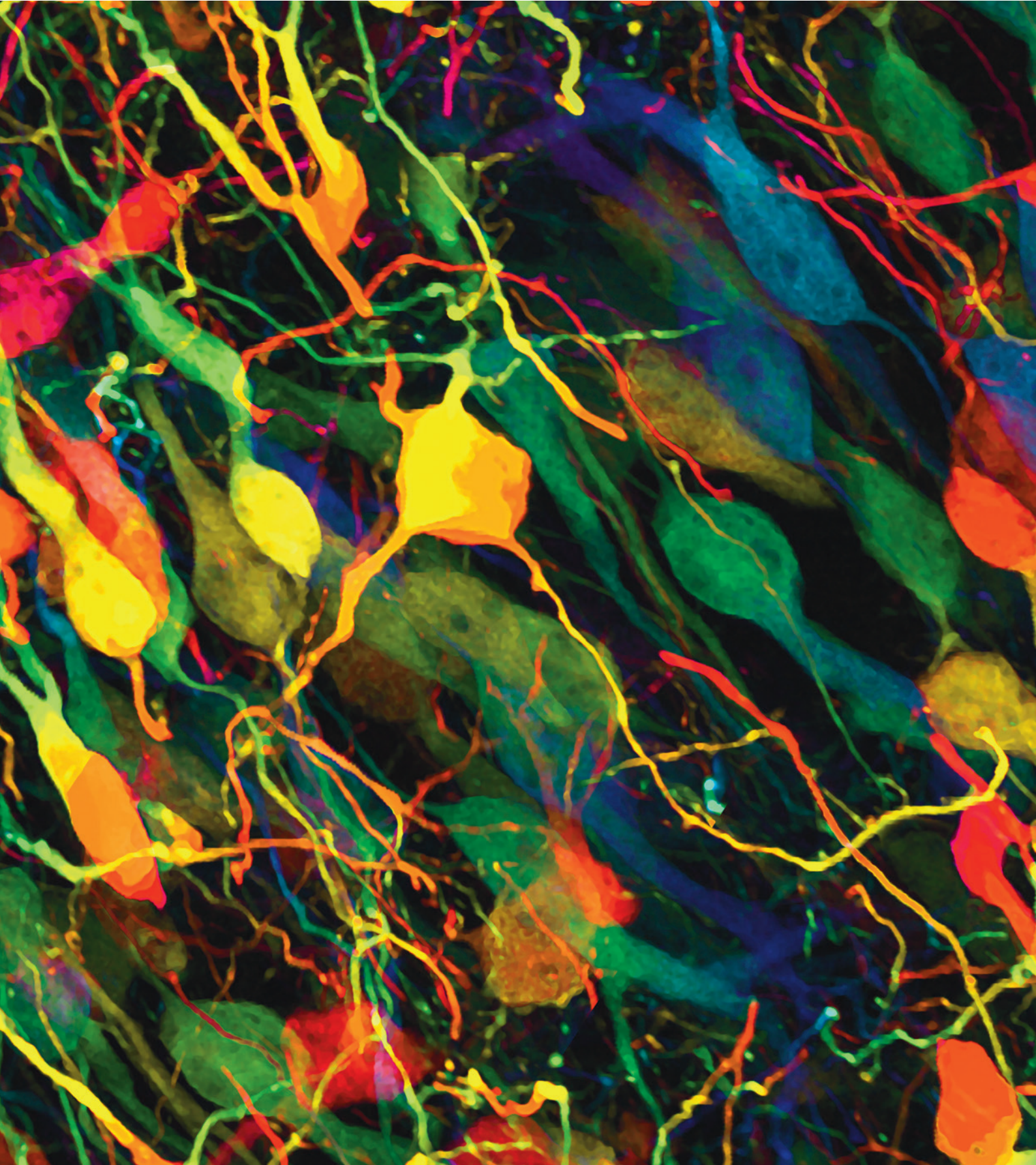


Queensland Brain Institute **2016 Annual Report**





# Director's message



2016 was a year of strong achievement, and QBI continued to grow and establish itself as a central player in neuroscience in the Asia-Pacific region.

The number of annual QBI publications in leading scientific journals remained high at 369, as did our grant success in both the NHMRC and ARC schemes, with 47% and 33% success rates respectively, well above the national averages. It was particularly rewarding that many of our younger recruits were successful in obtaining grants. QBI Faculty also received a number of prestigious fellowships and prizes. Of note, John McGrath was awarded the Danish Niels Bohr Fellowship, Geoff Faulkner (a joint appointment with Mater Research) was awarded the CSL Centenary Fellowship, Naomi Wray (a joint appointment with IMB) was elected to the Australian Academy of Science, and Linda Richards was awarded an NHMRC Professorial Research Fellowship.

Our clinical links were strengthened with joint appointments with Mater Neuroscience. Dr Dhanisha Jhaveri and Professor Geoff Faulkner are two research appointments, and we have also secured two new clinical appointments with Professors Peter Nestor and Michael O'Sullivan, both of whom will be starting in 2017. The Asia-Pacific Centre for Neuromodulation (APCN) is now fully integrated into QBI, with a clinical trial underway using Deep Brain Stimulation to treat Obsessive Compulsive Disorder.

The International Research Review Board was established, with the appointment of five international scientists, whose research collectively covers the broad range of science being undertaken within the Institute. Board members include Professors Ray Dolan (University College London, Chair), Alison Goate (Mt Sinai), Andreas Lüthi (Friedrich Miescher Institute), Mu-ming Poo (Berkeley and the Institute of Neuroscience) and Li-Huei Tsai (MIT). This Board will review the current and future research focus of QBI, as well as individual Faculty members at their inaugural meeting in August 2017.

A handwritten signature in blue ink that reads "Pankaj Sah".

**Professor Pankaj Sah**  
Director, Queensland Brain Institute

# Research highlights

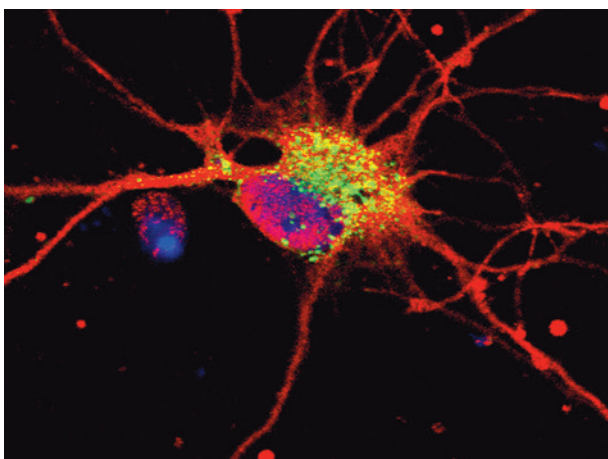
There were several major research discoveries in 2016, as well as the progression of a number of research outcomes towards clinical trials.



**Professor Perry Bartlett's** laboratory commenced a clinical trial to identify the optimal amount of exercise and its impact on cognitive improvement. The trial, a collaboration with UQ's School of Human Movement and Nutritional Sciences and the Centre for Advanced Imaging, will recruit people aged 65 and over, and also aims to find blood and brain biomarkers of improved cognitive function due to exercise.



**Professor Lizzie Coulson** has made a discovery that a sleep apnoea machine (CPAP) may reduce risk for Alzheimer's Disease. The CPAP machine keeps airways open during sleep—counteracting the lower levels of oxygen that reach the brain during poorly ventilated sleep—and may work because brain cells can die if not adequately oxygenated. This discovery may progress to human trials in the future.

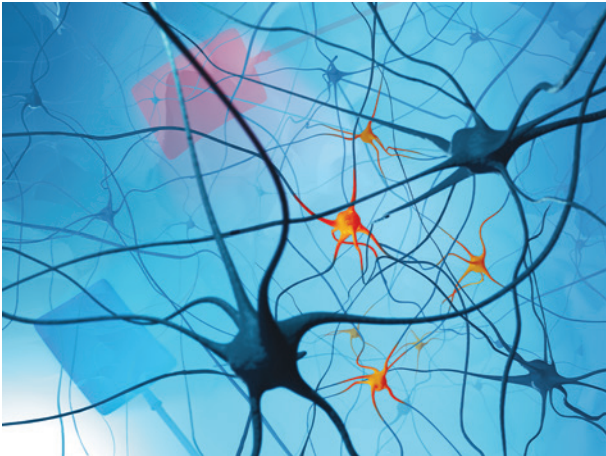


**Professor Fred Meunier** found a surprising link between neurodegenerative diseases and a rare form of epilepsy. Mutations to a protein called Munc18-1 were known to trigger this rare epilepsy. What Professor Meunier and his laboratory have shown is that the mutations can also cause clumping of the  $\alpha$ -synuclein protein, similar to the pathology seen in Parkinson's disease patients.



**Professor John McGrath** has found a link between Vitamin D deficiency in pregnancy and increased autism traits. He, together with Dr Henning Tiemeier from the Erasmus Medical Centre in The Netherlands, found that pregnant women with low Vitamin D levels at 20 weeks' gestation were more likely to have a child with autistic traits by the age of six.





**Professor Jason Mattingley** and researchers from UQ's School of Psychology showed for the first time that "brain training" for specific tasks can also improve broader brain performance. When combined with transcranial direct current stimulation (tDCS), participants showed improved performance not only in the task they were trained on, but also in a separate task. The improvements were still evident up to two weeks later.



**Associate Professor Bruno van Swinderen** and PhD student **Leonie Kirszenblat** published a paper on the many links between sleep and attention. The pair note that sleep and attention both allow the brain to ignore irrelevant information, and that they may use similar brain mechanisms to achieve that.

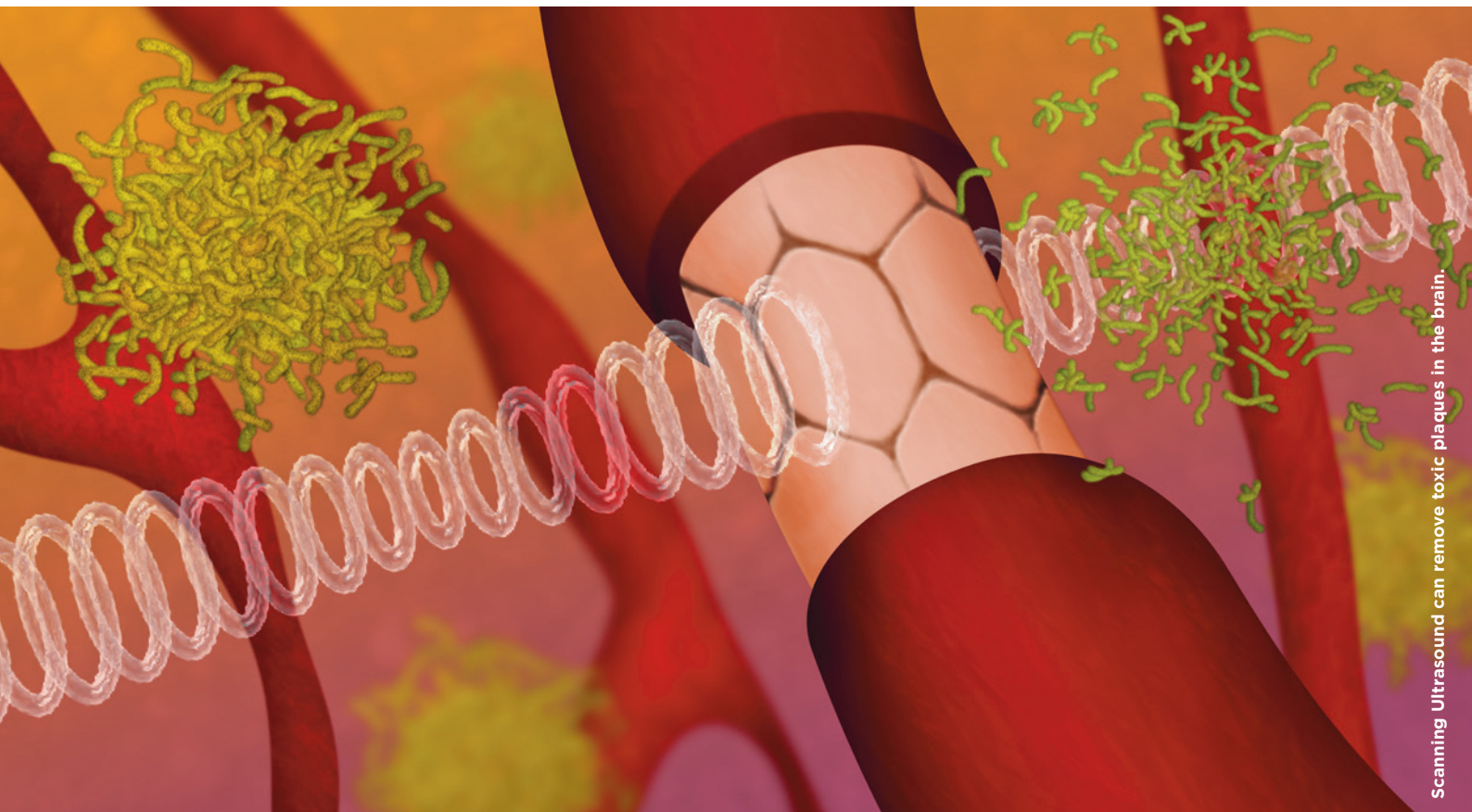


**Professor Naomi Wray** was part of a team that discovered three new genes that increase the risk of motor neurone disease (MND), opening the door for targeted treatments. MND is a complex, debilitating disease with no effective treatments. Professor Wray hopes to extend the study using a \$1 million grant that arose out of the Ice Bucket Challenge.



**Professor Peter Visscher** was part of a large consortium that identified 74 genes that may play a role in how long a person stays at school, or whether they go to university. These genes can account for up to 20 per cent variation in how much schooling a person received. Professor Visscher cautions that this does not mean educational attainment is determined at birth, with so many other factors—social and environmental—playing a larger role.

# Commercialisation



Scanning Ultrasound can remove toxic plaques in the brain.

A number of research outcomes have also progressed towards commercialisation.

## Alzheimer's disease and dementia

The "Scanning Ultrasound System", developed in the Götz laboratory within the Clem Jones Centre for Ageing Dementia Research (CJCADR), is still in the research stage, but is progressing towards development of a prototype for use in clinical trial. QBI has recently hired a Product Development Manager to accelerate the program and has contracted Hydrix Pty Ltd, an engineering consultancy firm, to undertake a program of work (including due diligence), with a view to building the prototype. Significant due diligence activities have been undertaken to identify the IP landscape for ultrasound devices and to map potential "treatments" for Alzheimer's disease against this product.

## Motor neurone disease

The EphA4 project of the Bartlett laboratory has had UQ-generated intellectual property licensed to a spin out company. It will also generate a Research Fund Fee (as defined in the Proceeds of Commercialisation Agreement) to the Queensland State Government.

# Fellowships, honours and awards

## Academy of Finland

**Dr Merja Joensuu**

Academy of Finland Postdoctoral Fellowship

## Asian-Pacific Society for Neurochemistry

**Dr Victor Anggono**

Young Investigator Award

## Australasian Neuroscience Society

**Professor Naomi Wray**

Nina Kondelos prize

**Brent Neumann, Sean Coakley, Rosina Giordano-Santini, Casey Linton, Eui Seung Lee, Akihisa Nakagawa, Ding Xue & Massimo A Hilliard**  
Paxinos-Watson Award

## Australian Academy of Health and Medical Sciences

**Professor Linda Richards**

Australian Academy of Health and Medical Sciences Fellow

**Professor Jürgen Götz**

Australian Academy of Health and Medical Sciences Fellow

## Australian Academy of Science

**Professor Naomi Wray**

Australian Academy of Science Fellow

**Dr Marta Garrido**

Early- and Mid-Career Research Forum

## Australian Institute of Policy and Science

**Dr Shyuan Ngo**

QLD Young Tall Poppy Science Award

## Australian Museum

**Professor Geoff Faulkner**

Scopus Eureka Prize for Excellence in International Scientific Collaboration

## Australian Research Council

**Professor Geoff Faulkner**

Ruth Stephens Gani Meda

**Dr Rodrigo Suárez**

Discovery Early Career Researcher Award

**Dr Beben Benyamin**

US-Indonesia Kavli Frontiers of Science Symposium

## Motor Accident Insurance Commission

**Dr Fatima Nasrallah**

Senior Research Fellowship

## Motor Neurone Disease Research Institute of Australia Inc

**Dr Fleur Garton**

MND RIA Postdoctoral Fellowship

## Motor Neurone Disease (Victoria)

**Dr Beben Benyamin**

The Nina Buscombe Award

**Dr Fleur Garton**

The Nina Buscombe Award

## National Health and Medical Research Council

**Associate Professor Helen Cooper**

One of the Ten of the Best NHMRC Research Projects of 2015

**Associate Professor Massimo Hilliard**

NHMRC Research fellowship

**Dr Sean Coakley**

NHMRC-ARC Dementia Research Development fellowship

## Roche Products Pty Ltd

**Professor Pankaj Sah**

Translational Seminar Series 2015

## South Australian Health and Medical Research Institute

**Professor Perry Bartlett**

Samuel Gershon Medal for Lifetime Achievement in Translational Neuroscience

## Swiss National Science Foundation

**Dr Fabio Cortesi**

Early Postdoc Mobility Fellowship

## The University of Queensland

**Associate Professor Massimo Hilliard**

UQ Vice-Chancellor's Research Focused Fellowship

**Associate Professor Bruno van Swinderen**

UQ Development Fellowship

**Dr Marta Garrido**

UQ Development Fellowship

## The Yulgilbar Foundation

**Rebecca Nisbet**

Postdoctoral Researcher Excellence Award

# Grants

QBI had a successful year in obtaining competitive funding in both the Australian Research Council (ARC) and the National Health and Medical Research Council (NHMRC) grant rounds with a success rate of 24.3% for NHMRC Project Grants (national average 13.7%) and 50% for ARC Discovery Projects (national average 17.7%). A list of the grants that commenced in 2016 follows.

## Alzheimer's Australia

Dementia Research Foundation Project Grant

**Marie-Lou Camara and Elizabeth Coulson**

*A novel approach to enhance cognitive function and promote synaptic plasticity*

## Australian Museum

Lizard Island Research Grant

**Fabio Cortesi**

## Australian Research Council

ARC Discovery Projects

**Jürgen Götz**

*A novel click chemistry approach to identify learning and memory molecules*

**Peter Visscher and Matthew Robinson**

*The genetics of ageing in human populations*

**Peter Visscher**

*Phenotypic profiling from DNA using genetic and epigenetic information*

**Jian Yang and Michael Goddard**

*The role of X-chromosome inactivation in quantitative trait variation*

**Massimo Hilliard**

*Understanding the molecular mechanisms regulating neuronal fusion*

**Zhitao Hu**

*Investigating the molecular mechanism of synaptic transmission*

**Linda Richards and Rodrigo Suárez**

*Unravelling the principles of bilateral brain wiring*

## AstraZeneca Pty Ltd

Investigator Initiated Study

**Phillip Robinson, Nicole Dalbeth, Danny Liew**

*A study of the burden of disease in gout compared to diabetes mellitus*

## Brain and Behavior Research Foundation

NARSAD Young Investigator Grant

**Jake Gratten**

*Genomic analysis of sex differences in prevalence of psychiatric disorders*

## CNGbio Corp

**Frederic Meunier**

*Embryonic animals and tissue cultures*

## Ian Potter Foundation

Travel Grants

**Alex Puckett**

**Rodrigo Suárez**

## International Brain Research Organization

International Travel Grant

**Rodrigo Suárez**

## Japan Neuroscience Society

Travel Award

**Victor Anggono**

## Mater Research

BICARE Grant

**Catherine Franklin, Kai-Hsiang Chuang, Fatima Nasrallah, Nicholas Lennox**

*Understanding acute regression in adolescents and young adults with down syndrome*

## National Health and Medical Research Council

NHMRC Project Grants

**Oliver Baumann and Christine Guo**

*High-resolution brain imaging of cerebellar non-motor functions*

**Geoffrey Goodhill**

*How are axons guided to their targets in the developing nervous systems?*

**Jake Gratten and Peter Visscher**

*Genetic analysis of the relationship between parental age and risk of psychiatric disorders*

**Bruno van Swinderen and Victor Anggono**

*Molecular mechanisms underlying recovery from general anaesthesia*

**Luca Cocchi, Andrew Zalesky, Olaf Sporns and Jason Mattingley**

*Selective modulation of neural network activity using focal brain stimulation*

**John McGrath, Pankaj Sah, Victor Anggono, Darryl Eyles and Thomas Burne**

*Voltage-gated calcium channels and vitamin D: exploring the convergent links between risk factors for schizophrenia*

**Linda Richards, Elliot Sherr and Thomas Burne**

*Delayed radial glial maturation linked to NFI deficiency as an underlying cause of cortical defects in humans and mice*

**Pankaj Sah**

*Auditory processing in the amygdala*

**Jian Yang and Allan McRae**

*Methods and software tool for complex trait analyses using multi-omics data*



Australian Government Funding Scheme	Successful QBI applications	QBI Success rate	National Success rate
ARC Discovery Projects	7	50%	17.7%
ARC Discovery Early Career Researcher Award (DECRA)	1	20%	16.4%
NHMRC Projects	9	24.3%	13.7%
NHMRC Research Fellowships	1	50%	not published

## Queensland Government

Advance Queensland Mid Career Research Fellowship

**James Kesby**

*Establishing therapeutic links between early dopamine function and schizophrenia*

Advance Women's Academic Fund Maternity Funding

**Rosina Giordano-Santini**

## Rebecca L Cooper Medical Research Foundation

Research Grant

**Jean Giacomotto**

*Using the Zebrafish to fight psychiatric disorders: from proof-of-principle to new insights and treatments*

## Research Foundation of Cerebral Palsy Alliance

Research Project Grant

**Margaret J Wright, Roslyn Boyd, Stephen Rose, Gai McMichael and Michael Fahey**

*"Imagine Cerebral Palsy" Genome and Connectome study*

## Sea World Research and Rescue Foundation Inc

Marine Vertebrate Grant

**Fabio Cortesi and Justin Marshall**

*Seeing colour on the reef: molecular basis for opsin evolution in surgeonfishes*

## Stichting Incontinence Foundation

**Hari Subramanian**

*Deep brain stimulation therapy for treatment of urge-incontinence and overactive bladder*

## The University of Queensland

UQ Early Career Researcher Grants

**Zhitao Hu**

*The presynaptic mechanism of neurotransmission*

**Steven Zuryn**

*Generating transgenic mitochondrial genomes for investigation of mitochondrial biology in vivo*

UQ Major Equipment and Infrastructure grant

**Bruno van Swinderen, Barry Dickson and Sean Millard**

*4-Dimensional multi-photon microscopy for understanding neural circuits and behaviour*

UQ NHMRC Equipment Grants

**Geoffrey Goodhill, Perry Bartlett, Thomas Burne, Elizabeth Coulson, Helen Cooper, Linda Richards, Jürgen Götz and Justin Marshall**

*Light-sheet microscope for high-speed 3D imaging of live organisms and fixed tissue*

**Massimo Hilliard, Steven Zuryn, Zhitao Hu and Jürgen Götz**

*Automatic plate pourer*

## The Yulgilbar Foundation

Alzheimer's Research Program Grants

**Jürgen Götz**

## University of Otago

World Mental Health Survey Grant

**John McGrath**



# QBI Executive and Faculty

## QBI Executive



**Professor Pankaj Sah**  
Institute Director



**Professor Linda Richards**  
Deputy Director  
(Research)



**Mr John Kelly**  
Deputy Director  
(Strategic)



**Ms Helen Weir**  
Deputy Director  
(Operations)

## QBI Faculty

**Dr Victor Anggono**  
Synaptic neurobiology

**Professor Perry Bartlett**  
Neurogenic regulation of cognition

**Associate Professor Tim Bredy**  
Cognitive neuroepigenetics

**Associate Professor Thomas Burne**  
Developmental neurobiology

**Dr Allen Cheung**  
Computational neuroscience and  
spatial navigation

**Associate Professor  
Kai-Hsiang Chuang**  
Functional and molecular  
neuroimaging

**Associate Professor Helen Cooper**  
Neural migration

**Professor Elizabeth Coulson**  
Nerve cell survival

**Associate Professor Terry Coyne**  
Neurosurgery and deep brain  
stimulation

**Professor Ross Cunnington**  
Brain and action

**Professor Barry Dickson**  
Locomotor circuits in *Drosophila*

**Professor Darryl Eyles**  
Neurobiology of mental health

**Professor Geoff Faulkner**  
Computational and molecular biology

**Dr Marta Garrido**  
Computational cognitive  
neuroscience

**Professor Geoffrey Goodhill**  
Computational, systems and  
developmental neuroscience

**Professor Jürgen Götz**  
Basic neuroscience and ageing  
dementia

**Associate Professor  
Massimo Hilliard**  
Molecular and cellular neurobiology

**Dr Zhitao Hu**  
Neurotransmitter release

**Dr Dhanisha Jhaveri**  
Cellular regulation of stress  
and depression

**Professor Tianzi Jiang**  
Brainnetome and neuroimaging

**Professor Joseph Lynch**  
Molecular neuroscience

**Professor Justin Marshall**  
Sensory neurobiology

**Professor Jason Mattingley**  
Cognitive neuroscience

**Professor John McGrath**  
Epidemiology and clinical trials

**Dr Rodrigo Medeiros**  
Neurodegenerative diseases

**Professor Frederic Meunier**  
Single molecule neuroscience

**Professor Grant Montgomery**  
Complex trait and disease genomics

**Professor Bryan Mowry**  
Psychiatric genomics

**Dr Fatima Nasrallah**  
Functional neuroimaging  
and brain injury

**Dr Patricio Opazo**  
Synaptic memory

**Mr Geoff Osborne**  
Flow cytometry

**Dr Michael Piper**  
Neural stem cells

**Professor Linda Richards**  
Brain development and disorders

**Professor Pankaj Sah**  
Synaptic plasticity

**Professor Peter Silburn**  
Neurosurgery and deep brain  
stimulation

**Professor Mandyam Srinivasan**  
Neuroscience of vision and  
aerial robotics

**Associate Professor  
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Cognitive and behavioural  
neuroscience

**Professor Peter Visscher**  
Neurogenetics and statistical genomics

**Dr Jana Vukovic**  
Neuroimmunology and cognition

**Professor Stephen Williams**  
Synaptic integration in neural  
networks

**Professor Naomi Wray**  
Neurogenetics and statistical genomics

**Associate Professor  
Margie Wright**  
Imaging genomics

**Professor Jian Yang**  
Neurogenetics and statistical  
genomics

**Dr Steven Zuryn**  
Epigenetics and mitochondrial  
biology

# QBI Students

There were a total of 115 RHD students enrolled at QBI, which included 2 Master of Philosophy candidates. Congratulations go to the 19 RHD students who graduated in 2016.

## 2016 Graduates

### Joon Yong An PhD

Principal Advisor: Associate Professor Charles Claudianos  
*Identification and functional characterization of genetic variants in an Australian autism spectrum disorder cohort*

### Stephanie Biergans PhD

Principal Advisor: Associate Professor Charles Claudianos  
*DNA methylation and the regulation of stimulus-specific memory formation*

### Zoran Boskovic PhD

Principal Advisor: Professor Elizabeth Coulson  
*Role of p75 neurotrophin receptor in normal cholinergic basal forebrain function in adults*

### Natalie Groves PhD

Principal Advisor: Associate Professor Thomas Burne  
*The role of adult vitamin D deficiency in cognition and brain function in mice*

### Nicholas Hughes PhD

Principal Advisor: Professor Geoffrey Goodhill  
*Neural plasticity via visual cortical maps*

### Sarah Hunt PhD

Principal Advisor: Professor Pankaj Sah  
*Intrinsic circuitry of the central lateral amygdala*

### Leonie Kirszenblat PhD

Principal Advisor: Associate Professor Bruno van Swinderen  
*Visual attention and sleep homeostasis in Drosophila*

### Natalie Lee PhD

Principal Advisor: Associate Professor Helen Cooper  
*The role of neogenin in epithelial morphogenesis*

### Emilia Lefevre PhD

Principal Advisors: Associate Professor Thomas Burne  
*Neural mechanisms of MK-801 induced sensitisation*

### Xiang Li PhD

Principal Advisor: Associate Professor Tim Bredy  
*Tet protein-mediated DNA hydroxymethylation within the prefrontal cortex as a mechanism for the formation and maintenance of fear-related memory*

### CiRong Liu PhD

Principal Advisor: Professor Tianzi Jiang  
*Studying brainnetome of DISC1 and socially isolated mice with neuroimaging techniques*

### Aung Aung Kywe Moe PhD

Principal Advisor: Professor Darryl Eyles  
*Evaluating the long-term consequences of adolescent antipsychotic exposure*

### Vinod Narayana PhD

Principal Advisor: Professor Frederic Meunier  
*Unravelling changes in lipid composition in stimulated neurons and neurosecretory cells by quantitative lipid profiling*



As part of his PhD, **Dr Zoran Boskovic** took part in UQ's work experience pilot program, partnering with the Queensland Government. Zoran was placed in a team tasked with finding innovative solutions to challenges faced by a group of Queensland businesses.

Involved in a project at the Department of Science, Information Technology, Innovation and the Arts (DSITIA), he was in charge of delivering an innovation clinic that aimed to provide inventive solutions for dairy exports in North Queensland.

The experience helped him to broaden his communication skills in an industry setting where there is a need to communicate ideas and solutions in different formats, and was an exciting opportunity for him to challenge himself and test the skills he acquired during his PhD at QBI.

### Huyen Nguyen PhD

Principal Advisor: Professor Geoffrey Goodhill  
*Mathematical modelling of axon guidance in chemical gradients*

### Genevieve Phillips PhD

Principal Advisor: Professor Justin Marshall  
*Visual ecology of predator-prey relationships on the coral reef*

### Ming Shiuan Soh PhD

Principal Advisor: Professor Joseph Lynch  
*Discovering novel alpha5-containing GABA-A receptor selective drugs for schizophrenia, stroke and cognitive impairments*

### Marion Turnbull PhD

Principal Advisor: Professor Elizabeth Coulson  
*Neurotrophin regulation of Alzheimer's disease pathology*

### Karly Turner PhD

Principal Advisor: Associate Professor Thomas Burne  
*Establishing novel cognitive tasks in animal models relevant to schizophrenia*

### Jing Zhao PhD

Principal Advisor: Professor Perry Bartlett  
*Role of EphA4 in regulating motor neurone disease and adult neurogenesis*



# Philanthropy

During 2016, contributions by generous donors to QBI provided essential support to fund crucial research, which has allowed our scientists to improve our understanding of the fundamental mechanisms that regulate brain function, and which may lead to development of new, more effective therapeutic treatments for conditions such as dementia, stroke, motor neurone disease.

We gratefully acknowledge our supporters who generously donated during the year. QBI relies on both public and private donations to continue its research programs and is grateful for the generosity of its benefactors.

## How to support the Queensland Brain Institute:

### Donations

There are many ways in which you can help support QBI's research effort, including:

- Make a donation for a specific research area
- Purchase scientific equipment
- Fund scholarships for talented students
- Provide fellowships for early- to mid-career scientists
- Support Professorial Chairs
- Undertake laboratory dedications
- Provide gifts in memoriam
- Fundraise using the community fundraising platform Everyday Hero

### Bequests

By leaving a bequest to QBI in your will, you are leaving a lasting legacy that accelerates current research and preserves future projects. Bequests can include:

- A percentage of an estate
- The residuary of an estate (what remains after all other gifts and costs have been deducted)
- A gift of a specific sum of money
- A particular asset, such as property, works of art, shares, or an insurance policy

Under current legislation, gifts to the Queensland Brain Institute are tax deductible. To discuss how you can support the Institute, please contact us at:

Telephone: **+61 7 3346 6413**

Email: **[communications@qbi.uq.edu.au](mailto:communications@qbi.uq.edu.au)**

Website: **[www.qbi.uq.edu.au/donate](http://www.qbi.uq.edu.au/donate)**

## Donors to QBI in 2016

A sincere thank you to ALL our donors, including those who prefer to remain anonymous.

## Bequests

Estate of Muriel Ellen Kangan

## Principal donor organisations

Medtronic Australasia Pty Ltd  
The Stafford Fox Medical Research Foundation  
The University of Queensland in America, Inc.  
UQ Endowment Fund Limited

## Major donors

Anonymous	St Jude Medical Australia Pty Ltd
Crommelin Family Foundation	Stichting Incontinence Foundation
Dementia Australia Research Foundation (AADRF)	The Clem Jones Foundation
Motor Neurone Disease Research Institute of Australia Inc	The Helpful Foundation
Rebecca L Cooper Medical Research Foundation Limited	The Ian Potter Foundation
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	The Yulgilbar Foundation

## Major Individual donors

Robyn Hilton	Professor G Q Max Lu AO
John Story AO	& Dr Lian X Liu

## Donor organisations

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Give Easy	Stage Five P/L ATF Stage Five Trust
Good Country Physiotherapy	Strategise it
Good2Give	Studio B Designs
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Will Anderson	Olivia Brinkworth	Ben Cousins	Van Chung Duong	Leeanne Gray
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Megan Angliss	Sueanne Brodie	Jeremy Cowdrey	Tim Earl	Peter Green
Beverley Angus	Peter Brookman	Christine Cowell	Louise Earl	Tom Green
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Rodney Arthur	Susan Burchell	Sherri Creighton	Jo Edwards	Maximilian Griguol
David Ascoli	Amelia Burgess	Mary Cross	Ben Edwards	Ross Grimley
Ashby	Emily Burgess	Nikki Crowley	Sam Edwards	Donald Grimley
Steph Ashby	Lucie Burnod	Charlotte Crowley	Zachary Egerton	Lisa Groeneveld
Jean Ashford	Julie Butler	Lauren Crozier	Karen Eldredge	Jack Haarsma
Katherine Asmussen	Andrew Buttery	Alex Cullen	Melissa English	Catherine Haarsma
Phil Aspinall	Todd Button	Sarah Cunningham	Ashlyn Eriksen	David Haddock
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David Banks	Suz Cadzow	Deb Curtis	Allen Evans	Samuel Harley
Alex Barns	Peter Cairns	Craig Dand	Caroline Evans	Kerry Harper
Jordan Barratt	Rocky Callisto	Anthony D'Andrea	Imogen Evans	Jake Harrao
Rachelle Barrett	Tracy Campbell	Cuc H Dang	Steph Evans	Tamara Harris
Pierre Barrochin	Constantine Carides	Thi Dang	Shemee Ewen	Melissa Harris
Perry Bartlett	Hana Carmichael	Cuc Dang	Kathy Fahey	Katherine Harris
Ryan Bartlett	Josh Carr	Caleb Daniel	Timothy Fairfax AC	Susan Hart
Emma Bartlett	Elizabeth Carwe-Reid	Hayden Dare	Gina Fairfax	Hamish Hartlett
Carmel Bartlett	Rebecca Casey	Denise Darken	Stephen Fallard	Christina Harvey
Steph Bartlett	Jason Cavuoto	Matilda Darling	Di Fargher	Cassandra Harvey
Justin Bartlett	Sarah Chadwick	James Darling	Robyn Farrell	Susannah Hayden
Simon Bartlett	Sonya Chalk	Adrienne Davies	Julian Farrugia	Ethan Haylock
Chaz Batten	Peter Chalk	Natasha Davis	Stuart Fayman	Phil Hazell
Ben Batters	Elliot Chalmers	Tim Dawes	Dianne Feldtmann	Betty Heaslip
Danielle Bayard	Martin Chambers	Cheryl Dawes	Mary Ann Ferrier	Amy Heffernan
Geoffrey Bayliss AM	Thomas Chant	Susan Day	Georgia Fidge	Megan Hender
Isabella Bazeley	Janie Chapman	Patrick Deegan	Paul Figallo	Gregory Henricks
Pauline Beames	Harry Ching	Christine Degioia	Jenny Firkin	Sam Henty
Dayne Beams	Joawuina Chiu	Stephanie Dempsey	Robert Fitchew	John Heussler AM
Vyrna Beilharz	Oliver Christensen	Lynette Densley	Lynette Fittell	Cameron Hewett
Judith Bell	Kay Christensen	Hayley Densley	Paul Fitzgerald	Raelene Hewitt
Fiona Bell	Madeleine Church	Shannon Densley	Eli Flavell	Leanne Hext
Kerrie Bence	Leon Clark	John Di Mauro	Hilary Forgan	Keryl Hietbrink
Alan Bennett	Eileen Clark	Melissa Diaz	Jed Forrest	Jodi Higginson
Kirsty Bennett	Jeffrey Clark	Bianca Dickinson	Lesley Forwood	Emma Hill
Jenny Berry	Daniel Clarke	Travis Dillon	James Fraser	Tim Hilton
Linda Berry	Sophie Clarke	Tino Dino	Charlie Fraser	James Hinge
Geoffrey Bianchi	Pamela Clarke	Christopher Djurasevich	Anita Freemantle-Bates	Anna Hodgetts
Cody Black	Erin Clarke	Tom Doak	Gail French	Peter Høj
Kate Black	Valma Clarkson	Teresa Doan	Bonnie Fry	Lindsay Hollingworth
Monique Blackman	Ron Clarkson	Karl Dodd	Bradley Fitzgerald	Leanne Holmes
Melissa Blackmore	Jennifer Clement	Brad Dodd	Madeleine Gabriel	Ned Holmes
Carys Blake	John Clifford	Frances Donahoo	Aidan Galpin	Adrian Holt
Courtney Blake	Mitch Clisby	Christopher Donahoo	Julia Gardner	Sherri Holtham
Curtis Blythe	Paul Clive	Nicole Donahoo	Rosie Gardner	Kelli Holtham-Felini
James Booth	Maddison Clonan	Frances Donahoo	Lucy Geyer	Sal Hood
Kylie Botterill	Vicki Clonan	Nicole Donahoo	Tom Geyer	Tracey Hopkins
Melanie Botterill-James	Catrina Codd		Buffy Gibbs	Lona Horsburgh
Lisa Bouter	Jennifer Coleman		Peter Gill	Kate Horsfall
	Garry Collins			Christian Howard



## Individual donors (continued)

Leonard Humphreys	Emma Lawless	Patrick McCarthy	Audrey Neill	Georgia Resnais
Hoomie Hung	Joan Lawrence AM	Gwen McClure	Haanah Neis	Chris Resnais
Rebecca Hunt	Madison Lawrence	Molly McCormack	Lisa Nguyen	Anne Reynolds
Ashlee Hunt	Andrew Lawson	Lisa McCulloch	Toya Nguyen	Jane Richardson
Jenny Hurley	Rosie Leake	Beverley McDonald	Carl Nicholson	Emily Richardson
Noyce Hurst	Wilson Lee	Tom McDonough	Virginia Nink	Brad Richardson
Liam Hutton	Demi Lehmann	Matthew McDonough	Helen Noad	Gabi Robinson
Di Irons	Sara Lehmann	Kate McEwen	John Nolan	Simon Robinson
Danni Irvine	Fergus Leicester	Riley McFarlane	Michael Oakes	David Robinson
Desmond Jack	Maxwell Lennox	Terry McGarrigle	Scott Oatway	John Rocchi
Rebecca Jacob	Julia Lester	Tom McGrellis	Simon O'Brien	Thomas Rockliff
Catherine Jacobs	Ryan Lester	Amanda McInerney	Zachary O'Brien	Oscar Rogers
Elsie Jaeschke	Linda Levett	Jenny McInerney	Gavin O'Cadinn	Chelsie Rohrscheib
Bethany Jaeschke	Bec Lewis	Marcia McInnes	Patricia O'Connor	Francis Romney
Sam James	Justin Liberman	Louise McKay	Kellie O'Connor	Robert Rosengard
Karen Jarrett	Chelsea Lienert	Nicholas McKenna	Mick O'Connor	Tom Ross
Roxanne Jemison	Debbie Lin	Moya McKenzie	Rhys O'Keefe	Kelly Ross
Michele John	Steffanie Linde-Balko	Jordie McKenzie	Jason Oliver	Virginia Ross
Darryl Johnson	Mikaila Lindeman	David McKnight	Brock Olsen	Tj Rothe
Suzie Johnson	Stuart Lindenmayer	Sam McLeay	Denise O'Malley	Tracy Rowell
William Johnston	Ryan Lines	Michael McMahan	Victoria O'Neil	Vicki Rowlands
Daryl Johnstone	Ashlee Lines	Jackson McMahan	Kevin O'Reilly	Charlette Rule
Nicole Jolly	Haydn Lines	Cath McMurchy	Nick Palmer	Rosie Russell
E Jones	Barb Lines	Seamus McMurray	Stephen Palyga	Anna Russell
Becky Jones	Russell Lingwoodcock	Dylan McNeil	Suzanne Parker	Lucy Ryan
Lisa Jones	Kelly Lippman	Jack McPhee	Sarah Parker	Paul Sandercock
Poppy Jones	Jean Lissenden	Elle McQueen	Badra Pathirana	Grace Sanders
Madelaine Jungstedt	Anne Little	Kate McShane	John Paton	Fiona Sanders
Rosemary Kajewski	Sonya Lodewyk	Joyce McTaggart	Emily Paton	Denis Sanders
Neville Kajewski	Nikki Lodewyk	Maddison Mellow	Kate Pawlyszyn	David Sando
Nick Kay	Madeline Lodge	Matt Merrett	Jitesh Payda	Louise Sangster
David Keenan	Michelle Loffler	Elizabeth Merson	Alison Payne	Suzie Sangster
Janice Kefford	Fran Loughrey	Luke Michalanne	Christopher Payne	Claudia Santin
Peter Keiper	Shannon Lovegrove	Lacy Mildred	Rae Peacock	The Late Geoffrey Sattler
Heidi Keller	Donna Lu	Joshua Miller	Alice Peek	
Brad Keller	Trevor Lutt	Carol Miller	Simon Pengelly	Ben Sawford
Georgina Kellock	Richard Lynch	Jordan Miller-Owen	Heather Pengelly	Craig Schilg
Jill Kellock	Madeleine Lynch	Michael Mills	Sachin Perera	Deb Schinckel
Jo-Ann Kellock	Mary Lyons	Sally Minns	Leah Perry	Duane Schmeri
Emma Kellock	Ethan Macauley	Andrew Mintz	Hayley Pfeifer	Christina Schmuki
John Kelly	Debbie Mackay	JA Miris	Suzie Phillips	Jayne-Ann Schrader
Rachael Kelly	Alex Mackinnon	Melody Mitton	Sylvie Pichelin	Mark Schroder
Melissa Kelly	William Macklin	Suzanne Mockridge	Annabel Pietsch	Graham Schrodtter
Georgie Kelsh	Jeff & Fran Maclean	Andrew Modra	Maddalena Pilla	Kathryn Schumacher
Tayla Kemp	Hilda Maclean	Jessica Moeller	Geoff Piper	Kelly Schweida
Geoff Kemp	Daphne Maclean	Stefano Moi	Craig Pitt	Will Scobie
Elizabeth Kenny	Katrina MacMillan	Nick Moles	Diana Poole	Brenton Scott
Tania KENZLER	Mary Mahoney AO & Patrick Mahoney	Anne Monfries	Joh Preston	Emma Scott
Ruth Kerr OAM		Glenn Moore	Olivia Pretty	Justin Scripps
Jackson Kessling	Joylene Makin	Lottie Moorehouse	Tina Previterra	Josh Seal
Fraser Kessling	Nick Makin	Susan Morcom	Sarah Price	Jenny Self
Susan Kiefel AC	Paul Makin	Clare Morgan	Holly Prichard	Robyn Semler
Anne-Maree Kingston	Tegan Mander	Olivia Morley	Nicole Qualmann	Mel Semmler
William Kingwill	Callie Manser	Megan Morphet	Charlie Quick	Julie Seol
Jeremy Kintigh	Ros Manser	Warren Morris	Megan Quick	John Seymour
Yvonne Kirkegard	Suzanne Margetts	Charlotte Morrison	Ruth Quick	Jordan Sharpe
Jordy Kitschke	Jeremy Markey	Marianne Mortimore	Andrew Quin	Sarah Shaw
Nicole Klemich	Patrick Marryat	Dean Moss	Frank Quin	Lachlan Sheffield
Henry Koehne	Chris Marshall	Peter Moss	Catherine Quin	Janene Shelton
Sarah Koerner	Leeann Mason	David Muir	Sarah Ralphsmith	Ian Shepherd
Helen Komoff	Gillian Masters	Andrew Muir	Jason Ransom	Bill Sherwin
Elissa Kong	Brett Masters	Angela Muir	(in memory of Lisa Katrina Bagrowski)	Jodie Shinnick
Carrie Kwiatkowski	Neil Matherson	Bevan Muldoon		Laura Sigal
Adrianna Kyriacou	Linda Matheson	Cyndy Mundy	Ian Rech	Donna Simon
Jacob Laba	Barrie Mawby	Bev Munro	Jack Redden	Catherine Simons
Sandra Lacey	Gregory May	Jane Murfett	Gabrielle Redden	Bruce Simpson
Julia Laidlaw	Tess Mayes	Tracey Muston	Christine Redden	Darrell Sims
Peter Landy	Veronica Mayfield	Vanda Mutton	Robin Redden	Tom Skerlj
Barney Lane	Thomas Mayfield	Rebecca Nankervis	Kylie Rehn	Robert Slade
Cathy Langley	Lewis Mayne	Alyce Naylor	Lyn Rehn	Marie Sloan
Matthew Langridge	Annis Mayne	Patrick Neal-Bullen	Kirsty Rehn	Brendon Smart
Amanda Laurie	Lincoln McCarthy	Alex Neal-Bullen	Anthony Reidy	Martin Smith

Carolynne Smith  
 Sonia Smith  
 Michael Snelling  
 Matthew Snook  
 David Snoswell  
 Glen Soper  
 Elena Sparrow  
 Jonathan Spence  
 Peter Spurling  
 Alexander Stanley  
 Nicholas Stanley  
 Mary Staude  
 Janice Steel  
 Joel Steer  
 Margaret Steinberg  
 AM  
 Dean Stephens  
 Maureen Stevenson  
 Kevin Stewart  
 Peter Stubbs  
 Rebecca Sullivan  
 Matt Sully  
 Chloe Swale  
 Emily Swanson  
 Liz Swanton  
 Lisa Swenson  
 Sonya Symes  
 Susan Syrmis  
 Kevin Tan  
 Shaun Tapp  
 Rosemary Tennent  
 Bridget Tester  
 Cohen Thiele  
 Nikki Thomas  
 Glenda Thomas  
 David Thompson  
 Sam Thompson  
 Jane Thompson  
 Cassie Thring  
 Jane Thring  
 George Thring  
 Billy Toby  
 Lara Tod  
 Ben Tollner-Atkinson  
 Nick Tonkin  
 Anthony Toohey  
 Jessica Towill  
 Sarah Traeger  
 Lise Treacy  
 Peter Tuckwell  
 Sheryl Tugwell  
 Samantha Tuscharski  
 Elise Vadivelloo  
 Janet Valle  
 Nicole Vallely  
 Tyrone Van der merwe  
 Alison van Niekerk  
 Jorgen van Seters  
 Jo Vink  
 Robyn Virgin

Trudy Virgo  
 Henry Walker  
 Richard Wallace-  
 Barnett  
 Georgia Wallis  
 Stacey Wallis-Rabone  
 Catriona Walsh  
 Debra Walton  
 Robert Ward  
 Rikki Watkins  
 Yvonne Watkinson  
 Iain Watson  
 Adrian Webb  
 Sandi Webb  
 Anthony Webb  
 Spencer Webb  
 Robin Webb  
 Kathleen Webster  
 Jake Wehl  
 Michael Weible  
 Mia Weideman  
 Helen Weir  
 Marcia Welsh  
 Jack Wheal  
 Darryl White  
 Diana White  
 Tony White  
 Melissa White  
 Samuel White  
 Bec Whitehead  
 Rohan Whiting  
 Taylor Whittington  
 Rose Wilcox  
 Eleanor Wilkins  
 Dorothea Wilkinson  
 Darcy Wilkosz  
 Irene Willett  
 Clive Williams OAM  
 Kate Williams  
 Sam Williams  
 Joletta Willis  
 Sharyn Willis  
 Judy Wilsdon  
 Tereena Wilsdon  
 Sally Wilson  
 Zoe Wilson  
 Peter Wilson  
 Philippa Wilson  
 Raefe Winstanley  
 Samuel Winterflood  
 Darryl Wintle  
 Barbara Wolfenden  
 Alicia Wood  
 Megan Wood  
 Thomas Woods  
 Peter Woodward  
 Margaret Woodward  
 Lisa Wruck  
 Madeline Yee  
 Natalie Yuen-Francis



## Generous donation helps research hit the sweet spot for healthy brains

A \$2.1 million donation from the Stafford Fox Medical Research Foundation has allowed researchers at the QBI to launch a world-first clinical trial to determine the exact amount of exercise that can reverse the effects of ageing on the brain.

The Stafford Fox Medical Research Foundation was established in 2013 following the death of Moyna Fox, and named in honour of her and her late husband James Stafford, a former BP Australia chief executive. Both Stafford and Moyna Fox suffered from dementia late in their lives and their foundation is dedicated to funding medical research.

The legacy left by James Stafford and Moyna Fox has allowed a team of scientists at QBI to be the first to discover that the brain contains stem cells which are capable of making new neurons. These stem cells lose their ability to produce new neurons and our cognitive functions begin to decline, as we age.

Exercise has shown to increase the production of new brain cells and improve learning and memory.

The trial will monitor 300 people aged 65 and older to determine the “sweet spot”—the amount, intensity, and type of exercise that leads to cognitive improvement in the ageing brain.

The clinical trial is being led by Professor Perry Bartlett and is a collaboration with UQ’s School of Human Movement and Nutrition Sciences and Centre for Advanced Imaging.

Philanthropic endeavours from organisations, such as the Stafford Fox Foundation, are enabling QBI to continue its ground-breaking work in understanding the brain.



# Public engagement



Winners of the 2016 Queensland Final of the Australian Brain Bee Challenge with Associate Professor Bruno van Swinderen (centre) and Professor Linda Richards (far left).

QBI hosted a number of community engagement events and public lectures in 2016.

QBI invited and hosted The Honourable Leanne Enoch, Minister for Innovation, Science and the Digital Economy and Minister for Small Business to speak at the Inaugural Diversity Lecture and share her inspiring story about how she became a politician. The panel discussion following this included Dr Sallyanne Atkinson AO, Professor Cindy Shannon and Professor Iain Watson and was a lively and insightful discussion.

In 2016 QBI held the 3rd annual Hand Heart Pocket Gala, at Customs House, featuring an evening of world class opera performers and a cocktail function. This event raised funds for CJCADR, and was held in partnership with Alzheimer's Australia.

The Australian Brain Bee Challenge was hosted by QBI's Associate Professor van Swinderen in July and encourages Year 10 students to learn about the brain and neuroscience. 15-year-old Shambhavi Mishra from the Queensland Academy for Science, Mathematics and Technology was crowned the 2016 Queensland Brain Bee Champion. Shambhavi outsmarted 126 other finalists from 48 Queensland schools who attended the final at QBI.

QBI scientists also hosted many tours for schools and community groups, as well as presenting at various public events.

## Public Lectures

### **Peter Goodenough Memorial Lecture**

*Professor Ammar Al-Chalabi*

King's College London

18 August

### **Inaugural Diversity Lecture**

*The Honourable Leanne Enoch MP*

Minister for Innovation, Science and the Digital Economy, and Minister for Small Business

18 October

### **Merson Lecture**

*Professor Terrence Sejnowski*

Howard Hughes Medical Institute, and the Francis Crick Professor at The Salk Institute

26 October

## Community events

### **International Women's Day Lunch**

8 March

### **Ross Maclean Fellowship Raceday**

2 April

### **CJCADR Public Dementia Forum**

14 April

### **Queensland Final of the Australian Brain Bee Challenge**

19 July

### **Hand Heart Pocket Gala Evening**

21 September



Justin Clarke, Dr Fatima Nasrallah, and Professor Pankaj Sah (L-R) at the launch of The BRAIN: Concussion and the #nobraingame awareness campaign.

## The BRAIN series

QBI launched a new magazine, with the first issue devoted to raising awareness of concussion and explaining what we know of the science. The launch was accompanied by the **#nobraingame** campaign supported by multiple prominent sports personalities, including AFL stars Justin Clarke and Jude Bolton, tennis player and dual Olympian Casey Dellacqua, and Wallaby Tatafu Polota-Nau to fund research into concussion.

### Concussion

Issue One, June





# Scientific seminars & symposia



Professor Pierluigi Nicotera (DZNE Bonn) gives the keynote address at the A+PD Symposium.

QBI continued to run a high quality weekly neuroscience seminar series presented by QBI staff and graduating students, as well as leading national and international researchers. International speakers included Professor Mu-Ming Poo from the Chinese Academy of Sciences, Professor Diana Laurillard from University College London, and Professor Anil Seth from the University of Sussex, who featured at the QBI student symposium.

## QBI-hosted symposia

### CJCADR Translational Research Symposium

6 April

### A+PD Symposium

4 May

### QBI Postgraduate Student Symposium

25 November

## QBI Neuroscience Seminars

### Genevieve Phillips

Queensland Brain Institute, The University of Queensland  
*Visual ecology of predator-prey relationships on the coral reef*

### Dr Nela Durisic

Queensland Brain Institute, The University of Queensland  
*Quantitative super-resolution microscopy: how well can we count single molecules?*

### Dr Hari Subramanian

Queensland Brain Institute, The University of Queensland  
*The midbrain periaqueductal gray: Critical interface between the emotional and the autonomic brain*

### Professor Marc Titgemeyer

Max Planck Institute Cologne, Germany  
*Perspective for in-vivo characterization of basal ganglia loops*

### Associate Professor Kai-Hsiang Chuang

Queensland Brain Institute, The University of Queensland  
*Restless resting-state: neural basis and translation*

### Karly Turner

Queensland Brain Institute, The University of Queensland  
*Measuring attention in rodents*

### Dr Kenneth T Kishida

Virginia Tech Carilion Research Institute, USA  
*Measurements of dopamine and serotonin release with sub-second temporal resolution in humans: implications for human decision-making, cognition, and mental illness.*

**Professor Colin L Masters MD**

Head of the Neurodegeneration Division, The Florey Institute, Laureate Professor, The University of Melbourne  
*Alzheimer's disease: A $\beta$  amyloid is the critical target for primary (pre-AD) and secondary (preclinical) disease-modifying strategies*

**Dr Alex Puckett**

Queensland Brain Institute, The University of Queensland  
*Measuring the effects of attention in human cortex using fMRI*

**Dr Marta Sinclair**

Griffith Business School, Griffith University, Brisbane  
*The current state of intuition research and possible synergies with neuroscience*

**Professor Sonke Johnsen**

Biology Department, Duke University, Durham USA  
*Colorful but colorblind shrimp, not so cryptic silvery fish, and the giant eyes of giant squid: three short tales of biological optics*

**Dr John Lin**

University of Tasmania  
*The development of next generation of optogenetic tools for improved control and observation of neuronal functions*

**Yan Zhang**

Queensland Brain Institute, The University of Queensland  
*Physiological properties of glycinergic synapses with defined subunit compositions*

**CiRong Lu**

Queensland Brain Institute, The University of Queensland  
*Studying brainnetome of DISC1 and socially isolated mice with diffusion MRI*

**Professor Patrick Chauvel**

Neurological Institute Epilepsy Center, Cleveland Clinic, USA  
*Déjà vu and reminiscences: data from intra-cerebral recordings*

**Professor Brian Butterworth**

Institute of Cognitive Neuroscience, and Department of Psychology, University College London, UK  
*Mathematical disabilities*

**Professor Diana Laurillard**

Institute of Education, University College London, UK  
*Learning 'number sense' through digital games with intrinsic feedback*

**Associate Professor Michael O' Sullivan**

Institute of Psychiatry, Psychology & Neuroscience, King's College London UK  
*White matter connections and human memory: nuances and flexibility in the mapping of structure and function*

**Professor Fred Meunier**

Queensland Brain Institute, The University of Queensland  
*Footprint of SNARE assembly and disassembly during neuronal communication*

**Dr Stanley Heinze**

Department of Biology, Lund University, Sweden  
*Merging information about direction and distance: the bee central complex as plausible neural substrate for path integration*

**Professor Alan Mackay-Sim**

Director, National Centre for Adult Stem Cell Research, Griffith University  
*The cell biology of schizophrenia*

**Professor David Small**

Menzies Institute for Medical Research, University of Tasmania  
*Molecular mechanisms associated with neural network dysfunction in Alzheimer's disease*

**Dr Lucy M Palmer**

The Florey Institute of Neuroscience and Mental Health, University of Melbourne  
*The functional importance of dendritic integration in cortical neurons*

**Associate Professor Massimo Hilliard**

Queensland Brain Institute, The University of Queensland  
*Axonal fusion: an alternative mechanism to repair injured axons*

**Professor Glenda Halliday**

School of Medical Sciences, UNSW  
*Identifying different proteinopathies in patients with frontotemporal dementia and other neurodegenerative diseases: are we ready for clinical trials that target pathological proteins?*

**Emilia LeFevre**

Queensland Brain Institute, The University of Queensland  
*Neural mechanisms of MK-801 induced sensitisation*

**Gerhard Leinenga**

Queensland Brain Institute, The University of Queensland  
*Investigations of the effects of scanning focused ultrasound in mouse models of Alzheimer's disease*

**Professor Mike Ryan**

Department of Biochemistry and Molecular Biology, Monash University  
*Mitochondrial biogenesis: dynamic protein complexes for a dynamic organelle*

**Dr Jason Howitt**

The Florey Institute of Neuroscience and Mental Health  
*Targeting autism using mechanism based therapeutics: can we cure autism and do we want to?*

**Aung Aung Kywe Moe**

Queensland Brain Institute, The University of Queensland  
*Evaluating long-term consequences of adolescent antipsychotic exposure*

**Associate Professor Supriya Srinivasan**

The Scripps Research Institute, La Jolla, California, USA  
*Neurobiology of body fat metabolism: lessons from C. elegans*

**Dr Simon Schultz**

Department of Bioengineering, Imperial College, London UK  
*Analysis of information encoding and dynamics in optically recorded cortical circuits*

**Associate Professor Chamindie Punyadeera**

Faculty of Health, Queensland University of Technology  
*Human saliva: linking oral fluids with systemic diseases*

**Professor Geoff Cumming**

School of Psychology and Public Health, La Trobe University  
*Significance roulette and open science: the research practices we need for better science*

**Professor Bernard Balleine**

Brain and Mind Research Institute, School of Medical Sciences, University of Sydney  
*Predictive learning and the cognitive control of action*

**Associate Professor Margie Wright**

Queensland Brain Institute, The University of Queensland  
*Using imaging and genetics to unravel the complexity of the human brain*



Professor Anil Seth presents the keynote seminar at the QBI Postgraduate Student Symposium.

**Morgane Nouvian**

Queensland Brain Institute, The University of Queensland  
*Molecular and neural mechanisms underlying the olfactory modulation of aggression in honeybees*

**Professor Shuba Tole**

Department of Biological Sciences, Tata Institute of Fundamental Research, Mumbai, India  
*Cell fate specification in the developing cerebral cortex*

**Professor Klaas Enno Stephan**

Institute of Biomedical Engineering, Zurich, Switzerland  
*Translational neuromodeling*

**Dr Marta Garrido**

Queensland Brain Institute, and Centre for Advanced Imaging, The University of Queensland  
*Predictive coding in sensory learning*

**Dr Jocelyn Widagdo**

Queensland Brain Institute, The University of Queensland  
*Activity-dependent RNA methylation in learning and memory*

**Professor Terry Sejnowski**

The Salk Institute for Biological Studies, USA  
*While you were sleeping: memory consolidation*

**Natalie Lee**

Queensland Brain Institute, The University of Queensland  
*The role of neogenin in epithelial morphogenesis*

**Dr J Bertran Gonzalez**

School of Psychology, University of New South Wales  
*Slow down, old-timer!—How ageing is making us rush*

**Ilvana Dzafic**

Queensland Brain Institute, The University of Queensland  
*The neuroimaging and genetics of emotion perception in schizophrenia*

**Professor Sam Berkovic**

Director, Epilepsy Research Centre, Melbourne  
*Epilepsies: from genetics to precision medicine*

**Dr Tara Walker**

Center for Regenerative Therapies, Dresden, Germany  
*Activation of a latent hippocampal precursor population*

**Professor Anil Seth**

University of Sussex, UK  
*The new neuroscience of consciousness: solving the real problem*

**Professor Peter Dayan**

Director, Gatsby Computational Neuroscience Unit, University College London, UK  
*Reverse replay during human problem solving*

**Professor Ray Dolan**

Wellcome Trust Centre for Neuroimaging, University College London, UK  
*Value representational plasticity*

**Professor Mu-ming Poo**

Institute of Neuroscience, Chinese Academy of Sciences  
*Neural plasticity: from synapse to cognition*



# Publications

In 2016, QBI authors published 369 peer-reviewed, original research articles, 21 of which were in *Nature* journals. Four articles were featured as cover illustrations in their respective journals. In addition, QBI researchers authored 1 book and 5 book chapters, as well as 6 peer-reviewed conference papers.

## Scientific publications

- Adams HH, Hibar DP, Chouraki V, Stein JL, Nyquist PA, et al (2016) Novel genetic loci underlying human intracranial volume identified through genome-wide association. *Nature Neuroscience* 19: 1569-1582.
- Afawi Z, Oliver KL, Kivity S, Mazarib A, Blatt I, et al (2016) Multiplex families with epilepsy: Success of clinical and molecular genetic characterization. *Neurology* 86: 713-722.
- Alagband Y, Bredy TW & Wood MA (2016) The role of active DNA demethylation and Tet enzyme function in memory formation and cocaine action. *Neuroscience Letters* 625: 40-46.
- Al-Amin MM, Alam T, Hasan SMN, Hasan AT & Quddus AHMR (2016) Prenatal maternal lipopolysaccharide administration leads to age- and region-specific oxidative stress in the early developmental stage in offspring. *Neuroscience* 318: 84-93.
- Al-Amin MM, Sultana R, Sultana S, Rahman MM & Reza HM (2016) Astaxanthin ameliorates prenatal LPS-exposed behavioral deficits and oxidative stress in adult offspring. *BMC Neuroscience* 17: 11.
- Aldridge D, Theodoros D, Angwin A & Vogel AP (2016) Speech outcomes in Parkinson's disease after subthalamic nucleus deep brain stimulation: A systematic review. *Parkinsonism & Related Disorders* 33: 3-11.
- Ali A, Cui X & Eyles D (2018, epub 2016) Developmental Vitamin D deficiency and Autism: Putative pathogenic mechanisms. *Journal of Steroid Biochemistry and Molecular Biology* 175:108-118.
- Amin N, Allebrandt KV, van der Spek A, Muller-Myhsok B, Hek K, et al (2016) Genetic variants in RBF3X are associated with sleep latency. *European Journal of Human Genetics* 24: 1488-1495.
- An JY & Claudianos C (2016) Genetic heterogeneity in autism: from single gene to a pathway perspective. *Neuroscience and Biobehavioral Reviews* 68: 442-453.
- Anggono V, Tsai L-H & Götz J (2016) Glutamate receptors in Alzheimer's disease: Mechanisms and therapies. *Neural Plasticity* 2016: 8256196.
- Arden R, Luciano M, Deary IJ, Reynolds CA, Pedersen NL, et al (2016) Authors' response to Kaufman and Muntaner. *International Journal of Epidemiology* 45: 578-579.
- Arumugam TV, Manzanero S, Furtado M, Biggins PJ, Hsieh YH, et al (2016) An atypical role for the myeloid receptor Mincle in central nervous system injury. *Journal of Cerebral Blood Flow and Metabolism* 37: 2098-2111.
- Atay C, Ryan SJ & Lewis FM (2016) "Trying to get a grip": Language competence and self-reported satisfaction with social relationships three decades post-childhood traumatic brain injury. *Journal of Head Trauma Rehabilitation* 31: E30-E40.
- Atkinson C.J.L, Martin KJ, Fraser GJ & Collin SP (2016) Morphology and distribution of taste papillae and oral denticles in the developing oropharyngeal cavity of the bamboo shark, *Chiloscyllium punctatum*. *Biology Open* 5: 1759-1769.
- Attia ABE, Ho CJH, Chandrasekharan P, Balasundaram G, Tay HC, et al (2016) Multispectral optoacoustic and MRI coregistration for molecular imaging of orthotopic model of human glioblastoma. *Journal of Biophotonics* 9: 701-708.
- Auerbach RP, Alonso J, Axinn WG, Cuijpers P, Ebert DD, et al (2016) Mental disorders among college students in the World Health Organization World Mental Health Surveys. *Psychological Medicine* 46: 2955-2970.
- Avitan L, Pujic Z, Hughes NJ, Scott EK & Goodhill GJ (2016) Limitations of neural map topography for decoding spatial information. *Journal of Neuroscience* 36: 5385-5396.

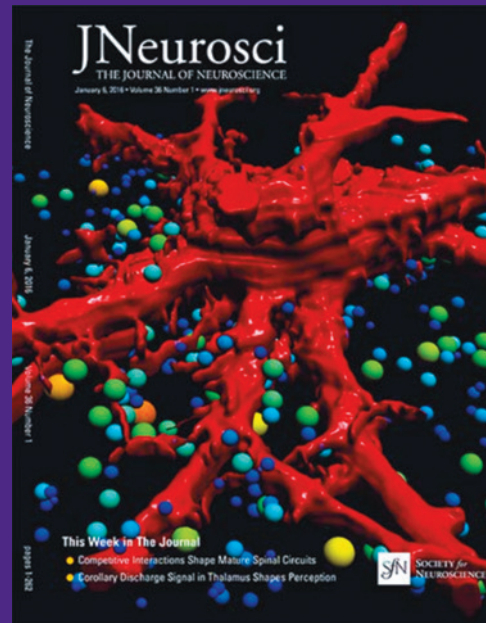


Bartlett PF (2016) Rejuvenating the brain: Aging with cognitive sparkle. *Australian Quarterly* Oct-Dec 2016: 24-29.

- Baker S & Götz J (2016) A local insult of okadaic acid in wild-type mice induces tau phosphorylation and protein aggregation in anatomically distinct brain regions. *Acta Neuropathologica Communications* 4: 32.
- Baker S, Polanco JC & Götz J (2016) Extracellular vesicles containing P301L mutant tau accelerate pathological tau phosphorylation and oligomer formation but do not seed mature neurofibrillary tangles in ALZ17 mice. *Journal of Alzheimer's Disease* 54: 1207-1217.
- Bakshi A, Zhu Z, Vinkhuyzen AAE, Hill WD, McRae AF, et al (2016) Fast set-based association analysis using summary data from GWAS identifies novel gene loci for human complex traits. *Scientific Reports* 6: 32894.
- Barban N, Jansen R, de Vlaming R, Vaez A, Mandemakers JJ, et al (2016) Genome-wide analysis identifies 12 loci influencing human reproductive behavior. *Nature Genetics* 48: 1462-1472.
- Batterham PJ, McGrath J, McGorry PD, Kay-Lambkin FJ, Hickie IB, et al (2016) NHMRC funding of mental health research: A case for better alignment of research funding with burden of disease. *Medical Journal of Australia* 205: 348-349.
- Baumann O & Mattingley JB (2016) Functional organization of the parahippocampal cortex: Dissociable roles for context representations and the perception of visual scenes. *Journal of Neuroscience* 36: 2536-2542.
- Bednark J, Reynolds J, Stafford T, Redgrave P & Franz E (2016) Action experience and action discovery in medicated individuals with Parkinson's disease. *Frontiers in Human Neuroscience* 10: 427.
- Berlot R, Metzler-Baddeley C, Ikram MA, Jones DK & O'Sullivan MJ (2016) Global efficiency of structural networks mediates cognitive control in mild cognitive impairment. *Frontiers in Aging Neuroscience* 8: 292.
- Bicknell BA & Goodhill GJ (2016) Emergence of ion channel modal gating from independent subunit kinetics. *Proceedings of the National Academy of Sciences of the USA* 113: 5288-5297.
- Biergens SD, Claudianos C, Reinhard J & Galizia CG (2016) DNA methylation adjusts the specificity of memories depending on the learning context and promotes relearning in honeybees. *Frontiers in Molecular Neuroscience* 9: 82.
- Blokland GAM, Wallace AK, Hansell NK, Thompson PM, Hickie IB, et al (2017, epub 2016) Genome-wide association study of working memory brain activation. *International Journal of Psychophysiology* 115:98-111.

- Bodea LG, Eckert A, Ittner LM, Piguot O & Götz J (2016) Tau physiology and pathomechanisms in frontotemporal lobar degeneration. *Journal of Neurochemistry* 138: 71-94.
- Brandt R & Götz J (2016) Special issue on 'Cytoskeletal proteins in health and neurodegenerative disease'. *Brain Research Bulletin* 126: 213-216.
- Brennan FH, Kurniawan ND, Vukovic J, Bartlett PF, Käsermann F, et al (2016) IVIg attenuates complement and improves spinal cord injury outcomes in mice. *Annals of Clinical and Translational Neurology* 3: 495-511.
- Brennan FH, Lee JD, Ruitenber MJ & Woodruff TM (2016) Therapeutic targeting of complement to modify disease course and improve outcomes in neurological conditions. *Seminars in Immunology* 28: 292-308.
- Byrne EM, Gehrman PR, Trzaskowski M, Tiemeier H & Pack AI (2016) Genetic correlation analysis suggests association between increased self-reported sleep duration in adults and schizophrenia and type 2 diabetes. *Sleep* 39: 1853-1857.
- Cadzow M, Merriman TR, Boocock J, Dalbeth N, Stamp LK, et al (2016) Lack of direct evidence for natural selection at the candidate thrifty gene locus, *PPARGC1A*. *BMC Medical Genetics* 17: 80.
- Cairncross C, Grant C, Stonehouse W, Conlon C, McDonald B, et al (2016) The relationship between vitamin D status and allergic diseases in New Zealand preschool children. *Nutrients* 8: 326.
- Cairncross CT, Stonehouse W, Conlon CA, Grant CC, McDonald B, et al (2017, epub 2016) Predictors of vitamin D status in New Zealand preschool children. *Maternal and Child Nutrition* 13: e12340.
- Calvey T, Patzke N, Bennett NC, Consolate KK, Gilissen E, et al (2016) Nuclear organisation of some immunohistochemically identifiable neural systems in five species of insectivore-*Crocodyra cyanea*, *Crocodyra olivieri*, *Sylvisorex ollula*, *Paraechinus aethiopicus* and *Atelerix frontalis*. *Journal of Chemical Neuroanatomy* 72: 34-52.
- Carreira PE, Ewing AD, Li G, Schauer SN, Upton KR, et al (2016) Evidence for L1-associated DNA rearrangements and negligible L1 retrotransposition in glioblastoma multiforme. *Mobile DNA* 7:21.
- Chai YJ, Sierecki E, Tomatis VM, Gormal RS, Giles N, et al (2016) Munc18-1 is a molecular chaperone for  $\alpha$ -synuclein, controlling its self-replicating aggregation. *The Journal of Cell Biology* 214: 705.
- Chalmers BA, Xing H, Houston S, Clark C, Ghassabian S, et al (2016) Validating Eaton's hypothesis: Cubane as a benzene bioisostere. *Angewandte Chemie International Edition* 55: 3580-3585.
- Chalmers K, Kita EM, Scott EK & Goodhill GJ (2016) Quantitative analysis of axonal branch dynamics in the developing nervous system. *PLoS Computational Biology* 12: e1004813.
- Champ CM, Vorobyev M & Marshall NJ (2016) Colour thresholds in a coral reef fish. *Royal Society Open Science* 3: 160399.
- Chand KK, Lee KM, Lavidis NA & Noakes PG (2017, epub 2016) Loss of laminin- $\alpha$ 4 results in pre- and postsynaptic modifications at the neuromuscular junction. *FASEB Journal* 31:1323-1336.
- Chawana R, Patzke N, Alagaili AN, Bennett NC, Mohammed OB, et al (2016) The distribution of Ki-67 and doublecortin immunopositive cells in the brains of three microchiropteran species, *Hipposideros fuliginosus*, *Triaenops persicus* and *Asellia tridens*. *The Anatomical Record* 299: 1548-1560.
- Chen BH, Marioni RE, Colicino E, Peters MJ, Ward-Caviness CK, et al (2016) DNA methylation-based measures of biological age: meta-analysis predicting time to death. *Aging* 8: 1844-1865.
- Chen GB, Lee SH, Robinson MR, Trzaskowski M, Zhu ZX, et al (2017, epub 2016) Across-cohort QC analyses of GWAS summary statistics from complex traits. *European Journal of Human Genetics* 25:137-146.
- Chen GB, Lee SH, Zhu ZX, Benyamin B & Robinson MR (2016) EigenGWAS: finding loci under selection through genome-wide association studies of eigenvectors in structured populations. *Heredity* 117: 51-61.
- Cheung A (2016) Probabilistic learning by rodent grid cells. *PLoS Computational Biology* 12: e1005165.
- Chung WS & Marshall NJ (2016) Comparative visual ecology of cephalopods from different habitats. *Proceedings of the Royal Society B: Biological Sciences* 283: 20161346.
- Clairfeuille T, Mas C, Chan AS, Yang Z, Tello-Lafoz M, et al (2016) A molecular code for endosomal recycling of phosphorylated cargos by the SNX27-retromer complex. *Nature Structural and Molecular Biology* 23: 921-932.
- Cloherty SL, Hughes NJ, Hietanen MA, Bhagavatula PS, Goodhill GJ, et al (2016) Sensory experience modifies feature map relationships in visual cortex. *eLife* 5: e13911.
- Cocchi L, Sale MV, L.L. G, Bell PT, Nguyen VT, et al (2016) A hierarchy of timescales explains distinct effects of local inhibition of primary visual cortex and frontal eye fields. *eLife* 5: 15252.
- Cohen D, Zalucki OH, van Swinderen B & Tsuchiya N (2016) Local versus global effects of isoflurane anesthesia on visual processing in the fly brain. *eNeuro* 3: e0116-0116.2016.
- Coimbra JP, Pettigrew JD, Kaswera-Kyamakya C, Gilissen E, Collin SP, et al (2016) Retinal ganglion cell topography and spatial resolving power in African megachiropterans: Influence of roosting microhabitat and foraging. *Journal of Comparative Neurology* 525: 186-203.
- Cole MH, Sweeney M, Conway ZJ, Blackmore T & Silburn PA (2016) Imposed faster and slower walking speeds influence gait stability differently in Parkinson fallers. *Archives of Physical Medicine and Rehabilitation* 98: 639-648.
- Colodro-Conde L, Cross SM, Lind PA, Painter JN, Gunst A, et al (2017, epub 2016) Cohort profile: Nausea and vomiting during pregnancy genetics consortium (NVP Genetics Consortium). *International Journal of Epidemiology* 46: e17.
- Committee ABAS, Michie PT, Badcock DR, Bartlett PF, Bekkers JM, et al (2016) Australian Brain Alliance Neuron 92: 597-600.
- Connell M, Betts K, McGrath JJ, Alati R, Najman J, et al (2016) Hallucinations in adolescents and risk for mental disorders and suicidal behaviour in adulthood: Prospective evidence from the MUSP birth cohort study. *Schizophrenia Research* 176: 546-551.
- Conway ZJ, Silburn PA, Blackmore TD & Cole MH (2017, epub 2016) Evidence of compensatory joint kinetics during stair ascent and descent in Parkinson's disease. *Gait & Posture* 52: 33-39.
- Cortesi F, Musilova Z, Stieb SM, Hart NS, Siebeck UE, et al (2016) From crypsis to mimicry: changes in colour and the configuration of the visual system during ontogenetic habitat transitions in a coral reef fish. *Journal of Experimental Biology* 219: 2545-2558.
- Couvy-Duchesne B, Ebejer JL, Gillespie NA, Duffy DL, Hickie IB, et al (2016) Head motion and inattention/hyperactivity share common genetic influences: Implications for fMRI studies of ADHD. *PLOS ONE* 11: e0146271.
- Cronin TW, Gagnon YL, Johnsen S, Marshall NJ & Roberts NW (2016) Comment on "Open-ocean fish reveal an omnidirectional solution to camouflage in polarized environments". *Science* 353: 552-a.
- Dalton BE, de Busserolles F, Marshall NJ & Carleton KL (2016) Retinal specialization through spatially varying cell densities and opsin coexpression in cichlid fish. *Journal of Experimental Biology* 220: 266-277.
- Daly IM, How MJ, Partridge JC, Temple SE, Marshall NJ, et al (2016) Dynamic polarization vision in mantis shrimps. *Nature Communications* 7: 12140.
- D'Amico JM, Butler AA, Heroux ME, Cotel F, Perrier JM, et al (2016) Human motoneurone excitability is depressed by activation of 5HT1A receptors with buspirone. *Journal of Physiology* 595:1763-1773.
- Dando SJ, Naranjo Golborne C, Chinnery HR, Ruitenber MJ & McMennamin PG (2016) A case of mistaken identity: CD11c-eYFP+ cells in the normal mouse brain parenchyma and neural retina display the phenotype of microglia, not dendritic cells. *Glia* 64: 1331-1349.
- Davies G, Marioni RE, Liewald DC, Hill WD, Hagenaars SP, et al (2016) Genome-wide association study of cognitive functions and educational attainment in UK Biobank (N=112 151). *Molecular Psychiatry* 21: 758-767.
- Davis J, Eyre H, Jacka FN, Dodd S, Dean O, et al (2016) A review of vulnerability and risks for schizophrenia: Beyond the two hit hypothesis. *Neuroscience & Biobehavioral Reviews* 65: 185-194.
- de Bivort BL & van Swinderen B (2016) Evidence for selective attention in the insect brain. *Current Opinion in Insect Science* 15: 9-15.
- Deeb W, Giordano JJ, Rossi PJ, Mogilner AY, Gunduz A, et al (2016) Proceedings of the fourth annual deep brain stimulation think tank: A review of emerging issues and technologies. *Frontiers in Integrative Neuroscience* 10: 1-21.
- Deeb W, Rossi PJ, Porta M, Visser-Vandewalle V, Servello D, et al (2016) The international deep brain stimulation registry and database for Gilles de la Tourette Syndrome: How does it work? *Frontiers in Neuroscience* 10: 170.

- Del Greco MF, Foco L, Pichler I, Eller P, Eller K, et al (2017, epub 2016) Serum iron level and kidney function: a Mendelian randomization study. *Nephrology, Dialysis, Transplantation* 32: 273-278.
- Denham R, McGee TR, Eriksson L, McGrath J, Norman R, et al (2016) Frequent peer problems in Australian children and adolescents. *Journal of Aggression, Conflict and Peace Research* 8: 162-173.
- Denuelle A & Srinivasan MV (2016) A sparse snapshot-based navigation strategy for UAS guidance in natural environments, *IEEE International Conference on Robotics and Automation, May 16-21 Stockholm, Sweden: IEEE.*
- Direk N, Williams S, Smith JA, Ripke S, Air T, et al (2016) An analysis of two genome-wide association meta-analyses identifies a new locus for broad depression phenotype. *Biological Psychiatry* 82: 322-329.
- Dissel S, Klose M, Donlea J, Cao L, English D, et al (2017, epub 2016) Enhanced sleep reverses memory deficits and underlying pathology in *Drosophila* models of Alzheimer's disease. *Neurobiology of Sleep and Circadian Rhythms* 2: 15-26.
- Dulac C & Dickson BJ (2016) Editorial overview: Neurobiology of sex. *Current Opinion in Neurobiology* 38: A1-A3.
- Dzafic I, Martin AK, Hocking J, Mowry B & Burianová H (2016) Dynamic emotion perception and prior expectancy. *Neuropsychologia* 86: 131-140.
- Edwards TJ, Sherr EH, Barkovich AJ & Richards LJ (2016) Reply: ARID1B mutations are the major genetic cause of corpus callosum anomalies in patients with intellectual disability. *Brain* 139: e65.
- Ellis EM, Gauvain G, Sivyer B & Murphy GJ (2016) Shared and distinct retinal input to the mouse superior colliculus and dorsal lateral geniculate nucleus. *Journal of Neurophysiology* 116: 602-610.
- Fan L, Li H, Zhuo J, Zhang Y, Wang J, et al (2016) The human Brainnetome Atlas: A new brain atlas based on connectonal architecture. *Cerebral Cortex* 26: 3508-3526.
- Fang X, Zhang Y, Wang Y, Zhang Y, Hu J, et al (2016) Disrupted effective connectivity of the sensorimotor network in amyotrophic lateral sclerosis. *Journal of Neurology* 263: 508-506.
- Fang X, Zhang Y, Zhou Y, Cheng L, Li J, et al (2016) Resting-state coupling between core regions within the central-executive and salience networks contributes to working memory performance. *Frontiers in Behavioral Neuroscience* 10: 27.
- Faskowitz J, de Zubicaray GI, McMahon KL, Wright MJ, Thompson PM, et al (2016) Comparison of template registration methods for multi-site meta-analysis of brain morphometry, *SPIE Biomedical Applications in Molecular, Structural and Functional Imaging Conference, 1-3 March 2016 (Vol 17, pp 978822) San Diego: SPIE - International Society for Optical Engineering Proceedings.*
- Fejzo MS, Myhre R, Colodro-Conde L, Macgibbon K, Sinsheimer JS, et al (2017, epub 2016) Genetic analysis of hyperemesis gravidarum reveals association with intracellular calcium release channel (RYR2). *Molecular and Cellular Endocrinology* 439: 308-316.
- Fenton GE, Halliday DM, Mason R, Bredy TW & Stevenson CW (2016) Sex differences in learned fear expression and extinction involve altered gamma oscillations in medial prefrontal cortex. *Neurobiology of Learning and Memory* 135: 66-72.
- Filmer HL, Varghese E, Hawkins GE, Mattingley JB & Dux PE (2017, epub 2016) Improvements in attention and decision-making following combined behavioral training and brain stimulation. *Cerebral Cortex* 27: 3675-3682.
- Fogarty MJ, Kanjhan R, Yanagawa Y, Noakes PG & Bellingham MC (2017, epub 2016) Alterations in hypoglossal motor neurons due to GAD67 and VGAT deficient mice. *Experimental Neurology* 289: 117-127.
- Fogarty MJ, Klenowski PM, Lee JD, Drieberg-Thompson JR, Bartlett SE, et al (2016) Cortical synaptic and dendritic spine abnormalities in a presymptomatic TDP-43 model of amyotrophic lateral sclerosis. *Scientific Reports* 6: 37968.
- Fogarty MJ, Mu EWH, Noakes PG, Lavidis NA & Bellingham MC (2016) Marked changes in dendritic structure and spine density precede significant neuronal death in vulnerable cortical pyramidal neuron populations in the SOD1<sup>G93A</sup> mouse model of amyotrophic lateral sclerosis. *Acta Neuropathologica Communications* 4: 77.
- Franke B, Stein JL, Ripke S, Anttila V, Hibar DP, et al (2016) Genetic influences on schizophrenia and subcortical brain volumes: large-scale proof of concept. *Nature Neuroscience* 19: 420-431.



Fogarty MJ, Kanjhan R, Bellingham MC & Noakes PG (2016) Glycinergic neurotransmission: A potent regulator of embryonic motor neuron dendritic morphology and synaptic plasticity. *Journal of Neuroscience* 36: 80-87.

- Franklin AM, Justin Marshall N & Lewis SM (2016) Multimodal signals: ultraviolet reflectance and chemical cues in stomatopod agonistic encounters. *Royal Society Open Science* 3.
- Fraser J, Essebier A, Gronostajski RM, Boden M, Wainwright BJ, et al (2017, epub 2016) Cell-type-specific expression of NFIX in the developing and adult cerebellum. *Brain Structure and Function* 222: 2251-2270.
- Fu JP, Mo WC, Liu Y, Bartlett PF & He RQ (2016) Elimination of the geomagnetic field stimulates the proliferation of mouse neural progenitor and stem cells. *Protein & Cell* 7: 624-637.
- Fytagoridis A, Heard T, Samuelsson J, Zsigmond P, Jiltsova E, et al (2016) Surgical replacement of implantable pulse generators in deep brain stimulation: Adverse events and risk factors in a multicenter cohort. *Stereotactic and Functional Neurosurgery* 94: 235-239.
- Fytagoridis A, Silburn PA, Coyne TJ & Thevathasan W (2016) Understanding the human pedunculo-pontine nucleus in Parkinson's disease. *Journal of Neural Transmission* 123: 769-774.
- Gagnon YL & Marshall NJ (2016) Intuitive representation of photopolarimetric data using the polarization ellipse. *Journal of Experimental Biology* 219: 2430-2434.
- Gagnon YL, Osorio DC, Wardill TJ, Marshall NJ, Chung W-S, et al (2016) Can chromatic aberration enable color vision in natural environments? *Proceedings of the National Academy of Sciences of the USA* 113: E6908-E6909.
- Gagnon YL, Wilby D & Temple SE (2016) Losing focus: how lens position and viewing angle affect the function of multifocal lenses in fishes. *Journal of the Optical Society of America A, Optics, Image Science, and Vision* 33: 1901-1909.
- Gallotta I, Mazzarella N, Donato A, Esposito A, Chaplin JC, et al (2016) Neuron-specific knock-down of SMN1 causes neuron degeneration and death through an apoptotic mechanism. *Human Molecular Genetics* 25: 2564-2577.
- Garrido MI, Teng CLJ, Taylor JA, Rowe EG & Mattingley JB (2016) Surprise responses in the human brain demonstrate statistical learning under high concurrent cognitive demand. *NPJ Science of Learning* 1: 16006.
- Gerdes P, Richardson SR & Faulkner GJ (2016) TET enzymes: double agents in the transposable element-host genome conflict. *Genome Biology* 17: 259.





Goodhill GJ (2016) Can molecular gradients wire the brain? *Trends in Neurosciences* 39: 202-211.

- Gerring Z, Rodriguez-Acevedo AJ, Powell JE, Griffiths LR, Montgomery GW, et al (2016) Blood gene expression studies in migraine: Potential and caveats. *Cephalalgia* 36: 669-678.
- Giacomotto J, Carroll AP, Rinkwitz S, Mowry B, Cairns MJ, et al (2016) Developmental suppression of schizophrenia-associated miR-137 alters sensorimotor function in zebrafish. *Translational Psychiatry* 6: e818.
- Gillies RM, Carroll A, Cunningham R, Rafter M, Palghat K, et al (2016) Multimodal representations during an inquiry problem-solving activity in a Year 6 science class: A case study investigating cooperation, physiological arousal and belief states. *Australian Journal of Education* 60: 111-127.
- Giordano-Santini R, Linton C & Hilliard MA (2016) Cell-cell fusion in the nervous system: Alternative mechanisms of development, injury and repair. *Seminars in Cell & Developmental Biology* 60: 146-154.
- Gobius I, Morcom L, Suárez R, Bunt J, Bukshpun P, et al (2016) Astroglial-mediated remodeling of the interhemispheric midline is required for the formation of the corpus callosum. *Cell Reports* 17: 735-747.
- Goodison G, Overeem K, de Monte V & Siskind D (2017, epub 2016) Mania associated with self-prescribed acetyl-L-carnitine in a man with bipolar I disorder. *Australasian Psychiatry* 25: 13-14.
- Götz J, Nisbet R, Van der Jeugd A, Evans H & Leinenga G (2016) Scanning ultrasound as a treatment tool of proteinopathies including Alzheimer's disease, 5th International Symposium on Focused Ultrasound (Vol 4, pp 4) North Bethesda, MD, USA: Journal of Therapeutic Ultrasound.
- Gratten J & Visscher PM (2016) Genetic pleiotropy in complex traits and diseases: implications for genomic medicine. *Genome Medicine* 8: 78.
- Gratten J, Wray NR, Peyrot WJ, McGrath JJ, Visscher PM, et al (2016) Risk of psychiatric illness from advanced paternal age is not predominantly from de novo mutations. *Nature Genetics* 48: 718-724.
- Groves NJ, Bradford D, Sullivan RK, Conn KA, Aljelaify RF, et al (2016) Behavioural effects of adult vitamin d deficiency in BALB/c mice are not associated with proliferation or survival of neurons in the adult hippocampus. *PLOS ONE* 11: e0152328.
- Groves NJ & Burne TH (2016) Sex-specific attentional deficits in adult vitamin D deficient BALB/c mice. *Physiology & Behavior* 157: 94-101.
- Guadalupe T, Mathias SR, vanErp TGM, Whelan CD, Zwiers MP, et al (2016) Human subcortical brain asymmetries in 15,847 people worldwide reveal effects of age and sex. *Brain Imaging and Behavior* 11: 1497-1514.
- Guntupalli S, Widagdo J & Anggono V (2016) Amyloid- $\beta$ -induced dysregulation of AMPA receptor trafficking. *Neural Plasticity* 2016: 3204519.
- Hagenaars SP, Harris SE, Davies G, Hill WD, Liewald DC, et al (2016) Shared genetic aetiology between cognitive functions and physical and mental health in UK Biobank (N=112 151) and 24 GWAS consortia. *Molecular Psychiatry* 21: 1624-1632.
- Han B, Pouget JG, Slowikowski K, Stahl E, Lee CH, et al (2016) A method to decipher pleiotropy by detecting underlying heterogeneity driven by hidden subgroups applied to autoimmune and neuropsychiatric diseases. *Nature Genetics* 48: 803-810.
- Harper CB, Papadopoulos A, Martin S, Matthews DR, Morgan GP, et al (2016) Botulinum neurotoxin type-A enters a non-recycling pool of synaptic vesicles. *Scientific Reports* 6: 19654.
- Harris L, Zalucki O, Gobius I, McDonald H, Osinki J, et al (2016) Transcriptional regulation of intermediate progenitor cell generation during hippocampal development. *Development* 143: 4620-4630.
- Harris L, Zalucki O, Piper M & Heng J (2016) Insights into the biology and therapeutic applications of neural stem cells. *Stem Cells International* 2016: 9745315.
- Harris SE, Hagenaars SP, Davies G, David Hill W, Liewald DC, et al (2017, epub 2016) Molecular genetic contributions to self-rated health. *International Journal of Epidemiology* 46: 994-1009.
- Harris SE, Marioni R, Martin-Ruiz C, Pattie A, Gow AJ, et al (2016) Longitudinal telomere length shortening and cognitive and physical decline in later life: The Lothian Birth Cohorts 1936 and 1921. *Mechanisms of Ageing and Development* 154: 43-48.
- Harrison WJ & Bex PJ (2016) Reply to Pachai et al *Current Biology* 26: R353-R354.
- Hatch RJ, Leinenga G & Götz J (2016) Scanning ultrasound (SUS) causes no changes to neuronal excitability and prevents age-related reductions in hippocampal CA1 dendritic structure in wild-type mice. *PLOS ONE* 11: e0164278.
- Hawi Z, Cummins TD, Tong J, Arcos-Burgos M, Zhao Q, et al (2016) Rare DNA variants in the brain-derived neurotrophic factor gene increase risk for attention-deficit hyperactivity disorder: a next-generation sequencing study. *Molecular Psychiatry* 22: 580-584.
- Hearne LJ, Mattingley JB & Cocchi L (2016) Functional brain networks related to individual differences in human intelligence at rest. *Scientific Reports* 6: 32328.
- Heath AK, Williamson EJ, Kvaskoff D, Hodge AM, Ebeling PR, et al (2017, epub 2016) 25-Hydroxyvitamin D concentration and all-cause mortality: the Melbourne Collaborative Cohort Study. *Public Health Nutrition* 20: 1775-1784.
- Hill WD, Hagenaars Saskia P, Marioni Riccardo E, Harris Sarah E, Liewald David CM, et al (2016) Molecular genetic contributions to social deprivation and household income in UK biobank. *Current Biology* 26: 1-7.
- Holdsworth-Carson SJ, Fung JN, Luong HT, Sapkota Y, Bowdler LM, et al (2016) Endometrial vevatin and its association with endometriosis risk. *Human Reproduction* 31: 999-1013.
- Holstege G (2016) How the emotional motor system controls the pelvic organs. *Sexual Medicine Reviews* 4: 303-328.
- Hou L, Heilbronner U, Degenhardt F, Adli M, Akiyama K, et al (2016) Genetic variants associated with response to lithium treatment in bipolar disorder: a genome-wide association study. *The Lancet* 387: 1085-1093.
- Huang J, Hughes N & Goodhill G (2016) Segmenting neuronal growth cones using deep convolutional neural networks, *International Conference on Digital Image Computing: Techniques and Applications (DICTA)*, 30 November - 2 December, Gold Coast, Australia: IEEE.
- Hubble RP, Silburn PA, Naughton GA & Cole MH (2016) Assessing stability in mild and moderate Parkinson's disease: Can clinical measures provide insight? *Gait & Posture* 49: 7-13.
- Hughes NJ & Goodhill GJ (2017, epub 2016) Estimating cortical feature maps with dependent Gaussian processes. *IEEE Transactions on Pattern Analysis and Machine Intelligence* 39: 1918-1928.
- Hung SS, Chrysostomou V, Li F, Lim JK, Wang JH, et al (2016) AAV-mediated CRISPR/Cas gene editing of retinal cells in vivo. *Investigative Ophthalmology and Visual Science* 57: 3470-3476.

- Hwang L-D, Breslin PAS, Reed DR, Zhu G, Martin NG, et al (2016) Is the association between sweet and bitter perception due to genetic variation? *Chemical Senses* 41: 737-744.
- Ioannides ZA, Ngo ST, Henderson RD, McCombe PA & Steyn FJ (2016) Altered metabolic homeostasis in amyotrophic lateral sclerosis: Mechanisms of energy imbalance and contribution to disease progression. *Neurodegenerative Diseases* 16: 382-397.
- Ireland D, Atay C, Liddle J, Bradford D, Lee H, et al (2016) Hello Harlie: Enabling speech monitoring through chat-bot conversations. *Studies in Health Technology and Informatics* 227: 55-60.
- Ireland D, Wang Z, Lamont R & Liddle J (2016) Classification of movement of people with parkinsons disease using wearable inertial movement units and machine learning. *Studies in Health Technology and Informatics* 227: 61-66.
- Islam R, Keramidas A, Xu L, Durisic N, Sah P, et al (2016) Ivermectin-activated, cation-permeable glycine receptors for the chemogenetic control of neuronal excitation. *ACS Chemical Neuroscience* 7: 1647-1657.
- Islam R, Zhang Y, Xu L, Sah P & Lynch JW (2017, epub 2016) A chemogenetic receptor that enhances the magnitude and frequency of glycinergic inhibitory postsynaptic currents without inducing a tonic chloride flux. *ACS Chemical Neuroscience* 8: 460-467.
- Iyer S, Chhabra Y, Harvey TJ, Wang R, Chiu HS, et al (2016) CRIM1 is necessary for coronary vascular endothelial cell development and homeostasis. *Journal of Molecular Histology* 48: 53-61.
- Iyer S, Chou FY, Wang R, Chiu HS, Raju VK, et al (2016) Crim1 has cell-autonomous and paracrine roles during embryonic heart development. *Scientific Reports* 6: 19832.
- Iyer S, Pennisi DJ & Piper M (2016) Crim1- a regulator of developmental organogenesis. *Histology and Histopathology* 31: 1049-1057.
- Jiao S-S, Shen L-L, Zhu C, Bu X-L, Liu Y-H, et al (2016) Brain-derived neurotrophic factor protects against tau-related neurodegeneration of Alzheimer's disease. *Translational Psychiatry* 6: e907.
- Joehanes R, Just AC, Marioni RE, Pilling LC, Reynolds LM, et al (2016) Epigenetic signatures of cigarette smoking. *Circulation: Cardiovascular Genetics* 9: 436-447.
- Joensuu M, Padmanabhan P, Durisic N, Bademosi ATD, Cooper-Williams E, et al (2016) Subdiffractional tracking of internalized molecules reveals heterogeneous motion states of synaptic vesicles. *The Journal of Cell Biology* 215: 277-292.
- Johnsen S, Gagnon YL, Marshall NJ, Cronin TW, Gruev V, et al (2016) Polarization vision seldom increases the sighting distance of silvery fish. *Current Biology* 26: R752-R754.
- Jones ML, Alfaleh MA, Kumble S, Zhang S, Osborne GW, et al (2016) Targeting membrane proteins for antibody discovery using phage display. *Scientific Reports* 6: 26240.
- Jones SE, Tyrrell J, Wood AR, Beaumont RN, Ruth KS, et al (2016) Genome-wide association analyses in 128,266 individuals identifies new morningness and sleep duration loci. *PLOS Genetics* 12: e1006125.
- Jung W, Levesque J-P & Ruitenberg MJ (2016) It takes nerve to fight back: the significance of neural innervation of the bone marrow and spleen for immune function. *Seminars in Cell & Developmental Biology* 61: 60-70.
- Kamke MR, Nydam AS, Sale MV & Mattingley JB (2016) Associative plasticity in the human motor cortex is enhanced by concurrently targeting separate muscle representations with excitatory and inhibitory protocols. *Journal of Neurophysiology* 115: 2191-2198.
- Kassam I, Lloyd-Jones L, Holloway A, Small KS, Zeng B, et al (2016) Autosomal genetic control of human gene expression does not differ across the sexes. *Genome Biology* 17: 10.
- Kassam I, Qi T, Lloyd-Jones L, Holloway A, Bonder MJ, et al (2016) Evidence for mitochondrial genetic control of autosomal gene expression. *Human Molecular Genetics* 25: 5332-5338.
- Kassam I & McRae AF (2016) The autosomal genetic control of sexually dimorphic traits in humans is largely the same across the sexes. *Genome Biology* 17: 169.
- Kasula R, Chai YJ, Bademosi AT, Harper CB, Gormal RS, et al (2016) The Munc18-1 domain 3a hinge-loop controls syntaxin-1A nanodomain assembly and engagement with the SNARE complex during secretory vesicle priming. *The Journal of Cell Biology* 214: 847-858.
- Kemper KE, Littlejohn MD, Lopdell T, Hayes BJ, Bennett LE, et al (2016) Leveraging genetically simple traits to identify small-effect variants for complex phenotypes. *BMC Genomics* 17: 858.



- Kesby JP, Markou A & Semenova S (2016) The effects of HIV-1 regulatory TAT protein expression on brain reward function, response to psychostimulants and delay-dependent memory in mice. *Neuropharmacology* 109: 205-215.
- Kesby JP, Markou A & Semenova S (2016) Effects of HIV/TAT protein expression and chronic selegiline treatment on spatial memory, reversal learning and neurotransmitter levels in mice. *Behavioural Brain Research* 311: 131-140.
- Khalesi M, Waterhouse M, Whiteman DC, Johns R, Rosendahl C, et al (2016) Comparison of PTCH1, COX-2, p53, and Ki-67 protein expression in basal cell carcinomas of nodular and superficial subtypes arising on the head and trunk. *International Journal of Dermatology* 55: 1096-1105.
- Klauser P, Baker ST, Cropley VL, Bousman C, Fornito A, et al (2017, epub 2016) White matter disruptions in schizophrenia are spatially widespread and topologically converge on brain network hubs. *Schizophrenia Bulletin* 43: 425-435.
- Klawitter S, Fuchs NV, Upton KR, Munoz-Lopez M, Shukla R, et al (2016) Reprogramming triggers endogenous L1 and Alu retrotransposition in human induced pluripotent stem cells. *Nature Communications* 7: 10286.
- Kozulin P & Richards LJ (2016) Axonal guidance: making connections In WD Pfaff & DN Volkow (Eds) *Neuroscience in the 21st Century* (2 ed, pp 201-224) New York: Springer.
- Kremers J, Baraas RC & Marshall NJ (2016) *Human Color Vision*, 361 pages, Switzerland: Springer International.
- Kumar R, Ha T, Pham D, Shaw M, Mangelsdorf M, et al (2016) A non-coding variant in the 5' UTR of DLG3 attenuates protein translation to cause non-syndromic intellectual disability. *European Journal of Human Genetics* 24: 1612-1616.
- Kvaskoff D, Heath AK, Simila HA, Ko P, English DR, et al (2016) Minimizing matrix effects for the accurate quantification of 25-hydroxyvitamin D metabolites in dried blood spots by LC-MS/MS. *Clinical Chemistry* 62: 639-646.
- Kwakowsky A, Milne MR, Waldvogel HJ & Faull RL (2016) Effect of estradiol on neurotrophin receptors in basal forebrain cholinergic neurons: Relevance for Alzheimer's Disease. *International Journal of Molecular Sciences* 17: 2122.
- Laird AS, Mackovski N, Rinkwitz S, Becker TS & Giacomotto J (2016) Tissue-specific models of spinal muscular atrophy confirm a critical role of SMN in motor neurons from embryonic to adult stages. *Human Molecular Genetics* 25: 1728-1738.

- Laursen TM & McGrath JJ (2016) The strange case of smoking and schizophrenia - the epidemiology detectives are on the trail. *American Journal of Psychiatry* 173: 757-758.
- Lee NK, Fok KW, White A, Wilson NH, O'Leary CJ, et al (2016) Neogenin recruitment of the WAVE regulatory complex maintains adherens junction stability and tension. *Nature Communications* 7: 11082.
- Lee PH, Baker JT, Holmes AJ, Jahanshad N, Ge T, et al (2016) Partitioning heritability analysis reveals a shared genetic basis of brain anatomy and schizophrenia. *Molecular Psychiatry* 21: 1680-1689.
- Lee SH & van der Werf JH (2016) MTG2: An efficient algorithm for multivariate linear mixed model analysis based on genomic information. *Bioinformatics* 32: 1420-1422.
- Lee WJ, Skalamera D, Dahmer-Heath M, Shakhbazov K, Ranall MV, et al (2017, epub 2016) Genome-Wide Overexpression Screen Identifies Genes Able to Bypass p16-Mediated Senescence in Melanoma. *SLAS Discovery* 22: 298-308.
- Leinenga G, Langton C, Nisbet R & Götz J (2016) Ultrasound treatment of neurological diseases - current and emerging applications. *Nature Reviews Neurology* 12: 161-174.
- Leinenga G, Nisbet R, Hatch R, Van der Jeugd A, Evans H, et al (2016) Scanning Focused Ultrasound disruption of the blood-brain barrier as an Alzheimer's disease therapy, 5th International Symposium on Focused Ultrasound (Vol 4, pp 3) North Bethesda, MD, USA: Journal of Therapeutic Ultrasound.
- Li Q, Song M, Xu J, Qin W, Yu C, et al (2017, epub 2016) Cortical thickness development of human primary visual cortex related to the age of blindness onset. *Brain Imaging and Behavior* 11: 1029-1036.
- Li R, Steyn FJ, Stout MB, Lee K, Cully TR, et al (2016) Development of a high-throughput method for real-time assessment of cellular metabolism in intact long skeletal muscle fibre bundles. *Journal of Physiology* 594: 7197-7213.
- Li X, Kong Y, Zhao Q-Y, Li Y-Y & Hao P (2016) De novo assembly of transcriptome from next-generation sequencing data. *Quantitative Biology* 4: 94-105.
- Li Y, Xie S, Liu B, Song M, Chen Y, et al (2016) Diffusion magnetic resonance imaging study of schizophrenia in the context of abnormal neurodevelopment using multiple site data in a Chinese Han population. *Translational Psychiatry* 6: e715.
- Liang P, Fleming J, Gustafsson L & Liddle J (2017, epub 2016) Occupational experience of caregiving during driving disruption following an acquired brain injury. *British Journal of Occupational Therapy* 80: 30-38.
- Liang P, Gustafsson L, Liddle J & Fleming J (2017, epub 2016) Family members' needs and experiences of driving disruption over time following an acquired brain injury: an evolving issue. *Disability and Rehabilitation* 39:1398-1407.
- Liddle J, Burdon M, Ireland D, Carter A, Kneupffer C, et al (2016) Balancing self-tracking and surveillance: legal, ethical and technological issues in using smartphones to monitor communication in people with health conditions. *Journal of Law and Medicine* 24: 387-397.
- Liddle J, Gustafsson L, Mitchell G & Pachana N (2016) A difficult journey: Reflections on driving and driving cessation from a team of clinical researchers. *Gerontologist* 57: 388.
- Ligthart S, Marzi C, Aslibekyan S, Mendelson MM, Conneely KN, et al (2016) DNA methylation signatures of chronic low-grade inflammation are associated with complex diseases. *Genome Biology* 17: 255.
- Limon A, Estrada-Mondragon A, Reyes-Ruiz JM & Miledi R (2016) Dipicrylamine modulates GABA<sub>A</sub> receptors through interactions with residues in the TM4 and Cys-loop domains. *Molecular Pharmacology* 89: 446-456.
- Lin Q, Weidner CI, Costa IG, Marioni RE, Ferreira MR, et al (2016) DNA methylation levels at individual age-associated CpG sites can be indicative for life expectancy. *Aging* 8: 394-401.
- Liu B, Zhang X, Cui Y, Qin W, Tao Y, et al (2016) Polygenic risk for schizophrenia influences cortical gyrification in 2 independent general populations. *Schizophrenia Bulletin* 43: 673-680.
- Liu C, Marioni RE, Hedman AK, Pfeiffer L, Tsai PC, et al (2018) A DNA methylation biomarker of alcohol consumption. *Molecular Psychiatry* 23: 422-433.
- Liu C, Song X, Nisbet R & Götz J (2016) Co-immunoprecipitation with tau isoform-specific antibodies reveals distinct protein interactions, and highlights a putative role for 2N tau in disease. *Journal of Biological Chemistry* 291: 8173-8188.
- Liu C, Li Y, Edwards TJ, Kurniawan ND, Richards LJ, et al (2016) Altered structural connectome in adolescent socially isolated mice. *NeuroImage* 139: 259-270.
- Lloyd-Jones LR, Nguyen HD, McLachlan GJ, Sumpton W & Wang Y-G (2016) Mixture of time-dependent growth models with an application to blue swimmer crab length-frequency data. *Biometrics* 72: 1255-1265.
- Loehlin JC, Hansell NK, Wright MJ & Martin NG (2016) Genetic and environmental contributions to cognitive structure in Australian twins: A reappraisal. *Intelligence* 59: 24-31.
- Lu Y, Day FR, Gustafsson S, Buchkovich ML, Na J, et al (2016) New loci for body fat percentage reveal link between adiposity and cardiometabolic disease risk. *Nature Communications* 7: 10495.
- Lupton MK, Strike L, Hansell NK, Wen W, Mather KA, et al (2016) The effect of increased genetic risk for Alzheimer's disease on hippocampal and amygdala volume. *Neurobiology of Aging* 40: 68-77.
- Mack JM, Schamne MG, Sampaio TB, Pertile RAN, Fernandes PACM, et al (2016) Melatoninergic system in Parkinson's disease: From neuroprotection to the management of motor and nonmotor symptoms. *Oxidative Medicine and Cellular Longevity Article ID3472032*: 1-31.
- Macklin R, Wang H, Loo D, Martin S, Cumming A, et al (2016) Extracellular vesicles secreted by highly metastatic clonal variants of osteosarcoma preferentially localize to the lungs and induce metastatic behaviour in poorly metastatic clones. *Oncotarget* 7: 43570-43587.
- Maiello G, Harrison WJ & Bex PJ (2016) Monocular and binocular contributions to oculomotor plasticity. *Scientific Reports* 6: 31861.
- Marioni RE, Harris SE, Shah S, McRae AF, von Zglinicki T, et al (2016) The epigenetic clock and telomere length are independently associated with chronological age and mortality. *International Journal of Epidemiology* 45: 424-432.
- Marioni RE, Yang J, Dykiert D, Mottus R, Campbell A, et al (2016) Assessing the genetic overlap between BMI and cognitive function. *Molecular Psychiatry* 21: 1477-1482.
- Marshall J (2016) Q & A: Justin Marshall. *Current Biology* 26: R395-R397.
- Marshall P & Bredy TW (2016) Cognitive neuroepigenetics: the next evolution in our understanding of the molecular mechanisms underlying learning and memory? *NPJ Science of Learning* 2016: 16014.
- Martin AK, Dzafic I, Robinson GA, Reutens D & Mowry B (2016) Mentalizing in schizophrenia: a multivariate functional MRI study. *Neuropsychologia* 93: 158-166.
- Martin AK, Gibson EC, Mowry B & Robinson GA (2016) Verbal initiation, suppression, and strategy use and the relationship with clinical symptoms in schizophrenia. *Journal of the International Neuropsychological Society* 22: 735-743.
- Martínez-Mármol R, Salla-Martret M, Sastre D, Estadella I & Felipe A (2016) EGF and the potassium channel Kv1.3 are promising pharmacological targets against neuro-degenerative diseases. *Journal of Neurology Neuromedicine* 1:1-5.
- Matamales M, Götz J & Bertran-Gonzalez J (2016) Quantitative imaging of cholinergic interneurons reveals a distinctive spatial organization and a functional gradient across the mouse striatum. *PLOS ONE* 11: e0157682.
- Matamales M, Skrbis Z, Hatch RJ, Balleine Bernard W, Götz J, et al (2016) Aging-related dysfunction of striatal cholinergic interneurons produces conflict in action selection. *Neuron* 90: 362-373.
- Mather KA, Thalamuthu A, Oldmeadow C, Song F, Armstrong NJ, et al (2016) Genome-wide significant results identified for plasma apolipoprotein H levels in middle-aged and older adults. *Scientific Reports* 6: 23675.
- Matveeva OV, Nechipurenko YD, Riabenko E, Ragan C, Nazipova NN, et al (2016) Optimization of signal-to-noise ratio for efficient microarray probe design. *Bioinformatics* 32: i552-i558.
- Mbarek H, Steinberg S, Nyholt DR, Gordon SD, Miller MB, et al (2016) Identification of common genetic variants influencing spontaneous dizygotic twinning and female fertility. *American Journal of Human Genetics* 98: 898-908.
- McGrath JJ (2016) No mental health without physical health - a call to arms. *Epidemiology and Psychiatric Sciences* 25: 195-196.
- McGrath JJ, Charlson F & Whiteford HA (2016) Challenges and options for estimating the prevalence of schizophrenia, psychotic disorders, and bipolar disorders in population surveys. *Report commissioned by the National Academies of Sciences, Engineering, and Medicine*, 29 pages.
- McGrath JJ, Saha S, Al-Hamzawi A, Andrade L, Benjet C, et al (2016) The bidirectional associations between psychotic experiences and DSM-IV mental disorders. *American Journal of Psychiatry* 173: 997-1006.



- McGrath JJ, Saha S, Al-Hamzawi AO, Alonso J, Andrade L, et al (2016) Age of onset and lifetime projected risk of psychotic experiences: Cross-national data from the world mental health survey. *Schizophrenia Bulletin* 42: 933-941.
- McKay FC, Gatt PN, Fewings N, Parnell GP, Schibeci SD, et al (2016) The low EOMES/TBX21 molecular phenotype in multiple sclerosis reflects CD56+ cell dysregulation and is affected by immunomodulatory therapies. *Clinical Immunology* 163: 96-107.
- McRae AF (2017, epub 2016) Analysis of genome-wide association data In JM Keith (Ed), *Bioinformatics* (ed, Vol 1526, pp 161-173) New York: Springer.
- Mehta D, Tropf FC, Gratten J, Bakshi A, Zhu Z, et al (2016) Evidence for genetic overlap between schizophrenia and age at first birth in women. *JAMA Psychiatry* 73: 497-505.
- Meunier FA & Gutiérrez LM (2016) Captivating new roles of F-actin cortex in exocytosis and bulk endocytosis in neurosecretory cells. *Trends in Neurosciences* 39: 605-613.
- Meunier FA & Keating DJ (2016) The 18th International Symposia on Chromaffin Cell Biology. *Journal of Neurochemistry* 137: 847-848.
- Michael M, Meiring JC, Acharya BR, Matthews DR, Verma S, et al (2016) Coronin 1B reorganizes the architecture of F-actin networks for contractility at steady-state and apoptotic adherens junctions. *Developmental Cell* 37: 58-71.
- Miliku K, Vinkhuyzen A, Blanken LM, McGrath JJ, Eyles DW, et al (2016) Maternal vitamin D concentrations during pregnancy, fetal growth patterns, and risks of adverse birth outcomes. *American Journal of Clinical Nutrition* 103: 1514-1522.
- Mo WC, Zhang ZJ, Wang DL, Liu Y, Bartlett PF, et al (2016) Shielding of the geomagnetic field alters actin assembly and inhibits cell motility in human neuroblastoma cells. *Scientific Reports* 6: 22624.
- Moe AA, Scott JG, Burne TH & Eyles DW (2016) Neural changes induced by antipsychotic administration in adolescence: A review of studies in laboratory rodents. *Journal of Psychopharmacology* 30: 771-794.
- Moe AAK, Kurniawan ND, Alexander S, Cui X, Burne TH, et al (2016) Risperidone induces long-lasting changes in the conditioned avoidance response and accumbal gene expression selectively in animals treated as adolescents. *Neuropharmacology* 108: 234-274.
- Molenberghs P, Johnson H, Henry JD & Mattingley JB (2016) Understanding the minds of others: A neuroimaging meta-analysis. *Neuroscience & Biobehavioral Reviews* 65: 276-291.
- Morgan VA, Waterreus A, Carr V, Castle D, Cohen M, et al (2016) Responding to challenges for people with psychotic illness: Updated evidence from the survey of high impact psychosis. *Australian and New Zealand Journal of Psychiatry* 51: 124-140.
- Morris J & Sah P (2016) Neuroscience and education: Mind the gap. *Australian Journal of Education* 60: 146-156.
- Murtaza M, Shan J, Matigian N, Todorovic M, Cook AL, et al (2016) Rotenone susceptibility phenotype in olfactory derived patient cells as a model of idiopathic Parkinson's disease. *PLOS ONE* 11: e0154544.
- Nainar S, Marshall PR, Tyler CR, Spitale RC & Bredy TW (2016) Evolving insights into RNA modifications and their functional diversity in the brain. *Nature Neuroscience* 19: 1292-1298.
- Najman JM, Plotnikova M, Williams GM, Alati R, Mamun AA, et al (2017, epub 2016) Trajectories of maternal depression: a 27-year population-based prospective study. *Epidemiology and Psychiatric Sciences* 26:79-88.
- Nasrallah FA, To XV, Chen DY, Routtenberg A & Chuang KH (2016) Resting state functional connectivity data supports detection of cognition in the rodent brain. *Data in Brief* 7: 1156-1164.
- Natarajan P, Bis JC, Bielak LF, Cox AJ, Dorr M, et al (2016) Multiethnic exome-wide association study of subclinical atherosclerosis. *Circulation: Cardiovascular Genetics* 9: 511-520.
- Naughtin CK, Mattingley JB & Dux PE (2016) Early information processing contributions to object individuation revealed by perception of illusory figures. *Journal of Neurophysiology* 116: 2513-2522.
- Ng HBT, Kao KLC, Chan YC, Chew E, Chuang KH, et al (2016) Modality specificity in the cerebro-cerebellar neurocircuitry during working memory. *Behavioural Brain Research* 305: 164-173.
- Nguyen HD, Lloyd-Jones LR & McLachlan GJ (2016) A block minorization-maximization algorithm for heteroscedastic regression. *IEEE Signal Processing Letters* 23: 1131-1135.
- Nguyen HG, Lloyd Jones LR & McLachlan GJ (2016) A universal approximation theorem for mixture-of-experts models. *Neural Computation* 28: 1-9.
- Nichols AL, Meelkop E, Linton C, Giordano-Santini R, Sullivan RK, et al (2016) The apoptotic engulfment machinery regulates axonal degeneration in *C. elegans* neurons. *Cell Reports* 14: 1673-1683.
- Nielsen EE, Morgan J, Maher SL, Edson J, Gauthier M, et al (2017, epub 2016) Extracting DNA from "JAWS"; High yield and quality from archived tiger shark (*Galeocerdo cuvier*) skeletal material. *Molecular Ecology Resources* 17: 431-442.
- Nouvian M, Reinhard J & Giurfa M (2016) The defensive response of the honeybee *Apis mellifera*. *Journal of Experimental Biology* 219: 3505-3517.
- Oestreich LKL, Pasternak O, Shenton ME, Kubicki M, Gong X, et al (2016) Abnormal white matter microstructure and increased extracellular free-water in the cingulum bundle associated with delusions in chronic schizophrenia. *NeuroImage: Clinical* 12: 405-414.
- Oishi S, Premaratne S, Harvey TJ, Iyer S, Dixon C, et al (2016) *Usp9x*-deficiency disrupts the morphological development of the postnatal hippocampal dentate gyrus. *Scientific Reports* 6: 25783.
- Okbay A, Baselmans BML, De Neve J-E, Turley P, Nivard MG, et al (2016) Genetic variants associated with subjective well-being, depressive symptoms, and neuroticism identified through genome-wide analyses. *Nature Genetics* 48: 624-633.
- Okbay A, Beauchamp JP, Fontana MA, Lee JJ, Pers TH, et al (2016) Genome-wide association study identifies 74 loci associated with educational attainment. *Nature* 533: 539-542.
- Orenstein EC, Haag JM, Gagnon YL & Jaffe JS (2016) Automated classification of camouflaging cuttlefish. *Methods in Oceanography* 15-16: 21-34.
- Otowa T, Hek K, Lee M, Byrne EM, Mirza SS, et al (2016) Meta-analysis of genome-wide association studies of anxiety disorders. *Molecular Psychiatry* 21: 1391-1399.
- Pachana NA, Jetten J, Gustafsson L & Liddle J (2017, epub 2016) To be or not to be (an older driver): social identity theory and driving cessation in later life. *Ageing and Society* 37: 1597-1608.
- Pankratz N, Schick UM, Zhou Y, Zhou W, Ahluwalia TS, et al (2016) Meta-analysis of rare and common exome chip variants identifies *S1PR4* and other loci influencing blood cell traits. *Nature Genetics* 48: 867-876.
- Parham SC, Kavanagh DJ, Gericke CA, King N, May J, et al (2017, epub 2016) Assessment of motivational cognitions in diabetes self-care: The motivation thought frequency scales for glucose testing, physical activity and healthy eating. *International Journal of Behavioral Medicine* 24: 447-456.
- Parikh I, Guo J, Chuang KH, Zhong Y, Rempe RG, et al (2016) Caloric restriction preserves memory and reduces anxiety of aging mice with early enhancement of neurovascular functions. *Aging* 8: 2814-2826.
- Pavlidis JMW, Zhu Z, Gratten J, McRae AF, Wray NR, et al (2016) Predicting gene targets from integrative analyses of summary data from GWAS and eQTL studies for 28 human complex traits. *Genome Medicine* 8: 84.
- Perez-Verdaguer M, Capera J, Martinez-Marmol R, Camps M, Comes N, et al (2016) Caveolin interaction governs Kv1.3 lipid raft targeting. *Scientific Reports* 6: 22453.
- Perkes IE, Curtis J & McGrath JJ (2016) Don't ignore the skeleton in the psychiatric closet. *Australian and New Zealand Journal of Psychiatry* 50: 106-1107.
- Pertile RAN, Cui X & Eyles DW (2016) Vitamin D signaling and the differentiation of developing dopamine systems. *Neuroscience* 333: 193-203.
- Petersen AV, Cotel F & Perrier JF (2017, epub 2016) Plasticity of the axon initial segment: Fast and slow processes with multiple functional roles. *Neuroscientist* 23: 364-373.
- Peyrot WJ, Boomsma DI, Penninx BW & Wray NR (2016) Disease and polygenic architecture: Avoid trio design and appropriately account for unscreened control subjects for common disease. *American Journal of Human Genetics* 98: 382-391.
- Peyrot WJ, Robinson MR, Penninx BW & Wray NR (2016) Exploring boundaries for the genetic consequences of assortative mating for psychiatric traits. *JAMA Psychiatry* 73: 1189-1195.
- Pizzagalli F, Auzias G, Kochunov P, Faskowitz JI, McMahon KL, et al (2016) Genetic analysis of cortical sulci in 1,009 adults. *IEEE 13th International Symposium on Biomedical Imaging (ISBI) 13-16 April 2016 (Vol 2016-June, pp 833-837) Prague: IEEE.*
- Polanco JC, Scicluna BJ, Hill AF & Götz J (2016) Extracellular vesicles isolated from brains of rTg4510 mice seed tau aggregation in a threshold-dependent manner. *Journal of Biological Chemistry* 291: 12445-12466.

- Powell JE, Fung JN, Shakhbazov K, Sapkota Y, Cloonan N, et al (2016) Endometriosis risk alleles at 1p36.12 act through inverse regulation of CDC42 and LINC00339. *Human Molecular Genetics* 25: 5046-5058.
- Power RA, Tansey KE, Buttenschoen HN, Cohen-Woods S, Bigdeli T, et al (2016) Genome-wide association for major depression through age at onset stratification. *Biological Psychiatry* 111: 123-130.
- Pujic Z, Nguyen H, Glass N, Cooper-White J & Goodhill GJ (2016) Axon guidance studies using a microfluidics-based chemotropic gradient generator. In T Jin & D Herold (Eds), *Chemotaxis: Methods and Protocols* (pp 273-285) New York: Springer.
- Puschmann A, Fiesel FC, Caulfield TR, Hudec R, Ando M, et al (2016) Heterozygous PINK1 p.G411S increases risk of Parkinson's disease via a dominant-negative mechanism. *Brain* 140: 98-117.
- Ragan C, Patel K, Edson J, Zhang ZH, Gratten J, et al (2016) Small non-coding RNA expression from anterior cingulate cortex in schizophrenia shows sex specific regulation. *Schizophrenia Research* 183: 82-87.
- Ratnu VS, Emami MR & Bredy TW (2017, epub 2016) Genetic and epigenetic factors underlying sex differences in the regulation of gene expression in the brain. *Journal of Neuroscience Research* 95: 301-310.
- Reid LB, Cunnington R, Boyd RN & Rose SE (2016) Surface-based fMRI-driven diffusion tractography in the presence of significant brain pathology: A study linking structure and function in cerebral palsy. *PLOS ONE* 11: e0159540.
- Reuter EM, Cunnington R, Mattingley JB, Riek S & Carroll TJ (2016) Feedforward compensation for novel dynamics depends on force field orientation but is similar for the left and right arms. *Journal of Neurophysiology* 116: 2260-2271.
- Rietschel L, Streit F, Zhu G, McAloney K, Kirschbaum C, et al (2016) Hair cortisol and its association with psychological risk factors for psychiatric disorders: A pilot study in adolescent twins. *Twin Research and Human Genetics* 19: 438-446.
- Robinson AK, Laning J, Reinhard J & Mattingley JB (2016) Odours reduce the magnitude of object substitution masking for matching visual targets in females. *Attention, Perception and Psychophysics* 78: 1702-1711.
- Roelfsema C, Thurstan R, Beger M, Dudgeon C, Loder J, et al (2016) A citizen science approach: A detailed ecological assessment of subtropical reefs at Point Lookout, Australia. *PLOS ONE* 11: e0163407.
- Rohrschreib CE, Frentiu FD, Horn E, Ritchie FK, van Swinderen B, et al (2016) Intensity of mutualism breakdown is determined by temperature not amplification of *Wolbachia* genes. *PLOS Pathogens* 12: e1005888.
- Roshchupkin GV, Gutman BA, Vernooij MW, Jahanshad N, Martin NG, et al (2016) Heritability of the shape of subcortical brain structures in the general population. *Nature Communications* 7: 13738.
- Rowell D, Gordon LG, Olsen CM & Whiteman DC (2016) A comparison of the direct medical costs for individuals with or without basal or squamous cell skin cancer: A study from Australia. *SAGE Open Medicine* 4: 2050312116646030.
- Rowell D, Nghiem S & Connelly LB (2017, epub 2016) Two tests for ex ante moral hazard in a market for automobile insurance. *Journal of Risk and Insurance* 84: 1103-1126.
- Sachdev PS, Thalamuthu A, Mather KA, Ames D, Wright MJ, et al (2016) White matter hyperintensities are under strong genetic influence. *Stroke* 47: 1422-1428.
- Sah P, Fanselow M, Hattie J, Magsamen S, Mattingley J, et al (2016) Integrating neuroscience and learning: now's the time. *NPJ Science of Learning* 1: 16007.
- Sale MV, Nydam AS & Mattingley JB (2016) Stimulus uncertainty enhances long-term potentiation-like plasticity in human motor cortex. *Cortex* 88: 32-41.
- Sale MV, Rogasch N & Nordstrom M (2016) Different stimulation frequencies alter synchronous fluctuations in motor evoked potential amplitude of intrinsic hand muscles - a TMS study. *Frontiers in Human Neuroscience* 10: 100.
- Sanchez-Luque FJ, Richardson SR & Faulkner GJ (2016) Retrotransposon capture sequencing (RC-Seq): A targeted, high-throughput approach to resolve somatic L1 retrotransposition in humans. In JL Garcia-Perez (Ed), *Transposons and Retrotransposons: Methods and Protocols* (pp 47-77) New York: Springer.
- Schaumberg MA, Jenkins DG, Jonge XAd, Emmerton LM & Skinner TL (2016) Three-step method for menstrual and oral contraceptive cycle verification. *Journal of Science and Medicine in Sport* 20: 965-969.
- Schiffner I, Denzau S, Gehring D & Wiltshko R (2016) Mathematical analysis of the homing flights of pigeons based on GPS tracks. *Journal of Comparative Physiology A* 202: 1-9.
- Schiffner I, Perez T & Srinivasan MV (2016) Strategies for pre-emptive mid-air collision avoidance in budgerigars. *PLOS ONE* 11: e0162435.
- Schiffner I & Srinivasan MV (2016) Budgerigar flight in a varying environment: flight at distinct speeds? *Biology Letters* 12: 20160221.
- Schmaal L, Hibar DP, Samann PG, Hall GB, Baune BT, et al (2017, epub 2016) Cortical abnormalities in adults and adolescents with major depression based on brain scans from 20 cohorts worldwide in the ENIGMA Major Depressive Disorder Working Group. *Molecular Psychiatry* 22: 900-909.
- Schmaal L, Veltman DJ, van Erp TG, Samann PG, Frodl T, et al (2016) Response to Dr Fried & Dr Kievit, and Dr Malhi et al *Molecular Psychiatry* 21: 726-728.
- Sekar A, Bialas AR, de Rivera H, Davis A, Hammond TR, et al (2016) Schizophrenia risk from complex variation of complement component 4. *Nature* 530: 177-183.
- Sepehrband F, Alexander DC, Kurniawan ND, Reutens DC & Yang Z (2016) Towards higher sensitivity and stability of axon diameter estimation with diffusion-weighted MRI. *NMR in Biomedicine* 29: 293-308.
- Shakhbazov K, Powell JE, Hemani G, Henders AK, Martin NG, et al (2016) Shared genetic control of expression and methylation in peripheral blood. *BMC Genomics* 17: 278.
- Shen KK, Dore V, Rose S, Fripp J, McMahon KL, et al (2016) Heritability and genetic correlation between the cerebral cortex and associated white matter connections. *Human Brain Mapping* 37: 2331-2347.
- Sherwell C, Garrido M & Cunnington R (2017, epub 2016) Timing in predictive coding: The roles of task relevance and global probability. *Journal of Cognitive Neuroscience* 29: 780-792.
- Shi L, Hu E, Wang Z, Liu J, Li J, et al (2017, epub 2016) Regional selection of the brain size regulating gene *CASC5* provides new insight into human brain evolution. *Human Genetics* 136: 193-204.
- Shibuya K, Park SB, Geevasing N, Menon PJ, Howells J, et al (2016) Motor cortical function determines prognosis in sporadic ALS. *Neurology* 87: 513-520.
- Short AK, Fennell KA, Perreau VM, Fox A, O'Bryan MK, et al (2016) Elevated paternal glucocorticoid exposure alters the small noncoding RNA profile in sperm and modifies anxiety and depressive phenotypes in the offspring. *Translational Psychiatry* 6: e837.
- Si J, Zhang X, Li Y, Zhang Y, Zuo N, et al (2016) Correlation between electrical and hemodynamic responses during visual stimulation with graded contrasts. *Journal of Biomedical Optics* 21: 091315.
- Simpson EE, Marshall NJ & Cheney KL (2016) Coral reef fish perceive lightness illusions. *Scientific Reports* 6: 35335.
- Smith CA, Sun C, Pezic A, Rodda C, Cameron F, et al (2017, epub 2016) Determinants of neonatal vitamin D levels as measured on neonatal dried blood spot samples. *Neonatology* 111: 153-161.
- Solé L, Roig SR, Vallejo-Gracia A, Serrano-Albarrás A, Martínez-Mármol R, et al (2016) The carboxy terminal domain of Kv1.3 regulates functional interactions with the KCNE4 subunit. *Journal of Cell Science* 129: 4265-4277.
- Soontornniyomkij V, Kesby JP, Morgan EE, Bischoff-Grethe A, Minassian A, et al (2016) Effects of HIV and methamphetamine on brain and behavior: Evidence from human studies and animal models. *Journal of Neuroimmune Pharmacology* 11: 495-510.
- Spampanato J, Sullivan RK, Perumal MB & Sah P (2016) Development and physiology of GABAergic feedback excitation in parvalbumin expressing interneurons of the mouse basolateral amygdala. *Physiological Reports* 4: e12664.
- Speiser DI, Gagnon YL, Chhetri RK, Oldenburg AL & Johnsen S (2016) Examining the effects of chromatic aberration, object distance, and eye shape on image-formation in the mirror-based eyes of the bay scallop *Argopecten irradians*. *Integrative and Comparative Biology* 56: 769-808.
- Stieb SM, Carleton KL, Cortesi F, Marshall NJ & Salzburger W (2016) Depth dependent plasticity in opsin gene expression varies between damselfish (Pomacentridae) species. *Molecular Ecology* 25: 3645-3661.
- Stieb SM, Cortesi F, Sueess L, Carleton KL, Salzburger W, et al (2017, epub 2016) Why UV- and red-vision are important for damselfish (Pomacentridae): Structural and expression variation in opsin genes. *Molecular Ecology* 26: 1323-1342.

- Stillerova T, Liddle J, Gustafsson L, Lamont R & Silburn P (2016) Remotely assessing symptoms of Parkinson's disease using videoconferencing: A feasibility study. *Neurology Research International* 2016: 4802570.
- Stillerova T, Liddle J, Gustafsson L, Lamont R & Silburn P (2016) Could everyday technology improve access to assessments? A pilot study on the feasibility of screening cognition in people with Parkinson's disease using the Montreal Cognitive Assessment via Internet videoconferencing. *Australian Occupational Therapy Journal* 63: 373-380.
- Stratton P, Hasselmo M & Milford M (2016) Unlocking neural complexity with a robotic key. *Journal of Physiology* 594: 6559-6567.
- Stringer BW, Bunt J, Bryan W, Day BW, Barry G, et al (2016) Nuclear factor one B (*NF1B*) encodes a subtype-specific tumour suppressor in glioblastoma. *Oncotarget* 7: 29306-29320.
- Strydom R, Denuelle A & Srinivasan MV (2016) Bio-inspired principles applied to the guidance, navigation and control of UAS. *Aerospace* 3: 21.
- Strydom R, Thurrowgood S, Denuelle A & Srinivasan MV (2016) TCM: A vision-based algorithm for distinguishing between stationary and moving objects irrespective of depth contrast from a UAS. *International Journal of Advanced Robotic Systems* 13: 84.
- Suetani S, Rosenbaum S, Scott JG, Curtis J & Ward PB (2016) Bridging the gap: What have we done and what more can we do to reduce the burden of avoidable death in people with psychotic illness? *Epidemiology and Psychiatric Sciences* 25: 205-210.
- Suetani S, Saha S, Eyles DW, Scott JG & McGrath JJ (2017, epub 2016) Prevalence and correlates of suboptimal vitamin D status in people living with psychotic disorders: Data from the Australian Survey of High Impact Psychosis. *Australian & New Zealand Journal of Psychiatry* 51: 921-929.
- Suetani S, Saha S, Milad A, Eakin E, Scott JG, et al (2017, epub 2016) Common mental disorders and recent physical activity status: findings from a National Community Survey. *Social Psychiatry and Psychiatric Epidemiology* 52: 795-802.
- Suetani S, Scott JG & McGrath JJ (2016) The importance of the physical health needs of people with psychotic disorders. *Australian and New Zealand Journal of Psychiatry* 51: 94-95.
- Suetani S, Waterreus A, Morgan V, Foley DL, Galletly C, et al (2016) Correlates of physical activity in people living with psychotic illness. *Acta Psychiatrica Scandinavica* 134: 129-137.
- Surendran P, Drenos F, Young R, Warren H, Cook JP, et al (2016) Trans-ancestry meta-analyses identify rare and common variants associated with blood pressure and hypertension. *Nature Genetics* 48: 1151-1161.
- Tang MF, Hammond GR & Badcock DR (2016) Are participants aware of the type and intensity of transcranial direct current stimulation? *PLOS ONE* 11: e0148825.
- Tefera TW, Wong Y, Barkl-Luke ME, Ngo ST, Thomas NK, et al (2016) Triheptanoin protects motor neurons and delays the onset of motor symptoms in a mouse model of amyotrophic lateral sclerosis. *PLOS ONE* 11: e0161816.
- Thompson AW & Scott EK (2016) Characterisation of sensitivity and orientation tuning for visually responsive ensembles in the zebrafish tectum. *Scientific Reports* 6: 34887.
- Thompson AW, Vanwallegem GC, Heap LA & Scott EK (2016) Functional profiles of visual-, auditory-, and water flow-responsive neurons in the zebrafish tectum. *Current Biology* 26: 743-754.
- Thurrowgood D, Paterson D, de Jonge MD, Kirkham R, Thurrowgood S, et al (2016) A hidden portrait by Edgar Degas. *Scientific Reports* 6: 29594.
- Tong JHS, Hawi Z, Dark C, Cummins TDR, Johnson BP, et al (2016) Separating the wheat from the chaff: systematic identification of functionally relevant noncoding variants in ADHD. *Molecular Psychiatry* 21: 1589-1598.
- Torres-Berrío A, Lopez JP, Bagot RC, Nouel D, Dal-Bo G, et al (2016) DCC confers susceptibility to depression-like behaviors in humans and mice and is regulated by miR-218. *Biological Psychiatry* 81: 306-215.
- Tseng HW, Pitt ME, Glant TT, McRae AF, Kenna TJ, et al (2016) Inflammation-driven bone formation in a mouse model of ankylosing spondylitis: sequential not parallel processes. *Arthritis Research and Therapy* 18: 35.
- Turnbull MT & Coulson EJ (2016) Cholinergic basal forebrain lesion decreases neurotrophin signaling without affecting tau hyperphosphorylation in genetically susceptible mice. *Journal of Alzheimer's Disease* 55: 1141-1154.
- Turner KM & Burne TH (2016) Improvement of attention with amphetamine in low- and high-performing rats. *Psychopharmacology* 233: 3383-3394.
- Turner KM, Peak J & Burne TH (2016) Measuring attention in rodents: Comparison of a modified signal detection task and the 5-choice serial reaction time task. *Frontiers in Behavioral Neuroscience* 9: 370.
- Turner LM, Liddle J & Pachana NA (2016) Parkinson's disease and driving cessation: A journey influenced by anxiety. *Clinical Gerontologist* 40: 220-229.
- van der Harst P, van Setten J, Verweij N, Vogler G, Franke L, et al (2016) 52 genetic loci influencing myocardial mass. *Journal of the American College of Cardiology* 68: 1435-1448.
- van der Jeugd A, Vermaercke B, Halliday GM, Staufenbiel M & Götz J (2016) Impulsivity, decreased social exploration, and executive dysfunction in a mouse model of frontotemporal dementia. *Neurobiology of Learning and Memory* 130: 34-43.
- van Rheeën W, Shatunov A, Dekker AM, McLaughlin RL, Diekstra FP, et al (2016) Genome-wide association analyses identify new risk variants and the genetic architecture of amyotrophic lateral sclerosis. *Nature Genetics* 48: 1043-1048.
- Vergheze A, Garner KG, Mattingley JB & Dux PE (2016) Prefrontal cortex structure predicts training-induced improvements in multitasking performance. *Journal of Neuroscience* 36: 2638-2645.
- Vinkhuyzen AA, Eyles DW, Burne TH, Blanken LM, Kruithof CJ, et al (2018) Gestational vitamin D deficiency and autism-related traits: the Generation R Study. *Molecular Psychiatry* 3: 85-90.
- Viola TW, Wearick-Silva LE, De Azeredo LA, Centeno-Silva A, Murphy C, et al (2016) Increased cocaine-induced conditioned place preference during periadolescence in maternally separated male BALB/c mice: the role of cortical BDNF, microRNA-212, and MeCP2. *Psychopharmacology* 233: 3279-3288.
- Visscher PM (2016) Human complex trait genetics in the 21st century. *Genetics* 202: 377-379.
- Visscher PM & Veldink JH (2016) A stroke of insight from genetics. *The Lancet Neurology* 15: 653-654.
- Visscher PM & Wray NR (2016) Concepts and misconceptions about the polygenic additive model applied to disease. *Human Heredity* 80: 165-170.
- Visscher PM & Yang J (2016) A plethora of pleiotropy across complex traits. *Nature Genetics* 48: 707-708.
- Vo HD, Schiffner I & Srinivasan MV (2016) Anticipatory manoeuvres in bird flight. *Scientific Reports* 6: 27591.
- Waghorn G, Hielscher E, Atyeo J & Saha S (2016) The impact of psychotic disorders and co-morbid substance abuse on vocational rehabilitation: Results from an Australian national survey of psychosis. *British Journal of Occupational Therapy* 79: 290-298.
- Wang J, Braskie MN, Hafzalla GW, Faskowitz J, McMahon KL, et al (2017, epub 2016) Relationship of a common OXTR gene variant to brain structure and default mode network function in healthy humans. *NeuroImage* 147: 500-506.
- Wang J, Zhang J, Rong M, Wei X, Zheng D, et al (2016) Functional topography of the right inferior parietal lobule structured by anatomical connectivity profiles. *Human Brain Mapping* 37: 4316-4332.
- Wang K, Mateos-Aparicio P, Honigsperger C, Raghuram V, Wu WW, et al (2016) IK1 channels do not contribute to the slow afterhyperpolarization in pyramidal neurons. *eLife* 5: e11206.
- Wang T, Martin S, Nguyen TH, Harper CB, Gormal RS, et al (2016) Flux of signalling endosomes undergoing axonal retrograde transport is encoded by presynaptic activity and TrkB. *Nature Communications* 7.
- Wang W, Li W, Ding M, Yuan H, Yang J, et al (2016) Identification of miRNAs as non-invasive biomarkers for early diagnosis of lung cancers. *Tumor Biology* 37: 16287-16293.
- Wang Y, Cao Y, Huang X, Yu T, Wei Z, et al (2016) Allele-specific expression of mutated in colorectal cancer (MCC) gene and alternative susceptibility to colorectal cancer in schizophrenia. *Scientific Reports* 6.
- Wang Y, Thompson WK, Schork AJ, Holland D, Chen CH, et al (2016) Leveraging genomic annotations and pleiotropic enrichment for improved replication rates in schizophrenia GWAS. *PLOS Genetics* 12: e1005803.
- Wen W, Thalamuthu A, Mather KA, Zhu W, Jiang J, et al (2016) Distinct genetic influences on cortical and subcortical brain structures. *Scientific Reports* 6: 32760.



- White J, Sofat R, Hemani G, Shah T, Engmann J, et al (2016) Plasma urate concentration and risk of coronary heart disease: a Mendelian randomisation analysis. *The Lancet Diabetes & Endocrinology* 4: 327-336.
- Widagdo J, Fang H, Jang SE & Anggono V (2016) PACSIN1 regulates the dynamics of AMPA receptor trafficking. *Scientific Reports* 6: 31070.
- Widagdo J, Zhao Q, Kempen MJ, Tan MC, Ratnu VS, et al (2016) Experience-dependent accumulation of N<sup>6</sup>-methyladenosine in the prefrontal cortex is associated with memory processes in mice. *Journal of Neuroscience* 36: 6771-6777.
- Wilkins L, Marshall NJ, Johnsen S & Osorio D (2016) Modelling colour constancy in fish: implications for vision and signalling in water. *Journal of Experimental Biology* 219: 1884-1892.
- Williams R, Reutens D & Hocking J (2016) Influence of BOLD contributions to diffusion fMRI activation of the visual cortex. *Frontiers in Neuroscience* 10: 279.
- Wilson NH & Stoeckli ET (2016) *In ovo* electroporation of miRNA plasmids to silence genes in a temporally and spatially controlled manner *Neuromethods* (pp 1-21) New York: Humana Press.
- Windels F, Yan S, Stratton PG, Sullivan R, Crane JW, et al (2016) Auditory tones and foot-shock recapitulate spontaneous sub-threshold activity in basolateral amygdala principal neurons and interneurons. *PLOS ONE* 11: e0155192.
- Wu Y, Li H, Zhou Y, Yu J, Zhang Y, et al (2016) Sex-specific neural circuits of emotion regulation in the centromedial amygdala. *Scientific Reports* 6: 23112.
- Wu Y, Wang J, Zhang Y, Zheng D, Zhang J, et al (2016) The neuroanatomical basis for posterior superior parietal lobule control lateralization of visuospatial attention. *Frontiers in Neuroanatomy* 10: 32.
- Wu Y, Zhang Y, Liu Y, Liu J, Duan Y, et al (2016) Distinct changes in functional connectivity in posteromedial cortex subregions during the progress of Alzheimer's disease. *Frontiers in Neuroanatomy* 10: 41.
- Xia D, Gutmann JM & Götz J (2016) Mobility and subcellular localization of endogenous, gene-edited tau differs from that of over-expressed human wild-type and P301L mutant tau. *Scientific Reports* 6: 29074.
- Xie S, Chen L, Zuo N & Jiang T (2016) DiffusionKit: A light one-stop solution for diffusion MRI data analysis. *Journal of Neuroscience Methods* 273: 107-119.
- Xu HM, Xu LF, Hou TT, Luo LF, Chen GB, et al (2016) GMDR: Versatile software for detecting gene-gene and gene-environment interactions underlying complex traits. *Current Genomics* 17: 396-402.
- Xu T, Opitz A, Craddock RC, Wright MJ, Zuo XN, et al (2016) Assessing variations in areal organization for the intrinsic brain: From fingerprints to reliability. *Cerebral Cortex* 26: 4192-4211.
- Yang J, Lee SH, Wray NR, Goddard ME & Visscher PM (2016) GCTA-GREML accounts for linkage disequilibrium when estimating genetic variance from genome-wide SNPs. *Proceedings of the National Academy of Sciences of the USA* 113: E4579 - E4580
- Yang X, Li J, Liu B, Li Y & Jiang T (2016) Impact of PICALM and CLU on hippocampal degeneration. *Human Brain Mapping* 37: 2419-2430.
- Yap HK, Kamaldin N, Lim JH, Nasrallah FA, Goh JCH, et al (2017, epub 2016) A magnetic resonance compatible soft wearable robotic glove for hand rehabilitation and brain imaging. *IEEE Transactions on Neural Systems and Rehabilitation Engineering* 25: 782-793.
- Yap HK, Lim JH, Nasrallah F, Cho Hong Goh J & Yeow CH (2016) Characterisation and evaluation of soft elastomeric actuators for hand assistive and rehabilitation applications. *Journal of Medical Engineering and Technology* 40: 199-209.
- Zai G, Alberry B, Arloth J, Bánlaki Z, Bares C, et al (2016) Rapporteur summaries of plenary, symposia, and oral sessions from the XXIIIrd World Congress of Psychiatric Genetics Meeting in Toronto, Canada, 16–20 October 2015. *Psychiatric Genetics* 26: 229-257.
- Zalucki O & van Swinderen B (2016) What is unconsciousness in a fly or a worm? A review of general anesthesia in different animal models. *Consciousness and Cognition* 44: 72-88.
- Zannat R, Uddin MMN, Rahman MA, Aklima J & Al Amin MM (2016) Antihistamines considerably modulate the cognitive and psychomotor performance of human volunteers. *Cogent Psychology* 3: 1216242.
- Zeng Y, Navarro P, Fernandez-Pujals AM, Hall LS, Clarke T-K, et al (2016) A combined pathway and regional heritability analysis indicates NETRIN1 pathway is associated with major depressive disorder. *Biological Psychiatry* 81: 336-346.
- Zeng Y, Navarro P, Shiralil M, Howard DM, Adams MJ, et al (2016) Genome-wide regional heritability mapping identifies a locus within the TOX2 gene associated with Major Depressive Disorder. *Biological Psychiatry* 82: 312-321.
- Zhan Y, Ma J, Alexander-Bloch AF, Xu K, Cui Y, et al (2016) Longitudinal study of impaired intra- and inter-network brain connectivity in subjects at high risk for Alzheimer's disease. *Journal of Alzheimer's Disease* 52: 913-927.
- Zhang S, Dissanayaka NN, Dawson A, O'Sullivan JD, Mosley P, et al (2016) Management of impulse control disorders in Parkinson's disease. *International Psychogeriatrics* 28: 1597-1614.
- Zhang W, Wang J, Fan L, Zhang Y, Fox PT, et al (2016) Functional organization of the fusiform gyrus revealed with connectivity profiles. *Human Brain Mapping* 33: 201-215.
- Zhang Y, Bode A, Keramidas A & Lynch JW (2016) Investigating the mechanism by which gain-of-function mutations to the  $\alpha 1$  glycine receptor cause hyperekplexia. *Journal of Biological Chemistry* 291: 15332 - 15341
- Zhang Y, Keramidas A & Lynch J (2016) The free zinc concentration in the synaptic cleft of artificial glycinergic synapses rises to at least 1 micromolar. *Frontiers in Molecular Neuroscience* 9: 88.
- Zhao Q, Gratten J, Restaudi R & Li X (2016) Mapping and differential expression analysis from short-read RNA-Seq data in model organisms. *Quantitative Biology* 4: 22-35.
- Zheng F, Cui Y, Yan H, Liu B & Jiang T (2016) The effects of a genome-wide supported variant in the CACNA1C gene on cortical morphology in schizophrenia patients and healthy subjects. *Scientific Reports* 6: 34298.
- Zheng F, Yan H, Liu B, Yue W, Fan L, et al (2016) ALDH2 Glu504Lys confers susceptibility to schizophrenia and impacts hippocampal-prefrontal functional connectivity. *Cerebral Cortex* 27: 2034-2040.
- Zhu Z, Zhang F, Hu H, Bakshi A, Robinson MR, et al (2016) Integration of summary data from GWAS and eQTL studies predicts complex trait gene targets. *Nature Genetics* 48: 481-487.
- Zhuo J, Fan L, Liu Y, Zhang Y, Yu C, et al (2016) Connectivity profiles reveal a transition subarea in the parahippocampal region that integrates the anterior temporal-posterior medial systems. *Journal of Neuroscience* 36: 2782-2795.

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