

## School of **Biomedical Sciences**

### 8th International Postgraduate Symposium in Biomedical Sciences

Hosted by the School of Biomedical Sciences and the Faculty of Medicine

#### **Abstract Preparation guidelines**

- 1) **One** abstract per student. Only RHD students are eligible for an oral or poster presentation.
- 2) Submitted as a word document (.doc or .docx). Abstracts are not to be submitted as a PDF.
- 3) Entire document single spaced and use 0 pt spacing before each paragraph, 6 pt spacing after each paragraph with left justification and no paragraph indents.
- 4) Author(s) in upper and lower case, underline presenting author. Last name and initials separated by a space. Use commas only to separate authors, (see example below).
- 5) For multiple affiliations use numbered superscripts.
- 6) Abstract should cover objective, brief method, key findings (or expected findings if the project is underway) and a conclusion.
- 7) Abstract body text no more than 250 words.
- 8) Use the abstract template below to ensure your word document is formatted correctly and follow the instructions above carefully.
- 9) **Please Indicate** "oral preferred" or "poster preferred" note we have limited oral presentations available.

#### Abstract Template Example

DECLINE IN NEUROMUSCULAR SYNAPTIC ADHESION MAY BE ASSOCIATED WITH EARLY MUSCLE WEAKNESS IN PATIENTS SUFFEREING FROM MOTOR NEURON DISEASE

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1. School of Biomedical Sciences, The University of Queensland, Brisbane, Australia. 2. Kenneth G. Jamieson Department of Neurosurgery, Royal Brisbane and Women's Hospital Herston, Brisbane, Australia. 3. Neurology Department, Royal Brisbane & Women's Hospital Herston, Brisbane, Australia. 4. University of Queensland Center for Clinical Research, Herston, Brisbane, Australia. 5. Queensland Brain Institute, The University of Queensland, Brisbane, Australia. 5 Australian Institute for Bioengineering and Nanotechnology, The University of Queensland, Brisbane Australia. Motor neuron disease (MND) is a neurodegenerative disease that involves the degeneration of the neuromuscular junction (NMJ) and the progressive death of upper and lower motor neurons within the central nervous system. Whether there is a primary role for muscle in pathogenesis is controversial. Our preliminary work in MND model mice (SOD1G93A and TDP43Q331K) revealed deficiencies in NMJ adhesion molecules such as the synaptic laminins alpha-4 and -5, prior to muscle weakness and motor neuron death. The aim of this study was to examine the expression and localisation of synaptic laminins alpha-4, -5 and beta-2 at NMJs in asymptomatic leg muscles from early diagnosed MND patients compared to non-MND donors. *Vastus Lateralis* (leg) muscle biopsies from MND (sporadic



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and familial; n = 3-5) patients and non-MND donors (n = 3-5) were obtained and processed for immuno-histology for the expression and localisation of synaptic laminins with respect to postsynaptic acetylcholine receptors (AChRs). Results showed altered localization and decreased expression of laminins alpha-4, -5, and beta-2 at NMJs from MND muscle compared to non-MND muscle. These observations support the idea that declines in NMJ adhesion molecules results in the instability of the NMJ, which turn contributes to the loss of neuromuscular connections in MND. (200 words). **Submission Process:** Abstracts are to be submitted by email as an attachment. In the "Subject" of the email presenting student name and UQ – student number to be provided. No need to insert additional text into the message.

Deadline for abstract submission is Thu 7<sup>th</sup> September 2017. Email abstracts to: <u>ipgsym@uq.edu.au</u>