and Oliver Behrend

8:50 Welcome and housekeeping: Justin Marshall

Session 1: Sensory Systems

9:00 Herwig Baier and Duncan Mearns

Vision to behavior—neural circuits for action selection in zebrafish

9:30 Geoff Goodhill

Neural coding in the larval zebrafish brain

10:00 Morning Tea/Coffee: Poster viewing

Session 2: Sensory Systems continued

11:00 Justin Marshall

Comparative visual neuroscience in stomatopods, cephalopods and the footless fish

11:30 Harald Luksh

Auditory and multimodal localization in generalist birds

12:00 Mandyam Srinivasan

Visual guidance of flight in birds and bees

12:30 Leo van Hemmen

Internally coupled ears (ICE): the cool part of sound localization

13:00 Lunch: Poster viewing

Session 3: Brains

14:00 Pankaj Sah

What the hippocampus tells the prefrontal cortex during fear extinction

14:30 Hernan Lopez-Schier

Sensorimotor homeostasis in the absence of Wallerian axon degeneration

15:00 Susannah Tye

Dopaminergic mechanisms of deep brain stimulation in an animal model of antidepressant resistance

15:30 Afternoon Tea/Coffee: Poster viewing

Session 4: Cognition

16:00 Martin Spacek

Effects of cortical feedback and behavioral state on naturalistic movie responses in mouse dLGN

16:30 Martyna Grabowska

Neuropeptide F drives attentional gain in the fly brain

17:00 Jean-Francois de Backer

A neural circuit arbitrates between perseverance and withdrawal in hungry Drosophila

17:30 Poster viewing and Beer: QBI Terrace

18:30 Dinner at QBI: QBI Terrace

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Posters

Poster presentations

Vision in zebrafish and other animals

Stephan Neuhauss

Detection of biosonar target changes in FM bats

Leonie Baier

Unsupervised analysis reveals a modular organisation of prey capture behaviour in zebrafish larvae

Duncan Mearns

Social brain evolution in cichlids

Manuel Stemmer

Interspecies communication of distance in the rattlesnake acoustic threat display

Michael Forsthofer

Are adult bats capable of vocal imitation?

Ella Lattenkamp

Titrating the effect of low-frequency sound on the mammalian cochlea

Margarete Überfuhr

Prefrontal correlates to regulate fear extinction

Roger Marek

Unravelling the neural circuits related to movement disorders: the pedunculopontine nucleus

Margreet Ridder

The role of prefrontal cortex and hippocampus in memory and learning

Cong Wang

When male and female eyes differ: Sexually dimorphic retinal responses in a moth

Miriam Henze

How Dory finds her friends

Fabio Cortesi

Unlocking the cephalopod brain

Wen-Sung Chung

Optimising vision in twilight conditions: photoreceptor transmutation in the deep-sea pearlside

Fanny De-Busserolles

Using mantis-shrimp inspired cameras and polarisation-based protocols to navigate and geo-locate underwater

Sam Powell

Flight of the Flies: An analysis of the flight controller and behaviour of fruitflies in virtual reality

Kieran Lawson

Budgerigar flight: Guidance laws for avoiding mid-air collisions

Debajyoti Karmaker

Collision avoidance strategies of honeybees in a 'bee cloud'

Mahadeesh Mandiyam

The development of the neural code in the zebrafish optic tectum

Lilach Avitan

Cellular metabolism and cell stress gene expression patterns are modulated by deep brain stimulation

Tessa Borloo