

Friday 26th July, 4pm
Wallace Wurth, LG02

A/Prof Lezanne Ooi

(Illawarra Health and Medical Research Institute)

Changes in neuronal excitability and proteostasis in neurodegenerative disease



A/Prof Ooi is an NHMRC Boosting Dementia Research Leadership Fellow. She established her laboratory in the Illawarra Health and Medical Research Institute at the University of Wollongong in 2012. Her research speciality is cellular neuroscience and the regulation of neuronal function in disease. She currently has research projects on Alzheimer's disease, motor neurone disease, vanishing white matter disease and glioblastoma. A/Prof Ooi trained in the UK; she gained a BSc in Biochemistry from the University of York and worked for the pharmaceutical company GlaxoSmithKline in Neuroscience Research. She completed her PhD in a neuroscience and stem cell lab headed by Prof Noel Buckley at the University of Leeds. During her post-doc with Prof Nikita Gamper she developed cellular imaging techniques to assess neuronal function and used electrophysiology and behavioural experiments to understand the control of neuronal excitability. Her lab has generated and characterised >100 induced pluripotent stem cell lines, and her lab uses iPSCs, post mortem tissue and animal models for disease modelling and drug discovery. Since 2012 she has been CI on competitive grants worth \$12M and published 62 papers. She currently has >3300 career citations, h-index 27.

Synopsis: Neurodegenerative diseases are characterised by a selective vulnerability of specific cell populations. The factors that instigate these changes over the course of disease onset and progression are not well understood. We use a combination of induced pluripotent stem cells, mouse models and post mortem tissue to investigate neurodegenerative diseases, in order to improve understanding of why certain cell types are less resistant to stress and aging. This talk will focus on our recent findings uncovering the mechanisms that drive changes in the functional properties of specific neuronal subtypes and their supporting cells and how these alterations lead to specific cell vulnerability in neurodegenerative disease.

All welcome. Drinks and nibbles from 3:30pm, seminar starts at 4pm.

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