

The Critical Care Research Group (CCRG) brings together a diverse team of passionate scientists, engineers and clinical professionals, united by the common goal of improving treatment outcomes for the critically ill.

Headquartered at The Prince Charles Hospital, the largest cardiothoracic hospital in Australia, CCRG realises the huge potential of integrating technology and biology in combating cardiovascular disease. We are focused on improving the understanding and use of technologies to better treat patients via organ transplantation and mechanical assist devices (MAD).

Established in 2004, CCRG continues to grow collaborations with the world's best researchers, creating a silo-free global ecosystem of patients, medicine, engineering, biology, and beyond. It is this ethos of "patient first" that has brought some of the brightest minds to us, allowing us to grow into Australia's largest multidisciplinary research group.

We are currently accepting expressions of interest to join CCRG as our next PhD or Post-Doctorate Research Fellow:

- Contribute to life-changing translational research and make a real impact to the lives of critically ill patients
- Have access state-of-the-art facilities and a streamlined pathway a career in academia and research with world-renowned mentors
- Participate in clinical studies, preclinical trials and work closely with world-leading research institutions

"Choose CCRG if you are highly driven and want to learn from some of the brightest minds in preclinical research."


Dr Shaun Gregory

Senior Research Fellow, Mechanical & Aerospace Engineering
Monash University
Former CCRG Research Fellow



Apply Now





CCRG is headquartered in Brisbane, on the doorstep of the Great Barrier Reef and the world-famous Gold and Sunshine Coasts. A global hub for scientific innovation, mining and resources, technology, education, and cultural attractions, Brisbane is a natural home for research and recreation.



Research presence
in over 60 countries



250+ publications in last 5
years - 20 paper with
>100 citations



Largest
preclinical ICU in the
Southern Hemisphere

Example of possible study themes:

THE USE OF HEVP IN HEART TRANSPLANTS - The Living Heart Project

Revolutionising heart transplantation by researching the use of a novel organ perfusion device and hypothermic ex vivo perfusion (HEVP). The Living Heart project has now progressed to international clinical trials.

PULSATILE EXTRACORPOREAL MEMBRANE OXYGENATION (ECMO)

Work on a prototype ECMO machine to examine the interaction and consequences of various blood flow conditions in a preclinical model of cardiogenic shock. CCRG's ICETlab is home to a world-renowned mock loop.

SHOCK STATES

Develop new models of septic and hemorrhagic shock, and investigate the impact of novel resuscitative fluids, volume expansion and resuscitation therapies on endothelial dysfunction and end-organ injury.

NEW TREATMENT FOR REFRACTORY SEVERE ARDS REQUIRING ECMO

Examine the effect of an innovative therapeutic strategy, in which hydrogen gas is systematically administered through ECMO, for severe ARDS requiring VV-ECMO in a clinically relevant ovine model of sepsis-induced severe ARDS.



CriticalCareResearch



CCRG_Research



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