WESLEY MEDICAL RESEARCH

THE WESLEY HOSPITAL | ST ANDREW'S WAR MEMORIAL HOSPITAL
BUDERIM PRIVATE HOSPITAL | ST STEPHEN'S HOSPITAL

2020-2021

# Annual Report

Giving hope. Changing lives.


*'Each of us has the power to make a difference and every little action counts.'*

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# Who We Are

Established on 8th December 1994 by a group of dedicated doctors from the UnitingCare network, Wesley Medical Research is Queensland's second-oldest medical research institute.

## WHO WE ARE

For more than 26 years, Wesley Medical Research has continued to push the frontiers of medicine, delivering real impact to patients while contributing to knowledge through research worldwide. At the core of its philosophy is a strong, heartfelt culture that focuses on giving hope and changing the lives of the sick and vulnerable.

Founded by the Uniting Church in Australia, Wesley Medical Research is the official research partner for the UnitingCare network and is committed to investing in innovations that lead to faster diagnoses, better treatment options, and ultimately cures for the most debilitating illnesses and diseases. Moving forward, Wesley Medical Research will continue focusing on medical and clinical research, as well as improve the way healthcare is delivered to further enhance patient outcomes.

## OUR VISION

To be recognised as a world leader in applied health and medical research and be acknowledged for achieving excellence and innovation in patient care.

Wesley Medical Research fosters a strong research culture in UnitingCare Hospitals, improving patient outcomes by linking medical research and clinical practice.

## OUR MISSION

Immediate improvements in patient care and quality of life through applied health and medical research.


*"We focus on immediate improvements in patient outcomes."*

# Chairman's Report

It is indeed a privilege to address our Wesley Medical Research network after my first full year as Chairman and 12th year of service as a Board member. I hope that my ongoing direct involvement with this organisation is a demonstration of my belief that Wesley Medical Research continues to make impressive progress in its Mission of improving patient care and quality of life through applied medical research.

In relation to the past twelve months, I am proud of the much closer relationship we have now forged with our UnitingCare family and would like to acknowledge the crucial role that our CEO, Dr Claudia Giurgiuman, has played in this transformation. I would like to sincerely thank Reverend Andrew Gunton, the Moderator of the Uniting Church in Queensland, for his support from the time he assumed his leadership position last year, along with Reverend Heather den Houting, the General Secretary of the Uniting Church in Queensland. My sincere thanks also go to Mr Nigel Alexander, the Chairman of UnitingCare Queensland (UCQ), and Mr Craig Barke, UCQ's CEO. Their foresight and recognition of the importance of research, and of our relationship, has culminated in a $3 million UCQ contribution to Wesley Medical Research in support of research to transform health services and medical practice. We look forward to working closely together in the coming years to further extend our partnership beyond UnitingCare Hospitals into other areas with research needs.

I offer my heartfelt thanks to all of Wesley Medical Research's sponsors who provided crucial donations to support the work of our COVID-19 Rapid Response Research Centre over the past year, as well as to all those who continued their long-term support of research in other areas. During the year, our research efforts to fight COVID-19 continued in specific project areas. We also saw impressive research advances made in neurology, coeliac disease and immune health, and other clinical innovation initiatives that build research capacity and capability within the UnitingCare Hospitals. As a Board we have been very pleased to see the good progress that was made in projects funded from the 2020 Clinical Innovation Grant Round funding, and to have been able to support another round of funding this year, with a desire to reinstate annual grant round funding for applied research projects across UCQ campuses.

We have a small core of committed major, corporate and individual donors, without whose generosity it would simply be impossible for our institute to function. In particular, I would like to thank the tremendous ongoing support of Mitsubishi Development, as well as Alan and Wendy Grummitt, the Brazil Family Foundation, Hugh and Bev Sheardown, In Vitro Technologies, the VidyaJey Foundation, Albrecht Family Foundation, Donald and Joan Wilson Foundation, the John and Wendy Thorsen Foundation, Shane and Matthew Doyle, and Alex and Mary Peden. Of course, the contributions from all our financial and in-kind sponsors are gratefully received and my thanks extend across our whole network.

Since the last annual report, Dr Claudia Giurgiuman's title has been changed from General Manager to CEO, in recognition of her expanding role and leadership of an organisation that has been transformed with key senior appointments to drive initiatives under a refreshed strategic plan approved by the Wesley Medical Research Board. Claudia joined the Board during the year as an ex-officio Board member. Other Board movements include the appointment of an experienced former corporate executive and lawyer, Mr Neal O'Connor, following the retirement of Mr Peter Allen, and the re-appointment of Professor Mary-Louise Fleming and Dr John Rivers. I thank each of them for their willingness to serve; I believe we continue to have a Board with a well-rounded skills mix.

I am grateful for the ongoing support from my fellow directors, from our Patrons, management team and volunteers, all of whom play a role in helping our organisation to create positive change and improve the health of many through medical research. I also extend my sincere thanks to our Chief Patron, His Excellency the Honourable Paul de Jersey AC, Governor of Queensland, for his ongoing interest and commitment to Wesley Medical Research in the final year of his term as Governor.

We approach the coming year with growing confidence in our ability to extend our reach and influence as a research institute, as UnitingCare Hospitals' official research partner, and with the capacity to continue to grow our endowment and supporter base to underpin an ambitious research strategy.

**Mr Charlie Sartain**
**Board Chair**

# Governor's Message

I am delighted to have this opportunity – regretfully the last – as Governor and Chief Patron to highlight the achievements of Wesley Medical Research.

It has been a pleasure and an honour to be associated with the organisation over the past seven years.

I was able to celebrate with the organisation its 25th Anniversary in 2019, and to host staff and supporters at Government House on several occasions, including for the presentation of Achievement Awards.

I had the further honour of opening the COVID-19 Rapid Response Research Centre last year, a timely intervention as medical professionals everywhere sought to 'know their enemy' in order to more effectively combat the spread of the virus and its impacts on the community.

However, while COVID-19 has loomed large in our lives, the need to continue research into other significant and challenging medical conditions has not abated.

Wesley Medical Research has continued without pause in its quest to find better diagnostic techniques and treatments, and to enhance quality of life for patients.

The organisation has also continued to leverage its strong links with clinicians and other medical professionals to ensure that patient well-being remains the centre of its research ethos.

The following report sets out the achievements stemming from these approaches in 2020-2021.

I congratulate Wesley Medical Research on these achievements. I sincerely thank all whose dedication and generosity have contributed to these successes including the Board, executive and staff, allied medical professionals and institutions, donors and supporters, and volunteers in clinical trials. Together they are indeed changing lives and bringing hope, now and into the future.

GOVERNOR OF QUEENSLAND

Paul de Jersey

**His Excellency the Honourable Paul de Jersey AC CVO**
Governor of Queensland

Our sincere thanks to our Patrons for their continued contribution and support.

**Mr Martin Albrecht AC**
Patron

**Associate Professor John Allan**
Patron

**Emeritus Professor John Pearn AO**
Patron

# Chief Executive Officer's Report

This year, medical research has again attracted attention as never before in history. Our efforts at Wesley Medical Research have continued to focus on improving patient outcomes by delivering the first year of our three-year strategy.

Over the past year, we strengthened our already solid relationship with our UnitingCare partner and can announce a new level of support through a $3 million UnitingCare investment into research. We sincerely thank them for this incredible contribution and look forward to sharing more about this new research investment in the next 12 months.

When I wrote my report last year, we had just pledged our commitment to supporting the global research community in finding answers for COVID-19. I am delighted to report on the extraordinary efforts made by some of the world's most brilliant research minds based right here in Queensland, as part of our COVID-19 Rapid Response Research Centre. Their achievements are truly astounding and indeed have made a global impact.

In addition to the research advances made into COVID-19, our attention has been on building our Coeliac Disease and Immune Health Research Program. Thanks to the work of Dr James Daveson and a powerful multi-disciplinary team, we are closer to understanding the threshold of gluten that activates the immune response, injures the gut and causes symptoms in coeliac disease patients. This work is ground-breaking and is likely to revolutionise coeliac disease diagnosis methods, its treatment, and its management regimens.

We have continued our Neurology Research Program with over $4 million invested thus far to better understand neurological conditions such as motor neurone disease, multiple sclerosis, and Parkinson's disease, to name a few. In this report, we focus on the progress made in Parkinson's disease.

The past 12 months have also shown us the importance of investing in both our research and corporate infrastructure. We've continued to build upon our existing services including our Research Administration Office that provides support with such matters as ethics submissions and biostatistics analysis. Our support extends to grant opportunities via our 2021 Clinical Innovation Grant Round. Furthermore, re-energising the Wesley Medical Research Biobank and growing our offering of new and emerging treatment options through our Clinical Trials Centre has been a key area of focus.

Regarding corporate services, we have invested in mitigating future risks to the organisation with the development of a new Risk Management Framework and have re-positioned Wesley Medical Research's ICT platforms and data to a cloud-based secure environment. We've installed a new Audio-Visual Conferencing System and have revitalised our facilities to provide an improved patient experience.

Despite a challenging year, I am in awe of our many donors, supporters, advocates, and volunteers who continue to stand alongside us and provide the means by which we can continue to change lives and give hope to the most vulnerable members of our community

I continue to be inspired by the commitment of our wonderful team whose resilience throughout the year has been remarkable and whose dedication to the life-saving power of medical research continues to flourish.

Thank you.

**Dr Claudia Giurgiuman**
**Chief Executive Officer**

# Diving into the three-year plan

Wesley Medical Research is one year into the three-year strategic plan approved in May 2020 and has achieved a number of key milestones already.

**$10.8m**

We will generate $10.8m revenue over 3 years to invest in world-class research to significantly advance medical research and improve patient outcomes

$0 — $5.9m Year 1 — $10.8m

**QUALITY RESEARCH**

We will become the research partner of choice within UnitingCare

UnitingCare contributed $3m to invest in research

## PROGRAMS OF RESEARCH EXCELLENCE

### Coeliac Disease and Immune Health Research Program

Led by Dr James Daveson, the Program sets forth an ambitious agenda aimed at developing a greater understanding of the fundamental biological principles underlying autoimmune disease onset and progression; devising improved diagnostic tools; creating more effective interventions and ultimately, finding cures.

### COVID-19 Rapid Response Research Centre

Established in 2020, the COVID-19 Rapid Response Research Centre is a private and public sector collaboration led by UnitingCare's brightest minds to support people dealing with COVID-19 on the frontline, those who are critically ill, those with pre-existing conditions who are impacted by COVID-19 and those who are vulnerable to mental health concerns.

The work of the Centre has made significant advancements to our understanding of this disease including the Long-COVID phenomenon, new treatments, and the impact of COVID-19 on the mental health of our communities.

### Neurology Research Program

Over $4 million has been invested into the Neurology Research Program at Wesley Medical Research since 2016 thanks to the remarkable generosity of the Brazil Family Foundation. As a result, impressive progress to our understanding of neurological conditions such as motor neurone disease, Parkinson's disease, Huntington's disease, and Multiple Sclerosis, has been made.

## UNITINGCARE

In collaboration with UnitingCare, we will build research capacity and capability thereby enhancing healthcare delivery in UnitingCare and beyond.

x24 new Clinical Innovation research projects

$3.5m investment

## NATIONAL LEADER

We will become a nationally competitive research institute

$2.46m MRFF grant secured in partnership with The University of Queensland providing a new treatment option for Ataxia Telangiectasia patients.

## PEOPLE FOCUS

We will enhance the capability of our people and our organisation to deliver on our mission.

The Clinical Trials Centre team (left to right back row) Emma Brownrigg, Anne Tremellen, Laura Pareezer, Emma Woodhall, Leah Hingston; (left to right front row) Venita Bali, CEO Dr Claudia Giurgiuman, Jacqui Langton

## RESEARCH INFRASTRUCTURE

### The Wesley Medical Research Biobank driving translational research

The Wesley Medical Research Biobank continues to play a significant role in breakthroughs for cancer, autism, and rare genetic diseases. Holding more than 40,000 samples, 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.

### Clinical Trials Centre offers patients life-saving therapies

Wesley Medical Research's Clinical Trials Centre is engaged across four hospitals and is critical to giving hope and changing lives by enabling patient participation in national and international clinical trials (phase 1-4). These trials focus on evaluating new therapies, drugs, and diagnostic tools to transform lives and drive discoveries into standard clinical practice.

### Research Administration Office

The Research Administration Office supports clinicians and scientists to bring immediate improvements to patient outcomes.

## CLINICAL INNOVATION

### Clinical Innovation Grant Round

Wesley Medical Research invested $3.5 million in medical research through its 2020 Clinical Innovation Grant Rounds, across a range of illnesses and diseases including neurological disorders, cancer, cardiovascular disease, infectious disease, respiratory disease, orthopaedics and perioperative services.

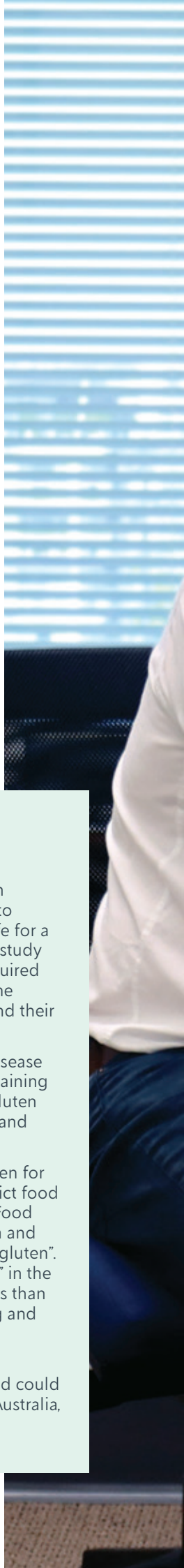
In the 2021 Clinical Innovation Grant Round, Wesley Medical Research intends to invest a further $1.47 million to continue driving change for better health outcomes through clinical innovation.

Our desire is to reinstate annual grant round funding for clinical innovation projects, across the UnitingCare Hospitals.

Programs of Research Excellence

# Coeliac Disease and Immune Health Research Program

The Wesley Medical Research Coeliac Disease and Immune Health Research Program will deliver a comprehensive and cohesive research program led by a powerful multi-disciplinary collaboration comprising academic researchers, medical practitioners, hospitals, and patients. It sets forth an ambitious research agenda aimed at developing a greater understanding of the fundamental biological principles underlying autoimmune disease onset and progression; devising improved diagnostic tools; creating more effective interventions and ultimately, finding cures.



## FOCUSING ON COELIAC DISEASE

Coeliac disease is an autoimmune disease where the immune system reacts to gluten (found in wheat and other grains) and damages the small intestine. Coeliac disease causes a range of symptoms including abdominal pain and distention, malabsorption, constipation, diarrhoea, fatigue, and osteoporosis.

Currently, the Coeliac Disease and Immune Health Research Program is focusing on a game-changing clinical trial that aims to better understand the threshold of gluten that activates the immune response, injures the gut and causes symptoms in coeliac disease patients.

The Program also aims to improve coeliac disease screening programs in children, thanks to a $50k Coeliac Australia grant, and continues to drive forward new treatment interventions for all coeliac disease patients through sponsored clinical trials.

## COELIAC DISEASE GLUTEN THRESHOLD STUDY

Dr James Daveson commenced the Gluten Threshold Study in 2021. This study aims to determine the amount of gluten that is safe for a patient with coeliac disease to ingest. The study will determine the threshold of gluten required to release inflammatory biomarkers into the bloodstream of coeliac disease patients and their visible physical symptoms.

Currently, the only treatment for coeliac disease is a strict, lifelong avoidance of foods containing gluten, however, the minimal amount of gluten that causes acute symptoms, gut damage and immune activation remains unknown.

This uncertainty over the safe dose of gluten for patients with coeliac disease has led to strict food guidelines in Australia and New Zealand. Food is only labelled as “gluten-free” in Australia and New Zealand if it contains “no detectable gluten”. In contrast, food is labelled as “gluten-free” in the rest of the world if it contains gluten at less than 20 parts per million. This can be confusing and dangerous for coeliac disease patients.

Our research addresses a knowledge gap important for food labelling guidelines and could revolutionise food labelling standards in Australia, New Zealand, and potentially worldwide.

*'Our research addresses a knowledge gap important for food labelling guidelines and could revolutionise food labelling standards.'*

Dr James Daveson

## PAEDIATRIC DENTAL ENAMEL AND COELIAC DISEASE DIAGNOSIS

Early diagnosis of coeliac disease is important considering the life-long implications of patients with coeliac disease. It is known that coeliac disease can cause dental enamel defects, delayed dental development and more cavities in children. Therefore, children with developmental defects in tooth enamel are a highly visible cohort of potentially undiagnosed patients with an elevated risk for coeliac disease.

To this end, Dr James Daveson will undertake a new study that aims to investigate the incidence of undiagnosed coeliac disease in children presenting with developmental defects of tooth enamel. The project will recruit 300 children to undergo a simple point-of-care test using a pin prick sample of blood, which will provide screening results for coeliac disease in ten minutes. This is an opportunity to establish and validate a unique screening program that offers accurate and cost-effective testing and could eventually be applied in dental clinics across Australia.

## SPONSORED CLINICAL TRIALS

In addition to these studies, the Wesley Medical Research Clinical Trials Centre is advancing a number of sponsored clinical trials to address gastroenterological conditions in coeliac disease and irritable bowel syndrome (see also page 23).

**Proudly supported by**

Coeliac Australia

Hugh and Bev Sheardown

The Donald and Joan Wilson Foundation

The John & Wendy Thorsen Foundation

Peter and Anne Allen

The power of teamwork – clinician researchers, donors and patients. Left to right: Mrs Bev Sheardown, Dr James Daveson, Dr Bob Anderson, Mr Hugh Sheardown, and Mr Michael Fitzgerald.


Left to right: Professor Steven McPhail, Professor Bala Venkatesh, Professor John Fraser, Associate Professor Gianluigi Li Bassi, and Dr John Rivers.

Programs of Research Excellence

# COVID-19 Rapid Response Research Centre

The world we live in has changed. However, the medical profession, that has been respected and trusted as the highest authority to deliver quality patient care, must continue to be held in high regard.

It is still our trained doctors and nurses that we rely on to steer our health through the most difficult of times. They are dedicated more than ever during this pandemic to provide reliable guidance and advice in accordance with robust scientific medical research evidence.

As the globe continues to grapple with the COVID-19 pandemic, and the noise of media, politics, pseudo-science, and self-made experts continues to cause confusion, our community needs focus. That focus must be on the message of our experts that have, under oath, dedicated their lives to putting the patient first and in whom we have placed our trust, many times before, to save our lives and the lives of our loved ones.

The voice of Dr Paul Bartley, Director of Infectious Diseases at The Wesley Hospital is loud and clear. "Get vaccinated," he unequivocally stated during our recent Rosalie Martin Event Series where a panel discussion, providing an update on the work of the COVID-19 Rapid Response Research Centre, occurred. "We must learn to live with this virus," he continued, "and history has shown that vaccination works for a range of infectious diseases."

The Wesley Hospital's Intensive Care Unit Director, Professor Bala Venkatesh, agrees. "My goal has been to protect our frontline healthcare workers,' Professor Venkatesh iterates. "If our healthcare workers are not properly protected from this virus, we are in serious trouble," he continues.

Initially, Professor Venkatesh investigated the prophylactic (preventative) effect of an anti-malarial drug known as hydroxychloroquine, in healthcare


*"Get vaccinated."*

**Dr Paul Bartley**
**Director Infectious Diseases, The Wesley Hospital**

Dr Paul Bartley, Director Infectious Diseases, The Wesley Hospital

workers in India. Although funding was limited for his "HOPE" study compared to similar studies receiving millions, HOPE is the largest multi-centre trial of hydroxychloroquine prophylaxis from a lower-middle income country. Professor Venkatesh recruited the highest number of healthcare workers and has the largest single data set. "Hydroxychloroquine doesn't appear to work as a preventative," Professor Venkatesh said. Hydroxychloroquine along with standard practice was not superior to standard practice alone on the proportion of lab-confirmed COVID-19. However, conclusions are limited by the premature trial cessation consequent to commencement of vaccination in India in January 2021, and the vaccine product information sheet advising against the concomitant use of chloroquine analogs. Professor Venkatesh has studied 3 new treatments for COVID-19 using the same collaborative network of hospitals that supported the HOPE study.

"Collaboration is key," shares Professor John Fraser, Director of the Intensive Care Unit at St Andrew's War Memorial Hospital. "The reality is that the only way we can find a solution is by working together," he said.

Professor Fraser leads a global 'COVIDCritical' collaboration where information on COVID-19 patients in ICU is gathered from 400 centres in more than 50 countries across 6 continents. Information from more than 15,000 patients has already been captured in the system. This work is funded not only by Wesley Medical Research's very generous donors but a range of other supporters, specifically The Common Good.

In addition, in-kind support from the likes of Amazon Web Services and IBM have ensured the system is tailored for data capture by healthcare workers on the frontline in poor and well-off countries alike. The Gates Foundation and Minderoo Foundation are in final stage negotiations of grant support for this world-first endeavor also.

Professor Fraser knows well that without data, "we run blind" and so the focus is on better understanding the disease to improve prevention, diagnosis, treatment, and management of COVID-19. His data – although he will be the first to say that the data belongs to all of us – has already shown ill-effects on the lungs (as expected) and on the liver, kidneys, heart, and brain.

"This is concerning," Associate Professor Gianluigi Li Bassi, who works closely with Professor Fraser, states. "We will use this same platform to track patients that have survived COVID-19 following ICU admission," he added.

Associate Professor Li Bassi's interest is in understanding Long-COVID – the phenomenon of long-term effects following ICU discharge. He has already recruited 47 patients from 15 world-renowned institutions around the world, as part of the AFTERCOR study, and aims to describe disabilities of this novel disease, up to two years after ICU discharge. Associate Professor Li Bassi was troubled by some comments from international collaborators, who have patients not being able to work 3 months after severe COVID-19.

The conversation at two of our Rosalie Martin Advocates Events recently held to provide an update on Wesley


Rosalie Martin Event Series – The COVID-19 Rapid Response Research Centre Update panel shared progress of their research into COVID-19, August 2021.

Medical Research's COVID-19 Rapid Response Research Centre was electric. Our advocates and supporters are clearly passionate about the issues surrounding COVID-19 and are keen on understanding the broader implications. Inevitably, concerns surfaced about the effect multiple lockdowns are having on our economy, and on the mental health of our community.

"Tragically, suicide rates increase with remoteness," Dr Bridget Abell confirmed, "and COVID-19 is a compounding factor that cannot be ignored." Thanks to Mitsubishi Development, our regional communities have not been forgotten and, in collaboration with QUT's Australian Centre for Health Services Innovation, a new mental health care model has been developed. Our team reached out to more than 60 stakeholders in the region and a consistent theme emerged. The community is crying out for better access to mental health services, someone to help them navigate the complex system, and a physical hub for help-seekers to go to for that help. We are excited to have appointed our first Mental Health Care Navigator in the heart of the mining community – Moranbah, Queensland – where those in desperate need can find a caring environment.

The Wesley Medical Research COVID-19 Rapid Response Research Centre has the humbling privilege of offering the public trusted information, backed by rigorous scientific evidence, developed by expert doctors, nurses, and scientists. This is a source of reliable information for a community in desperate need of a clear message.

*"If our healthcare workers are not properly protected from this virus, we are in serious trouble."*

**Professor Bala Venkatesh**
**Intensive Care Unit Director, The Wesley Hospital**

## BRAZIL FAMILY FOUNDATION

Wesley Medical Research would like to acknowledge the Brazil Family Foundation's support of the COVID-19 Rapid Response Research Centre in 2020.

*"Through our family foundation we have been long term supporters of Wesley Medical Research. Over the past 6 years we have enjoyed seeing the impact the dedicated team of researchers and clinicians have had on their areas of research and look forward to continuing our support."*

**Lyn Brazil**

Programs of Research Excellence

# Navicare – Improving mental health in the Bowen Basin

In 2020, modelling indicated that mental health issues were likely to rise significantly in Australia as a result of COVID-19.

Eighteen months on, data from the Australian Institute for Health and Welfare shows that although suicide rates have remained stable, there has been a significant increase in demand for mental health services.

In rural and remote areas, access to mental health services is substantially more limited than in metropolitan areas and tragically, rates of suicide and self-harm increase with remoteness.

The Bowen Basin is a region where this increasing demand for mental health support has not been met with a proportional increase in mental health services, predominantly due to challenges of funding, delivering, and staffing mental health services in this region.

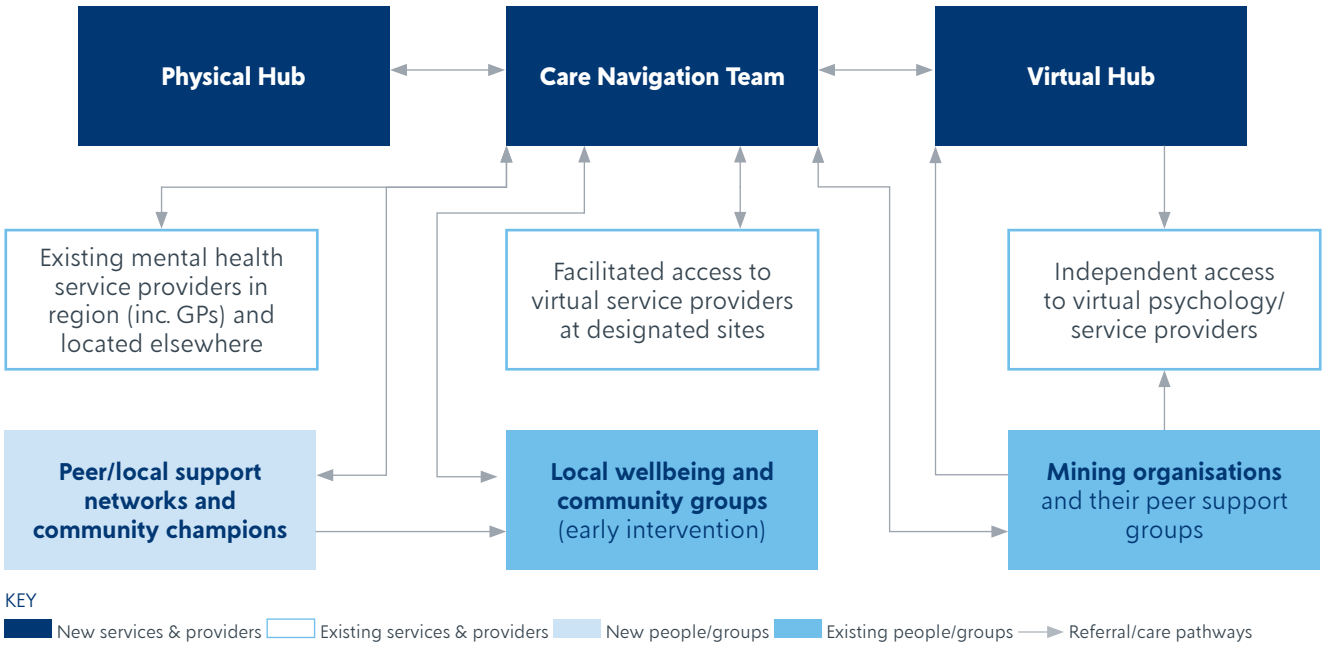
Queensland cannot wait. Its mental health service providers must urgently be equipped with the capacity to respond to the expected dramatic increase in demand for mental health services.

Thanks to the generous support of Mitsubishi Development, Wesley Medical Research, has completed phase 1 of a three-phased research program that aims to enhance access to mental health services and improve mental health outcomes in the Bowen Basin.

Our team worked in collaboration with the Bowen Basin community and our academic collaborator Queensland University of Technology's Australian Centre for Health Services Innovation to complete phase 1.

## PHASE 1

Phase 1 focused on understanding the context of mental health service delivery in the Bowen Basin including associated barriers and facilitators. Following extensive stakeholder consultation, a new layered mental health care model, named Isaac Navicare, was co-designed, with local community input.



Mrs Kelly McGrath, Isaac Navicare Mental Health Care Navigator

## PHASE 2

Phase 2 of the project has commenced and seeks to implement Isaac Navicare, a model that focuses on care navigation and connection to assist help-seekers in finding the right service at the right time to support them through their mental health journey.

This model consists of:

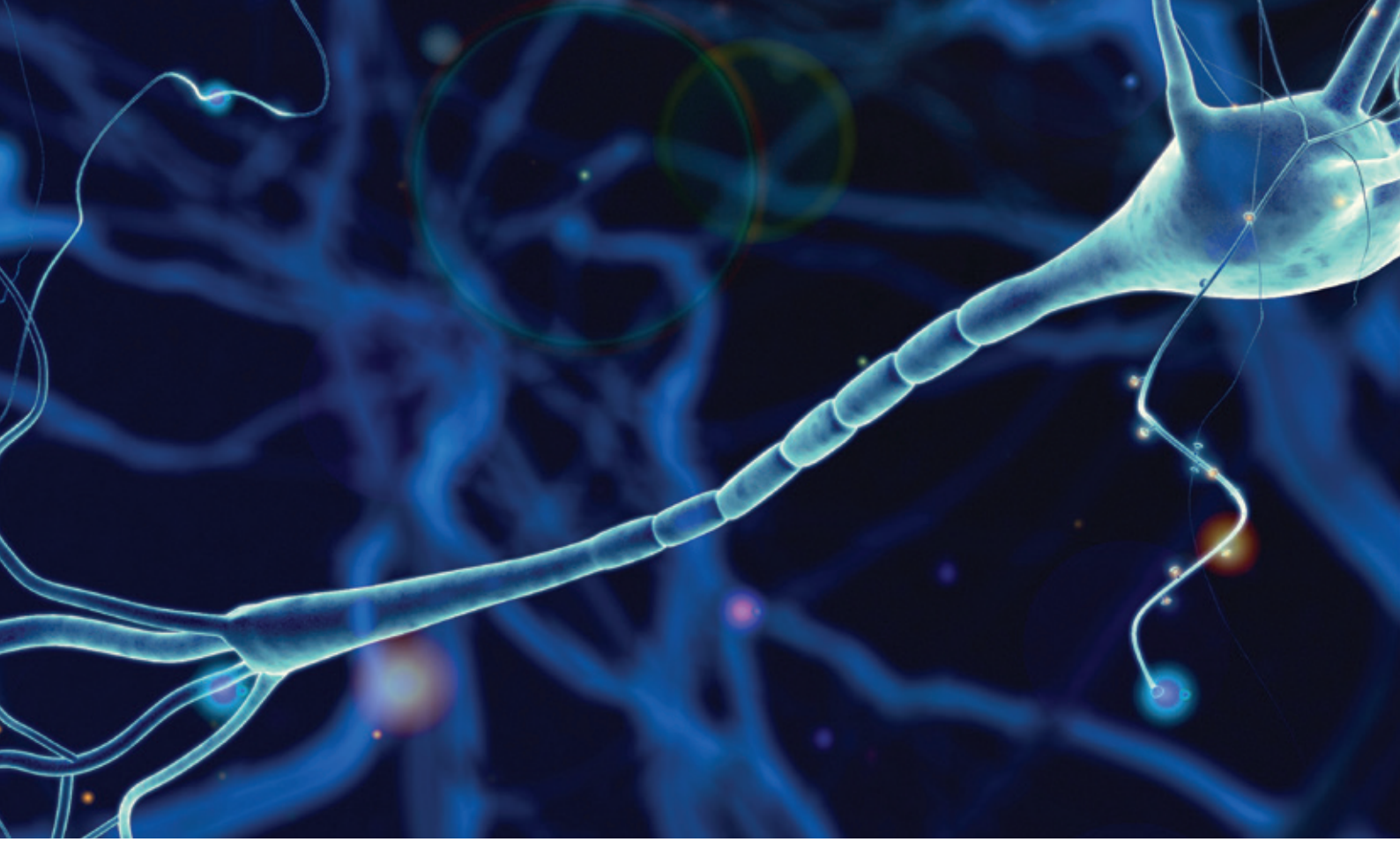
- **Physical Hub** – A mental health and well-being information hub will provide benefits including a "home base" for the Mental Health Care Navigator, telehealth rooms, an information and resource hub, and capacity for walk-in referrals.
- **Virtual and Telehealth Services** – Access to telehealth services is necessary to provide specialist mental health care in the region. To meet community needs, help-seekers will connect with online psychology services and access support at the physical hub.
- **Mental Health Care Navigator** – Mrs Kelly McGrath (pictured above) will provide much needed help-seeker support while promoting education and awareness of mental health services. The role will assist with telehealth appointments, coordinate case management with providers, and link with local partners and networks.

**MyMirror Support** – This service was established in March 2021. The online psychology service *My Mirror* provides access to fully registered psychologists that are individually approved by the *My Mirror* team. *My Mirror* is equipped with a wide range of expertise and is available to support help-seekers take responsibility for their mental wellbeing when they need it most.

ISAAC NAVICARE
A Wesley Medical Research Initiative

## PHASE 3

Phase 3 of the project will provide a robust evaluation of the trialled model of care that will inform a continuing service delivery model to provide sustained, improved mental health in the Bowen Basin. This phase is expected to commence shortly and will run in parallel with Isaac Navicare implementation.



Programs of Research Excellence

# Neurology Research Program

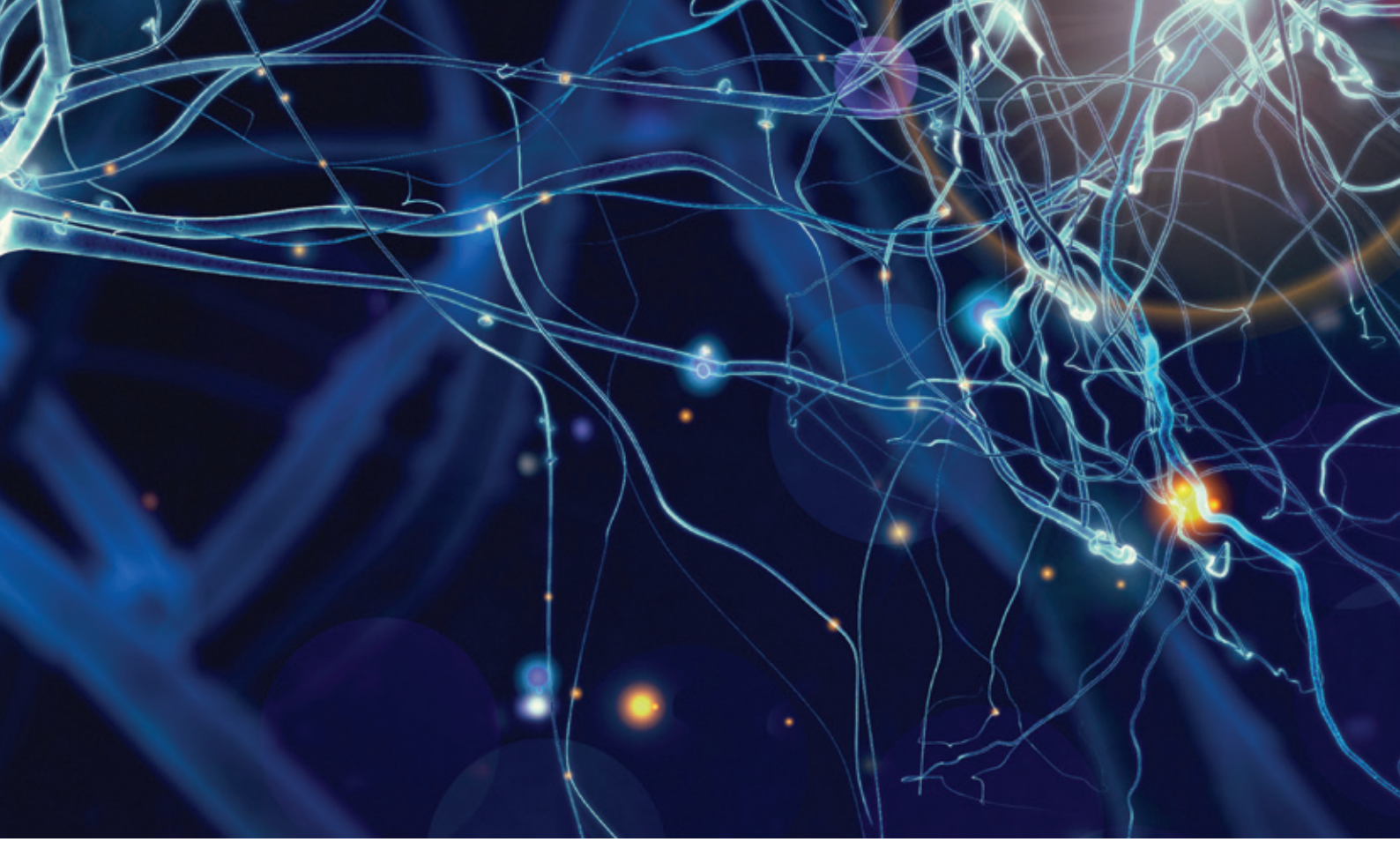
Neurological conditions such as dementia, epilepsy, Parkinson's disease, stroke, brain tumours, multiple sclerosis, motor neurone disease, Huntington's disease and others, inflict a tremendous toll on the individual and society.

Over $4 million has been invested in unlocking the mysteries of neurological conditions at Wesley Medical Research, thanks to the generosity of the Brazil Family Foundation.

Despite progress, there is so much unknown.

Neurogenerative diseases have an urgent need for better understanding and awareness making them a high priority for research. Understanding the fundamental cause of these diseases is required for a rational approach to therapy.

In this report, we focus on Parkinson's disease and describe some of the advancements made as part of this program of work carried out in collaboration with The University of Queensland and QIMR Berghofer Medical Research Institute. The studies of Associate Professor Jane Nikles, Associate Professor John O'Sullivan, Dr Richard Gordon and Dr Philip Mosley are featured.



## USE OF MELATONIN COULD IMPROVE INSOMNIA IN PARKINSON'S DISEASE PATIENTS

**Scientific Title:**
Using N-of-1 Trials to Identify Responders to Melatonin for Sleep Disturbance in Parkinson's disease

**Lead Researcher:**
Associate Professor Jane Nikles, Medical Practitioner

Almost 40% of Parkinson's disease patients report insomnia as a symptom, leading to extreme fatigue. Without proper sleep, patients are left physically and mentally exhausted which impacts not only on their quality of life but that of their family members and carers. In Parkinson's disease there is little evidence that current treatments are effective for sleep disturbances. A small number of studies have investigated different drugs, cognitive behaviour therapy and even caffeine, but the results have not been sufficiently convincing to recommend any of these treatments for long-term treatment of sleep-related problems. Emerging evidence would suggest that circadian rhythms are disturbed in Parkinson's disease patients, contributing to sleep disorders.

In this study, Associate Professor Jane Nikles and her team have recruited 42 patients and are testing whether these patients respond to a naturally occurring hormone, melatonin, that promotes sleep. Melatonin is released from the pineal gland and is known to regulate body temperature, the reproductive rhythm, immune function, and the circadian rhythm (your body's 24 hour 'internal clock') by promoting the desire to sleep at night.

The response rate to melatonin in people with Parkinson's disease is not known, and it is therefore important to identify those people who do respond to this hormone as this may alleviate their insomnia. This study uses N-of-1 trial methodology and makes the findings more personally relevant for participants. The beauty of the N-of-1 methodology is that it involves single patients serving as their own controls to determine response and benefit for each individual. Such results will provide direct and immediate feedback to the individual participants about the effectiveness of melatonin for them.

As such, each participant in this trial received either melatonin or a placebo (dummy drug) and crossed back and forth between the two interventions in random order, several times over a 12-week period. Based on their response in a two-week run-in period on 3mg daily of melatonin, participants would trial either 3mg or 6mg. Participants maintained a sleep diary and wore an activity monitor throughout the study. This enabled clinicians to identify the effectiveness and safety of melatonin for that individual, with greater precision than can be generally achieved by using the informal trial-and-error method commonly used in clinical practice.

This trial did not give participants an immediate outcome on whether melatonin helps them individually but collating the data will provide an estimate of treatment effect on the whole population. Such N-of-1 methodology provides these answers with less than half the number of participants required in trials where separate groups are needed to test intervention versus placebo effects.

**Impact:**
If shown to be effective and safe in the overall group, melatonin therapy could be offered routinely to suitable Parkinson's disease patients.

Dr Richard Gordon

## SUSTAINING PHYSICAL ACTIVITY FOR IMPROVED MUSCLE FUNCTION IN PEOPLE WITH PARKINSON'S DISEASE

**Scientific Title:**
A Physiotherapy Exercise Program with a Self-Management Approach to Improve Physical Activity in People with Mild-Moderate Parkinson's disease

**Lead Researcher:**
Professor Sandra Brauer and Dr Robyn Lamont, Physiotherapists

Despite best medical interventions, people with Parkinson's disease show steady decline in physical function over time. Research shows that exercise is beneficial to improve and maintain physical function and physical activity but maintaining this over time is challenging for Parkinson's disease patients.

The work of Professor Brauer and Dr Lamont aims to assist people with Parkinson's disease improve their physical activity levels, and more importantly, to maintain them over time, by trialling a new intervention of physiotherapy group sessions. These group sessions involve exercise and a self-management approach using self-monitoring armband devices to improve physical activity levels.

Initially the study was only conducted in Brisbane but now the geographical footprint has expanded to include patients from the Logan Hospital and Buderim Private Hospital.

**Impact:**
A combination physiotherapy exercise program could enable sustained physical activity in people with Parkinson's disease.

## EARLY SYMPTOMS OF PARKINSON'S DISEASE LEAD HOPE FOR A CURE

**Scientific Title:**
Restoring Microbiome in Patients with Parkinson's disease

**Lead Researcher:**
Associate Professor John O'Sullivan, Neurologist, and Dr Richard Gordon, Neuroscientist

Common and significant symptoms of Parkinson's disease include difficulty swallowing, feelings of nausea, bloating and constipation. These symptoms are believed to be caused by the same brain changes that lead to stiffness and coordination of muscle movement involved in pushing food through the digestive tract.

The literature suggests that a disruption in the balance between the good and bad bacteria that exist in our digestive tract may be associated with a range of problems in Parkinson's disease. Associate Professor John O'Sullivan and Dr Richard Gordon propose that gut health issues in Parkinson's disease patients could be caused by a drop in the good bacteria in the gut, particularly Faecalibacterium Prausnitzii. By restoring Faecalibacterium Prausnitzii using an oral supplement, this study aims to improve gut dysfunction, constipation, and other associated complications in Parkinson's disease patients.

If the proposed therapeutic strategy achieves long-term restoration of the good bacteria in Parkinson's disease patients, it could have the potential to slow disease progression, or enable better management of Parkinson's disease symptoms. In addition, this approach could be beneficial in the treatment of other neurological disorders such as motor neurone disease.

The $2.31 million project is funded by Wesley Medical Research thanks to the generous donation of the Brazil Family Foundation, The State of Queensland Advance Queensland Innovation Partnership, The University of Queensland, Metro North Hospital and Health Service, Shake It Up Australia Foundation, New Zealand nutraceutical ingredients company Anagenix Ltd and Brisbane-based biotechnology company Microba Life Sciences.

Dr Philip Mosley in consultation with Tourette's Syndrome patient, Zach

## NEW TREATMENT OPTION FOR PATIENTS WITH NEURODEGENERATIVE DISORDERS INCLUDING PARKINSON'S & ALZHEIMER'S DISEASES

**Scientific Title:**
A Phase II, Randomised, Placebo-Controlled, Double-Blind, Crossover, Study of the Pharmacodynamics Effects of CST-103 co-administered with CST-107 on the Central Nervous System in Subjects with Neurodegenerative Disorders.

**Lead Researcher:**
Dr Philip Mosley, Psychiatrist

There is currently no cure for Parkinson's or Alzheimer's disease, but existing medications can help control symptoms.

There is evidence from animal data and previous clinical trials that medications such as CST-103 (a beta-2 adrenoceptor agonist) co-administered with CST-107 (a beta blocker) may improve cognitive performance (mental processes involved in gaining knowledge and comprehension), reduce neuroinflammation (reaction in the body to injury or infection), and enable the detection of biomarkers that show how well the body responds to treatment in neurodegenerative diseases. Currently, most research on these drug classes have focused on their effects on the lungs and respiratory system, and the circulatory system but there is little information on their effects on the nervous system.

CST-103 and CST-107 in combination are being developed for the treatment of a collection of diseases involving deterioration of certain brain cells and the nervous system, including in Parkinson's disease with rapid eye movement sleep disorder, Mild Cognitive Impairment, Dementia with Lewy Bodies, and Parkinson's disease dementia.

This study is led by Dr Philip Mosley and sponsored by CuraSen Therapeutics Inc.

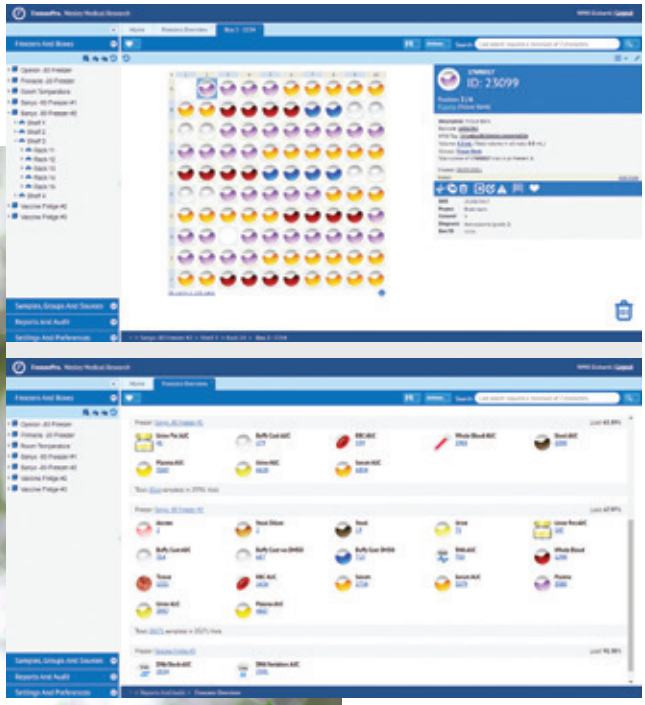
# Wesley Medical Research Biobank

The Wesley Medical Research Biobank is playing a significant role in breakthroughs for cancer, autism, 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. Uniquely, it is the largest of its kind in the southern hemisphere and provides researchers access to human specimens which are used to identify improvements in the detection, diagnosis, and treatment of diseases.

Holding more than 40,000 samples, 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.

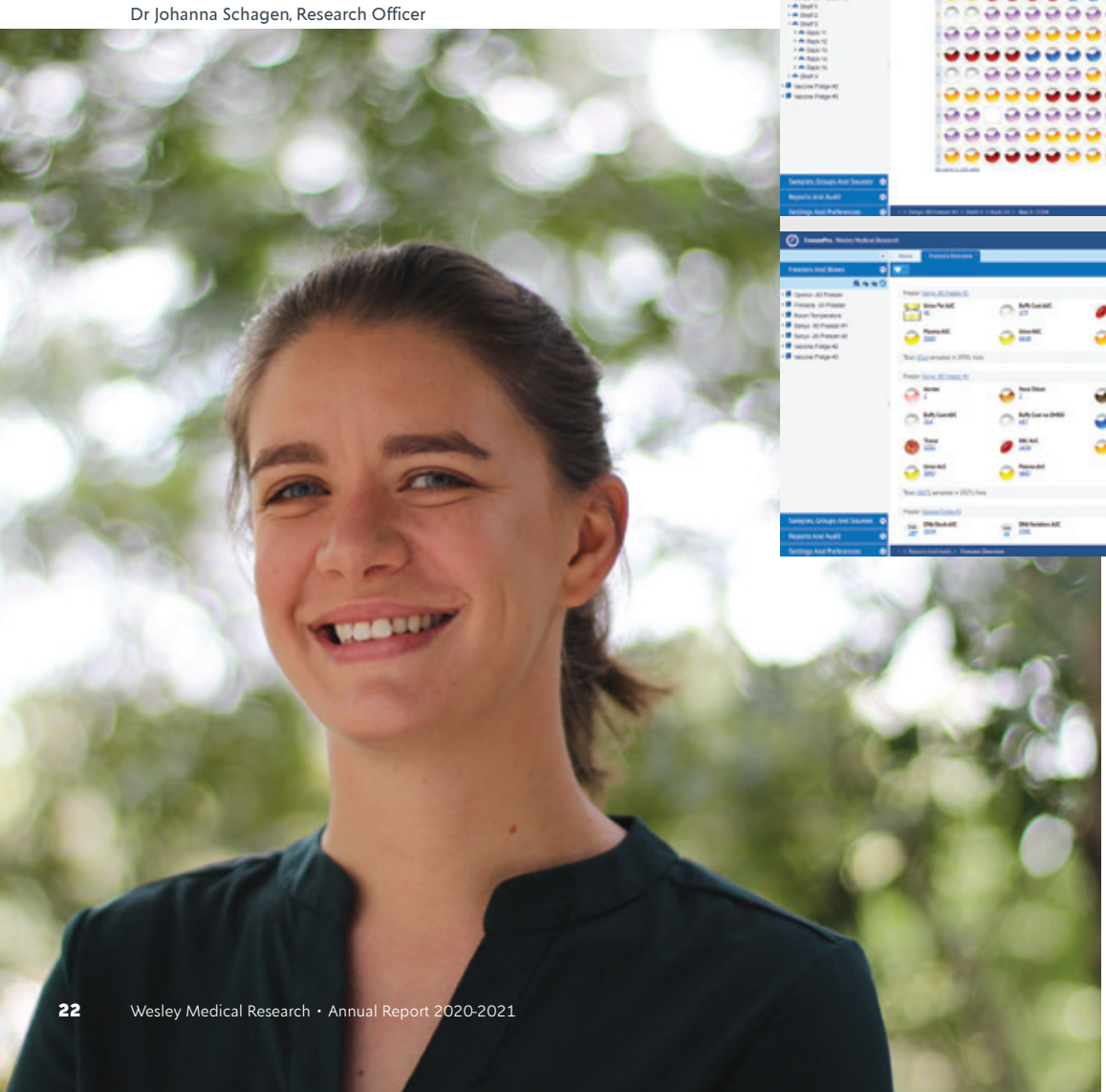
The Biobank is a collection of biological samples, stored in a laboratory. Researchers can use these samples to learn more about diseases and trial new drugs and treatments. Samples stored in the Biobank have been collected from people all over Queensland and are then distributed to medical researchers who investigate better ways to diagnose, prevent, and treat cancer and other conditions.

For example, samples from the Australian Autism Biobank stored at the Wesley Medical Research Biobank have been used to analyse Autism Spectrum Disorder, a complex neurodevelopmental condition whose biological basis is yet to be discovered. Using biobank samples, researchers Professor Naomi Wray and Dr Jake Gratten from Mater Research and the Queensland Brain Institute (The University of Queensland) recently showed that autism traits lead to restricted dietary intake, resulting in reduced microbiome (gut health) diversity. These results are based on information from 2,477 individuals with DNA data from 546 families.



FreezerPro software shows the samples currently stored in Shelf 3 and the various type of samples in the Tissue Bank.

Dr Johanna Schagen, Research Officer



# Clinical Trials Centre

The Clinical Trials Centre at Wesley Medical Research focuses on giving hope and changing lives by enabling patient participation in national and international phase I-IV clinical trials with a focus on evaluating new therapies, drugs, and diagnostic tools to drive discoveries into standard clinical practice. Engaged across the four UnitingCare Hospitals – The Wesley Hospital, St Andrew's War Memorial Hospital, Buderim Private Hospital and St Stephen's Hospital at Hervey Bay – clinicians and patients located in both metropolitan and regional areas can participate.

Our patients are at the heart of all we do and that's why Wesley Medical Research focuses on providing participants, researchers, and sponsors with a first-class, professional experience. Our dedicated staff strive for a reputation of integrity and quality, delivering a warm, caring and inviting environment for all participants.

Wesley Medical Research offers patients access to clinical trials spanning a range of illnesses and diseases.

## CURRENT CLINICAL TRIALS

Current pharma-sponsored and collaborative clinical trials are shown below:

### NOE-TTS

An open-label Phase IIa, 12-week study to evaluate the safety and efficacy of NOE-105 (daily 5mg to 15mg) in adult males with Tourette's Syndrome (TS)

**Clinical Indication:** Tourette's Syndrome
**Principal Investigator:** Dr Philip Mosley
**Sponsor:** Noema Pharma

### CST 103, CST 107

A Phase II Randomised, Placebo-Controlled, Double-Blind, Crossover Study of The Pharmocodynamic Effects Of CST-103 Co-Administered With CST-107 on the Central Nervous System in Subjects with Neurodegenerative Disorders

**Clinical Indication:** Parkinson's disease and Neurodegenerative disease
**Principal Investigator:** Dr Philip Mosley
**Sponsor:** CuraSen

### Mitigate

A Phase 3, Randomised, Double-blind, Multicenter, Placebo-Controlled Study of Inebilizumab Efficacy and Safety in IgG4 Related Disease

**Clinical Indication:** Immunoglobulin G4 -related disease
**Principal Investigator:** Dr Daman Langguth
**Sponsor:** Viela Bio

### Spotlight

A Phase 1b, Randomised, Double-Blind, Placebo-Controlled Study to Assess the Safety, Pharmocokinetics, Pharmacodynamics and Clinical Response to in Adult Patients with Coeliac disease

**Clinical Indication:** Coeliac disease
**Principal Investigator:** Dr James Daveson
**Sponsor:** Janssen

## Wav 401

A Multicentre, Randomised, Double-blind, Placebo-controlled, Phase 1b/2a Study of WVE-004 Administered Intrathecally to Patients with C9orf72 gene associated Amyotrophic Lateral Sclerosis (ALS) or Frontotemporal Dementia (FTD)

**Clinical Indication:** Motor neurone disease
**Principal Investigator:** Dr Robert Henderson
**Sponsor:** Wave Life

## EVOLUTION

A Phase III, Multicenter, Randomised, Parallel Group, Double Blind, Double Dummy, Active Controlled Study of Evobrutinib Compared with Teriflunomide, in Participants with Relapsing Multiple Sclerosis to Evaluate Efficacy and Safety

**Clinical Indication:** Multiple Sclerosis
**Principal Investigator:** Dr Noel Saines
**Sponsor:** Merck

## MT-7117-G01

MT-7117-G01: A Phase 3, Multicenter, Randomised, Double-Blind, Placebo-Controlled Study to Evaluate Efficacy, Safety, and Tolerability of MT-7117 in Adults and Adolescents with Erythropoietic Protoporphyria or X-Linked Protoporphyria

**Clinical Indication:** Protoporphyria
**Principal Investigator:** Professor David Coman
**Sponsor:** Mitsubishi Tanabe Pharma

## Lemtrada Pass

A Prospective, Multicenter, Observational Post-Authorization Safety Study to Evaluate the Long Term Safety Profile Of Lemtrada® (Alemtuzumab) Treatment in Patients With Relapsing Forms of Multiple Sclerosis

**Clinical Indication:** Multiple Sclerosis
**Principal Investigator:** Professor Pamela McCombe
**Sponsor:** Sanofi Aventis

## COMET

A Phase 2 Randomised, Multicentre, Multinational, Double-Blinded Study Comparing the Efficacy and Safety of Repeated Biweekly Infusions of Neogaa(GZ402666) And Alglucosidas Alfa in Treatment-Naïve Patients With Late Onset Pompe disease

**Clinical Indication:** Pompe disease
**Principal Investigator:** Dr Robert Henderson
**Sponsor:** Sanofi Genzyme

## AORTIX

An Evaluation of the Safety and Performance of the Aortix System for Intra-Aortic Mechanical Circulatory Supporting Patients with Cardiorenal Syndrome

**Clinical Indication:** Heart Failure
**Principal Investigator:** Dr Yee Weng Wong
**Sponsor:** Procyrion

## 4WHIM

A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Multicenter Study of Mavorixafor in Patients with WHIM Syndrome with Open-Label Extension

**Clinical Indication:** WHIM Syndrome
**Principal Investigator:** Dr Daman Langguth
**Sponsor:** X4 Pharmaceuticals

## Stop PIV

STOP PIV – Phase III DAS181 Lower Tract PIV Infection in Immunocompromised Subjects

**Clinical Indication:** Parainfluenza Virus
**Principal Investigator:** Dr Paul Bartley
**Sponsor:** Ansun Biopharma

## ENVISION

A Phase 3 Randomized, Double-blind, Placebo-Controlled Multicenter Study with an Open-label Extension to Evaluate the Efficacy and Safety of Givosiran in Patients with Acute Porphyrias

**Clinical Indication:** Porphyria
**Principal Investigator:** Professor David Coman
**Sponsor:** Alnylam Pharmaceutical

## SNAC2

The SNAC2 study: A multi-centre randomised trial of sentinel node based management versus axillary clearance in operable early breast cancer

**Clinical Indication:** Early Breast Cancer
**Principal Investigator:** Dr Owen Ung
**Sponsor:** NHMRC Collaborative Group

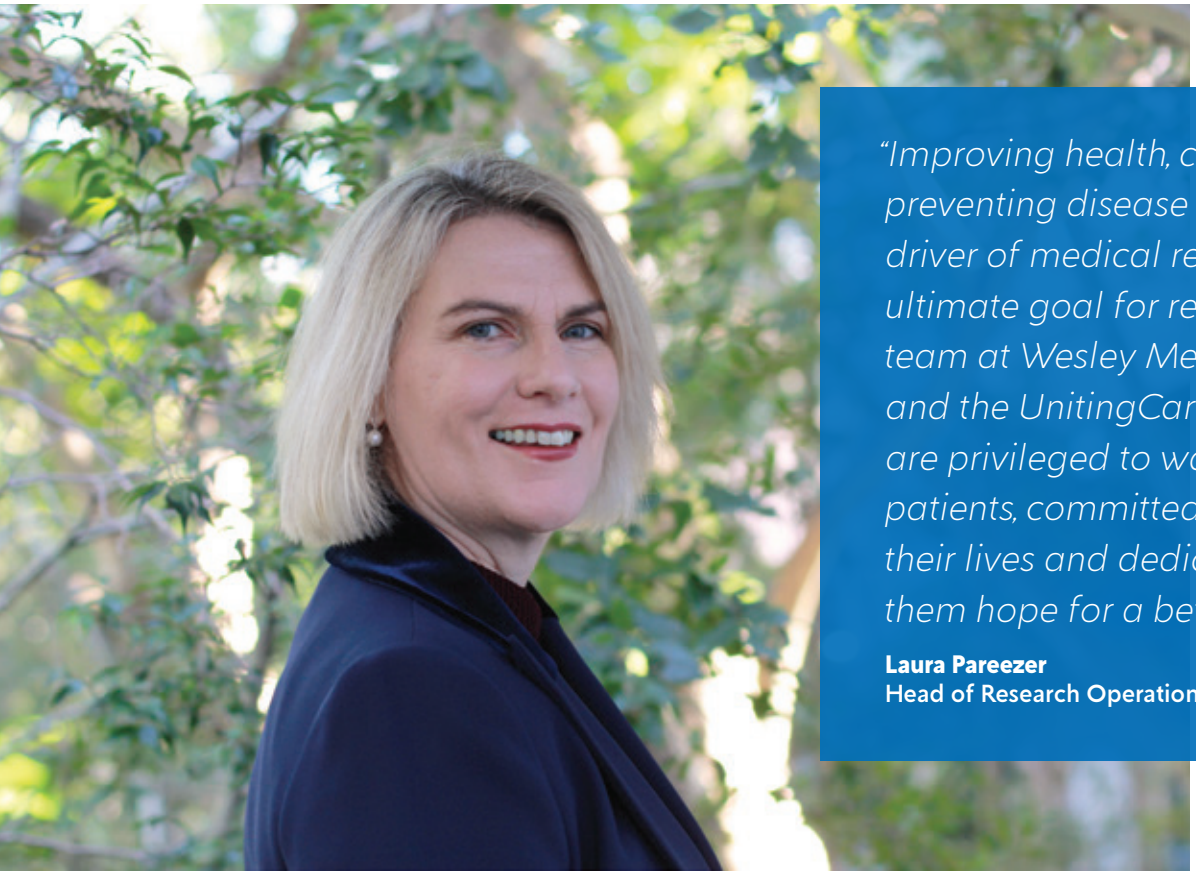
# Research Administration Office

The exceptional team at Wesley Medical Research works closely with UnitingCare's Human Research Ethics Committee to ensure all research activity is reviewed and approved prior to its commencement, and that projects comply with the National Health and Medical Research Council's standards.

Emma Blake, Research Development and Engagement Officer

The Wesley Medical Research Administration Office not only offers support to clinicians and scientists to apply for human research ethics approvals but also supports them to analyse data through biostatistics services and to apply to government and other external funding bodies for funding.

The Research Administration Office is also responsible for managing the internal Clinical Innovation Grant Rounds in accordance with our Research and Grants Framework and our Monitoring and Evaluation Framework.



Laura Pareezer, Head of Research Operations

*"Improving health, curing, and preventing disease is the key driver of medical research and the ultimate goal for researchers. The team at Wesley Medical Research and the UnitingCare network are privileged to walk alongside patients, committed to changing their lives and dedicated to giving them hope for a better tomorrow."*

**Laura Pareezer**
**Head of Research Operations**

# Clinical Innovation

Congratulations to the successful grant recipients from the 2020 Clinical Innovation Grant Rounds.

In 2020, Wesley Medical Research allocated $3.5 million to several medical research projects across a range of illnesses and diseases including neurological disorders (Parkinson's disease, Ataxia-Telangiectasia, severe depression), cancer (brain, breast, lung, endometrial, prostate, colon), cardiovascular disease, infectious disease (COVID-19 Rapid Response Research Centre), respiratory disease, orthopaedics and perioperative services.

A total of 44 applications were received from researchers and health professionals affiliated with the UnitingCare Hospitals (The Wesley Hospital, St Andrew's War Memorial Hospital, Buderim Private Hospital, St Stephen's Hospital at Hervey Bay). Following an assessment by independent experts, a total of 23 high-quality projects were selected for funding. Of these, a number of projects form part of the COVID-19 Rapid Response Research Centre established to combat the global pandemic.

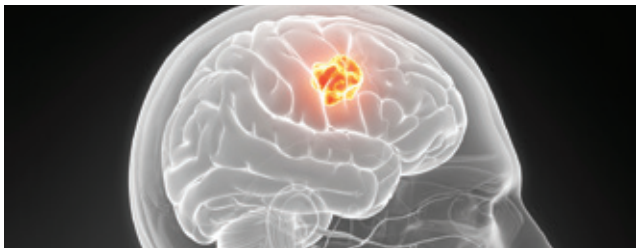
A further $1.47 million will be invested in research across the four UnitingCare Hospitals via the 2021 Clinical Innovation Grant Round.

# GRANTS AWARDED AS PART OF THE 2020 CLINICAL INNOVATION GRANT ROUND

## YOUNGER WOMEN'S WELLNESS AFTER CANCER FEASIBILITY STUDY (EMERALD)

The multi-disciplinary research team aims to improve quality of life and reduce treatment related chronic disease risks in young women who have completed breast cancer treatment by monitoring physical and mental health.

**Lead Researcher:** Dr Janine Porter-Steele
**UnitingCare Hospital:** The Wesley Hospital



## IMMUNOTHERAPY TREATMENT FOR RECURRENT GLIOBLASTOMA MULTIFORME

Glioblastoma Multiforme is the most malignant brain tumour and prognosis is poor. The research team aims to develop a more effective therapeutic strategy by combining off the shelf T-Cells to existing immunotherapy treatments to treat this rapidly progressing disease.

**Lead Researcher:** Associate Professor David Walker
**UnitingCare Hospital:** St Andrew's War Memorial Hospital, The Wesley Hospital

## TRANSARTERIAL CHEMOPERFUSION TREATMENT IN PATIENTS WITH UNRESECTABLE PLEURAL MESOTHELIOMA: A FEASIBILITY STUDY

This trial is investigating if injecting chemotherapy drugs directly into the aorta can reduce tumour size and increase quality of life for inoperable lung cancer patients.

**Lead Researcher:** Dr Nicholas Brown
**UnitingCare Hospital:** The Wesley Hospital

## OPTIMISING TREATMENT OF ACUTE LUNG FAILURE

Acute Respiratory Distress Syndrome (ARDS) is a severe pulmonary disease requiring intensive care treatment, with a mortality rate up to 45%. This project aims to identify specific biomarkers that may lead to early treatment of ARDS and improved patient outcomes.

**Lead Researcher:** Dr Karen Wildi
**UnitingCare Hospital:** St Andrew's War Memorial Hospital

## PHYSIOTHERAPY INTERVENTION FOR BRONCHIECTASIS

Bronchiectasis is a chronic lung disease that occurs when the walls of the breathing tubes or airways widen due to chronic inflammation and/or infection. This project aims to inform physiotherapy practice and clinical guidelines and improve the quality of life for this patient population.

**Lead Researcher:** Ms Jennifer Phillips
**UnitingCare Hospital:** The Wesley Hospital

## BETTER DETECTION OF CORONARY HEART DISEASE

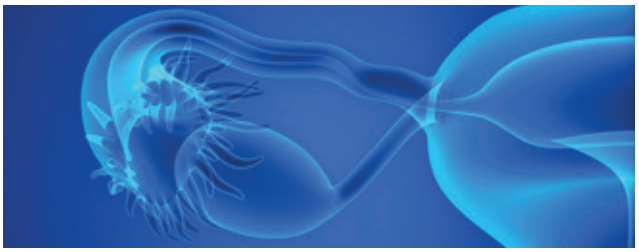
Heart failure remains the most common cause of hospitalisations with highest morbidity/mortality rate in patients over 65 years of age. Cardiology researchers are exploring new ways to detect heart failure early so that they can further individually tailor patient treatment options.

**Lead Researcher:** Dr Aleksandra Lange
**UnitingCare Hospital:** St Andrew's War Memorial Hospital

## TRANSFORMING SURGICAL PRACTICE TO IMPROVE OUTCOMES

It is essential that both heat loss and heat gain are carefully monitored in patients undergoing surgery as both are dangerous and can result in significant complications or death. This study is the first multi-centre study to attempt to quantify both the prevalence of heat loss during surgery and temperature monitoring during surgery - a cornerstone of hypothermia prevention – in Australia, and worldwide.

**Lead Researcher:** Ms Jaimie Williams
**UnitingCare Hospital:** The Wesley Hospital



## CHANGING THE TREATMENT PARADIGM FOR PATIENTS WITH ENDOMETRIAL CANCER

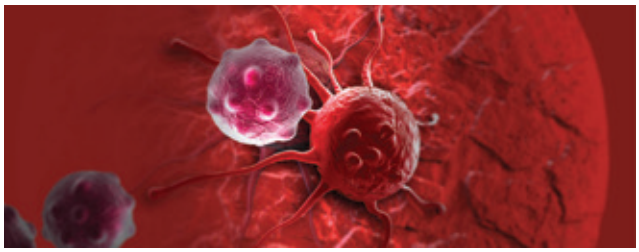
Endometrial cancer is the most common gynaecological cancer in Australian women with almost 3000 new cases each year. This multisite trial will review current surgical techniques for their effectiveness in the long-term treatment of early-stage endometrial cancer.

**Lead Researcher:** Professor Andreas Obermair
**UnitingCare Hospital:** St Andrew's War Memorial Hospital, Buderim Private Hospital, The Wesley Hospital

## DEEP BRAIN STIMULATION FOR DEPRESSION

Deep brain stimulation (DBS) is a neurosurgical treatment that involves placing electrodes within the brain. This project will explore if DBS is effective in treating a type of severe depression.

**Lead Researcher:** Dr Philip Mosley
**UnitingCare Hospital:** St Andrew's War Memorial Hospital, The Wesley Hospital



## EMERGING TREATMENT FOR PROSTATE CANCER

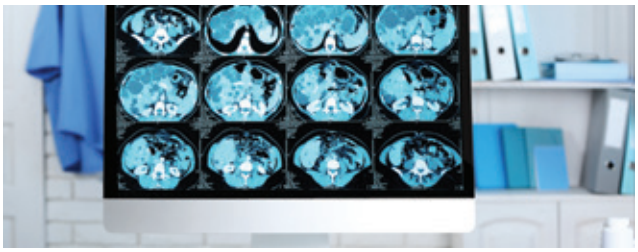
In this project, researchers are investigating an emerging treatment option whereby surgical prostate removal is paired with direct radiation, early in the patient's treatment journey. This study investigates if this treatment produces a better outcome for men newly diagnosed with high-risk prostate cancer.

**Lead Researcher:** Associate Professor David Wong
**UnitingCare Hospital:** The Wesley Hospital

## RESPIRATORY HEALTH OF COAL WORKERS

Coal mine dust lung disease (CMDLD) is a spectrum of occupational lung diseases caused by prolonged inhalation of dust within the coal industry. Coal mine workers are required to undergo periodic screening for CMDLD. The current review process is months in length and often associated with anxiety related to unknown disease outcome and in many cases a loss of income to workers, who cannot return to work until cleared. This study aims to refine the normal/abnormal parameters of diagnostic screening for CMDLD, such that healthy individuals do not get flagged for respiratory review.

**Lead Researcher:** Dr Robert Edwards
**UnitingCare Hospital:** The Wesley Hospital



## IMPROVING LANGUAGE PERFORMANCE AFTER BRAIN TUMOUR SURGERY

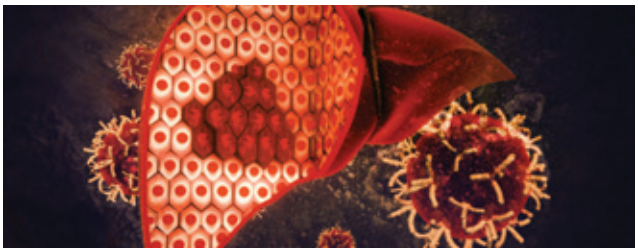
Language difficulties can be experienced after brain tumour surgery, significantly impacting on survival rates, mood and quality of life. In this study researchers will analyse brain images pre and post-surgery to guide intervention and improve patient outcomes.

**Lead Researcher:** Dr Norman Ma
**UnitingCare Hospital:** St Andrew's War Memorial Hospital, The Wesley Hospital

## EARLY IDENTIFICATION OF SURGICAL COMPLICATIONS TO REDUCE LIFE-THREATENING SIDE EFFECTS

Following intestinal surgery, leaks can pose significant threats to patients, leading to further complications. Injecting dye post-surgery may be the solution to early detection.

**Lead Researcher:** Associate Professor David Clark
**UnitingCare Hospital:** The Wesley Hospital



## A STUDY EXPLORING A NEW WAY TO DETECT LIVER CANCER

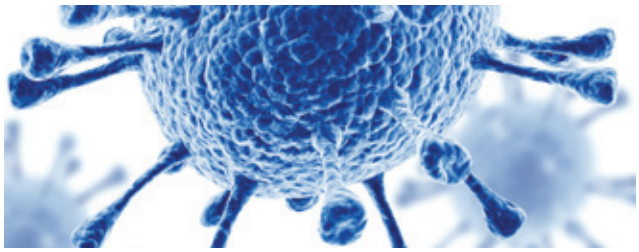
Liver cancer is the most common internal malignancy worldwide, increasing with frequency in Australia. This project will explore if existing treatments will be safe and effective for a new and needful patient population.

**Lead Researcher:** Associate Professor Nick O'Rourke
**UnitingCare Hospital:** The Wesley Hospital

## ATAXIA-TELANGIECTASIA: TREATING MITOCHONDRIAL DYSFUNCTION WITH A NOVEL FORM OF ANAPLEROSIS

Ataxia-telangiectasia (AT) is a rare disease with an incidence of approximately three in one million births, with a life expectancy of up to 25 years. This project aims to improve the prognosis and quality of life for the 40 Australian children living with this incurable degenerative disease using a dietary fat supplement.

**Lead Researcher:** Professor David Coman
**UnitingCare Hospital:** The Wesley Hospital



## THE COVIDCRITICAL STUDY

This global collaboration spanning 52 countries and 400 centres is collecting vital data to better understand critically-ill COVID-19 patients. Medical experts from across the globe are sharing critical insights, experience and expertise to support this work and improve patient outcomes.

**Lead Researcher:** Professor John Fraser
**UnitingCare Hospital:** St Andrew's War Memorial Hospital, The Wesley Hospital

## PROTECTING FRONT LINE WORKERS FROM COVID-19

Hydroxychloroquine had been identified as having potential anti-viral activity against COVID-19. This international clinical trial aimed to assess the usefulness of this drug in preventing COVID-19 in health care workers.

**Lead Researcher:** Professor Bala Venkatesh
**UnitingCare Hospital:** The Wesley Hospital

## ENHANCING PATIENT OUTCOMES AFTER BONE MARROW TRANSPLANTATION

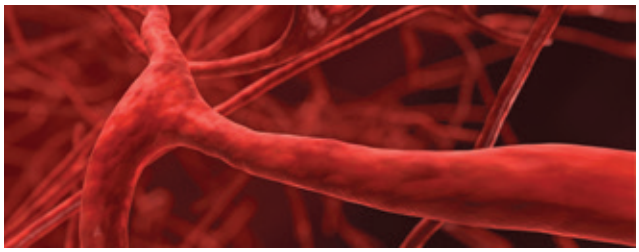
Autologous haematopoietic stem cell transplantation (ASCT) is a highly specialised procedure for blood cancers and other diseases. It is an immune-suppressing chemotherapy treatment combined with reinfusion of blood stem cells into the body to rebuild the immune system. The practice of ASCT and care delivery models can vary greatly between centres. The findings of this study will address a major knowledge gap in the field and will advance our understanding and improve outcomes for patients undergoing bone marrow transplantation.

**Lead Researcher:** Dr Ian Irving
**UnitingCare Hospital:** The Wesley Hospital

## AFTERCOR

The long-term impact of COVID-19 on neurological, pulmonary, renal, liver function and health-related quality of life is unknown. AFTERCOR is a prospective multi-centre longitudinal observational study of intensive care unit (ICU) survivors of COVID-19. Patients will be followed up at regular intervals post-ICU discharge to monitor their ongoing condition. We theorise that COVID-19 patients admitted to the ICU could have various degrees of organ dysfunction up to two years post ICU discharge, which could result in an impaired quality of life. The results of this study may help treating clinicians in after-care to address specific problems of this patient population and improve long-term outcomes.

**Lead Researcher:** Associate Professor Gianluigi Li Bassi
**UnitingCare Hospital:** St Andrew's War Memorial Hospital



## PROTECTING VEINS DURING BYPASS

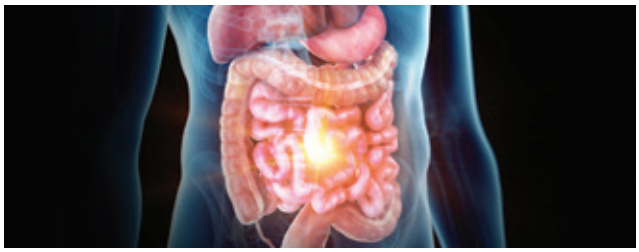
Veins damaged during bypass grafts can fast track early blockage. This study aims to investigate whether a simple intervention of storing vein tissue for a short period in a novel solution, may protect against tissue damage and therefore surgery reoccurrence.

**Lead Researcher:** Associate Professor Andrew Haymet
**UnitingCare Hospital:** St Andrew's War Memorial Hospital

## IMPACTS OF COVID IN HEART FAILURE

This study will define which patients with pre-existing cardiac disease are at highest risk of progressive cardiac dysfunction following a COVID-19 infection.

**Lead Researcher:** Dr John Rivers
**UnitingCare Hospital:** St Andrew's War Memorial Hospital



## THERAPEUTIC RESTORATION OF THE MICROBIOME IN PARKINSON'S DISEASE

Gastrointestinal dysfunction and the changes in the microbiome or the gut bacteria, are emerging as key factors in the development and progression of Parkinson's disease. This research will enable new treatments and better management of the debilitating non-motor symptoms of Parkinson's disease.

**Lead Researcher:** Associate Professor John O'Sullivan
**UnitingCare Hospital:** St Andrew's War Memorial Hospital

# CLINICAL INNOVATION PROJECTS AWARDED IN PREVIOUS YEARS CURRENTLY IN PROGRESS

## TRANEXAMIC ACID DOSING IN PRIMARY TOTAL KNEE ARTHROPLASTY

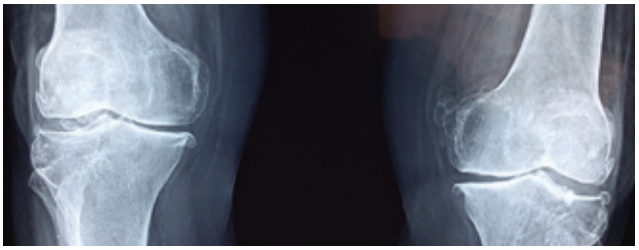
The number of people undergoing to total knee replacement has been steadily increasing in Australia. There is a significant risk of blood loss during this procedure resulting in poorer outcomes. This study is investigating whether postoperative bleeding can be reduced by a personalised dose of tranexamic acid administered post-surgery.

**Lead Researcher:** Dr Sue Clark
**UnitingCare Hospital:** The Wesley Hospital

## IMPROVING PHYSICAL ACTIVITY IN PARKINSON'S DISEASE

This study will determine if a group program of exercise coupled with a self-management approach will improve physical activity in patients with Parkinson's disease.

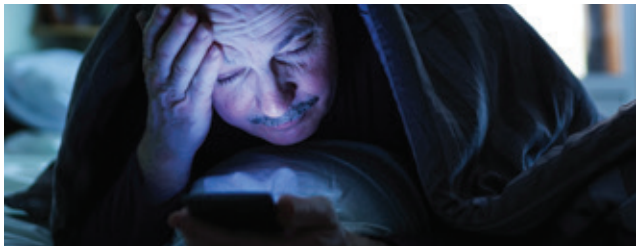
**Lead Researcher:** Professor Sandra Brauer
**UnitingCare Hospital:** St Andrew's War Memorial Hospital, Buderim Private Hospital



## DOES OBESITY SURGERY HAVE A NEGATIVE EFFECT ON THE BONES?

This study will assess bone density and factors involved in bone density loss in men and women prior to and following the sleeve gastrectomy method of bariatric surgery.

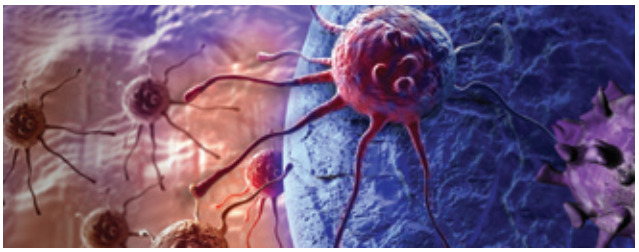
**Lead Researcher:** Dr Margaret Williamson
**UnitingCare Hospital:** The Wesley Hospital



## NEW TREATMENT FOR INSOMNIA IN PARKINSON'S DISEASE PATIENTS

In this study, the research team aim to improve the precision of clinical decision making by prescribing melatonin for individual adults with insomnia in Parkinson's disease.

**Lead Researcher:** Associate Professor Jane Nikles
**UnitingCare Hospital:** St Andrew's War Memorial Hospital



## CHANGING CANCER CELLS

Malignant glioma (WHO Grade IV) is the most common primary tumour of the brain in adults and despite advancement in surgical, chemotherapy and radiotherapy treatments, based on averages, the expected survival of patients with this disease is a little over a year. This study will explore using widely available medications to change cancer cells before standard treatment for these patients.

**Lead Researcher:** Dr David Walker
**UnitingCare Hospital:** The Wesley Hospital

## CLINICAL INNOVATION COMPLETED PROJECTS

### EXPOSING MECHANISMS OF IMPAIRED APPETITE REGULATION IN MOTOR NEURONE DISEASE

Loss of appetite and weight loss in motor neurone disease (MND) is associated with rapid disease progression and may lead to earlier death. Knowledge gained from this project has contributed to our understanding of the impact of MND on areas of the brain that regulate appetite, while informing clinical practice to assist in the development of strategies to identify and assist MND patients at risk of weight loss. Working with neurologists, care staff and dieticians, this study will further inform the development of tailored guidelines to improve weight management and dietary strategies for those at risk of weight loss. A highlight of this work is observing the relief that patients feel when offered an opportunity to share their frustration towards a loss of appetite. For many, the loss of appetite is a difficult challenge, as their loss of love of food, and the anxiety associated with loss of body weight can be overwhelming.

**Lead Researcher:** Dr Frederik Steyn
**UnitingCare Hospital:** The Wesley Hospital

### THE RETURN OF THE NORMAL HEART

Cardiac amyloidosis (extracellular deposition of insoluble fibrillar protein in the heart) has an extremely poor prognosis without treatment and after standard therapies. However, Wesley researchers have shown resolution of the process with a significant improvement of survival after high dose chemotherapy and bone marrow transplantation.

**Lead Researcher:** Dr Ben Fitzgerald
**UnitingCare Hospital:** The Wesley Hospital

### UNDERSTANDING THE GUT MICROBIOME IN MOTOR NEURONE DISEASE

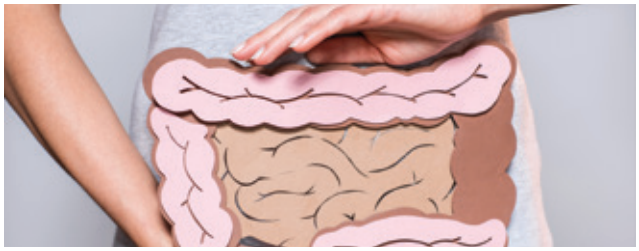
Through this research, new insights have been generated to better understand the different roles of energy use, the gut, diet and activity in motor neurone disease. This knowledge is now being used in the laboratory where compounds are being tested to improve patient energy levels.

**Lead Researcher:** Dr Shyuan Ngo
**UnitingCare Hospital:** The Wesley Hospital

## REDUCING BLEEDING AND BLOOD CLOTS DURING AND AFTER CARDIAC SURGERY

This study demonstrated a small intraprocedural prothrombotic change of uncertain clinical importance during the TAVI procedure, and further comparison with PCI and AVR cohorts are needed to assess the merits of current antithrombotic guidelines, which are extrapolated from the PCI setting and based on expert consensus.

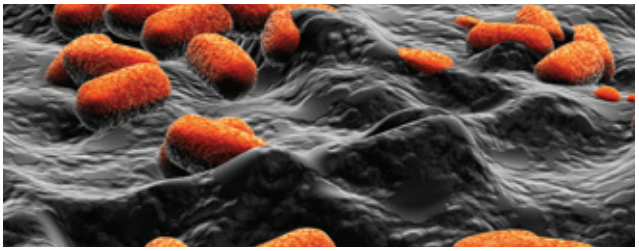
**Lead Researcher:** Dr Jonathan Fanning
**UnitingCare Hospital:** St Andrew's War Memorial Hospital



## TOXINS IN THE GUT PLAY A ROLE IN MOTOR NEURONE DISEASE PATIENTS

The research team were able to identify that some patients with motor neurone disease have increased levels of toxic molecules produced by the gut circulating in their blood, through the process of methylation. It was found that these molecules could contribute to the death of motor neurones.

**Lead Researcher:** Professor Pamela McCombe
**UnitingCare Hospital:** The Wesley Hospital



## ELIMINATING TOXINS IN MOTOR NEURONE DISEASE PATIENTS WITH SQUALAMINE

Following detection of toxins in the gut of motor neurone disease patients, investigators sought to eliminate these using a naturally occurring substance, squalamine. The research team was able to identify that squalamine was well tolerated in some patients with motor neurone disease with no adverse effects and may be used as a method for improving gut health.

**Lead Researcher:** Professor Pamela McCombe
**UnitingCare Hospital:** The Wesley Hospital

## SUPPORTING HIGH IMPACT MENTAL HEALTH RESEARCH IN THE BOWEN BASIN – PHASE 1

Description of mental health service delivery in the Bowen Basin was analysed including associated barriers and facilitators. Following extensive stakeholder consultation, a new layered mental health care model, named Isaac Navicare, was co-designed, with local community input. Phase II of the project has now commenced with the appointment of a Mental Health Care Navigator in the Isaac region.

**Lead Researchers:** Professor Steven McPhail, Dr Bridget Abell

# Managing resources

Wesley Medical Research pursues opportunities whilst maintaining a risk aware stance.

In delivering its three year strategy, Wesley Medical Research continues to assess and pursue collaborative opportunities to deliver upon its research mission. The organisation takes an entrepreneurial attitude to drive strategic growth and fosters existing and new relationships to strengthen its reach.

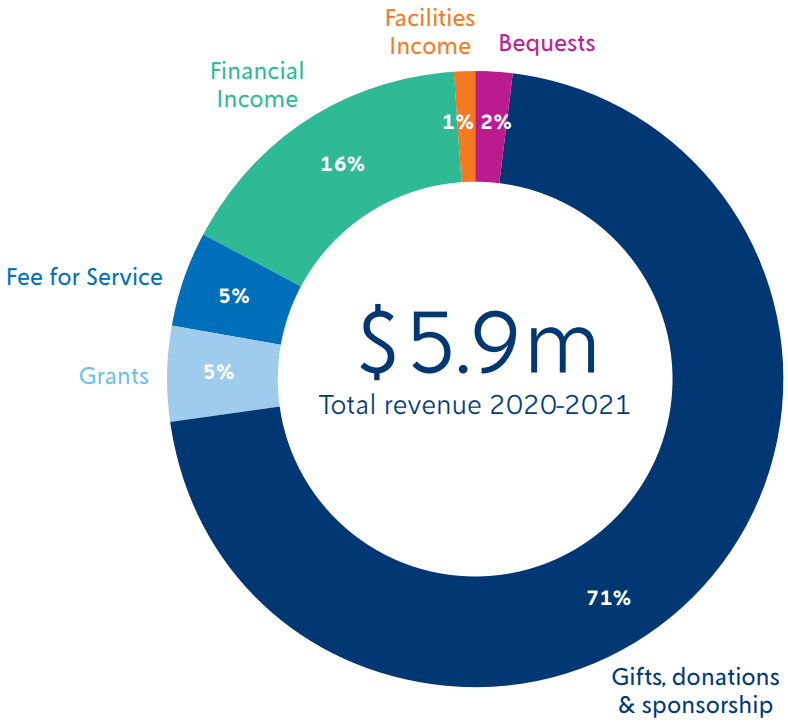
Uncertainty has become a new normal, with social and economic conditions changing constantly. In response, Wesley Medical Research has entirely redeveloped its Risk Management Policy and Framework in consultation with the Board, management, staff, and key stakeholders.

The new Risk Framework provides a structured and integrated approach to identifying and managing organisational risk, ensuring risks are managed appropriately, efficiently, and consistently. The Framework also provides a system for the ongoing improvement in risk management processes.

In the 2020-2021 financial year, Wesley Medical Research welcomes BDO as its new audit partner. We look forward to BDO delivering the quality assurance services they are known for, in addition to providing their expertise and value-added guidance in compliance and good governance.

## INCOME

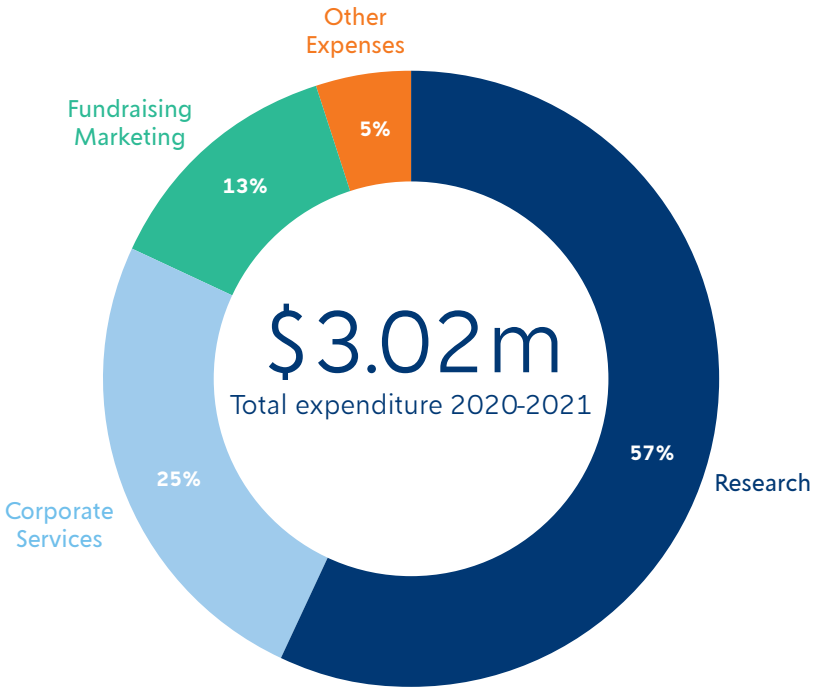
Total revenue in 2020-21 was $5.9 million, of which 73% came from donations, sponsorships and gifts in wills. The 2020-2021 income increased from 2019-2020 income of $2.54 million, and includes a $3 million contribution from UnitingCare Qld toward an ongoing program of research to be delivered within the UnitingCare Network.



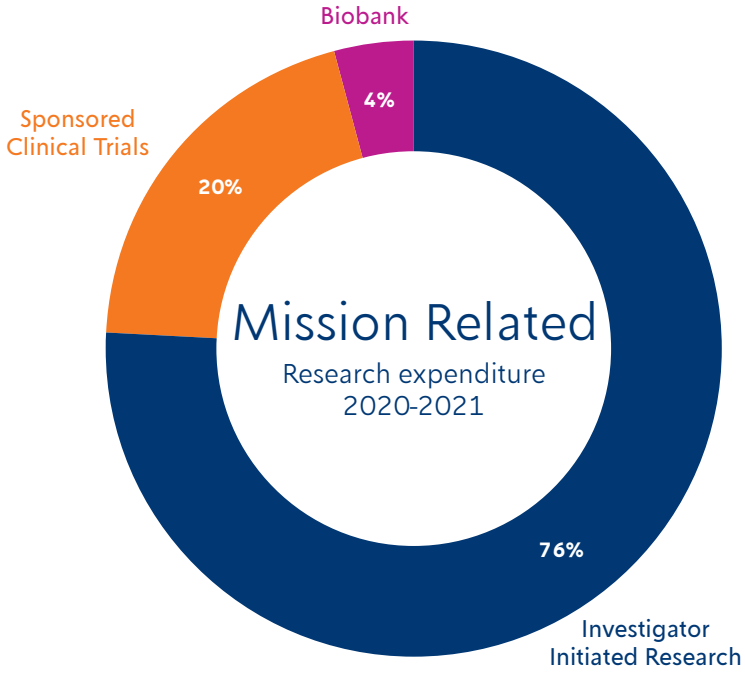
## EXPENDITURE

Total expenditure for the 2020-2021 year was $3.02 million, relative to $2.99 million in 2019-2020.

Total reported surplus for the 2020-2021 period was $2.87m relative to ($407k) in 2019-2020.



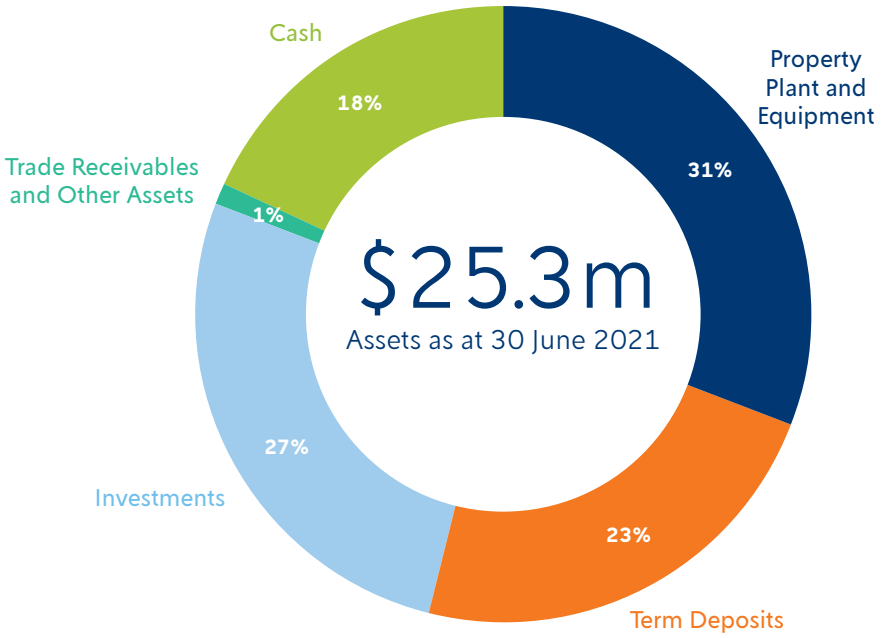

## RESEARCH EXPENDITURE



## ASSETS

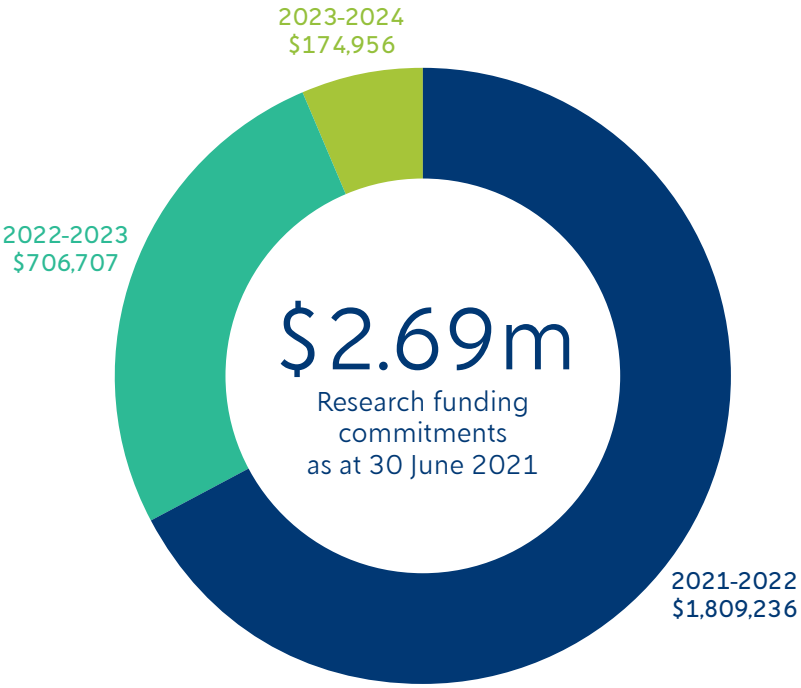
Total assets as at 30 June 2021 were $25.3 million, relative to $21.99 million in 2019-2020.

Total liabilities were $1.06 million with Net assets totalling $24.26 million at 30 June 2021.



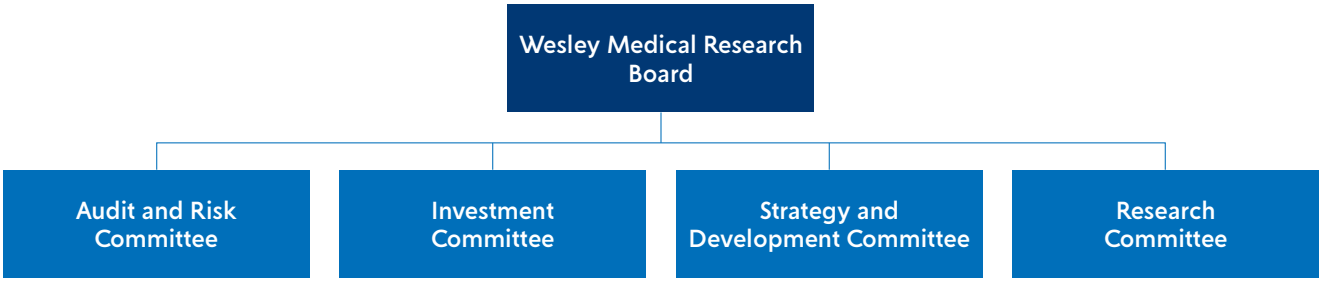

## RESEARCH FUNDING COMMITMENTS

Wesley Medical Research has $2.69 million in research funding commitments to Board-approved research projects.



# Our Board

The Wesley Medical Research Board, chaired by Mr Charlie Sartain, is responsible for the overall governance of the institute including adopting appropriate policies and procedures designed to create, protect, and enhance value to our patients. The Board and its committees regularly review Wesley Medical Research's governance arrangements and practices to maintain compliance with regulatory requirements and industry practice and to ensure organisational objectives are supported. As the official research institute for UnitingCare Queensland (UCQ), UCQ representation exists on the Board and committees in accordance with our constitution. Wesley Medical Research's directors, executives and employees are expected to act ethically, lawfully, and responsibly at all times.




**MR CHARLIE SARTAIN**
Chairman

Mr Sartain joined the Wesley Medical Research Board in 2009. Mr Sartain has more than 30 years of international mining experience as a mining engineer and senior executive. Over the past six years, he has also served as an independent non-executive director on several Australian and international listed corporate boards. Mr Sartain was a two-term member of the Senate of The University of Queensland (UQ) and Chairman of the Advisory Board of the Sustainable Minerals Institute at UQ.

**DR CLAUDIA GIURGIUMAN**
Chief Executive Officer

Dr Giurgiuman is the Chief Executive Officer of Wesley Medical Research. Dr Giurgiuman has over 20 years of experience in the research field including as a biomedical researcher in epithelial pathobiology and hepatology and senior management positions held in the not-for-profit sector at the Children's Hospital Foundation, Icon Cancer Centre, Mater Research, and Women in Technology Board. Dr Giurgiuman is Chair of the independent Research Advisory Committee for the Sunshine Coast Health Foundation (Wishlist).

**MR MICHAEL KRIEG**
Board Member

Mr Krieg has over 30 years' experience, commencing his career as a nurse before embarking on executive roles in a number of hospitals across Australia. He was appointed General Manager of The Wesley Hospital in 2017 and in 2019 become the Group Executive Hospitals of UCQ.

**MR PETER CROWLEY**
Board Member

Mr Crowley is a highly experienced business leader and public company director with 15 years of experience leading public companies and 17 years of experience serving on public company boards both in Australia and overseas.

### DR IAN DICKINSON AM
Board Member

Dr Dickinson has been an orthopaedic surgeon at The Wesley Hospital for over 25 years. Dr Dickinson has also served as Chairman of the Queensland Branch of the Australian Orthopaedic Association.

### MS CHERYL CLAYTON
Board Member

Ms Clayton is the Director of Clinical Services at The Wesley Hospital and Director of Mercy Super. Ms Clayton has worked in senior leadership roles within public and private health sectors.

### DR JAMES AYLWARD
Board Member

Dr Aylward is an innovative researcher and an active mentor for tech start-ups in health sciences. Dr Aylward was awarded the 2018 Clunies Ross Innovation Award for developing Picato, an anti-skin cancer drug.

### DR JOHN LUMLEY
Board Member

Dr Lumley is a colorectal surgeon practising at The Wesley Hospital. Dr Lumley has served on the executives of the Gastroenterological Society of Australia, and the Colorectal Society of Australia and New Zealand.

### MS MAIRI MCNEILL
Board Member

Ms McNeill is the General Manager of St Andrew's War Memorial Hospital. Ms McNeill is an experienced healthcare executive who has worked in the private industry for over 23 years.

### PROFESSOR MARY-LOUISE FLEMING
Board Member

Professor Fleming is Head of the School of Public Health and Social Work at the Queensland University of Technology. Professor Fleming has over 25 years of experience in public health and health promotion.

### DR JOHN RIVERS
Board Member

Dr Rivers is a practising cardiologist and founding member of the Queensland Cardiovascular Group. Dr Rivers has extensive experience in business development and governance in the healthcare industry.

### MR DAVID HAIRSINE
Board Member

Mr Hairsine is a highly experienced business leader with many years of driving growth strategy as General Manager, Finance and Treasury at mining company PanAust Limited and now works in a consultant role to the same.

### MR NEAL O'CONNOR
Board Member

Mr O'Connor was appointed a Non-Executive Director in 2020. He holds a Bachelor of Laws degree and has extensive experience in the resource industry with expertise in Corporate Governance and Risk Management.

### MR DES OLLING
Company Secretary

Mr Olling has a long history as a Company Secretary in private and multinational companies. He joined Wesley Medical Research in May 2016 as a volunteer and was appointed Company Secretary in June 2018.

# Thank You

*Thank you to our donors and supporters. Together we can continue giving hope and changing lives through medical research.*

The futures that we are keeping alive through innovation, research and compassionate care could not be done without our generous donors and volunteers. We are honoured to acknowledge your gifts. Gifts of $1000 or more have been acknowledged.

Fran Albrecht (The Albrecht Foundation) and Sandra Jeyakumar (VidyaJey Foundation)

Dr Victoria Brazil (Brazil Family Foundation)


CEO Dr Claudia Giurgiuman, Wendy and Alan Grummitt

## DONATIONS RECEIVED DURING THE 2020-2021 FINANCIAL YEAR

### OVER $10,000 DONATIONS

UnitingCare Queensland
Mitsubishi Development Pty Ltd
Mr Alan and Mrs Wendy Grummitt
Brazil Family Foundation
Estate of Mrs Annette Wilson
In Vitro Technologies
VidyaJey Foundation
Mr Hugh and Mrs Bev Sheardown
UnitingCare Health
The Donald and Joan Wilson Foundation
The Edward Bullock Endowment
Mr Shane Doyle QC
Mr Alexander J and Mrs Mary Peden OAM
Catalano Family Foundation
The Sartain Family Foundation
Mrs Maureen Stevenson
Estate of Mr Ralph Sheehy
Mr Maha and Mrs Yoga Sinnathamby
LG Paintworx Pty Ltd

### GRANTS

Coeliac Australia
Gambling Community Benefit Fund

### OVER $1000 DONATIONS

Dr Cathryn Mittelheuser
Dr John and Dr Janet Allan
Mr Lyn and Mrs Bobbie Brazil AO
Dr Ian and Mrs Margaret Dickinson
Mr Arnold and Mrs Pamela Dodd
Mr Wal and Mrs Helen Edgar
Mr Tony Hogg
Mr John Martin
Mr Tom McKerrell
Mr Clarence Burke
Mr Peter and Mrs Anne Allen
Stack Family Foundation
Mr John Allpass
Dr Jim Aylward
Mr Rodney Wylie
Borgert Family Endowment
Rachael Shetty
Mrs Helen Wang
Mrs Jill Tame
Mrs Raelene and Mr Geoff Cranna
Australian Philanthropic Services
Ms Cheryl Clayton and Dr Glen Pearse
Mr Mick Cranny
Dr Jon and Mrs Kay Douglas
Mr John and Mrs Patrice Foote
Dr Troy and Mrs Karelia Gianduzzo
Ms Marie Isackson
Mr Owen and Mrs Sue Maller
Mrs Diana McCamley
Mr Bernie O'Connor
Mrs Viti Packer
Mr Louis Parolin
Ms Leona Romaniuk
Professor Russell and Mrs Anne Stitz

# Hope Builders, Change Makers

## Help us raise awareness

wesleyresearch.org.au

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@Wesley Medical Research

@WesleyResearch

@wesleyresearch

## Donate

wesleyresearch.org.au/donate

07 3721 1500

## Make a lasting impact by leaving a gift in your will

donate@wesleyresearch.org.au

07 3721 1500

## Register for a clinical trial

wesleyresearch.org.au/clinical-trials

WESLEY MEDICAL RESEARCH

*Our shared purpose drives collaboration, communication, and support for each other.*

Left to right: Johanna Schagen, Anne Tremellen, Emma Blake, Laura Pareezer.

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