



Metro North
Hospital and Health Service

Title:

IMAGING & MECHANICAL SUPPORT - NHMRC CRE ACTIONS PhD Scholarship

Institutions:

The Prince Charles Hospital
Griffith University

Type:

Postgraduate Research

Overview:

The International NHMRC Centre of Research Excellence for Advanced Cardio-respiratory Therapies Improving OrgaN Support (CRE ACTIONS) is a collaboration that is unique on a global level, connecting leaders and innovators in Ventricular Assist Device (VAD) and Extra Corporeal Membrane Oxygenation (ECMO) (clinicians, scientists, engineers) and patients to address the spectrum of key challenges associated with the clinical implementation of Mechanical Assist Device (MAD) technologies.

Griffith University is one of the participating institutions within the CRE ACTIONS. The Griffith School of Engineering provides tertiary qualifications to the Engineering profession with programs in several disciplines, including Civil, Mechanical, Electrical and Electronic and Environmental Engineering as well as in Industrial Design.

Scholarship Details:

We are looking for a for a full time PhD candidate to specialize in the area of imaging of ECMO VAD and total artificial hearts.

Successful candidate will receive an NHMRC CRE ACTIONS PhD Scholarship. This will be at the rate of AUD \$22,646.75 per annum, for up to three years.

Role Description:

This role could be filled by a cardiology, intensive care trainee or engineering scientist. They will work closely with clinicians analyzing data from animal studies of mechanical support and patients on mechanical support.

The successful candidate will develop algorithms to determine risk of thrombosis during support with ventricular assist devices. Key areas of interest will be the use of contrast echocardiography, flow in canule of VAD and ECMO imaging. They will also work along developing industry collaboration using pulsatility in VA ECMO. They will also work in imaging and the assessment of weaning/recovery during VA ECMO.

They will have the opportunity to work with world leading clinicians in the field of cardiology, echocardiology, intensive care, cardiac surgery and engineering. They will have access to animal and clinical echo data as well as tectum. If it is a suitable clinical fellow, they will be able to access clinical work either at St Andrew's Intensive Care and or Heart Care Partners in the Wesley. The PhD would have a combination of engineering chapters on to the imaging techniques used and clinical



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chapters (this would include animal and human data). The aim would be that the PhD would translate into improved imaging techniques and facilitate guidelines on optimal imaging strategies in the patient on mechanical support, which is an ever growing field.

The supervisory team would include Assoc. Prof. David Platts, Dr Maithri Siriwardena, Professor Geoff Tansley, Professor John Fraser and Assoc. Prof. Greg Scalia. The research would primarily be performed on site at The Prince Charles Hospital, Brisbane, Australia.

Application Requirement:

All applicants must provide the following documents:

- Submit a cover letter addressing your eligibility and how you meet the requirements of the PhD program
- A curriculum vitae detailing your educational, professional and research experience, in addition to any publications and relevant competencies
- The names and contact details of three academic referees
- Applicants must also fulfil the PhD admission criteria as set by Griffith University, and demonstrate an excellent capacity and potential for research
- Entry requirements can be found on <https://www.griffith.edu.au/research-study>

All Applications to be emailed to:

Professor Geoff Tansley
Professor and Head, Griffith School of Engineering
g.tansley@griffith.edu.au

Please subject your application as: "IMAGING & MECHANICAL SUPPORT - NHMRC CRE ACTIONS PhD Scholarship"

Closing Date: November 10, 2017

Applications close at 5pm on the closing date. All applications must be submitted online.

Further Information:

For further information about this role, please contact Associate Professor David Platts on david.platts@health.qld.gov.au or phone +61 7 3139 4000