<table>
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<tr>
<th>Time</th>
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<tr>
<td><strong>Sunday 20 September 2015</strong></td>
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<tr>
<td>16.30 – 16:50</td>
<td>Maxi-taxi shuttles from Coogee Bay Hotel to NeuRA</td>
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<tr>
<td>17.00</td>
<td><strong>Welcome:</strong> Peter Schofield, Neuroscience Research Australia</td>
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<td>Chair: Cyndi Shannon Weickert, Neuroscience Research Australia</td>
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<td><strong>Plenary Speaker:</strong> Bita Moghaddam, University of Pittsburgh, USA</td>
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<td>“Futuristic” approaches to preclinical models of brain disorders: focus on prevention and symptoms treatment.</td>
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<tr>
<td>18.00 - 19.00</td>
<td>Light refreshments</td>
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**Monday 21 September 2015**

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>8.00 – 9.00</td>
<td>Enquiry desk manned for talk uploads</td>
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<tr>
<td>9.00 - 9.10</td>
<td><strong>Opening Address:</strong> Vibeke Catts, Neuroscience Research Australia</td>
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<tr>
<td>9.10 - 10.10</td>
<td><strong>Symposium: Sex hormones and their wide-ranging effects on psychopathology</strong></td>
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<td>Chair: Andrea Gogos, Florey Institute of Neuroscience and Mental Health</td>
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<td></td>
<td>Kim Felmingham, University of Tasmania</td>
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<td></td>
<td>The Effect of Progesterone on Visual Encoding and Recall of Threatening Stimuli</td>
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<td>Bronwyn Graham, University of New South Wales</td>
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<td>An across species examination of the influence of estradiol on fear extinction</td>
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<td>Andrea Gogos, Florey Institute of Neuroscience and Mental Health</td>
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<td></td>
<td>Comparing the effects of estradiol and its analogues on drug-induced behavioural phenotypes relevant to schizophrenia</td>
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<td>Tertia Purves-Tyson, Neuroscience Research Australia</td>
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<tr>
<td>10.10 - 10.30</td>
<td><strong>Data Blitz: Synapses and connectivity</strong> (5 minutes each)</td>
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<td>Chair: Lauren Harms, University of Newcastle</td>
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<td>10.10</td>
<td>Adam Walker, Monash Institute of Pharmaceutical Sciences</td>
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<td>Targeting blood-to-brain kynurenine transport to prevent inflammation-induced depression</td>
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<td>10.15</td>
<td>Dean Wright, University of Melbourne</td>
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<td>N-Acetylcysteine mediates psychiatric, motor and molecular dysfunction in Huntington’s disease mice</td>
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<td>10.20</td>
<td>Lena Oestreich, University of New South Wales</td>
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<td>Decreased integrity of the fronto-temporal fibers of the left inferior occipito-frontal fasciculus associated with auditory verbal hallucinations in schizophrenia</td>
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<td>10.25</td>
<td>Thomas Whitford</td>
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<td>Electrophysiological suppression to delayed, self-initiated auditory stimuli in schizotypy: evidence for a ‘continuum of psychosis’</td>
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<td>10.30 - 10.50</td>
<td>Morning tea</td>
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<td>10.50 - 11.50</td>
<td><strong>Symposium: Genetics of neurodevelopmental disorders</strong></td>
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<td>Chair: Irina Voineagu, University of New South Wales</td>
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<td>Jozef Geicz, University of Adelaide</td>
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<td>Protocadherin 19 epilepsy, autism and intellectual disability limited to females</td>
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<td>Charles Claudianos, Monash University</td>
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<td>Molecular characterization of autism spectrum disorders</td>
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<td>Valsamma Eapen, University of New South Wales</td>
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<td>From genes to behaviour - a neurodevelopmental journey in Tourette Syndrome</td>
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<td>John Christodoulou, University of Sydney</td>
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<td>The Genetics of Rett Syndrome - current state of the field</td>
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</table>
11.50 - 12.10  **Data Blitz: Molecular and genetic approaches for psychosis** (5 minutes each)
Chair: David Lloyd, Neuroscience Research Australia
Xiaoying Cui, University of Queensland
*Overexpression of the vitamin receptor in SHS5Y5 promotes dopaminergic neuron differentiation*

Zoltan Sarnyai, James Cook University
*Ketogenic diet normalises schizophrenia-related phenotype in a pharmacological animal model*

12.00  Brian Dean, Florey Institute for Neuroscience and Mental Health
Changes in cortical NMDA receptors and PSD-95 protein in schizophrenia, mood disorders and suicide

12.05  Janice Fullerton, Neuroscience Research Australia
*Differential effects of disease associated ST8SIA2 haplotype on cortical white matter in schizophrenia*

12.10 - 13.10  **Lunch**

13.10 - 14.10  **Early Career Forum: How to build a collaborative network**
Chair: Justine Gatt, Neuroscience Research Australia
Robin Turner, University of New South Wales
*How to describe your statistical analysis in grant applications, and when to get a biostatistician on board as a collaborator*
Peter Schofield, Neuroscience Research Australia
*Constructing your team for your grant application*
Sarah Medland, Queensland Institute of Medical Research
*How to build a collaborative network*

14.10 - 15.10  **Symposium: The neurobiology of cannabis: Relevance to brain disorders**
Chair: Tim Karl, Neuroscience Research Australia
Discussant: Murat Yucel, University of Melbourne
Nathan Gillespie, Virginia Institute for Psychiatry and Behavioural Genetics, USA
*Associations between schizophrenia, psychosis and cannabis use in a large population-based sample of adult twins*
Jonathan Arnold, University of Sydney
*Preclinical studies on the link between cannabis and psychosis: interactions between CBD and THC*
Nadia Solowij, University of Wollongong
*Modulation of hippocampal glutamate and GABA by acute administration of Δ9-tetrahydrocannabinol and cannabidiol in humans*
Tim Karl, Neuroscience Research Australia
*Therapeutic potential of cannabidiol for Alzheimer’s disease*

15.10 - 15.50  **Afternoon tea / BPA Annual General Meeting**

15.50 - 16.50  **6th Aubrey Lewis Award**
Chair: Melissa Green, University of New South Wales
Irina Voineagu, University of New South Wales
*The role of non-coding genomic regions in the genetics of autism spectrum disorders*

16.50 – 17.00  Set-up of poster boards in Seaview room

17.00 – 18.30  **Poster Presentations** (Seaview and Seabreeze rooms)

18.30  Social function in the Arden Lounge, Coogee Bay Hotel

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We would like to thank our Platinum sponsors

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UNSW Australia

Brain Sciences UNSW
Tuesday 22 September 2015

**VENUE:** Coogee Bay Hotel Conference Centre, Corner of Coogee Bay Road and Arden Street, Coogee

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| 9.00 - 10.00  | **Debate:** Biomarkers are useful for prognosis and prediction of treatment response in psychiatry  
Chair: Melissa Green, University of New South Wales  
Debaters: Cyndi Shannon Weickert, Jayashri Kulkarni, John McGrath, Darryl Eyles  |
| 10.00 - 10.30 | **Data Blitz:** Emotion, trauma and fear conditioning (5 minutes each)  
Chair: Divya Metha, University of Queensland  |
| 10.00         | Steven Siegel, University of Pennsylvania  
**Oxytocin reduces amygdala activity, increases social interactions and reduces anxiety-like behaviour**  |
| 10.05         | Thibault Renoir, Florey Institute of Neuroscience and Mental Health  
**Effects of environmental enrichment and exercise in a mouse model of anxiety with cognitive impairment**  |
| 10.10         | Jee Hyun Kim, Florey Institute of Neuroscience and Mental Health  
**Chronic exercise recovers reinstatement of conditioned fear in aging mice**  |
| 10.15         | Anna Watters, University of Sydney  
**Reduced neural reactivity to negative emotion characterises vulnerability for major depression**  |
| 10.20         | Yann Quide, University of New South Wales  
**Effects of childhood trauma on brain function during emotion processing in psychosis**  |
| 10.25         | Belinda Liddell, University of New South Wales  
**Mechanisms underlying emotion processing in survivors of torture: Preliminary fMRI evidence**  |
| 10.30 - 10.50 | Morning tea                                                               |
| 10.50 - 11.50 | **Symposium:** Approaches to understand and target NMDA receptor in biological psychiatry  
Chairs: Cyndi Shannon Weickert, Neuroscience Research Australia & Bita Moghadam, University of Pittsburgh  
Vibeke Catts, Neuroscience Research Australia  
**Evidence for an endogenous deficit in NMDA receptor expression and reduced postsynaptic density NR1 subunit levels in prefrontal cortex of individuals with schizophrenia**  
James Meador-Woodruff, University of Alabama  
**Abnormalities of NMDA receptor expression and trafficking in schizophrenia**  
Lauren Harms, University of Newcastle  
**N-Methyl-D-Aspartate (NMDA) receptor hypofunction and mismatch negativity (MMN): novel insights from animal models**  
Colleen Loo, University of New South Wales  
**Depression symptoms improves with N-Methyl-D-Aspartate (NMDA) receptor blockade (Ketamine)**  |
| 11.50 - 12.20 | **Data Blitz:** Molecular and therapeutic bases of cognition (5 minutes each)  
Chair: Ellen Ji, Neuroscience Research Australia  |
| 11.50         | Zoltan Sarnyai, James Cook University  
**Inhibition of glucose metabolism and ATP synthesis differentially alter behaviour in mice**  |
| 11.55         | Aung Aung Kywe Moe, University of Queensland  
**Risperidone treatment in adolescence alters adult behaviour and gene expression nucleus accumbens**  |
| 12.00         | Kevin Yeung, University of New South Wales  
**Fronto-executive cognitive functioning predicts antidepressant response to tDCS**  |
| 12.05         | Natalie Matosin, University of New South Wales  
**Association of novel genetic variants in GRM5 with schizophrenia, cognition and hippocampal volume**  |
| 12.10         | Ruth Elijah, University of New South Wales  
**Modifying N1 amplitude to self-initiated tones with training: Implications for psychosis**  |
| 12.15         | Kylie Routledge, University of Sydney  
**The shared and unique genetic relationship of wellbeing and cognitive function in healthy twins**  |
| 12.20 - 13.20 | Lunch                                                                      |
3rd Isaac Schweitzer Lecture
Chair: Elizabeth Scarr, University of Melbourne
John McGrath, University of Queensland
Preventing schizophrenia – easier than you think?

Data Blitz: Genetics in psychiatry: From gene regulation to gene expression (5 minutes each)
Chair: Thibault Renoir, Florey Institute of Neuroscience and Mental Health

- John McGrath, University of Queensland
  Upregulation of microRNA biogenesis and the implications for neuronal function

- Juan Olaya, Neuroscience Research Australia
  Schizophrenia-like phenotypes of a novel transgenic mouse model for neuregulin-1 type III

- Joshua Atkins, University of Newcastle
  RNA sequencing reveals disruptions caused by CNVs that influence the neuronal-imprinted domain 15q11

- Chad Bousman, University of Melbourne
  Polygenic plasticity moderates the effects of severe childhood abuse on depressive symptom severity

- Alex Shaw, Neuroscience Research Australia
  Addressing rare variant contributions to the genetic architecture of bipolar disorder

- Divya Metha, University of Queensland
  Lifetime stress accelerates epigenetic aging

Symposium: Fear and the developing brain across species: Insights into early-life vulnerabilities for anxiety
Chair: Kathryn Baker, University of New South Wales,
Discussant: Rick Richardson, University of New South Wales

- Caitlin Cowan, University of New South Wales
  Inheriting gut feelings: Probiotics reduce the multi-generational effects of early stress on infant fear memories

- Kathryn Baker, University of New South Wales
  Impaired fear extinction retention in adolescence: Age at fear learning or age at extinction?

- Sarah Whittle, University of Melbourne
  Early adrenarche is associated with enlarged pituitary gland volume and social anxiety in children

- Mark Dadds, University of New South Wales
  From rats to people; are individual differences in childhood anxiety symptoms associated with epigenetic modulation of the cortisol receptor gene?

Award Presentations: Vibeke Catts, Neuroscience Research Australia

Conference Discussant: Brian Dean, Florey Institute of Neuroscience and Mental Health

Conference Close: Vibeke Catts, Neuroscience Research Australia