

## TIMETABLE - TUESDAY 28 JANUARY 2013

<i><b>TIME</b></i>	<i><b>LOCATION</b></i>	<i><b>EVENT</b></i>
<b>15:00 - 20:00</b>	Foyer H	<b>Registration</b>
<b>17:00-17:30</b>	Hall E	<b>Opening of Conference</b> Welcome to Country – Uncle Lewis Professor John Rostas (President ANS) Professor Ian Chubb (Chief Scientist for Australia)
<b>17:30-18:30</b>	Hall E	<b>Plenary Lecture 1 – ANS Overseas Plenary Lecturer</b> Moses V. Chao <i>“The future of neurotrophic factors”</i>
<b>18:30-20:30</b>	Riverbank Promenade	<b><i>Welcome Mixer</i></b>

## TIMETABLE - WEDNESDAY 29 JANUARY 2013

<i>TIME</i>	<i>LOCATION</i>	<i>EVENT</i>
<b>From 7:30</b>	Foyer H	<b>Registration</b>
<b>08:25-08:30</b>	Hall E	<b>Opening Comments</b>
<b>08:30-09:30</b>	Hall E	<b>Plenary 2 – ANS Lawrie Austin Plenary Lecture</b> Trevor Kilpatrick <i>“Unravelling the neurobiology of MS”</i>
<b>09:30-10:00</b>	Halls J & K	<b><i>Morning Tea / Exhibition / Posters</i></b>
<b>10:00-12:00</b>	Hall E	<b>Concurrent Sessions</b> <b>Symposium 1</b> – Hearing and Deafness: From Molecules to Cognition with Assistive Technology
	Hall D	<b>Symposium 2</b> – The Lows and Highs of Glucose Homeostasis: How the Brain Controls Blood Sugar
	Meeting Rm 1/2	<b>Symposium 3</b> – Neurodevelopmental Disorders: Tracing the Developmental Trajectory from Genes to Behaviour
	Meeting Rm 10	<b>Symposium 4</b> – Antibody-Associated Disorders of the Nervous System
	Meeting Rm 11	<b>Symposium 5</b> – Transporters in the Brain: Mechanisms & Therapies
	Meeting Rm 3	<b>Symposium 6</b> – Respiratory Control in Health and Disease
<b>12:00-13:00</b>	Halls J & K	<b><i>Lunch / Exhibition / Posters</i></b>
<b>12:45-14:45</b>	Hall E	<b>Australian Brain Bee Challenge and Awards Ceremony</b>

## TIMETABLE - WEDNESDAY 29 JANUARY 2013

<b>TIME</b>	<b>LOCATION</b>	<b>EVENT</b>
<b>13:00-15:00</b>	Halls J & K	<b>Poster Session A / Exhibition</b> <i>13:00 - 14:00 Presenters of odd numbered posters in attendance</i> <i>14:00 - 15:00 Presenters of even numbered posters in attendance</i>
<b>15:00-15:30</b>	Halls J & K	<b>Afternoon Tea / Exhibition / Posters</b>
<b>15:30-17:30</b>		<b>Concurrent Sessions</b>
	Hall E	<b>Oral 1</b> – Autonomic/Neuroendocrine Systems I
	Hall D	<b>Oral 2</b> – Clinical Disorders & Injury of the Nervous System I
	Meeting Rm 1/2	<b>Oral 3</b> – Cognition, Learning & Behaviour I
	Meeting Rm 10	<b>Oral 4</b> – Clinical Disorders & Injury of the Nervous System II
	Meeting Rm 11	<b>Oral 5</b> – Excitability & Synaptic Transmission I
	Meeting Rm 3	<b>Oral 6</b> – Glia I
<b>18:00-19:00</b>	Elder Hall, The University of Adelaide	<b>Families and Science Workshop</b>
<b>19:00-21:00</b>	Bonython Hall Lawns, The University of Adelaide	<b>Early Career Mixer</b>

## TIMETABLE - THURSDAY 30 JANUARY 2013

<i>TIME</i>	<i>LOCATION</i>	<i>EVENT</i>
<b>From 8:00</b>	Foyer H	<b>Registration</b>
<b>08:25-08:30</b>	Hall E	<b>Opening Comments</b>
<b>08:30-09:30</b>	Hall E	<b>Plenary 3 – The ANS Plenary Lecture</b> Marcello Costa <i>"20/20 insight in Neurogastroenterology"</i>
<b>09:30-10:00</b>	Halls J & K	<b><i>Morning Tea / Exhibition / Posters</i></b>
<b>10:00-12:00</b>	Hall E	<b>Concurrent Sessions</b> <b>Symposium 7</b> – ANS Presidential Symposium: Bionic & Computational Vision
	Hall D	<b>Symposium 8</b> – Translation Research in Depression: Stem Cells, Genes, Behaviour & Drug Response
	Meeting Rm 1/2	<b>Symposium 9</b> – The Many Faces of the Orexin System
	Meeting Rm 10	<b>Symposium 10</b> – Neuronal Trafficking in Synaptic Plasticity, Learning & Memory
	Meeting Rm 11	<b>Symposium 11</b> – The Big Bang: A Foray into How Percepts Collide to Give Rise to Embodied Sensory Experience
	Meeting Rm 3	<b>Symposium 12</b> – Trafficking & Local Translation of mRNA in Neurodegenerative Disease
<b>12:00-12:30</b>	Halls J & K	<b><i>Lunch / Exhibition / Posters</i></b>
<b>12:30-14:30</b>	Halls J & K	<b>Poster Session B / Exhibition</b> <i>12:30 – 13:30 Presenters of odd numbered posters in attendance</i> <i>13:30 – 14:30 Presenters of even numbered posters in attendance</i>

## TIMETABLE - THURSDAY 30 JANUARY 2013

<i><b>TIME</b></i>	<i><b>LOCATION</b></i>	<i><b>EVENT</b></i>
<b>14:30-15:30</b>	Hall E	<b>ANS Annual General Meeting</b>
<b>15:30-16:00</b>	Halls J & K	<b><i>Afternoon Tea / Exhibition / Posters</i></b>
<b>16:00-18:00</b>	<div>Hall E</div> <div>Hall D</div> <div>Meeting Rm 1/2</div> <div>Meeting Rm 10</div> <div>Meeting Rm 11</div> <div>Meeting Rm 3</div>	<p><b>Concurrent Sessions</b></p> <p><b>Symposium 13</b> – Convergent &amp; Divergent Theories of Alzheimer’s Disease: <i>A special symposium of the ANS 2013 Local Organising Committee</i></p> <p><b>Oral 7</b> – Clinical Disorders &amp; Injury of the Nervous System III</p> <p><b>Oral 8</b> – Development &amp; Regeneration I</p> <p><b>Oral 9</b> – Cognition, Learning &amp; Behaviour II</p> <p><b>Oral 10</b> – Clinical Disorders &amp; Injury of the Nervous System IV</p> <p><b>Oral 11</b> – Sensory Systems I</p>
<b>19:00-23:30</b>	Hall F	<b><i>Conference Dinner</i></b>

## TIMETABLE - FRIDAY 31 JANUARY 2013

<i>TIME</i>	<i>LOCATION</i>	<i>EVENT</i>
<b>From 9:00</b>	Foyer H	<b>Registration</b>
<b>09:25-09:30</b>	Hall E	<b>Opening Comments</b>
<b>09:30-10:30</b>	Hall E	<b>Plenary 4 – The Eccles Lecture</b> Perry Bartlett <i>“Producing new neurons in the adult brain: How is it regulated and what is the use?”</i>
<b>10:30-11:00</b>	Halls J & K	<b><i>Morning Tea / Exhibition</i></b>
<b>11:00-13:00</b>	<div>Hall E</div> <div>Hall D</div> <div>Meeting Rm 1/2</div> <div>Meeting Rm 10</div> <div>Meeting Rm 11</div> <div>Meeting Rm 3</div>	<b>Concurrent Sessions</b> <b>Symposium 14</b> – Tackling the Issue of Brain Concussion: From Bench to Field-Side <b>Symposium 15</b> – Important Lessons from Human Brain Tissue Research Behaviour & Drug Response <b>Symposium 16</b> – Glia in Development & Disease <b>Symposium 17</b> – Harnessing Brain Plasticity for Rehabilitation <b>Symposium 18</b> – TRP Channels in Health & Disease <b>Symposium 19</b> – RNA Metabolism in Neurodegeneration
<b>13:00-14:00</b>		<b><i>Lunch Break</i></b> ( <i>Lunch may be purchased at nearby cafés. Please refer to the map on page 10 for locations</i> ) <i>*The exhibition hall will remain open should you wish to continue networking with sponsors</i>
<b>14:00</b>		<b>Exhibition Hall to Close</b>

## TIMETABLE - FRIDAY 31 JANUARY 2013

<i><b>TIME</b></i>	<i><b>LOCATION</b></i>	<i><b>EVENT</b></i>
<b>14:00-16:00</b>	Hall E	<b>Concurrent Sessions</b> <b>Oral 12</b> – Development & Regeneration II
	Hall D	<b>Oral 13</b> – Motor Systems I
	Meeting Rm 1/2	<b>Oral 14</b> – Sensory Systems II
	Meeting Rm 10	<b>Oral 15</b> – Clinical Disorders & Injury of the Nervous System V
	Meeting Rm 11	<b>Oral 16</b> – Autonomic/Neuroendocrine Systems II
	Meeting Rm 3	<b>Oral 17</b> – Neuroengineering & Computational Neuroscience I
<b>16:00-17:00</b>	Foyer F	<b><i>Closing Ceremony, Presentation of Awards &amp; Farewell Drinks</i></b>

## TUESDAY 28 JANUARY 2013

**15:00 - 20:00**      **REGISTRATION**  
**Location:**          **Foyer H**

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**17:30-18:30**      **PLENARY 1**

### OVERSEAS PLENARY LECTURE

**Chair:**              A/Prof Elizabeth Coulson, University of Queensland, QLD  
**Location:**        Hall E

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#### PLE-TUE-01

The future of neurotrophic factors

**Chao, Moses** (Skirball Institute, USA)

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#### Moses Chao



Moses V. Chao received his BA degree from Pomona College and his PhD from UCLA in biochemistry. He carried out postdoctoral research at Columbia University with Richard Axel, before joining the faculty at Cornell Medical School in 1984. In 1998, he moved to NYU School of Medicine, where he is presently Professor of Cell Biology, Physiology & Neuroscience and Psychiatry. His laboratory discovered and defined the genes encoding the NGF receptor. His research

interests are to define the mechanisms used by trophic factors to change synaptic plasticity. He served as Senior Editor for the *Journal of Neuroscience* for eleven years and also as an editor for *Developmental Neurobiology* and *Molecular and Cellular Neuroscience*. He has been a member of the Scientific Advisory Board for the Simons Foundation, the Christopher and Dana Reeve Foundation, the European Brain Research Foundation and St. Jude's Children's Research Hospital. He was named a Fellow of the AAAS and a recipient of a Zenith Award from the Alzheimer's Association, a Jacob Javits Neuroscience Investigator Award and a Guggenheim Fellowship. Chao was elected President of the Society for Neuroscience for 2012.



## WEDNESDAY 29 JANUARY 2013

**From 07:30**      **REGISTRATION**  
**Location:**      **Foyer H**

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**08:30 - 09:30**      **PLENARY 2**

### **ANS LAWRIE AUSTIN PLENARY LECTURE**

**Chair:**              A/ Prof. Anne Turnley, University of Melbourne, VIC  
**Location:**        Hall E

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#### **PLE-WED-02**

Unravelling the neurobiology of MS

**Kilpatrick, Trevor** (University of Melbourne, VIC)

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#### **Trevor Kilpatrick**



Trevor Kilpatrick is a Professor of Neurology and Director of the Centre for Neuroscience Research and the Melbourne Neuroscience Institute at The University of Melbourne; he is the leader of the MS Division at the Florey Institute of Neuroscience and Mental Health and is a neurologist and Head of the MS Unit at the Royal Melbourne Hospital. Professor Kilpatrick graduated with a Bachelor of Medicine, Bachelor of Surgery from the University of Melbourne in 1982 and then went on to

specialise in neurology. He undertook graduate studies at The University of Melbourne and gained a Doctor of Philosophy in 1993. Appointments at The Salk Institute for Biological Studies (La Jolla, USA), Institute of Neurology (London, UK) and The National Hospital and Moorfields Eye Hospital (London, UK) followed. Professor Kilpatrick has been the recipient of the Sunderland Award (1994), AMRAD Postdoctoral Award (1995), inaugural Leonard Cox Award (2000), Bethlehem Griffiths Research Foundation Award for Medical Research (2004), the Australian Museum's Jamie Callachor Eureka Prize for Medical Research (2008), the Stephen C. Reingold Research Award by the US MS National Multiple Sclerosis Society (2010) and most recently, (2013), Professor Kilpatrick was awarded the Bethlehem Griffiths Research Foundation Medal for outstanding leadership in medical research.

## WEDNESDAY 29 JANUARY 2013

**10:00-12:00**      **SYMPOSIUM 1**

### **HEARING AND DEAFNESS: FROM MOLECULES TO COGNITION WITH ASSISTIVE TECHNOLOGY**

**Chair:** Prof. David Ryugo, Garvan Institute of Medical Research, NSW  
**Location:** Hall E

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- 10:00**      **SYM-01-01**  
MOLECULAR PATHWAYS TO DIAGNOSIS, PREVENTION AND  
TREATMENT OF DEAFNESS  
**Burt, Rachel** (Murdoch Childrens Research Institute, VIC)
- 10:30**      **SYM-01-02**  
THE INSIDIOUS NATURE OF NOISE DAMAGE: HOW AUDITORY  
THRESHOLDS DON'T TELL THE WHOLE STORY  
**Liberman, M Charles** (Massachusetts Eye and Ear Infirmary,  
USA)
- 11:00**      **SYM-01-03**  
CELLS, CIRCUITS, AND CENTRAL AUDITORY PLASTICITY  
**Muniak, Michael** (Garvan Institute of Medical Research,  
NSW)
- 11:30**      **SYM-01-04**  
COCHLEAR IMPLANTS, COGNITION, AND THE CONUNDRUM  
OF WHICH EAR TO IMPLANT  
**McMahon, Catherine\***, Boisvert, A., Lyxell, B., Dowell, R. and  
Tavora-Vieira, D. (\*Macquarie University, NSW)

## WEDNESDAY 29 JANUARY 2013

10:00-12:00 SYMPOSIUM 2

### THE LOWS AND HIGHS OF GLUCOSE HOMEOSTASIS: HOW THE BRAIN CONTROLS BLOOD SUGAR

**Chair:** Dr. Larissa Bobrovskaya, University of South Australia, SA  
**Location:** Hall D

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- 10:00**      **SYM-02-01**  
HYPOGLYCEMIA IN DIABETES: RISKS, MANAGEMENT AND PREVENTION  
**Jones, Timothy** (University of Western Australia, WA)
- 10:30**      **SYM-02-02**  
BULBOSPINAL CIRCUITRY INVOLVED IN THE COUNTER-REGULATORY RESPONSE  
**Llewellyn-Smith, Ida** (Flinders University, SA)
- 11:00**      **SYM-02-03**  
ADRENALINE AND THE GLUCOSE COUNTER-REGULATORY RESPONSE: AN OREXINERGIC CONNECTION  
**Verberne, Tony\***, Sabetghadam, A. and Korim, W.  
(\*University of Melbourne, VIC)
- 11:30**      **SYM-02-04**  
CIRCUITRY AND MECHANISMS OF GLUCOSE HOMEOSTASIS: KEY ROLES FOR HINDBRAIN CATECHOLAMINE NEURONS  
**Ritter, Sue** (Washington State University, USA)

## WEDNESDAY 29 JANUARY 2013

**10:00-12:00**      **SYMPOSIUM 3**

### **NEURODEVELOPMENTAL DISORDERS: TRACING THE DEVELOPMENTAL TRAJECTORY FROM GENES TO BEHAVIOUR**

**Chairs:**              Prof. Valsamma Eapen, University of New South Wales, NSW  
                         Prof. Bernhard Baune, University of Adelaide, SA

**Location:**          Meeting Room 1/2

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**10:00**                **SYM-03-01**  
GENETIC, NEURAL AND HORMONAL INFLUENCES ON SOCIAL COGNITION

**Skuse, David** (Institute of Child Health, UK)

**10:30**                **SYM-03-02**  
AUTISM AND SCHIZOPHRENIA: CONVERGENCES AND DIVERGENCES IN NEURODEVELOPMENTAL DISORDERS  
**Lenroot, Rhoshel** (University of New South Wales, NSW)

**11:00**                **SYM-03-03**  
RISK & RESILIENCE BIOMARKERS IN NEUROPSYCHIATRY - PREDICTING THE RISK FOR AUTISM SPECTRUM DISORDER  
**Pantelis, Christos\***, Skafidas, E., Testa, R., Zantomio, D., Chana, G., Bousman, C. and Everall, I. (\*University of Melbourne, Florey Institute for Neuroscience & Mental Health, VIC)

**11:30**                **SYM-03-04**  
TRANSCRIPTIONAL NETWORKS IN AUTISM SPECTRUM DISORDERS  
**Voineagu, Irina** (University of New South Wales, NSW)

## WEDNESDAY 29 JANUARY 2013

10:00-12:00 SYMPOSIUM 4

### ANTIBODY-ASSOCIATED DISORDERS OF THE NERVOUS SYSTEM

**Chair:** Dr. Thomas Fath, University of Sydney, NSW

**Location:** Meeting Room 10

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- 10:00**      **SYM-04-01**  
AUTOANTIBODIES IN AUTOIMMUNE MOVEMENT AND  
PSYCHIATRIC DISORDERS  
**Brilot, Fabienne\***, Pathmanandavel, K., Ramanathan, S.,  
Merheb, V., Mohammad, S., Pillai, S., Tantsis, E. and Dale, R.  
(\*Children's Hospital at Westmead– University of Sydney,  
NSW)
- 10:30**      **SYM-04-02**  
MOLECULAR SIGNATURES OF SYSTEMIC AUTOANTIBODIES  
ASSOCIATED WITH NEUROLOGICAL SYNDROMES  
**Gordon, Tom** (Flinders Medical Centre, SA)
- 11:00**      **SYM-04-03**  
FUNCTIONAL EFFECTS OF AUTOANTIBODIES AGAINST MYELIN  
PROTEOLIPID PROTEIN IN MULTIPLE SCLEROSIS  
**Greer, Judith\***, Muller, D., Trifilieff, E. and Pender, M.  
(\*University of Queensland, BNE)
- 11:30**      **SYM-04-04**  
ANTIBODIES TO MUSK DISRUPT THE FUNCTIONAL  
HOMEOSTASIS OF THE MATURE NEUROMUSCULAR SYNAPSE  
**Reddel, Stephen\***, Morsch, M., Cole, R., Ghazanfari, N., Ngo,  
S., Cheng, A., Tokya, K. and Phillips, W. (\*University of  
Sydney, NSW)

## WEDNESDAY 29 JANUARY 2013

10:00-12:00 SYMPOSIUM 5

### TRANSPORTERS IN THE BRAIN: MECHANISMS & THERAPIES

**Chair:** Dr. Ruth Empson, University of Otago, NZ

**Location:** Meeting Room 11

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**10:00 SYM-05-01**

NEURONAL INHIBITION IN MOUSE BRAIN IS ENHANCED BY KCC2

**Moorhouse, Andrew\***, Watanabe, M., Khoshaba, A., Cheung, D., Nakamura, K. and Nabekura, J. (\*University of New South Wales, NSW)

**10:30 SYM-05-02**

THE ROLE OF THE SODIUM CALCIUM EXCHANGER (NCX) IN RESPONSE TO STROKE/CEREBRAL ISCHAEMIA

**Cross, Jane\***, Knuckey, N. and Meloni, B. (\*University of Western Australia, WA)

**11:00 SYM-05-03**

PROBING THE LOCATION OF THE GLUTAMATE TRANSPORTER CHLORIDE CHANNEL

**Ryan, Renae\***, Cater, R. and Vandenberg, R. (\*University of Sydney, NSW)

**11:30 SYM-05-04**

GLUTAMATE TRANSPORTER DYSFUNCTION IN EPISODIC ATAXIA

**Fahlke, Christoph\*** and Kovermann, P. (\*Institute of Complex Systems - Forschungszentrum Jülich, GERMANY)

## WEDNESDAY 29 JANUARY 2013

10:00-12:00

### SYMPOSIUM 6

#### RESPIRATORY CONTROL IN HEALTH AND DISEASE

**Chair:** Stuart Mazzone, University of Queensland, QLD  
**Location:** Meeting Room 3

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10:00

#### **SYM-06-01**

ACTIVATION AND PLASTICITY OF AIRWAY VAGAL  
NOCICEPTORS

**Udem, Bradley** (John Hopkins Asthma and Allergy Centre,  
USA)

10:30

#### **SYM-06-02**

PONTINE CONTROL OF RESPIRATION IN HEALTH AND  
DISEASE: AIRFLOW PATTERNING, AIRWAY PROTECTION AND  
PLASTICITY

**Dutschmann, Mathias\***, Bautista, T., Jones, S., Farmer, D. and  
Stanic, D. (\*Florey Institute of Neuroscience and Mental  
Health, VIC)

11:00

#### **SYM-06-03**

MECHANISMS OF SENSORIMOTOR DYSFUNCTION IN  
PATIENTS WITH OBSTRUCTIVE SLEEP APNOEA

**Eckert, Danny**, (University of New South Wales, NSW)

11:30

#### **SYM-06-04**

PLASTICITY OF SENSORIMOTOR RESPONSES ASSOCIATED  
WITH AIRWAY SENSITIVITY AND PERSISTENT COUGH

**Farrell, Michael**, (Florey Institute of Neuroscience and Mental  
Health, VIC)

## WEDNESDAY 29 JANUARY 2013

15:30-17:30

ORAL 1

### AUTONOMIC NEUROENDOCRINE SYSTEMS I

**Chair:** Prof. Jacqueline Phillips, Macquarie University, NSW  
**Location:** Hall E

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15:30

**ORAL-01-01**

SPONTANEOUS  $CA^{2+}$  WAVES PROPAGATE BETWEEN ADJACENT NEURAL CREST-DERIVED CELLS DURING ENTERIC NERVOUS SYSTEM DEVELOPMENT BUT ARE NOT MEDIATED BY GAP JUNCTIONS

**Hao, Marlene\***, Bergner, A., Foong, J., Vanden Berghe, P., Bornstein, J. and Young, H. (\*KU Leuven, BELGIUM)

15:45

**ORAL-01-02**

SPINAL AFFERENTS STIMULATE MAST CELLS TO RELEASE PARACRINE MODULATORS IN THE ENTERIC NERVOUS SYSTEM (ENS)

**Wood, Jackie\***, Wang, G. and Wang, (\* Ohio State University, USA)

16:00

**ORAL-01-03**

EVIDENCE THAT THE GHRELIN RECEPTOR AGONIST ULMORELIN STIMULATES SPINAL CORD DEFECATION CENTRES

**Callaghan, Brid\***, Pustovit, R., Kosari, S., Rivera, L., Thomas, H., Brock, J. and Furness, J. (\*University of Melbourne, VIC)

16:15

**ORAL-01-04**

TREATMENT OF TNBS-COLITIS WITH BONE MARROW MESENCHYMAL STEM CELLS AND CONDITIONED MEDIUM PREVENTS ENTERIC NEUROPATHY IN GUINEA-PIGS

**<sup>†</sup>Robinson, Ainsley\***, Miller, S., Sakkal, S., Jovanovska, V., Park, A., Carbone, ., Boyd, R., Bernard, C. and Nurgali, K. (\*Victoria University, VIC)



## WEDNESDAY 29 JANUARY 2013

16:30

### ORAL-01-05

INHIBITION OF DORSOMEDIAL HYPOTHALAMUS, BUT NOT OF DORSOLATERAL PERIAQUEDUCTAL GREY, SUPPRESSES RESPIRATORY RESPONSE TO ALERTING STIMULI AND STRESS IN CONSCIOUS RATS

<sup>†</sup>**Bondarenko, Evengy\***, Guimaraes, D., Braga, V., Hodgson, D. and Nalivaiko, E. (\*University of Newcastle, NSW)

16:45

### ORAL-01-06

INVESTIGATING THE ORIGIN OF CARDIAC VAGAL TONE

**Farmer, David\***, McAllen, R. and Dutschmann, M. (\*Florey Institute of Neuroscience and Mental Health, VIC)

17:00

### ORAL-01-07

INCREASED RESPIRATORY MODULATION OF SYMPATHETIC ACTIVITY VIA CATECHOLAMINERGIC C1 NEURONS DURING EARLY LIFE PARTICIPATES TO THE DEVELOPMENT OF HYPERTENSION IN THE SPONTANEOUSLY HYPERTENSIVE RAT

**Menuet, Clement\***, Jancovski, N., Bassi, J., Connelly, A. and Allen, A. , (\*University of Melbourne, VIC)

17:15

### ORAL-01-08

IDENTIFYING SITES IN THE BRAIN RESPONSIBLE FOR THE INCREASE IN MUSCLE SYMPATHETIC NERVE ACTIVITY IN OBSTRUCTIVE SLEEP APNOEA

<sup>†</sup>**Fatouleh, Rania\***, Lundblund, L., Macefield, V., McKenzie, D. and Henderson, L. (\*University of Western Sydney, NSW)

## WEDNESDAY 29 JANUARY 2013

15:30-17:30

ORAL 2

### CLINICAL DISORDERS & INJURY OF THE NERVOUS SYSTEM I

**Chair:** Dr. Renee Turner, University of , SA

**Location:** Hall D

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15:30

**ORAL-02-01**

AGE-DEPENDENT SOCIAL DEFICITS AFTER TRAUMATIC BRAIN INJURY IN YOUNG MICE

**Semple, Bridgette\***, Sam, P., Gimlin, K., Adahman, Z., Hollingsworth, C., Schenk, A. and Noble-Haesslein, L. (\*University of California, USA)

15:45

**ORAL-02-02**

IN VIVO DIFFUSION TENSOR IMAGING OF LESION SITE DEVELOPMENT AFTER SPINAL CORD INJURY

**Ruitenberg, Marc\***, Brennan, F., Cowin, G. and Kurniawan, N. (\*University of Queensland, QLD)

16:00

**ORAL-02-03**

SPECTRUM OF SHORT- AND LONG-TERM BRAIN PATHOLOGY AND LONG-TERM BEHAVIOURAL DEFICITS IN MALE REPEATED RATS CLOSELY RESEMBLING HUMAN EXTREME PREMATUREITY

**Oorschot, Dorothy\***, Voss, L., Covey, M., Goddard, L., Huang, W., Birchall, P., Bilkey, D. and Kohe, S. (\*University of Otago, NZ)

16:15

**ORAL-02-04**

TWO DIFFERENT MODELS OF TRAUMATIC BRAIN INJURY INDUCE SIMILAR DEFICITS IN SENSORY PROCESSING IN THE POST-INJURY PERIOD

**Yan, Edwin\*** Johnstone, V., Shultz, S., O'Brien, T. and Raman, R. (\*Monash University, VIC)

## WEDNESDAY 29 JANUARY 2013

**16:30**

**ORAL-02-05**

RESPONSE OF ENDOGENOUS NEURAL PROGENITOR CELLS TO TRAUMATIC SPINAL CORD INJURY

**Gorrie, Catherine\***, Mao, Y., Matthews, K. and Cawsey, T.  
(\*University of Technology, Sydney, NSW)

**16:45**

**ORAL-02-06**

TREATMENT WITH COMBINED EPO AND BDNF SUPPORTS HIPPOCAMPAL NEUROGENESIS AND IMPROVES FUNCTIONAL OUTCOME FOLLOWING FOCAL TBI

**Bye, Nicole\***, Conquest, A., Gotama, A., Rosenfeld, J. and Morganti-Kossmann, C. (\*National Trauma Research Institute, Alfred Hospital, VIC)

**17:00**

**ORAL-02-07**

PHARMACEUTICAL MODULATION OF AQUAPORINS 4 & 1 ATTENUATES CEREBRAL OEDEMA AND NEUROLOGICAL OUTCOME FOLLOWING ACUTE TRAUMATIC BRAIN INJURY

<sup>†</sup>**Burton, Joshua Luc\***, Vink, R. and Yool, A. (\*University of Adelaide, SA)

**17:15**

**ORAL-02-08**

ACTIVITY-DEPENDENT PLASTICITY INDUCES FUNCTIONAL CHANGES IN THE INJURED BRAIN

<sup>†</sup>**Alwis, Dasuni\***, Johnstone, V., Carron, S., Yan, E., Hellewell, S., Morganti-Kossmann, C. and Rajan, R. (\*Monash University, VIC).

## WEDNESDAY 29 JANUARY 2013

15:30-17:30

ORAL 3

### COGNITION, LEARNING & BEHAVIOUR I

**Chair:** A/Prof. Darryl Eyles, Queensland Brain Institute, QLD  
**Location:** Meeting Room 1/2

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15:30

**ORAL-03-01**

ACCELERATION OF HABIT LEARNING FOLLOWING COCAINE SENSITIZATION AND REVERSAL BY N-ACETYLCYSTEINE  
**Corbit, Laura\***, Chieng, B. and Balleine, B. (\*University of Sydney, NSW)

15:45

**ORAL-03-02**

PRESENCE OF IMMATURE HIPPOCAMPAL NEURONS IN THE ADULT MOUSE BRAIN IS IMPORTANT FOR LEARNING  
**Vukovic, Jana\***, Borlikova, G., Ruitenberg, M., Robinson, G., Sullivan, R., Walker, T. and Bartlett, P. (\*University of Queensland, QLD)

16:00

**ORAL-03-03**

CHRONIC INTERMITTENT TOLUENE INHALATION DURING ADOLESCENCE IN RATS RESULTS IN LONG-TERM GLUTAMATERGIC DYSFUNCTION AND SPECIFICALLY ALTERS REWARD-BASED LEARNING  
**Duncan, Jhodie\***, Dick, A., Axelsson, M., Gibbs, S. and Lawrence, A. (\*University of Melbourne, VIC)

16:15

**ORAL-03-04**

'ADDICTION-LIKE' DEFICITS IN BEHAVIOUR AND SYNAPTIC PLASTICITY IN OBESITY PRONE RATS  
**Brown, Robyn\***, Kupchik, Y., Spencer, S., Garcia-Keller, C., Schwartz, D., Jordan, K., Jhou, T. and Kalivas, P. (\*University of Melbourne, VIC)

## WEDNESDAY 29 JANUARY 2013

16:30

### ORAL-03-05

NEUROADAPTATIONS FOLLOWING MDMA ('ECSTASY') SELF-ADMINISTRATION

**Schenk, Susan\***, Aronsen, D. and Webster, J. (\*Victoria University of Wellington, NZ)

16:45

### ORAL-03-06

EXTENDED EXPOSURE TO CAFFEINE AND SUCROSE RESULTS IN PERSISTENT CHANGES TO NEUROBIOLOGY AND AN AGE DEPENDENT RESPONSE TO ACUTE METHAMPHETAMINE CHALLENGE

**†Franklin, Jane\***, Mirzaei, M., Wearne, T., Homewood, J., Goodchild, A., Haynes, P. and Cornish, J. (\*Macquarie University, NSW)

17:00

### ORAL-03-07

ADULT VITAMIN D DEFICIENCY AND COGNITIVE DYSFUNCTION IN A MOUSE MODEL

**Burne, Thomas\***, McGrath, J. and Groves, N. (\*University of Queensland, QLD)

17:15

### ORAL-03-08

ADDITIVE EFFECTS OF PRENATAL IMMUNE ACTIVATION AND MATERNAL IRON DEFICIENCY ON NEURODEVELOPMENTAL MILESTONES AND ADULT BEHAVIOUR IN RAT OFFSPRING

**†Harvey, Louise\*** and Boksa, P. (\*McGill University, CANADA)

## WEDNESDAY 29 JANUARY 2013

15:30-17:30 ORAL 4

### CLINICAL DISORDERS & INJURY OF THE NERVOUS SYSTEM II

**Chair:** Dr Giuseppe Verdile, Curtin University, WA

**Location:** Meeting Room 10

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- 15:30 ORAL-04-01**  
MONITORING PD-RELEVANT PHENOTYPES IN iPSC-GENERATED NEURONS FROM A SPECTRUM OF PARKINSON'S DISEASE PATIENTS FOR DRUG SCREENING AND FOR UNDERSTANDING THE BIOLOGY OF PD  
**Shevde, Nirupama\***, Hermanson, S., Thompson, D., Langston, J., Hammer, B., Vogel, K., Schule, B. and Bi, K (\*Life Technologies, VIC)
- 15:45 ORAL-04-02**  
TAU MEDIATES EXCITOTOXIC NEURONAL DEATH IN ALZHEIMER'S DISEASE AND STROKE  
**Ittner, Lars\***, Gladbach, A., Ke, Y., van Eersel, J. and Ittner, A. (\*University of New South Wales, NSW)
- 16:00 ORAL-04-03**  
RESTORATION OF GASTROINTESTINAL FUNCTION IN MPTP MODEL OF PARKINSON'S DISEASE  
**Lawson, Victoria\***, Ellett, L., Hung, L., Munckton, R., Furness, J., Finkelstein, D. and Barnham, K. (\*University of Melbourne, VIC)
- 16:15 ORAL-04-04**  
THE ROLE OF ANAESTHESIA IN EXACERBATION OF AD PATHOLOGY IN A TRANSGENIC MOUSE MODEL OF AMYLOID PLAQUE DEPOSITION  
**King, Anna\***, Fernandez-Martos, C., Hanson, K., Woodhouse, A. and Vickers, J. (\*University of Tasmania, TAS)

## WEDNESDAY 29 JANUARY 2013

16:30

### ORAL-04-05

BACE1 REGULATES THE PROTEOLYTIC PROCESSING OF P75NTR VIA INTERACTING WITH ITS EXTRACELLULAR DOMAIN

<sup>†</sup>**Saadipour, Khalil\***, **Lim, L.**, Liu, J., Wang, Y., Keating, D., Wang, Y. and Zhou, X. (\*University of South Australia, SA)

16:45

### ORAL-04-06

IN VIVO ANALYSIS OF THE PRESENILINS USING ZEBRAFISH REVEALS NOVEL FUNCTIONS

**Newman, Morgan\***, Moussavi Nik, S., Wilson, L., Ebrahimie, E., Verdile, G., Chapman, G., Martins, R. and Lardelli, M. (\*University of Adelaide)

17:00

### ORAL-04-07

VALIDATION OF P75NTR EXTRACELLULAR DOMAIN AS A THERAPEUTIC TARGET FOR ALZHEIMER'S DISEASE

<sup>†</sup>**Wang, Yan-Jiang\***, Yao, X., Jia, S., Wang, Q., Zeng, F., Wang, Y., Saadipour, K., Zhong, J., Zhou, H. and Zhou, X. (\*Daping Hospital and Institute of Field Surgery, CHINA)

17:15

### ORAL-04-08

ZINC DYSHOMEOSTASIS CAUSED BY PARKINSONISM-ASSOCIATED ATP13A2 (PARK9) DEFICIENCY UNDERLIES MITOCHONDRIAL DYSFUNCTION

**Park, Jin-Sung\***, Koentjoro, B. and Sue, C. (\*University of Sydney, NSW)

## WEDNESDAY 29 JANUARY 2013

15:30-17:30      ORAL 5

### EXCITABILITY AND SYNAPTIC TRANSMISSION I

**Chair:** A/Prof Chris Reid, Florey Institute of Neuroscience & Mental Health, VIC

**Location:** Meeting Room 11

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**15:30                      ORAL-05-01**  
QUANTAL CURRENT TO VOLTAGE TRANSFORMATIONS AT  
NEUROMUSCULAR JUNCTIONS  
**Karunanithi, Shanker\***, Noakes, P. and Atwood, H.  
(\*University of Toronto, CANADA)

**15:45                      ORAL-05-02**  
PERSISTENCE INCREASE IN EXCITATORY DRIVE TO OREXIN  
NEURONS FOLLOWING COCAINE  
**†Yeoh, Jiann Wei\***, Bains, J., Graham, B. and Dayas, C.  
(\*University of Newcastle, NSW)

**16:00                      ORAL-05-03**  
MODULATION OF SYNAPTIC TRANSMISSION AND  
NEUROEXCITABILITY BY ANGIOTENSIN II IN THE NUCLEUS OF  
THE SOLITARY TRACT OF MICE  
**†Carter, David\***, Fong, A., McDougall, S. and Allen, A.  
(\*University of Melbourne, VIC)

**16:15                      ORAL-05-04**  
DENDRITIC ACTIVITY IN CORTICAL NETWORKS  
**Palmer, Lucy\*** (Florey Institute of Neuroscience and Mental Health, VIC)



## WEDNESDAY 29 JANUARY 2013

16:30

### ORAL-05-05

CANNABINOIDS MODULATE QUANTAL SIZE AT THE MOUSE NEUROMUSCULAR SYNAPSE IN HEALTH AND DISEASE

**Morsch, Marco\***, Protti, D., Reddel, S. and Phillips, W.  
(\*University of Sydney, NSW)

16:45

### ORAL-05-06

THE DYNAMIC MODULATION OF POSTSYNAPTIC GLYCINE RECEPTOR CLUSTERING

**†Nakahata, Yoshihisa\***, Ishibashi, H., Hirata, H. and Nabekura, J.  
(\*National Institute for Physiological Sciences, JAPAN)

17:00

### ORAL-05-07

ELECTRICAL STIMULATION ALTERS PATTERNS OF EPILEPTIFORM ACTIVITY IN THE PIRIFORM CORTEX IN VITRO

**†Robertson, Jennifer\***, Bekkers, J. (\*Eccles Institute of Neuroscience, JCSMR, ANU, ACT)

17:15

### ORAL-05-08

THE ROLE OF THE NEURAL CELL ADHESION MOLECULE 2 IN REGULATION OF THE MOLECULAR COMPOSITION OF GLUTAMATERGIC SYNAPSES

**Leshchyns'ka, Iryna\***, Young, K. and Sytnyk, V. (\*University of New South Wales, NSW)

## WEDNESDAY 29 JANUARY 2013

15:30-17:30

ORAL 6

### GLIA I

**Chair:** Dr Mark Hutchinson, University of Adelaide, SA  
**Location:** Meeting Room 3

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15:30

**ORAL-06-01**

MOLECULAR MECHANISMS IN THE TRANSCRIPTIONAL  
CONTROL OF CNS MYELINATION

**<sup>†</sup>Koenning, Matthias\***, Bujalka, H., Jackson, S., Perreau, V.,  
Hay, C., Mitew, S., Willingham, M., Wegner, M., Barres, B. and  
Emery, B. (\*University of Melbourne)

15:45

**ORAL-06-02**

WIDESCALE REMODELLING OF ASTROCYTE NETWORKS IN  
RESPONSE TO CHRONIC STRESS INDUCED DISTURBANCE OF  
GLUTAMATERGIC NEUROTRANSMISSION: ADAPTIVE  
REORGANISATION OR EARLY PATHOLOGY?

**Walker, Rohan\***, Nilsson, M., Tynan, R., Hinwood, M.,  
Kongsui, R., Jones, K., Patience, M., Mayhew, J. and Kuter, P.  
(\*University of Newcastle, NSW)

16:00

**ORAL-06-03**

5-FU-INDUCED MUCOSITIS LEADS TO SPINAL GFAP  
EXPRESSION CHANGES IN RATS

**<sup>†</sup>Bajic, Juliana\***, Eden, J., Lampton, L., Abimosleh, S., Howarth,  
G. and Hutchinson, M. (\*University of Adelaide, SA)

16:15

**ORAL-056-04**

OLIGODENDROCYTE PROGENITOR CELL PROCESS MOTILITY  
AND SYNAPTOGENESIS IS INFLUENCED BY LOCAL NEURO  
TRANSMITTER RELEASE

**Gasparini, Robert\***, Cobden-Watts, F., Foa, L. and Young, K.  
(\*Menzies Research Institute Tasmania, TAS)

## WEDNESDAY 29 JANUARY 2013

16:30

### ORAL-06-05

THE EFFECTS OF PULSED MAGNETIC FIELDS (PMFs) ON ASTROCYTE MIGRATION AND PROLIFERATION, IN AN IN VITRO INJURY MODEL

<sup>†</sup>**Penstone, Tamasin\***, Bates, K., Fuller, P., Harvey, A. and Rodger, J. (\*University of Western Australia, WA)

16:45

### ORAL-06-06

CURCUMIN STIMULATES PROLIFERATION, MIGRATION AND PHAGOCYTIC ACTIVITY OF OLFACTORY ENSHEATHING CELLS

<sup>†</sup>**Tello Velasquez, Johana\***, StJohh, J., Ekberg, J. and Quinn, R. (\*Griffith University, QLD)

17:00

### ORAL-06-07

670nm LIGHT REDUCES MIGRATION, PROLIFERATION AND GLIOSIS OF HUMAN GLIA CELLS OF THE EYE IN VITRO

<sup>†</sup>**Biswas-Legrand, Sunita\***, Yen-Zhen, L., Madigan, M. and Valter, K. (\*Australian National University, ACT)

17:15

### ORAL-06-08

THE BDNF MIMETIC TDP6 SPECIFICALLY BINDS TO TRKB AND PROMOTES OLIGODENDROCYTE MYELINATION

**Wong, Agnes\***, Seah, W., Wood, R., Giuffrida, L., Hughes, T., Mulcair, M., Scanlon, M., Murray, S. and Xiao, J. (\*University of Melbourne, VIC)

## THURSDAY 30 JANUARY 2013

**From 08:00**      **REGISTRATION**  
**Location:**      **Foyer H**

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**08:30 - 09:30**      **PLENARY 3**

### THE ANS PLENARY LECTURE

**Chair:**              Prof. Ian Gibbins, Flinders University, SA  
**Location:**        Hall E

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#### PLE-THU-03

20/20 insight in Neurogastroenterology

**Costa, Marcello** (University of Melbourne, VIC)

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#### Marcello Costa



Marcello Costa was born in Torino, Italy, where in 1967 he obtained his Medical Degree (Laurea in Medicina e Chirurgia). After migrating to Australia in 1970, Marcello was involved in the foundation of the Australian Neuroscience Society, held the position of President. He holds a personal chair in Neurophysiology at Flinders University. Throughout his career he has published 246 scientific peer reviewed papers, 74 reviews and chapters, two books, invited to speak at 40 national and 70 international conferences. Since 1975, he has taught at Flinders and coordinated most topics in Neuroscience at the School of Medicine. He was part of the editorial board of several scientific journals including Neuroscience (official journal for IBRO )between 1980-2000. Started as a pioneer in research on the nervous control of digestive functions, he is still actively involved, being currently recipient of ARC and of NH&MRC grants with a team of several senior colleagues from four institutions. Other highly regarded commendations include being made Fellow of the Australian Academy of Science in 1988, receiving a Centenary Medal in 2003; been asked to form a South Australian Neuroscience virtual Institute in 2003; and in 2006 was the recipient of a medal for his services to Flinders University. Together with Ian Gibbins he received the "Unsung Hero of South Australian Science Communication" award for 2008 with the National Science Week. Also he was one of five founders for the Friends of Science in Medicine in 2011 which now has over 1000 Friends in academia. Currently, Marcello sits on the advisory board for the Science and Media Centre. He continues to write many articles in magazines, and gives public seminar on neuroscience and society.

## THURSDAY 30 JANUARY 2013

10:00-12:00      SYMPOSIUM 7

### ANS PRESIDENTIAL SYMPOSIUM: BIONIC & COMPUTATIONAL VISION

**Introduction:**      ANS President Prof. John Rostas  
**Chairs:**              Dr Steven Wiederman, University of Adelaide, SA  
                                Prof. David O'Carroll, University of Adelaide, SA  
**Location:**            Hall E

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- 10:00                    SYM-07-01**  
VISUAL REPRESENTATION IN THE MACAQUE AND HUMAN  
CORTEX  
**Schwartz, Eric**, (Boston University, USA)
- 10:30                    SYM-07-02**  
SUPERIOR VISUAL PERFORMANCE IN NOCTURNAL INSECTS:  
NEURAL PRINCIPLES AND BIO-INSPIRED TECHNOLOGIES  
**Warrant, Eric**, (University of Lund, SWEDEN)
- 11:00                    SYM-07-03**  
BIONIC VISION AUSTRALIA PROTOTYPE SUPRACHROIDAL  
WIDE-VIEW RETINAL IMPLANT STUDY  
**Burkitt, Anthony**, (University of Melbourne, VIC)
- 11:30                    SYM-07-04**  
SYNCHRONY AND EVENT-BASED SILICON RETINA VISION  
SENSORS  
**Delbruck, Tobj**, (University of Zurich and ETH Zurich,  
SWITZERLAND)

## THURSDAY 30 JANUARY 2013

**10:00-12:00**      **SYMPOSIUM 8**

### **TRANSLATIONAL RESEARCH IN DEPRESSION: STEM CELLS, GENES, BEHAVIOUR AND DRUG RESPONSE**

**Chair:**                Prof. Ma-Li Wong, SAHMRI, SA

**Location:**         Hall D

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- 10:00**                **SYM-08-01**  
PHENOTYPIC AND FUNCTIONAL HETEROGENEITY AMONGST  
QUIESCENT PRECURSOR CELLS IN THE ADULT HIPPOCAMPUS:  
IMPLICATIONS FOR THE TREATMENT OF MOOD DISORDERS  
**Jhaveri, Dhanisha\***, Newcombe, E., Robinson, G., O'Keeffe, I.,  
Zhao, Q., Zhang, Z., Nink, V., Wray, N. and Bartlett, P.  
(\*University of Queensland, QLD)
- 10:30**                **SYM-08-02**  
GENETICS OF DEPRESSION: THINKING OUTSIDE THE BOX  
**Wray, Naomi** (University of Queensland, QLD)
- 11:00**                **SYM-08-03**  
IMMUNE FUNCTION AND DEPRESSION: A SYSTEMS  
APPROACH TO THE TRANSLATION OF MENTAL HEALTH  
NEUROSCIENCE  
**Baune, Bernard** (University of Adelaide, SA)
- 11:30**                **SYM-08-04**  
PHARMACOGENOMICS OF DEPRESSION: TRANSLATING  
GENOMIC SCIENCE INTO PERSONALIZED THERAPEUTICS  
**Licinio, Julio\*** and Wong, M. (\*SAHMRI, SA)

## THURSDAY 30 JANUARY 2013

10:00-12:00

### SYMPOSIUM 9

#### THE MANY FACES OF THE OREXIN SYSTEM

**Chair:**

Emeritus, Prof. Roger Dampney, University of Sydney, NSW

**Location:**

Meeting Room 1/2

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10:00

#### **SYM-09-01**

THE PHYSIOLOGICAL ROLE OF OREXIN/HYPOCRETIN  
NEURONS ON SLEEP/WAKEFULNESS REGULATION

**Yamanaka, Akihiro\***, Tsunematsu, T. and Tabuchi, S.  
(\*Nagoya University, JAPAN)

10:30

#### **SYM-09-02**

THE CONTRIBUTION OF OREXIN SYSTEM TO INTEGRATED  
ULTRADIAN PHYSIOLOGICAL PATTERN

**Ootsuka, Youichirou\***, Miyata, K., Ikoma, Y., Kuwaki, T. and  
Yamanaka, A. (\*Flinders University, SA)

11:00

#### **SYM-09-03**

THE ROLES OF OREXIN1 AND OREXIN2 RECEPTORS IN  
CONSUMMATORY AND APPETITIVE BEHAVIOUR

**Lawrence, Andrew\***, Khoo, S., Kim, A., Jupp, B., Kim, J. and  
Brown, R. (\*Florey Institute of Neuroscience & Mental Health,  
VIC)

11:30

#### **SYM-09-04**

ROLE OF OREXIN AND ITS RECEPTORS IN THE  
CARDIOVASCULAR RESPONSE TO PSYCHOLOGICAL STRESS

**Carrive, Pascal** (University of New South Wales, NSW)

## THURSDAY 30 JANUARY 2013

10:00-12:00      **SYMPOSIUM 10**

### **NEURONAL TRAFFICKING IN SYNAPTIC PLASTICITY, LEARNING & MEMORY**

**Chair:** Dr. Adam Cole, Garvan Institute of Medical Research, NSW

**Location:** Meeting Room 10

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**10:00                    SYM-10-01**

RECEPTORS, SYNAPSES AND MEMORY

**Huganir, Richard** (John Hopkins University School of Medicine, USA)

**10:30                    SYM-10-02**

PROBING THE MICROENVIRONMENTAL FORCES APPLIED TO SECRETORY VESICLES ON THEIR JOURNEY TO THE PLASMA MEMBRANE: MYOSIN VI, A GRABBING CLAW

**Meunier, Frederic\*** and Tomatis, V. (\*University of Queensland, QLD)

**11:00                    SYM-10-03**

PRESYNAPTIC TRAFFICKING PATHWAYS IN SYNAPTIC VESICLE BIOGENESIS

**Robinson, Phil\***, Xue, J., Quan, A., Engholm-Keller, K., Graham, M., Yang, X. and Miller, L. (\*Children's Medical Research Institute, NSW)

**11:30                    SYM-10-04**

REGULATION OF AMPA RECEPTOR FUNCTION BY PROTEIN UBIQUITINATION

**Anggono, Victor** (The University of Queensland, QLD)



## THURSDAY 30 JANUARY 2013

10:00-12:00      SYMPOSIUM 11

### THE BIG BANG: A FORAY INTO HOW PRECEPTS COLLIDE TO GIVE RISE TO EMBODIED SENSORY EXPERIENCE

**Chair:** Ms Flavia Di Pietro, University of South Australia, SA  
**Location:** Meeting Room 11

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- 10:00**      **SYM-11-01**  
MULTIPLE REPRESENTATIONS - BODILY AWARENESS AND SPATIAL PERCEPTION IN HEALTH AND DISEASE  
**Moseley, Lorimer** (University of South Australia, SA)
- 10:30**      **SYM-11-02**  
THE MALLEABLE SELF AND THE EXPERIENCE OF SOMATIC CONTAGION  
**Giummarra, Melita** (Monash University, VIC)
- 11:00**      **SYM-11-03**  
PERCEPTUAL DISTORTIONS OF THE BODY IN PAIN: THE ROLE OF MULTISENSORY ILLUSIONS  
**Stanton, Tasha\***, Gilpin, H., Moseley, L. and Newport, R.  
(\*University of South Australia, SA)
- 11:30**      **SYM-11-04**  
WHY DO HAPTICS MATTER? A LOOK AT THE 'VISUAL' BODY TOUCH  
**Bellan, Valeria** (University of Milano, ITALY)

## THURSDAY 30 JANUARY 2013

10:00-12:00      SYMPOSIUM 12

### TRAFFICKING & LOCAL TRANSLATION OF MRNA IN NEURODEGENERATIVE DISEASE

**Chair:** A/Prof Peter R. Dodd, University of Queensland, QLD  
**Location:** Meeting Room 3

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- 10:00                      SYM-12-01**  
A PATHOGENIC MECHANISM FOR CGG REPEAT EXPANSION DISORDERS  
**Carson, John\***, Barbarese, E. and Norman, R. (\*University of Connecticut Health Center, USA)
- 10:30                      SYM-12-02**  
TUMOR OVEREXPRESSED GENE (TOG) PROTEIN IS REQUIRED FOR RNA GRANULE ASSEMBLY AND TRANSLATION IN NEURAL CELLS  
**Barbarese, E\***, Carson, J., Ifrim, M., Hsieh, L., Maggipinto, M. and Weyman-Tutolo, J. (\*University of Connecticut Health Center, USA)
- 11:00                      SYM-12-03**  
SYNAPTIC PROFILING OF mRNA AND miRNA IN ALZHEIMER'S DISEASE  
**Hynd, Matthew\***, Lewohl, J., Ho, A., Chew, C., Smith, R., Rothnagel, J. and Dodd, P. (\*University of Queensland, QLD)
- 11:30                      SYM-12-04**  
ROLES OF hnRNP PARALOGS AS trans-ACTING FACTORS DIRECTING cis-ELEMENT (A2RE)-DRIVEN TRANSPORT OF CYTOPLASMIC mRNA TRAFFICKING GRANULES  
**Smith, Ross\***, Friend, L., Rothnagel, J. and Dodd, P.  
\*University of Queensland, QLD)

## THURSDAY 30 JANUARY 2013

16:00-18:00      SYMPOSIUM 13

***A SPECIAL SYMPOSIUM OF THE ANS 2014 LOCAL ORGANISING COMMITTEE***  
**CONVERGENT & DIVERGENT THEORIES OF ALZHEIMER'S DISEASE: BEYOND  
THE AMYLOID HYPOTHESIS?**

**Introduction:**      ANS LOC Chair Dr. Michael Lardelli, University of Adelaide, SA  
**Chair:**              Prof. Ralph N. Martins AO  
**Location:**          Hall E

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- 16:00                      SYM-13-01**  
A DIFFERENT WAY OF THINKING ABOUT ALZHEIMER DISEASE  
**Schon, Eric\*** and Area-Gomez, E. (\*Columbia University, USA)
- 16:30                      SYM-13-02**  
TARGETING ABNORMAL METAL DISTRIBUTION IN  
ALZHEIMER'S DISEASE  
**Bush, Ashley** (Florey Institute of Neuroscience & Mental  
Health, VIC)
- 16:45                      SYM-13-03**  
TAU AND ABETA TOXICITY IN ALZHEIMER'S DISEASE  
**Gotz, Jurgan** (University of Queensland, QLD)
- 17:00                      SYM-13-04**  
THE CHOLINERGIC HYPOTHESIS OF ALZHEIMER'S DISEASE:  
CAUSE AND EFFECTS OF CHOLINERGIC DEGENERATION IN  
ALZHEIMER'S DISEASE  
**Coulson, Elizabeth** (University of Queensland, QLD)
- 17:15                      SYM-13-05**  
CHRONIC NEUROINFLAMMATION IN ALZHEIMER'S DISEASE -  
A THERAPEUTIC TARGET FOR ANTI-INFLAMMATORY  
ANTIOXIDANTS?  
**Muench, Gerald\*** and Gyengesi, E. (\*University of Western  
Sydney, NSW)
- 17:30                      SYM-13-06**  
PANEL DISCUSSION

## THURSDAY 30 JANUARY 2013

16:00-18:00      ORAL 7

### CLINICAL DISORDERS & INJURY OF THE NERVOUS SYSTEM III

**Chair:** Prof. Simon Koblar, University of Adelaide, SA

**Location:** Hall D

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- 16:00                      ORAL-07-01**  
SUBSTANCE P: A NOVEL TARGET IN THE TREATMENT OF  
CEREBRAL OEDEMA AND ELEVATED INTRACRANIAL PRESSURE  
FOLLOWING STROKE  
**Turner, Renee\***, Leonard, A., Wells, A. and Vink, R.  
(\*University of Adelaide, SA)
- 16:15                      ORAL-07-02**  
CEREBRAL OEDEMA: NOT THE PRIMARY CAUSE OF ICP  
ELEVATION FOLLOWING ISCHAEMIC STROKE  
<sup>†</sup>**Murtha, Lucy\***, Mcleod, D., McCabe, C., Holmes, W., Macrae,  
I. and Spratt, N. (\*University of Newcastle, NSW)
- 16:30                      ORAL-07-03**  
NPAS4 IS UP-REGULATED IN THE CORTICOLIMBIC SYSTEM OF  
THE RODENT BRAIN FOLLOWING FOCAL CEREBRAL  
ISCHAEMIA  
**Klaric, Thomas\***, Leong, W., Lewis, M. and Koblar, S.  
(\*University of Adelaide, SA)
- 16:45                      ORAL-07-04**  
GLYCOGEN METABOLISM IS IMPAIRED IN THE BRAIN  
FOLLOWING FOCAL CEREBRAL ISCHEMIA IN RATS  
**Roulston, Carli\***, Hossain, M. and Stapleton, D. (\*University of  
Melbourne, VIC)

## THURSDAY 30 JANUARY 2013

17:00

### ORAL-04-05

EXERCISE IMPROVES LEARNING AND ELEVATES  
NEUROGENESIS AFTER AN ENDOTHELIN-1 HIPPOCAMPAL  
STROKE MODEL IN ADULT MOUSE

<sup>†</sup>**Codd, Lavinia\***, Hamlin, A., Blackmore, D. and Bartlett, P.  
(\*University of Queensland, QLD)

17:15

### ORAL-04-06

A NEW FUNCTION FOR AN OLD ENZYME: SRC PROTEIN  
TYROSINE KINASE DIRECTS EXCITOTOXIC NEURONAL DEATH  
IN STROKE

**Cheng, Heung-Chin\***, Hossain, I., Roulston, C., Ng, D., Dusting,  
G., Williamson, N. and Hill, A. (\*University of Melbourne, VIC)

17:30

### ORAL-04-07

PRE-DIFFERENTIATED STEM CELLS SHOW EVIDENCE OF  
SYNAPTOGENESIS IN THE STROKE AFFECTED RAT BRAIN BUT  
EXTENSIVE SCAR FORMATION IMPEDES FUNCTIONAL  
RECOVERY

<sup>†</sup>**Abeyasinghe, Hima\***, Bokhari, L., Crook, J., Dusting, G.,  
Roulston, C. and Kobayashi, N. (\*University of Melbourne,  
VIC)

17:45

### ORAL-04-08

NEUROCHEMICAL ABNORMALITIES IN RESPIRATORY CENTRES  
AFTER HYPERCAPNIC HYPOXIA; IMPLICATIONS FOR OSA &  
SIDS.

**Machaalani, Rita\*** and Waters, K. (\*University of Sydney,  
NSW)

## THURSDAY 30 JANUARY 2013

16:00-18:00

ORAL 8

### DEVELOPMENT & REGENERATION I

**Chair:** A/Prof. Helen Cooper, University of Queensland, QLD

**Location:** Meeting Room 1/2

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16:00

**ORAL-08-01**

NEUROFILIN-2 REGULATES THE AXONAL GUIDANCE OF DORSAL-EXITING MOTOR NEURONS IN THE HINDBRAIN OF AVIAN EMBRYOS

<sup>†</sup>**Haque, Ziaul\***, Pu, Q., Vermeren, M. and Huang, R.  
(\*University of Bonn, GERMANY)

16:15

**ORAL-08-02**

BACURD2 IS A NOVEL PLAYER DURING CORTICAL DEVELOPMENT, WHICH INFLUENCES THE MIGRATION AND MORPHOLOGICAL DIFFERENTIATION OF CEREBRAL CORTICAL NEURONS

<sup>†</sup>**Gladwyn-Ng, Ivan\***, Qu, Z., Li, S. and Heng, J. (\*Australian Regenerative Medicine Institute, VIC)

16:30

**ORAL-08-03**

CHARACTERIZATION OF DISTINCT INTERNEURON SUBTYPES GENERATED IN HUMAN FETAL CORTICAL CULTURES

<sup>†</sup>**Ng, Hui Xuan\***, Lee, E., Lewis, R., Chan-Ling, T., Britto, J. and Tan, S. (\*Florey Institute of Neuroscience and Mental Health, VIC)

16:45

**ORAL-08-04**

BUILDING A BRAIN: THE REGULATION OF BRAIN SIZE THROUGH THE SPATIAL CONTROL OF PTEN

**Howitt, Jason\***, Low, L., Putz, U. and Tan, S. (\*Florey Institute of Neuroscience and Mental Health, VIC)

## THURSDAY 30 JANUARY 2013

**17:00**

**ORAL-08-05**

THE ROLE OF NEOGENIN IN ADULT NEUROGENESIS AND PROGENITOR CELL CYCLE

**O'Leary, Conor\***, Bradford, D., Chen, M., White, A. and Cooper, H. (\*University of Queensland, QLD)

**17:15**

**ORAL-08-06**

SINGLE CELL ANALYSIS OF THE ZEBRAFISH NERVOUS SYSTEM

**†Heap, Lucy\*** and Scott, E. (\*University of Queensland, QLD)

**17:30**

**ORAL-08-07**

THE ROLE OF USP9X IN THE REGULATION OF AXON SPECIFICATION

**†Tan, Men\***, Jolly, L., Murtaza, M., Jacques, C., Wood, S. (\*Griffith University, QLD)

**17:45**

**ORAL-08-08**

CALCIUM SIGNALLING MECHANISMS IN SUBVENTRICULAR ZONE-DERIVED NEURAL PRECURSOR CELLS

**†Toppinen, Kelly\***, Mackay-Sim, A. and Weible II, M. (\*Griffith University, QLD)

## THURSDAY 30 JANUARY 2013

16:00-18:00

ORAL 9

### COGNITION, LEARNING & BEHAVIOUR II

**Chairs:**

Dr. Oliver Schubert, University of Adelaide, SA

**Location:**

Meeting Room 10

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16:00

**ORAL-09-01**

OPIOID-ACETYLCHOLINE-DOPAMINE INTERPLAY MODULATES  
DIRECT PATHWAY NEURONS IN THE NUCLEUS ACCUMBENS  
SHELL TO MEDIATE CHOICE BETWEEN ACTIONS

**Bertran-Gonzalez, J\***, Laurent, V., Chieng, B., Balleine and  
(\*University of Queensland, QLD)

16:15

**ORAL-09-02**

THE ROLE OF P75 NEUROTROPHIN RECEPTOR IN  
CHOLINERGIC BASAL FOREBRAIN STRUCTURE AND FUNCTION

<sup>†</sup>**Boskovic, Zoran\***, Alfonsi, F., Fonseka, S. and Coulson, E.  
(\*University of Queensland, QLD)

16:30

**ORAL-09-03**

EFFECTS OF ADOLESCENT SEX HORMONE MANIPULATION ON  
DRUG-INDUCED HYPERACTIVITY IN THE BDNF  
HETEROZYGOUS MOUSE MODEL OF SCHIZOPHRENIA

**Du, Xin\***, Van den Buuse, M. and Hill, R. (\*Florey Institute of  
Neuroscience and Mental Health, VIC)

16:45

**ORAL-09-04**

DEVELOPMENTAL MANIPULATIONS OF THE DOPAMINE  
SYSTEM IN DROSOPHILA LEAD TO PERSISTENT BEHAVIOURAL  
ABNORMALITIES IN ADULTS

<sup>†</sup>**Petty, Alice\***, van Swinderen, B. and Eyles, D. (\*University of  
Queensland, QLD)



## THURSDAY 30 JANUARY 2013

17:00

### ORAL-09-05

SIGNALLING EFFECTS OF TNF- $\alpha$  AND ITS RECEPTORS IN MOOD-LIKE BEHAVIOUS

<sup>†</sup>**Camara, Marielou\***, Jaehne, E., Corrigan, F., Anscomb, H. and Baune, B. (\*University of Adelaide, SA)

17:15

### ORAL-09-06

DOES THE NEURONAL TRANSCRIPTION FACTOR NPAS4 PLAY A ROLE IN CLINICAL DEPRESSION?

**Lewis, Martin\***, Klaric, T., Jaehne, E. and Koblar, S. (\*University of Adelaide, SA)

17:30

### ORAL-09-07

AGE-ASSOCIATED CHANGES IN THE STRIATAL CHOLINERGIC SYSTEM AND THEIR EFFECT ON MOTIVATIONAL DECLINE

**Matamales, Miriam\***, Gotz, J. and Bertran-Gonzalez, J. (\*University of Queensland, QLD)

17:45

### ORAL-09-08

CENTRAL RELAXIN-3 RECEPTOR ACTIVATION IMPAIRS FEAR EXTINCTION IN ADULT RATS

<sup>†</sup>**Rytova, Valeria\***, Ong, S., Gundlach, A. and Sherie, M. (\*The Florey Institute of Neuroscience and Mental Health, VIC)

## THURSDAY 30 JANUARY 2013

16:00-18:00

ORAL 10

### CLINICAL DISORDERS & INJURY OF THE NERVOUS SYSTEM IV

**Chairs:** Dr. Martin Lewis, University of Adelaide, SA

**Location:** Meeting Room 11

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16:00

#### ORAL-10-01

IMPACT OF IMMUNE GENETIC VARIABILITY, PATIENT DEMOGRAPHICS AND ENVIRONMENTAL FACTORS ON PAIN SEVERITY IN FIBROMYALGIA - A PILOT STUDY

**Coller, Janet\***, Kwiatek, R., Cleland, L., Limaye, V., True, B., Lubhan, C., Watkins, L., Mackey, S., Tuke, J., Cuthbert, A. and Hutchinson, M. (\*University of Adelaide, SA)

16:15

#### ORAL-10-02

THE PROTECTIVE EFFECT OF A RARE P2RX7 VARIANT WITH ABSENT FUNCTION IMPLICATES THE P2X7 RECEPTOR IN THE NEUROINFLAMMATION OF MULTIPLE SCLEROSIS

**Gu, Ben\***, Field, J., Dutertre, S., Kilpatrick, T., Lechner-Scott, J., Scott, R., Stankovich, J., Petrou, S. and Wiley, J. (\*Florey Institute of Neuroscience and Mental Health, VIC)

16:30

#### ORAL-10-03

USP9X IS A NOVEL X-LINKED INTELLECTUAL DISABILITY GENE THAT REGULATES NEURONAL MIGRATION AND AXON GROWTH

**Homan, Claire\***, Nguyen, L., Raymond, L., Schwartz, C., Raynaud, M., Wood, S., Gecz, J. and Jolly, L. (\*University of Adelaide, SA)

16:45

#### ORAL-10-04

GENE IDENTIFICATION IN EPILEPSY, INTELLECTUAL DISABILITY AND PSYCHIATRIC DISORDERS USING MASSIVELY PARALLEL SEQUENCING REVEALS NEW NEUROLOGICAL PATHWAYS INVOLVED IN THEIR PATHOGENESIS

**Heron, Sarah\***, Hodgson, B., Bayly, M., Iona, X., Scheffer, I., Berkovic, S., Ricos, M., Dibbens, L. (\*University of South Australia, SA)

## THURSDAY 30 JANUARY 2013

17:00

### ORAL-10-05

EVIDENCE OF MGLUR5 DYSREGULATION IN SCHIZOPHRENIA

**Newell, Kelly\***, Matosin, N., Fernandez-Enright, F. and Huang, X. (\*University of Wollongong, NSW)

17:15

### ORAL-10-06

DETERMINING HERITABILITY OF INFLAMMATORY BIOMARKERS IN AN AGEING POPULATION USING THE TWIN DESIGN (OLDER AUSTRALIAN TWINS STUDY)

**Cohen-Woods, Sarah\***, Sachdev, P., Troller, J. and, B, (\*University of Adelaide, SA)

17:30

### ORAL-10-07

THE MOLECULAR NEUROSCIENCE OF GTF2IRD1: A GENE IMPLICATED IN SOCIAL INTERACTION

**Palmer, Stephen\***, Carmona-Mora, P., Canales, C., Tomasetig, F., Chang, C., Cha, A., Widagdo, J., Hannan, A., Gunning, P., Hardeman, E. (\*University of New South Wales, NSW)

17:45

### ORAL-10-08

GAIN-OF-FUNCTION OF KCNT1 AND HUMAN EPILEPSY: GENOTYPE-PHENOTYPE CORRELATION AND PHARMACOLOGICAL REVERSAL WITH QUINIDINE

**Milligan, Carol\***, Li, M., Gazina, E., Heron, S., Nair, U., Trager, C., Reid, C., Venkat, A., Younkin, D., Dlugos, D., Petrovski, S., Goldstein, D., Dibbens, L., Scheffer, I., Berkovic, S., Petrou, S. (\*Florey Institute of Neuroscience and Mental Health, VIC)

## THURSDAY 30 JANUARY 2013

16:00-18:00

ORAL 11

### SENSORY SYSTEMS I

**Chairs:** Dr Nicholas Price, Monash University, VIC  
**Location:** Meeting Room 3

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16:00

**ORAL-11-01**

PERCEIVED INDEX FINGER SPACING DECREASES OVER TIME  
WITH THE GRASP ILLUSION

**Gandevia, Simon\***, Bulter, A., Heroux, M. and Walsh, L.  
(\*Neuroscience Research Australia, NSW)

16:15

**ORAL-11-02**

PRINCIPAL NEURONS OF THE PIRIFORM CORTEX RESPOND  
DIFFERENTLY TO ODOUR PRESENTATION IN VIVO

**Huang, Helena\*** and Bekkers, J. (\*Eccles Institute of  
Neuroscience, JCSMR, ANU, ACT)

16:30

**ORAL-11-03**

THE DISCOVERY OF AN IRON-RICH ORGANELLE IN AVIAN HAIR  
CELLS

**Keys, David\***, Lauwers, M., Pichler, P., Hickman, R., Resch, G.,  
Ushakova, L., Salzer, M., Saunders, M. and Shaw, J. (\*Institute  
for Molecular Pathology, AUSTRIA)

16:45

**ORAL-11-04**

SELECTIVITY OF NEURONS IN MARMOSET PRIMARY AUDITORY  
CORTEX FOR INTERAURAL LEVEL DIFFERENCES DEPENDS ON  
INTENSITY

**Lui, Leo\***, Mokri, Y., Reser, D., Rosa, M. and Rajan, R. (\*Monash  
University, VIC)

## THURSDAY 30 JANUARY 2013

**17:00**

**ORAL-11-05**

PREDICTING INDIVIDUAL ATTENTIONAL ABILITY: IS THE SIZE OF FUNCTIONAL PRIMARY VISUAL CORTEX A POTENTIAL CORRELATE?

<sup>†</sup>**Verghese, Ashika\***, Kolbe, S., Anderson, A., Egan, G. and Vidyasagar, T. (\*University of Melbourne, VIC)

**17:15**

**ORAL-11-06**

MODULATING SELECTIVE ATTENTION IN AN INSECT NEURON

**Wiederman, Steven\***, Dunbier, J. and O'Carroll, D. (University of Adelaide, SA)

**17:30**

**ORAL-11-07**

INTERACTIONS BETWEEN THE ON AND OFF PATHWAYS ON THE RESPONSE OUTPUT OF GANGLION CELLS OF THE EYE

**Huang, Jin\***, Pietersen, N. and Protti, D. (\*University of Sydney, NSW)

**17:45**

**ORAL-11-08**

ORIENTATION ANISOTROPIES IN HUMAN EARLY VISUAL CORTEX DEPEND ON CONTRAST

**Maloney, Ryan\*** and Clifford, C. (\*University of Sydney, NSW)

## FRIDAY 31 JANUARY 2013

**From 09:00**      **REGISTRATION**  
**Location:**      **Foyer H**

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**09:30 - 10:30**      **PLENARY 4**

### ECCLES PLENARY LECTURE

**Chair:**      Prof. John Rostas, President ANS, University of Newcastle, NSW  
**Location:**      Hall E

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#### PLE-FRI-04

Producing new neurons in the adult brain: How is it regulated and what is the use?  
**Bartlett, Perry** (University of Queensland, QLD)

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#### Perry Bartlett



Professor Perry Bartlett has been responsible for a series of ground-breaking discoveries in neuroscience, which have often overturned existing dogma and led to a new understanding, particularly in the areas of neuronal precursor regulation and neuron survival in the developing and adult nervous system. Most prominent amongst these, was his laboratory's discovery in 1992 of the presence of stem cells in the adult brain that had the capacity to produce new neurons.

His group was first to isolate and characterise these stem cells in 2001 and more recently revealed the presence of a latent hippocampal stem cell population that influences learning and memory. He is the inaugural Director of the Queensland Brain Institute and holds the Foundation Chair in Molecular Neuroscience at The University of Queensland. Previously he was Head of the Division of Development and Neurobiology at the Walter and Eliza Hall Institute of Medical Research. He is a Fellow of the Australian Academy of Science (FAA), a past NHMRC Senior Principal Research Fellow and ARC Federation Fellow, and a past President of the Australian Neuroscience Society. He has championed interactions with China establishing three joint neuroscience laboratories in China, two with the Chinese Academy of Sciences and one with the Second Military Medical University, where he also holds an Honorary Professorship. He has published 230 papers, many of which have appeared in the most influential journals and have attracted over 11,500 citations. He has an h-index of 55.

## FRIDAY 31 JANUARY 2013

**11:00-13:00      SYMPOSIUM 14**

### **TACKLING THE ISSUE OF BRAIN CONCUSSION: FROM BENCH TO FIELD-SIDE**

**Chair:** Chair: Prof. Terence J. O'Brien, University of Melbourne VIC  
**Location:** Hall E

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- 11:00                      SYM-14-01**  
STUDYING BIOMARKERS, PATHOPHYSIOLOGICAL  
MECHANISMS, AND TREATMENTS FOR CONCUSSION IN  
RODENT MODELS  
**Schultz, Sandy** (University of Melbourne, VIC)
- 11:30                      SYM-14-02**  
MODELLING CHRONIC TRAUMATIC ENCEPHALOPATHY -  
SMALL AND LARGE ANIMAL APPROACHES  
**Vink, Robert\***, McAteer, K. and Corrigan, F. (\*University of  
Adelaide, SA)
- 12:00                      SYM-14-03**  
NEUROPSYCHOLOGY AND SPORT-RELATED CONCUSSION  
**Gardner, Andrew** (University of Newcastle, NSW)
- 12:30                      SYM-14-04**  
THE LONG-TERM CLINICAL AND PATHOLOGICAL  
CONSEQUENCES OF SPORTS-RELATED CONCUSSION  
**McCrory, Paul** (Florey Institute of Neuroscience and Mental  
Health, VIC)

## FRIDAY 31 JANUARY 2013

11:00-13:00

### SYMPOSIUM 15

#### IMPORTANT LESSONS FROM HUMAN BRAIN TISSUE RESEARCH

**Chair:** Prof. Jillian Kril, University of Sydney, NSW

**Location:** Hall D

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**11:00**

#### **SYM-15-01**

THE AUSTRALIAN BRAIN BANK NETWORK AND THE ROLE OF  
NEUROPATHOLOGIC DIAGNOSIS

**McLean, Catriona** (The Florey Institute of Neuroscience and  
Mental Health, VIC)

**11:30**

#### **SYM-15-02**

COPPER PATHOLOGY IN THE VULNERABLE  
SUBSTANTIA NIGRA IN PARKINSON'S DISEASE

**Double, Kay\***, Davies, K., Bohic, S., Ortega, R., Cottam, V.,  
Hare, D., Finberg, J., Halliday, G., Mercer, J. (\*Neuroscience  
Research Australia, NSW)

**12:00**

#### **SYM-15-03**

FROM BRAINS TO BEDS: LESSONS FROM DONATED  
PSYCHIATRIC BRAINS

**Scarr, Elizabeth** (University of Melbourne, VIC)

**12:30**

#### **SYM-15-04**

DEMENTIA AND THE AGEING BRAIN: LESSONS YOU CAN ONLY  
LEARN FROM HUMAN BRAIN STUDIES

**Vickers, James** (University of Tasmania, TAS)



## FRIDAY 31 JANUARY 2013

**11:00-13:00**      **SYMPOSIUM 16**

### **GLIA IN DEVELOPMENT AND DISEASE**

**Chairs:**            Dr Kaylene Young, Menzies Research Institute, TAS

Dr Ilan Gobius, University of Queensland, QLD

**Location:**        Meeting Room 1/2

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**11:00**              **SYM-16-01**  
PROTECTING GLIA FROM SECONDARY DEGENERATION  
FOLLOWING NEUROTRAUMA  
**Fitzgerald, Melinda** (University of Western Australia, WA)

**11:30**              **SYM-16-02**  
NUCLEAR FACTOR I TRANSCRIPTION FACTORS IN GLIAL  
DEVELOPMENT AND DISEASE  
**Bunt, Jens\***, Lint, J., Gobius, I., Mason, S. and Richards, S.  
(\*University of Queensland)

**12:00**              **SYM-16-03**  
GLIAL REMODELING: A NOVEL FORM OF PLASTICITY TO  
ADAPT TO ENVIRONMENTAL CHALLENGES  
**Walker, Rohan** (University of Newcastle, NSW)

**12:30**              **SYM-16-04**  
TRANSCRIPTIONAL REGULATION OF TERMINAL  
OLIGODENDROCYTE DIFFERENTIATION AND CNS  
MYELINATION  
**Emery, Ben\***, Bujalka, H., Koenning, M., Stacey, J., Perreau,  
V. (\*Florey Institute of Neuroscience and Mental Health, VIC)

## FRIDAY 31 JANUARY 2013

11:00-13:00 SYMPOSIUM 17

### HARNESSING BRAIN PLASTICITY FOR REHABILITATION

**Chairs:** Chair Dr. John Semmler, University of Adelaide, SA  
Prof. Michael Ridding, University of Adelaide, SA  
**Location:** Meeting Room 10

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- 11:00**      **SYM-17-01**  
DEVELOPMENT AND APPLICATION OF A CLOSED-LOOP  
NEURAL PROSTHESIS TO POTENTIATE FUNCTIONAL  
CONNECTIVITY AND RESTORE FUNCTION AFTER CORTICAL  
INJURY  
**Nudo, Randolph\***, Guggenmos, D., Van Acker, G., Azin, M.,  
Pack, A., Barbay, S., Mahnken, J., Dunham, C. and Mohseni, P.  
(\*University of Kansas Medical Center, USA)
- 11:30**      **SYM-17-02**  
NON-INVASIVE BRAIN STIMULATION TECHNIQUES FOR THE  
EVALUATION AND MODULATION OF PLASTICITY IN STROKE  
**Di Lazzaro, Vincenzo** (Università Cattolica, ITALY)
- 12:00**      **SYM-17-03**  
HARNESSING BRAIN PLASTICITY FOR REHABILITATION IN THE  
INTACT NERVOUS SYSTEM - A CLINICAL PERSPECTIVE  
**Hodges, Paul** (University of Queensland, QLD)
- 12:30**      **SYM-17-04**  
THE WAY AHEAD - DO NON-INVASIVE BRAIN STIMULATION  
TECHNIQUES OFFER REAL THERAPEUTIC POTENTIAL?  
**Rothwell, John** (University College London, UK)

## FRIDAY 31 JANUARY 2013

**11:00-13:00**      **SYMPOSIUM 18**

### **TRP CHANNELS IN HEALTH & DISEASE**

**Chair:** Dr Paul P. Bertrand, University of New South Wales, NSW  
**Location:** Meeting Room 11

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- 11:00**      **SYM-18-01**  
MOLECULAR MECHANISMS OF PAR SIGNALLING TO TRPV4  
**McIntyre, Peter\***, Grace, M., Darby, W., Lieu, T., Veldhuis, N.,  
Poole, D. and Bunnett, N. (\*RMIT University, VIC)
- 11:30**      **SYM-18-02**  
SPECIFIC CONTRIBUTIONS OF SELECT TRP CHANNELS TO  
ACUTE AND CHRONIC VISCERAL HYPERSENSITIVITY  
**Brierley, Stuart** (University of Adelaide, SA)
- 12:00**      **SYM-18-03**  
THE BILE ACID RECEPTOR TGR5 SENSITIZES THE TRPA1  
CHANNEL TO INDUCE ITCH  
**Bunnett, Nigel** (Monash University, VIC)
- 12:30**      **SYM-18-04**  
QUANTIFICATION AND FUNCTIONS OF ENDOGENOUS  
AGONISTS OF TRANSIENT RECEPTOR POTENTIAL CHANNELS  
IN IRRITABLE BOWEL SYNDROME  
**Cenac, Nicolas\***, Le Faouder, P., Bautzova, T., Barbara, G. and  
Vergnolle, N. (\*Inserm U1043, FRANCE)

## FRIDAY 31 JANUARY 2013

11:00-13:00

### SYMPOSIUM 19

#### RNA METABOLISM IN NEURODEGENERATION

**Chair:** A/Prof. Catherine Suter, Victor Chang Cardiac Research Institute, NSW

**Location:** Meeting Room 3

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11:00

#### **SYM-19-01**

MECHANISM AND THERAPY FOR ERRORS IN RNA BINDING PROTEINS IN ALS AND FTD

**Cleveland, Donald\***, Baughn, M., Sun, S., Ling, S., Da Cruz, S., Jiang, J., Zhu, Q., Ditsworth, D., Rigo, F., Markmiller, S., Watt, A., Sun Arnold, E., Huelga, S., Sun Y., Qiu, J., Li, H., Xue, H., Polymenidou, M., Clutario, K., Q Vu, A., Liu, P., Fu, X., Yeo, G., Bennett, F., Ravits, J. and Lagier-Tourenne, C. (\*Ludwig Institute for Cancer Research, USA)

11:30

#### **SYM-19-02**

RNA PATHOGENESIS VIA TOLL-LIKE RECEPTOR-ACTIVATED INFLAMMATION IN EXPANDED REPEAT NEURODEGENERATIVE DISEASES

**Richards, Robert\***, Samaraweera, S., van Eyk, C., O'Keefe, L. And Suter, C. (\*University of Adelaide, SA)

12:00

#### **SYM-19-03**

GROWING EVIDENCE FOR DEFECTIVE RNA METABOLISM IN ALS

**Blair, Ian\***, Williams, K., Yang, S., Fifita, J., Warraich, S., Zhang, K. and Nicholson, G. (\*Macquarie University, NSW)

12:30

#### **SYM-19-04**

IDENTIFICATION OF RNAs REGULATED BY TDP-43 SUGGEST A ROLE IN THE MAINTENANCE OF NEUROMUSCULAR JUNCTIONS

**Wallace, Robyn\***, Narayanan, R., Chaplin, J., Butler, T., Mangelsdorf, M. and Hilliard, M. (\*University of Queensland, QLD)

## FRIDAY 31 JANUARY 2013

14:00-16:00

ORAL 12

### DEVELOPMENT AND REGENERATION II

**Chair:** A/Prof. James Bourne, Monash University, VIC

**Location:** Hall E

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14:00

**ORAL-12-01**

EPHRIN-A2 SELECTIVELY GUIDES THE MIGRATION OF INTERNEURONES INTO THE SUPRAGRANULAR LAYERS OF THE NEOCORTEX

**Homman-Ludiye, Jihane\***, Rodger, J. and Bourne, J.  
(\*Monash University, VIC)

14:15

**ORAL-12-02**

RHO KINASE INHIBITION PROMOTES FUNCTIONAL IMPROVEMENT AND ALTERED NEUROGENESIS FOLLOWING TRAUMATIC BRAIN INJURY

**Turnley, Ann\***, Christie, K and Turbic, A. (\*University of Melbourne, VIC)

14:30

**ORAL-12-03**

EARLY FATE SPECIFICATION OF PLURIPOTENT STEM CELLS IMPROVES DOPAMINERGIC DIFFERENTIATION AND ISOLATION OF PROGENITORS FOR TRANSPLANTATION INTO A RODENT MODEL OF PARKINSONISM

**†Alsanie, Walaa\***, Niclis, J., Pouton, C., Thompson, L. and Parish, C. (\*The Florey Institute of Neuroscience and Mental Health, VIC)

14:45

**ORAL-12-04**

DEVELOPMENT OF MATURE BDNF-SPECIFIC SANDWICH ELISA SYSTEM

**†Lim, Yoon\***, Sun, A. and Zhou, X. (\*University of South Australia, SA)

## FRIDAY 31 JANUARY 2013

**15:00**

**ORAL-12-05**

DYNAMIC IMAGING OF NEURAL REGENERATION IN VIVO

**Kaslin, Jan\***, Goldshmit, Y., Tang, J., Colquhoun, D. and Friedrich, T. (\*Monash University, VIC)

**15:15**

**ORAL-12-06**

CHARACTERISATION OF DENTAL PULP STEM CELLS IN THE AGED HUMAN TOOTH

**Chew, Rebekah\***, Kaidonis, X., Rychkov, G., Cathro, P. and Koblar, S. (\*University of Adelaide, SA)

**15:30**

**ORAL-12-07**

ADULT NEURAL PRECURSOR CELLS FROM THE SUBVENTRICULAR ZONE CONTRIBUTE SIGNIFICANTLY TO OLIGODENDROCYTE REGENERATION AND REMYELINATION

**Tobias, Merson\***, Roth, P., Stratton, J., Chuang, B., Ng, S. and Kilpatrick, T. (Florey Institute of Neuroscience and Mental Health, VIC)

**15:45**

**ORAL-12-08**

IDENTIFICATION OF NOVEL NEUROTROPHIC-LIKE FACTORS: A CANDIDATE FOR PROMOTING NERVE REGENERATION IN NEUROPATHY

**Landowski, Lila\***, Taylor, B., West, A. and Foa, L. (\*Menzies Research Institute Tasmania, TAS)

## FRIDAY 31 JANUARY 2013

14:00-16:00

ORAL 13

### MOTOR SYSTEMS I

**Chair:** Dr Gabrielle Todd, University of South Australia, SA

**Location:** Hall D

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14:00

**ORAL-13-01**

ILLCIT STIMULANT USE IS ASSOCIATED WITH ABNORMAL  
SUBSTANTIA NIGRA MORPHOLOGY IN HUMANS

**Todd, Gabrielle\***, Noyes, C., Flavel, S., Della Vedova, C.,  
Spyropoulos, P., Chatterton, B., Berg, D. and White, J.  
(\*University of South Australia)

14:15

**ORAL-13-02**

HUNTING FOR THE MYSTERIOUS TETANUS TOXIN RECEPTOR

**Bercsenyi, Kinga\***, Schmieg, N., Golding, M. and Schiavo, G.  
(\*London Research Institute Cancer Research, UK)

14:30

**ORAL-13-03**

IN VIVO HIGH-RESOLUTION, FIBRE-OPTIC MANOMETRY  
CHARACTERISES MYOGENIC MOTOR PATTERNS IN THE  
HUMAN COLON

**Dinning, Phil\***, Wiklendt, L., Brookes, S., Bampton, P. and  
Costa, M. (\*Flinders University, SA)

14:45

**ORAL-13-04**

PLASTICITY OF THE SENSORIMOTOR SYSTEM FOR STANDING  
BALANCE IN PERSONS AFTER SEVERE STROKE

**Garland, Jane\***, Peters, S., Teasell, R. and Ivanova, T.  
(\*University of British Columbia, CANADA)

## FRIDAY 31 JANUARY 2013

15:00

### ORAL-13-05

FUNCTIONAL LOSS OF THE PURKINJE NEURON ENRICHED EXCITATORY AMINO ACID TRANSPORTER, EAAT4, DURING THE EARLY STAGES OF A MOUSE MODEL OF SPINO-CEREBELLAR ATAXIA, SCA1.

<sup>†</sup>**Power, Emmet\*** and Empson, R. (\*University of Otago, NZ)

15:15

### ORAL-13-06

EXPRESSION OF THE DEVELOPMENTAL TRANSCRIPTION FACTOR FEZF2 IDENTIFIES A DISTINCT SUBPOPULATION OF LAYER 5 CALLOSAL PROJECTION NEURONS IN MATURE MOUSE MOTOR CORTEX

<sup>†</sup>**Tantirigama, Malinda\***, Oswald, M., Duynstee, C., Hughes, S. and Empson, R. (\*University of Otago, NZ)

15:30

### ORAL-13-07

3D REACHES ARE ENCODED IN BODY-CENTERED, MIXED, BUT NOT HAND-CENTERED REFERENCE FRAMES IN THE MEDIAL POSTERIOR PARIETAL CORTEX OF MACAQUES

**Hadjidimitrakis, Kostas\***, Bertozzi, F., Dal Bo', G., Breveglieri, R., Galletti, C., Fattori, P. and Rosa, M. (\*Monash University, VIC)

15:45

### ORAL-13-08

EXTRACELLULAR WILDTYPE AND MUTANT SOD1 INDUCES ER-GOLGI PATHOLOGY CHARACTERISTIC OF AMYOTROPHIC LATERAL SCLEROSIS IN NEURONAL CELLS

<sup>†</sup>**Sundaramoorthy, Vinod\***, Walker, A., Yerbury, J., Soo, K., Farg, M., Hoang, V., Zeineddine, R., Spencer, D. and Atkin, J. (\*La Trobe University, VIC)



## FRIDAY 31 JANUARY 2013

14:00-16:00

ORAL 14

### SENSORY SYSTEMS II

**Chair:** Dr. Stuart Brierley, University of South Australia, SA  
**Location:** Meeting Room 1/2

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14:00

**ORAL-14-01**

COLORECTAL SENSORY INPUT IS DIFFERENTIALLY PROCESSED WITHIN THE THORACOLUMBAR AND LUMBOSACRAL SPINAL CORD

**Harrington, Andrea\*** and Brierley, S. (\*University of Adelaide, SA)

14:15

**ORAL-14-02**

DEVELOPMENT OF A NOVEL TRANSGENIC CGRP ALPHA REPORTER MOUSE TO FACILITATE VISUALIZATION AND DIRECT RECORDING FROM NOCICEPTIVE NERVE ENDINGS IN VISCERAL ORGANS USING CALCIUM IMAGING

**Spencer, Nick\*** and Travis, L. (\*Flinders University, SA)

14:30

**ORAL-14-03**

VISCEROSENSORY NEUROIMMUNE INTERACTIONS DISPLAY PLASTICITY WITH DISTINCT FUNCTIONAL OUTCOMES DEPENDENT UPON DISEASE STATE

**Hughes, Patrick\***, Harrington, A., Moretta, M., Maldeniya, L., Martin, C., Blackshaw, A. and Brierley, S. (\*University of Adelaide, SA)

14:45

**ORAL-14-04**

CONTRACTION-INDUCED FIRING OF LOW THRESHOLD STRETCH-SENSITIVE AFFERENTS IS INCREASED BY BLADDER OUTLET OBSTRUCTION

**Zagorodnyuk, Vladmir\***, Nicholas, S., Chen, B. and Brookes, S. (\*Flinders University, SA)

## FRIDAY 31 JANUARY 2013

**15:00**

**ORAL-14-05**

TARGETED ANESTHESIA OF RAT NOCICEPTORS IN NORMAL AND INFLAMED BLADDER

**Osborne, Peregrine\***, Sadananda, P. and Keast, J. (\*University of Melbourne, VIC)

**15:15**

**ORAL-14-06**

DUAL AND CONDITIONAL HSV-1 TRANSYNAPTIC NEURONAL TRACING OF HIGHER BRAIN SENSORY CIRCUITS ARISING FROM THE UPPER AND LOWER AIRWAYS

**†McGovern, Alice\***, Davis-Poynter, N., Simmons, D. and Mazzone, S. (\*University of Queensland, QLD)

**15:30**

**ORAL-14-07**

ENCODING OF FRICTION BY TACTILE MECHANORECEPTOR AFFERENTS - EFFECTS AT INITIAL CONTACT

**Birznieks, Ingvars\***, Khamis, H., Accad, D., Collis, J., Kasi, P., Macfield, V. and Redmond, S. (\*University of Western Sydney, NSW)

**15:45**

**ORAL-14-08**

THE EFFECT OF THE THERMAL GRILL ILLUSION (TGI) ON THE RESPONSE TO INTRADERMAL CAPSAICIN IN HEALTHY MALE VOLUNTEERS

**†Sumracki, Nicole\***, Buisman-Pijlman, F., Hutchinson, M., Gentgall, M., Johnson, J. and Rolan, P. (\*University of Adelaide, SA)

## FRIDAY 31 JANUARY 2013

14:00-16:00      ORAL 15

### CLINICAL DISORDERS AND INJURY OF THE NERVOUS SYSTEM V

**Chair:** Dr Mary Louise Rogers, Flinders University, SA  
**Location:** Meeting Room 10

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- 14:00                      ORAL-15-01**  
ALTERED FAT METABOLISM: A PATHOLOGICAL FEATURE OF  
DISEASE PROGRESSION IN HSOD1G93A MICE  
**Steyn, Frederik\***, Lee, K., Xie, T., Chen, C., Ngo, S. and  
McCombe, P. (\*University of Queensland, QLD)
- 14:15                      ORAL-15-02**  
ALTERED NEURONAL FUNCTION IN NETWORKS DERIVED  
FROM INDUCED PLURIPOTENT STEM CELLS FROM  
ALZHEIMER'S DISEASE PATIENTS  
**Ooi, Lezanne\***, Bax, M., Harley, S., Balez, R., Sidhu, K.,  
Muench, G., Jenner, A. and Mitchell, T. (\*University of  
Wollongong, NSW)
- 14:30                      ORAL-15-03**  
ERBB4 PROTEIN AND MRNA EXPRESSION IN NEUREGULIN 1  
TRANSMEMBRANE DOMAIN HETEROZYGOUS MOUSE VARIES  
ACCORDING TO AGE AND SEX  
<sup>†</sup>**Olaya, Juan\***, Long, L., Newel, K., Karl, T. and Shannon  
Weickert, C. (\*Neuroscience Research Australia, NSW)
- 14:45                      ORAL-15-04**  
CHARACTERISATION OF RETINAL GANGLION CELL SURVIVAL  
AND AXON REGENERATION FOLLOWING PULSED MAGNETIC  
FIELD STIMULATION IN A MOUSE OPTIC NERVE CRUSH  
MODEL  
<sup>†</sup>**Tang, Alex\***, Bartlett, C. and Rodger, J. (\*University of  
Western Australia, WA)

## FRIDAY 31 JANUARY 2013

15:00

### ORAL-15-05

INHIBITORY LOSS OR DYSFUNCTION: A PRIMARY MECHANISM IN AMYOTROPHIC LATERAL SCLEROSIS?

**Dickson, Tracey\***, Clark, R., Fiedler, T., Blizzard, C. and King, A.  
(\*University of Tasmania, TAS)

15:15

### ORAL-15-06

NEDD4-FAMILY INTERACTING PROTEIN 1 (NDFIP1) IS INVOLVED IN THE DNA DAMAGE RESPONSE VIA THE ATAXIA TELANGIECTASIA MUTATED (ATM) MECHANISM

**Low, Ley-Hian\***, Goh, C., Putz, U., Howitt, J. and Tan, S.  
(\*Florey Institute of Neuroscience and Mental Health, VIC)

15:30

### ORAL-15-07

EARLY LIFE EXPOSURE TO LEAD AND/OR MANGANESE AND LATE LIFE NEUROBEHAVIOURAL ALTERATIONS IN RATS

**†Davuljigari, Chand Basha\***, Vonteru, K. and Gottipolu, R.  
(\*Sri Venkateswara University, INDIA)

15:45

### ORAL-15-08

MARKERS OF INFLAMMATION AND STRESS DISTINGUISH SUBSETS OF INDIVIDUALS WITH SCHIZOPHRENIA AND BIPOLAR DISORDER

**Fillman, Stu\***, Sinclair, D., Fung, S., Webster, M. and Shannon Weickert, C. (\*Schizophrenia Research Institute, NSW)

## FRIDAY 31 JANUARY 2013

14:00-16:00 ORAL 16

### AUTONOMIC / NEUROENDOCRINE SYSTEMS II

**Chair:** Dr Elizabeth Beckett, University of Adelaide, SA  
**Location:** Meeting Room 11

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- 14:00 ORAL-16-01**  
EARLY LIFE DIET PROGRAMS MICROGLIAL MATURATION:  
IMPLICATIONS FOR CENTRAL RESPONSES TO AN IMMUNE  
CHALLENGE  
† **Cai, Guohui\***, Kenny, R., Ziko, I. and Spencer, S. (\*RMIT  
University, VIC)
- 14:15 ORAL-16-02**  
THE IMPACT OF TOLL-LIKE RECEPTOR 4 ON THE  
HYPOTHALAMUS-PITUITARY-ADRENAL AXIS  
† **Liu, JiaJun\***, Hutchinson, M. and Buisman-Pijlman, F.  
(\*University of Adelaide, SA)
- 14:30 ORAL-16-03**  
MICROGLIAL ACTIVATION IN THE HYPOTHALAMUS,  
MIDBRAIN AND MEDULLA FOLLOWING MYOCARDIAL  
INFARCTION  
**Badoer, Emilio\***, Dworak, M., Stebbing, M., Kompa, A., Rana,  
I. and Krum, H. (\*RMIT University, VIC)
- 14:45 ORAL-16-04**  
THE CARDIOVASCULAR ACTIONS OF FRACTALKINE/CX3CL1 IN  
THE HYPOTHALAMIC PARAVENTRICULAR NUCLEUS ARE  
ATTENUATED IN HEART FAILURE RATS  
**Yao, Song\***, Ruchaya, Rp., Antunes, V., Paton, J. and Murphy,  
D. (\*University of Bristol, UK)

## FRIDAY 31 JANUARY 2013

15:00

### ORAL-16-05

THE INVOLVEMENT OF MIDBRAIN REGIONS IN COUGH  
HYPERSENSITIVITE PATIENTS

<sup>†</sup>**Ando, Ayaka\***, Mazzone, S., Smallwood, D., McMahon, M.  
and Farrell, M. (\*University of Queensland, QLD)

15:15

### ORAL-16-06

PRESYNAPTIC AND POSTSYNAPTIC Y RECEPTORS ACT  
DIFFERENTIALLY TO MODULATE PULSATILE GROWTH  
HORMONE SECRETION IN THE MOUSE

<sup>†</sup>**Huang, Lili\***, Steyn, F., Tan, H., Fogarty, M., Andrews, Z.,  
Veldhuis, J., Herzog, H. and Chen, C. (\*University of  
Queensland, QLD)

15:30

### ORAL-16-07

TRANSGENIC RATS WITH ATAXIN3-MEDIATED DESTRUCTION  
OF OREXIN NEURONS SHOW A REDUCED BROWN ADIPOSE  
TISSUE THERMOGENIC RESPONSE TO CONFRONTATION  
WITH A CAGED INTRUDER RAT

**Mohammed, Mazer\***, Ootsuka, Y., Yanagisawa, M. and  
Blessing, B. (\*Flinders University, SA)

15:45

### ORAL-16-08

DIFFERENT FOREBRAIN REPRESENTATION OF THERMAL AND  
PSYCHOGENIC SWEATING IN HUMANS

**Farrell, Michael\***, Trevaks, D., Taylor, N. and McAllen, R.  
(\*Florey Institute of Neuroscience and Mental Health, VIC)

## FRIDAY 31 JANUARY 2013

**14:00-16:00**      **ORAL 17**

### NEUROENGINEERING AND COMPUTATIONAL NEUROSCIENCE I

**Chair:** Prof. David O'Carroll, University of Adelaide, SA

**Location:** Meeting Room 3

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- 14:00**      **ORAL-17-01**  
CHARACTERISATION OF THE STABILITY AND  
BIO-FUNCTIONALITY OF TETHERED PROTEINS ON  
BIOENGINEERED SCAFFOLDS: IMPLICATIONS FOR NEURAL  
REPAIR  
†**Wang, Ting Yi\***, Bruggeman, K., Sheehan, R., Turner, B.,  
Nisbet, D. and Parish, C. (\*Florey Institute of Neuroscience  
and Mental Health, VIC)
- 14:15**      **ORAL-17-02**  
SELF-ASSEMBLING PEPTIDE HYDROGELS FOR REPAIR OF  
NEURAL CIRCUITRY  
†**Rodriguez, Alexandra\***, Williams, R., Parish, C. and Nisbet, D.  
(\*Australian National University, ACT)
- 14:30**      **ORAL-17-03**  
CLOSE-FIELD ELECTROPORATION VIA THE COCHLEAR  
IMPLANT ENHANCES THE BIONIC INTERFACE  
†**Pinyon, Jeremy\***, Tadros, S., Froud, K., Wong, A., Tompson,  
I., Crawford, E., Ko, M., Morris, R., Klugmann, M. and Housley,  
G. (\*University of New South Wales, NSW)
- 14:45**      **ORAL-17-04**  
CORTICAL NEUROPATHOLOGY FOLLOWING IMPLANTATION  
OF WIRELESS MULTIPLE ELECTRODE ARRAY FOR BIONIC EYE  
PROSTHESIS  
**Yan, Edwin\***, Clarke, I., Cassells, K., Haghgoosie, S., Payne, B.  
and Rosenfeld, J. (\*Monash University, VIC)

## FRIDAY 31 JANUARY 2013

**15:00**

**ORAL-17-05**

TESTING DIFFERENT MODELS OF THE ORGANISATION OF THE DORSAL EXTRASTRIATE CORTEX USING MULTIELECTRODE ARRAYS

**Rosa, Marcello\***, Haghgooye, S., Yu, H., Davies, A., Zavitz, E. and Price, N. (\*Monash University, VIC)

**15:15**

**ORAL-17-06**

A PREDICTIVE MODEL OF SURFACE LIGHTNESS PERCEPTION THROUGH TRANSPARENT LAYERS

**Vladusich, Tony\*** and McDonnell, M. (\*University of South Australia, SA)

**15:30**

**ORAL-17-07**

RELATION OF KONIOCELLULAR PATHWAY ACTIVITY TO LOW FREQUENCY (DELTA) ELECTROENCEPHALOGRAPH POWER IN ANAESTHETISED MARMOSETS

**Pietersen, Alexander\***, Munn, B., Cheong, S., Townsend, R., Gong, P., Solomon, S. and Martin, P. (\*University of Sydney, NSW)

**15:45**

**ORAL-17-08**

DISTRIBUTED CODING OF VISUAL SPACE IN MARMOSET AREA MT

**Chen, Spencer\***, Morley, J. and Solomon, S. (\*University of Sydney, NSW)



## POSTERS - WEDNESDAY 29 JANUARY 2013

**13:00-15:00**

**POSTER SESSION A**

**Location:**

Halls J&K, Adelaide Convention Centre

Presenters of odd numbered posters in attendance 13:00 - 14:00

Presenters of even numbered posters in attendance 14:00 - 15:00

Posters 001 - 028	Autonomic Autonomic/Neuroendocrine Systems
Posters 029 - 079	Clinical Disorders & Injury of the Nervous System
Posters 080 - 110	Cognition, Learning & Behaviour
Posters 111 - 129	Development & Regeneration
Posters 130 - 143	Excitability & Synaptic Transmission
Posters 144 - 152	Glia
Posters 153 - 155	Limbic & Other Systems
Posters 156 - 162	Motor Systems
Posters 163 - 164	Neuroengineering
Posters 165 - 174	New Techniques in Neuroscience
Posters 175 - 195	Sensory Systems

### **Autonomic Autonomic/Neuroendocrine Systems**

#### **Posters 001 - 028**

#### **POS-WED-001 13:00-14:00**

EFFECT OF CHOLERA TOXIN ON COLONIC MIGRATING MOTOR COMPLEXES IN FEMALE MICE DEPENDS ON MUCOSAL 5-HT AND SEX STEROID HORMONES

<sup>†</sup>**Balasuriya, Gayathri K\***, Li, S., Gershon, M. and Bornstein, J. (\*University of Melbourne, VIC)

#### **POS-WED-002 14:00-15:00**

MECHANISMS UNDERLYING THE GENERATION OF COLONIC MIGRATING MOTOR COMPLEXES: DO THEY OCCUR IN AN EMPTY INTESTINE?

<sup>†</sup>**Barnes, Kyra\***, Brookes, S., Beckett, E. and Spencer, N. (\*Flinders University, SA)

#### **POS-WED-003 13:00-14:00**

BRAINSTEM LOCI INVOLVED IN LARYNGEAL ADDUCTION AND COORDINATION OF FICTIVE SWALLOWING IN SITU

**Bautista, Tara\*** and Dutschmann, M. (\*Florey Institute of Neuroscience and Mental Health)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-004 14:00-15:00

VAGALLY-MEDIATED GASTRIC RELAXATIONS ARE REDUCED IN W/WV MICE LACKING INTRAMUSCULAR INTERSTITIAL CELLS OF CAJAL

**Beckett, Elizabeth\*** and Staikopoulos, V. (\*University of Adelaide, SA)

### POS-WED-005 13:00-14:00

CHARACTERISATION OF PELVIC AUTONOMIC NEURONS FOLLOWING AXOTOMY REVEALS NEURONAL POPULATIONS WITH DISTINCT GROWTH PROFILES

**†Belleville, Philip\*** and Keast, J. (\*University of Melbourne, VIC)

### POS-WED-006 14:00-15:00

MODULATION OF MUSCLE SYMPATHETIC NERVE ACTIVITY BY LOW-FREQUENCY PHYSIOLOGICAL ACTIVATION OF THE VESTIBULAR SACCULE IN HUMANS

**Bolton, Philip\***, Hamman, E., Kwok, K. and Macefield, V. (\*University of Newcastle, NSW)

### POS-WED-007 13:00-14:00

ESTROGENIC MODULATION OF TRKA SIGNALLING IN PC12 CELLS

**Bunn, Stephen\***, Pyun, W., Williams, E., Matsas, M., Potapov, D. and Abraham, I. (\*University of Otago, NZ)

### POS-WED-008 14:00-15:00

NITRERGIC NEUROTRANSMISSION IN THE PARAVENTRICULAR NUCLEUS OF HYPOTHALAMUS MODULATES AUTONOMIC RESPONSES EVOKED BY ACUTE RESTRAINT IN RATS

**†Busnardo, Cristiane\***, Crestani, C., Scopinho, A., Resstel, L., Herman, J. and Correa, F. (\*University of São Paulo, BRAZIL)

### POS-WED-009 13:00-14:00

TREATMENT WITH ANTI-CANCER DRUG OXALIPLATIN AFFECTS NEUROMUSCULAR TRANSMISSION IN THE MURINE DISTAL COLON

**Carbone, Simona\***, McQuade, R., Stojanovska, V. and Nurgali, K. (\*Victoria University, VIC)

### POS-WED-010 14:00-15:00

SPONTANEOUSLY HYPERTENSIVE RATS HAVE MORE OREXIN NEURONS IN THE MEDIAL HYPOTHALAMUS THAN NORMOTENSIVE RATS

**Carrive, Pascal\*** and Clifford, L. (\*University of New South Wales, NSW)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-011 13:00-14:00

CENTRAL ADMINISTRATION OF PALMITIC ACID AND ARACHIDONIC ACID REGULATE PERIPHERAL ENERGY HOMEOSTASIS BY DECREASING CENTRAL LEPTIN SENSITIVITY IN MICE

<sup>†</sup>**Cheng, Licai\***, Szabo, A., Wu, Y., Huang, X. and Yu, Y. (\*University of Wollongong, NSW)

### POS-WED-012 14:00-15:00

THE OPIOID AGONIST BETA-CASOMORPHIN PRODUCES DYSMOTILITY IN THE RAT LARGE INTESTINE

**Dalziel, Julie\***, Spencer, N., Haggarty, N., Gopal, P. and Roy, N. (\*AgResearch, NZ)

### POS-WED-013 13:00-14:00

DISTRIBUTION OF OREXIN RECEPTORS IN CENTRAL AUTONOMIC CENTRES REVEALED BY TRIPLE IMMUNOFUORESCENCE

<sup>†</sup>**Dampney, Bruno\*** and Carrive, P. (\*University of New South Wales, NSW)

### POS-WED-014 14:00-15:00

THE EFFECT OF GESTATIONAL HIGH FAT DIET ON CARDIOVASCULAR AUTONOMIC RESPONSES TO DEHYDRATION

<sup>†</sup>**Dissanayake, Hasthi\*** and Polson, J. (\*University of Sydney, NSW)

### POS-WED-015 13:00-14:00

GLYCEROL STIMULATES MUCOSAL AFFERENTS AFFECTING DISTENSION-INDUCED PERISTALSIS IN THE RAT COLON

**Dodds, Kelsi\***, Dinning, P., Wiklendt, L., Abalo, R., Spencer, N., Brookes, S. and Costa, M. (\*Flinders University, SA)

### POS-WED-016 14:00-15:00

OREXIN/HYPOCRETIN NEUROPEPTIDES IN THE DEVELOPING PIGLET HYPOTHALAMUS AFTER INCREASING DURATION OF INTERMITTENT HYPERCAPNIC HYPOXIA

<sup>†</sup>**Du, Man\***, Hunt, N., Waters, K. and Machaalani, R. (\*University of Sydney, NSW)

### POS-WED-017 13:00-14:00

INTER-INDIVIDUAL DIFFERENCES IN BLOOD PRESSURE RESPONSES TO STRESSORS: MENTAL VERSUS PHYSICAL TASKS

<sup>†</sup>**El Sayed, Khadigeh\***, Taylor, C., Joyner, M. and Macefield, V. (\*University of Western Sydney, NSW)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-018 14:00-15:00

AN ACTIVE GRE SITE IN CRH PROMOTER CONTRIBUTES TO THE SUSCEPTIBILITY TO STRESS IN CHINESE TREE SHREW

<sup>†</sup>**Fang, Hui\***, Lv, Y., Syn, Y., Ni, R., Feng, X. and Zhou, J. (\*University of Science and Technology of China, CHINA)

### POS-WED-019 13:00-14:00

MONOAMINE AXONS PREFERENTIALLY INNERVATE OESOPHAGEAL MOTOR NEURONS IN THE DORSAL MOTOR NUCLEUS OF THE VAGUS

**Fong, Angelina\***, Travis, L., Menuet, C., Watson D., Dinning, P., Spencer, N., Allen, A. and Llewellyn-Smith, I. (\*University of Melbourne, VIC)

### POS-WED-020 14:00-15:00

SENSORY RE-INNervation OF THE POST-PARTUM RAT UTERUS

<sup>†</sup>**Gnanamanickam, Greta\*** and Llewellyn-Smith, I. (\*Flinders University, SA)

### POS-WED-021 13:00-14:00

BEHAVIOURAL PROFILE OF RELAXIN-3/RXFP3 DEFICIENT MICE IN THE METHAMPHETAMINE WITHDRAWAL MODEL OF MONOAMINE DEPLETION AND DEPRESSION

<sup>†</sup>**Haidar, Mouna\***, Lam, M., Chua, B., Smith, C. and Gundlach, A. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-WED-022 14:00-15:00

THE EFFECT OF ORTHOGNAL SHEARING OF THE VESTIBULAR UTRICLE IN HUMANS ON MUSCLE SYMPATHETIC NERVE ACTIVITY

<sup>†</sup>**Hamman, Elie\***, Kwok, K. and Macefield, V. (\*University of Western Sydney, NSW)

### POS-WED-023 13:00-14:00

ACUTE OLANZAPINE TREATMENT BLOCKS THE HISTAMINE H1 RECEPTORS LEADING TO ACTIVATED AMPK SIGNALLING IN THE HYPOTHALAMIC ARCUATE NUCLEUS AND BRAINSTEM DORSAL VAGAL COMPLEX

<sup>†</sup>**He, Meng\***, Wang, H., Han, M., Deng, C., Huang, X. (\*University of Wollongong, NSW)

### POS-WED-024 14:00-15:00

CHARACTERIZATION OF THE PRIMARY SPINAL AFFERENT INNERVATION OF THE MOUSE UTERUS: A COMBINED RETROGRADE AND IMMUNOHISTOCHEMICAL STUDY

<sup>†</sup>**Herweijer, Geraldine\***, Kyloh, M. and Spencer, N. (\*Flinders University, SA)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-025 13:00-14:00

TRACING SYNAPTIC INPUTS TO ENTERIC VISCEROFUGAL NEURONS

<sup>†</sup>**Hibberd, Timothy\***, Zagorodnyuk, V., Spencer, N. and Brookes, S. (\*Flinders University, SA)

### POS-WED-026 14:00-15:00

ENHANCED GLUTAMATERGIC INPUTS TO PARAVENTRICULAR NUCLEUS OF THE HYPOTHALAMUS CONTRIBUTE TO INCREASED BLOOD PRESSURE AND SYMPATHETIC NERVE ACTIVITY IN CHRONIC KIDNEY DISEASE

**Hildreth, Cara\*** and Phillips, J. (\*Macquarie University, NSW)

### POS-WED-027 13:00-14:00

THE INTERACTION BETWEEN ALCOHOL INDUCED NEUROINFLAMMATION AND DEPRESSIVE-LIKE BEHAVIOUR

<sup>†</sup>**Holmes, Joshua\***, Hutchinson, M. and Corrigan, F. (\*University of Adelaide, SA)

### POS-WED-028 14:00-15:00

INVOLVEMENT OF OREXIN IN METHAMPHETAMINE-INDUCED HYPOPHAGIA AND HYPERACTIVITY

<sup>†</sup>**Ikoma Yoko\***, Kuwaki, T. and Ootsuka, Y. (\*Kagoshima University, JAPAN)

## Clinical Disorders & Injury of the Nervous System

### Posters 029 - 079

### POS-WED-029 13:00-14:00

DISRUPTION OF RETINAL AMYLOID BETA HOMEOSTASIS IN GLAUCOMA AND THE EVIDENCE OF TRKB RECEPTOR MEDIATED PROTECTION

<sup>†</sup>**Al Adawy, Nadia\***, Gupta, V., You, Y., Li, J., Gozlan, M., Graham S. and Gupta, V. (\*Macquarie University, NSW)

### POS-WED-030 14:00-15:00

NEUROPROTECTIVE EFFECT OF POSTCONDITIONING ON EMBOLIC MODEL OF CEREBRAL ISCHEMIA IN RAT

<sup>†</sup>**Allahtavakoli, Mohammad\*** and Shamsizadeh, A. (\*Rafsanjan University of medical Sciences, IRAN)

### POS-WED-031 13:00-14:00

EVALUATION OF CIRCULATING ENDOTHELIAL MICROPARTICLES IN PATIENTS WITH ARTERIOVENOUS MALFORMATION (AVM)

<sup>†</sup>**Amal Raj, Jude\***, Nair, S., Combes, V., Stoodley, M. and Davidson, A. (\*Macquarie University, NSW)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-032 14:00-15:00

DIFFERENTIAL PATTERNS OF CYTOKINE EXPRESSION IN THE NEURAXIS OF RATS WITH 'PAIN AND DISABILITY' FOLLOWING NERVE INJURY

**Austin, Paul\***, Berglund, A. and Keay, K. (\*University of Sydney, NSW)

### POS-WED-033 13:00-14:00

BEHAVIOURAL DISABILITY CORRELATES WITH IMMUNE CELL EXPRESSION BUT NOT MYELIN DISRUPTION FOLLOWING SCIATIC NERVE INJURY IN RATS

**Austin, Paul\***, Kunyan, P., Billyard, S. and Keay, K. (\*University of Sydney, NSW)

### POS-WED-034 14:00-15:00

A POSSIBLE NOVEL IMMUNE ROLE FOR NOGO-RECEPTOR 1 IN A B-CELL POPULATION LOCALISED IN THE CNS DURING EXPERIMENTAL UTOIMMUNE ENCEPHALOMYELITIS

**Bakhraysah, Maha\***, Aui, P., Magee, K. and Petratos, S. (\*Monash University, VIC)

### POS-WED-035 13:00-14:00

SUPPRESSOR OF CYTOKINE SIGNALLING 2 (SOCS2) OVEREXPRESSING MICE HAVE AN INCREASED INFLAMMATORY CELL RESPONSE AFTER TRAUMATIC BRAIN INJURY

**Basrai, Harleen\***, Christie, K. and Turnley, A. (\*University of Melbourne, VIC)

### POS-WED-036 14:00-15:00

EXCITOTOXICITY AND NEUROMUSCULAR JUNCTION DEGENERATION FOLLOWING SITE-SPECIFIC EXCITOTOXIN EXPOSURE IN VIVO

**Blizzard, Catherine\***, Clark, J. and Dickson, T. (\*Menzies Research Institute Tasmania, TAS)

### POS-WED-037 13:00-14:00

FORMATION OF A TRUNCATED FRAGMENT OF SRC (SRC<sup>Δ</sup>1N) FOLLOWING ISCHEMIC STROKE IN RATS

**Bokhari, Laita\***, Cheng, H. and Roulston, C. (\*University of Melbourne, VIC)

### POS-WED-038 14:00-15:00

THE ROLE OF NEUROGENIN 2 IN APP-STIMULATED NEURAL STEM OR PROGENITOR CELLS DIFFERENTIATION

**Bolos, Marta\***, Hu, Y., Foa, L., Young, K. and Small, S. (\*Menzies Research Institute Tasmania, TAS)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-039 13:00-14:00

EXPRESSION OF THE NEURITE OUTGROWTH INHIBITOR NOGOA FOLLOWING FOCAL ISCHEMIA OF PRIMATE NEOCORTEX SWITCHES FROM ASTROCYTES IN THE NEONATE TO NEURONES IN THE ADULT

**Bourne, James\*** and Boghdadi, A. (\*Monash University, VIC)

### POS-WED-040 14:00-15:00

NEUROTRANSMITTER DYSFUNCTION IN SUDDEN INFANT DEATH SYNDROME (SIDS)

**†Bright, Fiona\***, Byard, R., Vink, R., Elliot, J. and Leonard, A. (\*University of Adelaide, SA)

### POS-WED-041 13:00-14:00

THE NEURONAL RESPONSE TO INJURY. IS IT SUBTYPE SPECIFIC?

**†Brizuela, Mariana\***, Blizzard, C., Chuckowree, J., Young, K. and Dickson, T. (\*Menzies Research Institute Tasmania, TAS)

### POS-WED-042 14:00-15:00

IFNAR-1 SIGNALLING REGULATES THE MICROGLIAL PHENOTYPE IN RESPONSE TO PERIPHERAL LPS CHALLENGE

**Brody, Kate\***, Crack, P. and Taylor, J. (\*University of Melbourne, VIC)

### POS-WED-043 13:00-14:00

PLASMA BIOMARKERS IN PRESENILIN1 MUTATION CARRIERS USING ISOBARIC TAG FOR RELATIVE AND ABSOLUTE QUANTITATION (iTRAQ)

**†Chatterjee, Pratishtha\***, Gupta, V., Taddei, K., Brown, B., Masters, C. and Martins, R. (\*University of Western Australia, WA)

### POS-WED-044 14:00-15:00

EFFECTS OF DIAZEPAM ON THE HIPPOCAMPAL EEG AND HISTOLOGY IN THE KAINIC ACID MOUSE MODEL OF TEMPORAL LOBE EPILEPSY

**†Cheung, Dennis** (University of New South Wales, NSW)

### POS-WED-045 13:00-14:00

EXCITATORY NEURONS IN THE ADULT MOUSE NEOCORTEX DEMONSTRATE RESILIENCE TO MILD STRUCTURAL INJURY AND CAPACITY FOR ADAPTIVE REMODELLING

**Chuckowree, Jyoti\*** and Dickson, T. (\*Menzies Research Institute, TAS)

### POS-WED-046 14:00-15:00

PLAQUE DYNAMIC FOLLOWING FOCAL BRAIN INJURY IN APP/PS1 MICE

**†Collins, Jessica\***, King, A., Woodhouse, A., Kirkcaldie, M and Vickers, J. (\*University of Tasmania, TAS)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### **POS-WED-047 13:00-14:00**

SUBSTANCE P AND TAU PHOSPHORYLATION FOLLOWING REPETITIVE MILD TRAUMATIC BRAIN INJURY

**Corrigan, Frances\***, McAteer, K., Thornton, E. and Vink, R. (\*University of Adelaide, SA)

### **POS-WED-048 14:00-15:00**

BLOOD-BRAIN BARRIER BREAKDOWN IN TRAUMA: SUBSTANCE P AND THE TRANSCELLULAR VERSUS PARACELLULAR PATHWAYS

**†Court-Kowalski, Stefan\***, Harford-Wright, E., Finnie, J. and Vink, R. (\*University of Adelaide, SA)

### **POS-WED-049 13:00-14:00**

ACUTE OLANZAPINE AND HALOPERIDOL TREATMENT PROMOTE BDNF SIGNALLING: POTENTIAL MECHANISMS FOR IMPROVING COGNITIVE FUNCTION IN SCHIZOPHRENIA

**Deng, Chao\***, Han, M., Song, S., Wang, H., Zhang, X. and Huang, X. (\*University of Wollongong, NSW)

### **POS-WED-050 14:00-15:00**

GLIAL CELL ACTIVATION IN PERI-INFARCT TISSUE IN A PHOTOTHROMBOTIC MODEL OF STROKE IN RATS

**Djukic, Natalia\***, Yew, W., Jayaseelan, J., Muyderman, H. and Sims, N. (\*Flinders University, SA)

### **POS-WED-051 13:00-14:00**

SPHINGOSINE 1-PHOSPHATE LINKS APOE GENOTYPE AND ALZHEIMER'S DISEASE PATHOGENESIS

**Don, Anthony\***, Couttas, T., Kain, K., Daniels, B., Shepherd, C., Kril, J., Li, H. and Garner, B. (\*University of New South Wales, NSW)

### **POS-WED-052 14:00-15:00**

LRRK2, A GENETIC LINK BETWEEN INFLAMMATION AND PARKINSON'S DISEASE

**Dzamko, Nicolas\*** and Halliday, G. (\*University of New South Wales, NSW)

### **POS-WED-053 13:00-14:00**

CNS PLASTICITY IN PRECLINICAL MODELS OF INFLAMMATORY MEDIATED GASTROINTESTINAL PAIN: A SYSTEMATIC REVIEW

**†Farrell, Kristin\***, Keely, S., Graham, B., Callister, R. and Callister, R. (\*University of Newcastle, NSW)



## POSTERS - WEDNESDAY 29 JANUARY 2013

### **POS-WED-054 14:00-15:00**

THE N170 AND FACE PERCEPTION IN PSYCHIATRIC AND NEUROLOGICAL DISORDERS: A SYSTEMATIC REVIEW

<sup>†</sup>**Feuerriegel, Daniel\***, Churches, O., Kohler, M., Hofmann, J. and Keage, H.  
(\*University of South Australia, SA)

### **POS-WED-055 13:00-14:00**

THE INCIDENCE OF UNEXPECTED PATHOLOGY IN SA BRAIN BANK CASES: 10 YEAR CASE REVIEW

**Flook, Robyn\***, Koszyca, B., Manavis, J., Slee, M. and Blumbergs, P. (\*Flinders University, SA)

### **POS-WED-056 14:00-15:00**

ANALYSING THE ROLE OF HYPOXIA IN AUTOPHAGY USING ZEBRAFISH EMBRYOS

<sup>†</sup>**Ganesan, Swamynathan\***, Moussavi Nik, S., Newman, M. and Lardelli, M.  
(\*University of Adelaide, SA)

### **POS-WED-057 13:00-14:00**

LAMP2 PROTEIN ISOFORMS ARE DIFFERENTIALLY AFFECTED IN EARLY PARKINSON'S DISEASE

**Gysbers, Amanda\***, Murphy, K., Abbott, S., Spiro, A., Furuta, A., Cooper, A., Garner, B., Kabuta, T. and Halliday, G. (\*Neuroscience Research Australia, NSW)

### **POS-WED-058 14:00-15:00**

SIMILAR DECREASES IN GLUCOCEREBROSIDASE LEVELS AND ACTIVITY ARE SEEN IN SPECIFIC BRAIN REGIONS IN PARKINSON'S DISEASE PATIENTS WITH AND WITHOUT GBA1 MUTATIONS

**Halliday, Glenda\***, Murphy, K., Gysbers, A., Parkkinen, L., Ling, H., Holton, J., Revesz, T., Duran, R., Sidransky, E. and Cooper, A. (\*Neuroscience Research Australia, NSW)

### **POS-WED-059 13:00-14:00**

THE EFFECTS OF MATERNAL IMMUNE ACTIVATION AND MK-801 ON MISMATCH RESPONSES IN AWAKE, FREELY-MOVING RATS

**Harms, Lauren\***, Hodgson, D., Fulham, W., Hunter, M., Penttonen, M., Schall, U., Todd, J., Shannon-Weickert, C., Zavitsanou, K. and Michie, P. (\*University of Newcastle, NSW)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-060 14:00-15:00

COGNITIVE ABILITY IN THE ELDERLY IS RELATED TO THE TIMING NOT DEGREE OF LATERALISATION OF THE FUNCTIONAL CEREBROVASCULAR RESPONSE

<sup>†</sup>**Hofmann, Jessica\***, Flitton, A., Kurylowicz, L., Lavrencic, L., Badcock, N., Churches, O., Kohler, M. and Keage, H. (\*University of South Australia, SA)

### POS-WED-061 13:00-14:00

SRC PROTEIN TYROSINE KINASE IS IMPORTANT FOR SURVIVAL OF CULTURED PRIMARY CORTICAL NEURONS

<sup>†</sup>**Hoque, Ashfaqul\***, Hossain, M., Ng, D. and Cheng, H. (\*University of Melbourne, VIC)

### POS-WED-062 14:00-15:00

DETERMINING THE SUB-CELLULAR LOCALISATION OF CUII(ATSM), A NEUROPROTECTIVE THERAPEUTIC IN MODELS OF FAMILIAR LATE ONSET ALZHEIMER'S DISEASE

<sup>†</sup>**James, Janine\***, Hickey, J., Henderson, C., Smith, T., Liddell, J., White, A. and Donnelly, P. (\*University of Melbourne, VIC)

### POS-WED-063 13:00-14:00

CHOLESTEROL METABOLISM IS DISTURBED EARLY IN HUMAN ALZHEIMER'S DISEASE BRAIN

**Jenner, Andrew\***, Spiro, A., Bhatia, S., Krill, J. and Garner, B. (\*University of Wollongong, NSW)

### POS-WED-064 14:00-15:00

REGULATION OF CATECHOLAMINE SYNTHETIC ENZYMES IN PARKINSON'S DISEASE: OBSERVATIONS FROM RODENT MODELS

<sup>†</sup>**Johnson, Michaela\***, Senthikumar, M. and Bobrovskaya, L. (\*University of South Australia, SA)

### POS-WED-065 13:00-14:00

OPTIMISATION OF PHOTOTHROMBOTIC STROKE FOR PRODUCING LONG-TERM FUNCTIONAL DEFICITS

<sup>†</sup>**Jones, Kimberley\***, Patience, M., Nilsson, M. and Walker, R. (\*University of Newcastle, NSW)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### **POS-WED-066 14:00-15:00**

ORBITAL FRONTAL CORTEX LAMINAR DEFICITS IN SOMATOSTATIN AND PARVALBUMIN EXPRESSION ARE RELATED TO INCREASED WHITE MATTER NEURON DENSITY AND DEATH RECEPTORS IN SCHIZOPHRENIA

**Joshi, Dipesh\***, Catts, V. and Shannon Weickert, C. (\*Neuroscience Research Australia, NSW)

### **POS-WED-067 13:00-14:00**

NERVE INJURY INCREASES SEROTONIN AND ITS METABOLITES IN THE MEDIAL PREFRONTAL CORTEX IN RATS WITH COMORBID SOCIAL BEHAVIOURAL DISTURBANCES

**Kang, James\***, Keay, K., Double, K., Berglund, A., Cottam, V. and Mor, D. (\*University of Sydney, NSW)

### **POS-WED-068 14:00-15:00**

POTENCY OF A MUSCLE-DERIVED ISOFORM OF IGF-1 FOR THE RESCUE FACIAL MOTONEURONES AND INSIGHT INTO ITS MECHANISM OF ACTION

**Katharesan, Viythia\*** and Johnson, I. (\*University of Adelaide, SA)

### **POS-WED-069 13:00-14:00**

TDP-43 PATHOLOGY IN A UK POPULATION-BASED COHORT: PREVALENCE AND ASSOCIATIONS WITH DEMENTIA AND AGE

**Keage, Hannah\***, Hunter, S., Matthews, F., Ince, P., Hodges, J., Hokkanen, S., Highley, R., Denning, T. and Brayne, C. (\*University of South Australia, SA)

### **POS-WED-070 14:00-15:00**

MEASUREMENT OF LRRK2 IN PERIPHERAL IMMUNE CELLS

**Kilpatrick, Ross\***, Kim, B., Halliday, G. and Dzamko, N. (\*University of New South Wales, NSW)

### **POS-WED-071 13:00-14:00**

TOOTH STROKE STUDY - THE OPEN STUDY OF DENTAL PULP STEM CELL THERAPY IN HUMANS

**Koblar, Simon\***, Kaidonis, X., Hamilton-Bruce A., Milton, A. and Kremer, K. (\*University of Adelaide, SA)

### **POS-WED-072 14:00-15:00**

ALTERED CHOLESTEROL METABOLISM AND INCREASED CHOLESTEROL PEROXIDATION IN HUMAN POST MORTEM HUNTINGTON'S DISEASE BRAIN

**Kreilaus, Fabian\***, McLean, C. and Jenner, A. (\*University of Wollongong, NSW)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### **POS-WED-073 13:00-14:00**

SLEEP ELECTROENCEPHALOGRAPHIC SPECTRAL POWER IN  
ALCOHOL-DEPENDENT PATIENTS

<sup>†</sup>**Lavania, Sagar\***, Singh, L. and Nizamie, S. (\*S N Medical College, INDA)

### **POS-WED-074 14:00-15:00**

MODULATION OF MIDBRAIN DOPAMINERGIC AND NEUROTROPHIC  
PATHWAYS BY TESTOSTERONE

<sup>†</sup>**Lee, William\***, Purves-Tyson, T., Shannon Weickert, C. and Double, K.  
(\*University of New South Wales, NSW)

### **POS-WED-075 13:00-14:00**

UNDERSTANDING THE ROLE OF REGULATORY T CELLS IN CHRONIC PAIN  
FOLLOWING NERVE INJURY

**Lees, Justin\***, Duffy, S. and Moalem-Taylor, G. (\*University of New South  
Wales, NSW)

### **POS-WED-076 14:00-15:00**

DIFFERENCES IN OREXIN GENE REGULATION AND PEPTIDE EXPRESSION IN  
THE HYPOTHALAMUS OF NERVE-INJURED RATS WITH AND WITHOUT  
CO-MORBID DISRUPTIONS IN SOCIAL BEHAVIOUR

**Leigh, Sarah-Jane\***, Austin, P. and Keay, K. (\*University of Sydney, NSW)

### **POS-WED-077 13:00-14:00**

NEURON-SPECIFIC EXPRESSION OF HUMAN APOLIPOPROTEIN D  
ALLEVIATES COGNITIVE IMPAIRMENTS AND REDUCES AMYLOID  
DEPOSITION IN APP/PS1 ALZHEIMER'S DISEASE MICE

**Li Henry\***, Cheng, D., Low, J., Ruberu, K., Zhao, H., Carl, T. and Barner, B.  
(\*University of Wollongong, NSW)

### **POS-WED-078 14:00-15:00**

MITOCHONDRIA-ER CONTACT LENGTHS IN ZEBRAFISH EMBRYOS WITH  
INHIBITION OF PRESENILIN1 AND PRESENILIN2 GENE EXPRESSION.

<sup>†</sup>**Lim, Anne Hwee Ling\***, Newman, M. and Lardelli, M. (\*University of  
Adelaide, SA)

### **POS-WED-079 13:00-14:00**

CO-TRANSPLANTATION OF NEURAL STEM CELLS AND OLFACTORY  
ENSHEATHING CELLS PROMOTES NEUROLOGICAL RECOVERY ASSOCIATED  
WITH IGF1 UP-REGULATION AFTER COMPLETE SPINAL CORD TRANSECTION

<sup>†</sup>**Liu, Su-Juan\***, Chen, J., Zhou, X. and Wang, T. (\*West China School of  
Preclinical and F, CHINA)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### Cognition, Learning & Behaviour

Posters 080 - 110

**POS-WED-080 14:00-15:00**

BEHAVIOURAL RESPONSES TO A 5-HT<sub>1B</sub> AGONIST FOLLOWING MDMA SELF-ADMINISTRATION

<sup>†</sup>**Aronsen, Dane\***, Webster, J. and Schenk, S. (\*Victoria University of Wellington, NZ)

**POS-WED-081 13:00-14:00**

PERCEPTUAL LEARNING OF TACTILE LETTERS TRANSFERS ACROSS BODY SURFACES

**Auvray, Malika\*** and Arnold, G. (\*CNRS - IJN, FRANCE)

**POS-WED-082 14:00-15:00**

IDENTIFICATION OF TYPE I POSITIVE ALLOSTERIC MODULATORS OF  $\alpha 7$  NICOTINIC ACETYL CHOLINE RECEPTOR FOR THE TREATMENT OF COGNITIVE IMPAIRMENT IN NEURODEGENERATIVE AND PSYCHIATRIC DISEASE

**Avery, Tom\***, O'Connor, S., Kolesik, P., Grishin, A., Coles, C., Paul, D., Huff, B., Singh, R., Andriambeloson, E. and Giethlen, B. (\*Bionomics Ltd, SA)

**POS-WED-083 13:00-14:00**

THE EFFECTS OF EXERCISE ON COGNITIVE-LIKE AND DEPRESSIVE-LIKE BEHAVIOR

**Ayliffe, Julie\***, Jaehne, E., Corrigan, F. and Baune, B. (\*University of Adelaide, SA)

**POS-WED-084 14:00-15:00**

DYSEXECUTIVE SYNDROME: FRONTO-STRIATAL DISCONNECTION AND DISORDERS OF DECISION-MAKING

**Balleine, Bernard\***, and Hart, G. (\*University of Sydney, NSW)

**POS-WED-085 13:00-14:00**

OXYTOCIN ADMINISTRATION IN THE NUCLEUS ACCUMBENS CORE OF THE RAT REDUCES REINSTATEMENT OF METHAMPHETAMINE-SEEKING

<sup>†</sup>**Baracz, Sarah\***, Everett, N., McGregor, I. and Cornish, J. (\*Macquarie University, NSW)

**POS-WED-086 14:00-15:00**

PHYSICAL EXERCISE IMPROVES AGE-ASSOCIATED COGNITIVE DEFICITS

**Blackmore, Daniel\***, Steyn, F. and Bartlett, P. (\*University of Queensland, QLD)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-087 13:00-14:00

FEASIBILITY STUDY TO STUDY CORRELATES OF PRE- AND POSTNATAL BONDING IN (EXPECTING) MOTHERS IN A PUBLIC HOSPITAL SETTING

**Buisman-Pijlman, Femke\***, Wassef, N. Winefield, T. and Fielder, A.  
(\*University of Adelaide, SA)

### POS-WED-088 14:00-15:00

COGNITION CAN BE IMPROVED WITH BARDOXOLONE METHYL TREATMENT IN MICE FED A HIGH FAT DIET

**†Camer, Danielle\***, Yu, Y., Szabo, A., Dinh, C., Fernandez, F. and Huang, X.  
(\*University of Wollongong, NSW)

### POS-WED-089 13:00-14:00

EFFECTS OF POSITIVE ALLOSTERIC MODULATORS OF M4 MUSCARINIC RECEPTOR ON THE PHARMACOLOGICAL DISRUPTION OF PREPULSE INHIBITION IN MICE

**†Chen, Amy Nae-Yng\***, Picard, E., Christopoulos, A., Canals, M. and Malone, D. (\*Monash University, VIC)

### POS-WED-090 14:00-15:00

ACTIVITY IN THE INFRALIMBIC CORTEX AND NUCLEUS ACCUMBENS SHELL IS ASSOCIATED WITH METHAMPHETAMINE PLACE PREFERENCE

**†Chesworth, Rose\***, Brown, R., Hyun Kim, J., Ledent, C. and Lawrence, A.  
(\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-WED-091 13:00-14:00

STRUCTURE-BASED APPROACHES TO THE DESIGN OF KYNURENINE AMINOTRANSFERASE INHIBITORS FOR THE MODULATION OF THE NMDA RECEPTOR

**Church, William Bret\*** and Nadvi, N. (\*University of Sydney, NSW)

### POS-WED-092 14:00-15:00

BEHAVIOURAL AND NEURAL CORRELATES OF EXTENDED NICOTINE SELF-ADMINISTRATION IN RATS

**Clemens, Kelly\***, Lay, B., Cornish, J., Goodchild, A. and Castino, M.  
(\*University of New South Wales, NSW)

### POS-WED-093 13:00-14:00

THE ROLE OF MGLU5 IN FEAR EXTINCTION IN THE DEVELOPING RAT

**†Ganella, Despina E\***, Thangaraju, P., Lawrence, A. and Kim, J. (\*Florey Institute of Neuroscience and Mental Health, VIC)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-094 14:00-15:00

VITAMIN B12 DEFICIENCY PER SE IN EARLY LIFE LEADS TO ANXIETY IN MICE DURING ADULTHOOD

<sup>†</sup>**Ghosh, Shampa\***, Sinha, J., Chakravarty, S., Kumar, A. and Raghunath, M. (\*National Institute of Nutrition, INDIA)

### POS-WED-095 13:00-14:00

NOVEL POSITIVE ALLOSTERIC MODULATORS OF THE  $\alpha 7$  NICOTINIC ACETYLCHOLINE RECEPTOR DEMONSTRATE SAFE, EFFECTIVE COGNITIVE ENHANCEMENT IN MICE AND RATS

**Grishin, Anton\***, Andriambeloson, E., Avery, T., Coles, C., Huff, B., Huyard, B., Kolesik, P., Kolev, Y., Harvey, A. and O'Connor, S. (\*Bionomics Limited, SA)

### POS-WED-096 14:00-15:00

IMPACT OF ADULT VITAMIN D DEFICIENCY ON HIPPOCAMPAL NEUROGENESIS IN BALB/C MICE

<sup>†</sup>**Groves, Natalie\***, Sullivan, R., McGrath, J. and Burne, T. (\*University of Queensland, QLD)

### POS-WED-097 13:00-14:00

INSENSITIVITY OF EEG GAMMA PEAKS TO EXTERNAL STIMULATION

<sup>†</sup>**Grummett, Tyler\***, Willoughby, J., Fitzgibbon, S. and Pope, K. (\*Flinders University, SA)

### POS-WED-098 14:00-15:00

BEHAVIOURAL AND NEUROIMMUNOLOGICAL RESPONSES TO EARLY LIFE STRESS (ELS) AND SUBSEQUENT CHRONIC MILD STRESS (CMS) IN C57BL/6 MICE

<sup>†</sup>**Heriot, Natalie\***, Toben, C., Jawahar, C. and Baune, B. (\*University of Adelaide, SA)

### POS-WED-099 13:00-14:00

NEUROPROTECTIVE EFFECTS OF ESTRADIOL ON SPATIAL MEMORY ARE REVERSED IN BDNF HETEROZYGOUS KNOCKOUT MICE

**Hill, Rachel\***, Wu, Y., Du, X. and van den Buuse, M. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-WED-100 14:00-15:00

THE EFFECT OF THE ANTI-PSYCHOTIC DRUG QUETIAPINE AND ITS METABOLITE NORQUETIAPINE ON ACUTE INFLAMMATION

**Jaehne, Emily\***, Corrigan, F., Jawahar, C., Toben, C. and Baune, B. (\*University of Adelaide, SA)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-101 13:00-14:00

EXAMINING THE OLIGOMERIZATION, BINDING AND NEUROTOXIC PROPERTIES OF A $\beta$  PEPTIDES ASSOCIATED WITH ALZHEIMER'S DISEASE

<sup>†</sup>**Jana, Metta\***, Cappai, R., Pham, C. and Ciccotosto, G. (\*University of Melbourne, VIC)

### POS-WED-102 14:00-15:00

MATERNAL SEPARATION STRESS, A MODEL OF EARLY LIFE STRESS: UNDERSTANDING THE NEURO-IMMUNE INTERACTION EFFECT ON ADULT PSYCHIATRIC ILLNESSES

**Jawahar, Magdalene\***, Jaehne, E., Toben, C. and Baune, B. (\*University of Adelaide, SA)

### POS-WED-103 13:00-14:00

THE ROLES OF THE LATERAL HABENULA AND BASOLATERAL AMYGDALA IN PUNISHMENT

<sup>†</sup>**Jean-Richard dit Bressel, Philip\*** and McNally, G. (\*University of New South Wales, NSW)

### POS-WED-104 14:00-15:00

EFFECT OF APOCYNIN ON DISRUPTIONS IN BEHAVIOUR AND BRAIN PARVALBUMIN IMMUNOREACTIVITY IN THE SUBCHRONIC PHENCYCLIDINE RAT MODEL OF SCHIZOPHRENIA

**Jenkins, Trisha\*** and Nediyeath, K. (\*RMIT University, VIC)

### POS-WED-105 13:00-14:00

CLOZAPINE REVERSES THE ELECTROPHYSIOLOGICAL ABNORMALITIES AND ASSOCIATED DISRUPTION OF PREPULSE INHIBITION CAUSED BY NMDA RECEPTOR ANTAGONISTS

**Jones, Nigel\***, Hudson, M., Rind, G., Anderson, P., van den Buuse, M. and O'Brien, T. (\*University of Melbourne, VIC)

### POS-WED-106 14:00-15:00

RELAXIN-3/RXFP3 SYSTEM REGULATES STRESS-INDUCED REINSTATEMENT OF ALCOHOL-SEEKING IN BED NUCLEUS OF STRIA TERMINALIS IN RATS

<sup>†</sup>**Kastman, Hanna\***, Krstew, E., Ryan, P., Gundlach, A. and Lawrence, A. (\*Florey Institute of Neuroscience and Mental Health, VIC)



## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-107 13:00-14:00

UTILISING TOUCHSCREEN TECHNOLOGY FOR THE PRECLINICAL MODELING OF COGNITION IN A SCHIZOPHRENIA MOUSE MODEL

<sup>†</sup>**Lamont, Faith\***, Hannan, A. and Burrows, E. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-WED-108 14:00-15:00

DOSE-DEPENDENT MK-801 INDUCED-SENSITISATION IN THE MALE SPRAGUE-DAWLEY RAT

<sup>†</sup>**Lefevre, Emilia\***, Eyles, D. and Burne, T. (\*University of Queensland, QLD)

### POS-WED-109 13:00-14:00

THE EFFECT OF ANTI-INFLAMMATORY TREATMENTS ON BEHAVIOUR IN A GFAP-TNF<sup>+/+</sup> MOUSE MODEL OF NEURO-INFLAMMATION

<sup>†</sup>**Li, Xi\***, Jaehne, E., Jawahar, C., Corrigan, F. and Baune, B. (\*University of Adelaide, SA)

### POS-WED-110 14:00-15:00

AN IN VITRO STUDY OF THE EFFECT OF EDARAVONE ON THE NEUROTOXICITY OF AMYLOID- $\beta$

**Lu, Jianjun\***, Liu, J., Sum, Y., Lim Y., Sadipour, K., Zhong, J., Wang, Y. and Zhou, X. (\*University of South Australia, SA)

## Development & Regeneration

### Posters 111 - 129

### POS-WED-111 13:00-14:00

THE ROLE OF CELL ADHESION MOLECULE CHL1 IN VENTRAL MIDBRAIN DOPAMINE DEVELOPMENT

<sup>†</sup>**Alsanie, Walaa\***, Bye, C., Thompson, L. and Parish, C. (\*Florey Institute of Neuroscience and Mental Health, SA)

### POS-WED-112 14:00-15:00

PURIFIED INTERNEURONS WHEN TRANSPLANTED CAN MIGRATE AND INTEGRATE INTO EMBRYONIC AND POSTNATAL CORTICAL CIRCUITS

**Britto, Joanne\***, Lee, P., Ng, H. and Tan, S. (\*Florey Institute of Neuroscience and Mental Health, SA)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-113 13:00-14:00

REDUCED BMP RECEPTOR IA IN OLIGODENDROCYTE PROGENITOR CELLS ALTERS DIFFERENTIATION AND MYELINATION IN VITRO

**Cate, Holly\***, Cole, A., Venables, G. and Xiao, J. (\*University of Melbourne, VIC)

### POS-WED-114 14:00-15:00

DIFFERENTIATION AND PROLIFERATION IN SYMPATHOADRENAL CELLS

<sup>†</sup>**Chan, Wing Hei\***, Gonsalvez, D., Young, H., Cane, K. and Anderson, C. (\*University of Melbourne, VIC)

### POS-WED-115 13:00-14:00

NOVEL EXPRESSION OF MICRORNA (MIR)-196A1 AND MIR-196A2 IN THE MAMMALIAN CENTRAL NERVOUS SYSTEM

<sup>†</sup>**Coughlan, Eamon\***, Bourne, J. and McGlinn, E. (\*Australian Regenerative Medicine Institute, VIC)

### POS-WED-116 14:00-15:00

VITAMIN D PROMOTES DOPAMINERGIC CELLS DIFFERENTIATION OF VDR-TRANSFECTED HUMAN NEUROBLASTOMA LINE SH-SY5Y

**Cui, Xiaoying\***, Liu, P., Josh, P. and Eyles, D. (\*University of Queensland, QLD)

### POS-WED-117 13:00-14:00

EARLY ENVIRONMENTAL ENRICHMENT CAN PARTIALLY CORRECT ABERRANT RETINOGENICULATE PROJECTIONS IN TEN-M3 KNOCKOUT MICE

<sup>†</sup>**Eggs, Peta\***, Leamey, C. and Sawatari, A. (\*University of Sydney, NSW)

### POS-WED-118 14:00-15:00

GENE EXPRESSION AND ELECTROPHYSIOLOGY PROFILES OF NEUROGENESIS IN THE ADULT MOUSE MIDBRAIN

<sup>†</sup>**Farzanehfar, Parisa\***, Dey, A., Gazina, E., Boon, W., Horne, M. and Aumann, T. (\*Florey Institute of Neuroscience & Mental Health, VIC)

### POS-WED-119 13:00-14:00

ROLE OF NICOTINIC RECEPTOR SUBTYPES IN THE DEVELOPING ENTERIC NERVOUS SYSTEM OF MICE

**Foong, Jaime\***, Hao, M., McKeown, S., Boesmans, W., Young, H., Bornstein, J. and Vanden Berghe, P. (\*University of Melbourne, VIC)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-120 14:00-15:00

OPTIMISATION OF RED / NEAR-INFRARED IRRADIATION THERAPY FOR TREATMENT OF NEUROTRAUMA

<sup>†</sup>**Giacci, Marcus\***, Hart, N., Harvey, A., Hodgetts, S. and Fitzgerald, L.  
(\*University of Western Australia, WA)

### POS-WED-121 13:00-14:00

GLIAL-MEDIATED INTERHEMISPHERIC FUSION IS REQUIRED FOR EARLY FOREBRAIN DEVELOPMENT AND COMMISSURE FORMATION

**Gobius, Ilan\***, Morcom, L., Bunt, J. and Richards, L. (\*University of Queensland, QLD)

### POS-WED-122 14:00-15:00

ANALYSING THE ROLE OF 14-3-3 $\zeta$  IN INTERNEURON DEVELOPMENT

<sup>†</sup>**Greenberg, Zarina\***, Ramshaw, H., Xu, X., Lopez, A. and Schwarz, Q. (\*Centre for Cancer Biology, SA)

### POS-WED-123 13:00-14:00

HETEROZYGOSITY FOR NUCLEAR FACTOR ONE X AFFECTS HIPPOCAMPAL-DEPENDENT BEHAVIOUR IN MICE

**Harris, Lachlan\***, Cato, K., Heng, Y., Kurniawan, N., Ullmann, J., Janke, A., Gronostajski, R., Richards, L., Burne, T. and Piper, M. (\*University of Queensland, QLD)

### POS-WED-124 14:00-15:00

CYSTATIN C REGULATES NEURAL STEM OR PROGENITOR CELL PROLIFERATION

<sup>†</sup>**Hu, Yanling\***, Bolos, M., Dawkins, E., Foa, L., Young, K. and Small, D.  
(\*Menzies Research Institute, TAS)

### POS-WED-125 13:00-14:00

$\beta$ 2-CATENIN IS REQUIRED FOR MAINTAINING HIPPOCAMPAL MORPHOLOGY DURING THE PERINATAL PERIOD

<sup>†</sup>**Hu, Ze-Lan\***, Wang, H., Zeng, L., Chen, Q., Zhang, X., Lu, T., Zheng, J. and Xiong, Z. (\*East China University of Science and Technology, CHINA)

### POS-WED-126 14:00-15:00

EFFECTS OF AGING ON HUMAN OREXIN EXPRESSION IN THE BRAIN; IMPLICATIONS FOR SLEEP REGULATION AND ENERGY METABOLISM

<sup>†</sup>**Hunt, Nicholas\***, Waters, K., Rodriguez, M. and Machaalani, R. (\*University of Sydney, NSW)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### **POS-WED-127 13:00-14:00**

OPTIMISATION OF METHODS TO IMAGE BRAIN VASCULATURE AND VASCULAR REMODELING AFTER PHOTO THROMBOTIC STROKE

<sup>†</sup>**Jones, Kimberley\***, Patience, M., Nilsson, M. and Walker, F. (\*University of Newcastle, NSW)

### **POS-WED-128 14:00-15:00**

THE ROLE OF EXTRINSIC VS PRE-PROGRAMMED INTRINSIC SIGNALS DURING NEURAL DEVELOPMENT IN THE ZEBRAFISH RETINA

**Jusuf, Patricia\***, Ng, J. and Currie, J. (\*Monash University, VIC)

### **POS-WED-129 13:00-14:00**

PROTEIN ARGININE METHYLATION OF TUBULIN ALPHA AND BETA IN MOUSE NEURONS

<sup>†</sup>**Jwad, Noor\***, Hejazi, L., Sucher, N. and Piller, S. (\*University of Western Sydney, NSW)

## **Excitability & Synaptic Transmission**

### **Posters 130 - 143**

### **POS-WED-130 14:00-15:00**

SEROTONERGIC MODULATION OF NEUROTRANSMITTER RELEASE IN LAYER II/III PYRAMIDAL NEURONS IN RAT SOMATOSENSORY CORTEX

<sup>†</sup>**Agahari, Fransiscus Adrian\*** and Stricker, C. (\*JCSMR Australian National University, ACT)

### **POS-WED-131 13:00-14:00**

PICK1 INTERACTS WITH PACSIN TO REGULATE AMPA RECEPTOR INTERNALISATION AND CEREBELLAR LONG-TERM DEPRESSION

**Anggono, Victor\***, Widagdo, J., Quan, A., Robinson, P., Linden, D., Plomann, M. and Huganir, R. (\*University of Queensland, QLD)

### **POS-WED-132 14:00-15:00**

BEHAVIOURAL ANALYSIS GASTROINTESTINAL FUNCTION OF THE NL3R451C MOUSE MODEL OF AUTISM

<sup>†</sup>**Archer, Niketa\***, Hill-Yardin, E. and Bornstein, J. (\*University of Melbourne, VIC)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-133 13:00-14:00

IMPACT OF SK CHANNELS ON CORTICAL EXCITABILITY IN VIVO

<sup>†</sup>**Bock, Tobias\*** and Stuart, G. (\*Australian National University, ACT)

### POS-WED-134 14:00-15:00

DECIPHERING INTRACORTICAL CIRCUITS IN THE ANTERIOR PIRIFORM CORTEX USING OPTOGENETICS

**Choy, Julian\***, Shima, Y., Nelson, S. and Bekkers, J. (\*Australian National University, ACT)

### POS-WED-135 13:00-14:00

MODELING EXCITOTOXIC BRAIN INJURY OF CEREBELLAR PURKINJE NEURONS IN VITRO

**Craig, Amanda\***, Fath, T. and Housley, G. (\*University of New South Wales, NSW)

### POS-WED-136 14:00-15:00

THE ACTIN CYTOSKELETON REGULATES EXCITOTOXICITY IN THE MOUSE

**Fath, Thomas\***, Suchowerska, A., Chen, B., Müller, J., Ittner, A., Hardeman, E., Ittner, L., Janitz, M. and Gunning, P. (\*University of New South Wales, NSW)

### POS-WED-137 13:00-14:00

PHARMACOLOGICAL PRECONDITIONING WITH GYKI-52466 IN A KAINIC-ACID SEIZURE MODEL: THE ROLE OF NA<sup>+</sup>K<sup>+</sup>-ATPASE MODULATION

<sup>†</sup>**Goulton, Chelsea\*** and Kerr, S. (\*University of Otago, NZ)

### POS-WED-138 14:00-15:00

DIFFERENTIAL RESPONSE TO NEUROMODULATORS IN CALRETININ EXPRESSING NEURONS IN THE SPINAL DORSAL HORN

**Graham, Brett\***, Smith, K., Madden, J., Dickinson, S., Callister, R., Boyle, K. and Hughes, D. (\*University of Newcastle, NSW)

### POS-WED-139 13:00-14:00

PULSED MAGNETIC FIELDS MODULATE NEURONAL PRIMARY METABOLITES IN VITRO

<sup>†</sup>**Hong, Ivan\***, Maker, G., Mullaney, I., Garrett, A., Rodger, J. and Etherington, S. (\*Murdoch University, WA)

### POS-WED-140 14:00-15:00

THE PEPTIDE CART EXCITES VASOMOTOR SYMPATHETIC NEURONS

**Jennings, Ernie\***, McAllen, R. and Anderson, C. (\*James Cook University, QLD)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-141 13:00-14:00

ACTION POTENTIAL INDUCED SUPPRESSION OF EPSPS BY SK CHANNELS IN DENDRITES

<sup>†</sup>**Jones, Scott\*** and Stuart, G. (\*Australian National University, ACT)

### POS-WED-142 14:00-15:00

PAIN INDUCED SYNAPTIC PLASTICITY IN THE AMYGDALA

<sup>†</sup>**Kissiwaa, Sarah\*** and Bagley, E. (\*University of Sydney, NSW)

### POS-WED-143 13:00-14:00

CLOSTRIDIUM DIFFICILE TOXIN A AND GABA INCREASE THE EXCITABILITY OF MYENTERIC INTRINSIC SENSORY NEURONS IN THE GUINEA-PIG JEJUNUM

<sup>†</sup>**Koussoulas, Katerina\***, Gwynne, R., Foong, J., Savidge, T and Bornstein, J. (\*University of Melbourne, VIC)

## Glia

### Posters 144 - 152

### POS-WED-144 14:00-15:00

PULSED MAGNETIC FIELDS AFFECT ASTROCYTIC GLUTAMATE TRANSPORTERS IN A FREQUENCY-DEPENDENT MANNER

**Bates, Kristyn\***, Fuller, P., Penrose, M., Deballon, J., Harvey, A. and Rodger, J. (\*University of Western Australia, WA)

### POS-WED-145 13:00-14:00

ASTROCYTES IN TPD-43 PATHOLOGY

**Chen, Tong\***, Beart, P., Turner, B. and Muyderman, H. (\*Flinders University, SA)

### POS-WED-146 14:00-15:00

THE PRO-MYELINATING SIGNALLING KINASES ERK1/2 PHOSPHORYLATE OLIGODENDROCYTE-SPECIFIC TRANSCRIPTION FACTORS

<sup>†</sup>**Ferner, Anita\***, Xiao, J., Giuffrida, L., Peckham, H., Kilpatrick, T. and Murray, S. (\*University of Melbourne, VIC)

### POS-WED-147 13:00-14:00

ASSESSING THE ROLE OF GPR62 IN THE MYELINATING OLIGODENDROCYTES OF THE CNS

<sup>†</sup>**Hay, Curtis\***, Jackson, S., Koenning, M., Bujalka, H. and Emery, B. (\*University of Melbourne, VIC)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-148 14:00-15:00

ALCOHOL-INDUCED SEDATION AND SYNERGISTIC INTERACTIONS BETWEEN ALCOHOL AND MORPHINE: A KEY MECHANISTIC ROLE FOR TOLL-LIKE RECEPTORS AND MYD88-DEPENDENT SIGNALING

**Hutchinson, Mark\***, Corrigan, F., Wu, y., Tuke, J., Collier, J., Rice, K. and Somogyi, A. (\*University of Adelaide, SA)

### POS-WED-149 13:00-14:00

ATTENUATION OF TOLL-LIKE RECEPTOR 4 REDUCES REWARD-LIKE BEHAVIOURS IN MICE

<sup>†</sup>**Jacobsen, Jonathan Henry\*** and Hutchinson, M. (\*University of Adelaide, SA)

### POS-WED-150 14:00-15:00

CHRONIC CODEINE AND INCREASES IN PAIN SENSITIVITY: MECHANISTIC INSIGHTS AND POTENTIAL TREATMENT STRATEGIES

<sup>†</sup>**Johnson, Jacinta\***, Rolan, P., William, D. and Hutchinson, M. (\*University of Adelaide, SA)

### POS-WED-151 13:00-14:00

CALORIE RESTRICTION ATTENUATES LIPOPOLYSACCHARIDE (LPS)-INDUCED MICROGLIAL ACTIVATION IN DISCRETE REGIONS OF THE HYPOTHALAMUS AND THE SUBFORNICAL ORGAN

**Kent, Stephen\***, Radler, M. and Hale, M. (\*La Trobe University, VIC)

### POS-WED-152 14:00-15:00

CHRONIC RESTRAINT STRESS INDUCED REMODELLING OF ASTROCYTES IN THE RAT HIPPOCAMPUS

**Kongsui, Ratchaniporn\*** and Walker, R. (\*University of Newcastle, NSW)

## Limbic & Other Systems

### Posters 153 - 155

### POS-WED-153 13:00-14:00

SUBSTANCE P PROMOTES THE TRANSLOCATION OF THE  $\hat{\gamma}$ -OPIOID RECEPTOR ON CHOLINERGIC INTERNEURONS IN THE STRIATUM

<sup>†</sup>**Heath, Emily\***, Chieng, B., Laurent, V., Bertran-Gonzalez, J., Christie, M. and Balleine, B. (\*University of Sydney, NSW)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-154 14:00-15:00

THE PHARMACOLOGICAL PROFILE OF LOCAL POSTERIOR HYPOTHALAMIC THETA RHYTHM IN ANESTHETIZED RATS

**Konopacki, Jan\***, Klos P., Caban, B., Kazmierska, P., Bocian, R. and Kowalczyk, T. (\*University of Lodz, POLAND)

### POS-WED-155 13:00-14:00

A SELECTIVE OREXIN-1 RECEPTOR ANTAGONIST SB-334867 ATTENUATES RAT ANXIETY DURING CAT ODOUR EXPOSURE

**†Vanderhaven, Michael\***, Goodchild, A., Cornish, J. and Staples, L. (\*Macquarie University, NSW)

### Motor Systems

#### Posters 156 - 162

### POS-WED-156 14:00-15:00

STEM CELL TRANSPLANTATION IN TRAUMATIC SPINAL CORD INJURY: A SYSTEMATIC REVIEW AND META-ANALYSIS

**†Antonic, Ana\***, Sena, E., Lees, J., Wills, T., Skeers, P., Batchelor, P., Macleod M. and Howells, D. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-WED-157 13:00-14:00

BLOCKING 5-HT<sub>2A</sub> AND 5-HT<sub>7</sub> BUT NOT 5-HT<sub>2C</sub> RECEPTORS IMPAIRS LOCOMOTION IN INTACT RATS

**Cabaj, Anna M\***, Sławińska, U., Jordan, L. and Majczynski, H. (\*Institute of Biocybernetics and Biomedical Engineering, POLAND)

### POS-WED-158 14:00-15:00

CAN PRO-INFLAMMATORY CYTOKINE GENE EXPRESSION EXPLAIN MULTIFIDUS MUSCLE FIBRE CHANGES AFTER AN INTERVERTEBRAL DISC LESION?

**Hodges, Paul\***, James, G., Blomster, L., Hall, L., Schmid, A., Shu, C., Little, C. and Melrose, J. (\*University of Queensland, QLD)



## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-159 13:00-14:00

MICROSTIMULATION OF SINGLE MOTOR AXONS: A COMPARISON OF THE CONTRACTILE RESPONSES TO IRREGULAR AND REGULAR TRAINS OF STIMULI

<sup>†</sup>**Leitch, Michael\***, Brown, R. and Macefield, V. (\*University of Western Sydney, NSW)

### POS-WED-160 14:00-15:00

MOTOR END PLATE (MEP) TARGETED ADMINISTRATION OF NEUROANATOMICAL TRACER IN THE RAT HINDLIMB ENHANCES RETROGRADE TRANSPORT INTO SPINAL CORD MOTOR NEURONS

<sup>†</sup>**Mohan, Rahul\***, Tosolini, A. and Morris, R. (\*University of New South Wales, NSW)

### POS-WED-161 13:00-14:00

DISSOCIATION OF THE EFFECT OF LESIONS TO THE PARVOCELLULAR AND MAGNOCELLULAR COMPARTMENTS OF THE RED NUCLEUS (RN) ON SKILLED REACHING: AN ANATOMICAL AND BEHAVIOURAL INVESTIGATION IN THE RAT

**Morris, Renee\*** and Vallester, K. (\*University of New South Wales, NSW)

### POS-WED-162 14:00-15:00

INVESTIGATING TASK RELATED CHANGES IN INTRACORTICAL INHIBITION USING PAIRED- AND TRIPLE-PULSE TRANSCRANIAL MAGNETIC STIMULATION

<sup>†</sup>**Opie, George\*** and Semmler, J. (\*University of Adelaide, SA)

### Neuroengineering

#### Posters 163 - 164

### POS-WED-163 13:00-14:00

A MULTI-SIMULATOR FRAMEWORK FOR ACCESSIBLE LARGE-SCALE SIMULATIONS OF BIOPHYSICAL NEURONAL NETWORKS

**Close, Thomas\***, Raikov, I. and De Schutter, E. (\*Okinawa Institute of Science and Technology Graduate University, JAPAN)

### POS-WED-164 14:00-15:00

EVALUATION OF HEURISTICS FOR ELIMINATING MUSCLE ACTIVITY FROM ELECTROENCEPHALOGRAM

**Fitzgibbon, Sean\***, DeLosAngeles, D., Lewis, T., Powers, D., Willoughby, J. and pope, K. (\*Flinders University, SA)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### New Techniques in Neuroscience

Posters 165 - 174

**POS-WED-165 13:00-14:00**

DEVELOPING YEAST AS A SCREENING TOOL FOR IDENTIFYING NOVEL  
THERAPEUTIC AGENTS FOR ALZHEIMER'S DISEASE

**Bharadwaj, Prashant\***, Verdile, G. and Martins, R. (\*Edith Cowan  
University, WA)

**POS-WED-166 14:00-15:00**

REGISTERING CORTICAL MAPPING DATA TO THE MARMOSET ATLAS

**†Chaplin, Tristan A\***, Yu, H., Majka, P., Yen, C., Bakola, S., Kowalski, J.,  
Burman, K., Wójcik, D., Silva, A. and Rosa, M. (\*Monash University, VIC)

**POS-WED-167 13:00-14:00**

RADIATION INDUCED EXPRESSION OF PLATELET ENDOTHELIAL CELL  
ADHESION MOLECULE-1 IN ARTERIOVENOUS MALFORMATIONS AND  
CEREBRAL ENDOTHELIAL CELLS

**†Chen, Biyi\***, Raoufi-Rad, N., Reddy, R., Zhao, Z., Lee, V., Grace, M., Ukath,  
J. and Stoodley, M. (\*University of New South Wales, NSW)

**POS-WED-168 14:00-15:00**

RADIATION INDUCED EXPRESSION OF VON WILLEBRAND FACTOR,  
HIGH-MOBILITY GROUP AT-HOOK 2, AND ENDOTHELIAL CELL-SELECTIVE  
ADHESION MOLECULE GENES IN CEREBRAL

**†Chen, Biyi\***, Raoufi-Rad, N., Reddy, R., Zhao, Z., Lee, V., Grace, M., Ukath,  
J. and Stoodley, M. (\*University of New South Wales, NSW)

**POS-WED-169 13:00-14:00**

TRACKING OF AUTOLOGOUS VSOP-LABELED MESENCHYMAL STEM CELLS  
IN THE SHEEP BRAIN USING 3T MRI

**Dreyer, Antje Y\***, Nitzsche, B., Pösel, C., Zeisig, C., Lobsien, D., Hoffmann,  
K. and Boltze, J. (\*Fraunhofer IZI, GERMANY)

**POS-WED-170 14:00-15:00**

FEMTOSECOND-LASER DENDROTOMY

**†Go, Mary Ann\***, Colibaba, A., Stricker, C., Redman, S., Bachlor, H. and  
Daria, V. (\*Australian National University, ACT)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-171 13:00-14:00

FREQUENCY-SPECIFIC EFFECTS OF PMF STIMULATION ON NEURO-CIRCUIT REPAIR AND SINGLE CORTICAL CELLS IN VITRO

†**Grehl, Stephanie\***, Viola, H., Fuller, P., Carter, K., Dunlop, S., Hool, L., Sherrard, R. and Rodger, J. (\*University of Western Australia, WA)

### POS-WED-172 14:00-15:00

MONITORING ALPHA-SYNUCLEIN FIBRILLISATION BY NOVEL AGGREGATION-INDUCED EMISSION FLUOROGENS

**Guo, Feng\***, Hong, Y., Leung, C., Tang, Y., Chegini, F., Chataway, T., Rodgers, M., Tang, B. and Gai, W. (\*Flinders University, SA)

### POS-WED-173 13:00-14:00

IN VIVO MACROPHAGE POLARISATION INDUCED BY INTERLEUKIN 10 (IL 10) FUNCTIONALISED ELECTROSPUN NANOFIBRE SCAFFOLDS IN THE PERIPHERAL NERVOUS SYSTEM

†**Farhia, Haque\***, Nisbet, D., Potas, J. and Maclean, F. (\*Australian National University, ACT)

### POS-WED-174 14:00-15:00

OPERANT CONDITIONING BOXES TO INVESTIGATE THE EFFECTS OF LPS INDUCED ANHEDONIA; PROVIDING THE LINK BETWEEN NEUROINFLAMMATION AND BEHAVIOURAL RESPONSES

†**Iacopetta, Krystal\***, Hutchinson, M. and uisman-Pijlman, F. (\*University of Adelaide, SA)

### Sensory Systems

### Posters 175 - 195

### POS-WED-175 13:00-14:00

TRPV1-IMMUNOREACTIVE NERVE TERMINALS IN THE CORNEAL EPITHELIUM

†**Alamri, Abdulhakeem\***, Ivanusic, J. and Brock, J. (\*University of Melbourne VIC)

### POS-WED-176 14:00-15:00

A BIOLOGICALLY INSPIRED FACILITATION MECHANISM ENHANCES THE DETECTION AND PURSUIT OF TARGETS OF VARYING CONTRAST

†**Bagheri, Zahra\***, Wiederman, S., Cazzolato, B., Grainger, S. and O'Carroll, D. (\*University of Adelaide, SA)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### POS-WED-177 13:00-14:00

SENSORY NERVE FIBRES CONTAINING CALCITONIN GENE-RELATED PEPTIDE  
IN BACK MUSCLES AND FASCIAE

**Barry, Christine\***, Vilimas, P., Haberberger, R. and Gibbins, I. (\*Flinders  
University, SA)

### POS-WED-178 14:00-15:00

GREEN EYES - CANNABINOID MODULATION OF VISUAL FUNCTION IN MICE

**†Brandli, Alice\*** and Protti, D. (\*University of Sydney NSW)

### POS-WED-179 13:00-14:00

$\alpha$ - CONOTOXIN VC1.1 TARGETS GABA<sub>B</sub> RECEPTORS MODULATING N-TYPE  
(CA<sub>v</sub> 2.2) CALCIUM CHANNELS IN SENSORY PATHWAYS MEDIATING  
CHRONIC VISCERAL PAIN

**Brierley, Stuart\***, Harrington, A., Castro, J., Garcia-Caraballo, S., Craik, D.  
and Adams, D. (\*University of Adelaide, SA)

### POS-WED-180 14:00-15:00

ACTIVATION OF EXTRINSIC SENSORY NEURONS ASSOCIATED WITH  
MOTILITY OF THE ISOLATED GUINEA PIG COLON

**Brookes, Simon\***, Chen, B., Humenick, A., Dinning, P., Wiklendt, L.,  
Arkwright, J., Zagorodnyuk, V., Spencer, N. and Costa, M. (\*Flinders  
University, SA)

### POS-WED-181 13:00-14:00

SPINAL CORD PAIN PROCESSING - ABSENCE OF SPHINGOSINE KINASE 2

**†Carroll, Alexander\***, Vilimas, P., Pitson, S., Gibbins I. and Haberberger, R.  
(\*Flinders University, SA)

### POS-WED-182 14:00-15:00

DIFFUSE TRAUMATIC BRAIN INJURY AND CORTICAL INHIBITION

**†Carron, Simone\***, Yan, E., Burman, K. and Rajan, R. (\*Monash University,  
VIC)

### POS-WED-183 13:00-14:00

MICROSACCADE-LIKE RETINAL MOVEMENTS IN THE BLOWFLY CALLIPHORA  
STYGIA

**†Ciobanu, Liliana\***, Wiederman, S. and O'Carroll, D. (\*University of  
Adelaide, SA)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### **POS-WED-184 14:00-15:00**

NON-INFORMATIVE VISION ENHANCES TACTILE ACUITY: A SYSTEMATIC REVIEW

<sup>†</sup>**Eads, Jacki\***, Hillier, S. and Moseley, L. (\*University of South Australia, SA)

### **POS-WED-185 13:00-14:00**

NEURAL ADAPTATION OF THE N170 IS AFFECTED BY ADAPTOR STIMULUS DURATION AND INTERSTIMULUS INTERVAL

<sup>†</sup>**Feuerriegel, Daniel**, Churches, O., Kohler, M. and Keage, H. (\*University of South Australia, SA)

### **POS-WED-186 14:00-15:00**

BEHAVIOURAL INDICATORS OF PERCEPTUAL STATE

**Freeman, Alan\***, Luo-Li, G. and Alais, D. (\*University of Sydney, NSW)

### **POS-WED-187 13:00-14:00**

DISTRIBUTION OF VISUAL AND SOMATOSENSORY SIGNALS IN SUPERIOR COLLICULUS OF RAT

<sup>†</sup>**Gharaei, Saba\***, Arabzadeh, E. and Solomon, S. (\*Australian National University, ACT)

### **POS-WED-188 14:00-15:00**

COMPARISON OF TECHNIQUES FOR AUTOMATED MAPPING OF RECEPTIVE FIELDS OF LARGE NEURONAL POPULATIONS IN PRIMATE CORTEX

**Haghighooie, Saman\***, Yu, H., Davies, A., Zavith, E., Price, N. and Rosa, M. (\*Monash University, VIC)

### **POS-WED-189 13:00-14:00**

SPEED PERCEPTION FOLLOWING ADAPTATION IS NOT INFLUENCED BY GLOBAL ACCELERATION PATTERNS

**Hietanen, Marcus** (National Vision Research Institute, VIC)

### **POS-WED-190 14:00-15:00**

STRETCH AND DISTENSION OF MESENTERIC BLOOD VESSELS INCREASES EXTRINSIC AFFERENT DISCHARGE IN THE ISOLATED GUINEA PIG ILEUM

**Humenick, Adam\***, Chen, B. and Brookes, S. (\*Flinders University, SA)

### **POS-WED-191 13:00-14:00**

SELECTIVE INSECT TARGET TRACKING USING A BIOPHYSICALLY INSPIRED SPIKING WINNER-TAKE-ALL NETWORK

**Iannella, Nicolangelo\***, Shoemaker, P., Wiederman, S. and O'Carroll, D. (\*University of Adelaide, SA)

## POSTERS - WEDNESDAY 29 JANUARY 2013

### **POS-WED-192 14:00-15:00**

EXPRESSION OF A MECHANICALLY SENSITIVE CHANNEL (PIEZO2) IN  
CORNEAL AFFERENT NEURONS

**Ivanusic, Jason\***, Bron, R. and Brock, J. (\*University of Melbourne, VIC)

### **POS-WED-193 13:00-14:00**

PREDOMINANCE OF RADIAL ORIENTATIONS IN THE ORIENTATION MAP OF  
THE MACAQUE PRIMARY VISUAL CORTEX

**Jayakumar, Jaikishan\***, Mohan, Y., Levichkina, E. and Vidyasagar, T.  
(\*University of Melbourne, VIC)

### **POS-WED-194 14:00-15:00**

NEURAL BASIS OF BINOCULAR RIVALRY IN PRIMARY VISUAL CORTEX OF  
THE MOUSE

**Keshavarzi, Sepideh\*** and Stuart, G. (\*Australian National University, ACT)

### **POS-WED-195 13:00-14:00**

NOCICEPTIVE DORSAL HORN NEURONS RECEIVE CONVERGENT CONTACTS  
FROM PRIMARY AFFERENT TERMINALS EXPRESSING CALCITONIN  
GENE-RELATED PEPTIDE BUT NOT SUBSTANCE P

**<sup>†</sup>Kestell, Gareth\***, Haberberger, R. and Gibbins, I. (\*Flinders University, SA)

## POSTERS - THURSDAY 30 JANUARY 2013

### 12:30-14:30 POSTER SESSION B

**Location:** Halls J&K, Adelaide Convention Centre

Presenters of odd numbered posters in attendance 12:30 - 13:30

Presenters of even numbered posters in attendance 13:30 - 14:30

Posters 001 - 028	Autonomic Autonomic/Neuroendocrine Systems
Posters 029 - 082	Clinical Disorders & Injury of the Nervous System
Posters 083 - 115	Cognition, Learning & Behaviour
Posters 116 - 132	Development & Regeneration
Posters 133 - 145	Excitability & Synaptic Transmission
Posters 146 - 153	Glia
Posters 154 - 161	Motor Systems
Posters 162 - 172	New Techniques in Neuroscience
Posters 173 - 194	Sensory Systems

### Autonomic Autonomic/Neuroendocrine Systems

#### Posters 001 - 028

#### POS-THU-001 12:30-13:30

NEUROPROTECTIVE EFFECT OF THE TOTAL FLAVANONES FROM IRIS TENUIFOLIA AGAINST OXIDATIVE STRESS-INDUCED CELL DEATH THROUGH THE ACTIVATION OF PHOSPHORYLATION OF MITOGEN-ACTIVATED PROTEIN KINASE

<sup>†</sup>**Jalsrai, Aldarmaa\***, Tadahiro, N., Naoki, A. and Kunugi, H. (\*Center of Traditional Medicine, MONGOLIA)

#### POS-THU-002 13:30-14:30

ANATOMICAL CONNECTIVITY OF PUTATIVELY RHYTHMOGENIC NEURONES OF THE NUCLEUS RETROAMBIGUUS WITH THE CENTRAL PATTERN GENERATOR FOR BREATHING

<sup>†</sup>**Jones, Sarah\***, Dutschmann, M. and Stanic, D. (\*Florey Institute of Neuroscience and Mental Health, VIC)

#### POS-THU-003 12:30-13:30

OREXINERGIC ACTIVATION OF MEDULLARY PREMOTOR NEURONS MEDIATES THE ADRENAL SYMPATHOEXCITATION TO HYPOTHALAMIC GLUCOPRIVATION

**Korim, Wilian\***, Bou-Farah, L. McMullan, S. and Verberne, A. (\*University of Melbourne, VIC)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-004 13:30-14:30

ABLATION OF AREA MT IN EARLY LIFE HAS SIGNIFICANT IMPACT ON THE REMAINING ANATOMY OF THE VISUAL SYSTEM, INCLUDING V1

**Kwan, William\***, Warner, C. and Bourne, J. (\*Monash University, VIC)

### POS-THU-005 12:30-13:30

VALIDATING AN ANIMAL MODEL FOR OLANZAPINE-INDUCED OBESITY: RESPONSES TO WITHDRAWAL AND REINTRODUCTION OF OLANZAPINE

**†Lian, Jiamei\***, Huang, X., Pai, N. and Deng, C. (\*University of Wollongong, NSW)

### POS-THU-006 13:30-14:30

THE EFFECT OF BOTULINUM TOXIN TYPE A ON NEUROTRANSMISSION IN PORCINE BLADDER

**Liu, Lu\***, Bahadory, F., Burcher, E., Mansfield, K. and Moore, K. (\*University of New South Wales, NSW)

### POS-THU-007 12:30-13:30

PANNEXIN-1, AN ATP RELEASE CHANNEL, IS DOWNREGULATED IN THE COLONIC MUCOSA OF PATIENTS WITH SLOW TRANSIT CONSTIPATION

**Liu, Lu\***, Markus, I., Diezmos, E., Sandow, S. and Bertrand, P. (\*University of New South Wales, NSW)

### POS-THU-008 13:30-14:30

DAMAGE TO SUBMUCOSAL NEURONS AS A RESULT OF TREATMENT WITH ANTI-CANCER AGENT IRINOTECAN

**†McQuade, Rachel\*** and Nurgali, K. (\*Victoria University, VIC)

### POS-THU-009 12:30-13:30

EVIDENCE FOR BRAINSTEM INFLAMMATION FOLLOWING RESPIRATORY PNEUMOVIRUS INFECTION IN MICE

**†Narula, Monica\***, Yang, S., McGovern, A., Eacharath, J., Phipps, S. and Mazzone, S. (\*University of Queensland, QLD)

### POS-THU-010 13:30-14:30

INCREASE IN VOIDING AT EARLY STAGE OF BLADDER OBSTRUCTION IS UNLIKELY TO BE DUE TO CHANGES IN CONTRACTILE OR EFFERENT NEURAL ACTIVITY

**Nicholas, Sarah\***, Brookes, S., Spencer, N., Costa, M. and Zagorodnyuk, V. (\*Flinders University, SA)



## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-011      12:30-13:30**

UNDERSTANDING MECHANISMS OF RECTAL PROLAPSE IN THE MOUSE  
MODEL OF SPONTANEOUS CHRONIC COLITIS: DAMAGE TO THE MUSCLES  
AND NERVES

**Kulmira, Nurgali\***, Rahman, A., Randall-Demllo, S., Carbone, S., Jovanovska,  
V. and Eri, R. (\*Victoria University, VIC)

### **POS-THU-012      13:30-14:30**

DIFFERENTIAL EFFECTS OF ARIPIRAZOLE AND HALOPERIDOL ON THE  
NIGROSTRIATAL AND MESOCORTICAL DOPAMINERGIC PATHWAYS IN MALE RATS

<sup>†</sup>**Pan, Bo\***, Huang, X. and Deng, C. (\*University of Wollongong, NSW)

### **POS-THU-013      12:30-13:30**

THE REGENERATIVE AND PLASTIC BEHAVIOR OF PELVIC AUTONOMIC AND  
SENSORY NEURONS FOLLOWING AXOTOMY

**Payne, Sophie\*** and Keast, J. (\*University of Melbourne, VIC)

### **POS-THU-014      13:30-14:30**

BAROREFLEX CONTROL OF SPLANCHNIC, RENAL AND LUMBAR SYMPATHETIC  
NERVE ACTIVITY IS DIFFERENTIALLY REGULATED BY ANGIOTENSIN II IN CHRONIC  
KIDNEY DISEASE

**Phillips, Jacqueline\***, Yao, Y., Hildreth, C. and Farnham, M. (\*Macquarie  
University, NSW)

### **POS-THU-015      12:30-13:30**

BLOCKADE OF ACID SENSING ION CHANNELS ALTERS MOTILITY OF GUINEA  
PIG PROXIMAL COLON

<sup>†</sup>**Polglaze, Kate\*** and Bertrand, P. (\*RMIT University, VIC)

### **POS-THU-016      13:30-14:30**

SEGMENTAL ORIGINS OF CARDIAC SYMPATHETIC NERVE ACTIVITY IN RATS

<sup>†</sup>**Pracejus, Natasha\*** and McAllen, R. (\*Florey Institute of Neuroscience and  
Mental Health , VIC)

### **POS-THU-017      12:30-13:30**

IS REDUCTION OF FATTY ACID OXIDATION A STIMULUS FOR FOOD INTAKE?

**Ritter, Sue\***, Li, A and Qang, Q (\*Washington State University, USA)

### **POS-THU-018      13:30-14:30**

A NEUROPHYSIOLOGICAL STUDY OF THE MEDULLARY SYMPATHETIC  
PATHWAY TO THE ADRENAL GLAND

<sup>†</sup>**Sabetghadam, Azadeh\***, Korim, W. and Verberne, T. (\*University of Melbourne,  
VIC)

## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-019      12:30-13:30**

SKIN TO NEURONS: DERIVATION OF NEURONS FROM ADULT HUMAN SKIN  
NEURAL PRECURSOR CELLS (SKPS)

<sup>†</sup>**Seaton-Zozula, Ariel\***, Guillemin, G., Lewis, T., Loeffler, A. and  
Valenzuela, M. (\*Macquarie University, NSW)

### **POS-THU-020      13:30-14:30**

INSULIN INDUCED HYPOGLYCAEMIA INCREASES ADRENALINE SECRETION  
AND TYROSINE HYDROXYLASE PHOSPHORYLATION IN RAT BRAIN AND  
ADRENAL GLAND

<sup>†</sup>**Senthilkumaran, Manjula\***, Johnson, M. and Bobrovskaya, L. (\*University  
of South Australia, SA)

### **POS-THU-021      12:30-13:30**

MECHANISMS UNDERLYING HEXAMETHONIUM AND ATROPINE RESISTANT  
PERISTALSIS IN THE GUINEA-PIG DISTAL COLON

<sup>†</sup>**Sia, Tiong Cheng\***, Brookes, S., Dinning, P., Wattchow, D. and Spencer, N.  
(\*Flinders University, SA)

### **POS-THU-022      13:30-14:30**

NEURONAL LOSS IN THE MYENTERIC PLEXUS ASSOCIATED WITH THE  
ANTI-CANCER CHEMOTHERAPEUTIC AGENT IRINOTECAN

<sup>†</sup>**Stojanovska, Vanesa\*** and Nurgali, K. (\*Victoria University, VIC)

### **POS-THU-023      12:30-13:30**

INTER-INDIVIDUAL DIFFERENCES IN BLOOD PRESSURE RESPONSES TO  
STRESSORS: A ROLE FOR THE BAROREFLEX?

**Taylor, Chloe\***, El Sayed, K., Joyner, M. and Macefield, V. (\*University of  
Western Sydney, NSW)

### **POS-THU-024      13:30-14:30**

VAGUS NERVE ACTIVITY, A GOOD NIGHT'S SLEEP, AND RECOVERY FROM  
ACUTE INFECTION

**Vollmer-Conna, Ute\***, Cvejic, E., Gunawardane, U., Patel, V. and Lloyd, A.  
(\*University of New South Wales, NSW)

### **POS-THU-025      12:30-13:30**

DEVELOPMENT OF AXONAL PROJECTIONS TO THE URINARY BLADDER IN  
EMBRYONIC MOUSE

**Wallace, Adam\***, Richardson, E. and Keast, J. (\*University of Melbourne,  
VIC)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-026 13:30-14:30

CHARACTERISATION OF RELAXIN-3- AND RXFP3 RECEPTOR-POSITIVE NEURON POPULATIONS IN ADULT MOUSE BRAIN

<sup>†</sup>**Zhang, Cary\***, Walker, A., Chua, B., Hossain, M., Rosengren, J., Smith, C. and Gundlach, A. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-THU-027 12:30-13:30

GENDER-SPECIFIC ROLE OF NEUROPEPTIDE FF RECEPTOR-2 SIGNALLING IN THE REGULATION OF ENERGY HOMEOSTASIS

**Zhang, Lei\***, Lee, I. and Herzog, H. (\*Garvan Institute of Medical Research, NSW)

### POS-THU-028 13:30-14:30

NEURONAL IMAGING OF ENTERIC GANGLIA REVEALS SYNCHRONIZED OSCILLATORY FIRING IN A NETWORK OF MYENTERIC NEURONS DURING MURINE COLONIC MIGRATING MOTOR COMPLEXES

<sup>†</sup>**Zobel, Joshua\***, Travis, L. and Spencer, N. (\*Flinders University, SA)

## Clinical Disorders & Injury of the Nervous System

### Posters 029 - 082

### POS-THU-029 12:30-13:30

VERIFICATION OF C9ORF72 EXPANSION FREQUENCY IN ANOTHER AUSTRALIAN COHORT

**MacMillan, Mia\***, Huang, Y., Bartley, L. and Halliday, G. (\*Neuroscience Research Australia, NSW)

### POS-THU-030 13:30-14:30

LOW-INTENSITY REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION FACILITATES PLASTIC REORGANISATION OF ABNORMAL CORTICAL PROJECTIONS AND UPREGULATES BDNF

<sup>†</sup>**Makowiecki, Kalina\***, Harvey, A. and Rodger, J. (\*University Western Australia, WA)

### POS-THU-031 12:30-13:30

INVOLVEMENT OF EXTRACELLULAR SIGNAL-REGULATED KINASE (ERK1/2)-P53-P21 AXIS IN MEDIATING NEURAL STEM/PROGENITOR CELL CYCLE ARREST IN CO-MORBID HIV-DRUG ABUSE EXPOSURE

<sup>†</sup>**Malik, Shaily\***, Saha, R. and Seth, P. (\*National Brain Research Center, INDIA)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-032 13:30-14:30

CEREBRAL ENDOTHELIAL TIGHT JUNCTION STATUS HAS AN INFLUENCE ON THE ROLE AQUAPORIN-4 (AQP4) WATER CHANNELS PLAY IN CEREBRAL OEDEMA FOLLOWING BRAIN INJURY

<sup>†</sup>**Mander, Kimberley\***, Burton, J., Turner, R., Thornton, E., Vink, R., Leppinus, H., Ziebell, J. and Yool, A. (\*University of Adelaide, SA)

### POS-THU-033 12:30-13:30

INHIBITION OF MOTOR NEURON DEATH IN-VITRO AND IN-VIVO BY AN INTRACELLULAR DOMAIN FRAGMENT OF P75 NEUROTROPHIN RECEPTOR

**Matusica, Dusan\***, Alfonsi, F., Turner, B., Butler, T., Skeldal, S., Underwood, C., Mangelsdorf, M. and Coulson E. (\*University of Queensland, QLD)

### POS-THU-034 13:30-14:30

CHARACTERISATION OF A NOVEL MODEL OF CHRONIC TRAUMATIC ENCEPHALOPATHY

<sup>†</sup>**McAteer, Kelly\***, Corrigan, F., Thornton, E., van den Heuvel, C. and Vink, R. (\*University of Adelaide, SA)

### POS-THU-035 12:30-13:30

SYSTEMATIC REVIEW AND META-ANALYSIS OF ANTIDEPRESSANTS FOR THE TREATMENT OF ACUTE STROKE IN ANIMALS

**McCann, Sarah\***, Irvine, C., Sena, E., Currie, G., Egan K., Howells, D. and Macleod, M. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-THU-036 13:30-14:30

ROLE OF METALLOTHIONEINS IN NEUROPROTECTION AGAINST PARKINSON'S DISEASE

<sup>†</sup>**McLeary, Fleur\***, Kinder, J., Chung, R. and Pountney, D. (\*Griffith University, QLD)

### POS-THU-037 12:30-13:30

CHARACTERISATION OF A SCHIZOPHRENIA-LIKE BEHAVIOURAL PHENOTYPE IN A RODENT MODEL OF MATERNAL IMMUNE ACTIVATION IN EARLY VERSUS LATE GESTATION

<sup>†</sup>**Meehan, Crystal\***, Frost, J., Harms, L., Hodgson, D., Schall, U., Todd, J., Zavitsanou, K., Shannon-Weickert, C. and Michie, P. (\*University of Newcastle, NSW)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-038 13:30-14:30

ROLE OF REGULATORY T CELLS IN DISEASE SEVERITY AND PAIN  
HYPERSENSITIVITY IN EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS,  
AN ANIMAL MODEL OF MULTIPLE SCLEROSIS

**Moalem-Taylor, Gila\***, Duffy, S. and Lees, J. (\*University of New South Wales, NSW)

### POS-THU-039 12:30-13:30

THE BETA-AMYLOID PROTEIN-INDUCED PHOSPHORYLATION OF CRMP-2 AT  
Thr555 SITE INHIBITS NEURITE OUTGROWTH AND AXONAL TRANSPORT IN  
ALZHIEMERS PATIENTS

**Mokhtar, Sara\***, Aui, P., Magee, K., Cram, D. and Petratos, S. (\*Monash University, VIC)

### POS-THU-040 13:30-14:30

MODULATING AVAILABILITY OF METABOLIC SUBSTRATES TO STUDY THE  
EFFECTS OF MUTANT SOD1 IN VITRO

<sup>†</sup>**Mot, Alexandra\***, Liddell, J., White, A. and Crouch, P. (\*University of Melbourne, VIC)

### POS-THU-041 12:30-13:30

GLUTATHIONE-S-TRANSFERASE OVEREXPRESSION IN THE NEURO2A CELL LINE  
PROTECTS AGAINST HYDROGEN PEROXIDE INDUCED CELL DEATH

**Muench, Gerald\***, Laurenti, D., Maczurek, A., Stone, G., Ooi, L. and Gyengesi, E. (\*University of Western Sydney, NSW)

### POS-THU-042 13:30-14:30

IDENTIFICATION OF ANTI-INFLAMMATORY COMPOUNDS FROM CINNAMON

**Muench, Gerald\***, Gunawardena, D. and Gyenges, E. (\*University of Western Sydney, NSW)

### POS-THU-043 12:30-13:30

TEMOZOLOMIDE AND BEVACIZUMAB, NOT CALCIUM OVERLOAD, INDUCE  
MITOCHONDRIAL DYSFUNCTION IN HUMAN HIGH-GRADE BRAIN TUMOR

**Nanegrungsunk, Danop\***, Apaijai, N., Yarana, C., Limpastan, K., Watcharasaksilp, W., Vaniyapong, T., Chattipakorn, N. and Chattipakorn, S. (\*Chiang Mai University, THAILAND)

## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-044 13:30-14:30**

INCREASED LIPID INFILTRATION INTO SKELETAL MUSCLE OF HSOD1G93A MICE

**Ngo, Shyuan\***, Giuliani, K., Lee, K., Fogarty, M., Chen, C., Steyn, F. and McCombe, P. (\* University of Queensland, QLD)

### **POS-THU-045 12:30-13:30**

VITAMIN D2-ENRICHED BUTTON MUSHROOM (AGARICUS BISPORUS)

EFFECT ON INFLAMMATION IN WILD TYPE AND APPSWE/PS1DE9

TRANSGENIC MICE

**†Niedermayer, Garry\***, Bennett, L., Kersaitis, C., Macaulay, L., Muench, G., Nigro, J., Payne, M., Vallotton, P. and Bird, M. (\*University of Western Sydney, NSW)

### **POS-THU-046 13:30-14:30**

INCREASED REACTIVE OXYGEN SPECIES AND OXIDATION OF WHITE

MATTER PROTEINS IN CNS VULNERABLE TO SECONDARY DEGENERATION

**†O'Hare Doig, Ryan\***, Bartlett, C., Hodgetts, S. and Fitzgerald, M. (\*University of Western Australia, WA)

### **POS-THU-047 12:30-13:30**

ACTIVATION OF AN ALTERNATIVE MITOPHAGIC PATHWAY MAY

COMPENSATE FOR A LOSS OF PARKIN-MEDIATED MITOPHAGY

**Park, Jin-Sung\***, Koentjoro, B. and Sue, C. (\*University of Sydney, NSW)

### **POS-THU-048 13:30-14:30**

MILD HYPOXIA CAN PREVENT INJURY-INDUCED INFLAMMATORY

PROCESSES IN THE NEONATAL RAT BRAIN

**†Parmar, Jasneet\*** and Jones, N. (\*University of New South Wales, NSW)

### **POS-THU-049 12:30-13:30**

EFFECT OF ACTIVE IMMUNISATION WITH MYELIN BASIC PROTEIN AND ITS

ALTERED PEPTIDE LIGAND ON CENTRAL NEUROPATHIC PAIN IN

UN-INJURED AND SPINAL CORD-INJURED LEWIS RATS

**†Perera, Chamini\***, Lees, J., Duffy, S., Apostolopoulos, V. and Moalem-Taylor, G. (\*University of New South Wales, Sydney, NSW)

### **POS-THU-050 13:30-14:30**

MAINTENANCE AND ADAPTATION OF THE NEUROMUSCULAR SYNAPSE

UNDER AUTOANTIBODY CHALLENGE AND DRUG TREATMENT

**Phillips, William\***, Ghazanfari, N., Morsch, M., Tse, N., Reddel, S. and Toyka, K. (\*University of Sydney, NSW)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-051 12:30-13:30

EVALUATING THE ROLE OF APP96-110 AS A NOVEL THERAPEUTIC AGENT FOLLOWING TRAUMATIC BRAIN INJURY

<sup>†</sup>**Plummer, Stephanie\***, Thornton, E., Corrigan, F., Vink, R., Cappai R. and Van den Heuvel, C. (\*University of Adelaide, SA)

### POS-THU-052 13:30-14:30

BDNF TRANSCRIPTS ARE UPREGULATED IN THE FRONTAL CORTEX BY TESTOSTERONE REMOVAL DURING ADOLESCENCE IN MALE MACAQUES AND RATS

**Purves-Tyson, Tertia\***, Allen, K., Fung, S., Rothmond, D. and Shannon Weickert, C. (\*Neuroscience Research Australia, NSW)

### POS-THU-053 12:30-13:30

NEUROINFLAMMATION IN MULTIPLE SYSTEM ATROPHY IS INFLUENCED BY PATHOLOGICAL ALPHA-SYNUCLEIN AGGREGATES

<sup>†</sup>**Radford, Rowan\***, Rcom-H'cheo-Gauthier, A., Wong, M. Eaton, E., Quilty M., Meedeniya, A., Vickers, J., Gai, W., Guilemin, G., Norazit, A., West, A., Dickson, T., Chung, R. and Pountney, D. (\*Flinders University, SA)

### POS-THU-054 13:30-14:30

CENTRAL SEROTONERGIC NEURON DEFICIENCY IN A MOUSE MODEL OF ZELLWEGER SYNDROME

<sup>†</sup>**Rahim, Rania Sadia\***, Meedeniya, A. and Crane, D. (\*Griffith University, QLD)

### POS-THU-055 12:30-13:30

DOES EXERCISE TRAINING AFTER SPINAL CORD INJURY INFLUENCE THE PHYSIOLOGICAL PROPERTIES OF SPINAL INTERNEURONS?

**Rank, Michelle\***, Callister, R. and Callister, R. (\*University of Newcastle, NSW)

### POS-THU-056 13:30-14:30

EFFECTS OF HIGH AND LOW RADIATION DOSE ON GENE EXPRESSION CHANGES IN CULTURED MURINE BRAIN ENDOTHELIAL CELLS

<sup>†</sup>**Raoufi-Rad, Newsha\***, Gupta, K. and Stoodley, M (\* Macquarie University, NSW)

### POS-THU-057 12:30-13:30

REDUCED WHOLE BRAIN VOLUME AND REGIONAL SPECIFIC ARCHITECTURAL CHANGES IN A MOUSE MODEL OF DRAVET SYNDROME

**Richards, Kay\***, Retchford, A., Reid, C. and Petrou, S. (\*Florey Institute of Neuroscience and Mental Health, VIC)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-058 13:30-14:30

HARMFUL EFFECTS OF 'FAST FOODS' ON ENTERIC NEURONS

**Rivera, Leni\***, Leung, C, Pustovit, R. and Furness, J. (\*University of Melbourne, VIC)

### POS-THU-059 12:30-13:30

EXPLORING THE MECHANISMS FOR STRUCTURAL REORGANISATION OF CORTICAL CIRCUITS FOLLOWING RTMS: REGULATION OF THE EXPRESSION OF SEROTONIN RECEPTOR AND TRANSPORTER GENES

**Rodger, Jennifer\***, and Penrose-Menz, M. (\*University of Western Australia, WA)

### POS-THU-060 13:30-14:30

ISCHAEMIA INDUCED CELL DEATH IS SELECTIVELY MEDIATED THROUGH CaMKII PHOSPHORYLATION AT T253

**Rostas, John\***, Skelding, K., Hoffman, A. and Dickson, P. (\*University of Newcastle, NSW)

### POS-THU-061 12:30-13:30

DEPLETION OF TRIM32 PROTECTS MICE FROM ANXIETY-AND DEPRESSION-LIKE BEHAVIORS UNDER MILD STRESS

**†Ruan, Chunsheng\***, Wang, S., Xiao, Z. and Zhou, X. (\*Kunming Medical University, CHINA)

### POS-THU-062 13:30-14:30

COMBINED MAGNESIUM POLYETHYLENE GLYCOL AS A NOVEL THERAPY IN TRAUMATIC BRAIN INJURY

**†Sabiiti Busingye, Diana\***, Turner, R. and Vink, W. (\*University of Adelaide, SA)

### POS-THU-063 12:30-13:30

MITOCHONDRIAL CONTRIBUTIONS TO NEURONAL AUTOPHAGY: LINKS TO ENERGETICS AND MITOPHAGY?

**†Shin, Yea Seul\***, Ryan, J., Britto, J., Higgins, G., Nagley, P. and Beart, P. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-THU-064 13:30-14:30

MODELLING ALZHEIMER'S DISEASE: TRANSGENIC EXPRESSION OF HUMAN A $\beta$ 1-42 IN CAENORHABDITIS ELEGANS NEURONS

**†Sirwani, Neha\***, Grant, W., and McColl, G (\*La Trobe University, VIC)



## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-065      12:30-13:30**

SYSTEMATIC REVIEW AND META-ANALYSIS OF THERAPEUTIC HYPOTHERMIA IN ANIMAL MODELS OF SPINAL CORD INJURY

**Skeers, Peta\***, Batchelor, P., Antonic, A., Wills, T., Howells, D., Macleod, M. and Sena, E. (\*University of Melbourne, VIC)

### **POS-THU-066      13:30-14:30**

INCREASED F2-ISOPROSTANES IN PARKINSON'S DISEASE HUMAN BRAIN

**Spiro, Adena\***, Abbott, S., Jenner, A., Halliday, G. and Garner, B. (\*University of Wollongong, NSW)

### **POS-THU-067      12:30-13:30**

CHARACTERISATION OF TAUOPATHY IN THE PONTO-MEDULLARY BRAINSTEM NUCLEI OF AGED TAU-P301L MICE

**Stanic, Davor\***, Bautista, T. and Dutschmann, M. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### **POS-THU-068      13:30-14:30**

INVESTIGATING SPTLC1 MUTATIONS ON PROTEIN PROFILES IN HSN-I PATIENT LYMPHOBLASTS

**Stimpson, Scott\***, Coorssen, J. and Myers, S. (\*University of Western Sydney, NSW)

### **POS-THU-069      12:30-13:30**

CELL PROLIFERATION IN ALCOHOL-RELATED BRAIN DAMAGE

**Sutherland, Greg\***, Dennis, C., Suh, L. and Kril, J. (\*University of Sydney, NSW)

### **POS-THU-070      13:30-14:30**

EPHRIN-A2 SIGNALING PROMOTES NEURONAL SURVIVAL AFTER FOCAL ISCHEMIA IN THE NONHUMAN PRIMATE

**Teo, Leon\*** and Bourne, J. (\*Monash University, VIC)

### **POS-THU-071      12:30-13:30**

INVESTIGATION OF WHITE MATTER NEURONS IN A RODENT MODEL OF MATERNAL IMMUNE ACTIVATION - IMPLICATIONS FOR SCHIZOPHRENIA

**Tooney, Paul\***, Duchatel, R., Jobling, P., Harms, L. and Hodgson, D.  
\*University of Newcastle, NSW)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-072 13:30-14:30

A MULTIFACETED PEPTIDE THAT BINDS MONOMERIC AND AGGREGATED BETA-AMYLOID AND INHIBITS THE FORMATION OF NEUROTOXIC OLIGOMERS

**Verdile, Giuseppe\***, Barr, R., Wijaya, L., Morrici, M., Taddei, K., Gupta, V., Nicolazzo, J., Fraser, P. and Martins, R. (\*Curtin University, WA)

### POS-THU-073 12:30-13:30

GROWTH FACTORS ARE ALTERED IN NEUROGENIC REGIONS OF THE PARKINSON'S DISEASE BRAIN

**†Virachit, Sophie\***, Werry, E., Galli, E., Rappou, E., Pulkila, P., Saarma, M., Hailliday, G., Shannon Weickert, C. and Double, K. (\*Neuroscience Research Australia, NSW)

### POS-THU-074 13:30-14:30

TAU POSITIVE NEURONS SHOW A MARKED MITOCHONDRIAL LOSS IN ALZHEIMER'S DISEASE

**†Wee, Yun\*** and Power, J. (\*Flinders University, SA)

### POS-THU-075 12:30-13:30

MICROTUBULE DYNAMICS IN HEREDITARY SPASTIC PARAPLEGIA-PATIENT DERIVED OLFACTORY STEM CELLS

**†Weyers, Simon\***, Yongjun, F., Crane, D., Sue, C. and Mackay-Smith, A. (\*Griffith University, QLD)

### POS-THU-076 13:30-14:30

A NOVEL NEUROTROPHIN-BASED STRATEGY FOR TREATING DEMYELINATING DISEASES

**Xiao, Junhua\***, Wong, A., Tran, G., Hosgkinson, S., Wood, R., Hughes, R., Guiffrida, L. and Kilpatrick T. (\*University of Melbourne, VIC)

### POS-THU-077 12:30-13:30

MINOCYCLINE HAS LIMITED EFFECTS ON EARLEY MICROGLIAL ACTIVATION FOLLOWING PHOTOTHROMBOTIC STROKE IN RTS

**Yew, Wai Ping\***, Jayaseelan, J., Djukic, N., Muyderman, H. and Sims, N. (\*Flinders University, SA)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-078 13:30-14:30

CHARACTERING NOVEL ALTERNATIVELY SPLICED ISOFORMS OF THE EPHA4 GENE

<sup>†</sup>**Zhao, Jing\***, Narayanan, R., Mangelsdorf, M., Boyd, A. and Bartlett, P.  
(University of Queensland, QLD)

### POS-THU-079 12:30-13:30

ALZHEIMER'S DISEASE-RELATED LYSOSOME DYSFUNCTION DISRUPTS NEURONAL COBALAMIN TRANSPORT IN VITRO AND IN VIVO

<sup>†</sup>**Zhao, Hua\***, Li, H., Ruberu, K. and Garner, B. (\*University of Wollongong, NSW)

### POS-THU-080 13:30-14:30

SODIUM SELENATE REDUCES NEURODEGENERATION AND SPONTANEOUS SEIZURES IN A POST- STATUS EPILEPTICUS RAT MODEL OF TEMPORAL LOBE EPILEPSY

<sup>†</sup>**Zheng, Ping\***, Shultz, S., Wright, D., Johnston L., Hovens, C., Jones, N. and O'Brien, T. (\*University of Melbourne, VIC)

### POS-THU-081 12:30-13:30

INTERACTION BETWEEN ABETA, P75NTR AND APP FORMS A POSITIVE FEED-FORWARD LOOP PROMOTING AMYLOID BETA GENERATION

**Zhou, Xin-Fu\***, Saadipour, K., Smith, K., Yang, M., Wang, Y., Zhong, J. and Wang, Y. (\*University of South Australia, SA)

### POS-THU-082 13:30-14:30

BRAINSTEM CHANGES AFFECTED BY 670 NM PHOTOBIMODULATION TREATMENT FOLLOWING T10 HEMI-CONTUSION SPINAL CORD INJURY

<sup>†</sup>**Zhu, Shuyu\***, Hu, D. and Potas, J. (\*Australian National University, ACT)

## Cognition, Learning & Behaviour

### Posters 083 - 115

### POS-THU-083 12:30-13:30

ITSN1 AND CELL SIGNALLING PATHWAYS

<sup>†</sup>**Malakooti, Nakisa\***, Pritchard, M., Adlard, P. and Finkelstein, D. (\*University of Melbourne, VIC)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-084 13:30-14:30

THE FUNCTIONAL ROLE OF THE PREFRONTAL CORTEX IN CONFLICT-INDUCED BEHAVIOURAL ADJUSTMENT

**Mansouri, Farshad\***, Buckley, M. and Tanaka, K. (\*Monash University, VIC)

### POS-THU-085 12:30-13:30

THE ENTRAINMENT IN RHYTHMICAL COORDINATION BETWEEN WHOLE-BODY MOVEMENT AND SELF-VOCALIZATION

<sup>†</sup>**Miyata, Kohei\*** and Kudo, K. (\*University of Tokyo, JAPAN)

### POS-THU-086 13:30-14:30

CHRONIC ADMINISTRATION OF METHYLPHENIDATE IN RATS REDUCES LONG-TERM POTENTIATION IN THE HIPPOCAMPUS, BUT FACILITATES IT IN THE PREFRONTAL CORTEX

**Morales, Bernardo\***, Carreño M., Contreras D., Hernandez A., Burgos H<sup>2</sup>, Zeise M. (University of Santiago of Chile, CHILE)

### POS-THU-087 12:30-13:30

EFFECTS OF LIMITED NESTING MATERIAL ON MATERNAL BEHAVIOUR

**Morris, Margaret\***, Maniam, J. and Antoniadis, C. (\*University of New South Wales, NSW)

### POS-THU-088 13:30-14:30

MATERNAL OBESITY: EFFECT OF EXERCISE DURING PREGNANCY ON BEHAVIOUR AND HIPPOCAMPAL GENE EXPRESSION IN MALE RAT OFFSPRING

**Morris, Margaret\***, Raipuria, M., Bahari, H. and Maniam, J. (\*University of New South Wales, NSW)

### POS-THU-089 12:30-13:30

EFFECTS OF A CLOCK MUTATION ON COCAINE-INDUCED LOCOMOTION AND COCAINE SELF-ADMINISTRATION IN MICE

**Nakahara, Daiichiro\***, Murakami, G., Edamura, M., Meng, H. and Okamura, H. (\*Hamamatsu University School of Medicine, JAPAN)

### POS-THU-090 13:30-14:30

EFFECT OF HIGH FAT DIET CONSUMPTION ON MOTIVATION, PAVLOVIAN AND INSTRUMENTAL CONDITIONING IN RATS

<sup>†</sup>**Nguyen, Jason\***, Killcross, S., and Jenkins, T. (\*RMIT University, VIC)

## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-091     12:30-13:30**

ENVIRONMENTAL ENRICHMENT INFLUENCES BOTH DEVELOPMENT AND FUNCTION OF STRIATAL CIRCUITRY WITHIN THE MOUSE

<sup>†</sup>**O'Connor, Angela\***, Leamey, C., and Sawatari, A. (\*University of Sydney, NSW)

### **POS-THU-092     13:30-14:30**

AMPHETAMINE ALTERS THE CHOICE PREFERENCES OF DVD-DEFICIENT MALE RATS ON A RODENT GAMBLING TASK

<sup>†</sup>**Peak, James\***, Turner, K. and Burne, T. (\*University of Queensland, QLD)

### **POS-THU-093     12:30-13:30**

PARTICIPATION OF THE L-ARGININE-NITRIC OXIDE-cGMP-PKC-K+ATP CHANNEL SIGNALLING PATHWAY IN ZERUMBONE-INDUCED ANTINOCICEPTION

**Perimal, Enoch Kumar\***, Solaiman, M., Mohamad, A., Akira, A., Israf, D. and Bhatartham, H. (\*Universiti Putra Malaysia, MALAYSIA)

### **POS-THU-094     13:30-14:30**

MGLU5 RECEPTORS IN EXTINCTION OF COCAINE-ASSOCIATED CUES

**Perry, Christina\***, Kim, J., Zbukvic I. and Lawrence, A. (\*Florey Department of Neuroscience and Mental Health, VIC)

### **POS-THU-095     12:30-13:30**

DIETARY INDUCED OBESITY DISRUPTS HIPPOCAMPALLY ENCODED TRACE FEAR MEMORIES

**Reichelt, Amy\***, Westbrook, F. and Morris, M. (\*University of New South Wales, NSW)

### **POS-THU-096     13:30-14:30**

CLAUSTRUM PROJECTIONS TO THE PREFRONTAL CORTEX IN THE CEBUS MONKEY (CEBUS APELLA)

**Reser, David\***, Richardson, K., de Oliveira Montibeller, M., Zhao, S., Chan, J., Soares, J., Gattass, R. and Rosa, M. (\*Monash University, VIC)

### **POS-THU-097     12:30-13:30**

PANAX GINSENG ATTENUATES OXIDATIVE-NITROSATIVE STRESS, INFLAMMATORY CASCADE AND COGNITIVE IMPAIRMENT IN RATS SUBJECTED TO MILD TRAUMATIC BRAIN INJURY: AN EVIDENCE OF NITRIC OXIDE SIGNALING

<sup>†</sup>**Rinwa, Puneet\*** and Kumar, A. (\*Panjab University, INDIA)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-098 13:30-14:30

MELANOCORTIN 3/4 RECEPTOR AGONIST REDUCES FOOD INTAKE BY ACTING ON VAGAL AFFERENT ENDINGS IN THE NUCLEUS OF THE SOLITARY TRACT

**Ritter, Robert\*** Campos, C. (\*Washington State University, USA)

### POS-THU-099 12:30-13:30

APOD GENE DELETION EXACERBATES THE PATHOLOGICAL PHENOTYPE OF APP/PS1 ALZHEIMER'S DISEASE MICE

**Ruberu, Kalani\***, Li, H., Karl, T. and Garner, B. (\*University of Wollongong, NSW)

### POS-THU-100 13:30-14:30

CAFFEINE MAINTAINS BASAL SYNAPTIC STRENGTH DURING 48H OF TOTAL SLEEP DEPRIVATION IN RAT HIPPOCAMPUS

**†Sahu, Surajit\***, Wadhwa, M., Deep, S., Thakur, S., Nanda, S. and Panjwani, U. (\*DIPAS, INDIA)

### POS-THU-101 12:30-13:30

EARLY GESTATIONAL EXPOSURE TO MODERATE CONCENTRATIONS OF ETHANOL LEADS TO AN AGE-DEPENDENT DECLINE INATTENTIONAL PROCESSING IN C57BL/6J MICE

**†Sanchez Vega, Michelle\***, Chong, S. and Burne, T. (\*University of Queensland, QLD)

### POS-THU-102 13:30-14:30

EFFECTS OF SHORT-TERM COGNITIVE ENRICHMENT ON COGNITION, ANXIETY- AND DEPRESSION-LIKE BEHAVIOUR

**†Singhal, Gaurav\***, Jaehne, E., Corrigan, F. and Baune, B. (\*University of Adelaide, SA)

### POS-THU-103 12:30-13:30

THE CLAUSTRUM'S PROPOSED ROLE IN CONSCIOUSNESS IS SUPPORTED BY THE EFFECT AND TARGET LOCALIZATION OF SALVIA DIVINORUM

**Stiefel, Klaus\***, Merrifield, A. and Holcombe, A. (\*University of Western Sydney, NSW)

### POS-THU-104 13:30-14:30

PHARMACOLOGICAL INVESTIGATION OF THE ROLE OF mGlu5 AND NMDA RECEPTOR ON CONDITIONED FEAR

**†Tan, Shawn\***, Handford, C., Lawrence, A. and Kim, J. (\*Florey Institute of Neuroscience and Mental Health, VIC)

## POSTERS - THURSDAY 30 JANUARY 2013

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## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-105 12:30-13:30

INVESTIGATING STEM CELL BASED THERAPY IN AN IMMUNOTOXIN MOUSE MODEL OF ALZHEIMER'S DISEASE

<sup>†</sup>**Tiwari, Durgesh\***, Haynes, J., Nicolazzo, J., Pouton, C. and Short, J. (\*Monash Institute of Pharmaceutical Sciences, VIC)

### POS-THU-106 13:30-14:30

LOCALIZING CATEGORY-SELECTIVE BOLD SIGNALS IN FMRI USING SWIFT

**Tsuchiya, Naotsug\***, Koenig-Robert, R. and VanRullen, R. (\*Monash University, VIC)

### POS-THU-107 12:30-13:30

AMPHETAMINE AND SCOPOLAMINE IMPAIR PERFORMANCE OF DVD-DEFICIENT RATS ON A CONTINUOUS DETECTION TASK

<sup>†</sup>**Turner, Karly\***, McGrath, J. and Burne, T. (\*University of Queensland, QLD)

### POS-THU-108 13:30-14:30

NEUROCOGNITIVE DISTURBANCES ASSOCIATED WITH ACUTE INFECTIOUS MONONUCLEOSIS, ROSS RIVER FEVER AND Q FEVER: A PRELIMINARY INVESTIGATION OF INFLAMMATORY AND GENETIC CORRELATES

**Vollmer-Conna, Ute\***, Cvejic, E., Lemon, J., Hickie, I. and Lloyd, A. (\*University of New South Wales, NSW)

### POS-THU-109 12:30-13:30

THE EFFECT OF ADULT ENRICHMENT ON GOAL-ORIENTED PROBLEM SOLVING

<sup>†</sup>**Wakulicz, Anthony\***, O'Connor, A., Leamy, C. and Sawatari, A. (\*University of Sydney, NSW)

### POS-THU-110 13:30-14:30

THE STRESS-REWARD INTERFACE: ROLE FOR RELAXIN-3/RXFP3 SIGNALLING IN STRESS-INDUCED ALCOHOL CONSUMPTION AND SUCROSE-SEEKING IN MICE

<sup>†</sup>**Walker, Andrew\***, Chua, B., Smith, C., Gundlach, A. and Lawrence, A. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-THU-111 12:30-13:30

THE RELATIONSHIP BETWEEN SINGLE NUCLEOTIDE POLYMORPHISMS WITHIN THE NGFR GENE AND SPORADIC ALZHEIMER'S DISEASE IN A CHINESE HAN POPULATION

**Wang, Yan-Jiang\***, Zeng, F., Yao, X., Yi, X., Cao, H., Wang, X., Jiao, S., Wang, Q., Zhou, H. and Zhou, X. (\*Daping Hospital and Institute of Field Surgery, CHINA)

## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-112     13:30-14:30**

HIGH FREQUENCY (>25 Hz) PEAKS IN SCALP ELECTRICAL RECORDINGS

**Willoughby, John\***, Whitham, E., Fitzgibbon, S., Grummett, T., DeLosAngeles, D., Lewis, T. and Pope, K. (\*Flinders University, SA)

### **POS-THU-113     12:30-13:30**

AUDITORY STIMULATION MODULATES AMYGDALA NETWORK DYNAMICS

**Windels, Francois\***, Stratton, P., and Sah, P. (\*University of Queensland, QLD)

### **POS-THU-114     13:30-14:30**

BLOCKADE OF OXIN-1 RECEPTORS IN THE VENTRAL TEGMENTAL AREA COULD ATTENUATE THE LATERAL HYPOTHALAMIC STIMULATION-INDUCED POTENTIATION OF REWARDING PROPERTIES OF MORPHINE

**Zarepour, Leila\***, Sarihi, A. and Haghparast, A. (\*Hamadan University of Medical Sciences, IRAN)

### **POS-THU-115     12:30-13:30**

ARIPIRAZOLE REDUCES CUE-INDUCED REINSTATEMENT OF COCAINE SEEKING BY ENHANCING CUE EXTINCTION LEARNING IN ADOLESCENT RATS

**†Zbukvic, Isabel\***, Perry, C., Lawrence, A. and Kim, J. (\*Florey Institute of Neuroscience and Mental Health, VIC)

## **Development & Regeneration**

### **Posters 116 - 132**

### **POS-THU-116     13:30-14:30**

MANIPULATION OF AXON GUIDANCE CUE, EPHRINA5, AFFECTS THE INTEGRATION OF DOPAMINERGIC NEURAL GRAFTS IN AN ANIMAL MODEL OF PARKINSON'S DISEASE

**†Kauhausen, Jessica\***, Rodger, J., Thompson, L. and Parish, C. (\*Florey Institute of Neuroscience & Mental Health)

### **POS-THU-117     12:30-13:30**

THE FIBROTIC SCAR IS AN IMPEDIMENT FOR AXONAL REGENERATION AFTER TRAUMATIC BRAIN INJURY

**Kawano, Hitoshi\***, Kimura-Kuroda, J., Komuta, H., Li, H. and Takeuchi, K. (\*Tokyo Metropolitan Institute of Medical Science, JAPAN)

## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-118     13:30-14:30**

COMPLEX ROLES FOR TEN-M3 IN THE GENERATION OF THALAMOSTRIATAL CIRCUITRY

**Leameu, Catherine\***, Tran, H. and Sawatari, A. (\*University of Sydney, NSW)

### **POS-THU-119     12:30-13:30**

THE AXON GUIDANCE RECEPTOR NEOGENIN REGULATES CADHERIN ENDOCYTOSIS AND ADHEREN JUNCTION ASSEMBLY

<sup>†</sup>**Lee, Natalie\***, Nourse, C., Cox, H. and Cooper, H. (\*University of Queensland, QLD)

### **POS-THU-120     13:30-14:30**

MODULATING THE IMMUNE RESPONSE TO IMPROVE FUNCTIONAL RECOVERY, TISSUE SPARING AND DONOR CELL SURVIVAL FOLLOWING SPINAL CORD INJURY

<sup>†</sup>**Lovett, Sarah\***, Harvey, A., Hodgetts, S. and Plant, G. (\*University of Western Australia, WA)

### **POS-THU-121     12:30-13:30**

QUANTITATIVE FLOW CYTOMETRIC ANALYSIS OF RAT EMBRYONIC DOPAMINE PRECURSORS AND MATURE NEURONS

**Luan, Wei\***, Alexander, S. and Eyles, D. (\*University of Queensland, QLD)

### **POS-THU-122     13:30-14:30**

DEFINING THE REGULATION OF AMYLOID PRECURSOR PROTEIN N-TERMINAL FRAGMENT GENERATION

<sup>†</sup>**Luu, Luan** (University of Melbourne, VIC)

### **POS-THU-123     12:30-13:30**

NEURON-SPECIFIC ALTERNATIVE SPLICING OF DSCAM2 IS FUNCTIONALLY REQUIRED FOR DROSOPHILA VISUAL SYSTEM DEVELOPMENT

**Millard, Sean\***, Lah, G. and Li, J. (\*University of Queensland, QLD)

### **POS-THU-124     13:30-14:30**

TIMING OF SUB-CHRONIC ANTIPSYCHOTIC EXPOSURE DIFFERENTIALLY AFFECTS BRAIN FUNCTION

<sup>†</sup>**Moe, Aung Aung Kywe\***, Kurniawan, N., Alexander, S., Burne, T. and Eyles, D. (\*University of Queensland), QLD)

## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-125      12:30-13:30**

ANALYSING THE BIOLOGICAL FUNCTION OF PS2V: AN ABERRANT SPLICING PHENOMENON OR EVOLUTIONARILY CONSERVED MECHANISM?

<sup>†</sup>**Moussavi Nik, Seyyed Hani\***, Newman, M., Wilson, L., Ebrahimie, E., Verdile, G., Chapman, G., Martins, R. and Lardelli, M. (\*University of Adelaide, SA)

### **POS-THU-126      13:30-14:30**

EPH/ EPHRIN SIGNALLING INFLUENCES THE COMPLEX SPATIOTEMPORAL DEVELOPMENT OF THE NONHUMAN PRIMATE VISUAL CORTEX

**Mundinano, Inaki-Carril\***, Kwan, W. and Bourne, J. (\*Monash University, VIC)

### **POS-THU-127      12:30-13:30**

OLIGODENDROGLIAL DELETION OF TrkB AT DIFFERENT STAGES OF DEVELOPMENT EXERTS DISTINCT INFLUENCES UPON CNS MYELINATION

**Murray, Simon\***, Ferner, A., Wong, A., Xiao, J., Peckham, H., Giuffrida, L., Wood, R. and Kilpatrick, T. (\*University of Melbourne, VIC)

### **POS-THU-128      13:30-14:30**

NF1X REGULATES BOTH PROLIFERATION AND MIGRATION WITHIN THE SUBVENTRICULAR ZONE OF THE POSTNATAL BRAIN

**Piper, Michael\***, Heng, E., Gronostajski, R. and Richards, L. (\*University of Queensland, QLD)

### **POS-THU-129      12:30-13:30**

EFFECTS OF ENRICHMENT ON PNN FORMATION AND PV+ EXPRESSION IN DORSAL AND VENTRAL HIPPOCAMPUS

<sup>†</sup>**Rahman, Tasnim\***, O'Connor, A., Leamey, C. and Sawatari, A. (\*University of Sydney, NSW)

### **POS-THU-130      13:30-14:30**

HOW DOES EARLY POSTNATAL ACTIVITY INFLUENCE CONTRALATERAL TARGETING OF CALLOSAL AXONS?

**Suarez, Rodrigo\***, Fenlon, L., Marek, R., Avitan, L., Sah, P., Goodhill, G., Richards and L. (\*University of Queensland, QLD)

### **POS-THU-131      12:30-13:30**

BILATERAL CONNECTIONS IN THE MARSUPIAL BRAIN ARE SPATIALLY SEGREGATED ACCORDING TO THEIR PLACE OF ORIGIN

**Suarez, Rodrigo\***, Morcom, L., Kurniawan, N. and Richards, L. (\*University of Queensland, QLD)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-132 13:30-14:30

REGULATION OF TROPOMYOSIN RELATED KINASE-B RECEPTOR (TRKB) BY SUPPRESSOR OF CYTOKINE SIGNALLING (SOCS2)

<sup>†</sup>**Zamani, Akram\***, Turnley, A. and Murray, S. (\*University of Melbourne, VIC)

### Excitability & Synaptic Transmission

#### Posters 133 - 145

### POS-THU-133 12:30-13:30

BIOPHYSICAL ANALYSIS OF SODIUM-POTASSIUM ATPASE MUTATIONS IDENTIFIED IN PATIENTS WITH ALTERNATING HEMIPLEGIA OF CHILDHOOD

<sup>†</sup>**Li, Melody\***, Jazayeri, D., Heinzen, E., Goldstein, D. and Petrou, S. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-THU-134 13:30-14:30

SEGREGATED A AND C-FIBER INFORMATION PATHWAYS THROUGH THE SOLITARY TRACT NUCLEUS

**McDougall, Stuart\*** and Guo, H. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-THU-135 12:30-13:30

A POSTSYNAPTIC CONTRIBUTION TO SHORT-TERM SYNAPTIC PLASTICITY IN PIRIFORM CORTEX

<sup>†</sup>**Micallef, Andrew\*** and Stuart, G. (\*Australian National University, ACT)

### POS-THU-136 13:30-14:30

METHYLPHENIDATE AMPLIFIES LONG-TERM POTENTIATION IN CA1 OF THE RAT HIPPOCAMPUS THROUGH  $\hat{\gamma}^2$ -ADRENERGIC AND D1/D5 RECEPTORS

**Morales, Bernardo\***, Contreras D., Carreño M., Carvallo C. and Zeise M. (\*University of Santiago of Chile, CHILE)

### POS-THU-137 12:30-13:30

THE MAKING OF THE NEUROMOTOR SYSTEM: THE ROLE PLAYED BY GLYCINERGIC CONNECTIONS ONTO DEVELOPING MOTOR NEURONS

**Noakes, Peter\***, Fogarty, M., Kanjhan, R. and Bellingham, M. (\*University of Queensland, QLD)

## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-138      13:30-14:30**

BIOGENESIS, COMPOSITION AND MORPHOLOGY OF SECRETORY VESICLES IN THE LYSOSOMAL STORAGE DISORDER MUCOPOLYSACCHARIDOSIS IIIA

**Parkinson-Lawrence, Emma\***, Hocking, K., Brooks, D. and Keating, D.  
(\*University of South Australia, SA)

### **POS-THU-139      12:30-13:30**

INVESTIGATION OF THE INTRACELLULAR CALCIUM SIGNALING CASCADES MEDIATED BY NCAM2 DURING NEURONAL DIFFERENTIATION USING GENETICALLY ENCODED CALCIUM REPORTERS

**†Sheng, Lifu\***, Leshchyns'ka, I. and Sytnyk, V. (\*University of New South Wales, NSW)

### **POS-THU-140      13:30-14:30**

DIFFERENTIAL INHIBITORY INPUT TO CALRETININ EXPRESSING NEURONS IN THE MOUSE SUPERFICIAL DORSAL HORN

**†Smith, Kelly\***, Madden, J., Dickinson, S., Boyle, K., Hughes, D., Callister, R., Jobling, P. and Graham, B. (\*University of Newcastle, NSW)

### **POS-THU-141      12:30-13:30**

ROLE OF TLR2/4 RECEPTORS IN MORPHINE-INDUCED INHIBITION OF MURINE DISTAL COLON

**Staikopoulos, Vicky\***, Beckett, E. and Hutchinson, M. (\*University of Adelaide, SA)

### **POS-THU-142      13:30-14:30**

MOLECULAR MECHANISMS OF ABNORMAL NEUROTRANSMISSION INDUCED BY DISRUPTION OF NCAM-MEDIATED SYNAPTIC ADHESION IN CNS SYNAPSES

**Sytnyk, Vladimir\*** and Leshchyns'ka, I. (\*University of New South Wales, NSW)

### **POS-THU-143      12:30-13:30**

EPHA4 MODULATES HIPPOCAMPAL NEUROGENESIS AND SYNAPTIC PLASTICITY IN THE ADULT MOUSE

**Taylor, Chanel\***, Newcombe, E., Turpin, F., Boyd, A., Sah, P. and Bartlett, P.  
(\*University of Queensland, QLD)

### **POS-THU-144      13:30-14:30**

SPONTANEOUS CA<sup>2+</sup> TRANSIENTS IN THE NERVE TERMINAL OF NEOCORTICAL PYRAMIDAL NEURONS

**†Tran, Le Thuy Van\*** and Stricker, C. (\*Australian National University, ACT)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-145 12:30-13:30

EFFECTS OF ENDOGENOUS OPIOIDS ON THE ACTIVITY OF INTERCALATED NEURONS OF THE AMYGDALA: IMPLICATIONS FOR ANXIETY DISORDERS

**Winters, Bryony\*** and Bagley, C. (\*University of Sydney, NSW)

**Glia**

**Posters 146 - 153**

### POS-THU-146 13:30-14:30

INVESTIGATING THE ROLE OF TLR4 IN THE SYNERGISTIC INTERACTION OF ETHANOL AND BENZODIAZEPINE

<sup>†</sup>**Lagiseti, Rajini\***, Corrigan, F. and Hutchinson, M. (\*University of Adelaide, SA)

### POS-THU-147 12:30-13:30

MONOCARBOXYLATE TRANSPORTER 8 IS EXPRESSED ON OLIGODENDROCYTE PROGENITORS DERIVED FROM HUMAN EMBRYONIC STEM CELLS

<sup>†</sup>**Lee, Jae Young\***, Kim, M., Stanley, E., Elefanty, A. and Petratos, S. (\*Monash University, VIC)

### POS-THU-148 13:30-14:30

THE ROLE OF OESTROGENIC INNATE IMMUNE PRIMING IN EXACERBATED FEMALE PAIN

<sup>†</sup>**Nicotra, Lauren\***, Watkins, L., Tuke, J., Kwok, Y., Rolan, R. and Hutchinson, M. (\*University of Adelaide, SA)

### POS-THU-149 12:30-13:30

FYN KINASE IS NECESSARY FOR BDNF TO PROMOTE OLIGODENDROCYTE MYELINATION IN VITRO

<sup>†</sup>**Peckham, Haley\***, Giuffrida, L., Wong, A., Ferner, A., Kilpatrick, T., Murray, S. and Xiao, J. (\*University of Melbourne, VIC)

### POS-THU-150 13:30-14:30

HYPERMETHYLATION OF MICRORNA-16 IS TUMOR SUPPRESSIVE IN GLIOMAS AND GLIOMA STEM CELLS

<sup>†</sup>**Shan, Zheng\***, Liu, F., Liu, X., Li, L. and He, J. (\*University of South Australia SA)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-151 12:30-13:30

NON-STEREOSELECTIVE OPIOID BINDING IN THE MOUSE BRAIN

<sup>†</sup>**Thomas, Jacob\***, Somogyi, A. and Hutchinson, M. (\*University of Adelaide, SA)

### POS-THU-152 13:30-14:30

MACROPOROUS FORMATION VIA P2X7 AND P2X4 RECEPTORS IS BLOCKED BY MINOCYCLINE IN PRIMARY MICROGLIA AND A HETEROLOGOUS EXPRESSION SYSTEM

<sup>†</sup>**Watson, Jack\***, Stokes, L., Horton, A., Stebbing, M. (\*RMIT University, VIC)

### POS-THU-153 12:30-13:30

HIPPOCAMPAL GLIA ARE AFFECTED MORE THAN NEURONS IN THE VERY ELDERLY WITHOUT SIGNIFICANT NEUROPATHOLOGIES

<sup>†</sup>**Yang, Yue\***, Shepherd, C. and Halliday, G. (\*Neuroscience Research Australia, NSW)

## Motor Systems

### Posters 154 - 161

### POS-THU-154 13:30-14:30

INVESTIGATION OF THE INVOLVEMENT OF CALCIUM REGULATION IN THE UNILATERAL ROTENONE-LESIONED MOUSE MODEL OF PARKINSON'S DISEASE

<sup>†</sup>**Rcom-H'cheo-Gauthier, Alexandre\***, Meedeniya, A. and Pountney, D. (\*Griffith University, QLD)

### POS-THU-155 12:30-13:30

p75NTR EXTRACELLULAR DOMAIN AS A BIOMARKER IN MOTOR NEURON DISEASE

<sup>†</sup>**Shepherd, Stephanie\***, Schultz, D., Chataway, T., Rush, R. and Rogers, M. (\*Flinders University, SA)

### POS-THU-156 13:30-14:30

CHARACTERISATION AND TARGETING OF P75NTR EXPRESSING MOTOR NEURONS IN SOD1G93A MICE

<sup>†</sup>**Smith, Kevin\***, Rush, R. and Rogers, M. (\*Flinders University, SA)



## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-157 12:30-13:30

ENHANCEMENT OF REACHING ABILITY AND REDUCED CORTICAL ATROPHY FOLLOWING TRANSPLANTATION OF NEURAL PROGENITORS GENERATED FROM HUMAN EMBRYONIC STEM CELLS IN A RAT MODEL OF CORTICAL ISCHAEMIA

<sup>†</sup>**Somaa, Fahad\***, Niclis, J., Dottori, M., Parish, C. and Thompson, L. (\*Florey Neuroscience Institute, VIC)

### POS-THU-158 13:30-14:30

CELLULAR PATHOGENIC MECHANISMS INDUCED BY FUSED IN SARCOMA IN AMYOTROPHIC LATERAL SCLEROSIS

<sup>†</sup>**Sultana, Jessica\***, Atkin, J., Farg, M., Al Helwani, N., Billa, N. and Walker, A. (\*La Trobe University, VIC)

### POS-THU-159 12:30-13:30

OPTINEURIN AND MYOSIN VI ASSOCIATED CELLULAR TRAFFICKING DEFECTS IN AMYOTROPHIC LATERAL SCLEROSIS

<sup>†</sup>**Sundaramoorthy, Vinod\***, Walker, A., Tan V., Farg, M., Guillemin. G. and Atkin, J. (\*La Trobe University, VIC)

### POS-THU-160 13:30-14:30

MOTOR END PLATE (MEP) TARGETING INCREASES UPTAKE AND ADENOVIRAL TRANSDUCTION AT SPINAL CORD MOTOR NEURONS, DORSAL ROOT GANGLIA (DRG) AND MYOFIBRES

<sup>†</sup>**Tosolini, Andrew\***, Mohan, R. and Morris, R. (\*University of New South Wales, NSW)

### POS-THU-161 12:30-13:30

NEURAL MECHANISMS OF PERISTALSIS IN THE ISOLATED RABBIT COLON: A NEUROMECHANICAL LOOP HYPOTHESIS

**Wiklendt, Lukasz\***, Dinning, P., Spencer, N., Brookes, S. and Costa, M. (\*Flinders University, SA)

## New Techniques in Neuroscience

### Posters 162 - 172

### POS-THU-162 13:30-14:30

COMPARISON OF NEURO-DIFFERENTIATION PROTOCOLS FOR HUMAN DENTAL PULP STEM CELLS

<sup>†</sup>**Kaidonis, Xenia\***, Pan, W. Chew, R. and Koblar, S. (\*University of Adelaide, SA)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-163 12:30-13:30

UTILISING THE MULTIBAC BACULOVIRUS PROTEIN EXPRESSION SYSTEM TO EXPRESS THE  $\gamma$ -SECRETASE ENZYME COMPLEX

<sup>†</sup>**Khan, Imran\***, Krishanswamy, S., Groth, D., Wijaya, L., Morrici, M., Fraser, P., Berger, I., Schaffitzel - Berger, C., Martins, R. and Verdile, G. (\*Edith Cowan University, WA)

### POS-THU-164 13:30-14:30

TRANSCRANIAL MAGNETIC STIMULATION OF HUMAN DENTAL PULP STEM CELLS IN THE MAMMALIAN BRAIN

**Kremer, Karlea\***, Smith, A., Sandeman, L., Inglis, J., Ridding, M. and Koblar, S. (\*University of Adelaide, SA)

### POS-THU-165 12:30-13:30

DEVELOPMENT OF A NOVEL ANTEROGRADE TRACING TECHNIQUE TO SELECTIVELY IDENTIFY THE DIFFERENT TYPES OF SPINAL AFFERENT NERVE ENDING THAT UNDERLIE NOCICEPTION FROM VISCERAL ORGANS

**Kyloh, Melinda\*** and Spencer, N. (\*Flinders University, SA)

### POS-THU-166 13:30-14:30

TARGETED NANOPARTICLE BASED THERAPIES TO TREAT SECONDARY DEGENERATION FOLLOWING PARTIAL INJURY TO THE CNS

<sup>†</sup>**Lozić, Ivan\***, Bartlett, C., Smith, N., Kilburn, M., Iyer, K., Dunlop, S. and Fitzgerald, M. (\*University of Western Australia, WA)

### POS-THU-167 12:30-13:30

BEHAVIOURAL STATE CONTROL BY NUCLEUS INCERTUS (NI) NETWORKS: STUDIES USING AAV-DELIVERED DESIGNER RECEPTORS (DREADDs)

<sup>†</sup>**Ong-Palsson, Emma\***, Hawkes, D., McDougall, S., White, M., Bathgate, R., Ma, S. and Gundlach, A. (\*Florey Institute of Neuroscience and Mental Health, VIC)

### POS-THU-168 13:30-14:30

ELECTRICAL FIELD STIMULATION (EFS) OVER SACRAL NERVES OVERCOMES CHRONIC CONSTIPATION DUE TO ANORECTAL RETENTION (AR) IN CHILDREN - A PILOT STUDY

**Southwell, Bridget\***, Yik, Y. and Hutson, J. (\*Murdoch Childrens Research Institute, VIC)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-169 12:30-13:30

COMPARISON OF NEURO-DIFFERENTIATION PROTOCOLS FOR HUMAN DENTAL PULP STEM CELLS

<sup>†</sup>**Wali, Gautam\***, Fan, Y., Sutharsan, R., Fernandes, J., Sue, C. and Mackay-Sim, A. (\*Griffith University, QLD)

### POS-THU-170 13:30-14:30

HUMAN DENTAL PULP STEM CELLS MODULATE PERMEABILITY OF THE BLOOD-BRAIN BARRIER

<sup>†</sup>**Winderlich, Josh\***, Kremer, K. and Koblar, S. (\*University of Adelaide, SA)

### POS-THU-171 12:30-13:30

MICROFLUIDIC CULTURE PLATFORM FOR STUDYING NEURONAL RESPONSE TO AXONAL INJURY

<sup>†</sup>**Yap, Yiing Chiing\***, King, A., Breadmore, M., Guijt R. and Dickson, T. (\*Menzies Research Institute, TAS)

### POS-THU-172 13:30-14:30

ARE SHARKS 'SMART'? DEVELOPING QUANTITATIVE MEASURES OF COGNITIVE ABILITY IN FISHES

**Yopak, Kara\***, Goh, G., Heel, K., Wassell, R., Northcutt, R., Colin, S. (\*University of Western Australia, WA)

## Sensory Systems

### Posters 173- 194

### POS-THU-173 12:30-13:30

MORPHOLOGY AND CONNECTIVITY OF A BISTRATIFIED AMACRINE CELL IN THE MOUSE RETINA

**Lee, Sammy Chi Sam\***, Meyer, A., Dedek, K. and Haverkamp,, S. (\*University of Sydney, NSW)

### POS-THU-174 13:30-14:30

KETAMINE AND ITS METABOLITE INHIBIT LIPOPOLYSACCHARIDE (LPS)-INDUCED INTERLEUKIN-6 PRODUCTION IN A TIME- AND CONCENTRATION-DEPENDENT MANNER: POTENTIAL INVOLVEMENT OF MULTIPLE PATHWAYS

<sup>†</sup>**Li, Steven\***, Hutchinson, M., Coller, J. and Somogyi, A. (\*University of Adelaide, SA)

## POSTERS - THURSDAY 30 JANUARY 2013

### POS-THU-175 12:30-13:30

MOLECULAR CHARACTERIZATION OF MOUSE PARVALBUMIN POSITIVE  
PROPRIOCEPTIVE DORSAL ROOT GANGLIA NEURONS

<sup>†</sup>**Madden, Jessica\***, Smith, K., Callister, R., Jobling, P. and Graham, B.  
(\*University of Newcastle, NSW)

### POS-THU-176 13:30-14:30

ENCODING OF SIMPLE AND COMPLEX VIBRATORY STIMULI BY TACTILE  
MECHANORECEPTORS IN THE HUMAN FINGER PAD

**Mahns, David\***, Birzniece, I. and Macefield, V. (\*University of Western Sydney,  
NSW)

### POS-THU-177 12:30-13:30

NUTRIENT SENSING IN ENTEROCHROMAFFIN CELLS

<sup>†</sup>**Martin, Alyce\***, Peiris, H., Raghupathi, R., Sutherland, K., Young, R. and Keat-  
ing, D. (\*Flinders University, SA)

### POS-THU-178 13:30-14:30

A STOCHASTIC MODEL OF SHORT TERM PLASTICITY AND CALCIUM ION  
CHANNEL NOISE AT INNER HAIR CELL RIBBON SYNAPSES

<sup>†</sup>**Moezzi, Bahar\*** and McDonnell, M. (\*University of South Australia, SA)

### POS-THU-179 12:30-13:30

CONTRIBUTION OF C-TACTILE FIBRES TO INNOCUOUS MECHANORECEPTION:  
AN EXAMPLE OF DISTRIBUTED PROCESSING OR REDUNDANCY?

**Nagi, Saad\***, Dunn, J., Birzniece, I. and Mahns, D. (\*University of Western  
Sydney, NSW)

### POS-THU-180 13:30-14:30

SILDENAFIL AFFECTS RETINAL FUNCTION OF ANIMAL MODELS OF RETINAL  
DEGENERATION

**Nivison-Smit, Lisa\***, Zhu, Y., Whatham, A., Bui, B., Fletcher, E. and Kalloniatis,  
M. (\*University of New South Wales, NSW)

### POS-THU-181 12:30-13:30

MULTIPLE ACTIONS FOR VINPOCETINE FOLLOWING ACUTE RETINAL  
METABOLIC INSULT

**Nivison-Smit, Lisa\***, Acosta, M., O'Brien, B., Misra, S., Ready, S., Troung, M.,  
Guo, C. and Kalloniatis, M. (\*University of New South Wales, NSW)

## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-182     13:30-14:30**

NOVEL APPLICATION OF A LIQUID CRYSTAL DISPLAY TO MAP RECEPTIVE FIELDS REVEALS HIGH ACUITY IN LIGHT ADAPTED PHOTORECEPTORS OF THE AUSTRALIAN BLUE-BANDED BEE

**O'Carroll, David\***, Schuckel, J., Wiederman, S. and Warrant, E. (\*University of Adelaide, SA)

### **POS-THU-183     12:30-13:30**

TIMESCALES OF SENSORY INTEGRATION IN VISUAL CORTEX

**Price, Nicholas\***, Zavitz, E., Haghgoosie, S., Yu, H., Davies, A., Rosa, M. and Price, N. (\*Monash University, VIC)

### **POS-THU-184     13:30-14:30**

CONSTITUTIVE EXPRESSION OF GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR (GDNF) FAMILY LIGAND (GFL) RECEPTORS IN BONE AFFERENT NEURONS

<sup>†</sup>**Ringuet, Mitchell\*** and Ivanusic, J. (\*Melbourne University, VIC)

### **POS-THU-185     12:30-13:30**

PLASMA EXTRAVASATION STUDIES TO DETERMINE THE EXTENT OF LATERAL SPROUTING AFTER MEDIAN NERVE INJURIES

<sup>†</sup>**Shaikh, Sumaiya\***, Shortland, P. and Mahns, D. (\*University of Western Sydney, NSW)

### **POS-THU-186     13:30-14:30**

CORRELATED SPIKING ACTIVITY MIRRORS COHERENCE OF LOCAL FIELD POTENTIALS IN THE MIDDLE TEMPORAL (MT) AREA OF MARMOSET

<sup>†</sup>**Solomon, Selina\***, Chen, S., Morley, J. and Solomon, S. (\*University of Sydney, NSW)

### **POS-THU-187     12:30-13:30**

HOW MUCH DO WE SEE AND REMEMBER OUTSIDE OF FIXATIONS IN NATURAL VISION?

**Tsuchiya, Naotsugu\***, Kaunitz, L. and Rowe, E. (\*Monash University, VIC)

### **POS-THU-188     13:30-14:30**

EFFICACY OF SYNCHRONISED NEURONAL OSCILLATIONS IN DORSAL STREAM FEEDBACK WITHIN THE VISUAL PATHWAY OF NON-HUMAN PRIMATES

**Vidyasagar, Trichur\***, Mohan, Y., Jayakumar, J. and Levichkina, E. (\*University of Melbourne, VIC)

## POSTERS - THURSDAY 30 JANUARY 2013

### **POS-THU-189      12:30-13:30**

EFFECTS OF PARAFLOCCULUS REMOVAL ON HYPERACTIVITY AFTER ACOUSTIC TRAUMA

<sup>†</sup>**Vogler, Darryl Peter\***, Robertson, D. and Mulders, H. (\*University of Western Australia, WA)

### **POS-THU-190      13:30-14:30**

CHARACTERIZATION OF CALRETININ IMMUNOREACTIVE CELLS IN THE HUMAN RETINA

**Weltzien, Felix\***, Lee, S., Denkaus, C, Martin, P. and Grünert, U. (\*University of Sydney, NSW)

### **POS-THU-191      12:30-13:30**

CONTRIBUTION OF TRPC3 CHANNELS TO BDNF-MEDIATED NEURITOGENESIS IN POSTNATAL MOUSE SPIRAL GANGLION NEURON EXPLANTS

**Wong, Ann Chi Yan\***, Ng, A., Birnbaumer, L. and Housley, G. (\*University of New South Wales, NSW)

### **POS-THU-192      13:30-14:30**

RESPONSE PROPERTIES OF V1 NEURONES IN THE FAR PERIPHERAL REPRESENTATION OF THE VISUAL FIELD

**Yu, Hsin-Hao\***, and Rosa, M. (\*Monash University, VIC)

### **POS-THU-193      12:30-13:30**

STIMULUS ESTIMATES FROM NEURONAL DECODING EXCEED PERCEPTUAL PERFORMANCE

**Zavitz, Elizabeth\***, Haghgoosie, S., Yu, H., Davies, A., Rosa, M. and Price, N. (\*Monash University, VIC)

### **POS-THU-194      13:30-14:30**

BINOCULAR RECEPTIVE FIELDS IN THE MARMOSSET LATERAL GENICULATE NUCLEUS

**Zeater, Natalie\***, Cheon, S., Solomon, S., Dreher, B., Morley, J., Focke, C. and Martin, P. (\*University of Sydney, NSW)