



ANS2020 Online

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PROGRAM

2nd June 2020 (12pm Australian EST) : ANS EMCR Webinar

Host: Rebecca San Gil, Queensland Brain Institute, University of Queensland, Brisbane, QLD

Speakers:

- Dr Joanna Yau – Postdoctoral Research Associate, University of New South Wales. The role of basolateral amygdala parvalbumin neurons in aversive prediction error.
- Mr Paul Marshall – Senior PhD Candidate, Queensland Brain Institute, University of Queensland. Dynamic regulation of Z-DNA in the mouse prefrontal cortex is required for fear extinction.
- Dr Iris Wang – Assistant Professor, Shanghai Tech University. New Approaches to Study Axon Injury and Degeneration in Central Nervous System

15th June 12-1:30pm AEST: New insights into the nature of pain mechanisms and potential clinical and translational advances

Chair: Andrew Gundlach

Speakers:

- Greg Neely
- Nicholas Veldhuis
- Irina Vetter

13th July 12-1:30pm AEST: Brain injury in vulnerable populations

Chair: Sandy Shultz

Speakers

- Paul Van Donkelaar & Karen Mason: Exploring Incidence, Consequences, and Supports for Women Survivors of Traumatic Brain Injury in Intimate Partner Violence
- Stuart McDonald: Diagnostic and recovery biomarkers for mild TBI: New insights from athletes and rodents
- Melinda Fitzgerald: Predicting poor outcomes following mild traumatic brain injury

3rd August 2020 (12pm Australian EST): ANS EMCR Webinar

Host: Juliette Cheyne, Centre for Brain Research, University of Auckland, Auckland, NZ

Speakers:

- Dr Eduardo Albornoz Balmaceda, Postdoctoral Research Fellow, University of Queensland, *Peripheral immune contributions to neuroinflammation*
- Mr Simon Maksour, PhD Candidate, Illawarra Health and Medical Research Institute, University of Wollongong, *Expression profiling REST and RCOR genes in neurogenesis using 2D and 3D human pluripotent stem cell models*

- *Dr Yukti Vyas, Postdoctoral Research Fellow, University of Auckland, Influence of maternal high zinc diet on the development of Autism-associated behavioural and synaptic deficits in Shank3-knockout mice*
- *Zhi Yi Ong, Postdoctoral Research Fellow, University of New South Wales, Hindbrain noradrenergic circuits in food intake control*

10th August 2-3:30pm AEST: Brain Development and Regeneration

Chair: Virginie Lam and Nathalie Dehorter

Speakers:

- Professor Zoltán Molnár (University of Oxford): High Fives and Low Fives – molecular, cellular and histological perspectives of cortical neurons during development
- Professor Orly Reiner (Weizmann Institute of Science): Models, Mice and Cortical Malformations
- Dr Saskia Freytag (UWA): Genetic Factors for Cortical Malformations
- Dr Julian Heng (Curtin): What Functional Impact? Towards Precision Diagnosis, Mechanistic Dissection and Human Impact for Cortical Malformations.

14th September 12-1:30pm AEST: Digital approaches to neuroscience education

Co-Chairs: Alison Canty and Kristin Hillman

Speakers:

Prof Charles Watson, University of New South Wales and the University of Queensland

- **Internet-based resources for neuroscience education**

A/Prof Alison Canty, University of Tasmania

- **Moving the classroom online to teach the neuroscience of dementia in video format**

A/Prof Lyndsey Collins-Praino, University of Adelaide

- **Game On! The use of gamification in neuroscience teaching to increase engagement and improve student outcomes.**

Professor Ramesh Rajan, Monash University

- **What does a coherent package of online materials need to have to promote metacognitive self-reliance in learning neuroscience?**

12th October 1-3pm AEST: Molecular insights into neuropsychiatric disorders

Chair: Kai Sempert

Speakers:

- Cecilia Flores - Drugs of abuse in adolescence target the Netrin-1/DCC system to disrupt prefrontal cortex development
- Helen Cooper - Understanding the role of actin-related autism genes in cortical development
- Nathalie Dehorter - Overcoming the Cognitive and Motor Deficits in the Cntnap2 Mouse Model of Autism
- Jozef Gecz - Stop the nonsense: Nonsense-mediated mRNA decay as a cellular 'mRNA policeman' and a fundamental regulator of brain development and function

19th October 2020 (12pm Australian EST): ANS EMCR Webinar

Host: Brenton Hordacre, University of South Australia, Adelaide, SA

Speakers:

- 12.05pm - Dr Cherry Mao, Postdoctoral Research Fellow, Florey Institute of Neuroscience and Mental Health, Modelling of SCN2A encephalopathies using human stem cell-derived neurons
- 12.20pm - Sarah Broome, PhD Candidate, University of Technology Sydney, Targeting neuroinflammation in Parkinson's disease

- 12.30pm - Dr Stephanie Rayner, Postdoctoral Research Fellow, Macquarie University, Rapid, unbiased identification of protein inclusion components from patient post-mortem brain tissue using Biotinylation by Antibody Recognition (BAR)
- 12.45pm - Jessica Moretti, PhD Candidate, Perron Institute for Neurological and Translational Sciences, Concurrent LI-rTMS induces changes in c-fos expression but not behavioural effects during a progressive ratio task with adult ephrin-A2A5^{-/-} mice

9th November 12-1:30pm AEST: Rethinking energy balance - Neural circuits, peptides and mechanisms

Chair: Zhi Yi Ong

- Amber L Alhadeff - Gut signaling engages coordinated homeostatic and reward circuitry
- Chi Kin (Kenny) Ip - Transcriptomic profiling of NPYergic neurons in the central amygdala under chronic stress induced obesity
- Garron Dodd - Intranasal Targeting Hypothalamic PTP1B and TCPTP Reinstates Leptin and Insulin Sensitivity and Promotes Weight Loss in Obesity
- Sarah H Lockie - Targeting central feeding circuits to improve outcomes in cancer cachexia

7th December 2020 (12pm Australian EST): ANS EMCR Webinar

Host: Luke McAlary, Illawarra Health and Medical Research Institute (IHMRI), University of Wollongong, NSW

- Dr Ong Lin Kooi, The impact of cortical stroke beyond motor outcomes: A spatiotemporal analysis of neuronal death, gliosis, accumulation of amyloid- β as well as cognition.
- Dr Anurag Singh, Tumour necrosis factor: a mediator of metaplasticity in healthy and diseased hippocampus
- Dr Gilles Vanwalleghem, Shining a light on the enteric nervous system.
- Bhedita Seewoo, Changes in the white matter microstructure of young male Sprague Dawley rats following chronic restraint stress and following low-intensity rTMS: a diffusion MRI study.
- Nishita Bhembre, Synaptic compensation following oligomeric A β induced-dendritic spine loss.

ANS2020 Conference and AGM

9th December 2020 (10-5:00pm Australian EDST)

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[THE ANS WEBSITE.](#)**

PROGRAM:

10:00-10:15am: **Prof Cliff Abraham and A/Prof Kaylene Young**

ANS President and Conference Executive Chair Welcome Delegates

10:15-10:45am: *Chair – Dr Hamid Sohrabi (ANS Regional Representative for WA)*

Dr Robyn Brown - 2020 A.W Campbell Award Lecture

Title 'Why do we overeat? Unravelling the neural mechanisms underlying maladaptive eating behaviour'

10:45-11:15am: *Chair – Dr Kristin Hillman (ANS Regional Representative for NZ)*

Prof Kay Double - 2020 Nina Kondelos Plenary Lecture

Title: Hiding in plain sight – what does a new pathology mean for Parkinson's disease aetiology?

11:15-12:15pm: *Chair – Dr Ann-Maree Vallence (Chair of ANS2020 Perth LOC)*

Prof Kate Drummond – ANS2020 Eccles Plenary Lecture

Title: Quality of Life in Brain Tumour Patients - Do we understand it and what can we do about it?

12:15-12:45pm: Lunch break / Break-out chats

12:45-1:15pm: *Chair – A/Prof Alison Canty (ANS Regional Representative for Tasmania)*

Dr Philip Ryan – 2019 A.W Campbell Award Lecture

Title: The neurocircuitry of fluid satiation

1:15-1:45pm: *Chair – Dr Nathalie Dehorter (ANS Regional Representative for ACT)*

Prof Erica Fletcher – 2019 Nina Kondelos Plenary Lecture

Title: The role of microglia in regulating retinal homeostasis

1:45-2:30pm: *Chair – Mr Amr Abdeen (ANS Student Representative)*

PhD student 3-minute thesis finalists x 10 Speakers



2:30-3:00pm: Tea break

3:00-5:00pm: *Chair - Prof Thomas Fath (ANS Secretary)*

ANS Annual General Meeting

Announcement of ANS Award recipients

Announcement of 3MT competition winners

A/Prof Jess Nithianantharajah and Dr Tobias Merson

Looking Forward to ANS2021 in Melbourne

Prof Peter Schofield

ANS President's Closing Remarks