

SPECIAL SPEAKER

Australian Regenerative Medicine Institute

ER Stress: Friend or foe in Multiple Sclerosis?

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ABSTRACT

Pathological and physiological processes that trigger increased protein trafficking to membranes or to the extracellular space, or that cause an increased demand for lipid synthesis, often trigger a cellular response known as 'endoplasmic reticulum stress' (ER stress) or the 'unfolded protein response' (UPR). While mounted initially as a protective response, if the stress on the ER remains unresolved, pro-apoptotic signals will dominate. This seminar will summarise and discuss our detection of significantly raised levels of UPR marker proteins and/or transcripts in demyelinated areas within human post-mortem MS tissue and in an EAE model of inflammatory demyelination. More recent data suggesting a possible role for the UPR in the normal differentiation of oligodendrocytes in vitro will also be presented.

BIO

Dr Una FitzGerald is a lecturer in Biomedical Engineering Science, based in the National Centre for Biomedical Engineering Science in the National University of Ireland, Galway. She graduated from NUI Galway with a BE in Industrial Engineering and transferred to the biotech field through completion of a Master's degree in Biotechnology, also at NUI Galway. Following a brief spell in Nochtech Ltd, where she worked on the setting up of a monoclonal antibody production facility in Dublin, Una spent a year in France, working for Sanofi -Elf Bioresearch (Labège), developing serum-free media for suspension culture of IL-2-producing CHO cells. After completing a PhD at the University of Strathclyde (Glasgow) Una spent the next 9 years working as a postdoctoral researcher in Glasgow working in cancer- and neuroscience-related fields. In 2002 she joined Prof. Samali's Apoptosis Research group at NUIG. Since obtaining an academic post in 2006, Una has had her own research group, focusing on multiple sclerosis and neurodegenerative disorders. Her main research theme centres on the endoplasmic stress signalling pathway and its impact on the pathology and repair of neurodegenerative disorders. For more information, view www.ncbes.ie



DATE: 29-11-2016

TIME: 1:30 – 2:30 pm

VENUE: Seminar Room
Level 3
15 Innovation Walk
Monash Clayton