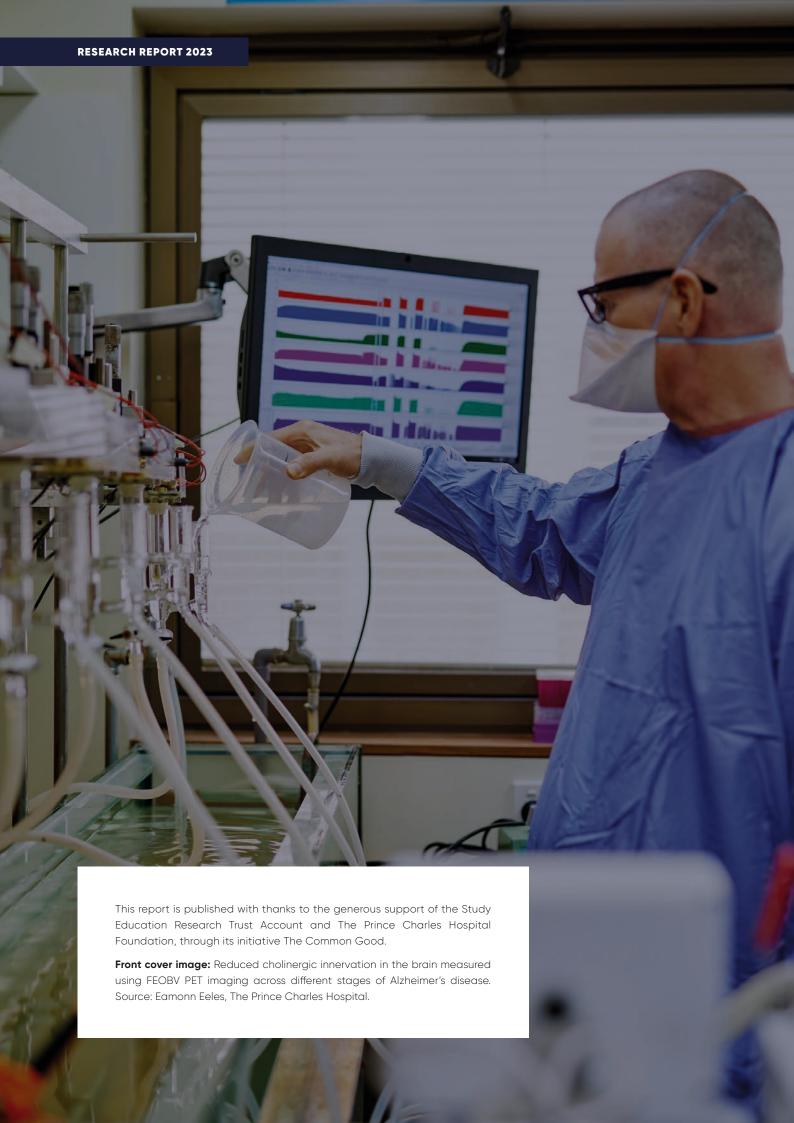


The Prince Charles Hospital

Research Report 2023



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Key Statistics

PHDS AWARDED

- Alana Campbell Mapping the Natural Recovery of Cognition in Acute Stroke Using Serial Computerised Cognitive Assessment.
- Chanika Alahakoon Secondary prevention of diabetic foot disease.
- Lisa Jurak Using Proteomics to understand the mechanisms of asthma exacerbations and how macrolides can reduce exacerbations.
- Martin Hajek Exploring the relationship between trunk extensor morphology and activation with lower back pain and lower limb injury in sport.

Silver Heinsar - An experimental ovine model of cardiogenic shock comparing the effect of pulsatile- to continuous-flow VA-ECMO (A comprehensive Pre-clinical evaluation of Pulsatile-flow VA-ECMO).

MASTERS AWARDED: 1

O HONOURS AWARDED: 5

***** STUDENTS



PUBLICATIONS



259 articles and book chapters

PRESENTATIONS



Australia

Brisbane: 32

Adelaide: 19

Cairns: 6

Canberra: 1

Darwin: 2

Gold Coast: 5

Hobart: 1

Melbourne: 13

Sunshine Coast: 5
Sydney: 5

O TOTAL: 91



International

New Zealand: 17
Austria: 1
Brazil: 1

China: 1

England: 3

France: 2

Hong Kong: 1
Ireland: 2

Italy: 2
Japan: 1

Jordan: 1
Netherlands: 4

Norway: 6
Singapore: 9
South Korea: 2

United States: 6
Virtual: 14

.

€ TOTAL: 59

† OTHER POINTS OF INTEREST

- ★ The Adult and Children's Emergency Research Group is in a capacity-building stage, aiming to embed research as a core business and a natural extension of day-to-day service provision. They had nine active projects in 2023, with another four confirmed to begin in 2024.
- ★ Professor Norman Morris (Allied Health Research Collaborative) published an updated Cochrane review examining the role of exercise training in Pulmonary Hypertension, which was incorporated into the latest International Guidelines.
- ↑ The Nursing Research & Practice Development Centre's pressure injury risk assessment tool for intensive care patients is now available in four languages and is affiliated with the World Federation of Critical Care Nurses.
- ★ The Critical Care Research
 Group presented findings at
 the International Society for
 Heart and Lung Transplantation
 Meeting, demonstrating that
 hypothermic machine perfusion
 can safely keep donated hearts
 alive outside the body for up to
 nine hours. Geographically, this
 is sufficient time to transport a
 donor heart anywhere within
 Australia and between Australia
 and New Zealand.
- The Health Services and
 Outcomes group is addressing
 challenges of suboptimal safety
 and quality of healthcare by
 evaluating the true incidence
 of medication-related SAEs in
 Australia using national data,
 and developing novel and costeffective methods for patient
 safety surveillance and prevention
 of the SAEs using statistical
 approaches and artificial
 intelligence (AI)-driven methods.
- ★ Internal Medicine Services, in collaboration with The Prince Charles Hospital Foundation, unveiled "Charlie's Village" and "Memory Lane" in 2023. Charlie's Village transformed the hospital's specialist dementia care unit's outdoor space to incorporate custombuilt familiar facades such as a hair salon, bakery and café, general store, hotel, and post office. Memory Lane aims to encourage people to mobilise and reminisce in the hospital as they walk and look at old pictures of Brisbane and our community.

\$ ACTIVE GRANTS

- Equipment: \$721,366 (5)
- Project & Program Grants: \$9,954,655 (143)
- Capacity Building Grant: \$102,671 (3)
- TOTAL: \$12,677,676 (246)

- Education Grant: \$22,911 (2)
- Industry Sponsored: \$1,028,627 (72)
- Scholarships & Fellowships: \$847,446 (21)

\$ TCG GRANTS FUNDED

- Equipment: \$1,503,072 (12)
- Project and Program Support: \$1,786,467 (18)
- New Investigator: \$127,180 (13)
- TOTAL: \$4,856,447 (50)

- PhD Scholarships: \$289,728 (3)
- Research Fellowships: \$1,150,000 (4)

Awards

TPCH Staff Excellence Awards

- A/Prof Peter Lazzarini
 Researcher of the Year
- Michael Savage Rising Star of Research
- Hollie Bendotti
 Highly Commended Rising Star
 of Research
- **Prof John Fraser** Research Partnerships Award
- Dr Bishwo Shrestha and Team Improving First Nations Health Award
- **Jenna Stonestreet**Excellence in Performance Award
- CCRG The Living Heart Project Innovation Award
- **Dr Manju Chandrasegaram** Research Support Award
- Dr Sara Winter
 Excellence in Integrated Care
 Award

TPCH Hour of Power Research Presentation Awards

- Dr Jim Crowhurst
 Richard Slaughter Award for Best
 Clinical Presentation
- Margaret Passmore
 Michael Ray Award for Best
 Basic Science/Translational
 Presentation
- Thomas Georgeson
 Paul Zimmerman Award for Best
 New Investigator Presentation
- **Dr Keibun Liu** People's Choice Award

Metro North HHS Research Excellence Awards

- **Professor John Fraser** Researcher of the Year
- Queensland Lung Transplant Service Research Laboratory Discovery and Innovation Award
- Critical Care Research Group Highly Commended, Clinical Research Award
- Thoracic Research Centre
 Research Implementation Award

- **Dr Mahesh Ramanan** Research Support Award
- Hollie Bendotti Finalist, Rising Star Award
- Dr Sara Winter, Dr Tricia Rolls, Dr Irene Szollosi
 Finalists, Consumer Engagement

Award

 Meagan Gough, Kylie Bebel, Sandra Hookins, Amber Jones, Dr Hannah Gullo

Finalists, Innovation Award

Other

- Dr Nchafatso Obonyo
 Science Award, African Forty
 under 40 Award
- Dr Nchafatso Obonyo
 African Professional of the Year,
 African Professionals of Australia
- Dhayananth Kanagarajan
 Best Paper Award, Australian
 Conference on Computational
 Mechanics
- Dr Irene Szollosi

Best Poster in Sleep and Breathing/Other, Australasian Sleep Association

- Dr Sara Winter
 Highly Commended, CAHRLI Local Awards Program
- Trang Dang
 Clinical Trial Prize, Cardiac
 Society of Australia and New
 Zealand
- Lauren Giudicatti
 CSANZ cardiac imaging prize winner, Cardiac Society of Australia and New Zealand
- Dr Eamonn Eeles
 Best oral presentation, European
 Delirium Association
- Prof lan Yang
 Fellow of the European
 Respiratory Society (FERS),
 European Respiratory Society
- Hollie Bendotti

 Faculty of Medicine Researcher
 Development Award, University
 of Queensland

Dr Jack Bell

Adjunct Professor University of Iceland, Fragility Facture Global Congress Norway

Taylor Sing

Asia-Pacific ISMCS Young Investigator Award, International Society for Mechanical Circulatory Support

- A/Prof Peter Lazzarini
 International Rising Star Award,
 International Symposium on the
 Diabetic Foot
- A/Prof Peter Lazzarini
 International Best Publication of past four years, International Symposium on the Diabetic Foot
- Kei Sato
 Best Presenter in Mechanical
 Circulatory Support, Japanese
 Society of Circulation Control in
 Medicine
- Prof Ian Yang
 Lung Health Legend Award, Lung
 Foundation Australia
- Bishwo Shrestha et al.
 Most Outstanding EMCR
 Oral Presentation Award
 (Public Health), Queensland
 Cardiovascular Research
 Network & Heart Foundation
 Australia
- Daniel Sullivan
 Innovation and Sleep Science
 Communication Award, Sleep
 Health Foundation
- Dr Faye Jordan
 2023 Medical Program Teaching Awards, The University of Queensland
- Prof lan Yang
 TSANZ 50th Anniversary Medal for Education and Training,
 Thoracic Society of Australia and New Zealand
- QLTS Research Laboratory
 Finalist, Eureka Prize for Infectious
 Diseases Research, Australian
 Museum Eureka Prizes

Foreword

The commitment to improve outcomes for patients is inspiring.

The Prince Charles Hospital has a proud history of excellence in the delivery of health care, being home to many medical firsts in its 70 years of service to the community. This ability to advance health care practices is supported by research that can be translated into tangible health outcomes for our patients. Productive research requires great commitment and countless hours invested by many people. It is an admirable yet challenging endeavour that takes courage, perseverance and a vision to continually discover and ultimately give others a better quality of life.

In 2023, remarkable milestones were reached, and exciting progress was made across a range of research areas throughout the hospital. These achievements, born from incredible collective efforts, were accomplished while individuals and teams remained responsive to frontline demands. This Research Report proudly showcases some of our research community's most notable accomplishments—many of which are testament to the power of collaboration within the hospital and with universities, institutes, and other hospitals across the nation and the globe.

Allied health professionals were among the hard-working researchers making waves, with Associate Professor Peter Lazzarini recognised as TPCH Researcher of the Year in 2023 for his impactful research into Diabetes Foot Disease and the extent of its burden both nationally and globally, which is shaping care and guidelines. He was also awarded the prestigious 2023 International Rising Star award at the 9th International Symposium on the Diabetic Foot for his work.

At the helm of the Critical Care Research Group is Professor John Fraser, who was named Metro North Health Researcher of the Year 2023. Along with this well-deserved recognition, the group's COVID-19 Critical Care Consortium is now widely regarded as the world's largest

COVID-19 ICU database. Their breakthrough Living Heart Project, which extended the viability of donor hearts for transplant, also received an Innovation Award.

Other achievements across TPCH include the unveiling of "Charlie's Village" and "Memory Lane" by Internal Medicine Services, in collaboration with The Prince Charles Hospital Foundation. Both impactful projects encourage patient mobility and offer something to engage with cognitively.

In 2023, there were five PhDs, one Masters and five Honours awarded. We also recognise and celebrate the accomplishments of all our researchers through the publishing of 259 articles and book chapters.

The Prince Charles Hospital Foundation, through its initiative The Common Good, was proud to support and award 38 research grants, including 2 PhD Scholarships, 2 Research Fellowships, 13 New Investigator Grants and 9 Innovation Grants, in addition to providing over \$1.4M of equipment grant funding.

This year, the Foundation approved additional funding for four areas of identified need under the TPCH Research Ecosystem support program. Through that, an Allied Health Research Collaborative Coordinator was created to enhance TPCH Allied Health research capacity, collaboration, and impact. This initiative also supports a program manager role for the Queensland Lung Transplant Service (QLTS) Research Group.

As we reflect on the achievements of 2023, a deep sense of pride fills us. We are continually inspired by the commitment and determination of this talented group of people and excited by the possibilities of what they can achieve. We are also deeply grateful to the many individuals and organisations who, through their philanthropic contributions, public funding, grants and pro-bono work, find deep fulfilment in contributing to something bigger than themselves. It is this generosity that sustains our vital research and paves the way for life-saving breakthroughs.



Christopher Morton Chair

The Prince Charles Hospital Foundation



Steve Francia
Chief Executive Officer

The Prince Charles
Hospital Foundation



Tami Photinos
Executive Director

The Prince Charles Hospital



A/Prof. Michael Nissan

Director of Research

The Prince Charles Hospital

Adult Congenital Heart Disease Research Group

We aim to explore newer medical, surgical and percutaneous interventions to improve the health outcomes of young adults with congenital heart disease.

HEAD OF THE RESEARCH GROUP

Darren Walters

RESEARCH GROUP MEMBERS

- Ryan Maxwell
- Abhinay Challa
- Kylie Burns
- Sylvia Chen
- Wandy Chan
- Yong Wee
- Lauren Giudicatti
- Vish Wijesekera

2023 SNAPSHOT

★ Members: 9

★ Publications: 5+

MAKING VITAL PROGRESS FOR YOUNG ADULTS WITH CONGENITAL HEART DISEASE

Due to medical advances in previous decades, a greater number of children born with congenital heart disease are now surviving into adulthood. This has led to a very large number of young adults with congenital heart disease making the transition into adult care.

Our research is important as new advances in cardiology are allowing our patients greater access to treatments. For instance, having a percutaneous procedure where traditional surgery was deemed too high risk, or accessing newer medical therapies (like Entresto in systemic right ventricles) that improve cardiac function.

HIGHLIGHTS

In 2023, our projects included the CH Fit Trial 'International prospective randomized registry looking at the impact of exercise in patients with congenital heart disease', as well as the F Fit Trial, which explored exercise training in patients with Fontan circulation. These trials established the importance of exercise training in patients with congenital heart disease.

The results of our work have changed practice in many respects, including rationalising follow-up of patients with Fontan circuits, and the equivalence of Aspirin and Warfarin in preventing Fontan thrombus.

Our research into Entresto in systemic right ventricles produced results indicating the use of Entresto in patients with systemic right ventricles might have benefits with symptoms and right ventricular function.

Notably, the group contributed to multiple significant publications from the ANZ Fontan Registry, and completed a review of outcomes of cardiac transplantation in adults with congenital heart disease in QLD 2019-2023.

COLLABORATORS

The ACHD research group collaborated on publications with the Hepatology Group at TPCH.

"

During 2023, transplant data provided valuable insight for the heart failure service to benchmark against international standards and guide patient selection and counselling prior to transplant.

Adult's, Children's and Emergency Research Group (ACER)

With the goal of ensuring research becomes part of The Prince Charles Hospital's core business, this collaborative group prioritises staff engagement with research across a range of disciplines.

HEAD OF THE RESEARCH GROUP

• Dr Faye Jordan

RESEARCH GROUP MEMBERS

- Louise Mills
- Dr Alastair Newton
- Dr Andrew Spiller
- Dr Andrew Nicholson
- Eleanor Anderson
- Dr Joe Passantino
- Dr Gavin Fincher
- Joshua Wilcox
- Sarah Hazelwood
- Dr Neil Grant
- Prof Paul Fulbrook
- Dr Polash Adhikari
- Rachael McCall
- Dr Rajeev Jaragula
- Dr Rose Fahy
- Dr Jess Rerden
- Dr Jess Cassiello
- Dr Tigue Tozer
- Dr Tony Legassick
- Dr William See
- Dr David Elliott
- Dr Rajeev Jarugula
- Virginia Blakely
- Louise Spooner-Jackson
- Andrea Hetherington

- Leisa Bauer
- Meenu Wadhwa
- Dr Ben Symon
- Dr Angela Berkhout
- Dr Andrew Holgate
- Sheree Rablin
- Dr Ryan Windish
- Dr Alison Fifoot
- Dr Melanie Rule
- Dr Andrew Doolan
- Dr Su Ann Yap
- Dr Stephen Fahy
- Dr James Harris
- Dr Peter Stevenson
- Dr Linda Symington
- Dr Charles Orr
- Dr Sanjana Sharma
- Nicole Kelly
- Skye Drysdale
- Dr Tony LeGassick
- Liselle Lumb
- Jennifer Thomes
- Richard Anderson
- Dr Visai
 Muruganandah

Affiliations with TPCH interdepartmental staff: Lauren Atkins, Dr Wandy Chan, Dr Isuri Ranasingher, Dr Maryam Bayat, Dr Kirin Shekar, Barbara Zangerl, Dr Phil Masel, Dr Ian Yang, Dr Stephen Parker, Dr Sarah Steele, Dr Debbie

Lee, Dr Eamonn Eeles, Dr Sarah Fox, Dr Chrys Ranjeev Pulle, Dr Deepak Darshan, Dr Lucy Dakin, Dr Alisa Crouch, Dr Jack Bell, Dr Hannah Gullo and Amber Jones.

2023 SNAPSHOT

★ Members: 50+★ Publications: 10+

★ Ongoing Active projects: 6

★ Projects completed: 3

VITAL, COLLABORATIVE RESEARCH

Clinically relevant and practice-changing research is vital. Without it, we would not be able to deliver excellent, evidence-based clinical care to our patients.

To ensure research becomes a natural extension of day-to-day service provision at The Prince Charles Hospital, our research group is in a capacity-building phase. A truly multidisciplinary group, we pursue collaborations between departments and other health facilities that help us provide the very best treatments and patient care. Within the Emergency Department, our key research focus groups are paediatrics, geriatrics, cardiology, mental health and respiratory cohorts.



It is of utmost importance that research remains integral to our core business so we can continue to deliver patient care that is excellent and evidence based.

HIGHLIGHTS

In 2023, we had nine projects underway in the Emergency Department across both GED and CED. Each of these trials has served to inform evidence-based practice. For example, a collaborative study with the Heart Failure team, the 'Streamlined Pathway for Acute Heart Failure (SPAHF)' initiative has resulted in improved patient outcomes with reduced LOS for patients enrolled on the pathway within Emergency.

During the year, our team was awarded several grants, including a 'Capacity Building Grant' from the Emergency Medicine Foundation to fund secondments for Clinical Research Nurses and a 'Major Innovation Grant' for our project 'Predicting mental health-related emergency department re-presentations and subsequent hospitalisation: Logistic regression modelling of representation within 48 hours, 7-days, and 28-days.'

Advanced Heart Failure Group

The overall aim of our research program is to improve the quality of care for patients with heart failure at every stage of their journey, from diagnosis to treatment.

HEAD OF THE RESEARCH GROUP

Dr Scott McKenzie

RESEARCH GROUP MEMBERS

- Dr Wandy Chan
- Dr George Javorsky
- Dr Maryam Bayat
- Lauren Atkins
- Haunnah Rheault
- Maricel Roxas
- Estelle Beevors
- Kathryn Stibijl
- Sandra Phillips
- Helen Seale
- Michelle Byard
- Airlie Hogan

2023 SNAPSHOT

★ Members: 12

🛊 Clinical Trials and Studies: 4 +

* Awards/Grants: 1 award; 1 grant

★ Media mentions: 2

RESEARCH ADDRESSING A GLOBAL HEALTH CRISIS

Heart failure is a major global health crisis with high associated morbidity and mortality. As one of the most common causes of hospitalisation and re-hospitalisation, heart failure poses a threat to a person's survival and quality of life and places a significant financial burden on our society.

In this global landscape, there is an urgent clinical need to improve the diagnosis and treatment of heart failure. Our research looks at pathways to improve heart failure management, including ways to improve diagnosis and strategies to prevent hospitalisation, with the aim of benefiting both patients and society at large.

HIGHLIGHTS

This year, our group undertook four key research projects, including 'Development of 'cardiac-specific cell-free DNA quantitation in blood' as a highly sensitive biomarker

to detect heart failure patients most at risk of rehospitalisation', a project we're working on in conjunction with CVMT and CCRG to explore cs-cfDNA as a potential prognostic marker in heart failure.

This year, we completed our 'Urinary Sodium (UNa)' pilot study, with results presented at ESC-HF 2023 in Prague in the form of a moderated poster by group member Dr Maryam Bayat.

Work also continued on the SPAHF study, with promising results suggesting that the introduction of an acute heart failure pathway could reduce patient time spent in the Emergency Department. However, it must be noted that the overall uptake of the pathway remained low, and further research is required to assess its true impact.

Preliminary results of the study were presented in TPCH's 'Charlie's Week 3MT' and as an oral abstract at the 2023 ACEM in Canberra, where they were well received by audiences.

A retrospective component of the study was also published in 'Emergency Medicine Australasia' during the year, filling the gap in the literature on contemporary management of heart failure in the Emergency Department in Australia.

In collaboration with Cardiology Clinical Research Centre, Dr. McKenzie is the National Lead Investigator for a pivotal phase 3 drug clinical trial in adults with chronic heart failure with reduced ejection fraction and Principal Investigator in 12 other commercially sponsored international Phase 2 and 3 drug and device clinical trials. This is the largest heart failure clinical trials centre in Australia.

Finally, we'd like to congratulate our PhD candidate, Miss Trang Dang, who, under the co-advisory support of Dr Wandy Chan, won the CSANZ 2023 'Clinical Trial Prize' for the study 'Potentially preventable health care costs associated with unplanned 30-day readmissions following hospitalisation for heart failure'. This research provided important insights into costly unplanned readmissions that were potentially preventable.



Our collaboration with TPCH's Emergency Department was significantly strengthened through SPAHF and Urinary Na Randomised Control Trial and will continue over the next 12 months.

Allied Health Research Collaborative (AHRC)

Our aim is to be an internationally recognised Allied Health Research Unit that reduces hospitalisation and improves quality of life for patients.

HEAD OF THE RESEARCH GROUP

• Professor Norman Morris

RESEARCH LEADS

- A/Prof Jack Bell
- Dr Glenn Stewart
- A/Prof Peter Lazzarini
- Dr. James Walsh
- Dr Hannah Gullo

2023 SNAPSHOT

- ★ Members: 6+
- * Awards: 7 wins, 5+ finalists
- ★ Publications: 40+ peer-reviewed manuscripts
- Research students (PhD & Masters) supervised: 30+
- 🖈 Research degrees (PhD & Masters) awarded: 4

Dr Michelle Cottrell and Dr Sara Winter have been appointed as AHRC's new research coordinators. Bringing a wealth of knowledge, they'll help further build our research capacity and collaborations across disciplines and services, and expand AHRC's team into the year ahead.

RESEARCH ENABLING HAPPIER, HEALTHIER LIVES

The overarching aim of our research is to enable people to live healthy, happy and productive lives away from the hospital setting.

To achieve this, our group brings together clinicians from Allied Health, Medicine and Nursing to implement evidence-based research practice. This research is directed at improving both hospital-based and long-term care outcomes.

Our work specifically focuses on improving outcomes for people attending TPCH, while also translating these outcomes to patients both nationally and internationally.

HIGHLIGHTS

During 2023, researchers from our group published over 40 peer-reviewed manuscripts, and were chief investigators on grants that administered over \$1.3M in funding.

The group led projects across a range of clinical settings at TPCH and across the world. This included a program undertaken by A/Prof Jack Bell that focused on the implementation of interdisciplinary nutritional care across a range of clinical settings, as well as a program of research led by Dr Hannah Gullo, examining neurorehabilitation with research themes in cognitive rehabilitation and technology-enhanced care and telehealth.

Several members of the AHRC and TPCH allied health team were recognised in 2023 for their outstanding research contributions, including A/Prof Peter Lazzarini, who was named 'Researcher of the Year' at the TPCH Staff Awards, while Dr Sara Winter received the 'Excellence in Integrated Care' award and Jenna Stonestreet received the 'Excellence in Performance' award.

AHRC members also received well-deserved international recognition, including A/Prof Prof Jack Bell, who was recognised as an adjunct Professor from the University of Iceland, and A/Prof Peter Lazzarini who received both the 'International Rising Star' and the 'Best Publication in the Past 4 Years' awards at the International Symposium on Diabetic Foot.

We congratulate all the award winners and finalists in our group whose transformational work has been celebrated this year.



The work our research group undertakes affects the quality of life of all patients who attend not only TPCH but hospitals in Queensland, Australia and globally.

Anaesthesia Research Group

Our group encourages multidisciplinary, multi-site collaborative projects with a holistic view of perioperative management, resulting in better long-term outcomes for patients undergoing surgery.

HEAD OF THE RESEARCH GROUP

• Dr Usha Gurunathan

RESEARCH GROUP MEMBERS

- A/Prof Ivan Rapchuk
- A/Prof Daniel Mullany
- A/Prof Jonathan Fanning
- Dr Jonathan Mattiske
- Dr Angus Low
- Dr Lenore van der Merwe
- Dr Thar Lwin
- Dr Sonia Vaughn
- Dr Sophie Jayamaha
- Dr Christopher Stonell

2023 SNAPSHOT

- ★ Members: 14+
- ★ Clinical Trials and Studies: 5+
- ★ Awards/Grants: 3
- **★ Publications:** 18



FILLING THE KNOWLEDGE GAPS

The group's research topics address unexplored areas and investigate knowledge gaps in perioperative care. Our goal is to reduce the number of complications, hospital stays and hospital readmissions, thereby reducing the medical and economic burden of healthcare.

HIGHLIGHTS

Of our group's 18 publications in 2023, work was featured in journals such as the 'Journal of Cancer Research and Clinical Oncology' and the 'Canadian Journal of Anesthesia'.

There were several presentations made around Australia and internationally, including Dr Usha Gurunathan's 'A good beginning makes a good ending: Role of prehabilitation in cardiac surgery' delivered at the '2023 World Critical Care & Anesthesiology Conference' in Singapore.

During the year, our group undertook many projects. These included the analysis of the 'Queensland Difficult Airway Alert Project,' which is being led by group member Dr Jane Elms. Dr Usha Gurunathan is leading several projects examining the epidemiology, pharmacology, and preventative strategies for thromboembolic complications after major lower limb orthopaedic surgery.

Work on projects related to the assessment and optimisation of anaemia prior to cardiac surgery has continued during 2023, and group member Dr Rapchuk is involved in inter-hospital collaborative projects investigating antibiotic prophylaxis in cardiac surgery and the impact of COVID-19 on the anaesthetic workforce.

We're also delighted to welcome Associate Professor Jonathan Fanning to our group. Jonathan brings an impressive academic record and a solid commitment to research to the team.

"

In addition to research projects, we're initiating several low-risk, quality improvement projects to improve the safety and efficiency of patient care and patient satisfaction with anaesthetic management.

Cardiothoracic Surgery Research Unit

The Cardiothoracic Surgery Research Unit (CTSRU) supports focused interdisciplinary collaborative research projects with the aim of providing leadership in the field of Cardiothoracic Surgery.

HEAD OF THE RESEARCH GROUP

• Currently vacant. (Dr William Foot, Registrar lead)

REGISTRAR LEAD

• Dr Fiona Doig

RESEARCH GROUP MEMBERS

Consultants

- Dr Andrew Clarke
- Dr Homayoun Jalali
- Dr Dong Kang
- Dr Lachlan Marshall
- Dr Rishendran Naidoo
- Dr Anil Prabhu
- Dr Peter Tesar
- Dr Bruce Thompson
- Dr Livia Williams
- Dr Doug Wall
- Dr Morgan Windsor
- Registrars & Clinicians & Support
 - Dr Bishwo Shrestha
 - Dr Vinod Sharma
 - Dr Phillipa Bowers
 - Dr Michael Daley
 - Dr Sophia Tang
 - Dr Lawrence Nair
 - Dr Reza Habibi
 - Dr Samad Raza
 - Dr William Foot

- Dr Natasha Jeenah
- Dr Sigrid Theodore
- Dr Bronwyn Pearse
 (DL D)
- Ms Susan Smith (Clinical Research Coordinator)
- Ms Donalee O'Brien (Research Nurse)

2023 SNAPSHOT

★ Members: 28+

★ Clinical Trials and Studies: 15

★ Awards/Grants: 2+
★ Publications: 26

IMPROVING OUTCOMES FOR OUR PATIENTS

Our patient cohort is increasingly complex, but technologies are constantly evolving in response.

We strive to develop evidence that guides outcome-driven clinical decision-making while implementing new strategies to optimise patient treatment.

HIGHLIGHTS

The highly respected PEARS (Personalised External Aortic Root Support) program at TPCH has changed the landscape of Aortic Surgery, offering a procedure to prospectively reduce risks in type A Aortic dissection. This year, studies continued including investigating the role of 4D MRI.

The Thoracic surgery sub-group is Queensland's largest and provided a major contribution this year with 7 abstracts and 5 articles published, including reporting on development of the ANZ Lung Cancer Clinical Quality Registry, lung specimen bank, and lung cancer surgery outcomes among Indigenous cohorts, inter-jurisdictional differences and the impact of COVID-19 on lung cancer surgery in Queensland.

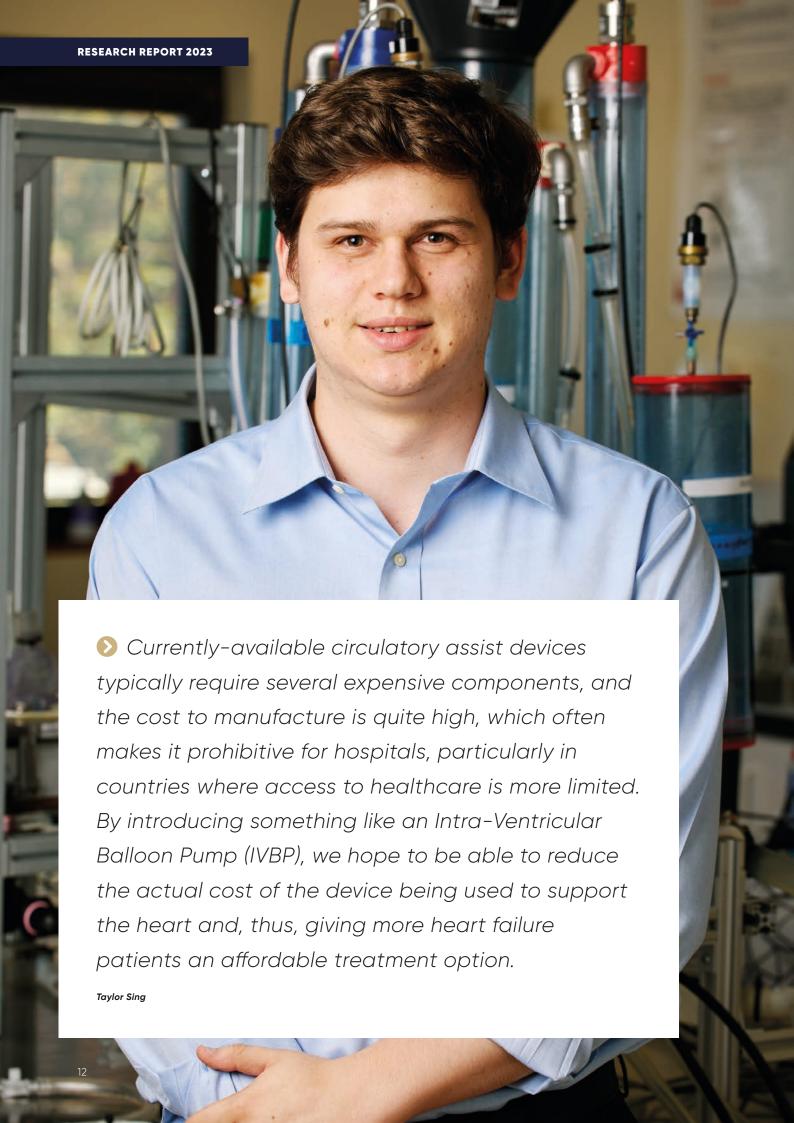
Our Pilot Study 'Rheumatic Fever and Rheumatic Heart Disease; Quantum of Public Awareness as a Tool for Primary Prevention of the disease' received accolades including 'Best Public Health EMCR presentation' at the Queensland Cardiovascular Research Network Showcase. The project team was recognised with a TPCH 'Staff Excellence Award for Indigenous Health Services Improvement', and a grant from TPCH Foundation.

Other projects included clinical trials aimed at optimising the application of known therapies, and collaborations with the Physiotherapy and Anaesthetics departments and Infectious Diseases Services.

In all, 26 publications were produced, including 'Determining sex-specific preoperative haemoglobin levels associated with intraoperative red blood cell transfusion in cardiac surgery: a retrospective cohort study' in the esteemed 'British Journal of Anesthesia'.



Our highly multidisciplinary and collaborative research projects focus on being clinically relevant to inspire progress and be a catalyst for surgical advances.



≡ FEATURED ARTICLE

Taylor Sing, PhD Candidate, Critical Care Research Group

Durable ventricular assist devices (VADs) are out of reach globally for many patients with severe heart failure, especially in countries with limited access to affordable healthcare. It's a fact that inspired PhD Candidate Taylor Sing to develop a cheaper and more effective alternative.

Taylor, who received a PhD scholarship in 2020 from The Prince Charles Hospital Foundation, has spent the past several years with the Critical Care Research Group's ICETlab developing and testing the efficacy of a cardiac assist device called an Intra-Ventricular Balloon Pump (IVBP). A prototype is being tested in the hopes that the technology could one day provide a low-cost option for short-term circulatory support for patients either waiting for a heart transplant or as they recover naturally.

"We are innovating from a previous balloon pump the Intra-Aortic Balloon Pump - but by putting a device into the ventricle, we anticipate that you'd be able to get a greater increase in cardiac flow and pressure to be able to better support heart failure patients and restore some element of quality of life. This effectively buys the patients time as clinicians try to determine whether a transplant is needed or a more durable, long-term support device. We hope to develop a device that will last up to three months. That's the timeline we are envisioning."

In 2023, Taylor worked on redesigning the IVBP prototype based on the results of a previous preclinical study. This revamp included updating the device's shape and changing the material from silicone to polyurethane which has proved more resilient. The recent work has also focused on improving the implantation method to reduce the risk of catastrophic bleeding.

"We'd conducted an implantation that was less successful, resulting in the balloon tearing. As a result, we decided to redesign the balloon and implantation mechanism to reduce the chances of developing tears," he explained.

Taylor describes 2023 as a year of significant progress for his PhD, particularly in two major areas. Firstly, progress was made with implanting the redesigned balloon pump into a large preclinical model.

"The heart was closed around the ballon, with the sheep stabilising post-insertion and no evidence of mitral valve interaction, arrhythmia or thrombosis. Six hours of support was provided to the animal, demonstrating an increase in cardiac output and pressure."

The second area of significant progress was in conducting blood compatibility studies, which sought to understand whether the balloon pump would induce more blood damage than you would see in a standard heart failure patient and, if so, how much more, and would this be an issue when implanting the device into a patient.

"We developed a pulsatile mock circulatory loop capable of conducting haemocompatibility tests using a single donation of human blood and tested this as part of the study. We managed to showcase that the balloon pump could increase the amount of support to the heart and that the increase in blood damage was proportional to an increase in flow, meaning that the balloon itself does not damage the blood," he said.

Taylor presented his research at the International Society for Mechanical Circulatory Support conference in Dallas at the end of October, where he received the prestigious 2023 Asia Pacific Young Investigator Award for this work – In–vitro haemolysis evaluation of a prototype intra–ventricular balloon pump as short-term mechanical circulatory support.

"It was a massive shock originally; I never anticipated it, but I am incredibly thankful. It felt like real validation of the work I've been doing and that my work was being recognised at an international level," he said.

"I look back on 2023, and I think it's a communal effort. I'm very, very proud, not just of the work that I've done, but of the work of the people around me, from the ICETLab and right across CCRG, The Common Good and everyone else in the TPCH community."

Cardiology Clinical Research Centre (CCRC)

CCRC is the hub of all research activities within the Cardiology Department of TPCH. Our collaborative team of cardiac research experts contribute to the global knowledge bank and rapid evolution of technology that's improving longevity and quality of life for cardiac patients across the world.

HEAD OF THE RESEARCH GROUP

• Medical Lead: Professor Darren Walters

RESEARCH GROUP MEMBERS

Investigators

- Associate Professor Haris Haggani
- Associate Professor Isuru Ranasinghe
- Dr Scott McKenzie
- Dr Russell Denman
- Professor Gregory Scalia
- Dr Niranjan Gaikwad
- Dr Karl Poon

- Dr Dale Murdoch
- Dr Rustem Dautov
- Dr Robert Horvath
- Dr Maryam Bayat
- Dr Su Hnin Hlaing
- Dr Naim Mridha
- Dr Abhinay Challa
- Haunnah Rheault

Nurse Manager

Maricel Roxas

Clinical Research Coordinators

- Estelle Beevors
- Bo Janoschka
- Megan Mearns
- Irena Rymar
- Suzanne Spencer
- Kathryn Stibijl
- Sandra Phillips

Administration Officers

• Bernice Enever

• Gabrielle Regazolli

2023 SNAPSHOT

★ Members: 26+

★ Clinical Trials and Studies: 50+

* Awards/Grants: 2 awards

WORLD-LEADING RESEARCH

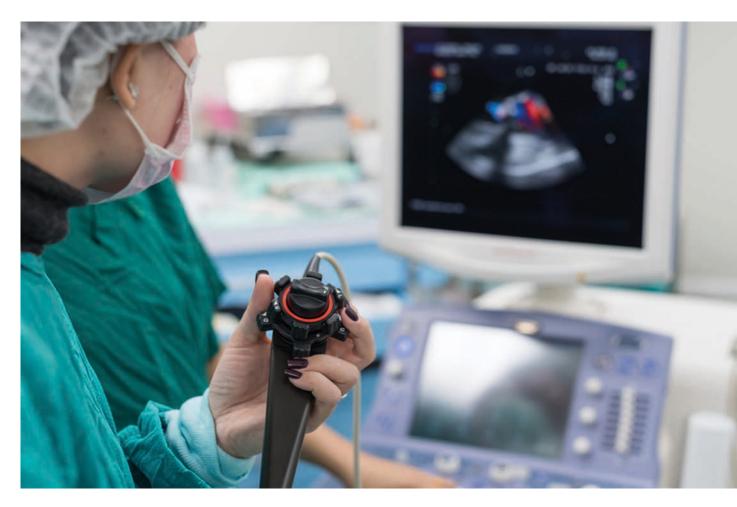
CCRC is one of the largest cardiology research centres in Australia. The centre leads the way in the coordination and conduct of international multi-centre clinical trials and investigator-initiated research.

Our centre focuses on six key areas:

- Interventional Cardiology: Our interventional cardiology researchers focus on leading-edge, first-in-man Transcatheter Aortic Valve Implantation (TAVI), Transcatheter Mitral Valve, Tricuspid Valve and Mitral Clip Implantation, InterAtrial Shunt device and Percutaneous Coronary Intervention Stent clinical trials. These important trials have paved the way for several devices to be approved by the FDA and TGA for commercial use as part of standardof-care procedures.
- Heart Failure: Our heart failure research program aims to improve the quality of care for patients with heart failure, from diagnosis through treatment including home monitoring devices.
- Infective Endocarditis: Our 'Infective Endocarditis
 Registry and Biobank' is the first of its kind in
 Australia and will lead to a broad spectrum of future
 discoveries.
- Hyperlipidemia, Cardiovascular Disease: Our research in this area aims to support clinical trials of novel lipid-lowering therapies to minimise the risk of cardiovascular disease and prevention of rehospitalisation, morbidity (heart attack and stroke) and mortality.
- EP: Electrophysiologists in our group study the mechanisms of various heart rhythm disturbances with the aim of developing new treatments for these conditions including first-in-man device trials.
- Echocardiography: The CATHARSIS Program is the world's largest echocardiography comparative study.

HIGHLIGHTS

In 2023, the CCRC undertook 18 device trials, 15 drug trials, further development of the Infective Endocarditis Biobank, along with several local and international investigator-led research projects investigating diagnostics, and research projects examining clinical remote monitoring devices.



Our research team also maintained a range of Cardiovascular, COVID, Echo, Impella, Transcatheter Aortic Valve Implantation and Mitral Clip registries.

In 2023, the ENCIRCLE Trial achieved a major milestone with the successful implantation of the first two patients in Australia and the Southern Hemisphere. National Coordinating Principal Investigator Dr Dale Murdoch, along with group members Professor Darren Walters, Dr Karl Poon and Dr Christopher Raffel, are involved in the trial, which aims to establish the safety and effectiveness of the SAPIEN M3 (Mitral Valve) System in subjects with Mitral Regurgitation. By the end of 2023, enrolment was completed for this trial, with five patients implanted and all experiencing positive results.



CCRC continues to lead the way in the coordination of cutting-edge, novel and first-in-man cardiology interventional and structural percutaneous device clinical trials and is currently the largest Heart Failure research centre in Australia. CCRC is also proud to provide a platform not only for experienced researchers but also for aspiring and novice researchers, higher-degree students, and postgraduate nursing students.

Cardiovascular and Molecular Therapeutics Translational Research Group

Our group aims to gain a better understanding of the molecular basis of heart disease and dangerous arrhythmias to enable new medicines to be discovered that give better treatment to patients with heart disease.

HEADS OF THE RESEARCH GROUP

• Laboratory Lead: Professor Peter Molenaar

Clinical Lead: Dr Haris HaqqaniClinical Lead: Yee Weng Wong

RESEARCH GROUP MEMBERS

- Dr Wandy Chan
- Dr Kafa Walweel
- Elizabeth Cheesman
- Dr Andrew Battle
- Dr Alexander Dashwood
- Dr Maithri Siriwardena
- Melanie Spratt
- Bianca Monzon
- Maxine Deeb
- Sarah Pham
- Jo Maddicks-Law
- Cassandra Vale

2023 SNAPSHOT

- ★ Members: 14+
- ★ Clinical Trials and Studies: 4+
- ★ Awards/Grants: 2



GIVING GREATER HOPE AND CERTAINTY TO PATIENTS

Our research is vital to provide a more certain life for patients with heart disease.

Currently, patients with heart failure live in fear of having a deadly arrhythmia. Our work will help enable a new class of medicines that target and prevent arrhythmia.

And, as the prevalence of heart failure continues to rise in Australia and around the world- with just 50% of people surviving five years after diagnosis – our research is giving hope to patients and their families by reducing the burden of heart failure and the risk of sudden cardiac death.

HIGHLIGHTS

In 2023, our group undertook a range of projects to increase understanding of heart disease, heart failure, arrhythmias and medicines that prevent and can reverse deadly arrhythmias.

These included a study of a medicine that was previously used to help manage epilepsy. We found that the medicine was very effective in preventing and reversing arrhythmias that occur in patients with heart failure. To improve its efficacy, we established a collaboration to help with the design and synthesis of two new, novel compounds that work at a lower concentration than the original medicines, opening the way for future development as well as improvement of existing medicines.

Other work included creating a model using small samples of human heart to test a novel compound that protects against damage caused by ischemia-reperfusion; investigating optimal use of β -blockers —including coadministration of two β -blockers —in the treatment of heart failure; and collaboration on a program aimed at developing new medicines to treat diabetes and obesity.

Our group also received funding from the 'Sheila & Bernard Joel Life-Saving Medical Equipment Foundation' to procure cutting-edge new equipment to propel our research, while Melanie Spratt was awarded The Common Good's prestigious Research Fellowship.

Our predominantly female research group proudly represents women in STEM

Comparative Echocardiographic and Catheterization Hemodynamics Study (CATHARSIS)

catharsis is the world's largest echocardiography comparative study, with over 300 high-resolution, protocoldriven echocardiograms performed on a broad range of heart patients. To date, the data we've collected has been used to both validate existing procedures and develop new techniques.

HEADS OF THE RESEARCH GROUP

• Professor Gregory M Scalia

RESEARCH GROUP MEMBERS

- Dr David Platts
- Dr Darryl Burstow
- Dr Vinesh Appadurai
- Dr Stephen Tomlinson
- Dr Pyi Naing
- Dr Paul Wiemers
- Dr Krystal Lander
- Dr Natalie Edwards
- Dr Wandy Chan
- Dr Kathy Lau
- Maricel Roxas
- Bo Janoschka

2023 SNAPSHOT

- ★ Members: 13+
- ★ Clinical Trials and Studies: 5+

CUTTING-EDGE RESEARCH TO ANSWER VITAL CLINICAL QUESTIONS

Echocardiography, or cardiac ultrasound, is a non-invasive technique that's widely available in the community.

Thanks to many clever innovations over the last 50 years, echocardiographers have been able to answer a broad range of clinical questions that would have previously required patients to undergo expensive and invasive tests.

Our CATHARSIS program continues to push the envelope to develop new scanning and calculation techniques that will provide answers to even more clinical questions.

Thanks to this research, several innovations developed by our group are already in use daily in echocardiography labs around the world.

HIGHLIGHTS

During 2023, our group undertook novel investigation into two new parameters – left atrial strain, and left ventricular mechanical dispersion.

Left atrial strain is a new technology for assessing atrial function in patients with various forms of heart failure.

Group member Dr Stephen Tomlinson has pioneered the use of this pixel-tracking technology to estimate left atrial pressure and predict heart failure hospitalisations.

In other new projects, Dr Krystal Lander has examined ventricular function recovery after mitral edge-to-edge repair, while Dr Paul Wiemers has conducted research to show that pacemaker-related tricuspid regurgitation is remarkably infrequent.



We congratulate group member Dr Stehen Tomlinson on being awarded his 'Master of Philosophy' at Griffith University

Critical Care Research Group

Driven to improve outcomes for critically ill patients, the CCRG is a world-leader in the field of critical care research and biomedical engineering, with a focus on developing ground-breaking novel technologies.

HEAD OF THE RESEARCH GROUP

 Professor John F Fraser, Metro North Health Researcher of the Year

RESEARCH GROUP MEMBERS

- Abigail King
- Adrian Barnett
- Allison Kearney
- Andrew Haymet
- Angelo Milani
- Anna Madders
- Barbara Zangerl
- Binuri Perera
- Blake Hudson
- Bob Holdsworth
- Bruce Garlick
- Caitlin McGrath
- Carmen Ainola
- Charles McDonald
- Cheng Zhang
- Clayton Semenzin
- Dan Dai
- David McGiffin
- David Platts
- Dhayananth
 Kanagarajan
- Dylan Flaws
- Elise Wickham
- Eric Wu
- Gabriele Fior
- Gabriella Abbate
- Gianluigi Li Bassi
- Hamish Buntain
- Hannah Marrinan

- Hideaki Nonaka
- India Pearse
- Jacky Suen
- Jade Graham
- John Fraser
- Jonathon Fanning
- Kei Sato
- Keibun Lui
- Kieran Hyslop
- Kokoa Fujimaru
- Kota Hoshino
- Kris Skeggs
- Lauren Kelly
- Luke Churchill
- Mahé Bouquet
- Margaret Passmore
- Mia Campbell
- Molly-rose McInerney
- Nchafatso Giyenki
 Obonyo
- Nicole White
- Noriko Sato
- Oystein Tronstad
- Rachana Panduru
- Reema Rachakonda
- Sainath RamanSam Huth
- Samia Farah
- Sarah Macari

- Silver Heinsar
- Simon Forsyth
- Sue Patterson

• Sofia Portatadino

- Taylor Sing
- Viacheslav Bolotnikov
- Yuchen Gao
- Zoe McSweenev
- Zohaib Nadeem

2023 SNAPSHOT

★ Members: 65+

★ Clinical Trials and Studies: 17

★ Publications: 90+

* Awards: 10+

TODAY'S RESEARCH. TOMORROW'S TREATMENTS. DELIVERED TOGETHER.

The Critical Care Research Group's clinician-driven research aims to close gaps in current knowledge to aid clinical decision-making and patient management.

Founded in 2004, the Critical Care Research Group (CCRG) is recognised as Australia's leading multidisciplinary medical research facility. CCRG's aim is to investigate and develop novel technologies and treatments for life threatening conditions including heart failure, respiratory disease and sepsis, and further clinical knowledge of cardiothoracic transplantation.

Over the past two decades, CCRG has emerged as one of the world's leading preclinical research groups. The multidisciplinary team is positioned to advance healthcare innovations from early-stage trials through to clinical implementation.

HIGHLIGHTS

CCRG had an incredibly busy and productive year with more than 66 projects underway, over 90 manuscripts published and numerous outstanding recognitions.

Several of our projects yielded breakthrough findings, including:

'The Living Heart Project'. This year, CCRG's Head
of Cardiothoracic Transplantation Research, Prof
David McGiffin, together with Prof David Kaye
(Alfred Health), presented the findings of the twoyear clinical trial into organ perfusion. Findings



demonstrated that hypothermic machine perfusion can safely keep donated hearts alive outside the body for up to nine hours – more than double the current standard time using ice slush. The project was also named winner of the '2023 TPCH Staff Excellence Awards' and highly commended at the '2023 Metro North Research Excellence Awards'.

'Lung Ultrasound'. Published in a Scoping Review,
this study investigated the use of lung ultrasound
for open-heart surgery patients. The results showed
that lung complications occur frequently for these
patients and increase over the first three days
following surgery. This discovery may facilitate
more targeted, early treatments in this patient
population.

Excitingly, this year, CCRG hosted the first-ever Critical care Research International: Knowledge, Evidence and beYond (CRIKEY) Summit on the Gold Coast. The event saw more than 80 of the world's greatest critical care minds come together in Australia for four days of tours, workshops and panel discussions aimed at building new international research collaborations.



CCRG's COVID-19 Critical Care Consortium is now widely regarded as the world's largest COVID-19 ICU database, lauded by the Journal of the American Medical Association as a quantum shift in the way international research projects should be led.

Critical Care Research Group (CCRG) Innovative Cardiovascular Engineering and Technology Laboratory (ICETLab)

We aim to improve outcomes for patients with heart failure by improving the effectiveness of existing mechanical circulatory support devices, their manufacturing, and our understanding of their application while simultaneously shepherding the innovation of new devices.

HEAD OF THE RESEARCH GROUP

• Prof. John Fraser

RESEARCH GROUP MEMBERS

- Clayton Semenzin
- Taylor Sing
- Dhayananth
 Kanagarajan
- Zoe McSweeney
- Blake Hudson
- Viacheslav Bolotnikov
- Andrew Haymet

2023 SNAPSHOT

- ★ Members: 7+
- ★ Clinical Trials and Studies: 3+
- 🛊 Awards: 2
- ★ Publications: 3+

A VITAL ROLE IN SUPPORTING CRITICALLY ILL PATIENTS

Cardiovascular disease is one of the most significant health problems in Australia and across the globe. It accounts for one in four of all deaths nationally, claiming the life of one person every 12 minutes.

Cardiovascular devices such as artificial hearts, lungs, and valves play an important, often lifesaving role in supporting blood flow in critically ill patients.

HIGHLIGHTS

During 2023, our group worked on three key projects:

Development of an intraventricular balloon pump.

Excellent progress was made on this device which is being developed for the short-term support of patients suffering cardiac failure. In 2023 advances included the development of an in vitro test loop that allowed human blood to be pumped by an artificial pulsatile ventricle, and into which the intraventricular balloon was placed.

Fluid dynamical study of pulsatile ECMO.

Our work on this project in 2023 included a systematic review of pulsatile ECMO, which encompassed in vitro, in vivo, and in silico studies as part of a literature review. The systemic review was written up as a manuscript, which has been accepted for publication by ASAIO journal.

Heart Simulator.

This project looks to develop an artificial beating heart to mimic the native heart and provide a platform for testing and evaluating cardiovascular devices in a realistic scenario. This year's developments included integrating a large touch screen into the custom-built piston-pump controller, allowing for more precise adjustments to replicate different cardiac conditions. Additionally, a full 3D heart model was recreated from CT scans. The 1/3 scale (paediatric) model was 3D printed through Griffith University's ADaPT centre.

The group would like to congratulate two of our CCRG PhD Candidates: Taylor Sing was awarded the Asia-Pacific International Society for Mechanical Circulatory Support 'Young Investigator Award', and Dhayananth Kanagarajan received the 'Best Paper Award' at the Australasian Conference on Computational Mechanics (ACCM 2023).



CCRG's ICETLab is well connected with complementary labs in Australia and around the world, and it draws on computational, in vitro and in vivo facilities to develop mechanical circulatory support devices.

Core Thoracic Research Group

By assessing the evidence behind the diagnosis and management of common thoracic diseases and studying new investigations and therapies, we aim to identify the most effective ways to help our patients.

HEAD OF THE RESEARCH GROUP

• Philip Masel

RESEARCH GROUP MEMBERS

- Daniel Smith
 - n.
- David ReidRekha Hakim
- Ian Yang
- John Cameron
- Elvy Zeng
- Tracy Tse
- Kathleen Hall

2023 SNAPSHOT

- 👚 Members: 9
- ★ Clinical Trials and Studies: 1
- ★ Media mentions: 12

PRIORITISING OUTCOMES FOR PATIENTS

Our group is dedicated to studying new investigations and therapies which may benefit people with diseases such as bronchiectasis, COPD, asthma, pleural effusions and pneumonia.

At the same time, it's vital that we assess the evidence behind the diagnosis and management of common thoracic diseases, maintain up-to-date knowledge and experience in this area, and foster the training of registrars and scientists.

Overall, our research encompasses many aspects of thoracic medicine and has involved all members of the MDT, including occupational therapists, physiotherapists, dietitians, social workers, pharmacists and respiratory trainees. The diverse perspectives of these team members help create innovative projects in this field.

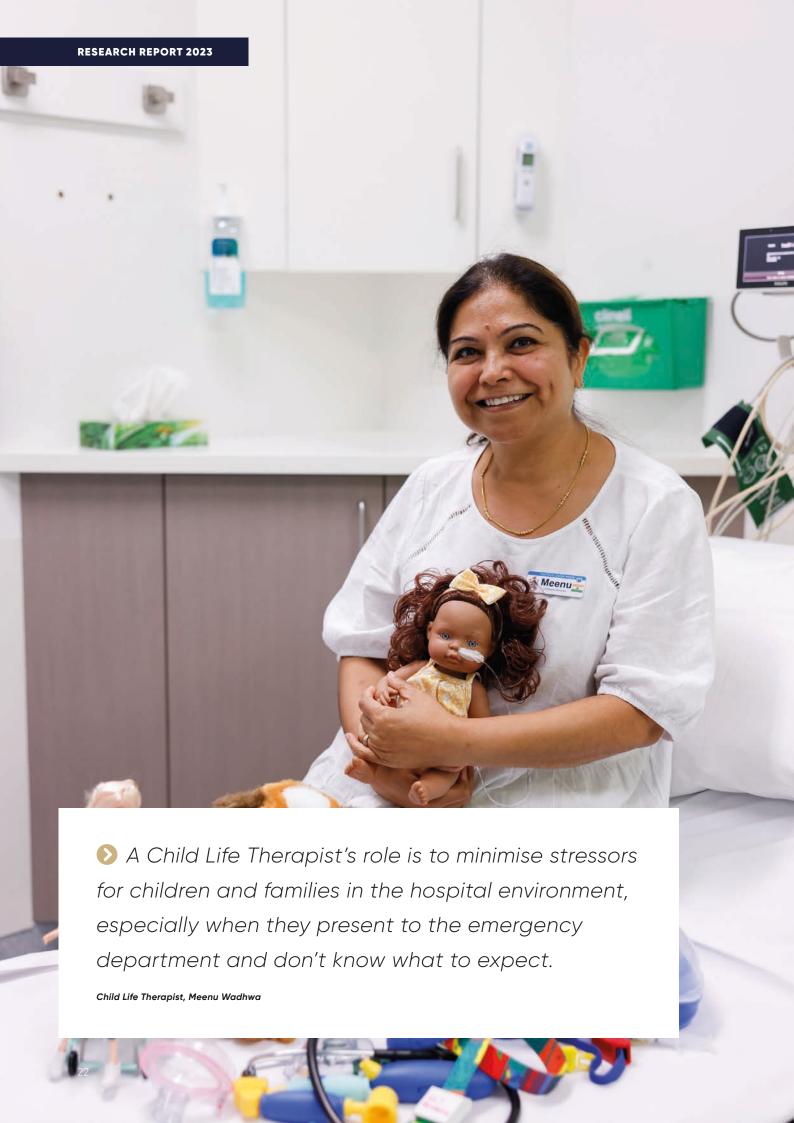
HIGHLIGHTS

In 2023, Dan Smith and a team of investigators undertook the 'Chronic Cough Study'.

The Head of our Research Group, Philip Masel, was appointed as Deputy Convenor of the 'COPD Special Interest Group' and had a busy year chairing several sessions and judging posters at the TSANZ Conference in Christchurch, and presenting talks about asthma, clinical reasoning and small airways disease across New Zealand.

He also appeared on the ABC to discuss asthma management.

The development and rigorous trialling of new therapies will help ensure our patients gain maximum benefit and a better quality of life.



≡ FEATURED ARTICLE

Evaluating the Child Life Therapist Role

For sick or injured children who need hospital care, the pain and illness they're experiencing can be overwhelming – as can the fear of the unknown and the sense of helplessness about not being in control of their treatment and its outcome. But in 2022, an invaluable Child Life Therapist position was created at The Prince Charles Hospital to help alleviate the worries of some of the littlest paediatric patients.

This role was initially a pilot program funded for one year through The Prince Charles Hospital Foundation and its initiative, The Common Good, thanks to the Hospitals United for Sick Kids initiative (formerly Curing Homesickness) and its major partner Coles.

In 2023, the Child Life Therapist became a permanent position within the Children's Services.

Meenu uses play-based interventions including positive distraction techniques to minimise children's fear and anxiety to improve their coping in clinical environments. She helps to prepare children for medical procedures by explaining the process in an age-appropriate way, aiming to empower them by dispelling fears and clarifying any misunderstandings.

"Working closely with families, I collaborate to create coping strategies that provide a sense of control in challenging situations. I use play as a tool to connect with children effectively. Play within the hospital environment fosters a feeling of well-being and safety. The 'felt safety' helps me get through to them (the children) even when they're overly anxious," said the hospital's Child Life Therapist, Meenu Wadhwa.

"My approach is rooted in family-centered traumainformed care principles, recognising that supporting parents is often as vital as preparing the children for procedures. Children's fears may not always revolve around the procedure itself, as demonstrated by a 14-year-old patient who was recently anxious about potential hospital admission following cannulation." In 2023, a study evaluating the potential impacts and benefits of the Child Life Therapist role at The Prince Charles Hospital began. This study is titled: "Exploring the role of child life therapy in emergency: Children's emotional coping, healthcare experience and economic impact".

There are few Child Life Therapist positions around the country, and as such, there is very little literature exploring how they may help to improve patient experience or how the benefits of this ripple to other areas of care, including economic impacts such as whether or not it helps to lower the use of sedation, reduce a patient's length of procedure and stay, and decrease the number of staff needed to carry out procedures.

SPECIFICALLY, THIS STUDY SEEKS TO ANSWER FOUR QUESTIONS:

- Does use of sedation, staff time and the number of staff involved in the procedure differ between children receiving and not receiving child life therapy while undergoing closure of laceration and cannulation procedures?
- 2. Do children's emotional coping and pain differ depending on whether they are receiving child life therapy or not during closure of laceration and cannulation procedures?
- 3. What are children's and their parents/guardians' experiences of the Child Life Therapist role during their stay in children's emergency?
- 4. What are the multi-disciplinary team's perceptions of the role and impact of Child Life Therapists in children's emergency?

Several methods are being used to collect the data, including a questionnaire that parents/guardians fill out immediately after a procedure. If able, children also provide feedback about their experience, including telling their treating doctor or nurse about how worried they felt and rating their pain levels. The children in this study are between 4 and 16 years old who either have a laceration requiring sutures or require cannulation and/ or blood to be drawn.

"Part of the study will also include staff interviews with multi-disciplinary team members who've been exposed to the service for more than a year, providing a qualitative exploration of how it's been going," said Dr Hannah Gullo, one of the study's co-investigators. "I guess the hope is to demonstrate that it is effective and beneficial - and that every hospital should have a Meenu."

Cystic Fibrosis Research Group

Through collaboration and partnership in clinical research, our group aims to improve the health and wellbeing of people living with Cystic Fibrosis (CF) and other associated respiratory conditions.



HEAD OF THE RESEARCH GROUP

Professor Ian Yang

RESEARCH GROUP MEMBERS

- Professor Scott Bell
- Dr Phil Masel
- Dr Paul Lane
- A/Professor David Reid
- Dr Daniel Henderson
- Dr Shanal Kumar
- Dr Ieuan Evans
- Dr Daniel Smith
- Michelle Wood
- Iain Smith
- Felicity Loel
- Vanessa Moore

- Tracy McMahon
- Andrea Lacey

- Angela Matson
- Karen Herd
- Kathleen Hall
- Robyn Cobb
- Jennifer Bingham
- Suzette Fox
- Paul Maplethorpe
- Julieta Castellini
- Dr Graeme Mattison
- Dr George Tay
- Dr Andrew Burke
- · Emma Ledger
- Lisa Jurak
- Amali Fernando

2023 SNAPSHOT

- ★ Members: 29+
- ★ Collaborators: 15+
- ★ Clinical Trials and Research Studies: 10+
- Awards/Grants: 4

RESEARCH TO CLOSE THE GAP

Thanks to ongoing improvements in treatment for CF, people living with the disease are now experiencing better health than ever before. However, their life expectancy remains well below the Australian average.

At the same time, Cystic Fibrosis Transmembrane conductance Regulator (CFTR) modulator therapies are not yet suitable for all people with CF, with around 10% of patients unable to tolerate or access these medications for their genotype.

Our research into areas including novel therapeutics and pioneering cohort studies, alongside our focus on better understanding the impact of infection, inflammation and integration of health technologies into clinical care, will help improve lung health for people with CF, ultimately increasing longevity in patients.

HIGHLIGHTS

In 2023, we undertook 10 diverse, multidisciplinary research projects, including the 'National NTM in CF study', in which we recruited more than 1,200 people with CF who produce sputum and followed up for up to five years. With analysis currently underway, we've already established that the rates of NTM (Nontuberculous Mycobacterial) infection in people with CF nationally are higher than anticipatedespecially in children.

This year, Professor Bell collaborated with national leaders in the management of chronic suppurative lung disease to publish the updated 'Thoracic Society of Australia New Zealand Guidelines for the Management of Bronchiectasis in Children and Adults'; while A/Professor David Reid and collaborators were awarded a 'National Health and Medical Research Council Ideas Grant' to explore how manipulation of iron metabolism in the lung airways may be utilised in the treatment of severe asthma and COPD.

On the global stage, we continue to participate in international pharmaceutical clinical trials developing CFTR modulator therapies, which are transforming the lives of people with CF.



Our group's research is critical to efforts to continue to reduce the health disparity experienced by people living with CF.

Health Services and Outcomes Research Program

Our multidisciplinary group aims to generate research that informs practical clinical and policy strategies to improve cardiovascular health services and patient outcomes.

HEAD OF THE RESEARCH GROUP

• A/Prof Isuru Ranasinghe

RESEARCH GROUP MEMBERS

- Dr Linh Ngo
- Dr Maryam
 Khorramshahi Bayat
- Ms Trang Dang
- Ms Sunnya Khawaja
- Dr Karen Hay
- Dr Yang Peng
- Dr Michelle Tan

2023 SNAPSHOT

- ★ Members: 8
- ★ Trials and Studies: 7+
- * Awards: 1 award, 1 travel grant awarded
- **★ Publications:** 9

WORKING TO IMPROVE PATIENT HEALTHCARE

Our applied research program seeks to evaluate real-world health outcomes of health practices. By studying these outcomes, we can gain valuable insight and identify opportunities to improve patient care through clinical and policy intervention.

In 2023, our group undertook seven important projects, including 'Leveraging Big Data to Inform Nationwide Cardiovascular Health Outcomes' led by A/Prof Isuru Ranasinghe. A National Heart Foundation funded data linkage study, this project brings together millions of healthcare records from more than 1,000 public and private facilities from across Australia and New Zealand. This research allows population-wide assessment of outcomes of hospital-based cardiovascular care so we can better understand how these vary across the many healthcare facilities and regions.

Other projects included: 'Safety, Effectiveness of care and Resource use among Australian Hospitals (SAFER Hospitals)' also led by A/Prof Isuru Ranasinghe; and, 'Medication-Related Severe Adverse Events: Developments of Patient Safety Surveillance and Prevention Strategy Using Real-World National Clinical Data', led by Dr Michelle Tan.

HIGHLIGHTS

In 2023, Dr Linh Ngo successfully completed her PhD, and her paper on long-term outcomes of atrial fibrillation was accepted into the 'European Heart Journal'.

Ms Trang Dang, one of our group's PhD candidates, was awarded the prestigious 'Clinical Trials Prize' at the 2023 Cardiac Society of Australia and New Zealand Annual Scientific meeting in Adelaide. Additionally, her paper 'Hospital costs associated with 30-day unplanned readmissions following hospitalisation for heart failure in Australia' was accepted into the Medical Journal of Australia.

Other highlights included Dr. Maryam Khorramshahi Bayat's presentation of her RCT on 'Evaluating the Role of Urinary Sodium (UNa) - Guided Diuretic Therapy in Acute Heart Failure' at the European Society of Cardiology - Heart Failure (ESC-HF) Congress in Prague. She also received a travel grant to present her research results in Australia.



This year, we welcomed Dr Michelle Tan to our group. Dr Tan, an epidemiologist and health services researcher from the UK, has joined us as a Post Doctoral Research Fellow and will collaborate on our 'SAFER Hospitals' project.

Improving Gastroenterology Outcomes through Clinical Research



Our research group aims to improve the lives of patients living with liver and bowel diseases.

HEAD OF THE RESEARCH GROUP

• Dr Tony Rahman

RESEARCH GROUP MEMBERS

- Dr Ruth Hodgson
- Dr Antony Pan
- Dr Myatt Khaing
- Ann Vandeleur
- Endoscopy Nurses Collaborative
- and our Research Registrars

2023 SNAPSHOT

- ★ Members: 9+
- ★ Trials and Studies: 6
- ★ Awards: Royal College of Physicians 'International Excellence in Patient Care' award

TRANSLATING RESEARCH INTO LIFE-SAVING PATIENT CARE

We conduct clinically-focused research designed to improve care and outcomes for patients with gastrointestinal and liver diseases. We are focused on improving patient access and equity of access by introducing new technologies (scientific or technology-based) to facilitate the modification of inefficient clinical pathways.

Projects undertaken in 2023 include our award-winning 'GEO platform' project that is designed to improve patient education, leading to higher colon cancer and polyp detection; The 'International Multicenter double-blind placebo-controlled trial' that looks at a medication to eliminate clinical hepatic encephalopathy; and 'Cirrhosis and Hepatic Encephalopathy' trials.

This work has helped to: Reduce bowel cancer in our local population by facilitating over 14,000 colonoscopies and improving patient education; cure over 1,000 patients in the community with Hepatitis C who have accessed our novel pathway to receive fast, life-saving treatments from their local doctor; and, improve the lives of patients with hepatic encephalopathy through earlier detection and treatment.

HIGHLIGHTS

In 2023, our GEO education platform was further developed to translate content into five local languages, as well as AUSLAN sign language, making it accessible to more people in our communities. This is a world-first for a patient knowledge-enhancing platform of this type.

Our group has also registered as a "Green Endoscopy Unit", highlighting our commitment to a more sustainable future.



Our research addresses needs that are important to our patients.

Infective Endocarditis Queensland (ieQ)

An initiative of The Prince Charles Hospital (TPCH), ieQ is Australia's first clinical and research collaborative supporting improved outcomes for patients with infective endocarditis.

CO-CHAIRS OF THE RESEARCH GROUP

- Dr Robert Horvath
- Dr Yong Shen Wee

RESEARCH GROUP MEMBERS/EXECUTIVE COMMITTEE

- Dr John Sedgwick
- Dr Alex Chaudhuri
- Dr David Godbolt
- Dr Rishendran Naidoo
- Dr Peter Pohlner
- Dr Al Alghamry
- Dr Joseph Lee
- Professor Greg Scalia
- Professor Isuru Ranasinghe
- Mrs Maricel Roxas
- Bo Janoschka

2023 SNAPSHOT

★ Members: 13+

★ Clinical Trials and Studies: 3+

GAINING NEW INSIGHTS INTO INFECTIVE ENDOCARDITIS

While infective endocarditis is a relatively uncommon condition, it still has a significant impact in our community.

Each year, around 60–80 patients are treated for the disease at TPCH, many of whom undergo openheart surgery.

Sadly, at least 1 in 10 Queenslanders affected by infective endocarditis will die from it, while many survivors suffer severe consequences that affect their quality of life.

Our group is dedicated to improving outcomes for infective endocarditis patients by making advances in

the diagnosis, management and prevention of this littlestudied disease.

To do this, we are working across four key pillars: research (database, biobank, projects and presentations), management (EAT and QFEG), education (website, info sheets, symposia), and collaborations across multiple disciplines, centres, hospitals and states.



HIGHLIGHTS

This year, ieQ undertook projects including an audit of endocarditis at QCH and an Endocarditis Study: 'Host-Pathogen Relationships and Improved Diagnosis in Infective Endocarditis (ieQ Biobank)'.

We are also working on a 'Q Fever Registry', which is in planning with a committee from three Australian states. Importantly, this will serve as a pilot for a planned endocarditis state/national registry.

During 2023, we also conducted 'enhanced testing' for acute Q fever. Initiatives based on this testing resulted in PQ deferring a reduction in Q fever PCR testing. Significantly, this increased the detection of Q fever – especially in hospitalised patients.

In other Q fever initiatives, we focused on perinatal Q fever, with the aim of developing Australia's first guidelines on this topic.

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The unique, multidisciplinary nature of our research group helps break down the barriers that currently exist between disciplines and professions.



≡ FEATURED ARTICLE

TPCH Researcher of the Year, A/Prof Peter Lazzarini

Across the globe, someone loses a leg every 20 seconds because of Diabetes Foot Disease (DFD). While DFD was widely known to be the leading cause of amputations, what is now known is that globally, it is also a leading cause of poor quality of life, disability, and hospitalisations. In fact, DFD accounts for about 2% of the global disease burden.

Associate Professor Peter Lazzarini, a podiatrist who completed his PhD at The Prince Charles Hospital on the burden of DFD in inpatient populations in 2016, was behind much of this new knowledge and has been continually surprised to explore the extent of DFD's disease burden.

"When I first started practising, I was shocked by how many patients with DFD were in different wards having amputations, yet little focus seemed to be on these patients, unlike other diseases with similar or fewer patients. When I alerted managers to the numbers I was seeing, they would ask for evidence of how big the DFD burden was, but unfortunately, at that time, there was no evidence that quantified the DFD problem. This is what led to my PhD," A/Prof Lazzarini said.

In 2023, A/Prof Lazzarini published 15 peer-reviewed papers on DFD. He was the first author of the award-winning paper, A new declaration for feet's sake: Halving the global diabetic foot disease burden from 2% to 1% with next-generation care.

The findings stress that global policymakers should start to provide the same focus on reducing the DFD burden as they do for conditions with similar disease burdens, such as stroke.

For this and other work, A/Prof Lazzarini was awarded the prestigious 2023 International Rising Star award at the 9th International Symposium on the Diabetic Foot for his research to better understand and reduce the burden of DFD globally.

"It was nice to be the first outside of Europe and the US to receive one of these international DFD awards, but more importantly, it really was great recognition of the collective work being done in the DFD field around Australia by literally hundreds of clinicians, researchers and students, that is helping to improve DFD care and research globally," A/Prof Lazzarini said.

While A/Prof Lazzarini's research has focused predominately on quantifying DFD burdens, he has also co-led the development of multiple national and international DFD guidelines to improve clinical outcomes for people with DFD.

In 2023, A/Prof Lazzarini was also the first author of the Australian evidence-based guidelines for the prevention and management of diabetes-related foot disease.

"We adapted the international guidelines to the Australian context with 30 experts around Australia. There were 100 recommendations in the international guidelines, and we came up with 98 recommendations across six guidelines. Now, it's about ensuring they don't sit on shelves and that they are implemented into clinical practice at the end of the day."

A/Prof Lazzarini described DFD as "like a modern-day leprosy hidden in a shoe" due to the inability of people with DFD to feel damage and ulcers on their feet. A large portion of those affected are middle-aged men, a demographic that A/Prof Lazzarini explains is traditionally more challenging to engage to look after their health, and the demographic is getting younger.

"People with DFD have a huge amount of care to carry out monitoring their blood glucose levels regularly, taking medications, seeing their doctors and nurses, and then with their feet, they need to also change dressings, wear moon boots, check for infections, etc. So, we see a lot of treatment burnout in people with DFD," A/Prof Lazzarini said.

In 2023, a feasibility study of the MyFootCare Smartphone App prototype was published by A/Prof Lazzarini and several peers, with thanks to funding from TPCH Foundation. The app helps people with DFD care for their own feet outside of the clinic by allowing them to take "foot selfies" and automatically track the progress of their DFD. It also reminds them of the care tasks needed for their feet.

Internal Medicine & Dementia Research Unit (IMDRU)

Since 1998, our group has undertaken more than 45 international pharmaceutical randomised clinical trials in the hope of finding a cure and a potential new treatment for dementia.

HEADS OF THE RESEARCH GROUP

• Dr Chrys Pulle

RESEARCH GROUP MEMBERS

- Dr Gurudev Kewalram
- Dr Lucy Dakin
- Dr Carolina Ling
- Dr Debbie Lee
- Dr Benignus Logan
- Dr Alisa Crouch
- Dr Eamonn Eeles
- Dr Donna Pinsker
- Ms Margaret Morton
- Ms Maureen Morgan
- Ms Anne Bucetti
- Ms Amy Gilbert

- Ms Laura White
- Ms Robyn Riley
- Mr Andrew Trotter
- Mr Wayne Brady
- Ms Lisa Goldsmith
- Ms Rebecca
 Greenwood
- Ms Caroline Logan
- Ms Natasha Bhan
- Ms Lisa Goldsmith
- Mr Roger Penfound
- Ms Sonia Brocchi

2023 SNAPSHOT

★ Clinical Trials and Studies: 5



UNLOCKING A BETTER FUTURE FOR DEMENTIA PATIENTS

Currently, there is no cure and no available affordable treatment for dementia.

Clinical research is the only way to advance dementia treatment and prevention, and one day find a cure for this insidious disease.

Thanks to the dedication, innovation and commitment of our diverse team of professionals and the assistance of clinical research participants, we will continue to strive for new breakthroughs in this often-challenging area of research.

HIGHLIGHTS

In 2023, our group undertook several pharmaceutical clinical trials to investigate potential new treatments. These included the use of Monoclonal Antibodies and GLP-1 (glucagon-like peptide-1).

Throughout the year, participants and study partners were also involved in the Queensland Art Gallery, Gallery of Modern Art (GOMA) Dementia & Art Project, as well as "Sing Sing Sing", a Dementia Choir which has been very successful.

Clinical trials provide patients who have been diagnosed with Mild Cognitive Impairment or Dementia the opportunity to trial a potential new treatment. At the same time, the research provides clinicians with the opportunity to develop knowledge and improve their understanding of the disease and to benchmark clinical research in the translation of new knowledge of medications and dementia management.

IMDRU is the only unit of its type currently operating in Queensland Health. It has established a reputation for celebrating and validating patient-focused initiatives and engagement, which improves both the patient and study partner's clinical experience.

Internal Medicine Research Committee

We aim to facilitate clinician-driven research within Internal Medicine Services, enabling the ongoing provision of high-quality clinical care to our patients.

HEADS OF THE RESEARCH GROUP

- Dr. Eamonn Eeles
- Dr. Chrys Pulle

RESEARCH GROUP MEMBERS

- Dr. Sarah Lord
- Dr. Lucy Dakin
- Dr. Ling Lan
- Ms. Susan Manion
- Ms. Rachael Williams
- Dr. Jack Bell
- Ms. Margaret Morton
- Ms. Margaret Turner

2023 SNAPSHOT

★ Members: 10+

🛊 Awards/Grants: 1+

★ Publications: 3+

ADVANCING CLINICIAN-DRIVEN RESEARCH

By facilitating clinician-driven research within Internal Medicine Services at TPCH, our research committee has three clear aims.

Firstly, to aid the development of research questions, advice and education regarding implementation. Secondly, to provide oversight and governance of clinician-driven research across Internal Medicine Services. And finally, to assist in the development of researchers and clinicians at different stages of their research careers.

HIGHLIGHTS

It has been a busy year. Across 2023, our advanced trainee mentorship program provided research support for multiple advanced trainees with several projects approved by the Royal Australasian College of Physicians.

Meanwhile, members of our Research Committee and the broader Internal Medicine Services team at TPCH achieved a number of publications in journals, including 'Australian Critical Care', 'Coronary Artery Disease', and 'Delirium Communications'.

We're also delighted to share that Research Committee co-chair Dr Eamonn Eeles received the 'Best Oral Presentation' award at the European Delirium Association Conference in Birmingham (UK) for his presentation: 'Real world implementation of an electronic diagnostic support tool (AID-DST) designed to identify the cause(s) of delirium. A study protocol and work in progress.'

Additionally, Dr Eeles was a finalist for the 'Metro North Researcher of the Year' award and a TPCH 'Hour of Power' finalist for his presentation 'Aetiology in Delirium'.

This year also saw the exciting unveiling of 'Charlie's Village' and 'Memory Lane', a collaboration between The Prince Charles Hospital Foundation and Internal Medicine Services.

'Charlie's Village' is the result of a transformation of the hospital's specialist dementia care unit's outdoor space to incorporate custom-built familiar facades such as a hair salon, bakery and café, general store, hotel, and post office. This is designed to help patients feel more confident and connected while maintaining some independence and mobility during their hospital stay.

'Memory Lane' aims to encourage patients to mobilise and reminisce in the hospital as they walk and look at old pictures of Brisbane and our community. It has been designed as a space where our clinicians and patients' families and friends can support our patients' functional, emotional and physiological care needs as they interact within our hospital environments.

Linked to this, our Research Committee awarded a bursary to a clinician researcher to investigate the efficacy of non-pharmaceutical interventions in improving outcomes for patients exhibiting significant behavioural and psychological symptoms of dementia in the hospital setting.

Looking to the future, in 2023, we formed new collaborations with artificial intelligence leads in the School of Electrical Engineering and Computer Science at the University of Queensland.

Medical Imaging and Richard Slaughter Centre of Excellence Imaging Research Groups

The aim of our research groups is to develop and implement new imaging techniques that continue to improve the efficient use of medical imaging to deliver optimal patient care outcomes.

HEAD OF THE RESEARCH GROUP

• Dr Rachael O'Rourke

RESEARCH GROUP MEMBERS

- Dr Anthony Litzow
- Dr Allan Wesley
- Dr Harsh Kandpal
- Mr Damien Thomas
- Mr Andrew Trotter
- Ms Elizabeth
 Warburton
- Ms Katrina O'Keefe
- Mr Chris Gilmore
- Dr Brendon May
- Dr Nick Brown
- Dr Joseph Lee

2023 SNAPSHOT

- ★ Members: 12
- ★ Clinical Trials and Studies: 12+
- **★ Publications:** 3

THE CHANGING LANDSCAPE OF MEDICAL IMAGING

Imaging is an integral and essential part of the patient care pathway. Now, with the advent of AI, photon-counting CT technology and faster MRI imaging techniques, the door is open to exciting innovations.

At this time, we feel it's vital to develop better, more efficient imaging techniques via translational research to ensure medical imaging remains up-to-date and sustainable, so we can continue to deliver the best outcomes for patients.

HIGHLIGHTS

In 2023, our research groups continued to support clinical areas with projects including:

- **Thoracic Imaging:** 'Australian Lung Screening Trial' (lead imaging site); CT and CXR imaging to support drug investigation trials.
- Cardiovascular Imaging: 4D flow post-PEARS patients; Myocarditis MRI guidelines; Transcatheter percutaneous tricuspid valve replacement.
- Pulmonary Hypertension: Ongoing research and follow-up for chronic thromboembolic pulmonary hypertension (CTEPH) patients undergoing balloon pulmonary angioplasty (BPA) utilising exercise bike MRI imaging and response to drug trials.
- Neurocognitive: Dementia research, including work with our physician colleagues to investigate the results of novel dementia treatment drugs and novel MRI techniques for the identification of Parkinson's.
- **Orthopaedic:** Genicular artery embolisation as bridging treatment to knee replacement.

This research may enable the development and validation of new interventional radiology techniques, drug treatments, improved pathology detection and improved utility of complex imaging.

In 2023, our groups' work was published in various journals, and our 'CTCA Quality Improvement Audit' was presented as a poster at RANZCR ASM in Brisbane.

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Along with projects undertaken by medical imaging team members, many projects across TPCH rely on medical imaging for their research projects to succeed.

Network for Orthopaedic and Fracture Education and Research (NOFEAR)

The aim of NOFEAR is to promote pragmatic clinical research to achieve the best outcomes for Hip Fracture and Orthopedic patients.

JOINT LEADERS OF THE RESEARCH GROUP

- Dr Chrys Pulle
- Adj Prof Jack Bell
- Dr Alisa Crouch
- Dr Simon Perkins
- Dr Catherine McDougall

RESEARCH GROUP MEMBERS

- Prof Ross Crawford
- A/Prof Ivan Rapchuk
- Dr Sophie Jayamaha
- Alex Maltby
- Dr Usha Gurunathan
- Madonna Dalton
- Rebecca Ferrier

2023 SNAPSHOT

- ★ Members: 11+
- ★ Clinical Trials and Studies: Multiple
- * Awards/Grants: 1+
- ★ Publications: 8+

IMPROVING QUALITY OF LIFE FOR FRAIL PATIENTS

Our group is comprised of a diverse range of clinicians involved in the complex care of Hip Fracture and Orthopedic patients. While there is limited scope for randomised trials in this population group, we are able to contribute clinically-based evidence for best practice guidelines.

We focus on supporting benchmarking, implementation and knowledge translation approaches to improve patient and health care outcomes in this unit at TPCH and throughout Australasia.

Since our inception, research outcomes and NOFEAR member advocacy have directly influenced clinically-based evidence for best practice guidelines both in Australia and internationally.

HIGHLIGHTS

In 2023, our group was involved in a broad array of research across all areas of Orthogeriatric Care.

We undertook numerous projects centred around implementing systematised, interdisciplinary nutrition care approaches in Acute Care, Geriatric and Orthogeriatric settings.

A key project led by Jack Bell has been laying the groundwork to translate the SIMPLE Nutrition Pathway and Toolkit into practice across fragility fracture settings globally over the next several years. These works are a direct result of the work initially started here at TPCH, kicked off by a New Investigator Grant funded by the TPCH Foundation.

As co-chair of the Fragility Fracture Network's global Recover Research Special Interest Group, Jack also coedited a BMJ Open Quality supplement entitled 'Fragility Fracture Network: Innovations in Healthcare Improvement'. This work highlights 13 quality improvement initiatives to provide better care for older people experiencing fragility fractures. The work also included a short report introducing a world-first advanced physiotherapy outpatient triaging service, led and first authored by NOFEAR's Rebecca Ferrier.

During the year, another of our NOFEAR members, Stephanie Greer, was accepted to present her 2022 Quality Improvement project, 'Walking a new path: changing the post-operative pathway to optimise dysphagia management in hip fracture' at the 2023 National Allied Health Conference (NAHC) in Perth.

We are proud to say that our clinical research—and translating of research into practice across studies—has demonstrated improved patient and healthcare worker experiences and healthcare outcomes.





≡ FEATURED ARTICLE

Palliative Care: It's More Than They Think

According to the World Health
Organisation, palliative care aims to
"prevent and relieve health-related
suffering" for those with life-limiting
illnesses.

The approach to care is comprehensive and personcentred to address physical, psychological, social and spiritual suffering. Despite the intentions of this care approach, including managing symptoms and improving the quality of life, palliative care is commonly associated solely with end-of-life care.

"There are many reasons why people should come to palliative care sooner rather than later. However, as the general public equates it with care provided immediately before death, this is a massive challenge for us," said A/Prof Stuart Ekberg.

To address this problem and broaden understanding at the patient level, Palliative Care Australia (PCA) released resources called Palliative Care: It's more than you think. However, a group of palliative care specialists believed better support could also be provided for clinicians who are caring for patients with life-limiting illnesses.

Their research involved video recording up to the first three palliative care outpatient consultations to determine if this common patient perception was present. It also analysed how those clinicians inform patients about the benefits of transitioning from solely disease-focused care to both disease-focused care and palliative care earlier.

"Clinicians were explaining what palliative care was to ensure that patients understood that just because we are escalating your palliative care doesn't mean we necessarily think you're going to die; it means we think there are things we can do to improve your quality of life," said A/Prof Stuart Ekberg.

"We noticed patients benefit from having that broader understanding of palliative care explained to them, so the patient isn't left with the anxiety and uncertainty of wondering if they're being referred because they're about to die."

To help clinicians with that messaging during the referral process, the palliative care specialists collaborated with Palliative Care Australia, Queensland University of Technology, Queensland Health and The Prince Charles Hospital Foundation to adapt the Palliative Care: It's more than you think resources to produce supplementary materials targeted to clinicians and called them Palliative Care: It's more than they think.

"We wanted to help clinicians at the coalface of treating advanced progressive diseases to understand the range of explanations they could give to patients and their families about palliative care when referring them," said A/Prof Stuart Ekberg.

"As a foundation, it is our goal to enable people to live healthier for longer, and we are so proud to support the generation of knowledge translation resources that may help healthcare workers better understand palliative care and how it could help their patients earlier in their care journey," said Dr Megan Grace, Research Manager, The Prince Charles Hospital Foundation.

The advice and information contained in the materials is relevant to health professionals across Australia and they are available to download for free at the Palliative Care Australia Website.

The materials were also customised to TPCH, in collaboration with the thoracic department. This helps the hospital's clinicians to refer patients to the TPCH palliative care service and other services within the local community.

Nursing Research & Practice Development Centre (NRPDC)

Our nurse-led research team aims to contribute to improved clinical outcomes for patients by inspiring, supporting, and undertaking quality research within the hospital.

HEAD OF THE RESEARCH GROUP

• Professor Paul Fulbrook

RESEARCH GROUP MEMBERS

Dr Adam Burston

- Jacob Butterworth
- Saroeun Ven
- Maria Pyle

2023 SNAPSHOT

★ Members: 5 plus visiting researchers

★ Clinical Trials and Studies: 18+

★ Awards/Grants: 1 Finalist, 1 Grant

★ Publications: 18+

TOWARDS BETTER SAFETY & OUTCOMES FOR PATIENTS

Hospital-acquired pressure injuries cause pain to patients, impact their quality of life and can even place patients at risk of increased mortality.

That's why our group's research priority is pressure injury prevention. This important research will ultimately improve outcomes and optimise patient safety within the acute hospital setting.

Our other research work includes fall prevention and wound management projects, which again seek to improve patient care and safety while reducing healthcare service costs and the length of time patients spend in the hospital.



HIGHLIGHTS

Our group undertook more than 18 pressure injury prevention and wound management projects in 2023.

These exciting projects included a hospital-wide pressure injury audit project in collaboration with the Quality Effectiveness Support Team (QuEST); the implementation of an intensive care-specific pressure injury risk assessment scale and preventative intervention bundle; and a wide range of systematic reviews, such as psychometrics of pressure injury risk assessment tools for the intensive care unit and acute patients.

This work has contributed to reducing the impact of pressure injuries and improving patient and hospital outcomes related to significant harm, pain and treatment times

During the year, our group successfully published 18 research articles in Q1 peer-reviewed journals and presented at several local and international conferences.

Several honours were also received by the group this year. We would like to congratulate NRPDC group member Saroeun Ven, who was a finalist at the 'TPCH Hour of Power', and Aldiana Mehicic, our post-graduate research student who was awarded First Class Honours for her project 'Interrater reliability and concurrent validity of two pressure injury risk assessment tools in an acute hospital setting'.

We are also the proud recipient of a major NHMRC Partnership Project Grant for a sizeable multisite project.

COLLABORATIONS:

2023 saw collaborations with several TPCH-based, state and national multisite project partners. Local collaborators included the Australian Catholic University and Royal Hobart Hospital. While internationally, we collaborated with researchers in China, Turkey and Spain.

Our pressure injury risk assessment tool for intensive care patients is now available in four languages. It can be downloaded for free at the 'World Federation of Critical Care Nurses' website.

Queensland Lung Transplant Service Research Unit

The ultimate aim of our group is to extend the survival and improve the quality of life and outcomes for patients with progressive lung disease and after lung transplantation.

HEAD OF THE RESEARCH GROUP

• Professor Dan Chambers

RESEARCH GROUP MEMBERS

- Dr Simon Apte
- A/Prof Brendan
 O'Sullivan
- Dr Viviana Lutzky
- Maxine Tan
- Penelope Groves
- Dr Amy Pham
- Sjane Timmins

- Prof Peter Hopkins
- Dr John Mackintosh
- Dr Chandima
 Divithotewala
- Dr Peter Bell
- Dr LaiYing Zhang
- Levi Hockey

2023 SNAPSHOT

- ★ Members: 12+
- ★ Clinical Trials and Studies: 13+
- * Awards/Grants: 1 Winner, 1 Finalist, 6 Grants
- ★ Publications: 25+
- ★ Media mentions: ABC Radio (Silicosis), TV news (Antifibrotic drug discovery, in collaboration with Griffith University)

AT THE FOREFRONT OF BREAKTHROUGH RESEARCH

Despite significant diagnostic and therapeutic advances over the past decade, many patients still suffer from progressive lung disease, particularly where lung scarring or fibrosis is a predominant feature.

Very recent scientific advances are now set to transform our understanding of the pathogenesis of chronic and fibrosing lung disease and will lead to new diagnostic and therapeutic approaches. These techniques have dramatically increased the power to detect diseasespecific differences from ever smaller clinical samples.

In order to make these advances real, our team is at the forefront of the next revolution in medical treatment mRNA therapeutics. These therapies are set to transform lives by delivering treatments where none have previously existed.

HIGHLIGHTS

Our team worked on a broad range of innovative projects in 2023, including: 'The God Drug' program, which examines reversing cellular aging through telomere elongation; discovering new drugs for pulmonary fibrosis using a unique phenotypic drug screening platform; investigating the impact of cloaking antibodies (cAbs) in life-threatening infection; understanding what causes the most serious lung diseases using scRNAse of lung tissue and cells; and comparative genomic analysis of non-melanotic cutaneous malignancy after transplantation.

Research throughout the year has resulted in breakthroughs in diverse disease areas where there is the greatest unmet clinical need, including lung fibrosis, silicosis, lung aging, gram-negative infection, and lung transplant rejection.

We are grateful for the recognition received by our team in taking home the 'Discovery and Innovation Research Award' at the Metro North HHS Research Excellence Awards 2023 for 'Treatment of multi-drug resistant Pseudomonas aeruginosa by removal of 'harmful' antibodies'.

We also extend our congratulations to team members Prof Dan Chambers, Dr Amy Pham, and Dr Chandima Divithotawela, and their collaborators, whose project "The Cloaking Antibodies Treatment" was a Finalist in the Australian Museum's '2023 Eureka Prize for Infectious Diseases Research'.



This year, our small lab hosted 200+ visitors from diverse fields, including industry, government, insurers, regulators, academics, and scientists. These visitors were all linked by their concern about the resurgence of silicosis in Australia and what our research program can do to protect and help Australian workers.

Sleep Health Research Group

We are dedicated to improving clinical outcomes and developing effective models of care for patients with sleep disorders.

HEAD OF THE RESEARCH GROUP

• Dr Deanne Curtin

RESEARCH GROUP MEMBERS

- Dr Irene Szollosi
- Dr Dan Henderson
- Dr Peter Robinson
- Dr George Tay
- Dr Sebastian Le Feuvre
- Dr Sara Winter
- Jan Robinson

- Thomas Georgeson
- Trent Segal
- Dr Danielle Wilson
- Dr Daniel Sullivan
- Sara Croker
- Dr Tim Riddles
- Geoffrey Doyle

2023 SNAPSHOT

★ Members: 10+

★ Clinical Trials and Studies: 22



ENSURING BEST PRACTICE FOR EMERGING MODELS OF CARE

Our overall objective is to improve clinical outcomes and develop effective models of care for patients with sleep disorders, including those with complex ventilatory requirements due to neuromuscular disorders.

As awareness of sleep disorders increases, along with the demand for sleep diagnosis and treatment services, our group is developing and evaluating clinical pathways and treatments that make the diagnosis and treatment of obstructive sleep apnoea (OSA) more rapid and accessible for all patients including those in regional and remote areas.

There are many new and emerging methods to diagnose sleep disorders, and technological advances are making it increasingly easier to monitor treatments remotely. As this progress opens the way to new models of care, our research will ensure these models are thoroughly evaluated to ensure best practice is supported by evidence.

HIGHLIGHTS

During 2023, our group undertook a total of 22 projects, including a study to examine the mechanisms of cognitive decline in OSA, a pilot study to evaluate six months of CPAP on markers of cerebral small vessel disease in patients with OSA and mild cognitive impairment, and a RAPID-OSA Study entitled 'Remote ApneaLink Providing Immediate Diagnosis of Obstructive Sleep Apnoea'.

While much of this research is ongoing, group members presented three studies at the Australasian Sleep Association Annual Conference, where Dr Irene Szollosi took home the 'Best Poster' award for her work in evaluating the cost effectiveness of a hub-and-spoke model of care to deliver sleep disorder services to remote Queensland.

We are also pleased to announce the commencement of new collaborations with the Griffith University Psychology Department and welcome Dr Danielle Wilson into the group, who is undertaking a study examining high-resolution measurement of sleep position during pregnancy and the impact on infant birthweight supported by a Metro North University of Queensland collaborative grant.



We congratulate group member Thomas Georgeson for receiving the 2023 'TPCH Hour of Power Paul Zimmerman New Investigator Award'.

The University of Queensland Thoracic Research Centre

Our group is focused on undertaking clinical, translational and scientific research to improve lung health.

HEAD OF THE RESEARCH GROUP

• Professor Kwun Fong

RESEARCH GROUP MEMBERS

Senior Researchers

- Professor Ian Yang
- Associate Professor Henry Marshall
- Associate Professor Rayleen Bowman

Clinical Research Team

- Dr Barbara Page
- Dr Kelly Chee
- Ms Maria Martins
- Ms Linda Passmore
- Ms Jaccalyne Brady
- **Current PhD students**
 - Ms Janet Shaw
 - Ms Eloise Shaw
 - Dr Gerry Olive
 - Ms Hollie Bendotti

- Ms Jenny Peek
- Ms Anita Goldsworthy
- Mr Peter Vardon
- Ms Caeli Zarah
- Ms Elizabeth Keir

Dr Marissa Daniels

- Mr Edward Stephens
- Ms Jazmin Mireya Guayco Sigcha

Master of Philosophy Students

• Dr Edwina Duhig

Dr Nikita Patel

2023 SNAPSHOT

★ Members: 23+

★ Clinical Trials and Studies: 13

RESEARCH TO IMPROVE LUNG HEALTH

Based at The Prince Charles Hospital (TPCH), our multidisciplinary research team includes medical staff, research nurses, a research laboratory, plus administration and management roles.

We seek to improve patients' lung health, and our work focuses on clinical, translational, and scientific research related to lung cancer, mesothelioma, and chronic airway diseases like chronic obstructive pulmonary disease (COPD) and asthma, and a shared aetiology, smoking.



Our cutting-edge research centre features a fully functional molecular laboratory that's capable of most molecular genetic techniques. Here, we administer the extensive TPCH Lung Biobank, which supports our lung research with specimens that have been collected over a 20-year period.

HIGHLIGHTS

Our group undertook more than 13 projects in 2023, including the 'International Lung Screen Trial', a project to enhance smoking cessation with an innovative mobile health avatar, and the 'CO-RiQUIRE' project, which addresses lung cancer screening knowledge gaps. Our 'Screen to Quit' multicentre RCT also commenced in 2023.

During the year, we made good progress in translational research in lung health using a multidisciplinary approach to studying lung cancer, mesothelioma, COPD, asthma, smoking cessation and gene-environment interaction.

Highlights from our research appeared in peer-reviewed publications, while we continued research training of our PhD and MPhil students, along with training of medical students in research skills. During the year, several group members also made significant presentations at national and international scientific conferences, and members' papers were included in national and international clinical guidelines.

Thanks to The Prince Charles Hospital Foundation and The University of Queensland, our laboratory has procured a state-of-the-art digital PCR machine. This will allow us to undertake accurate genomic analysis of lung, blood, and other tissue samples from participants with lung conditions.



detection of curable lung cancers and cancer progression, enabling earlier intervention before the cancer advances to an incurable stage.

Dr Kelly Chee

≡ FEATURED ARTICLE

Dr Kelly Chee, TPCHF Research Fellowship Recipient

Lung cancer causes the greatest number of cancer-related deaths in Australia, and this isn't surprising, with the Lung Foundation saying that around 85% of people are diagnosed at a late stage. Dr Kelly Chee hopes that her research and the research of her peers will see these statistics significantly improved.

In 2023, Dr Kelly Chee, who has worked at UQ Thoracic Research Centre within the TPCH Clinical Sciences building since 2012, was awarded a Research Fellowship from The Prince Charles Hospital Foundation.

Her fellowship aims to improve the detection of lung cancer through low-risk, minimally invasive medical procedures such as blood tests and routine bronchoscopies.

She hopes to do this by using the biomaterials collected from these as a resource for the detection of lung cancer, to identify lung cancer mutations – in particular, KRAS and EGFR mutations – that are targetable with treatment, and to better determine the disease's progression before it reaches an incurable stage.

"There are treatments designed to target these mutations to make it more effective and therefore improve the patient response to the treatment and ultimately improve the patient's survival," said Dr Chee.

At present, early assessments for lung cancer detection involve CT scans and bronchoscopy. Those thought to have lung cancer but haven't had it diagnosed by those means may need surgery to remove lung tissue for testing.

"Over the years, lung cancer treatment has advanced a lot, but there are still issues that haven't been solved. For patients who undergo lung resection surgery, their quality of life is reduced because part of their lung is taken out. There could be things that we could do to prevent the patients from needing to undergo this surgery. Plus, we want to improve survivability, treatment options and quality of life for people with lung cancer," said Dr Chee.

Dr Chee explains that those who undergo surgery to obtain a sample for testing can face an anxious wait for results. And if the sample isn't sufficient, they may need a second round of surgery. While her fellowship is only in its infancy, she spent time in 2023 building on a study made possible through a Foundation Innovation grant in 2022, which focuses on nanopore sequencing of bronchoscopy fluids.

Illumina sequencing, which incorporates fluorescent dye to determine the series of base pairs in DNA, has been around for many years and is the gold standard for diagnostic testing of lung cancer at the moment. In contrast, Nanopore sequencing detects changes in the current unique to a DNA or RNA molecule as it passes through the nanopore.

"The benefits of nanopore sequencers are that they are newer, allow for real-time analysis of data, and more and more evidence supports their use to sequence a smaller genome or for a more targeted research aim. The second benefit is that it is a small, pocket-sized sequencer, so there is the potential to implement this in clinics on the spot or remotely and this could improve the speed, and efficiency of receiving test results. This would mean we could plan the best treatment option for the patient earlier. However, right now, this is still an immature technology for use in the clinic, requiring further testing and validation.

In 2023, we tried to understand the technology and how to use it and analyse the data. We have sequenced a few samples and can see the sequence visually on the computer. This gives me confidence, but there's still much to do to determine how I could use this technology to achieve my research aim."

RESEARCH REPORT 2023 I HE COMMON GOOD

PEOPLE POWERING MEDICAL DISCOVERIES



2023 Grants Awarded by The Common Good

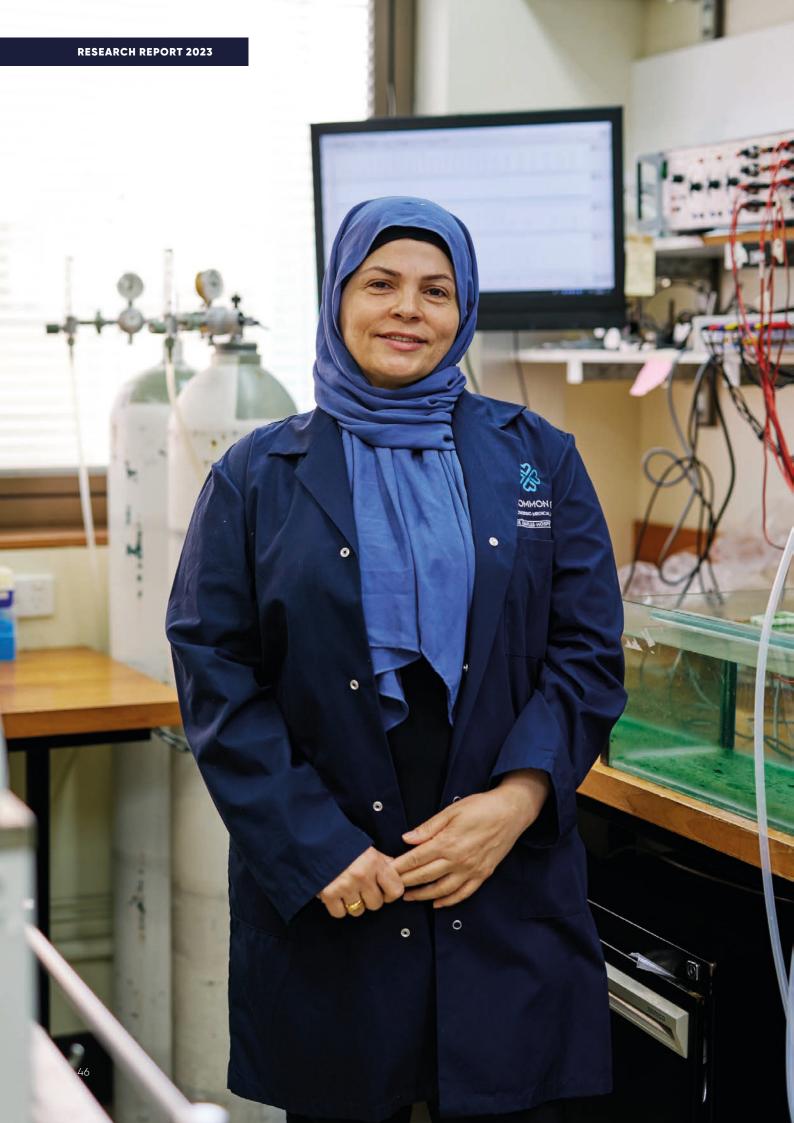
| Grant Type | Recipient | Project Title | Amount Awarded |
|--|--|--|----------------|
| Equipment | Adult ED | Ultrasound transducer | \$68,556.00 |
| Equipment | Amanda Love | RECOGNISE App framework upgrade | \$3,900.00 |
| Equipment | Cardiology Program | Point of care ultrasound system | \$65,132.55 |
| Equipment | Dan Chambers | Whole Lung Lavage Vibrating Vest | \$12,000.00 |
| Equipment | Dan Chambers | Cell Sorter, PCR Machine, Liquid Nitrogen tanks | \$525,569.04 |
| Equipment | Gabriella Abbate | OxyLite"/OxyFlo" combined 4 Channel tissue pO2 and temperature monitor | \$58,863.88 |
| Equipment | Jacki McPherson, Senthil Muthuswamy | Mental Health Wellness Room | \$14,481.00 |
| Equipment | Margaret Passmore | -80 Freezer | \$20,165.00 |
| Equipment | Maria Martins | Absolute Q Digital Polymerase Chain Reaction (ddPCR) System | \$51,969.00 |
| Equipment | Peter Molenaar | Tissue Slice Contractility, Nanion CardioExcyte 96, Tissue electrode blocks, LSR II Flow Cytometer | \$590,368.00 |
| Equipment | Surgery Wards | 3x echocardiograph machines, Bladder scanner | \$76,088.00 |
| Equipment | Tracy Nowicki | Provision Subepidermal Moisture sensor device and consumables | \$15,980.00 |
| Innovation and Capacity Building Grant | David Reid, Lisa Jurak | Shining a Light on Lung infections in cystic fibrosis: Infrared Spectroscopy to identify respiratory pathogens in the absence of sputum | \$14,624.00 |
| Innovation and Capacity Building Grant | Peter Molenaar | Keeping Failing Hearts Beating - Research towards the Prevention of Sudden Cardiac Death | \$28,800.00 |
| Innovation Grant | Gabriele Fior | BIOFluid-induced Lung injury: a nOvel pathOgenic mechanism in acute respiratory Distress syndrome (the BIO-FLOOD study) | \$69,984.00 |
| Innovation Grant | leuan Evans | A population pharmacokinetic study of elexacaftor, tezacaftor and ivacaftor (Trikafta) in patients with Cystic Fibrosis with the development of therapeutic drug monitoring targets | \$97,506.15 |
| Innovation Grant | Jack Bell | Co-designed, transdisciplinary, multi-component care for frail, malnourished older adults post hip fracture - a before and after implementation study | \$44,457.00 |
| Innovation Grant | Norman Morris | High on Heart Failure: Using Altitude training to improve oxygen transport in heart failure | \$70,823.00 |
| Innovation Grant | Prof Daniel Chambers | Silicosis - Health Monitoring to Eliminate Lung Dust Disease (SHIELDED) | \$96,265.00 |
| Innovation Grant | Prof Ian Yang | Changes in the lung microbiome with use of inhaled steroids in chronic obstructive pulmonary disease (COPD) | \$100,000.00 |
| Innovation Grant | Stephen Parker | Predicting mental health related emergency department re-presentations and subsequent hospitalisation: Logistic regression modelling of re-presentation within 48 hours, 7-days, and 28-days | \$89,096.78 |
| Innovation Grant | Usha Gurunathan | CARDIAC Surgery PReoperative INspiratory muscle Training (Cardiac SPRINT): a feasibility study | \$36,411.13 |
| Innovation Grant | Viviana Lutzky | Oxidised cholesterols as key mediators of fibrotic lung disease | \$98,500.00 |
| New Investigator | Angelo Milani | Assessment of kidney damage in a model of cardiogenic shock treated with pulsatile VA-ECMO: does improved microcirculation protect from renal injury? | \$9,820.25 |

2023 Grants Awarded by The Common Good continued...

| Grant Type | Recipient | Project Title | Amount Awarded |
|---------------------|----------------------|--|----------------|
| New Investigator | Bishwo Shrestha | Rheumatic Fever and Rheumatic Heart Disease: Quantum of Public Awareness as a Tool for Primary Prevention of the disease - A Pilot Study | \$10,000.00 |
| New Investigator | Carl Francia | Incidence and prevalence of acute rheumatic fever and rheumatic heart disease in Queensland (2017-2021): A retrospective data linkage study | \$9,495.43 |
| New Investigator | Felicity Loel | Contemporaneous Management of Percutaneous Endoscopic Gastrostomies in Adults with Cystic Fibrosis | \$9,846.72 |
| New Investigator | James Nolan | Forced Oscillometry Technique to improve detection and management of pulmonary exacerbations in adults with cystic fibrosis | \$10,000.00 |
| New Investigator | Jazmin Guayco Sigcha | Plasma and serum miRNAs for lung cancer screening | \$9,978.00 |
| New Investigator | Julieta Castellini | Core Beliefs and Coping in Cystic Fibrosis, and How These Relate to Health and Adherence | \$9,833.00 |
| New Investigator | Robyn Cobb | The impacts of self-initiated modifications of maintenance physiotherapy on clinical stability in people with cystic fibrosis commencing Elexacaftor – Tezacaftor-lvacaftor | \$9,545.00 |
| New Investigator | Samia Farah | A Comparative Assessment of the Distribution of Antibiotics in Pulsatile- and Continuous-Flow Veno-arterial Extracorporeal Membrane Oxygenation: An Ovine Model of Severe Cardiogenic Shock | \$9,730.00 |
| New Investigator | Sarah Mackay | Malnutrition – Call it what it is or something else? | \$9,991.30 |
| New Investigator | Thomas Georgeson | Cognitive impairment and residual risk in patients with OSA before and after 2 months of CPAP intervention | \$9,990.00 |
| New Investigator | Trent Segal | A pre-post trial evaluating the impact of co-designed educational materials on health literacy and Continuous Positive Airway Pressure (CPAP) compliance in patients with Obstructive Sleep Apnoea (OSA) | \$10,000.00 |
| New Investigator | Zohaib Nadeem | Genetic pathways underlying sepsis tolerance in an ovine model of bacterial sepsis. | \$8,950.65 |
| PhD Scholarship | Levi Hockey | Al interpretation of pathology, cytology and imaging to aid in diagnosis and prognosis of silicosis | \$75,000 |
| PhD scholarship | Luke Churchill | Can lung ultrasound predict post-operative pulmonary complications in the adult cardiac surgery population, alter physiotherapy practice and improve patient outcomes? | \$96,576.00 |
| PhD scholarship | Saroeun Ven | Pressure injury risk assessment for palliative care patients in the acute hospital setting | \$96,576.00 |
| Program Support | Clayton Semenzin | ICETLab Research Group Program Support | \$100,000 |
| Program Support | Dan Chambers | QLTS Research Group Program Support | \$280,000 |
| Program Support | Perry Judd | AHRC Research Group Program Support | \$130,000 |
| Project Grant | Dylan Flaws | Metro North Mental Health Short Stay Unit Evaluation | \$200,000 |
| Project Grant | Hannah Gullo | Child Life Therapist Evaluation | \$10,000.00 |
| Project Grant | Haris Haqqani | Genetic Counsellors | \$240,000.00 |
| Project Grant | Norm Morris | Optimising Exercise Prescription and Delivery in Congenital Heart Disease – The Congenital Heart Fitness Intervention Trial: CH-FIT | \$80,000 |
| Research Fellowship | Jacky Suen | Salary Support | \$245,000 |
| Research Fellowship | Kafa Walweel | Keeping Failing Hearts Beating | \$245,000 |
| Research Fellowship | Melanie Spratt | Developing and validating a model of human arrhythmia via human-induced pluripotent stem cell-cardiomyocytes for high-throughput drug screening | \$330,000.00 |
| Research Fellowship | Tian Mun Chee | New strategies in lung cancer diagnostics by more accurate and sensitive detection methods | \$330,000.00 |







Active Grants 2023

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|--|---|---|---------------------|--------------------------|---------------------------------|-------------------------------|
| Jordan | Emergency Medicine Foundation | Capacity Building in TPCH Emergency | 2023-2025 | \$93,337.00 | | Capacity Building Grant |
| Jordan | The Prince Charles Hospital Foundation | Capacity Building in TPCH Emergency top up | 2023-2025 | \$40,000.00 | | Capacity Building Grant |
| Jordan, Fulbrook | Emergency Medicine Foundation | Research Capacity Building Grant | 2023 | \$102,671.00 | \$102,671.00 | Capacity Building Grant |
| Burston, Geale, Pierce, Steele, Parrish, Achterbosch | ACU Teaching Development Grant | Fostering the development of moral sensitivity in undergraduate health science students | 2023 | \$12, 911.00 | \$12,911.00 | Education Grant |
| Pearse | CSL Behring (Australia) Pty Ltd | Use of three-factor prothrombin complex concentrate in cardiac surgery | 2020-current | \$10,000.00 | \$10,000.00 | Education Grant |
| Martins | The Prince Charles Hospital Foundation | Absolute Q Digital PCR System | 2023 | \$51,969.00 | \$51,969.00 | Equipment |
| Molenaar | Sheila & Bernard Joel Life-Saving Medical Equipment Foundation | Equipment | 2023-2024 | \$590,368.00 | \$590,368.00 | Equipment |
| Passmore | The Prince Charles Hospital Foundation | Minus 80 Freezer | 2023 | \$20,165.00 | \$20,165.00 | Equipment |
| Fong, Yang, Marshall, Bowman, O'Rourke, Valery, Stone, Canfell, Weber, Garvey, Lam, Tammemagi, Otty, Sabesan, Brims, McWilliams | Australian Cancer Research Foundation | Lung Cancer Screening CENTRE OF EXCELLENCE | 2022-2025 | \$2,000,000.00 | | Equipment |
| Abbate | The Prince Charles Hospital Foundation | OxyLite/OxyFlo | 2023 | \$58,863.88 | \$58,863.88 | Equipment Grant |
| Spratt | The Prince Charles Hospital Foundation | Developing and Validating a model of human arrythmia via human induced pluripotent stem cell cardiomyocytes for high throughput drug screening | 2024-2027 | \$330,000.00 | | Fellowhip |
| Calleja | Queensland Health Research Fellowship | MiniMAGIC Implementation in Rural, Remote, MetrOpolitan and Regional Settings (MIRRORS study): Improving intravenous catheter selection to reduce extravasations for children | 2023-2024 | \$43,755.60 | | Fellowship |
| Chee | The Prince Charles Hospital Foundation | New strategies in lung cancer diagnostics by more accurate and sensitive detection methods | 2024-2026 | \$330,000.00 | | Fellowship |
| Fong | National Health and Medical Research Council | Early diagnosis and treatment of lung cancer Fellowship | 2019-2024 | \$487,893.00 | \$9,495.43 | Fellowship |
| Fraser | The Prince Charles Hospital Foundation | Effect of mitochondrial transplantation following hypothermic machine perfusion on donor heart ischemic time | 2023 | \$220,000.00 | \$220,000.00 | Fellowship |
| Lazzarini | National Health and Medical Research Council | NHMRC Early Career Fellowship | 2018-2023 | \$322,952.00 | \$80,738.00 | Fellowship |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|---------------------------------|---|--|---------------------|--------------------------|---------------------------------|-----------------------|
| Liu | The Prince Charles Hospital Foundation | A novel and Innovative Therapeutic Stategy for Severe Acute Respiratory Distress Syndrome during Extracorporeal Membrane Oxygenation support - Amendment | 2022-2025 | \$330,000.00 | \$110,000.00 | Fellowship |
| Marshall | Queensland Advancing Clinical Research Fellowships | CO-RiQUIRE (COmorbidity, RIsk, QUIt, REach) - addressing lung cancer screening knowledge gaps | 2020-2023 | \$300,000.00 | | Fellowship |
| Morris | Health and Research Office of Queensland | Exercise Training in Pulmonary Hypertension (ExTra_PH): A Randomised Controlled Trial of Exercise Training in Pulmonary Hypertension | 2015-2023 | \$247,000.00 | \$16,000.00 | Fellowship |
| Ranasinghe | Queensland Advancing Clincial Research Fellowship | Urinary Sodium Guided Titration of Diuretic Therapy | 2022-2025 | \$350,000.00 | | Fellowship |
| Stewart | The Prince Charles Hospital Foundation | TPCH Fellowship | 2021-2023 | \$300,000.00 | \$100,000.00 | Fellowship |
| Suen | The Prince Charles Hospital Foundation | Salary Support | 2023-2026 | \$225,000.00 | \$56,250.00 | Fellowship |
| Terrill, Woodruff, Lazzarini | National Health and Medical Research Council | NHMRC Postgraduate scholarship | 2021-2025 | \$110,702.00 | \$22,140.00 | Fellowship |
| Walweel | The Prince Charles Hospital Foundation | Keeping Failing Hearts Beating | 2023-2026 | \$225,000.00 | \$75,000.00 | Fellowship |
| Raffel | Medtronic | Quality Of Life And Safety With Repeated Subcutaneous Administration Of Ponsegromab Versus Placebo In Adult Participants With Heart Failure | 2021-current | \$6,979.50 | \$3,129.50 | Industry Sponsored |
| Curtin, Szollosi, Winter | Servatus | A Phase I/II Randomised, Double- Blind, Placebo-Controlled Study to Assess Safety and Efficacy of a Live Biotherapeutic Product (SVT- 4A1011) in Participants with Clinically Diagnosed Insomnia | 2021-2023 | \$215,946.00 | | Industry Sponsored |
| Dautov | Nanotherapies | ADVANCEd NanoTherapies Dual Active Pharmacological Ingredient (Dual-API) Drug-Coated Balloon to treat De-Novo lesions in patients with symptomatic stable coronary artery disease). This study is evaluating a new device called the Dual-API SirPlux Duo™ | 2022-current | \$73,210.50 | | Industry Sponsored |
| Dautov | SAHMRI | The COlchicine for COronary Plaque MOdification in Acute Coronary Syndrome study | 2019-2023 | \$17,941.88 | \$1,776.50 | Industry Sponsored |
| Dautov | Impella | The IMPellA CP RegisTry of Australia | 2019-current | \$10,000.00 | | Industry Sponsored |
| Dautov | Investigator Driven | PlaqUe Features and Function improve risk strAtification for future coronary events: the PUFFbAll study | 2022-current | \$2,289.96 | \$1,739.96 | Industry Sponsored |
| Denman | Medtronic | Lead EvaluAtion for Defibrillation and Reliability (ICD or CRT-D) | 2021-current | \$54,952.96 | \$29,187.43 | Industry Sponsored |
| Denman | George Institute | Programmed Ventricular Stimulation to Risk Stratify for Early Cardioverter- defibrillator Implantation to Prevent Tachyarrhythmia following Acute Myocardial Infarction | 2012-current | \$2,750.00 | | Industry Sponsored |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|---------------------|--|---|---------------------|--------------------------|---------------------------------|-----------------------|
| Fraser | Fisher and Paykel | COVID Critical support | 2020-2024 | \$255,000.00 | | Industry Sponsored |
| Gaikwad | "Labcorp/ Boehringer" | A streamlined, multicentre, randomised, parallel group, double-blind placebo-controlled superiority trial to evaluate the effect of EMPAgliflozin on hospitalisation for heart failure and mortality in patients with aCuTe Myocardial Infarction | 2022-current | \$123,072.28 | \$74,052.11 | Industry Sponsored |
| Gaikwad | Leuven Research and Development | STREAM-2 (STrategic Reperfusion in elderly patients Early After Myocardial Infarction) | 2021-current | \$825.00 | | Industry Sponsored |
| Haqqani | Western Sydney Local Health District | Catheter Ablation versus Anti- arrhythmic Drugs for Ventricular Tachycardia (CAAD-VT): A Randomised Trial | 2021-current | \$1,529.00 | | Industry Sponsored |
| Haqqani | Investigator Driven | Utility of Electrophysiology Study for Risk Assessment after Transcatheter Aortic Valve Implantation | 2021-current | \$22,858.91 | \$1,683.00 | Industry Sponsored |
| Haqqani | Medtronic | ExtraVascular Implantable Cardioverter Defibrillator (EV ICD) Pilot Study Single-chamber | 2018-current | \$0.00 | | Industry Sponsored |
| Haqqani | Boston Scientific | Real world Data collection in subjects treated with the FARAPULSE" Pulsed Field Ablation system when used per hospitals' standard of care | 2023-current | \$8,800.00 | \$8,800.00 | Industry Sponsored |
| Haqqani | Investigator Driven | A New ECG configuration to Improve the Diagnostic Accuracy of Idiopathic Outflow Tract Ventricular Arrhythmias | 2020-current | \$0.00 | | Industry Sponsored |
| Haqqani | Boston Scientific | PREcision Event Monitoring of PatienTs with Heart Failure using HeartLogic | 2019-current | \$39,283.10 | | Industry Sponsored |
| Haqqani | Abbott | TACTIFLEX for the treatment of drug refractory, symptomatic paroxymal atrial fibrillation | 2020-2023 | \$43,639.23 | \$3,630.00 | Industry Sponsored |
| Haqqani | Abbott | COLT-AF CE MARK: safety and effectiveness of the Volt PFA system for the treatment of PAF and PersAF | 2023-current | \$5,500.00 | \$5,500.00 | Industry Sponsored |
| Horvath | Investigator Driven (TPCH Foundation) | Accelerated Treatment in Endocarditis - investigate the safety and efficacy of shortening treatment of endocarditis based on the individual patient's initial treatment response | 2021-current | \$29,743.00 | | Industry Sponsored |
| Li Bassi | Venstra Medical Pty Ltd | Efficacy, Feasibility and Safety of the VenstraMedical SAVA percutaneous Ventricular Assist Device system: an experimental ovine model | 2023 | \$62,675.16 | \$62,675.16 | Industry Sponsored |
| Li Bassi | Apisafe | In-Vitro evaluation of Apisafe naso- gastric tube | 2020-current | \$23,125.72 | | Industry Sponsored |
| McKenzie | Procyrion | An Evaluation of the Safety and Performance of the Aortix System for Percutaneous Intra-Aortic Mechanical Circulatory Support in Patients with Acute Decompensated Heart Failure refractory to Medical Management | 2020-2023 | \$37,736.00 | \$4,995.78 | Industry Sponsored |
| McKenzie | Procyrion | Aortix Therapy for Perioperative Reduction of Kidney Injury Study | 2023-2023 | \$29,118.83 | \$29,118.83 | Industry Sponsored |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|---------------------|--|---|---------------------|--------------------------|---------------------------------|-----------------------|
| McKenzie | Medpace | Aldose Reductase Inhibition for Stabilization of Exercise capacity in Heart Failure (ARISE-HF): A Multicenter, Randomized, Placebo-Controlled Study to Evaluate the Safety and Efficacy of AT-001 in Patients with Diabetic Cardiomyopathy / Stage B Heart Failure at High Risk of Progression to Overt Heart Failure (Stage C Heart Failure) | 2020-2023 | \$21,159.69 | \$1,000.00 | Industry Sponsored |
| McKenzie | St Jude Medical | CardioMEMSTM HF System Post- Approval Study | 2016-2023 | \$98,782.68 | \$2,200.00 | Industry Sponsored |
| McKenzie | Astra Zeneca | A Randomised, Double-blind, Placebo- controlled, Multi-center Sequential Phase 2b and Phase 3 Study to Evaluate the Efficacy and Safety of AZD4831 Administered for up to 48 Weeks in Participants with Heart Failure With Left Ventricular Ejection Fraction > 40% | 2022-current | \$71,110.89 | \$56,861.45 | Industry Sponsored |
| McKenzie | Investigator Driven | Asia Pacific Fabry Disease. Observational Retrospective Study. FD and imaging (Echo and MRI) | 2019-current | \$0.00 | | Industry Sponsored |
| McKenzie | Bayer | A multicenter, randomized, double-blind, parallel-group, placebo-controlled study to evaluate the efficacy and safety of finerenone on morbidity and mortality in participants with heart failure (NYHA II-IV) and left ventricular ejection fraction ≥ 40% (LVEF ≥ 40%) | 2021-current | \$101,718.50 | \$36,505.70 | Industry Sponsored |
| McKenzie | Pfizer | A Phase 2, double-blind, randomized, placebo-controlled, 4-arm study to investigate symptoms, function, health-related QoL and safety with repeated SQ ponsengromab vs placebo in adults with HF | 2022-current | \$16,445.00 | \$16,445.00 | Industry Sponsored |
| McKenzie | CSIRO/TPCH Foundation | A mobile based multidisciplinary virtual clinic for patients with HF: A Controlled Randomised Trial, MoTER-HF | 2020-current | \$44,103.44 | | Industry Sponsored |
| McKenzie | Australian Atherosclerosis Society | Familial Hypercholesterolaemia | 2017-current | \$0.00 | | Industry Sponsored |
| Mckenzie | Bayer | Multicenter, randomized, active comparator-controlled, double-blind, double-dummy, parallel group phase III study of the oral FXIa inhibitor BAY 2433334 for the prevention of stroke or systemic embolism in patients with a | 2022-current | \$77,330.00 | \$52,910.00 | Industry Sponsored |
| Mckenzie | Bristol Myer Squibb (BMS) | A Randomized, Double-blind, Placebo-controlled Clinical Study to Evaluate Mavacamten in Adults with Symptomatic Non-obstructive Hypertrophic Cardiomyopathy | 2022-current | \$51,455.59 | \$23,335.79 | Industry Sponsored |
| McKenzie | Novartis | A multi-center, randomized, double-blind, active-controlled, parallel-group Phase 3 study to evaluate the efficacy and safety of LCZ696 compared to ramipril on morbidity and mortality in high risk patients following an acute myocardial infarction | 2017-current | \$225,393.00 | | Industry Sponsored |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|-----------------------|----------------------------|--|---------------------|--------------------------|---------------------------------|-----------------------|
| McKenzie | Novartis | A multicenter, randomized, double- blind, active-controlled study to evaluate the effects of LCZ696 compared to valsartan on cognitive function in patients with chronic heart failutre and preserved ejection fraction | 2018-current | \$50,705.98 | | Industry Sponsored |
| McKenzie | Corvia | Reduce Lap-HF Randomised Trial II: A study to evaluate the Corvia Medical, Inc. IASD® System II to REDUCE Elevated Left Atrial Pressure in Patients with Heart Failure | 2017-current | \$0.00 | | Industry Sponsored |
| McKenzie | VWAVE | Reducing Lung Congestion Symptoms using the V-Wave shunt in Advanced Heart Failure (the Shunt is intended to reduce excessive left-sided cardiac filling pressures) | 2021-current | \$169,671.21 | \$26,948.35 | Industry Sponsored |
| McKenzie | Investigator Driven | The feasibility of the home-based remote monitoring for post-discharged heart failure patients | 2023-current | \$63,500.00 | \$63,500.00 | Industry Sponsored |
| McKenzie | CORVIA | Re-Evaluation of the Corvia Atrial Shunt Device in a Precision Medicine Trial to Determine Efficacy in Mildly Reduced or Preserved EF Heart Failure | 2023-current | \$33,897.60 | \$33,622.60 | Industry Sponsored |
| McKenzie | MSD | A Pivotal Phase 3 Randomized, Placebo-controlled Clinical Study to Evaluate the Efficacy and Safety of the sGC Stimulator Vericiguat/MK-1242 in Adults With Chronic Heart Failure With Reduced Ejection Fraction | 2021-current | \$194,568.20 | \$103,027.47 | Industry Sponsored |
| McKenzie, Halim | SANOFI | Utilisation of diastolic strain by 2D speckled-tracking echocardiography for the assessment of left ventricular wall thickening | 2020-current | \$50,000.00 | | Industry Sponsored |
| Molenaar, Cheesman | Atrogi AB | Determination of Off-target effectsof novel compounds on the human heart | 2023-2024 | \$39,893.57 | | Industry Sponsored |
| Murdoch | Boston Scientific | The study will evaluate feasibility and safety of the ACURATE Prime XL Transfemoral Aortic Valve System for TAVI in subjects who have severe native aortic stenosis and are indicated for TAVI | 2021-2023 | \$114,739.01 | \$24,603.91 | Industry Sponsored |
| Murdoch | University of Leicester | A randomised controlled trial of early valve replacement in severe asymptomatic AS | 2023-current | \$2,464.00 | \$2,464.00 | Industry Sponsored |
| Murdoch | Edwards Lifesciences | SAPIEN M3 System TransCatheter MItral Valve ReplaCement via TransseptaL AccEss | 2021-current | \$213,348.16 | \$115,419.15 | Industry Sponsored |
| Murdoch | Medtronic | Optimize PRO TAVR Post Market Study | 2022-2023 | \$16,963.76 | \$6,960.36 | Industry Sponsored |
| Poon | Edwards Lifesciences | A Prospective, Single-Arm, Multicentre Study to Investigate the Safety and Effectiveness of SAPIEN 3 Transcatheter Heart Valve Implantation in Patients with a Failing Mitral Bioprosthetic Valve | 2019-current | \$73,826.00 | \$8,566.25 | Industry Sponsored |
| Poon | Edwards Lifesciences | A Prospective, Randomized, Controlled Trial to Assess the Management of Moderate Aortic Stenosis by Clinical Surveillance or Transcatheter Aortic Valve Replacement | 2022-current | \$79,690.23 | \$59,877.14 | Industry Sponsored |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|---------------------|-------------------------|---|---------------------|--------------------------|---------------------------------|-----------------------|
| Poon | Boston Scientific | Stroke Protection with Sentinel During Transcatheter Aortic Valve Replacement | 2020-2023 | \$89,413.50 | 7 | Industry Sponsored |
| Raffel | CSL Behring | A Phase III, multicentre, double-blind, randomized, placebo-controlled, parallel-group study to investigate the efficacy and safety of CSL112 in subjects with Acute Coronary Syndrome | 2018-2023 | \$15,375.39 | \$5,967.50 | Industry Sponsored |
| Raffel | Edwards Lifesciences | Edwards PASCAL TrAnScatheter Mitral Valve RePair System Study | 2017-2023 | \$123,532.78 | \$4,823.50 | Industry Sponsored |
| Raffel | Esperion | A randomised, Double-Blind, Placebo- Controlled Study to Assess the Effects of Bempedoic Acid (ETC-1002) on the Occurrence of Major Cardiovascular Events in Patients With, or at High Risk for, Cardiovascular Disease who are Statin Intolerant | 2019-2023 | \$34,731.40 | | Industry Sponsored |
| Raffel | Labcorp | Open-Label, Sequential-Dose Escalation/De-escalation Trial Testing Investigational Medicinal Product (IMP) in Patients Undergoing PCI Due to Acute Coronary Syndrome with NSTEMI (PHASE II) | 2023 | \$33,091.66 | \$14,226.66 | Industry Sponsored |
| Raffel | Boston Scientific | A study to evaluate the feasibility and safety of the Millipede Transcatheter Annuloplasty Ring System in Patients with Functional Mitral Regurgitation | 2020-current | \$26,715.06 | | Industry Sponsored |
| Raffel | Monash | PASSIvation of Vulnerable plaque with AZD5718 in AcuTe coronary syndromE | 2022-2023 | \$9,256.50 | \$9,256.50 | Industry Sponsored |
| Raffel | St Jude Medical | International long-term follow-up study of patients implanted with a PORTICO" valve | 2013-2023 | \$106,662.26 | \$4,950.00 | Industry Sponsored |
| Raffel | St Jude Medical | PorticoTM Re-sheathable transcatheter Aortic Valve System US IDE Trial | 2016-current | \$259,260.74 | \$7,157.15 | Industry Sponsored |
| Raffel | Medpace | Obicetrapib and Cardiovascular Outcomes: A Placebo-Controlled, Double-Blind, Randomized Phase 3 Study to Evaluate the Effect of 10 mg Obicetrapib in Participants With Atherosclerotic Cardiovascular Disease (ASCVD) Who are Not Adequately Controlled Despite Maximally Tolerated Lipid-Modifying Therapies | 2022-current | \$31,656.15 | \$16,507.04 | Industry Sponsored |
| Raffel | Abbott | Safety and effectiveness of the ABT NG DES 48 everolimus-eluting coronary stent system (EECSS) in improving coronary artery luminal diameter in subjects with CAD due to de novo native coronary artery long lesions | 2020-current | \$33,511.32 | \$10,508.05 | Industry Sponsored |
| Raffel | Johnson & Johnson | Wavecrest Vs Watchman Transseptal LAA Closure to Reduce AF-Mediated Stroke 2 | 2018-current | \$14,184.50 | | Industry Sponsored |
| Ranasinghe | RNSH Cardiology | Australian Cardiovascular COVID-19 Database | 2020-2023 | \$5,250.00 | | Industry Sponsored |
| Ranasinghe | Novartis | A randomized double-blind, placebo- controlled, multicenter trial assessing the impact of lipoprotein (a) lowering with TQJ230 on major cardiovascular events in patients with established cardiovascular disease | 2020-current | \$118,466.66 | \$25,049.72 | Industry Sponsored |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|---|---|--|---------------------|--------------------------|---------------------------------|-------------------------|
| Ranasinghe | Novartis | A multi-center, randomized, double- blind, parallel-group, 20-week dose- finding study to evaluate efficacy, safety, and tolerability of XXB750 in patients with resistant hypertension | 2022-current | \$20,994.60 | \$14,720.20 | Industry Sponsored |
| Ranasinghe | Novartis | A multi-center, randomized, double-blind, placebo-controlled, parallel-group Phase IIIb study evaluating the effect of inclisiran on atherosclerotic plaque progression assessed by coronary computed tomography angiography (CCTA) in participants with a diagnosis of non-obstructive coronary artery disease without previous cardiovascular events | 2022-current | \$42,085.50 | \$20,335.70 | Industry Sponsored |
| Scalia | Investigator Driven | Comparative Catheter Echocardiographic Hemodynamics Program | 2017-current | \$92,049.07 | | Industry Sponsored |
| Scalia | Investigator Initiated Registry | Asia-Pacific multi-centre international observational registry of patients with mitral regurgitation treated with the MitraClip | 2014-current | \$0.00 | | Industry Sponsored |
| Scalia | NEDA | The National Echo Database Australia | 2017-current | \$0.00 | | Industry Sponsored |
| Walters | SAHMRI | Australasian Cardiac Outcomes Registry Ltd TAVI Registry | 2018-current | \$0.00 | | Industry Sponsored |
| Walters | Mobius Medical | Clinical Safety and Efficacy of the VDyne Transcatheter Tricuspid Valve Replacement System for the Treatment of Tricuspid Regurgitation | 2023-current | \$8,956.70 | \$8,296.70 | Industry Sponsored |
| Wong | SAMHRI/ Luitpold | A Randomised, Double-Blind, Placebo Controlled Study to Investigate the Efficacy and Safety of Injecrafer® (Ferric Carboxymaltose) as a Treatment for Heart Failure with Iron Deficiency | 2018-2023 | \$343,145.30 | \$17,123.37 | Industry Sponsored |
| Wong | Pfizer | Prevalence and characteristics of transthyretin amyloidosis in patients with left ventricular hypertrophy of unknown etiology (TTRACK) | 2020-2023 | \$114,739.01 | \$9,169.60 | Industry Sponsored |
| Hodgson, Fraser, Baker, Nair, Bernard, Pilcher, Pellegrino, Brodie | Medical Research Future Fund | A National Intensive Care Research Data Initiative (NICE-Data) | 2023 | \$2,717,605.00 | | Infrastructure Grant |
| Chambers | Radiata Foundation | Reprogramming profibrotic macrophages to treat IPF | 2023 | \$823,208.00 | \$194,760.00 | Program Grant |
| Chambers, Timmins | The Prince Charles Hospital Foundation | QLTS Research Group Program | 2023 | \$280,000.00 | \$93,333.00 | Program Grant |
| Dargusch, Wrigley, Fraser | Medical Research Future Fund | Artificial Heart Frontiers Program | 2023 | \$5,198,554.00 | | Program Grant |
| Fraser | Melinda and Bill Gates Foundation | COVID Research Support | 2021-current | \$1,621,791.00 | | Program Grant |
| Hodgson, Quilten, Higgins, Heritier, Ryan, Neto, Burrell, Nichol, Cooper, Pellegrino, Udy, Livingstone, Young, Fraser, Nair, Buscher, Fan, Orford | Medical Research Future Fund | Generating new evidence to reduce complications and improve the safety and efficacy of extracorporeal membrane oxygenation (ECMO) in patients with severe cardiac and respiratory failure: The RECOMMEND Platform Trial | 2023 | \$2,985,992.73 | | Program Grant |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|--|---|---|---------------------|--------------------------|---------------------------------|------------------|
| Horvath | The Prince Charles Hospital Foundation | Host-Pathogen Relationships and Improved Diagnosis in Infective Endocarditis | 2019-current | \$102,020.49 | \$11,540.25 | Program Grant |
| Morwawska, Bell et al. | ARC Linkage Grant | Making Australia resilient to airborne infection transmission | 2021-2023 | \$868,513.00 | \$350,000.00 | Program Grant |
| Gregory, Pauls | The Prince Charles Hospital Foundation | Using engineering, biology and medicine to develop the next generation of mechanical circulatory support | 2017-2023 | \$600,000.00 | \$23,986.88 | Program Grant |
| Ainola | The Prince Charles Hospital Foundation | Does Pulsatile-Flow Venoarterial Extracorporeal Membrane Oxygenation Sustain Cardiac Function When Compared to Continuous-flow Venoarterial Extracorporeal Membrane Oxygenation? | 2019-2023 | \$9,742.50 | \$9,742.50 | Project Grant |
| Aitken, Morris | The Prince Charles Hospital Foundation | Measuring exertional dyspnoea in pulmonary arterial hypertension | 2022-2024 | \$9,871.00 | \$9,871.00 | Project Grant |
| Bayat | The Prince Charles Hospital Foundation | Urinary sodium guided pathway for expedited treatment of acute heart failure: A multicenter randomised controlled trial | 2021-2023 | \$6,000.00 | \$6,000.00 | Project Grant |
| Bell, Rogers, Thomson, Wainwright, Clements, Floto | National Health and Medical Research Council | The emerging problem of non- tuberculous mycobacteria infection: understanding aetiology, geospatial epidemiology and developing interventions | 2016-2023 | \$988,791.00 | \$210,000.00 | Project Grant |
| Bell, Wainwright, Reid, Sly et al | CF Foundation (USA) | NTM: understanding acquistion and transmission pathways | 2020-2023 | US\$1,230,000.00 | \$455,869.64 | Project Grant |
| Brown, Gullo, Gullo, Kendall, Turner, Mitchell | Metro South Health SERTA | Using qualitative case studies to understand the journey away from alcohol and substance use following acquired brain injury | 2023-2025 | \$24, 624.00 | | Project Grant |
| Burrel, Hodgson, Stub, Higgins, Kasza, Nicol, Neto, McQuilten, Shekar, Marasco, Pellegrino, Dennis, Nair | Medical Research Future Fund | PRecision Ecmo in Cardlogenic Shock Evaluation: PRECISE Study - Additional Funding Agreement | 2023 | \$353,000.00 | \$353,000.00 | Project Grant |
| Burrel, Hodgson, Stub, Higgins, Kasza, Nicol, Neto, McQuilten, Shekar, Marasco, Pellegrino, Dennis, Nair | Medical Research Future Fund | PRecision Ecmo in Cardlogenic Shock Evaluation: PRECISE Study | 2023 | \$999,779.40 | \$999,779.40 | Project Grant |
| Burston, Fulbrook | ACU SoNMP Research Seeding Grant | The in-patient experience of hospitalisation with a severe pressure injury | 2023 | \$1,967.29 | \$1,967.29 | Project Grant |
| Burton, Donovan, Clough, Sheeran, Winter, Szollosi, Rolls, Khan | Griffith University | Improving sleep quality services and patient outcomes: Development of a questionnaire to assess influences of treatment acceptance and adherence, and guide clinical management | 2023 | \$9,920.00 | \$9,920.00 | Project Grant |
| Castellini | The Prince Charles Hospital Foundation | Core Beliefs and Coping in Cystic Fibrosis, and How These Relate to Health and Adherence | 2023-2024 | \$9,833.00 | \$9,833.00 | Project Grant |
| Challinor, Burston, Noyce | ACU Faculty Health Sciences Research Project Grant Scheme 2023 | ARIIA grant prep: Collection of pilot data for industry grant application | 2023 | \$7,000.00 | \$7,000.00 | Project Grant |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|--|--|--|---------------------|--------------------------|---------------------------------|------------------|
| Challinor, Noyce, Burston | Aged Care Research & Industry Innovation Australia (ARIIA), | Brenna: Facilitating communication for nurses and families with digital technology | 2023 | \$159, 922.00 | \$159, 922.00 | Project Grant |
| Chambers, Apte, Tan | The Prince Charles Hospital Foundation | Silicosis- health monitoring Innovation to Eliminate Lung Dust Disease (SHIELDED Study) | 2023 | \$96,265.00 | | Project Grant |
| Chambers, Mackintosh | Medical Research Future Fund | Royal Prince Alfred Hospital – REBUILD | 2023 | \$1,999,997.08 | | Project Grant |
| Chambers, Mackintosh | Medical Research Future Fund | Genomic approaches for better outcomes in pulmonary fibrosis: addressing the knowledge gap | 2023 | \$2,946,131.68 | | Project Grant |
| Chambers, Zhang | CRE-PF | The Human Pulmonary Fibrosis Transcriptome at Single Cell Resolution | 2023 | | | Project Grant |
| Chan | The Prince Charles Hospital Foundation | Development of 'cardiac specific cell-free DNA quantitation in blood' as a highly sensitive biomarker to detect heart failure patients most at risk of re-hospitalisation. | 2021-2023 | \$49,594.20 | | Project Grant |
| Cobb | The Prince Charles Hospital Foundation | The impacts of self-initiated modifications of maintenance physiotherapy on clinical stability in people with cystic fibrosis commencing Elexacaftor – Tezacaftor- Ivacaftor | 2023-2024 | \$9,545.00 | \$9,545.00 | Project Grant |
| Coyer, Fulbrook, Ullman, Keogh, Duff, Long, Barakat-Johnson, August, Jones, Carter | National Health and Medical Research Council | Eliminating harm from devices across the life span in critical illness: The DEFENCE study | 2023 | \$1,494,988.00 | \$1,494,988.00 | Project Grant |
| Cracknell, Comben, Gunn | CAHRLI | Speech Pathology-led voice clinic | 2024 | \$6,988.00 | | Project Grant |
| Crocker, Nasser, Rolls, Winter | CAHRLI | Streamlining ADHD diagnostic and assessment pathways in paediatric psychology in MNHHS | 2023 | \$5,000.00 | \$5,000.00 | Project Grant |
| Curtin, Szollosi, Le Feuvre | Medical Research Future Fund | A multi-centre randomised controlled trial of polysomnographic titration of non-invasive ventilation in motor neurone disease | 2022-2026 | \$113,500.00 | | Project Grant |
| Davies, Gullo, Doig | Parkinson's Queensland | Exploring a cognitive-based treatment approach to improve self-efficacy, executive functioning and occupational performance for adults with neurological conditions | 2021-2024 | \$10,000.00 | \$2,500.00 | Project Grant |
| Deeth, Bell | CAHRLI | Nutrition Care for Older Adults with Delirium | 2022-2023 | \$5,000.00 | \$5,000.00 | Project Grant |
| Doig, Russell, Gullo, Fleming, Beadle, Burns, Muller, Patterson, Chatfield, Foster, Anemaat | Medical Research Future Fund | Co-creating virtual environments with consumers to enhance self-awareness and preparedness for home after brain injury | 2024-2026 | \$598,976.20 | | Project Grant |
| Evans, Smith, Burke, Roberts, Hernandez-Mitre | The Prince Charles Hospital Foundation | A population pharmacokinetic study of elexacaftor, tezacaftor, ivacaftor (Trikafta) in patients with Cystic Fibrosis with the development of therapeutic drug monitoring targets | 2023-2025 | \$97,506.15 | | Project Grant |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|--|--|--|---------------------|--------------------------|---------------------------------|------------------|
| Fanning, Highton, Rapchuk, Finnegan | The Prince Charles Hospital Foundation | Individualised intraoperative haemodynamic optimisation informed by the lower limit of cerebral autoregulation to reduce perioperative morbidity and mortality: development of a novel clinical monitoring parameter | 2018-2024 | \$97,007.00 | \$25,238.00 | Project Grant |
| Fanning, Pinto, Rapchuk | The Prince Charles Hospital Foundation | Optimising intraoperative coagulation management for precision vascular surgery | 2018-2024 | \$87,604.00 | \$10,434.00 | Project Grant |
| Farah | The Prince Charles Hospital Foundation | A Comparative Assessment of the Distribution of Antibiotics in Pulsatile- and Continuous-Flow Veno- arterial Extracorporeal Membrane Oxygenation: An Ovine Model of Severe Cardiogenic Shock | 2023 | \$9,730.00 | \$9,730.00 | Project Grant |
| Fior | The Prince Charles Hospital Foundation | BIOFluid-induced Lung injury: a nOvel pathOgenic mechanism in acute respiratory Distress syndrome (the BIO- FLOOD study) | 2022-2025 | \$53,998.00 | | Project Grant |
| Fior | The Prince Charles Hospital Foundation | BIOFluid-induced Lung injury: a nOvel pathOgenic mechanism in acute respiratory Distress syndrome (the BIOFLOOD study) | 2022-2025 | \$69,984.00 | | Project Grant |
| Fior | The Prince Charles Hospital Foundation | Fluid balance, renin-angiotensin- aldosterone system (RAAS), and glycocalyx shedding in an ovine model of cardiogenic shock on pulsatile or continuous-flow venoarterial extracorporeal membrane oxygenation support (VA-ECMO) | 2022-2023 | \$9,991.00 | \$9,991.00 | Project Grant |
| Fong, Lwin | National Health and Medical Research Council | Early lung cancer biomarkers | 2020-2023 | \$754,893.20 | | Project Grant |
| Fong, Yang, Bowman, Marshall, Valery, Garvey, Toombs, Otty, O'Rourke | Cancer Council Queensland | Lung Cancer Screening in Queensland | 2022-2026 | \$2,000,000.00 | | Project Grant |
| Fong, Yang, Marshall, Tammemagi, Lam, Toombs, Manser, McWilliams | Medical Research Future Fund | Lung cancer screening for early detection | 2021-2024 | \$2,836,143.00 | | Project Grant |
| Francia | The Prince Charles Hospital Foundation | Incidence and prevalence of acute rheumatic fever and rheumatic heart disease in Queensland (2017-2021): A retrospective data linkage study | 2023-2025 | \$9,495.43 | \$9,495.43 | Project Grant |
| Fraser | The Prince Charles Hospital Foundation | A retrospective analysis of the effect of transfusion trigger and age of transfusion on patient outcomes in 250,000 Queensland inpatients receiving over 500,000 blood transfusions between 2007 - 2013 | 2015-2023 | \$86,376.40 | \$45,734.70 | Project Grant |
| Fraser | Wesley | Understanding the impact of Spanish Flu on Adult and Children lungs, cell- by-cell | 2023 | \$75,000.00 | | Project Grant |
| Fraser | Donald and Joan Wilson Foundation | Heart ex vivo perfusion (HEVP) Donation | 2023 | \$40,000.00 | | Project Grant |
| Fraser | Queensland Health | Bionic Research and Development Program, Project ID: 71997 | 2017-2024 | \$1,300,000.00 | | Project Grant |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|--|---|---|---------------------|--------------------------|---------------------------------|------------------|
| Fraser, Heinsar | Xenios AG | An experimental ovine model of cardiogenic shock comparing the effect of pulsatile- to continuous-flow VA-ECMO (The Pulsatile Study) | 2021-2023 | \$403,337.00 | | Project Grant |
| Fraser, Suen, Boesch, Wu | Heart Foundation | Addressing deficiencies of current ECMO with an innovative pulsatile flow technology (ADEPT) | 2023 | \$149,022.00 | \$149,022.00 | Project Grant |
| Fraser, Tronstad | LINK Grant | ICU of the Future | 2019-current | \$78,441.00 | | Project Grant |
| Fulbrook, Miles, Burston, Lovegrove | ACU Faculty Research Scheme | Incidence and characteristics of perioperative pressure injury in adult cardiac surgical patients | 2023 | \$6,987.28 | \$6,987.28 | Project Grant |
| Gandini | The Prince Charles Hospital Foundation | Can electrical impedance tomography be used to assess the lung distribution of inhaled antibiotics? | 2021-2023 | \$32,253.00 | | Project Grant |
| Ganesan, Jackson, Tung, Stoyanov, King, Sutton, Ranasinghe, Morton, Clark, Selva,Tiver, Karnon | Medical Research Future Fund | Remote monitoring of cardiac implantable electronic devices using an exception-based model of care | 2023-2026 | \$1,460,000.00 | | Project Grant |
| Georgeson, Wilson, Szollosi | The Prince Charles Hospital Foundation | Cognitive function and sleepiness in patients with OSA before and after 2 months of CPAP treatment | 2023-2024 | \$10,000.00 | | Project Grant |
| Giffin, McCully, Suen, Celik | Heart Foundation | Mitochondrial Transplantation as a supplementary therapy for heart transplantation: A Novel Strategy to Enhance Donor Heart Function | 2023 | \$149,288.00 | \$149,288.00 | Project Grant |
| Golledge, Sangla, Oliver, Kantro, Lazzarini, Burton | CRC for Developing Northern Australia | Tele-DFD: Remotely providing effective healthcare for diabetic foot disease | 2022-26 | \$840,000.00 | \$168,000.00 | Project Grant |
| Gullo, Gullo, Ponsford, Fleming, Wong, Ownsworth, Reid, Dawe, Russell, Brown, Mitchell, Lion, Piatkowski, Lemsky, Beaulieu-Bonneau, Doig, Turner, Kendall, Griffin, Bell, Gould, Schneider | Metro South Health SERTA | Co-designing and piloting a tailored program for managing alcohol use in acquired brain injury | 2023-2025 | \$122, 193.00 | | Project Grant |
| Gurunathan | The Prince Charles Hospital Foundation | CARDIAC Surgery Preoperative Inspiratory muscle Training (Cardiac SPRINT): a feasibility study | 2023 | \$36,411.13 | \$36,411.13 | Project Grant |
| Haqqani | The Prince Charles Hospital Foundation | Embedding Genetic Counselling in Cardiology | 2023-2024 | \$250,000.00 | \$50,000.00 | Project Grant |
| Haqqani | Perpetual Impact Philanthropy | Assessing the Heart after TAVI (EP TAVI Project) | 2023 | \$45,000.00 | \$45,000.00 | Project Grant |
| Haymet | Wesley | Early vasopressor treatment of septic shock (Evap-Shock study) | 2021-current | \$15,000.00 | | Project Grant |
| Haymet, Suen | The Prince Charles Hospital Foundation | Ex-VIvo Protection of Endothelium For Autologous GRafts (EX-VIPER) study | 2021-2023 | \$39,469.00 | | Project Grant |
| Heinsar | The Prince Charles Hospital Foundation | Facilitating endothelial cell growth and proliferation at the interface between heart wall and VAD inflow cannula | 2018-2023 | \$9,993.00 | | Project Grant |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|---|--|--|---------------------|--------------------------|---------------------------------|------------------|
| Herd, Matson | The Prince Charles Hospital Foundation | Nutritional parameters pre and post use of elexacaftor, tezacaftor and ivacaftor in adults with cystic fibrosis in Queensland, Australia | 2021-current | \$10,000.00 | | Project Grant |
| Hetherington, Bauer, Jordan | Emergency Medicine Foundation | Paeds with a wheeze | 2023-2024 | \$70,904.00 | | Project Grant |
| Horvat, Reid, Brown, Simpson, Essilfie | National Health and Medical Research Council | Manipulating iron metabolism for the treatment of severe asthma and COPD | 2024-2027 | \$1,300,000.00 | | Project Grant |
| ljuin | The Prince Charles Hospital Foundation | Hydrogen Extracorporeal CardioPulmonary Resuscitation for improving neurological outcomes - HYDRO ECPR | 2022-2025 | \$49,680.00 | | Project Grant |
| King, Oystein, Morris | The Prince Charles Hospital Foundation | Is digital pre-operative education an acceptable replacement for face-to-face physiotherapy pre-operative education in Thoracic surgical patients? | 2022-2023 | \$9,856.00 | \$9,871.00 | Project Grant |
| Larissa, Reid | Australian Infectious Disease centre; UQ/QIMR-B seed funding. | Similarities between Influenza infection and Cystic Fibrosis on macrophage and epithelial control of P.aeruginosa infection | 2023 | \$50,000.00 | \$50,000.00 | Project Grant |
| Li Bassi, Fior, Obonyo, Heinsar, Liu, Sato, Gandini, Ro, Ijuin, Farah, Ainola, Sato, Lundon, Schneider, McGiffin, Abbate, Zhang, Portatadino, Milani, Lloyd, Nonaka, Hoshino, Redmond, Garlick, Bouquet, Wilson, Passmore, Hyslop, See Hoe, Skeggs, Panduru | Metro South HHS | Biofluid-induced lung injury: Appraising a novel pathogenic mechanism in acute respiratory distress syndrome | 2023 | \$24,990.00 | \$24,990.00 | Project Grant |
| Lightbody-Gee, Jenkinson | The Prince Charles Hospital Foundation | A High-Performance Blood Shear Rig for Rotary Blood Pump Development | 2021-current | \$9,468.00 | \$495.00 | Project Grant |
| Liu | Japan Society for Promotion of Science | A novel and Innovative Therapeutic Stategy for Severe Acute Respiratory Distress Syndrome during Extracorporeal Membrane Oxygenation support | 2022-2024 | \$59,274.00 | | Project Grant |
| Loel, Herd, Matson | The Prince Charles Hospital Foundation | Exploring PEG feeding cessation & removal in adults with CF | 2023-2024 | \$10,000.00 | \$10,000.00 | Project Grant |
| Lu | The Prince Charles Hospital Foundation | Pulmonary endothelial and immunological profiles in an ovine model of live bacterial sepsis | 2022-2023 | \$9,992.20 | \$9,992.20 | Project Grant |
| Lutzky, Apte, Divithotawela, Groves, Katharina | The Prince Charles Hospital Foundation | Oxidised cholesterols as key mediators of fibrotic lung disease | 2023-2025 | \$98,500.00 | | Project Grant |
| Mackay | The Prince Charles Hospital Foundation | Malnutrition - Call it what it is or something else? | 2023 | \$9,991.30 | \$9,991.30 | Project Grant |
| Mackay, Bell | CAHRLI | Patient perceptions and understanding of the term 'malnutrition' | 2022-2023 | \$5,000.00 | \$5,000.00 | Project Grant |
| Marshall | The Prince Charles Hospital Foundation | Extracellular vesicle -microRNAs for lung cancer screening | 2023-2024 | \$10,000.00 | \$10,000.00 | Project Grant |
| McGiffin, See Hoe, Li Bassi, Suen, Macdonald | National Health and Medical Research Council | Hypothermic machine perfusion of circulatory death hearts for transplantation | 2022-current | \$2,062,431.00 | | Project Grant |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|---|---|--|---------------------|--------------------------|---------------------------------|------------------|
| McKenna, Corray, O'Gorman, Perrin, MacDonald, Skinner, Lazzarini, Golledge, Varnfield | TRI - CSIRO Australian e-Health Research Centre Grant Scheme | Feasibility of a Smart Footprint System for Diabetes-Related Foot Care | 2023-2026 | \$100,000.00 | \$16,667.00 | Project Grant |
| McNamee, Simmonds, An, Zhang, Semenzin, Pauls, Nguyen | Griffith University | Heart Valve Cavitation Project | 2022-2023 | \$35,600.00 | \$17 600.00 | Project Grant |
| Milani | The Prince Charles Hospital Foundation | Assessment of kidney damage in a model of cardiogenic shock treated with pulsatile VA-ECMO: does improved microcirculation protect from renal injury? | 2023-2025 | \$9,820.25 | \$9,820.25 | Project Grant |
| Morris, Pyne, Sabapathy, Stewart, Hwang, Clark | Griffith University | Hot Legs for Heart Failure: Using lower limb heating to improve health outcomes | 2023-2024 | \$30,000.00 | \$30,000.00 | Project Grant |
| Morris, Sabapathy, Scalia, Walsh, Balmain, Chan, Benjamin, Roberts | The Prince Charles Hospital Foundation | Hot Legs For Heart Failure: Using lower limb heating to improve exercise tolerance in heart failure | 2021-2023 | \$63,905.00 | \$19,000.00 | Project Grant |
| Morris, Sabapathy, Stewart, Roberts | Griffith University | High and Hot: Using Environmental Extremes to Improve Oxygen Transport in Heart Failure | 2022-2023 | \$29,495.00 | \$24,000.00 | Project Grant |
| Morris, Walsh, Bellet, Louis, Sabapathy | The Prince Charles Hospital Foundation | Small muscle training for big gains: Using high intensity single muscle group training in heart failure | 2018-2023 | \$48,318.00 | \$21,000.00 | Project Grant |
| Nadeem | The Prince Charles Hospital Foundation | Genetic pathways underlying sepsis tolerance in an ovine model of bacterial sepsis | 2023-2025 | \$8,950.65 | \$8,950.65 | Project Grant |
| Nolan | The Prince Charles Hospital Foundation | Forced Oscillometry Technique to provide early detection and improved management of pulmonary exacerbations in adults with cystic fibrosis | 2023-2024 | \$10,000.00 | \$10,000.00 | Project Grant |
| Nonaka | The Prince Charles Hospital Foundation | A Novel Right Ventricular Assessment using Speckle-Tracking Echocardiography in Swine | 2022-2025 | \$48,359.00 | | Project Grant |
| O'Sullivan | MNHHS SWIFT Grant | Trametinib Triumph: Breaking Fibrosis Barriers | 2023 | | | Project Grant |
| Obonyo | The Prince Charles Hospital Foundation | Microvascular endotheliopathy: A final common pathway in critical illness? | 2021-2023 | \$64,720.00 | \$15,005.00 | Project Grant |
| O'Brien | AH-TRIP | TPCH Rehabilitation and Acute Stroke (RAS) Unit Person Centred Goal Setting | 2022-2023 | \$7,000.00 | \$7,000.00 | Project Grant |
| Parker, Steele, Jordan | The Prince Charles Hospital Foundation | Predicting mental health related emergency department re- presentations and subsequent hospitalisation: Logistic regression modelling of re-presentation within 48 hours, 7-days, and 28-days | 2023-2025 | \$89,096.78 | | Project Grant |
| Passmore | The Prince Charles Hospital Foundation | Rogue mitochondrial DNA: The elusive mediator of inflammatory complications in cardiac surgery | 2021-2024 | \$43,918.00 | \$14,164.00 | Project Grant |
| Pearse, Naidoo, Ziegenfuss, Smith, Vincent, O'Brien | National Health and Medical Research Council | The Cryopreserved vs. Liquid Platelets trial: CLIP-II A phase III multicentre blinded randomised controlled clinical non-inferiority trial of cryopreserved platelets vs. conventional liquid-stored platelets for the management of surgical bleeding | 2023 | \$1,825,647.60 | | Project Grant |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|--|--|--|---------------------|--------------------------|---------------------------------|------------------|
| Pearse, Rushbrook, Gardner, Perel, Fung | National Blood Authority | Implementation of a Standard 7 - Blood Management Dashboard for Metro North, Hospital and Health Service | 2023-2025 | \$155,000.00 | | Project Grant |
| Pham | MNHHS SWIFT Grant | New Pathways to treat Intractable Infections | 2023 | | | Project Grant |
| Pham | CF Australia | New pathways to treat intractable lung infection in lung transplant recipients with CF | 2023 | \$48,074.00 | \$48,074.00 | Project Grant |
| Phillips, Wong, Burston, Owens | ACU Teaching Development Grant | Fostering and building positive work- place coping strategies: Bringing professionals' experiences to teaching and nursing students | 2023 | \$13,000.00 | \$13,000.00 | Project Grant |
| Rachakonda | The Prince Charles Hospital Foundation | Investigating A Novel Approach to Reduce Oxidative Stress and Activation of Coagulation during Extracorporeal Membrane Oxygenation Use | 2022-2023 | \$9,908.84 | \$9,908.84 | Project Grant |
| Ranasinghe, Ngo, Peng | National Heart Foundation of Australia | Outcomes of cardiovascular care in regional and remote Australian communities: Actionable data to drive policy and advocacy to reduce inequality | 2024-2025 | \$150,000.00 | | Project Grant |
| Ranasinghe, Woodman, Kaambwa, Kotwal, Aliprandi-Costa | National Health and Medical Research Council | Safety, effectiveness of care and resource use among Australian hospitals (Safer Hospitals). | 2021-2024 | \$1,108,000.00 | | Project Grant |
| Reid, ACFC team | The Prince Charles Hospital Foundation & TPCH Cystic Fibrosis Research Group | Analysis of genetic, immune and infective processes underpinning clinical phenotypes, disease progression and response to CFTR modulators in cystic fibrosis | 2023 | \$131,000.00 | \$131,000.00 | Project Grant |
| Reid, Miles, Yang, Firth, Burke, Chauray, Le Feuvre, Brown, Forrester, Waddell | The Prince Charles Hospital Foundation | Prognostics, Diagnostics and Therapeutic targets in response to infectious threats to the Australian population; (Phase 1) COVID-19 | 2020-2024 | \$100,000.00 | \$70,000.00 | Project Grant |
| Reid, Smith, Bell | The Prince Charles Hospital Foundation | A Multi-modality, multi-disciplinary program of research to improve disease outcomes in Cystic Fibrosis | 2018-2023 | \$600,000.00 | \$200,000.00 | Project Grant |
| "Rogers, Crotty, Morawska, Bell, Qiao, Woodman, Whitehead, Papanicolas, Inacio, Miller" | Medical Research Future Fund | Prevention of SARS-CoV-R transmission in aged care: effective evidence-based measures for rapid translation | 2021-2023 | \$1,330,000.00 | \$550,000.00 | Project Grant |
| Rutherford, Binnewies, Bach, Tjondronegoro, Morris, Moyle, Torrisi, Nghiem, Phung, Zhang, MacQuarrie, Gabric | Wellcome Trust | Individualised Heat-Health Early Warning Systems: a novel digital solution | 2022-2025 | \$2,351,841.00 | \$600,000.00 | Project Grant |
| Sato | Old Heart Institute | TAVI Project | 2022-current | \$22,999.44 | | Project Grant |
| Segal, Szollosi, Winter | The Prince Charles Hospital Foundation | A pre-post trial evaluating the impact of co-designed educational materials on health literacy and Continuous Positive Airway Pressure (CPAP) compliance in patients with Obstructive Sleep Apnoea (OSA) | 2023-2024 | \$10,000.00 | \$10,000.00 | Project Grant |
| Sela | The Prince Charles Hospital Foundation | Cardiorenal syndrome and endothelial dysfunction in sepsis | 2022-2023 | \$9,831.77 | \$9,831.77 | Project Grant |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|--|---|---|---------------------|--------------------------|---------------------------------|------------------|
| Shrestha, Shrestha, Joshi, Smith, Naidoo, Hopkins, Kennedy, Sedgewick, Hamilton-Craig | The Prince Charles Hospital Foundation | Rheumatic Fever and Rheumatic Heart Disease; Quantum of Public Awareness as a Tool for Primary Prevention of the disease: A Pilot Study | 2023-2024 | \$10,000.00 | \$5,000.00 | Project Grant |
| Sigcha | The Prince Charles Hospital Foundation | Plasma and Serum microRNAs for lung cancer screening | 2023-2024 | \$9,978.00 | \$9,978.00 | Project Grant |
| Sing | The Prince Charles Hospital Foundation | Novel Intraventricular ControllEr (NICE): Towards the Development of an ECG and Pressure Triggered Intra-Ventricular Balloon Pump | 2020-2023 | \$9,731.00 | \$9,731.00 | Project Grant |
| Siriwardena | The Prince Charles Hospital Foundation | The effects of human B- Type natriuretic peptide signal peptide (BNPsp) in human atrial tissue in an in vitro model of ischaemia reperfusion injury (IRI) | 2022-2024 | \$44,273.00 | | Project Grant |
| Sly, Wainwright, Bell, Reid et al | CF Foundation (USA) | Early life origins of CF lung disease | 2019-2024 | US\$1,650,000.00 | \$835,757.71 | Project Grant |
| Smith | The Prince Charles Hospital Foundation | EMBRACE: Exploring the relationship between EMotional well-Being with health outcomes and patient pReferences for resources and support in cArdiaC surgEry | 2020-2023 | \$10,000.00 | | Project Grant |
| Stewart, Edwards, Chan, Morris, Scalia | Metro North Collaborative Grant | Quantifying novel measures of speckle-tracking derived myocardial work during exercise stress echocardiography testing to aid differential diagnosis in complex cardiomyopathies | 2021-2023 | \$49,688.00 | \$35,000.00 | Project Grant |
| Stonestreet | ОСАНО | Virtual Transformation: Enhancing opportunities for delegation through virtual training | 2023-2024 | \$6,965.00 | | Project Grant |
| Sullivan, Winter, Patounas, Curtin, Rolls | Metro North HHS | ExPEDITe Sleep - Extending psychology scope of practice for Pharmacotherapies Emphasising Deprescribing during behavioural Treatment of Sleep: Developing an Australian-first model of care to reduce the use of sedatives for insomnia | 2023-2024 | \$25,000.00 | | Project Grant |
| Szollosi, Eeles, Curtin, Fripp, Coulson | The Prince Charles Hospital Foundation | Obstructive Sleep Apnoea in Mild Cognitive Impairment: an opportunity to preserve brain health | 2018-2024 | \$79,300.00 | \$2,400.00 | Project Grant |
| Tan, Low, Aplin, Gullo, McAuliffe | Digital for Life Fund - Singapore Government | Co-designing Smartphones and Apps Training and Resource toolkit for People with vision impairment (PVI) | 2021-2023 | \$174, 840.00 | \$68,405.00 | Project Grant |
| Taylor, Bell, Rogers | CF Australia Dorothy Nell Marzol Innovation Grant | Australian-wide surveillance for fungal infection: a nation al metagenomic analysis across 19 CF centres | 2022-2024 | \$80,000.00 | \$40,000.00 | Project Grant |
| Terrill, Woodruff, Lazzarini | Urgo Foundation Asia-Pacific Diabetic Foot Disease Grants | Patient specific 3D printing of metamaterials to improve personalised offloading and healing of diabetes-related foot ulceration | 2021-2023 | \$15,000.00 | \$5,000.00 | Project Grant |
| Thomson, Ahmed, Guo, Bell, Burke, Jackson | HelDI/CSIRO (AMR Mission) | Eliminating opportunistic pathogens from premise plumbing biofilms in healthcare facilities | 2022-2024 | \$150,000.00 | \$110,000.00 | Project Grant |
| Tornatore, Gullo, Fleming, Laracy | RBWH Foundation | Improving outcomes for people requiring upper limb neurorehabilitation using a new technology approach in hospital | 2023-2024 | \$48, 137.00 | | Project Grant |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|---|--|--|---------------------|--------------------------|---------------------------------|------------------|
| Tronstad | The Prince Charles Hospital Foundation | eDIS-ICU - an international validation study to improve accuracy of screening for delirium in the ICU | 2021-2023 | \$35,312.17 | | Project Grant |
| Tronstad | The Prince Charles Hospital Foundation | Can sleep and circadian physiological disruptions caused by the intensive care unit environment be prevented by environmental and lighting modifications? | 2022-2025 | \$62,018.70 | \$24,000.00 | Project Grant |
| Ven, Fulbrook | The Prince Charles Hospital Foundation | Pressure injury risk assessment for palliative care patients in the acute hospital setting | 2023 | \$96,576.00 | \$32,192.00 | Project Grant |
| Wainwright, Bell, Reid, Sly et al | CF Foundation (USA) | FORMAT adaptive study of Mycobacterium abscessus in lung disease | 2020-2024 | US\$4,000,000.00 | \$1,519,559.48 | Project Grant |
| Wells, Goldberg, Smith, Apte | CF Foundation (USA) | Impact and treatment of cloaking antibodies in CF | 2021-2023 | US\$430,000.00 | \$197,542.73 | Project Grant |
| Wells, Ledger, Smith | Conquer Cystic Fibrosis | Understanding and counteracting antibody-mediated inflammation driving lung damage | 2023-2024 | \$49,812.82 | \$25,000.00 | Project Grant |
| Wildi | Wesley | Molecular patterns for the discovery of biomarkers in Acute Respiratory Distress Syndrome (ARDS) for the rapid identification of subphenotypes (the MARK-ARDS study) | 2020-2023 | \$98,581.00 | | Project Grant |
| Wilson | Metro North - UQ | High resolution measurement of sleep position during pregnancy and the impact on infant birthweight | 2023-2024 | \$47,268.40 | \$12,388.61 | Project Grant |
| Winter, Rolls, Haratsis, Curtin, Rautenberg | ОСАНО | Direct to Psychology Insomnia and Stepped Care Models: Service Innovations in the Sleep Disorders Service | 2023-2025 | \$68,206.00 | | Project Grant |
| Winter, Rolls, Haratsis, Curtin, Rautenberg | CAHRLI | Sleep Psychology Innovations in the Sleep Disorders Service | 2022-2023 | \$7,000.00 | | Project Grant |
| Woodruff, Lazzarini, Golledge, Powell, Holmes, Terrill, Pickering, Evans | Medical Research Future Fund | 3D digital solutions for diabetes related foot ulcer offloading treatment | 2023-2026 | \$810,102.00 | \$135,017.00 | Project Grant |
| Wu, Heinsar, Semenzin, Fraser, Suen, Li Bassi | The Prince Charles Hospital Foundation | Decompressing the Stressed Heart - An Innovative Unloading Device for Extracorporeal Membrane Oxygenation Support | 2022-current | \$74,620.00 | | Project Grant |
| Yang, Varnfield, Li, Khair, Francis, McDonald, Dabscheck | The Prince Charles Hospital Foundation | Transforming the care of people living with chronic obstructive pulmonary disease (COPD) using digital health: an implementation feasibility study | 2023-2024 | \$99,940.00 | | Project Grant |
| Jones, Wadhwu, Jordan, McLaughlin, Gullo | THe Prince Charles Hospital Foundation | Exploring the role of child life therapy in emergency: Children's emotional coping, healthcare experience and economic impact | 2023-2024 | \$10,000.00 | \$10,000.00 | Project grant |
| Stonestreet, Bell | ОСАНО | Investigating best practice dietetic services in Mental Health Alcohol and Other Drugs Services across Queensland | 2022-2023 | \$42,360.00 | \$42,360.00 | Project grant |
| Ledger | University of Queensland | The impact of helpful and harmful immune responses in the cystic fibrosis lung | 2020-2023 | \$90,000.00 | \$30,000.00 | Scholarship |
| Lazzarini, Evans | QUT Postgraduate Research Award (QUTPRA) | Prevention of diabetes foot disease using technology-led solutions in regional and remote regions | 2023-2026 | \$105,000.00 | \$17,500.00 | Scholarship |

| Chief Investigators | Granting Agency | Project Title | Years of Funding | Total Funding Awarded | Funding received for 2023 | Grant Type |
|-------------------------------------|--|---|---------------------|--------------------------|---------------------------------|-------------|
| Lazzarini, Weerasuriya, Cramb | QUT Postgraduate Research Award (QUTPRA) | Predicting foot-related hospitalisation and cost-of-care outcomes: A retrospective data- linkage cohort study | 2023-2026 | \$105,000.00 | \$17,500.00 | Scholarship |
| Bild | CAHRLI | Co-design of a Cognitive Behaviour Therapy intervention for Central Disorders of Hypersomnolence | 2023 | \$10,000.00 | \$10,000.00 | Scholarship |
| Mattison | Digital Health Cooperative Research Centre | Integrating Wearable Devices into the Patient-Centred Digital Healthcare Environment | 2021-2024 | \$135,000.00 | \$45,000.00 | Scholarship |
| Sing | Griffith University | Pump Design and Development for Intra-Ventricular Balloon Pump | 2020-2023 | \$100,372.00 | \$9,731.00 | Scholarship |
| Spratt | The Prince Charles Hospital Foundation | Arrhythmias in human heart failure | 2021-2023 | \$56,184.00 | \$28,092.00 | Scholarship |



Higher Degree Students Supervised During 2023

| Full Name | Postgraduate Course | Research Project Title | University affiliation | Supervisors |
|---------------------------|------------------------|--|-------------------------------------|---|
| Adam Lee | PhD | Mechanisms of Ventricular Arrhythmias and Ectopy Mediated Cardiomyopathy | The University of Queensland | Gestenfeld, Haqqani |
| Adele van den Hoek | PhD | Mobile health for secondary prevention of Diabetes-related foot ulceration | Queensland University of Technology | Lazzarini, Ploderer, Evans |
| Alana Campbell | PhD | Mapping the Natural Recovery of Cognition in Acute Stroke Using Serial Computerised Cognitive Assessment | The University of Queensland | Gustaffson, Gullo, Grimley, Summers |
| Alex Terrill | PhD | Application of advanced design and manufacture techniques in the mechanical offloading of tissue stress for management of diabetic foot ulceration | Queensland University of Technology | Woodruff, Lazzarini, Powell, Holmes |
| Alexandra Dashwood | PhD | Understanding how phosphorylation and redox modifications regulate cardiac ryanodine receptor-type 2 activity to produce an arrhythmogenic phenotype in advanced heart failure | The University of Queensland | Molenaar, Haqqani |
| Alita Rusthon | PhD | Post-discharge home meal provision for hip fracture patients | Griffith University | Roberts, Bell, Morris |
| Amber Jones | PhD | Development and evaluation of telehealth service models for the delivery of multidisciplinary burn care | The University of Queensland | Burns, Ward |
| Andrew Haymet | PhD | The Biology of Vascular Injury Associated with Mechanical Circulatory Support Devices | The University of Queensland | Fraser |
| Andrew Burke | PhD | Pharmacokinetics of Antimycobacterial Drugs in Patients with Cystic Fibrosis and Latent Tuberculosis | The University of Queensland | Roberts, Thomson, Smith, Bell |
| Ann Finnimore | PhD | PD Check-In: Supporting people with Parkinson's Disease in self-managed maintenance of communication following intensive treatment | The University of Queensland | Thordoros, Rumback |
| Bailey Schneider | Medical student | Long-term ECMO Surface Characterisation in an Ex Vivo Model | The University of Queensland | Fraser, Suen |
| Bianca Monzoon | MPhil | Simultaneous use of two beta-blocekrs, Carvedilol and Bisoprolol, for effective and safe treatment of heart failure | Queensland University of Technology | Molenaar |
| Blake Hudson | Hons | Numerical and Experimental Study of Induced Cavitation within a Commercialised Bi-Leaflet Heart Valve | Griffith University | Semenzin |
| Carla Dos Reis | MPhil | Return to work following moderate to severe TBI: Barriers, facilitators, outcomes and opportunities 2 years post injury in South East Queensland | The University of Queensland | Gullo, Patterson |
| Chanika Alahakoon | PhD | Secondary prevention of diabetic foot disease | James Cook University | Golledge, Moxon, Fernando, Lazzarini |
| Chantal Karup | PhD | Exploring the skill utilisation of Internationally Qualified Nurses (IQN's) who transition to clinical practice in Australia | Australian Catholic University | Jacob, Burston, Betihavas |
| Claire Lynch | PhD | Electrophysiologic Effects of TAVI | The University of Queensland | Walters, Haqqani |
| Dhayananth Kanagarajan | PhD | CFD Study of Mixing Zones in Extra Corporeal Membrane Oxygenation Circuits to Prevent Brain Injury | Griffith University | Tansley, Pauls, Dau, Fraser |

Higher Degree Students Supervised During 2023 continued...

| Full Name | Postgraduate Course | Research Project Title | University affiliation | Supervisors |
|------------------------|------------------------|--|--------------------------------------|---------------------------------------|
| Donna Hickling | PhD | Does nutrition impact lung transplant outcomes? | The University of Queensland | Walsh, Chambers, Bauer |
| Dr Usha Gurunathan | PhD | Investigation of the perioperative thrombotic and haemostatic risk after orthopaedic surgery with an emphasis on obesity | The University of Queensland | Mullany |
| Edwina Duhig | MPhil | Interstitial microenvironment in pulmonary disease including non-small cell lung carcinoma | The University of Queensland | Yang, Fong |
| Eliza Humphrey | Hons | Clinicians' and patients' experiences and preferences for the prevention and management of hospital-acquired wounds in acute care: a mixed-methods systematic review | Australian Catholic University | Burston, Wan |
| Eloise Shaw | PhD | Screening for Biomarkers in Non -small Cell Lung Cancer | The University of Queensland | Fong, Bowman, Yang |
| Emily Brotherton | PhD | Neurological mechanisms underlying exercise-induced heat stress in Multiple Sclerosis | Griffith University | Kavnagh, Sabapathy, Morris |
| Emma Ledger | PhD | Helpful and harmful immune responses in the cystic fibrosis lung | The University of Queensland | Well, Smith, Reid |
| Gabriele Fior | PhD | Development of a novel pulmonary imaging technology for mechanically ventilated patients | The University of Queensland | Fraser |
| George Tay | PhD | Reducing infection transmission risk in people with cystic fibrosis | The University of Queensland | Bell, Thomson, Reid |
| Gerard Olive | PhD | Interventional Bronchoscopy | The University of Queensland | Fong, Marshall, Yang |
| Giovanna Tornatore | PhD | Rehabilitation intensity for patients with upper limb impairment - what is the impact on occupational performance | The University of Queensland | Gullo, Fleming |
| Graeme Mattison | PhD | Integrating Wearable Devices into the Patient-Centred Digital Healthcare Environment | The University of Queensland | Dobbins, Smith, Reid, Forrester |
| Hannah Jepson | MRes | New Zealand podiatrist's alignment with current international best practice guidelines for the diabetic foot: The New Zealand Diabetic Foot assessment and management survey | Auckland Univeristy of Technology | Carroll, Garrett, Lazzarini |
| Helen Wallace | PhD | How can we help people with aphasia return to driving following stroke? | The University of Queensland | Wallace, Gullo, Copland |
| Hideaki Nonaka | PhD | Exploration of Novel Echocardiographic Assessment of Right Heart Function using Animal Heart Failure Model | The University of Queensland | Fraser, Chan, Suen |
| Hollie Bendotti | PhD | Artificial Intelligence for smoking Cessation : Development and Effectiveness of Quinn, a Smoking Cessation Smartphone Chatbot | The University of Queensland | Marshall, Gartner, Ireland, Lawler |
| Hwei Lan Tan | PhD | Using experience-based co-design to explore smartphone and app use by people with vision impairment and develop a webbased training and learning support resource toolkit | The University of Queensland | Aplin, Gullo, McAuliffe |
| Iain Smith | PhD | Relationship between post-exercise oxygen kinetics and outcomes in chronic cardiorespiratory disease | Griffith University | Morris, Dent, Sabapathy |
| Isabella Wiesmantel | Hons | Intensive care nurses' perceptions of simulation for continuing professional development: A systematic review | Australian Catholic University | Burston, Zhang |
| Jake McMahon | PhD | De-implementation of low-value pressure injury prevention and management | Australian Catholic University | Mcinnes, Fulbrook, Lam |

| Full Name | Postgraduate Course | Research Project Title | University affiliation | Supervisors |
|---------------------------------|------------------------|--|--|---|
| Jazmin Mireya Guayco Sigcha | PhD | Blood Biomarkers in Lung Cancer Screening | The University of Queensland | Marshall, Fong, Yang, Chee |
| Jessica King | MPhil | Preoperative physiotherapy education for patients undergoing thoracic surgery | Griffith University | Tronstad, Morris, Baque |
| Julie Nguyen | PhD | Implementation Evaluation of High Risk Foot Services in relation to Access, Intake and Patient Journey in Two Settings | University of Melbourne | McKenzie, Lazzarini, Ho |
| Kathleen Hall | PhD | Evaluation of the inclusion of an allied health assistant within an Adult Cystic Fibrosis Centre: their role, scope of practice, and impact on physiotherapy services | Australian Catholic University | Kuys, Maxwell, Roll, Cobb |
| Kei Sato | PhD | Speckle-Tracking Echocardiography in intensive care | The University of Queensland | Fraser, Chan, Suen |
| Kirsten Dous | MRes | Physiotherapy Management for People with Parkinson's Disease (PD) Post Fractured Hip Surgery | Griffith University | Morris, Kuys, Walsh |
| Lavienraj Premraj | Medical student | Neurological Outcomes of COVID-19 | Griffith University | Fraser, Suen, Cho |
| Linh Ngo | PhD | Population-wide outcomes of catheter ablation of atrial fibrillation | The University of Queensland | Ranasinghe, Yang |
| Lisa Jurak | PhD | Using Proteomics to understand the mechanisms of asthma exacerbations and how macolides can reduce exacerbations | The University of Queensland | Upham, Yang, Simpson, Hill |
| Luke Churchill | PhD | Can lung ultrasound predict post-operative pulmonary complications in the adult cardiac surgery population, alter physiotherapy practice and improve patient outcomes? | The University of Queensland | Mandrusiak, Thomas, Tronstad |
| Marissa Daniels | PhD | Precision medicine in the genomic era: emerging technologies for molecular profiling | The University of Queensland | Fong |
| Martin Hajek | PhD | Exploring the relationship between trunk extensor morphology and activation with lower back pain and lower limb injury in sport | Griffith University | Duhig, Roberts, Bourne, Morris |
| Maryam Khorramshahi Bayat | PhD | Evaluating the role of urinary sodium in the management of heart failure | The University of Queensland | Ranasinghe, Chan |
| Maureen Peasey | MPhil | Pulmonary Rehabilitation and Physical Activity in COPD | Griffith University | Morris, Walsh |
| Maxine Deeb | MPhil | Phenytoin inhibition of ryanodine channels (RYR2) | Queensland University of Technology | Walweel |
| Melanie Spratt | PhD | Ventricular Arrhythmogenesis in the Failing Heart | Queensland University of Technology | Molenaar, Haqqani, Battle |
| Menaka Louis | PhD | High intensity single muscle group training in heart failure | Griffith University | Morris, Hwang, Roberts, Sabapathy |
| Michelle Garrett | PhD | Identifying early warnings and system changes that may reduce the burden of diabetes related foot complications in Aotearoa/ New Zealand | Auckland Univeristy of Technology | Kenealy, Lazzarini |
| Nikita Patel | MPhil | Osteoporosis diagnosis and fracture prediction using CT vertebral attenuation in lung cancer screening | The University of Queensland | Marshall, Fong, Yang, O'Rourke, Dahler |
| Nimantha Durage | PhD | Investigating cognitive functioning in people with diabetes- related foot ulcers in Queensland, Australia: A prospective longitudinal study | Queensland University of Technology | Finlayson, Parker, Lazzarini |

Higher Degree Students Supervised During 2023 continued...

| Full Name | Postgraduate Course | Research Project Title | University affiliation | Supervisors |
|---------------------------------|------------------------|--|-------------------------------------|---|
| Oystein Tronstad | PhD | ICU of the Future | The University of Queensland | Fraser |
| Rachel McCall | PhD | Child Protection In the Adult Emergency Department | The University of Queensland | Healy, Jordan |
| Rebecca Chambers | PhD | Exercise training modes in Pre-Lung Transplant Patients | Griffith University | Walsh, Morris |
| Samantha Ness | PhD | Contemporary Management of Malnutrition in patients with Chronic Obstructive Pulmonary Disease (COPD) | The University of Queensland | Bell, Collins, Masel |
| Samantha Ness | PhD | Understanding and improving the management of malnutrition in Chronic Obstructive Pulmonary Disease | The University of Queensland | Bell, Collins, Masel |
| Samuel Huth | Medical student | Novel Imaging Biomarkers for Defending Cerebral Perfusion during Non-Cardiac Surgery | The University of Queensland | Fraser, Suen |
| Saniya Rodrigues | PhD | The effect of heat stress on older persons with and without heart failure | Griffith University | Morris, Bach, Sabapathy |
| Sarah Davies | PhD | Exploring a cognitive-based treatment approach to improve self-efficacy, executive functioning and occupational performance for adults with neurological conditions | The University of Queensland | Gullo, Doig |
| Sarah Mackay | MPhil | Exploring Perspectives on Malnutrition Terminology | The University of Queensland | Young, Bell |
| Sarah Pham | Hons | Potential therapeutic target for Ischemic Reperfusion Injury | The University of Queensland | Chan |
| Saroeun Ven | PhD | Development of a pressure injury risk assessment tool for palliative care patients in the acute hospital setting | Australian Catholic University | Fulbrook, Burston, Steele, Lovegrove, Miles, Prince |
| Shannon Scarff | MPhil | Ecological assessment of cognition by the occupational therapist: The Multiple Errands Test in the Australian context | The University of Queensland | Fleming, Gullo, Nalder |
| Silver Heinsar | PhD | An experimental ovine model of cardiogenic shock comparing the effect of pulsatile- to continuous-flow VA-ECMO (A comprehensive Pre-clinical evaluation of Pulsatile-flow VA- ECMO) | The University of Queensland | Fraser, Suen |
| Sophie Deeth | PhD | Nutrition Care in Older Hospital Inpatients | The University of Queensland | Bell, Mudge |
| Sucharitha Rangi Weerasuriya | PhD | Predicting foot-related hospitalisation and cost-of-care outcomes: A retrospective data linkage cohort study | Queensland University of Technology | Lazzarini, Cramb, Zhang |
| Susan Smith | PhD | A Collaborative, Stepped, Blended, Patient-Centred Model of Care for the Mental Health needs of Cardiac Surgery patients: Evidence, Development and Feasibility | Queensland University of Technology | Strodl, Varnfield, Rolls, Kavanagh |
| Tanya Palmer | PhD | The validity of a test to measure exertional breathlessness in chronic disease | Griffith University | Morris, Walsh, Obst, Sabapathy |
| Taylor Sing | PhD | Physiological Suitability of an Intra-Ventricular Balloon Pump | Griffith University | "Tansley Dr Jo Pauls Associate: A/Prof Michael Simmonds" |
| Tenber Grota | PhD | The use of nurse-surgeons in the Australian public health system: a mixed-methods study | Australian Catholic University | Jacob, Burston, Betihavas |
| Thomas Georgeson | PhD | Detecting risk of dementia in people with sleep apnoea | The University of Queensland | Coulson, Terril, Szollosi |

| Full Name | Postgraduate Course | Research Project Title | University affiliation | Supervisors |
|--------------------------|------------------------|--|--|-----------------------------|
| Trang Dang | PhD | Health Care Costs Associated with Avoidable Hospitalisations | The University of Queensland | Ranasinghe, Chan, Gannon |
| Tyler Gilstrom | PhD | Identification of viral versus bacterial triggers in immune cells from AECOPD patients | James Cook University | Warner, Reid |
| Viacheslav Bolotnikov | Observership | Controller development for pneumatic pulsatile actuation | Swiss Federal Institute of Technology Lausanne | Semenzin |
| Xiang-Wen Lee | MPhil | Novel Developments in AF Ablation | The University of Queensland | Haqqani |
| Zoe McSweeney | Hons | The Design of an Impella Pump Controller | The University of Queensland | Semenzin |



Publications

Ababneh, A., Edwards, H., Lazzarini, P., & Finlayson, K. (2023). A qualitative exploration of adherence to wearing removable cast walkers in patients with diabetic foot ulcers. *Journal of Wound Care*, 32(7), 456–466. https://doi.org/10.12968/jowc.2023.32.7.456

Ababneh, A., Finlayson, K., Edwards, H., Armstrong, D., Najafi, B., van Netten, J., & Lazzarini, P. (2023). The Validity and Reliability of Self-Reported Adherence to Using Offloading Treatment in People with Diabetes-Related Foot Ulcers. Sensors, 23(9), 4423. https://doi.org/10.3390/s23094423

Ababneh, A., Finlayson, K., Edwards, H., van Netten, J., & Lazzarini, P. (2023). Differences in adherence to using removable cast walker treatment during daytime and nighttime weight-bearing activities in people with diabetes-related foot ulcers. *Therapeutic Advances in Endocrinology and Metabolism*, 14, 204201882211424. https://doi.org/10.1177/20420188221142457

Adsett, J., Bowe, R., Kelly, R., Louis, M., Morris, N., & Hwang, R. (2023). A Study of the Reliability, Validity, and Physiological Changes of Sit-to-Stand Tests in People With Heart Failure. Journal of Cardiopulmonary Rehabilitation and Prevention, 43(3), 214–219. https://doi.org/10.1097/HCR.000000000000000739

Aitken, C., Stewart, G., Walsh, J., Palmer, T., Adams, L., Sabapathy, S., & Morris, N. (2023). Exertional dyspnea responses to the Dyspnea Challenge in heart failure: Comparison to chronic obstructive pulmonary disease. Heart & Lung, 58, 108–115. https://doi.org/10.1016/j.hrtlng.2022.11.010

Alahakoon, C., Singh, T., Galappaththy, C., Charles, J., Fernando, M., Lazzarini, P., Moxon, J., & Golledge, J. (2023). Risk Factors for Hospital Readmission for Diabetes Related Foot Disease: A Prospective Cohort Study. European Journal of Vascular and Endovascular Surgery, 66(2), 221–228. https://doi.org/10.1016/j.ejvs.2023.05.016

Aldhakoon, C., Singh, T., Morris, D., Charles, J., Fernando, M., Lazzarini, P., Moxon, J., & Golledge, J. (2023). Cohort Study Examining the Presentation, Distribution, and Outcomes of Peripheral Artery Disease in Aboriginal, Torres Strait Islander, and Non-Indigenous Australians. European Journal of Vascular and Endovascular Surgery, 66(2), 237–244. https://doi.org/10.1016/j.ejvs.2023.05.027

Alahakoon, C., Thanigaimani, S., Seng, L., Fernando, M., Lazzarini, P., & Golledge, J. (2023). Editor's Choice – A Systematic Review and Meta-Analysis of the Incidence and Risk Factors for Re-admission to Hospital in People with Diabetes Related Foot Disease. European Journal of Vascular and Endovascular Surgery, 66(2), 195–202. https://doi.org/10.1016/j.ejvs.2023.05.007

Ali, S., Crawford, R., & Pandey, A. (2023). Arthroscopic scene segmentation using multispectral reconstructed frames and deep learning. *Intelligent Medicine*, 3(4), 243–251. https://doi.org/10.1016/j.imed.2022.10.006

Ali, S., Jonmohamadi, Y., Fontanarosa, D., Crawford, R., & Pandey, A. (2023). One step surgical scene restoration for robot assisted minimally invasive surgery. Scientific Reports, 13(1), 3127. https://doi.org/10.1038/s41598-022-26647-4

Ali, S., Jonmohamadi, Y., Takeda, Y., Roberts, J., Crawford, R., Brown, C., & Pandey, A. (2023). Surface Reflectance: A Metric for Untextured Surgical Scene Segmentation (pp. 209–222). https://doi.org/10.1007/978-981-19-7528-8_17

Apte, S., Groves, P., Tan, M., Lutzky, V., de Silva, T., Monteith, J., ... Chambers, D. (2023). A Methodological Approach to Identify Natural Compounds with Antifibratic Activity and the Potential to Treat Pulmonary Fibrosis Using Single-Cell Sequencing and Primary Human Lung Macrophages. International Journal of Molecular Sciences, 24(20). https://doi.org/10.3390/ijms242015104

Assayag, D., Adegunsoye, A., Sheehy, R., Morisset, J., Khalil, N., Johannson, K., ... Ryerson, C. (2023). Sex- and Race-Based Differences in the Treatment of Interstitial Lung Diseases in North America and Australasia. Chest, 163(5), 1156–1165. https://doi.org/10.1016/j.chest.2022.12.039

Avtaar Singh, S., Das De, S., Al-Adhami, A., Singh, R., Hopkins, P., & Curry, P. (2023). Primary graft dysfunction following lung transplantation: From pathogenesis to future frontiers. World Journal of Transplantation, 13(3), 58–85. https://doi.org/10.5500/wjt.v13.i3.58

Baird, T., & Bell, S. (2023). Cystic Fibrosis-Related Nontuberculous Mycobacterial Pulmonary Disease. Clinics in Chest Medicine, 44(4), 847–860. https://doi.org/10.1016/j.ccm.2023.06.008

Banks, M., Webster, J., Bauer, J., Dwyer, K., Pelecanos, A., MacDermott, P., ... Capra, S. (2023). Effect of supplements/intensive nutrition on pressure ulcer healing: a multicentre, randomised controlled study. *Journal of Wound Care*, 32(5), 292–300. https://doi.org/10.12968/jowc.2023.32.5.292

Barnes, H., Chambers, D., Grainge, C., Corte, T., Bastiampillai, S., Frenkel, S., ... Glaspole, I. (2023). Clinical utility of a standardized chronic hypersensitivity pneumonitis exposure questionnaire. Respirology (Carlton, Vic.), 28(4), 366–372. https://doi.org/10.1111/resp.14404

Barnes, H., Humphries, S., George, P., Assayag, D., Glaspole, I., Mackintosh, J., ... Walsh, S. (2023). Machine learning in radiology: the new frontier in interstitial lung diseases. *The Lancet. Digital Health*, 5(1), e41–e50. https://doi.org/10.1016/S2589-7500(22)00230-8

Barnett, A., Ball, L., Coppieters, M., Morris, N., Kendall, E., & Campbell, K. (2023). Patients' experiences with rehabilitation care: a qualitative study to inform patient-centred outcomes. *Disability and Rehabilitation*, 45(8), 1307–1314. https://doi.org/10.1080/09638288.2022.2057597

Battaglini, D., Premraj, L., Huth, S., Fanning, J., Whitman, G., Arora, R., ... Robba, C. (2023). The Use of Noninvasive Multimodal Neuromonitoring in Adult Critically III Patients With COVID-19 Infection. *Journal of Neurosurgical Anesthesiology*, 35(4), 423–428. https://doi.org/10.1097/ANA.00000000000000859

Bayat, M., Chan, W., Hay, K., McKenzie, S., & Ranasinghe, I. (2023). Feasibility, Safety, and Efficacy of Spot Urinary Sodium-Guided Titration of Intravenous Diuretic Therapy in Acute Heart Failure: A Randomised Controlled Trial. Heart, Lung and Circulation, 32, S156. https://doi.org/10.1016/j.hlc.2023.06.076

Beaulieu-Bonneau, S., Dubois, L., Lafond-Desmarais, S., Fortin, S., Forest-Dionne, G., Quellet, M., ... Gullo, H. (2023). Use of smartphones and tablets after acquired brain injury to support cognition. *Disability and Rehabilitation: Assistive Technology*, 1–9. https://doi.org/10.1080/17483107.2023.2199036

Behar Harpaz, S., Weber, M., Wade, S., Ngo, P., Vaneckova, P., Sarich, P., ... Canfell, K. (2023). Updated cost-effectiveness analysis of lung cancer screening for Australia, capturing differences in the health economic impact of NELSON and NLST outcomes. *British Journal of Cancer*, 128(1), 91–101. https://doi.org/10.1038/s41416-022-02026-8

Bell, J., Rushton, A., Elmas, K., Banks, M., Barnes, R., & Young, A. (2023). Are Malnourished Inpatients Treated by Dietitians Active Participants in Their Nutrition Care? Findings of an Exploratory Study of Patient-Reported Measures across Nine Australian Hospitals. *Healthcare*, 11(8), 1172. https://doi.org/10.3390/healthcare11081172

Bell, S., Sulfian, B., & Passamano, J. (2023). Working with cystic fibrosis. In A. Bush, M. Amaral, J. Davies, N. Simmonds, J. Taylor-Cousar, & S. Ranganathan (Eds.), Hodson and Geddes' Cystic Fibrosis (5th ed.). CRC Press. https://doi.org/10.1201/9781003262763

Bendotti, H., Ireland, D., Lawler, S., Oates, D., Gartner, C., & Marshall, H. (2023). Introducing Quin: The Design and Development of a Prototype Chatbot to Support Smoking Cessation. *Nicotine and Tobacco Research*. https://doi.org/10.1093/ntr/ntad217

Bendotti, H., Lawler, S., Chan, G., Gartner, C., Ireland, D., & Marshall, H. (2023). Conversational artificial intelligence interventions to support smoking cessation: A systematic review and meta-analysis. *Digital Health*, 9. https://doi.org/10.1177/20552076231211634

Bennett, R., Campbell, T., Garikapati, K., Kotake, Y., Turnbull, S., Kanawati, J., ... Kumar, S. (2023). A Prospective, Multicentre Randomised Controlled Trial Comparing Catheter Ablation Versus Antiarrhythmic Drugs in Patients With Structural Heart Disease Related Ventricular Tachycardia: The CAAD-VT Trial Protocol. Heart, Lung and Circulation, 32(2), 184–196. https://doi.org/10.1016/j.hlc.2022.09.006

Blake, T., Sly, P., Andersen, I., Wainwright, C., Reid, D., Bell, S., Kettle, A., & Dickerhof, N. (2023). Changes in urinary glutathione sulfonamide (GSA) levels between admission and discharge of patients with cystic fibrosis. MedRxiv, 23297497.

Boeddinghaus, J., Nestelberger, T., Koechlin, L., Lopez-Ayala, P., Wussler, D., Mais, M., ... Mueller, C. (2023). Association of accompanying dyspnoea with diagnosis and outcome of patients presenting with acute chest discomfort. *European Heart Journal: Acute Cardiovascular Care*, 12(5), 283–295. https://doi.org/10.1093/ehjacc/zuad026

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