



Our multi-disciplinary research centre is committed to the quality training in research of a diverse range of health professions.

Our postgraduate supervisors possess expertise in intensive care, burns, trauma, physiotherapy, pharmacology, nutrition, emergency medicine, military medicine, anaesthesia.

BTCCRC Research Themes

Drug dosing in critically ill patients

Research the latest techniques in therapeutic drug monitoring and PK. Critically ill patients often have varying physiological needs to an average patient and require different dosages of antibiotics and drugs, particularly those on renal replacement therapies. We have pioneered research demonstrating that patients in ICU are not receiving enough antibiotics to kill pathogens. We are using microdialysis technology, that permits monitoring of local concentrations of drugs and metabolites in tissue, in an attempt to improve patient outcomes.

Management and outcome of critically ill, trauma, head injury and long stay ICU patients

Be part of an inspiring team investigating the optimal delivery of care through novel procedures. Patients who survive intensive care can often have poor quality of life. Studies are being conducted to increase survival in sepsis, prevent weakness post intensive care, improve the outcome of head injuries and investigate the optimal methods to sedate patients.

Management and outcome of burns patients encompassing prevention, acute injury and long term outcomes

Work alongside researchers of one of the leading Burns Units in Australia. Thermal injury is a devastating injury. As a means of improving the treatment and outcomes of burns patients, BTCCRC has instituted a large number of studies on inhalation injury, management of infection, cardiovascular risk, metabolism and pain management. A newly established skin bank will enable research to proceed in this area.

Anaesthesia

Investigate anaesthetic practices particularly better understanding of upper airway management, assessment of neurotoxicity of ultrasound gels used in regional anaesthesia and research sedation and anaesthesia in ICU using the drug Dexmedetomidine.

Emergency medicine

Join the researchers at the Department of Emergency Medicine at the RBWH one of the busiest in Australia, with over 70,000 attendances per year. The department's clinical research programme focuses on improving outcomes and evaluating new processes for treating patients in ED and includes acute coronary syndrome, transfusion and sepsis.

Trauma medicine

Using novel microsphere techniques, explore the microcirculation in head injury and trauma, the leading causes of death and disability amongst the young, active population in Australia. The RBWH is one of the major trauma centres in Brisbane and admits over 2500 patients per year. Researchers are engaged in research investigating all aspects of trauma from pre-hospital care, to determining the microenvironment dynamics in the wound to longitudinal health outcomes.

Military medicine

Be the first students in the history of BTCCRC to research alongside members of the military. Military research focuses on advancing medical treatment in the armed forces where patients with severe trauma die most commonly due to bleeding. We are investigating resuscitation techniques using various blood products and factors and developing trauma system designs involving UK and US military trauma registries to deliver optimal treatment.



change
your life in an instant



Postgraduate Research

BTCCRC offers unique opportunities for students to work alongside researchers who are leaders in their field, on projects that directly translate to improved patient outcomes.

We also encourage international students to study with us as a means of creating and sustaining collaborative links with overseas institutions.

We offer our students:

- Access to patients in leading quaternary level intensive care, emergency and burns units
- Access to bioanalytical laboratory with the latest HPLC/LCMS equipment
- A large array of clinical research equipment
- Supervision by experienced internationally recognized researchers
- Multidisciplinary seminars
- Funds to attend national or international conferences
- Access to computers and office space

For more information on research higher degree opportunities please contact:

Dr Sia Athanasas
Research Manager
Level 9, UQ Health Sciences Building
Royal Brisbane and Women's Hospital
Brisbane QLD 4029 AUSTRALIA

PhD, MASTER AND HONOURS PROJECTS

To view a full list of research projects on offer, use your smart phone to scan this Code (free apps include i-nigma and Google)



Location:

Our research facilities are located at the UQ/RBWH Herston Campus:

- Intensive Care Unit** Level 4, James Mayne Bldg
- Burns Unit** Level 4, James Mayne Bldg
- Emergency Department** Ground Level, James Mayne Bldg
- Anaesthesia Department** Level 4, Ned Hanlon Bldg
- Bioanalytical Laboratory** Level 7, Block 6



Saving the lives of burns and critically ill patients

Phone: 61 7 3346 4932
Email: btccrc01@uq.edu.au
www.som.uq.edu.au/btccrc

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