WESLEY
RESEARCH INSTITUTE

2023/24
Highlights

Celebrating 30 years of research excellence thanks to supporters like you.

Welcome from our Chief Executive Officer

"We are delighted to be celebrating 30 years of positive and powerful global impact - only made possible by, and with thanks to, our committed supporters, researchers, clinicians and the wider Wesley Research Institute community."

Andrew Barron, CEO

Together, we are focused on enhancing the care and quality of life of every patient.

Our goal is to keep loved ones together for longer.

We achieve this through our research and clinical trials, improving access to healthcare services, diagnostics, treatment options and care.

As the official research partner of UnitingCare Queensland, we are privileged to work with world-class clinicians and a large number of patients across four hospitals, aged care facilities and community services. This partnership enables us to deliver internationally regarded clinical trials and biobank initiatives, to contribute to global knowledge and connect our research to clinical outcomes sooner.

It's wonderful supporters, like you, that make our work possible. You play a vital role in helping us reshape the future of healthcare.

I am excited to share the journey ahead with you, as we deliver new medical breakthroughs and advancements in healthcare.

I hope we can count on your ongoing support to ensure the best patient outcomes and ultimately save more lives.

With thanks,

Andrew Barron
Chief Executive Officer
Wesley Research Institute

Through your kindness, we improve lives

Wesley Research Institute is a small and agile team with a clear sense of purpose. Our long-term vision is to achieve excellence and innovation in health outcomes.

Our research delivers real-world impact in the most pressing healthcare areas.

Queensland Spatial Biology Centre (QSBC)	Health Services Research	Coeliac Disease & Immune Health	Clinical Trials Centre	Clinical Grant Program projects
Initial six core areas: • Triple-negative breast cancer • Ovarian cancer • Cardiovascular diseases • Sepsis • Acute lung injury • Treatment across multiple cancers	Initial three core areas: • Virtual Hospital Research Program • Chronic wound care • Older people, aged care and dementia	• Improve understanding around the disease • Faster and more accurate diagnosis • Increase quality of life • Explore treatments to manage the condition	• Coeliac Disease & Immune Health • Pulmonary Hypertension • Cardiology & Critical Care • Neurology • Respiratory • Orthopaedics	• Alzheimer's • Cancer recovery & post-operative care • Intensive Care • Pandemic preparedness & protection • Heart valve disease

Queensland Spatial Biology Centre (QSBC)

Giving our community hope of better treatments and better outcomes.

Patients with life-threatening diseases and conditions are fighting to survive. They should not have to endure rounds of gruelling treatment which may prove ineffective. The current "one size fits all" approach to medicine takes a toll on them and their loved ones. **For every patient who is desperate for better treatments, this research brings hope.**

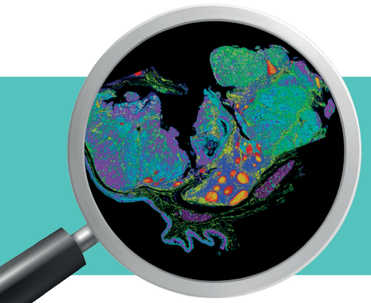
The Queensland Spatial Biology Centre was launched in early 2024 and our team is gaining new insight into disease at an unprecedented level and is months ahead of other research bodies in the spatial biology field.

Each patient is unique, and through our research, we can scan, map and analyse the microenvironment of their tumour or disease to explain their resistance and sensitivity to therapy.

People like Michel, a devoted father-of-two, are at the very heart of the work QSBC does. Six years ago, despite living a healthy lifestyle and never smoking, he was blindsided by a stage four lung cancer diagnosis.

"In the future, this technology means you will know very quickly not only what you have but which treatments will work. It's like having the Google Maps of cancer, giving us better information to make decisions."

Michel Itel, lung cancer patient (pictured below)



This is a "cellular map" of a head and neck cancer sample, where biomarkers have been used to differentiate cell types to enable our researchers to analyse the spatial distribution of cells and molecules. The cell organisation and interactions on this map are indicating that this person has multiple tumour pockets but not all have been successfully infiltrated by immune cells.

Our researchers are using maps like this one to build a digital library for clinicians of the future to use to combat and treat cardiovascular disease, sepsis, acute lung injury, triple-negative breast cancer, ovarian cancer and multiple cancers. They offer a roadmap for tailored treatments that can target individual cells, organs and diseases to improve patient health.

What we're working towards

Patient is diagnosed and requires treatment

A tissue sample is taken from this patient

Cell profiling within the tumour

Personalised treatment plan

Improved health outcomes for that individual patient

With your support, we can sustain our research long-term and execute a multi-year plan that will have an extraordinary impact on patient outcomes.

Learn more here:
wesleyresearch.org.au/queensland-spatial-biology-centre

QSBC
Queensland Spatial Biology Centre

The University Of Queensland
AUSTRALIA

Health Services Research

Advocating for the future of healthcare and those who rely on it.

The increasing demand for access to healthcare internationally, along with the rising costs of healthcare, are leading to an inefficiency and inequality in service delivery. Leaving many without the care they need.

Our new and fast-growing Health Services Research is an essential area of health and medical science, focussed on solving these challenges. Through innovation, our aim is to find sustainable and efficient ways of delivering care and providing equitable access for the community.

Using different types of research methods such as implementation science, health economics, statistics, and consumer-led research, we inform which models of healthcare need to be delivered and how best to deliver them within the public and private systems.

Leading to hundreds, if not thousands, of patients getting better care than what they would have otherwise.

Our current core research themes are focused on improving health care delivery:

Virtual Hospital Research Program

Understanding healthcare costs and the needs of critical care patients to support the adoption of virtual healthcare across Australia.

Older People, Aged Care and Dementia Research Program

Improving the mental and physical health, and quality of life, for our ageing population including those living with dementia and those living in aged care facilities – enabling greater access to health services for those that need them.

Chronic Wounds Research Program

Removing barriers to the prevention and treatment of chronic wounds in order to improve a patient's quality of life and increase their chance of survival.

"Both my wife and I are long-term clients of BlueCare. We rely on in-home respite. People like having their opinions included. Inviting us to directly participate gives us an opportunity to provide insight and is an important step forward for this research."

Patient and research participant

To remove barriers to healthcare access, and create a system that is equitable for all, we need ongoing funding for our consumers, our people and our research. You can directly contribute to this research and change the way health and aged care is delivered, ensuring better outcomes for patients across Australia and beyond.

Learn more here:
wesleyresearch.org.au/health-services-research

Navicare

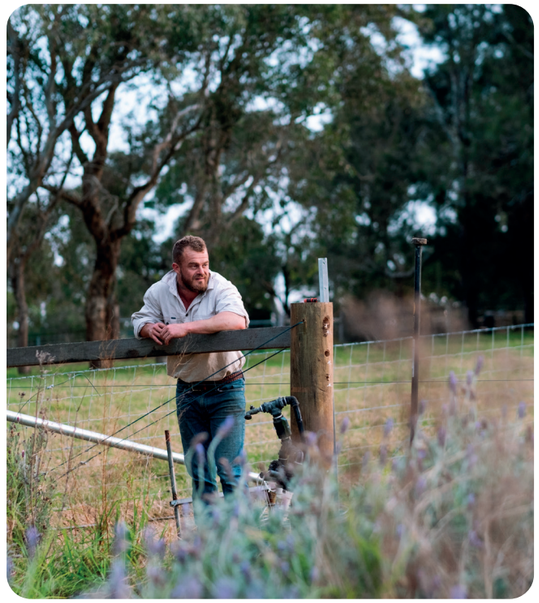
Transforming mental health care wherever home may be.

One in five Australians experience mental illness every year* but there is inequity in accessing support, particularly for those living in remote areas. Access to appropriate and timely mental health services is markedly more challenging than in urban centres, leaving many without the vital help they need.

Navicare is removing the barriers experienced by residents and workers in the Bowen Basin. They offer a free service to link individuals with mental health care support. The Navicare Hub is located at the Youth and Community Centre in Moranbah. As well as providing care navigation, it offers a dedicated phone line and Telehealth support.

Since its conception in November 2021, Navicare has improved the wellbeing of hundreds of Australians, connecting them with mental health support across the Isaac region.

Due to their growing reputation and referrals, an additional site in Clermont has been established to help ensure more Queenslanders get the care they need.



"Without Navicare, we would still be waiting for my daughter to access a single mental health support. I dread to think about how serious her mental health situation would be if Navicare had not been around. It has been such a relief for my daughter to finally access the mental health support she so desperately needed. I cannot thank Navicare enough for helping us when no one else could."

Parent of a 15 year old help-seeker

ISAAC NAVICARE HEALTH NAVIGATION SERVICE

FOUNDING PARTNER:

Mitsubishi Development

*According to Australian Institute of Health and Welfare, 2023.

Coeliac Disease and Immune Health Research

Improving understanding by engaging with our communities.

Coeliac disease is common with an estimated 1 in 70 Australians having the immune-based condition. However, only 20% of this number are diagnosed* meaning many who have coeliac disease don't know it yet.

Coeliac disease is caused when an intolerance to gluten in wheat, rye and barley products triggers an autoimmune response that attacks the small intestine. Like many diseases, symptoms and severity can vary from person to person. Patients can experience a wide range of symptoms such as abdominal pain, bloating, diarrhoea, constipation, fatigue and weight loss.

If left untreated, coeliac disease is associated with a three-fold increase in the risk of autoimmune diseases, osteoporosis, and malignancy. It can decrease quality of life with a two to four-fold increase in mortality. The disease can also lead to juvenile tooth decay, malnutrition, depression, and infertility.

Currently, the only treatment for coeliac disease is a gluten-free diet.

Wesley Research Institute is developing a world-leading multi-disciplinary research program for coeliac disease and immune health. This research looks to improve our understanding around the causes of coeliac disease. It will enable us to deliver faster and more accurate diagnoses and improve the quality of life for patients.

Through our investigator-led and industry-sponsored trials, we make discoveries to strengthen food labelling regulations, as well as test new treatments to reduce symptoms and reprogram immune cells to become tolerant towards gluten.

This research is vital in helping the estimated 360,000 Australians living with coeliac disease* have greater food security and treatments to manage their condition.

Through our newly established Coeliac Research Network, we are creating a community of those living with the disease, as well as researchers and allied health professionals who work together to progress our multidisciplinary research program .

Learn more here:
wesleyresearch.org.au/research-program/coeliac-disease

"This was my first experience at being involved in any sort of research. If I get the opportunity again, I would definitely put my hand up after the wonderful experience I had with your team. Thank you so much to Emma and all your team for making me feel so welcome."

Jillian, Gluten Threshold Study participant

*According to Australian Institute of Health and Welfare, 2023.

Clinical Trials Centre

Opening doors to change lives.

Clinical Trials Centre team

Our Clinical Trials Centre has been helping people live longer and have a better quality of life since 1994. The centre offers new and emerging treatment options to patients with various illnesses and diseases. We engage across four hospitals – The Wesley Hospital, St Andrew's War Memorial Hospital, Buderim Private Hospital and St Stephen's Hospital.

Each year, we see hundreds of amazing people who gladly contribute to medical discoveries to help future patients and improve their own quality of life - people like Eddie who recently received an experimental artificial heart valve in a minimally invasive procedure as part of a trial.

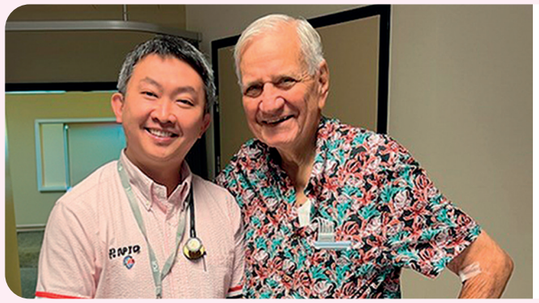
Eddie was diagnosed with aortic stenosis in 2015 after a few years of living with atrial fibrillation.

"Both of my parents had heart conditions, so the diagnosis wasn't unexpected," says Eddie.

Over the next few years Eddie's condition continually deteriorated and when it became severe in 2023, Dr Anand his local cardiologist, referred him to Dr Poon at St. Andrew's War Memorial Hospital. It was here that Eddie was recommended for the trial, undergoing the procedure a few short months later.

Six months on, Eddie says he hasn't felt this good in years which he attributes to his new artificial valve. Eddie will have his next follow up in February 2025 and expects his good health to continue.

Learn more about our Clinical Trials Centre here:
wesleyresearch.org.au/clinical-trials



"Being part of this trial and receiving the artificial heart valve has drastically improved the quality of my life. I am extremely confident that the valve will continue to serve me for many years to come."

Eddie, Clinical Trials participant (pictured to the leftwith Dr Karl Poon)

Biobank

A fundamental part of transformative research.

Our Biobank plays a significant role in breakthroughs for cancer, autism, wound care and rare genetic diseases.

Founded in 2007, this open-sourced and purpose-built facility provides a diverse collection of ethically-obtained blood and tissue specimen samples for biomedical research.

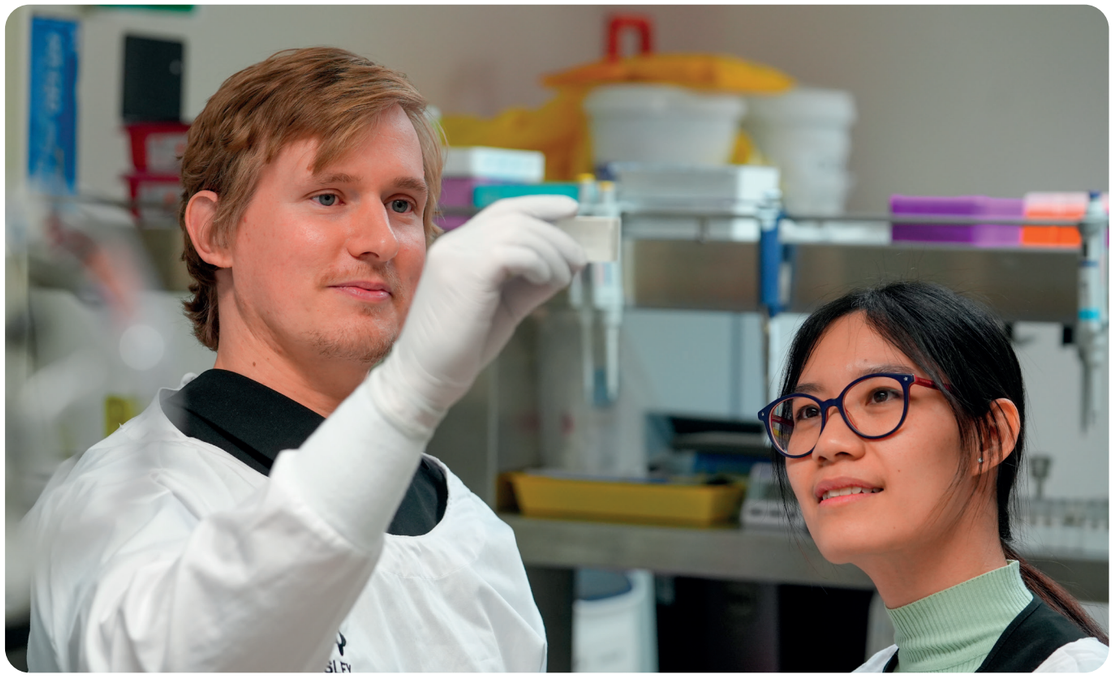
Our Biobank enables researchers to access human specimens which are used to identify improvements in the detection, diagnosis, and treatment of diseases. Samples stored in Biobank have been collected from people all over Queensland and are then distributed to medical researchers who investigate better ways to understand, diagnose, prevent, and treat conditions.

Holding more than 40,000 human biospecimens, this highly-specialised facility offers long-term protection and storage for samples including the Queensland Brain Tumour Bank, the Australian Autism Biobank, and the Justin Cameron Sarcoma Collection.

"Research done on these samples helps to better understand the human body in health and disease, and also come up with new and approved ways to treat and diagnose certain medical conditions."

Dr Michael Hodges-Langford, Biobank and Clinical Laboratory Coordinator (pictured below)

wesleyresearch.org.au/biobank



Dr Michael Hodges-Langford and Hanna Nguyen

Clinical Grant Rounds

Enabling our best, to do their best.

Each year, through our Clinical Grant Program, Wesley Research Institute awards seed funding to clinicians from the UnitingCare Queensland Hospitals to undertake early-stage research projects.

This clinical research is performed by doctors who treat the patients first-hand. They see the deficiencies in patient management and are well placed to produce invaluable research that translates into improved clinical outcomes.

Most recently, we awarded funds for six innovative projects across cardiovascular health, intensive care, Alzheimer's, cancer recovery and post-operative care, as well as pandemic preparedness – subjects with direct relevance to the most pressing healthcare challenges.

You can read about these projects here:
wesleyresearch.org.au/2023-clinical-grant-round

2023 Awardees

Associate Professor David Wong and Dr Sepinoud Firouzmand	**Dr Janine Porter-Steele and Professor Alexandra McCarthy**	**Dr James Winearls and Professor John Fraser**
I-MED Radiology Network at The Wesley Hospital Evaluating the added benefits of amyloid-PET scans in Alzheimer's disease assessment for early and accurate diagnosis.	**The Wesley Hospital Choices Cancer Support Centre** Aiming to test the feasibility of telehealth-delivered exercise therapy for cancer-treated ostomates, with a goal to improve their physical and emotional well-being.	**Intensive Care Unit, St Andrew's War Memorial Hospital** Creating artificial intelligence solutions for the early detection of complications associated with mechanical ventilation.
Professor John Fraser and Associate Professor Kirsty Short	**Dr Luke Garske and Professor Ian Stewart**	**Dr Christopher Raffel and Professor John Fraser**
St Andrew's War Memorial Hospital, The University of Queensland Pioneering research to advance pandemic protection for youth, using cutting edge spatial biology tools at the Queensland Spatial Biology Centre.	**The Wesley Hospital** Exploring the acceptability and feasibility of inspiratory muscle threshold load training after surgical procedures for malignant pleural effusion.	**St Andrew's War Memorial Hospital** Focusing on developing advanced cardiac assessment techniques to enhance treatment outcomes for patients undergoing transcatheter edge-to-edge repair.

"Having the opportunity to participate in this Study provided me with evidence-based information on a wide range of important topics that helped me learn to live well following a breast cancer diagnosis."

Emma, past-participant of EMERALD Study, a virtual lifestyle program for women recovering from breast cancer treatment run by Dr Janine Porter-Steele

The power of giving

Meg is one of our wonderful donors who sees value in our work.

For more than 13 years, Meg from Auchenflower has contributed to the sustainability of our vital research through her monthly donations.

In 2007, Meg underwent heart bypass surgery at The Wesley Hospital and couldn't speak more highly of the care she received. During her recovery, Meg met many people going through similar health journeys at the hospital's cardiac gym. They quickly became friends. So much so that almost 17 years later the group still gets together for regular workouts at a PCYC gym.

"They have become precious to me, they are an eclectic group from different backgrounds, but we're connected because of our experience at The Wesley."

The Wesley Hospital became Meg's second home from 2009 to 2019, where she volunteered in the hospital's cardiac ward to help ease patients' worries and encourage them that there is life after heart surgery.

Meg, Wesley Research Institute donor

"I'm a great believer in research and education and I'm very proud to be able to help through my monthly donations. The advancement of research is tricky and so dependent on the money they get. I donate to help researchers get closer to finding cures for terrible diseases. Being able to claim my donations on tax is a bonus!"

In this 30th year of progress and innovation, we are deeply grateful to all our supporters who have championed our work through their generosity. Philanthropy remains the cornerstone of our work, empowering us to drive meaningful change and advance our shared vision for a healthier future.

Every donation you make, big or small, helps us deliver our mission of empowering clinicians and other health professionals to advance medical and health research whilst improving patient care and quality of life.

As we look to the future, our focus on building impactful philanthropic partnerships and the joy of giving back has never been stronger. By working together with you, we can continue to push boundaries, transform bold ideas into reality, and deliver life-changing outcomes for the communities we serve.

Every contribution makes a significant difference.

If you would like to join Meg and our Giving community, please visit our website:

wesleyresearch.org.au/get-involved/donate

Dr John Feenstra, Rosemary, Bronwen Field and Marie-Louise Oegema

wesleyresearch.org.au

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Official Research Partner of

UnitingCare

The Wesley Hospital
St Andrew's War Memorial Hospital
Buderim Private Hospital
St Stephen's Hospital

Wesley Research Institute

Acknowledgement of Country

Wesley Research Institute acknowledges this Country and its Traditional Custodians. We acknowledge and respect the spiritual relationship between Traditional Custodians and this Country, which has inspired language, songs, dances, lore and dreaming stories over many thousands of years. We pay our respects to the Elders, those who have passed into the dreaming; those here today; those of tomorrow. May we continue to peacefully walk together in gratitude, respect and kindness in caring for this Country and one another.