



# DESTINATION DISCOVERY

IMPACT REPORT  
2020

# WHO WE ARE

**The Baker Heart and Diabetes Institute has been at the heart of some of the world's greatest scientific discoveries since it began in Melbourne in 1926.**

Despite improvements in life expectancy, heart disease is still a leading killer of Australians, and diabetes is the fastest growing chronic condition in the country.

We believe everyone should have access to the best preventive, diagnostic and treatment options for heart disease, diabetes and their complications.

By harnessing big data and technological advances we are transforming how this healthcare is delivered.

Our vision is to help people to live healthier for longer in the community, and to stop heart disease and diabetes in its tracks.

This is what drives our scientists, our clinicians, our public health experts, our diabetes educators and our dietitians every day.



# WHAT'S INSIDE

<b>The problems</b>	<b>2</b>
<b>The solutions</b>	<b>3</b>
<b>Message from our Chair</b>	<b>4</b>
<b>Message from our Director</b>	<b>7</b>
<b>Lasers to prevent heart attacks</b>	<b>8</b>
<b>Centre to address disease hotspots</b>	<b>11</b>
<b>Our discovery roadmap</b>	<b>12</b>
<b>Helping to explain the unexplained</b>	<b>14</b>
<b>Shining a light on diabetes complications</b>	<b>17</b>
<b>Working together to improve Aboriginal health</b>	<b>18</b>
<b>New way of measuring genetic risk of disease</b>	<b>21</b>
<b>Young scientists drive future breakthroughs</b>	<b>22</b>
<b>New pathway to diagnose Alzheimer's disease</b>	<b>25</b>
<b>Standing together to fight diabetes</b>	<b>26</b>
<b>Supporters and acknowledgements</b>	<b>28</b>
<b>Board of Directors</b>	<b>30</b>
<b>Financial highlights</b>	<b>32</b>
<b>Celebrating 95 years together</b>	<b>37</b>



# THE PROBLEMS

These are our biggest health challenges



Cardiovascular disease is **Australia's biggest killer**, accounting for **one in four deaths**



**1.2 million Australian adults** have one or more conditions related to cardiovascular disease



Around **1.8 million Australians** have diabetes (including type 1, type 2, gestational diabetes and silent, undiagnosed type 2 diabetes)



**280 Australians develop diabetes** every day, that's one person every five minutes

## X3

Diabetes prevalence is almost **three times higher** in Australia's Indigenous population compared to non-Indigenous



Key disease risk factors – obesity, blood pressure, blood glucose, physical inactivity and smoking – **all increase with socioeconomic disadvantage**



Diabetes increases the risk of heart attack and stroke **by up to four times**



Cardiac arrest can be lethal within minutes, and on average only **1 in 10 survive**

# THE SOLUTIONS

We are working towards innovative solutions



Groundbreaking **lipidomic and genomic biomarkers** to predict and diagnose your disease risk, years before symptoms appear



Australia's first **sudden cardiac arrest registry** to explain the unexplained and save young hearts



Big data combined with the latest micro imaging technology to **deliver personalised medicine** based on your unique health profile



**Community interventions** in areas at high risk of cardiometabolic disease to **deliver greater health equity**



**New therapies and better risk prediction** to reduce the costly and potentially deadly complications of diabetes



**Exercise as medicine** to help keep hearts healthy after a cancer or diabetes diagnosis



**Novel laser technology** to detect dangerous narrowings in blood vessels and help doctors intervene before a heart attack or stroke occurs



Tailored lifestyle plans for individuals, and **systemic change for more movement every day** in workplaces, at home and on public transport

# FORWARD THINKING IS PART OF OUR PHILOSOPHY

**2020 clearly demonstrated the importance of science to us all, particularly with regards to the rapid development of COVID-19 vaccines.**

**Humble beginnings but ambitious aims**

As a community we value science, and yet competition for research funding in Australia has never been greater. This requires significant resilience from scientists but also strong advocacy for government and philanthropic support. Thanks to the past and present support of our donors, the Institute has been able to provide fellowships to supplement external grant funding for our scientists during the COVID-19 pandemic.

We are very grateful for that support as we continue to pursue our cardiometabolic research agenda in this our 95th year.

Just as the Institute was established by forward-thinking philanthropists to keep up with exciting advances in medical research overseas, it has continued to be steadfastly supported by organisations like the Baker Foundation, which has been there since our inception.

Heart disease and diabetes are among the biggest killers


in the world. We are now also seeing the cardiometabolic impacts of COVID-19, and the Institute is helping to understand and treat these conditions in patients who suffer ongoing health issues from the virus.

Championing these efforts are researchers like Dr Erin Howden. She wants to understand if COVID-19 causes damage to the heart and functional capacity, and if exercise as medicine can be beneficial. She is supported by the Sir Laurence Muir Prize, which recognises a long-time Institute supporter, patron and board member.

As we look to our centenary in 2026, I'm buoyed by the commitment of scientists like Erin and our many loyal supporters to help Australians to live healthier for longer.



**Mr Peter Scott AM  
Chair, Baker Heart  
and Diabetes Institute**



**Pioneering  
discoveries leading  
to better health**

Sir Laurence Muir Prize  
recipient and new lab head,  
Dr Erin Howden, and Baker  
Institute Chair, Mr Peter Scott.

The COVID-19  
pandemic has left  
a lasting impact



Professor Tom Marwick and  
trial participant, Rosie Harris



# ADAPTING TO MEET OUR BIGGEST HEALTH CHALLENGES

**The pandemic put health front and centre in 2020. As we work towards a ‘new normal’, we must not lose sight of addressing the scourge of heart disease and diabetes, and understanding how they are impacted by emerging health threats.**

**We’re tackling the biggest threats to global health**

Medical research is critical in helping the 1.2 million Australians with cardiovascular disease, the 1.8 million Australians affected by diabetes and the estimated 2 million Australians at high risk of developing type 2 diabetes who are already showing early signs of the disease.

It will also be vital in evaluating the long-term impacts of the COVID-19 infection on cardiometabolic health.

At the Baker Institute, we’re using our unique expertise to look at the impact COVID-19 lockdowns had on people with diabetes. We are also studying the damage the virus does to the cardiovascular system. This work is critical for the wider community, which includes people like physiotherapy student Rosie Harris, who had COVID-19 and who wants to help shed light on its long-term cardiovascular impact.

We are also working with other high-risk groups

through our new clinical trial centre at Hoppers Crossing. Melbourne’s outer west has had the largest number of COVID-19 infections in Australia, and already grapples with some of the country’s highest rates of heart disease and diabetes.

This important research is possible thanks to funding from our generous supporters, as well as significant collaborations with leading health and medical research institutions worldwide, including the newly established Baker Department of Cardiometabolic Health at the University of Melbourne.

By building strategic partnerships, we aim to leverage our expertise and contribute to new ways of improving human health.

**Professor Tom Marwick  
Director, Baker Heart  
and Diabetes Institute**

# LASERS TO PREVENT HEART ATTACKS

**A Baker Institute spin-off company, Nirtek, has been established to develop and commercialise innovative technology that uses lasers to detect unstable coronary plaques, the leading cause of deadly heart attacks.**

**No previous test could identify unstable plaque**

Fatty deposits called plaques can build up over time in the walls of the arteries in a process known as coronary artery disease – the world’s biggest killer. If these plaques rupture, they can cause blood clots that block blood flow to the heart.

Nirtek’s new technology uses near-infrared laser light to identify these dangerous, rupture-prone plaques, so doctors can treat them before they lead to heart attacks.

The device is based on the pioneering research of Professor Karlheinz Peter and his colleagues, with patents already granted in both the USA and Japan.

“The core technology is guided through an optical wire, which is inserted into the coronary artery being examined. Near-infrared light is then directed at plaques, which if unstable will produce a signal due to the contents associated with plaque instability having high auto-fluorescence properties,” Karlheinz says.

“This auto-fluorescence signal is detected by the device and presented to the cardiologist, who may then decide to apply interventional therapies such as stents or medication to stabilise the plaque, in the hope of preventing future heart attacks.”

Karlheinz says too many people suffer from heart attacks even after undergoing an angiogram – the current gold-standard technology – highlighting the need for a better solution that not only identifies the narrowing of vessels, but plaque instability too.

“Our solution is a locally-engineered technology that with some further product development and testing will translate to the clinic and ultimately benefit a huge number of patients.”



**Our new device  
makes dangerous  
areas glow**

This cutting-edge technology, which could prevent you from having a heart attack, is based on the groundbreaking research of cardiologist and scientist, Professor Karlheinz Peter.



**Health inequity  
compounds  
disadvantage**



Mr 'Peter' Phuoc Bui-Quang, who has diabetes and heart disease and participates in our clinical trials, and his wife, Kim.

# CENTRE TO ADDRESS DISEASE HOTSPOTS

**The Institute has established a unique research facility in Melbourne’s outer west to trial innovative disease prevention and management programs aimed at reducing rising rates of diabetes and heart disease in the community.**

**We work with high-risk communities to address inequity**



Research trials at our facility in Hoppers Crossing include the early detection of heart disease using genetic data, an e-health app to stop heart attacks from reoccurring, investigation into the long-term impact of COVID-19 on the heart, and new interventions to prevent heart failure.

Expert in disease prevention, Associate Professor Melinda Carrington says the goal of the new Clinical Trial and Research Centre is to identify people who would benefit most from health interventions and find better ways to keep them out of hospital and living healthier for longer in the community.

“The Baker Institute conducts a number of clinical studies in high-risk and disadvantaged communities. It’s critical for us to go to where the need is, and trial new approaches to tackle diabetes and heart disease,” she says.

“If we can support people to avoid a heart attack or type 2 diabetes diagnosis – or for people who have had an event, help them to manage their heart disease so that they don’t suffer another heart attack or stroke – then this approach could become a model for high-risk communities across the country.”

Retired grandfather ‘Peter’ Phuoc Bui-Quang, who lives with diabetes and heart disease, joined a study at the centre as a simple way to be proactive about his health.

“I like to follow my conditions closely and it makes you feel safer when you have these experienced people behind you,” Peter says.

# OUR DISCOVERY ROADMAP

**Our science strategy, supported by generous donors including the Helen Amelia Hains Foundation, is critical in leading a global effort to stop heart disease, diabetes and obesity. Our world-renowned researchers are embarking on a new era of detection, prevention and early intervention of cardiometabolic disease.**

The Baker Institute's science strategy reflects the breadth of the areas that we work across and harnesses our research strengths so that our scientists can focus on answering big-picture questions and delivering breakthroughs that will transform healthcare.

## **ABORIGINAL HEALTH**

Our work in Aboriginal Health encompasses research and education that aim to address the profound health disadvantage experienced by Aboriginal people. Our researchers are bringing their skills and resources to address these challenges.

## **ATHEROTHROMBOSIS**

We aim to find out who is at risk of developing blocked arteries, allowing us to predict heart attack and stroke, and develop and test new and improved drug treatments. We conduct trials with anti-

inflammatory, anti-diabetic and lipid lowering drugs in patients who have experienced a heart attack with the aim of reducing the 'size' of the attack and preventing further attacks.

## **BIOINFORMATICS DISCOVERY AND TRANSLATION**

Incorporating the Cambridge Baker Systems Genomics Initiative, this program uses big data approaches to inform our science. Access to major international registries informs our investigators of the associations between genes, proteins and fats, and various disease entities. We use this information to identify whether these links are truly causative, and this information can inform the pathway to drug discovery.

### **DIABETES COMPLICATIONS**

We aim to reduce the burden of diabetes complications (heart attack, heart failure, kidney dialysis, amputation, dementia, cancer, liver disease) by establishing clinical trials of new drugs. We seek to develop sophisticated diagnostics for early identification and prevention of symptoms.

### **HYPERTENSION AND CARDIAC DISEASE**

Our researchers aim to reverse chronic heart disease, and to prevent and repair structural damage to the heart from hypertension, heart disease and associated rhythm disturbances.

### **IMMUNOMETABOLISM**

Cardiovascular disease is an inflammatory disease. This program aims to identify the unique metabolic signatures of specific cells and will allow for cell-specific targeting to either neutralise or alter the function of immune cells that cause disease. Alternatively, manipulating metabolism could boost the function of anti-inflammatory or regulatory immune cells. We are developing a world-first lipid

atlas of immune cells in order to understand in great detail the lipid composition of specific immune cell subtypes.

### **OBESITY AND LIPIDS**

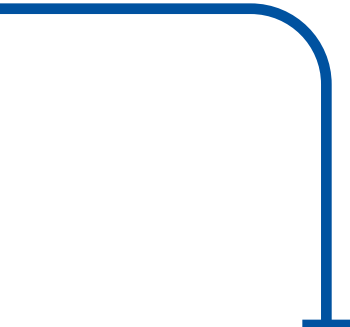
Obesity today stands at the intersection between inflammation and metabolic disorders; causing an aberration of immune activity, and resulting in increased risk for diabetes, atherosclerosis, fatty liver disease and pulmonary inflammation. This program explores the connection that lipids play in obesity, as well as how obesity affects metabolism.

### **PHYSICAL ACTIVITY**

We want to know how people's bodies adapt to exercise and how we could use that information to predict heart failure, as well as how exercise changes our cellular makeup. We aim to reduce the burden of disease by encouraging Australians to move more.

# HELPING TO EXPLAIN THE UNEXPLAINED

**Our researchers are working hard to find answers for families who have lost a loved one to sudden cardiac arrest.**



**Young cardiac deaths have not dropped in decades**

For up to 40 per cent of young people who die from a sudden cardiac arrest, it is never determined what caused their heart to stop, leading incidents like these to become known as ‘unexplained cardiac deaths’.

The Institute is leading the first registry of sudden cardiac arrest in those aged one to 50, to better understand its causes, give families answers, and prevent more young lives from being cut short.

The registry – generously supported by the EndUCD Foundation – released its first year of Victorian data in 2020, with 750 sudden cardiac arrests recorded and just a 10 per cent survival rate. This death toll makes it one of the biggest killers of young Victorians.

Dr Liz Paratz is investigating new techniques such as genetic testing, coronary calcium scoring and extracting data from

pacemakers, to better understand why these incidents occur.

“We hope tools like these can help provide the missing pieces of the puzzle when it comes to unexplained cardiac death,” Liz says.

Parents like Jo and Steve Gibbs, whose son, Matt, died at 23 after a sudden cardiac arrest while playing indoor soccer, still have no explanation for the loss of their loved ones.

“Matt was our only son. It never gets any easier and I don’t think anything will ever help. But you want to know why it happened. It’s the cruelest thing to never know,” Jo says.

“Until we understand the causes of unexplained cardiac death, young people like Matt will continue to die without warning.”





**We are finding  
new ways to save  
young hearts**



It's the cruelest thing to not know what happened to Matt, say Steve and Jo Gibbs. Image: Robert Leeson/NewsPix



Diabetes  
complications  
were not well  
understood



Professor Jonathan Shaw and Lynette Luther, who has lived with type 2 diabetes for more than 20 years.

# SHINING A LIGHT ON DIABETES COMPLICATIONS

**The Institute's Dark Shadow of Type 2 Diabetes report released in 2020 shines a light on the far-reaching and lesser-known complications of diabetes.**



**The Dark Shadow  
report highlights  
wider health risks**

While heart disease, strokes, kidney disease, vision loss and amputations remain the major complications of diabetes, there is growing evidence it can also increase the risk of dementia, some types of cancer, liver disease and depression.

This national snapshot of type 2 diabetes shows a better approach is needed to address the wider health risks so Australians with type 2 diabetes can live healthier for longer.

The report also includes new modelling to show that a greater use of novel diabetes medications could prevent hundreds of life-threatening cardiac and renal events across Australia every year.

Lead author and Head of Clinical Diabetes and Population Health, Professor Jonathan Shaw says diabetes increases the risk of numerous other diseases that most people may not understand are linked.

The report was made possible by the Institute's long standing partnership with Boehringer Ingelheim and Eli Lilly.

"The Boehringer Ingelheim and Eli Lilly Australia & New Zealand Diabetes Alliance is a proud long term supporter of the Baker Institute. Our goal is to bring people together to focus on creating a healthier Australia. Our collaboration on innovative research, education and awareness activities aims to make a meaningful difference to people living with type 2 diabetes and heart disease," say Wes Cook, Managing Director of Boehringer Ingelheim Australia & New Zealand, and Ben Basil, President & GM, Eli Lilly Australia, New Zealand & North Asia-Pacific.

Partnerships such as this enable the funding of critical research projects which aim to provide better outcomes for millions of people living with diabetes.

# WORKING TOGETHER TO IMPROVE ABORIGINAL HEALTH

**Working with Aboriginal and healthcare organisations to improve cardiometabolic health has been a key pillar of our work for more than 14 years.**

**Aboriginal people have a shorter life expectancy and poorer health**

When our facility in Alice Springs opened in 2007, it became the second health and medical research institute to be located in the Northern Territory, and the first in Central Australia.

Our work spans heart disease, diabetes and related disorders, where we know there is significant unmet need, particularly in remote communities.

Building capacity and sharing knowledge has been a core part of our program, with the Institute hosting an annual educational symposium in Alice Springs for healthcare workers, with partners including the Northern Territory Department of Health.

The symposiums aim to share the latest evidence about heart disease and diabetes and its complications such as eye and kidney disease, in order to build capacity and support people working in rural and remote communities.

Over the years, these symposiums have featured national and international experts with our most recent symposium in 2020 successfully adapting to an online format. We were pleased to again attract a top line up, including medical anthropologist from the University of Hawaii, Eirik Saethre. Eirik spoke of the significant time he spent with the Warlpiri community of Central Australia to better understand how Aboriginal people view western health.

Other highlights included a 'Kurrumpa Wanka' (A good life on dialysis) session by staff from the renowned Purple House in Alice Springs, and a presentation by Australia's first Aboriginal cardiologist, Associate Professor Luke Burchill who wants to bring an Indigenous lens to the high death rates of Aboriginal people from cardiovascular disease in early adulthood.



**By sharing  
knowledge we aim  
to build capacity and  
drive sustainable  
change**



**Too many resources  
are focussed on  
treating disease**

With heart disease in her extended family, Genevieve Peterson is concerned about the heart health of her family.

# NEW WAY OF MEASURING GENETIC RISK OF DISEASE

**For years, doctors have relied on blood pressure, cholesterol, body mass index and family history to ascertain disease risk. However, it is increasingly recognised that these instruments are not granular enough to paint a precise, individual picture of disease risk.**

**We're pioneering tools to identify disease risk early**



We have brought together a team of bioinformatics specialists, scientists and clinicians to crunch health data to develop and test the clinical utility of novel personalised risk scores for diseases such as coronary artery disease, the leading cause of death in Australia. This pioneering work is being supported by the Ernest Heine Family Foundation.

In one groundbreaking study led by cardiologist and Institute Director, Professor Tom Marwick, we are testing 1000 family and friends of Victorians with heart disease to find out if using a personalised heart risk profile can prevent deaths by taking preventive action or treatment years before disease strikes.

We are also undertaking a study to understand which genes are important in driving genomic risk of coronary artery disease and why.

By understanding how genes change biological pathways to increase risk, it could help us to modulate these pathways to reduce disease risk.

This study, made possible by an NHMRC Ideas Grant, could lead to fundamental changes in the way we diagnose, treat and prevent coronary artery disease. One in four people that have a heart attack do not have traditional risk factors such as high blood cholesterol levels. This highlights the importance of 'family history' or genetic risk.

This pivotal study will be led by our Head of Lipid Metabolism and Cardiometabolic Disease, Associate Professor Anna Calkin, who will work with the Munz Chair of Cardiovascular Prediction and Prevention, Professor Michael Inouye and colleague, Dr Adam Butterworth from the University of Cambridge.

# YOUNG SCIENTISTS DRIVE FUTURE BREAKTHROUGHS

**Supporting scientists early in their career has been part of our tradition for over two decades. Many young researchers face challenges to cover the costs of completing their studies and developing their research.**

Through scholarships, grants and fellowships, our Bright Sparks program nurtures forward thinkers who will drive the groundbreaking discoveries of tomorrow.

Investing in scientific talent is important to Berry and Anne King, who have been involved with the program since its inception.

The original architect of the Baker Institute tower, Berry was commissioned to design a new and versatile research building. He believed that scientists working in laboratories should be able to easily collaborate and make incidental discoveries. This led to the design of the building's central atrium which can be attributed to Berry's vision.

It was this involvement with the organisation that motivated Berry and Anne to support the Institute and its young scientists.

“We believe in excellence and we believe in giving people a chance. Supporting the younger generations is supporting the future, and it's so important to get them through tertiary education. Bright Sparks scholarships facilitate an environment where you are assured the time and space to explore,” explains Anne.

PhD student, Tom Collins is one of the many beneficiaries of this program.

Tom is looking at how traditional cardiovascular disease risk factors such as smoking, obesity, and high cholesterol alter lipid metabolism in immune cells. His hope is to generate an ‘immune cell lipidome risk score’ that can better predict the likelihood of individuals developing heart disease.

We are grateful to our community of Bright Sparks donors, who are making a difference to the lives of millions of Australians.



**Early career scientists face significant funding challenges**





**Generous  
philanthropic  
support creates  
future leaders**

Bright Sparks donors, Berry and Anne King with first year PhD student, Tom Collins.



**Failed trials  
highlight need for  
new approaches**

Researchers Dr Kevin Huynh, Professor Peter Meikle and Dr Satvika Burugupalli from the Metabolomics laboratory

# NEW PATHWAY TO DIAGNOSE ALZHEIMER'S DISEASE

**Lipids — fats in the blood — that are helping us to understand the metabolic changes associated with Alzheimer's disease could also be used as markers to identify people at high risk of the disease and provide a pathway to prevention.**

**Lipids could be key in early detection**



The Baker Institute-led study, one of the most comprehensive of its kind, puts the spotlight on lipids, showing how changes in the levels of these small, complex molecules are linked with the onset and development of Alzheimer's disease.

This insight is welcome news given that global rates of Alzheimer's disease are expected to reach 81 million by 2040 and there is a significant unmet need around risk assessment, diagnosis, prevention and treatment.

Alzheimer's disease is a neurodegenerative disease characterised by progressive decline in cognitive function, usually presenting with memory loss.

Institute researchers, in collaboration with researchers from Edith Cowan University and the Alzheimer's Disease Metabolomics Consortium in the US, performed one

of the most comprehensive lipidomic analysis of Alzheimer's disease, examining 5733 clinical samples from 1912 individuals.

Head of Metabolomics, Professor Peter Meikle, says the Institute has recently expanded its lipidomic platform, enabling researchers to measure hundreds of lipids in the blood and analyse if and how they contribute to various types of disease.

"In this study we demonstrate the potential of plasma lipids as important markers to improve the risk assessment and diagnosis of Alzheimer's disease, and to better understand the metabolic changes occurring within this disease," Peter says.

"We may be able to intervene in some of these changes to provide some protection against, or treatment of, Alzheimer's disease."

# STANDING TOGETHER TO FIGHT DIABETES

**The Institute has a strong track record of innovation and discovery around the prevention, diagnosis and treatment of diabetes dating back 95 years.**

**We have a proud history of discovery in understanding diabetes**



In the late 1940s, Institute scientists provided evidence of two types of diabetes, a breakthrough that vastly changed the understanding and treatment of diabetes.

Pioneering research in the 1970s by the International Diabetes Institute, which later merged with the Baker Institute, contributed to the classification and diagnostic criteria for diabetes and improved understanding of the genetic-environmental and behavioural components of type 2 diabetes.

In 1999, the Australian Diabetes, Obesity and Lifestyle Study (AusDiab) was established as the largest study in any developed nation of glucose tolerance testing in the community. The AusDiab study placed a spotlight on diabetes as a major public health issue, and continues to provide critical benchmark data for public health experts and researchers globally.


Recently, Professor Judy de Haan, head of our Oxidative

Stress laboratory, discovered a novel drug target to help stop some of the most common and deadly complications of diabetes, including heart attack and stroke.

High blood sugar levels can damage the inner wall of blood vessels, setting off a domino effect of chronic inflammation, oxidative stress and atherosclerosis — the build-up of plaques on the artery walls.

Using a cutting-edge approach, our scientists were able to manipulate the specific stress pathway that causes cardiovascular complications in diabetes.

For almost 20 years, The Victorian Lions Foundation has proudly supported the Institute to provide better healthcare for people with diabetes. The innovative work of researchers like Judy and Arpeeta has been possible thanks to the philanthropic support of organisations such as this.



**As we understand  
more, we are  
developing new  
treatments**



Chairman of the Lions Foundation,  
John Beale, with researchers  
Professor Judy de Haan and  
Dr Arpeeta Sharma

# SUPPORTERS AND ACKNOWLEDGEMENTS

The impact that we have in heart and diabetes research is not possible without the support of those in our community. We are so grateful for the philanthropic, industry and government support we receive.

You are the people making a difference.

## MAJOR GIFTS (\$10K+)

Anonymous  
Casella Family  
Mr Stephen Cook  
Ruth Crutch  
Clyde and Debbie Davenport  
Prof. Lorraine Dennerstein AO\*  
Nance and Norman Denovan  
Mr Brad Ford  
Helen Amelia Hains Foundation  
Mr William Hunter  
Mrs Anne King & Mr Beresford King OAM  
Mr Lindsay Maxsted  
Mrs Y Mee  
Susan Morgan  
Mr Philip Munz AM & Mrs Sylvia Munz  
Mr Dennis & Mrs Fairlie Nassau  
Mr Robert & Mrs Sue Nicholson  
Ms Christine O'Reilly  
Betsy and Ollie Polasek Endowment  
Loris N Peggie  
Gerry Ryan OAM\*

Peter Scott AM & Anna Scott  
VPGH LTD

## TRUSTS AND FOUNDATIONS (\$20K+) / PRIVATE TRUSTS (\$10K+)

Alan Williams Trust Fund  
Anonymous  
Bertalli Family Foundation  
Ernest Heine Family Foundation  
Estate of the late Ernest Lonsdale Brown  
Freemasons Foundation Victoria  
Gwenneth Nancy Head Foundation  
Harbig Family Foundation  
Joe White Bequest  
L.E.W Carty Charitable Fund  
Mamoma Foundation  
Naylor-Stewart Ancillary Fund  
Percy Baxter Charitable Trust  
Randall Foundation  
Robert and Hope Stewart of the Rob + Hope Stewart Gift at the APS Foundation



Together we're helping  
the brightest minds  
deliver the best possible  
health to all Australians.  
Thank you for being a  
part of this journey.

Sylvia and Charles Viertel  
Charitable Foundation  
The Baker Foundation  
The G W Vowell Foundation Ltd  
The Gaudry Foundation  
The Shine On Foundation  
Walter and Eileen Ralston Trust

**BEQUESTS (\$20K+)**

Estate Anne Frances  
(Frankie) Frees  
Estate Bruce Victor Scott  
Estate Claire  
Constance Scurrah  
Estate Daryl Giles Howard  
Estate Eva Jolan Balogh  
Estate Halina Barbara Warcaba  
Estate Heidi Goldstein  
Estate Joyce Helen Iggulden  
Estate Lawrence Owen Esson  
Estate Lorna Beryl  
Joyce Macaulay  
Estate Marjorie  
Constance Talan  
Estate Michael  
Sutherland Stansfeld

Estate Olive Meuleman  
Estate Rosemary Ann Mackrell

**BEQUESTS IN PERPETUITY  
(\$20K+ CUMULATIVE)**

Australian Unity Trustees  
Foundation - Joyce Katherine  
Granger Sub Fund

Estate Emily E E Stewart  
Hazel & Pip Appel Fund  
M A & V L Perry Foundation

Perpetual Foundation -  
The Lesley Dickson Charitable  
Endowment

The Joanna & Lyonel Middows  
Research Foundation,  
managed by Equity Trustees

**ENDOWMENT (\$20K+)**

Sylvia Winifred & John  
Eastment Endowment

**PARTNERSHIPS (\$20K+)**

Amgen Australia  
ArmchairMedical.tv  
AstraZeneca Australia  
Blue Illusion

Boehringer Ingelheim and  
Eli Lilly Diabetes Alliance

Casella Family Brands

Edwards Lifesciences

EndUCD Foundation

Hanes Australasia

PSA Insurance\*

Reece Australia Limited

Sanofi

\*EndUCD donations

**LIFE GOVERNORS**

Ms Bobbie Renard

Professor John Funder AC

Mrs Margaret Ross AM

Mr Neville Bertalli

Mr Philip Munz AM

**AMBASSADORS**

Matthew Keenan

Mike McKay OAM

# BOARD OF DIRECTORS



**MR PETER SCOTT AM**  
**NON EXECUTIVE CHAIR**

Peter Scott is a Senior Advisor at Gresham Advisory Partners and has more than 35 years' experience in providing financial advice to large Australian companies and governments. He was a member of the Australian Takeovers Panel from 2002 to 2014 and the New Zealand Takeovers Panel from 2008 to 2014. He served as a Director of the Association of Australian Medical Research Institutes (AAMRI) from 2013 until 2019 and as Chairman of the Medical Research Future Fund Action Group in 2014 and 2015. Peter chairs the Institute's Remuneration and Appointments Committee and serves on the Audit & Risk Management Committee and Investment Committee.



**MR LINDSAY MAXSTED**  
**NON EXECUTIVE DIRECTOR**

Lindsay Maxsted is Chairman, Transurban Group (Director 2008 – and Chairman 2010 -), immediate past Chairman, Westpac Banking Corporation (Director 2008 – 2020 and Chairman 2011-2020) and a former Director of BHP Group Limited and BHP Group plc (2011-2020). He is Managing Director of Align Capital Pty Ltd, Chairman of the Advisory Board of Coolmore Australia and a Senior Advisor to Tanarra Capital. He is a Fellow of the Australian Institute of Company Directors and a Fellow of the Institute of Chartered Accountants in Australia. Lindsay was formerly a Partner at KPMG (1984-2008) and was the CEO and National Managing Partner of that firm from 2001 to 2007. Lindsay is the Honorary Treasurer of the Institute, Chair of the Institute's Audit & Risk Management Committee and serves on the Remuneration and Appointments Committee.



**PROFESSOR THOMAS MARWICK**  
**EXECUTIVE DIRECTOR**

Tom Marwick is the Director and Chief Executive Officer of the Institute. He is a practising cardiologist and prior to the Baker Institute was the Director at Menzies Institute for Medical Research, University of Tasmania and continues to hold an Adjunct Professorship there, as well as University of Melbourne, Monash University and Swinburne University. Tom has also worked as the Head of Cardiovascular Imaging at Cleveland Clinic, is a director of AMREP AS Pty Ltd and was a director of Nucleus Network Limited until 31 January 2018. Tom serves on the Institute's Audit & Risk Management Committee, Remuneration and Appointments Committee and Commercial Issues Committee.



**MS KATE METCALF**  
**NON EXECUTIVE DIRECTOR**

Kate Metcalf is a senior solicitor operating her own legal practice and is also a sessional Member at the Victorian Civil and Administrative Tribunal. She is a Trustee of the Baker Foundation and a Director of Boroondara Aged Services Society, BASS Care. She has previously held positions as the Legal Director Asia, General Counsel Australia and New Zealand, Director and Company Secretary with Carestream Health Australia Pty Ltd and Senior Counsel and Company Secretary of Kodak (Australasia) Pty Ltd.





**MR ROBERT NICHOLSON**  
**NON EXECUTIVE DIRECTOR**

Robert Nicholson is a Senior Advisor with Herbert Smith Freehills. He was a member of the Freehills board between 2000 and 2011 and was Chairman between 2008 and 2011. He is a Director of Port of Melbourne, owned by Future Fund and funds managed by QIC Limited, Global Infrastructure Partners and Ontario Municipal Retirement Scheme, Landcare Australia Limited and the Nucleus Network Group.



**MS CHRISTINE O'REILLY**  
**NON EXECUTIVE DIRECTOR**

Christine O'Reilly is a Director of BHP Group Limited, Medibank Private and Stockland. She was Co-head of Unlisted Infrastructure at Colonial First State Global Asset Management from 2007 to 2012 and prior to that Chief Executive Officer of the GasNet Australia Group. Christine serves on the Institute's Audit & Risk Management Committee, the Remuneration and Appointments Committee and the Investment Committee.



**PROFESSOR SIMON FOOTE**  
**NON EXECUTIVE DIRECTOR**

Simon Foote is Emeritus Professor at The Australian National University and was Director of The John Curtin School of Medical Research from 2014 to 2019. He has been Dean of the School of Medicine at Macquarie University, Director of the Menzies Institute for Medical Research at the University of Tasmania and Divisional Head at the Walter and Eliza Hall Institute, Melbourne. He was a postdoctoral fellow at the Whitehead Institute at the Massachusetts Institute of Technology.



**DR ANDREA DOUGLAS**  
**NON EXECUTIVE DIRECTOR**

Andrea Douglas is the Senior Vice President, Organisation Transformation and External Affairs at CSL Limited, located at CSL's headquarters in Parkville, Australia. Before joining CSL Andrea was the CEO of the Gene CRC and previously a senior researcher at the Walter and Eliza Hall Institute. Andrea has a PhD degree in Forensic Medicine from Monash University and holds a Master's degree in Health Administration. She has been a Director of AusBiotech since 2013 and BioCurate since February 2018. Andrea is Chair of the Institute's Commercial Issues Committee.



**MS MARINA KELMAN**  
**NON EXECUTIVE DIRECTOR**

Marina Kelman is an Executive Director at Goldman Sachs, in the corporate advisory division. She previously consulted to Afterpay Ltd on strategic projects, and prior to that, was the CFO of MLC Life Insurance. Before joining MLC, she worked in senior roles at NAB and UBS Investment Bank. Marina is a CPA, and has a Bachelor of Accounting from Monash University. She is a member of the Finance Committee of the State Library of Victoria. Marina serves on the Institute's Audit & Risk Management Committee.

**MS HILARY BOLTON**  
**COMPANY SECRETARY**

# FINANCIAL HIGHLIGHTS

**An endowment of more than \$1m from the Alan Williams Trust to continue its support of our early career scientists was a highlight of 2020, made all the more poignant during a challenging financial year.**

The Alan Williams Trust, guided by long-term trustees including Peter Habersberger AM RFD, has supported the Institute for several decades. In 2020, such assistance was gratefully received, as competition for scientific funding in Australia is at an all-time high.

The Munz Chair of Cardiovascular Prediction and Prevention, Professor Michael Inouye, who is supported by Mr Philip Munz AM and Mrs Sylvia Munz, demonstrated how genetic screening could substantially increase the number of prevented cardiovascular events compared to traditional risk factors alone. The use of big data to drive early intervention for people at risk of disease is fast gaining significance in global health and scientific communities.

Long-term donors like Stephen Cook provided an admirable example for others, matching gifts in our tax appeal.

We were also delighted to receive a gift from the Sylvia and Charles Viertel Charitable Foundation, which is

supporting an innovative project to more comprehensively observe blood flow to the heart in patients at rest and during exercise. Sophisticated new '4D' imaging tools are enabling our cardiologists to see what is happening inside the heart and large blood vessels.

In 2020, we received \$2.5 million for Operational Infrastructure Support funding from the Victorian Government. This provides essential funding towards indirect costs that are not provided by competitive grants.

The Institute was awarded \$1.5 million through the Federal Government's Independent Research Institute Infrastructure Support Scheme.

In terms of competitive scientific funding, the Institute secured \$6.1 million from National Health and Medical Research Council grants.

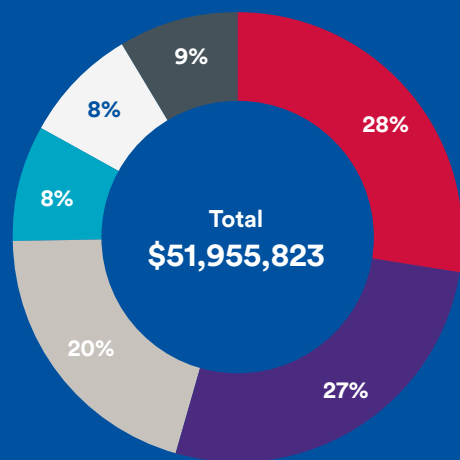
Our researchers also secured more than \$3.5 million from the Medical Research Future Fund in 2020 for projects to start in 2021.

**An Institute  
founded by  
philanthropists**

And still strongly supported by philanthropists

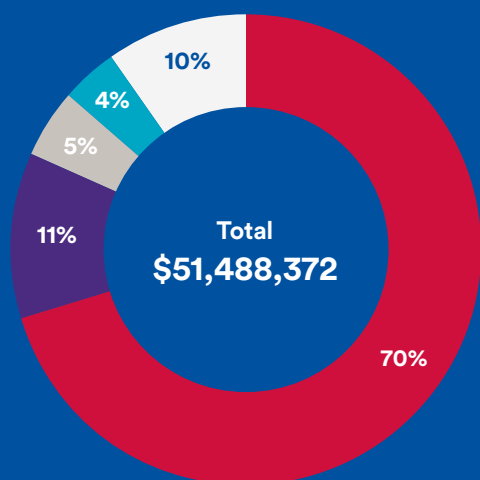
### REVENUE

Fundraising, including bequests	\$14,417,246
Competitive grants	\$14,009,976
Government support	\$10,438,681
Investment income	\$4,402,406
Service & clinical income	\$4,221,697
Other income	\$4,465,817
<b>Total</b>	<b>\$51,955,823</b>



### EXPENDITURE

Research and laboratory expenditure	\$36,224,286
Administration	\$5,827,982
Building & infrastructure costs	\$2,480,545
Business development	\$2,084,875
Depreciation	\$4,870,684
<b>Total</b>	<b>\$51,488,372</b>



## FINANCIAL STATEMENTS

## STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2020

	Consolidated		Parent	
	2020 \$	2019 \$	2020 \$	2019 \$
<b>ASSETS</b>				
<b>Current assets</b>				
Cash and short term deposits	14,752,786	13,936,240	14,708,046	13,935,925
Trade and other receivables	2,775,634	2,385,628	2,770,594	2,385,628
Right to use	1,193,722	1,092,676	1,193,722	1,092,676
Prepayments	500,346	497,182	500,346	497,182
<b>Total current assets</b>	<b>19,222,488</b>	<b>17,911,726</b>	<b>19,172,708</b>	<b>17,911,411</b>
<b>Non-current assets</b>				
Property, plant and equipment	40,737,046	43,509,118	40,737,046	43,509,118
Right to use	6,587,001	7,553,641	6,587,001	7,553,641
Intangible assets	1,323,528	1,581,403	1,323,528	1,581,403
Investment in an associate	2,801,449	2,679,046	2,015,001	2,015,001
Investment in subsidiaries	-	-	237,050	300
Non-current financial assets	136,767,953	135,885,205	136,767,953	135,885,205
<b>Total non-current assets</b>	<b>188,216,977</b>	<b>191,208,413</b>	<b>187,667,579</b>	<b>190,544,668</b>
<b>TOTAL ASSETS</b>	<b>207,439,465</b>	<b>209,120,139</b>	<b>206,840,287</b>	<b>208,456,079</b>
<b>LIABILITIES</b>				
<b>Current liabilities</b>				
Trade and other payables	3,459,247	5,919,900	3,450,667	5,919,900
Unearned income	1,036,366	13,917,166	1,036,366	13,917,166
Grant liability	10,522,856	-	10,522,856	-
Interest-bearing loans and borrowings	499,174	422,961	499,174	422,961
Provisions	5,983,006	6,143,846	5,983,006	6,143,846
<b>Total current liabilities</b>	<b>21,500,649</b>	<b>26,403,873</b>	<b>21,492,069</b>	<b>26,403,873</b>
<b>Non-current liabilities</b>				
Interest-bearing loans and borrowings	1,280,432	1,537,926	1,280,432	1,537,926
Provisions	540,362	476,431	540,362	476,431
<b>Total non-current liabilities</b>	<b>1,820,794</b>	<b>2,014,357</b>	<b>1,820,794</b>	<b>2,014,357</b>
<b>TOTAL LIABILITIES</b>	<b>23,321,443</b>	<b>28,418,230</b>	<b>23,312,863</b>	<b>28,418,230</b>
<b>NET ASSETS</b>	<b>184,118,022</b>	<b>180,701,909</b>	<b>183,527,424</b>	<b>180,037,849</b>
<b>EQUITY</b>				
Retained earnings	174,055,307	171,515,304	173,472,623	170,851,259
Other reserves	10,054,801	9,186,590	10,054,801	9,186,590
<b>Equity attributable to members of the parent</b>	<b>184,110,108</b>	<b>180,701,894</b>	<b>183,527,424</b>	<b>180,037,849</b>
Non-controlling interests	7,914	15	-	-
<b>TOTAL EQUITY</b>	<b>184,118,022</b>	<b>180,701,909</b>	<b>183,527,424</b>	<b>180,037,849</b>

**FINANCIAL STATEMENTS****STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2020**

	Consolidated		Parent	
	2020 \$	2019 \$	2020 \$	2019 \$
<b>Continuing operations</b>				
Grants supporting research activities	14,009,976	15,061,410	14,009,976	15,061,410
Infrastructure funding	4,051,349	4,991,179	4,051,349	4,991,179
Fundraising, corporate and private support	14,417,246	12,816,634	14,417,246	12,816,634
Service and clinical income	4,221,697	5,016,547	4,221,697	5,016,547
Investment income	4,402,406	6,477,279	4,402,406	6,477,279
JobKeeper and Cash Flow Boost	6,387,332	-	6,387,332	-
Other revenue	4,465,817	4,234,027	4,465,817	4,234,027
<b>Revenue</b>	<b>51,955,823</b>	<b>48,597,076</b>	<b>51,955,823</b>	<b>48,597,076</b>
Employee benefits expense	29,207,191	30,425,170	29,207,191	30,425,170
Research, service and clinical expense	9,150,565	7,811,481	9,150,565	7,811,481
Depreciation and amortisation expense	5,373,001	5,433,424	5,373,001	5,433,424
Share of (surplus) / deficit of associate	(122,403)	123,731	-	-
Building overheads	1,473,270	1,639,307	1,473,270	1,639,307
Borrowing costs expense	78,812	84,228	78,812	84,228
Laboratory support expense	2,474,449	2,560,711	2,449,449	2,560,711
Donor acquisition expense	1,700,812	2,257,975	1,700,812	2,257,975
Other expenses from ordinary activities	2,328,443	3,140,066	2,055,272	3,140,066
<b>Expenditure</b>	<b>51,664,140</b>	<b>53,476,093</b>	<b>51,488,372</b>	<b>53,352,362</b>
<b>Surplus / (deficit) before tax</b>	<b>291,683</b>	<b>(4,879,017)</b>	<b>467,451</b>	<b>(4,755,286)</b>
Income tax expense	-	-	-	-
<b>Surplus / (deficit) for the year</b>	<b>291,683</b>	<b>(4,879,017)</b>	<b>467,451</b>	<b>(4,755,286)</b>
<b>Other comprehensive income</b>				
Net gain on non-current financial assets	868,211	12,321,400	868,211	12,321,400
<b>Total comprehensive income for the period</b>	<b>1,159,894</b>	<b>7,442,383</b>	<b>1,335,662</b>	<b>7,566,114</b>
<b>Surplus / (deficit) attributable to:</b>				
Non-controlling interest	(94,407)	-	-	-
Members of the parent	386,090	(4,879,017)	467,451	(4,755,286)
	<b>291,683</b>	<b>(4,879,017)</b>	<b>467,451</b>	<b>(4,755,286)</b>
<b>Total comprehensive income attributable to:</b>				
Non-controlling interest	(94,407)	-	-	-
Members of the parent	1,254,301	7,442,383	1,335,662	7,566,114
	<b>1,159,894</b>	<b>7,442,383</b>	<b>1,335,662</b>	<b>7,566,114</b>

The Statement of Financial Position and Statement of Comprehensive Income provided above have been extracted from the audited general purpose financial statements of Baker Heart and Diabetes Institute and its controlled entities. The summary financial information does not include all the information and notes normally included in a statutory financial report.

The statutory financial report (from which the summary financial information has been extracted) has been prepared in accordance with the Australian Charities and Not-for-profits Commission Act 2012 and Regulations 2013, Australian Accounting Standards and other authoritative pronouncements of the Australian Accounting Standards Board.



Bequestor, Keith Wilson with Gifts  
in Wills Specialist, Viv Talbot

# CELEBRATING 95 YEARS TOGETHER

The Baker Heart and Diabetes Institute is proud to share its 95th birthday with our wonderful long-time supporter, Keith Wilson.

Keith is grateful that his life has been extended through the medical discoveries that have been made during his lifetime, and he wants to ensure this will continue for future generations.

If you would like to consider leaving a gift to the Baker Institute in your Will like Keith, please contact our Gifts in Wills Specialist, Viv Talbot on 03 8532 1513 or email [vivian.talbot@baker.edu.au](mailto:vivian.talbot@baker.edu.au)

Join us  
and become part  
of the lifesaving  
discoveries of  
the future



Make a financial gift and directly support our lifesaving work.



Leave a gift in your Will to create a lasting legacy.



Become a corporate partner.



Attend an event or host your own to support the Baker Institute.



Visit [baker.edu.au/get-involved](http://baker.edu.au/get-involved)  
Email [fundraising@baker.edu.au](mailto:fundraising@baker.edu.au)  
Free call 1800 827 040



## MELBOURNE

75 Commercial Road  
Melbourne VIC 3004  
Australia

T +61 3 8532 1111  
F +61 3 8532 1100

PO Box 6492  
Melbourne VIC 3004  
Australia

[baker.edu.au](http://baker.edu.au)

## ALICE SPRINGS

W&E Rubuntja Research and  
Medical Education Building

Alice Springs Hospital Campus  
Gap Road, Alice Springs  
NT 0870 Australia

T +61 8 8959 0111  
F +61 8 8952 1557

PO Box 1294  
Alice Springs NT 0871  
Australia