Annual Report 2023

Reaching All Australians

Victor Chang
Cardiac Research Institute

Acknowledgement of Country

The Institute acknowledges the Traditional Owners of Country throughout Australia and recognises the continuing connection to lands, waters, and communities. We pay our respect to Aboriginal and Torres Strait Islander cultures; and to Elders past and present.

Cover Dr Yashutosh Joshi
Left Dr Monique Windley & Clifford TeBay

Dr Siiri Iismaa

About the Institute

The Victor Chang Cardiac Research Institute is renowned for the quality of its scientific discoveries and is dedicated to finding cures for cardiovascular disease through world-class, collaborative, and cutting-edge medical research.

Its scientists are committed to improving the understanding, prevention, diagnosis and treatment of cardiovascular disease that will save lives the world over.

It's focused on delivering a complete cardiovascular investigational pipeline that spans fundamental basic science discovery and translational studies through to pre-clinical and clinical trials.

Founded almost three decades ago in honour of Dr Victor Chang AC, it now has over 230 scientists, doctors, and staff working together across 24 laboratories across the country.

The Institute's headquarters are based in Sydney but it has hubs in Western Australia, South Western Sydney and Melbourne, and has plans to expand even further. This will ensure all Australians can access and benefit from life-saving heart research.

2023 in Numbers

153
Scientific publications

34
Winning grant applications

3.49k
Global media mentions

24
Labs

9669
Australians tested by our Heart Health Check team

250,000
Biological samples analysed at our Innovation Centre

Chairman's Message

You have to admire the dedication of the Institute's scientists, who are constantly fighting to secure funding. Just one in 10 applications to the Federal Government's grants programmes is successful.

Many worthy studies are knocked back – including a project led by Dr Charles Cox that seemed destined to never get off the ground.

But Dr Cox's perseverance was rewarded last year with a groundbreaking study that has the potential to deliver new treatments for obesity and osteoporosis. It is discovery science at its very finest.

It's also a fantastic example of where our Institute is heading with every resource now being given to Dr Cox to ensure his breakthrough delivers on its promise and is translated into vital medicines as soon as possible. Dr Cox's paper was one of many that made headlines last year.

We saw 153 published papers, including a study by Associate Professor Eleni Giannoulatou, Professor Jason Kovacic and Professor Bob Graham, that identified the critical genes that drive spontaneous coronary artery dissection or SCAD. The Institute also became the first centre outside of the US to join the iSCAD Registry – a global collaboration of researchers and patients. It's a significant step forward and cements the Institute's position as one of the key research centres for undertaking research into this disease.

It also demonstrates the power of collaboration and underscores why the Institute embarked on new partnerships last year with the Ingham Institute for Applied Medical Research in South Western Sydney and the St Vincent's Institute of Medical Research in Melbourne. As illustrated by establishing our hub in Perth at The University of Western Australia, these partnerships are more than just symbolic agreements. They open up a whole new world of possibilities and we are delighted to see the hard work from our management team led by our Deputy CEO Susannah Rooney, in developing our national strategy, coming to fruition.

These partnerships allow us to raise awareness of the dangers of heart disease across the country. Last year, we saw the inaugural Women Against Heart Disease lunch held in Perth, hosted by my fellow board director, Elizabeth Gaines. It was a wonderful event that brought together both existing, and we hope future supporters who saw firsthand the benefits of our world-leading research.

We are fortunate at the Institute to have an incredible philanthropic network nationwide. These include our supporters such as Wesfarmers, Woodside, and the McCusker Charitable Foundation in Western Australia, to the hugely generous Packer family in Sydney, who have been with us from the start. They helped us build our cutting-edge headquarters in Sydney and last year donated an incredible $3.75 million to the Stem Cell Production Facility and Cell Function and Screening Facility in our Innovation Centre.

We are also grateful to the NSW Government for its continuing commitment to cardiovascular research over the next 10 years through the Cardiovascular Research Capacity Building Program.

We're also one of a range of medical research organisations that benefit from the annual Sohn Hearts & Minds Investment Leaders Conference, which was held in Sydney late last year and featured Wall Street icon Dan Loeb. To date, an astonishing $65 million has been donated towards Australian medical research thanks to the Conference supporters and the listed investment fund Hearts and Minds Investments Limited.

We are very thankful for this transformational support, and as always, I would also like to thank my fellow board of directors and, in particular, the Deputy Chair and Chair of Finance and Risk, David Craig. He always provides incredible and thoughtful guidance.

And lastly, it has once again been a pleasure to work alongside Professor Jason Kovacic, who as well as being Director and CEO of the Institute, was appointed President of the Australian Cardiovascular Alliance and Co-Chair of AAMRI NSW. I can't think of anyone better suited to hold these prestigious positions and help shape the future of not only our Institute but the broader Australian medical community.

Thank you to our generous donor community for your continuing support of the Institute as we embark on our next year of important discovery and breakthrough science to help save lives from heart disease.

Matthew Grounds AM
Chairman

Matthew Grounds AM

Executive Director's Message

Our country is unique in so many ways. While that can present incredible opportunities, it can also present many challenges – not least in ensuring every Australian has access to world-class health care and can benefit from advances in medical research.

While **seven in 10 Australians** live in cities with second-to-none hospital care, more than seven million people live in smaller towns and rural and remote communities.

They might have to travel hundreds of kilometres to see a specialist and may miss out on taking part in life-saving clinical trials.

We need to ensure these people's needs are not forgotten or overlooked and that our research impacts everyone in Australia.

It's why we are building hubs nationwide in **Perth**, **South Western Sydney** and **Melbourne**.

Partnerships like the one we established last year with the **Ingham Institute for Applied Medical Research** will ensure we meet the needs of a community blighted by high rates of diabetes and heart disease.

A new Chair in Cardiovascular Research based at Liverpool Hospital will help tackle this disparity. With the support of our partners, South Western Local Health District and UNSW Sydney, they will build a team of researchers at the Ingham Institute who will move their discoveries from the lab into clinical trials right on their doorstep.

It's an approach also being implemented in Melbourne with the appointment of **Professor André La Gerche** as head of the new **HEART laboratory**.

This collaboration with the **St Vincent's Institute of Medical Research** is expanding our expertise and understanding of sudden cardiac arrest through new fields of research and by working directly with those patients affected by this deadly disorder.

These new partnerships will allow us to deliver new treatments and cures that will benefit not just local communities but patients across Australia and worldwide.

By acting locally, we impact globally and will improve patient care far sooner.

But of course, it's not just our new partnerships that are driving this new approach - it's our people.

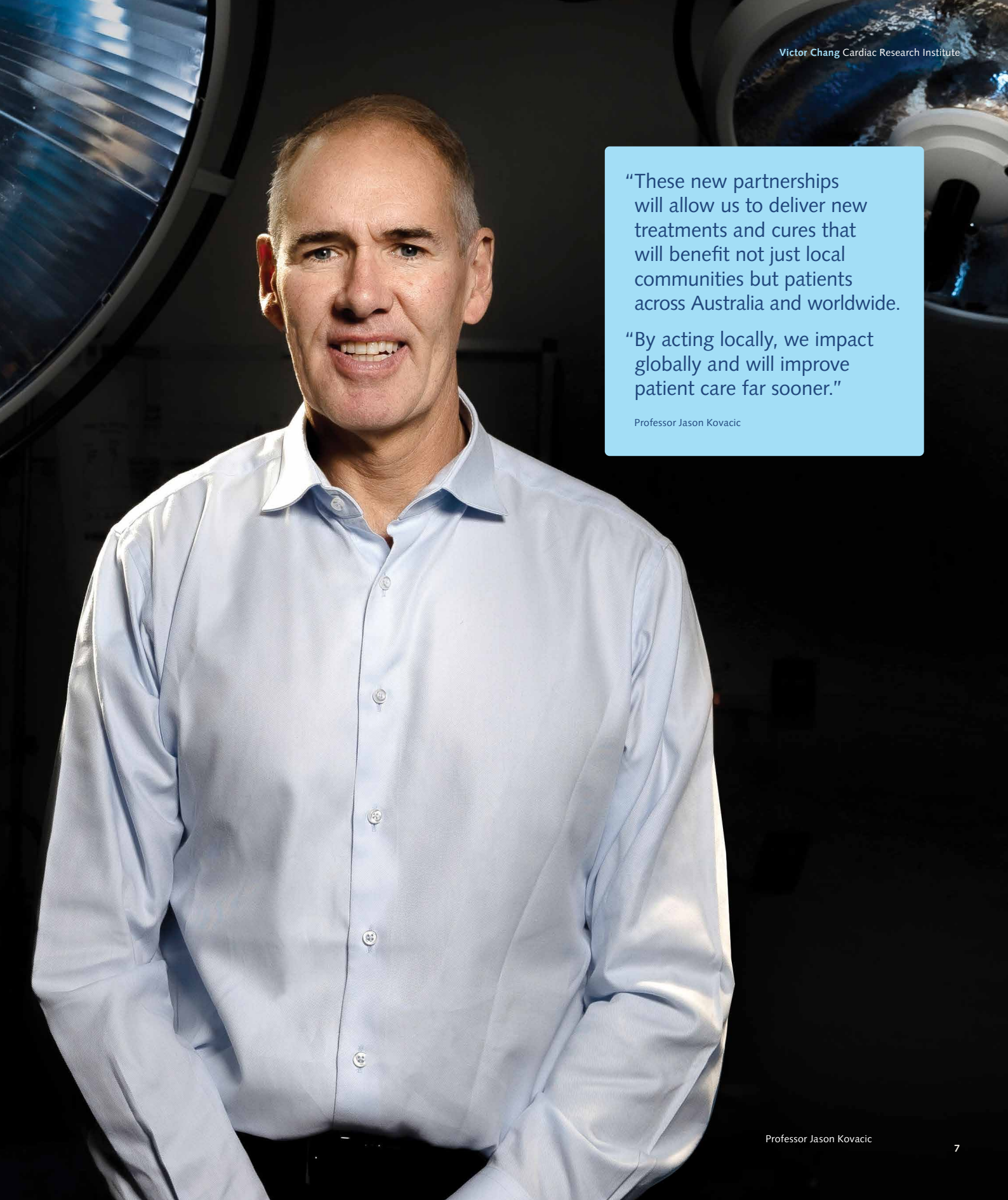
We are blessed at the Institute to be home to some of the brightest minds in medical research, allowing us to tackle heart disease using a multi-pronged approach.

We have researchers who remain focused on the fundamental mechanisms of heart disease – essential work that drives discoveries, but also a growing number of clinical faculty bringing a new mindset to our work.

We're moving into new fields, such as artificial intelligence, which is already transforming how we treat aortic stenosis and holds so much promise for the future.

Professor Peter Macdonald's team – involving our cover star Dr Yashutosh Joshi – is also powering ahead on testing a new drug derived from spider venom that could vastly boost the number of heart transplants.

It's an exciting time to be the Director and CEO of the Victor Chang Cardiac Research Institute. There is no reason why our Institute can't be a significant global player in the fight against heart disease – we just need to seize the opportunities Australia offers us and rise to the challenge.



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Professor Jason Kovacic

Professor Jason Kovacic

Chapter 2

Expansion

It was a year of expansion for the Victor Chang Cardiac Research Institute that will ensure its discoveries benefit all Australians.

New Melbourne Heart Hub

Clinician-researcher Professor André La Gerche has been appointed the Institute's newest faculty member.

Professor André La Gerche heads the Heart, Exercise and Research Trials (HEART) Laboratory, that is supported by St Vincent's Institute of Medical Research (SVI) in Melbourne and the Victor Chang Cardiac Research Institute.

The new cardiovascular hub based at SVI in Melbourne will accelerate the discovery of new ways to treat heart disease.

The new HEART Lab is home to a team of researchers who will build upon Professor La Gerche's work in exercise cardiac imaging, sports cardiology, and pulmonary vascular physiology. His research aims to embed state-of-the-art personalised diagnostics and therapeutics within clinical care.

Professor Jason Kovacic says: "As part of the St Vincent's Health Australia family, we are delighted to be part of this collaboration to allow better understanding, diagnosis, treatment, and prevention of heart disease.

"André is a world leader in sports cardiology and also in sudden cardiac arrest, a condition that kills nine out of 10 people who suffer an episode outside of hospital."

Professor La Gerche says: "I am excited to have the support and access to the talent pool provided by the new hub and its partners."

"André's role, powered by a partnership between SVI and VCCRI, and sitting alongside his clinical appointment in the Cardiology Department at St Vincent's Hospital Melbourne, will foster innovative research approaches to transform lives through medical research."

Professor Tom Kay, Director of SVI

Professor André La Gerche and cyclist Will Walker @Newspix

A World-class Hub in South Western Sydney

NSW Minister for Medical Research David Harris officially launched our new partnership with the Ingham Institute for Applied Medical Research.

The collaboration supported by South Western Sydney Local Health District (SWSLHD) and the University of NSW (UNSW) will create a new first of its kind cardiovascular research hub.

It will enable researchers to fast-track new heart disease treatments in the heart of South Western Sydney – a region with one of the highest burdens of disease.

How will the hub operate?

A new Chair in Cardiovascular Research is being established by founding partners – Ingham Institute, the Victor Chang Cardiac Research Institute (VCCRI), UNSW, and SWSLHD.

A world-class academic clinician-researcher based at Liverpool Hospital will be appointed in 2024 to undertake new research to improve the substantial burden of cardiovascular disease in South Western Sydney. The Chair will provide academic and clinical leadership, foster excellence in collaborative cardiovascular research, innovative teaching, and clinical care.

The new Chair will lead a team of researchers based at the Ingham Institute, which is firmly established as a world-class centre for clinical trials, and who will also have direct access to the expertise and cutting-edge technology at VCCRI.

This new collaborative hub will enable research to progress faster than ever before and deliver new treatments and medications that will impact the lives of people living locally and across Australia.

The Institute's Professor Jason Kovacic says the new cardiovascular hub will be a vital tool in beating Australia's biggest killer and will boost NSW's reputation as a global centre of innovative heart disease research.

Professor Kovacic says: "The collaboration will help reach some of the most disadvantaged communities in NSW who will now have a world class heart disease hub on their doorstep.

"The support of the State Government, UNSW Sydney, and South Western Sydney Local Health District will ensure that patients will start to reap the benefits in the near-term.

"It's opportunities like these – and partnerships between philanthropy and Government – that will be essential in turning the tide against heart disease.

"It will help ensure that everyone in NSW is able to access world-class heart disease treatments."

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Professor Jason Kovacic

Top	Professors Jason Kovacic & Les Bokey, Susannah Rooney, Terry Goldacre, Minister David Harris, Sonia Marshall, Professor Martin Gallagher
Bottom left	Minister David Harris
Bottom middle	Professor Jamie Vandenberg
Bottom right	Katie Gilbert and guests


Victor Chang
Cardiac Research Institute
Ingham Institute
Applied Medical Research

Chapter 3

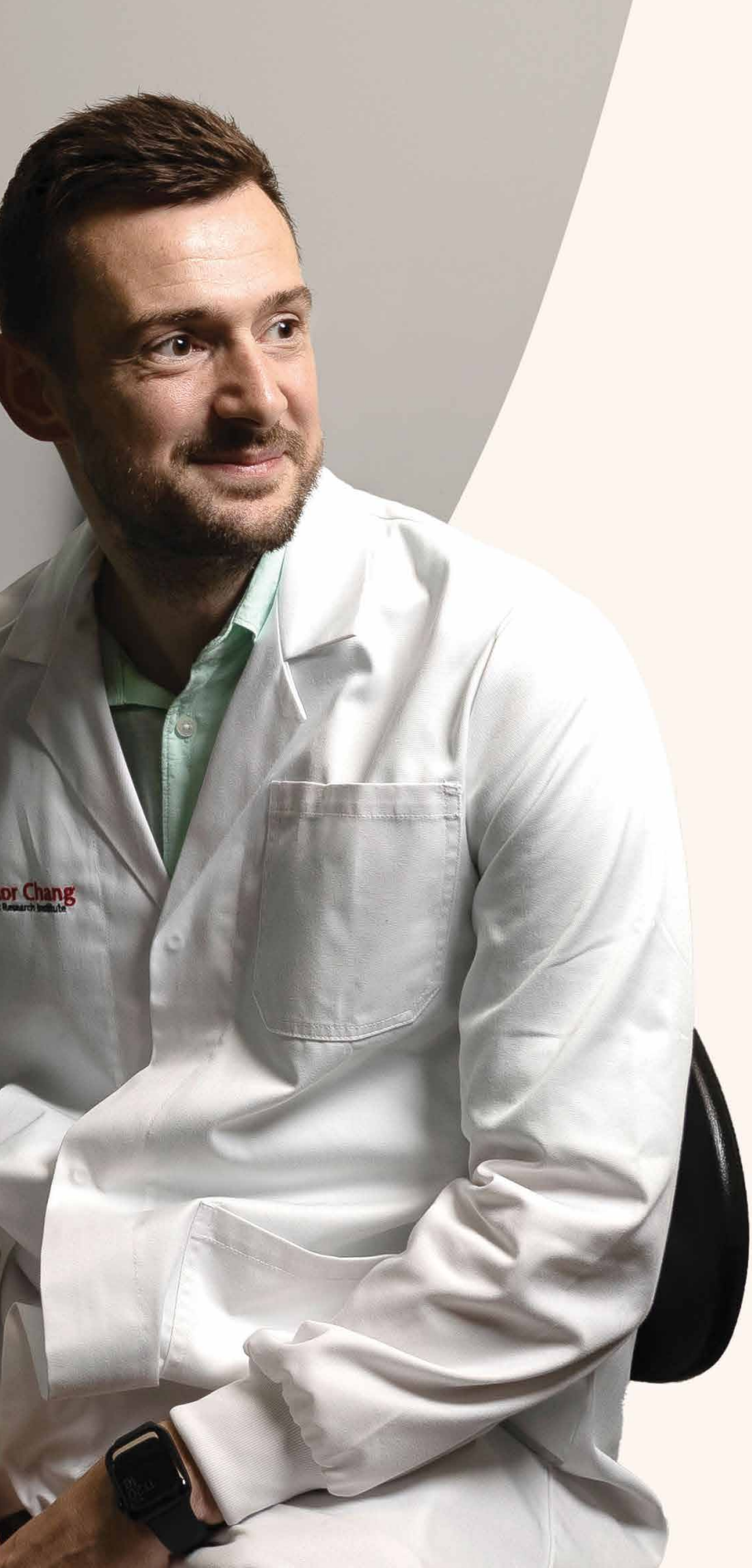
Research Highlights

Our scientists went above and beyond in 2023, producing a record 153 publications.

Their discoveries further our understanding of SCAD, how our arteries harden and may even help protect athletes in the future from suffering cardiac arrest.

We also saw Dr Charles Cox deliver a breakthrough that was applauded by scientists around the world.

Dr Charles Cox



Discovery Science at its Finest

Molecule identified that could be key for a new wave of drugs to target obesity and bone diseases.

A team led by the Institute's Dr Charles Cox identified a molecule that plays a key role in how cells detect when they are being pushed or pulled which could lead to the development of drugs to combat obesity, osteoporosis, and inflammatory diseases.

The discovery published in the journal *Science* finally sheds light on how a small molecule regulates the sensors that are central to many processes in the body - including how nerve cells embedded in the skin sense when we are being touched.

The team believe it will now be possible to design new therapeutics that could either ramp up or dial down the activity of the sensors, also known as PIEZO ion channels.

The first targets would be obesity and bone diseases such as osteoporosis.

Dr Cox, who heads the Institute's Cardiac Mechanobiology Lab, says: "We believe we will be able to boost the activity in the channels that are involved in the strength of our bones which could not only help prevent osteoporosis, it could help those already suffering.

"This novel mechanism could also help combat obesity; an important risk factor for all cardiovascular diseases. As we eat food, our stomachs get stretched and molecules are triggered, telling the brain when the stomach is full. By boosting the activity of these molecules, we may be able to trigger the brain into thinking it was full far earlier, mimicking satiety."

Now that it's been identified, it's believed the protein can now be modified and developed into peptide-based therapeutics and also be adapted to target inflammatory diseases as well as cardiovascular disease in the future.

Understanding SCAD

Our scientists are finally beginning to understand what drives spontaneous coronary artery dissection or SCAD.

It's a huge step forward for tackling the leading cause of heart attacks in women under 50 and is providing hope for families and sufferers across the country.

Critical genes identified behind SCAD

Research published in *Nature Genetics* revealed there are at least 16 different genes associated with SCAD, with one gene called PHACTR1 thought to be a key driver.

The Institute was part of a global collaboration that examined data from nearly 2000 SCAD patients.

They discovered the genes involved in causing SCAD are mainly implicated in forming the matrix or scaffolding around the cells forming coronary arteries, as well as a gene involved in blood clotting. A deficiency in this clotting factor is thought to increase the likelihood of a spontaneous bleed into the artery wall, which reduces blood flow as it expands and leads to a SCAD heart attack.

"We have performed the largest study to date aimed at understanding the genetic basis of SCAD. People who develop SCAD have subtle genetic changes that affect their blood vessels, putting them at a greater risk of a catastrophic tear or a spontaneous bleed involving the wall of the heart arteries.

"Understanding these mechanisms should lead to new approaches to its management and treatment," says the Institute's Associate Professor Eleni Giannoulatou who, together with the Institute's Professors Bob Graham and Jason Kovacic led the Australian arm of the study.

SCAD Facts

- Previously SCAD was thought to be a rare disease, but recently it has been found to be the cause of 2-4% of all cases presenting to hospital with acute coronary syndrome (ACS) such as a heart attack.
- Research suggests it also accounts for up to 24% of cases of heart attack in women under the age of 50.
- SCAD heart attack survivors have around a 20% chance of having another attack.
- It is the most common cause of heart attack associated with pregnancy.
- Nine out of 10 people who have a SCAD heart attack are women.
- People who develop SCAD are often healthy with no known risk factors of heart disease such as being overweight, having diabetes or high blood cholesterol.

A Global Effort to Fight SCAD

Lana Huntley became the first Australian patient to be added to a huge international SCAD database.

Like most survivors, Lana had no warning signs and was otherwise fit and healthy when she suffered her SCAD heart attack in 2022.

Lana has now joined forces with our researchers to try and find out more about this disease, which unlike traditional heart attacks, is not associated with a plaque build-up and a blockage of the arteries.

A team from the Institute has become the first outside of the USA to join the iSCAD Registry - a global collaboration of researchers and patients investigating the features and pathophysiology of SCAD.

Lana was moved to sign up after both her and her sister Annette suffered SCAD heart attacks.

Lana says: "Given we have both had heart attacks, you'd assume it was in our genetics. This is why it's so vital we get answers so our daughters and nieces can be protected from this awful disease which hits without warning. I hope by being part of this registry I can make a difference."

The iSCAD Registry contains the medical history of 1700 SCAD patients – who up until last year were all from the United States.

The Institute's Professor Jason Kovacic says joining iSCAD will make a huge difference to the research being carried out at the Institute.

"By combining forces with other leading SCAD scientists and being able to conduct research with the iSCAD team on so many more patients, we will be able to achieve far more," says Professor Kovacic.

Left Associate Professor Eleni Giannoulatou
Right Lana Huntley

I Was Defibbed Nine Times

Dr William Walker was a professional cyclist and Australian road cycling champion who came close to losing his life after suffering a serious heart arrhythmia during the Australian National Championships.

Dr William Walker

He was fortunately defibrillated by Ambulance Victoria at the event but was forced to retire from the sport he loved.

Months after the event he had multiple episodes of ventricular tachycardia and was defibbed an astonishing nine times in about 30 minutes.

"After my first ever arrhythmia, it took a year of investigations to figure out what I had," says Dr Walker.

"At that time, cardiac issues in athletes weren't as well documented, it seemed as though not as many athletes had arrhythmias."

Dr Walker, now 38, was diagnosed with arrhythmogenic right ventricular cardiomyopathy, an inherited heart disorder that can cause ventricular tachycardia and sudden cardiac death.

Dr Walker is now in his first year of surgical training at St Vincent's Hospital in Melbourne and was one of the first participants in Professor André La Gerche's ground-breaking study.

Professor La Gerche and researchers from Belgium studied Dr Walker and nearly 300 other elite athletes.

Dr Walker, who took part in the Italian and Spanish Grand Tours, says: "I hope that by taking part in this study we might be able to prevent other athletes from experiencing what I went through.

"If I had known at the beginning of my career that I had this genetic predisposition, I would have thought long and hard about becoming a professional athlete.

"Hopefully the findings of this study can encourage improved cardiac surveillance and help to reduce the morbidity of cardiac arrhythmias in endurance sport."

Identifying Future Heart Problems in Athletes

A landmark study involving 281 elite endurance athletes from Australia and Belgium revealed one in six have measures that would normally suggest reduced heart function.

Genetic analysis published in *Circulation* revealed that those athletes also had an enrichment of genes associated with heart muscle disease. Thus, a genetic predisposition may be 'stressed' by exercise to cause profound heart changes.

Professor André la Gerche, who heads the HEART Laboratory that is supported by St Vincent's Institute of Medical Research in Melbourne and the Victor Chang Cardiac Research Institute, says the findings highlight the need for far closer monitoring of the heart health of elite athletes and could one day lead to genetic testing being part of their health screening.

Professor La Gerche says: "We have long known that elite athletes have very different hearts to the general population. Exercise promotes profound heart changes. The heart is large in all elite athletes but there is still considerable variation ranging from large to enormous. The long-term significance of the most extreme changes is not yet certain.

"We discovered that one in six athletes had reduced heart pumping action, as well as showing for the first time the role genetics plays in heart function in these athletes.

"We want to keep our athletes healthy and prevent them from suffering a sudden cardiac arrest. The better we understand the athletes' heart, the more we will be able to identify risks in advance of tragedy."

Athletes were also genetically screened to discover if they had genes associated with developing dilated cardiomyopathy (DCM). Those elite athletes with the highest genetic load were 11 times more likely to have a reduction in heart function measures.

The Institute's Professor Diane Fatkin, who undertook the genetic analysis of the athletes alongside Associate Professor Eleni Giannoulatou, said this study was the first in the world to look at the role of genetics in susceptibility to dilated cardiomyopathy in athletes.

"The phenomenon of the athletes' heart has long been known, but we were the first team to investigate the role an athlete's genetic makeup plays in their heart function and structure. What we have found is that there are far more profound changes than thought and that a high number of these athletes do have altered heart function," says Professor Fatkin.

"It's very important we don't think of these athletes as having sick hearts because they can still function at a very high level. But we don't know what the long-term effect will be and if this means these athletes will go on to develop cardiomyopathy. It's vital that we monitor these athletes to see the long-term impact on their health which is still to be played out."

Professor André La Gerche

Unlocking the Causes of Why Arteries Harden

An international team of scientists including the Institute's Professor Jason Kovacic analysed data from more than 35,000 people and identified 11 new genes that contribute to the hardening of the heart's arteries.

It's hoped the findings in *Nature Genetics* will lead the way for new treatments that could help prevent coronary heart disease – the leading cause of death in Australia.

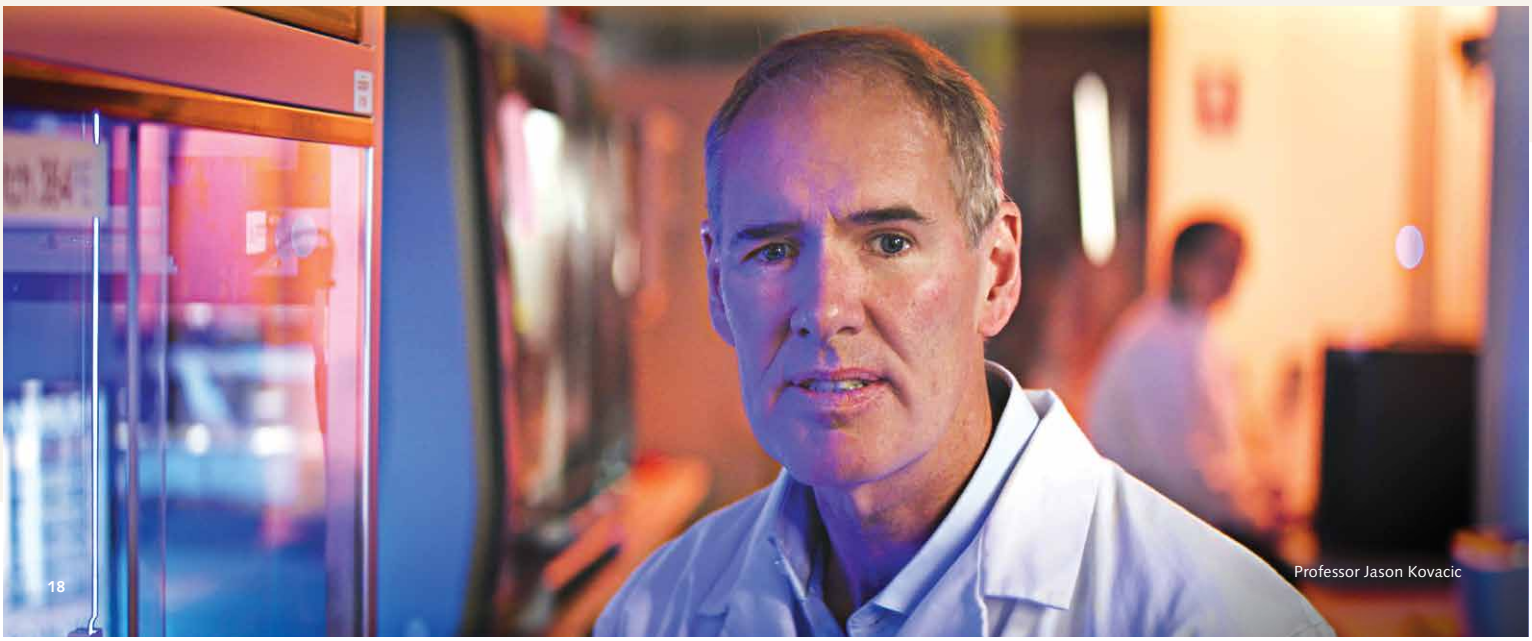
"Coronary heart disease is by far the most common heart disease affecting Australians. It is the biggest driver of heart attacks so if we can get in early, stop its progression in the first place, we could save tens of thousands of lives each year," says Professor Kovacic.

The process that causes the coronary arteries to harden is also known as a calcium build-up and it can take place over many years. It is caused by an accumulation of fatty plaque which eventually hardens/calcifies, causing the arteries to narrow. This can affect the heart's ability to pump blood, oxygen and nutrients around the body and can cause a heart attack if a piece of the calcified plaque breaks off.

The study led by the University of Virginia analysed data from more than 35,000 people of European and African ancestry around the world. This was the largest such meta-analysis yet conducted to understand the genetic basis of coronary artery calcification.

The study also confirmed that another gene called PHACTR1 plays a big role in the calcification process.

PHACTR1 is currently being studied by Professor Kovacic's team and is also considered to be a major driver of SCAD heart attacks and fibromuscular dysplasia.



Professor Jason Kovacic

A Life Lost Too Young

"Mum, what does it feel like to have a heart attack?". Christine Handford will never forget these words uttered by her son Kade when he phoned her one afternoon in July 2021.

Christine recalls: "I explained the symptoms to him and asked why he wanted to know. He told me he thought he was having one. I told him to hang up and call Triple 0. Kade rang me back and we spoke until the ambulance arrived.

"He told me he had severe pain down his left arm and that his hand was clenched tight. He was panicking, and I was talking to him and trying to be calm for both of us."

Christine heard the paramedics arrive, and Kade hung up the phone. It was the last time she would speak to her son.

Kade sadly went into full cardiac arrest, and despite every effort to restart his heart, he could not be revived.

To his family and friends, Kade seemed in the prime of his life. He was healthy, not overweight, and a regular gym goer. But it was later revealed that he had a build-up of plaque in his arteries – known as atherosclerosis – which caused his heart attack.

Christine from Queensland says: "They told us he had a build-up of plaque in his heart equivalent to an 80-year-old. Afterwards, we could see there were some warning signs in the weeks before. He had bad headaches with his peripheral vision being a bit blurry, but he put it down to overdoing the weights at the gym.

"There's not a day that I don't think of him. He's my first thought when I wake up in the morning, it literally hurts that much. We've had two Christmases now without Kade, but we always try to have a day when we are together as a family."

Since Kade's death, the family has all undergone heart health tests.

"Heart disease is not just an old person's disease, it is the biggest killer of people in Australia. If it can be prevented in any way, shape or form, it needs to be prevented," says Christine.

Garry & Christine Handford

Kade Handford

Chapter 4

Advocacy

It's not just research that can lead to better outcomes for people living with heart disease.

The Institute is also committed to raising awareness about the dangers of heart disease, and spearheading campaigns to ensure heart disease is treated as a national health priority.

Medicare Heart Health Checks Saved

The Institute was part of a vocal coalition which prevented Medicare-funded Heart Health Checks from being axed.

Heart Health Checks were introduced in 2019 to the Medical Benefits Schedule (MBS) – a huge step forward in tackling Australia's biggest killer - but item numbers 699 and 177 on the MBS were at risk of not being extended by the Federal Government last year.

The Institute alongside the National Heart Foundation of Australia, hearts4heart, the Baker Institute, Heart Support Australia, the Cardiac Society of Australia and New Zealand, the Australian Cardiovascular Alliance, the Australian & New Zealand Society of Cardiac & Thoracic Surgeons and the Australian Cardiac Rehabilitation Association launched a national campaign to save the checks.

It resulted in the service being extended for two more years.

Professor Jason Kovacic says: "We were stronger by working together and it was fantastic to see what was achieved in just a few short weeks. We need to make cardiovascular disease a national priority – far too many Australians lose their lives to heart disease and we can and should do more to tackle this."

More than 420,000 Australians have had a Heart Health Check since they were introduced, an essential tool for identifying potential heart problems and addressing them before they become more serious.

Traffic Noise Could be Impacting Your Heart Health

You could be forgiven for thinking that living next to a motorway might cause the biggest noise annoyance.

But first-of-its-kind data revealed it's the roads with the most fluctuations in traffic noise that are the biggest cause for concern.

The Victor Chang Cardiac Research Institute teamed up with Ambient Maps to raise awareness about the growing health dangers of road noise.

The study mapped every road in Sydney – firstly analysing average noise exposure from 7am to 11pm – then analysing which roads produce higher than average peaks over that time, to identify the 'annoying' roads.

Key Findings

Data showed that, where the average noise level is similar, the hum of living very close to a motorway with noise almost 24 hours a day produced less overall noise annoyance than someone living close to a moderately busy road with no barriers in place.

How noise impacts heart health

When we hear a loud or disruptive noise, the body's stress response is triggered, releasing hormones such as adrenaline and cortisol.

When this stress response is consistently activated over time this can increase your heart rate and drive up blood pressure and inflammation.

In turn, these factors play a major role in the build-up of plaque in the arteries, which can lead to stroke and heart attack.

Time for a Vital New Cholesterol Test

The Institute joined forces with leading cardiologists to call for doctors to start testing for a new form of 'bad' cholesterol.

Lipoprotein(a), or Lp(a) is now known to be a major risk factor for atherosclerosis and is strongly associated with a person's genetics. But it is not yet routinely tested for despite recent evidence showing that people with raised Lp(a) levels are two to four times more likely to develop atherosclerosis.

Up to 20 percent of Australians are also thought to have at least mildly elevated levels of Lp(a).

Professor Jason Kovacic says: "It is very worrying that there could be tens of thousands of Australians who are at increased risk of developing heart disease but are completely oblivious to it. We could find these people with a one-off blood test."

While reimbursement for the simple blood test has still not been resolved in Australia, Professor Kovacic and other cardiologists called for Lp(a) testing to be conducted on males below 55 or women below 60 years with a history of heart attack, stroke, angina, coronary stent or coronary bypass surgery, which is not explained by other risk factors. Or, if there is a family history of these heart diseases in males below 55 or women below 60 without obvious risk factors.

Professor Kovacic adds: "We have long wondered why healthy people with low cholesterol levels and seemingly no other major risk factors like smoking or diabetes can suffer heart attacks. But, we now understand that high levels of Lp(a) could be responsible for many of these events."

Chapter 5

Innovation Centre

2023 saw the arrival of a new head of the Victor Chang Cardiac Research Institute Innovation Centre who has big plans to increase the real-life impact of Australian medical research.

Dr Jacek Kolanowski believes the Innovation Centre can be a catalyst for the rapid translation of medical discoveries that will reach the market and patients far sooner.

It's an approach being embraced by the Institute's Dr Alastair Stewart, who is utilising technology housed within the centre to improve the safety and effectiveness of a range of common drugs.

Dr Jacek Kolanowski

Meet Dr Jacek Kolanowski

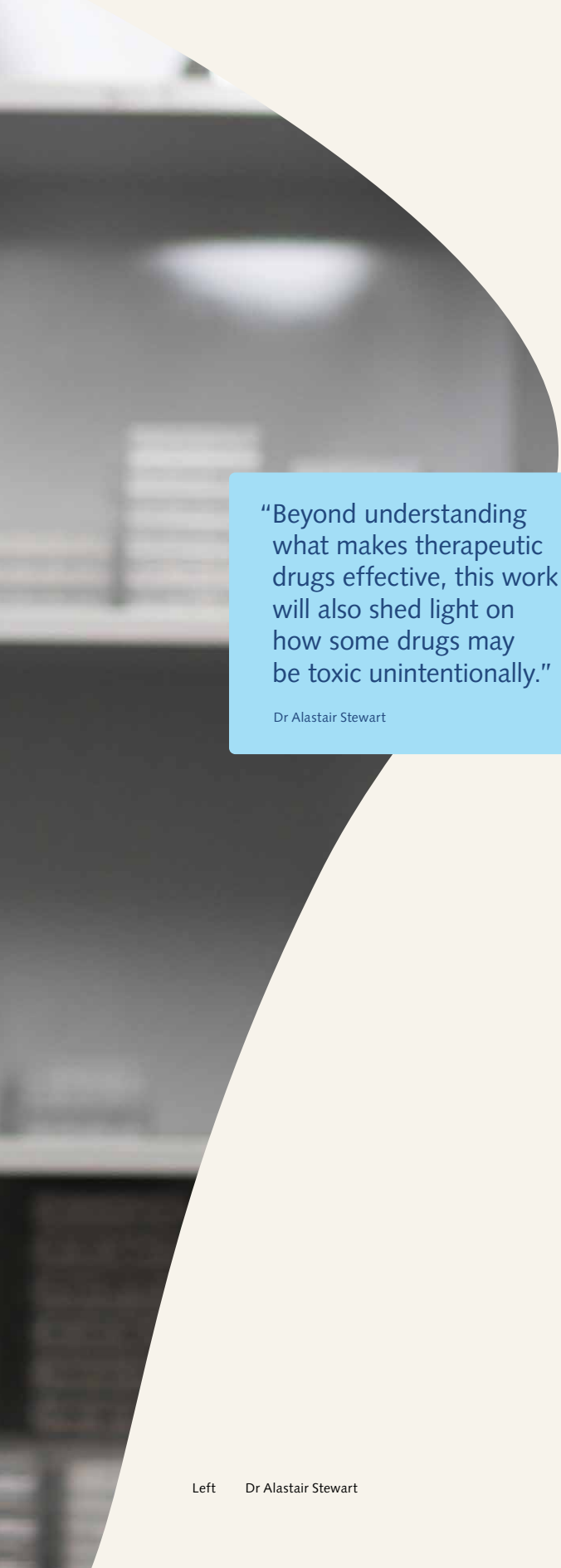
Dr Kolanowski aims to position the Innovation Centre's eight facilities at the forefront of new and unique infrastructure and technologies. He also plans to make the centre a world leader in techniques and assays.

"We have incredible equipment and infrastructure, but we also have scientific expertise. Once you top that up with what we can offer in terms of experimental design, data analysis, and development of comprehensive and robust research programmes, that makes the Innovation Centre very different from what else is available in Australia," says Dr Kolanowski.

Dr Kolanowski comes to the Institute from his dual role as a research group leader (Dept. of Molecular Probes and Prodrugs) and Director of the Centre for Chemical Biology (partner site of the EU-OPENSCREEN European Research Infrastructure Consortium) at the Institute of Bioorganic Chemistry at the Polish Academy of Sciences.

There he led an interdisciplinary team of more than 20 chemists, biologists, data scientists, and engineers to create the first academic high-throughput screening platform in the nation, supplemented by one of few Minflux microscopes in the world, and to provide certified R&D services to academic and industrial users globally. Through this role, he was also involved in policy advice for the European Commission on research infrastructure and intersectoral translation of health research.

"In the last five years I have experienced first-hand how research infrastructure can play a significant role in connecting different sectors, accelerating commercialisation, and informing strategy and policy, and I am very excited to explore these avenues as the Head of the Innovation Centre," says Dr Kolanowski.



Shedding Light on How Drug Molecules Work

> "Beyond understanding what makes therapeutic drugs effective, this work will also shed light on how some drugs may be toxic unintentionally."
>
> Dr Alastair Stewart

Nearly five million Australians live with two or more chronic conditions like heart disease.

They're being prescribed a wide range of medications but how these drugs interact inside the body is not fully understood. And that's a concern and one the Institute's Dr Alastair Stewart is trying to address.

Dr Stewart, who is head of the Institute's Structural Biology Lab, is using cyro-electron microscopy technology based in the Institute's Innovation Centre to help make a whole range of therapeutic drugs not only more effective but also safer for those that need them.

The aim is to improve the safety of a wide range of drugs - including cardiac-related drugs such as hypertension drugs, along with endogenous compounds (such as pain medication), diabetic drugs, chemotherapy agents, and recreational drugs.

Dr Stewart's research focuses on better understanding membrane proteins, which can act as important cellular gatekeepers for drugs.

Dr Stewart says: "To generate a comprehensive picture of membrane protein structures, I use electron microscopy and intensive computational methods to create high-resolution images and data. This helps us understand how large groups of membrane proteins function and how binding to certain medications can alter their behaviour.

"Beyond understanding what makes therapeutic drugs effective, this work will also shed light on how some drugs may be toxic unintentionally. This may also feed into drug development by improving safety and effectiveness."

Left Dr Alastair Stewart

Chapter 6

Spotlight on WA

From investigating the outcomes of heart attacks to tackling rheumatic heart disease, 2023 was an incredibly productive year for our growing hub based at The University of Western Australia.

It also saw the first ever Women Against Heart Disease Lunch held in Perth which was a huge success and the return of our State of the Heart Dinner.

State of the Heart 2023

The 2023 State of the Heart Dinner at Bistro Guillaume in May was a huge success, bringing together the brightest minds in heart research with the Institute's generous partners and supporters.

The annual event held in Perth marked the extraordinary achievements and expansion of the Institute's hub at The University of Western Australia.

Hosts Professor Jason Kovacic, the Institute's newest board member Elizabeth Gaines and speakers Professor Livia Hool and Dr Lee Nedkoff shared the impact of latest scientific breakthroughs with the Western Australia philanthropic community.

The Institute's Director Professor Kovacic outlined the integral role our hub in Western Australia has played in providing a blueprint for expansion in other states. An expansion made possible due to the support of individuals, foundations and corporates in Western Australia.

Professor Livia Hool, the Wesfarmers, UWA-VCCRI Chair in Cardiovascular Research, revealed how over the next five years the Institute plans to bring on board more world-leading faculty heads to lead new heart disease research streams in Perth and build a new state of the art space at the The University of Western Australia.

Epidemiologist Dr Lee Nedkoff revealed how data is often fragmented because Australia's health system straddles state and Commonwealth governments. Dr Nedkoff also stressed how accessing and analysing data is time-consuming and costly, and that philanthropic support is critical to overcoming these challenges.

It was fantastic to see so many of our wonderful partners in attendance including Woodside Energy, Wesfarmers, The McCusker Charitable Foundation, Golden Group, Telethon Trust, McIntyre Foundation, the Simon Lee Foundation and The Group of Hearts.

Using Big Data to Tackle Rheumatic Heart Disease

Despite being virtually eliminated in the general Australian population in recent decades, rheumatic heart disease (RHD) continues to disproportionately impact Aboriginal and Torres Strait Islander people.

Young Aboriginal and Torres Strait Islander people with RHD are dying at rates 18 times higher than the non-Indigenous Australian population.

Cardiovascular epidemiologist and postdoctoral scientist Ingrid Stacey is working with Dr Lee Nedkoff and the team at the Institute's research hub in Western Australia to gather data on RHD rates and outcomes across Australia.

They are involved in the End RHD in Australia Study of Epidemiology which is the first study to measure the rates of RHD across multiple Australian jurisdictions.

Ms Stacey focused on health outcomes in people aged under 35 with RHD. She found one in five with mild or moderate disease will progress to atrial fibrillation, heart failure, stroke, endocarditis, or death within eight years.

Ms Stacey says: "RHD is 100% preventable but only if the environmental health factors causing acute rheumatic fever and RHD are improved, and infections are treated promptly.

The best solutions will emerge when we listen to the voices and needs of individual First Nations communities, and bring together the wisdom of communities with what medical science has to offer.

Ms Stacey's work saw her named a finalist in the WA Premier's 2023 Science Awards.

Top Ingrid Stacey
Bottom Ingrid Stacey and Dr Lee Nedkoff

"The best solutions will emerge when we listen to the voices and needs of individual First Nations communities, and bring together the wisdom of communities with what medical science has to offer."

Ingrid Stacey


WOMEN
AGAINST
HEART
DISEASE
Victor Chang


WOMEN
AGAINST
HEART
DISEASE
Victor Chang


HEART
DISEASE
Victor Chang

Perth Women Join Forces to Beat Australia's Biggest Killer

Heart disease survivors, advocates, and scientists attended the inaugural WA Victor Chang Cardiac Research Institute's Women Against Heart Disease Lunch.

The event was hosted by Elizabeth Gaines, Non-Executive Director of the Victor Chang Cardiac Research Institute, and former CEO and current Director of Fortescue Metals Group.

Attendees of the event, held at Wildflower, COMO The Treasury, got the chance to hear from heart disease survivors Melissa del Popolo, who survived a sudden cardiac arrest, and mother-of-two Sam Allan, who suffered a SCAD heart attack in 2021.

"We need to ensure that every Australian woman is fully aware of the risks of heart disease and gets properly diagnosed and treated. By raising awareness and conducting research into Australia's biggest killer we can save lives in the future."

Elizabeth Gaines

Around 70 women attended the stunning event, with one guest taking home a COMO The Treasury gift voucher which included one night's accommodation in a Heritage Balcony Room, a six-course dinner for two with matched wine pairings at Wildflower, breakfast for two at Post, in-room refreshments, and valet parking for one vehicle, valued at $2,525.00.

We would like to thank COMO The Treasury for its generous support of the event, Cockatoo Grove which gifted a bottle of olive oil for each guest and MC Tina Altieri.

What Happens After a Heart Attack?

Dr Lee Nedkoff's team is focused on understanding the long-term risks associated with having acute coronary syndrome (ACS) – the most severe type of coronary heart disease in Australia, which causes a heart attack or unstable angina.

Left Dr Lee Nedkoff

Supported by the McCusker Charitable Foundation, the ongoing study being undertaken by Dr Dawit Zemedikun aims to investigate the survival rates and outcomes for people hospitalised with ACS in Western Australia over the past two decades.

Whilst most studies of ACS patients focus on the immediate clinical effects of ACS, or survival in the early period following onset of the disease (usually anywhere from 30 days up to a year); this study will look at outcomes in the five years after an acute event.

It's hoped this research will better inform clinicians regarding the long-term consequences of ACS and the need for ongoing secondary prevention for these patients.

Dr Nedkoff says: "The findings from this study will be very important for aiding our understanding of how the severity of heart attacks, and the long-term risks associated with these heart attacks, have evolved over time.

"In particular, we believe the findings will have important implications for how we manage and treat patients in the long-term following an ACS event."

Investigating the Link Between Long COVID and Chronic Fatigue Syndrome

The Institute's Professor Livia Hool is playing a pivotal role in a collaborative study that has discovered a striking similarity between long COVID and chronic fatigue syndrome (CFS).

The study is focused on how a calcium channel fails to fire up properly when fighting off both conditions. It's believed this could be why many of the symptoms of both CFS and long COVID are so similar – including extreme tiredness, muscle ache, and brain fog.

Professor Hool, Wesfarmers, UWA-Victor Chang Cardiac Research Institute Chair in Cardiovascular Research, says: "This channel is crucial in fighting off viruses and plays a central role in our immune system. It carries ions such as calcium into the cells and when that fails to work correctly, by slowing down or even stopping completely, it can affect the body's key defence mechanisms.

"We were approached by our collaborators because our laboratory is one of only a handful in Australia that can actually reveal what is happening to that channel when these viruses are at work."

Professor Hool and her team have recruited patients from Western Australia for this study, which is being funded by the NHMRC.

The findings are especially important because the study is also investigating what happens to the body when sufferers are given the drug naltrexone.

"Following treatment with naltrexone the calcium currents are restored and about 40-50% of people with chronic fatigue start to feel better within three to six months," adds Professor Hool.

Around 250,000 people suffer from CFS in Australia, with long COVID numbers estimated to affect around five percent of people who have had COVID 19.

Left Professor Livia Hool

Chapter 7

Awards & Funding Success

It was a hugely successful year for our scientists, who received grants that will help deliver a new class of anti-arrhythmic drugs, target cardiomyopathies, prevent recurrent stroke, and make atrial fibrillation medications safer.

2023 also saw Professor Jason Kovacic appointed as President of the Australian Cardiovascular Alliance – a role that will see him working closely with government, health, and industry partners.

Dr Gavin Chapman and Professor Sally Dunwoodie



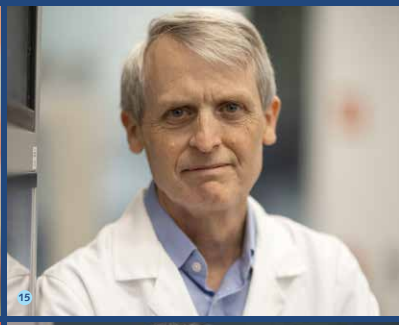
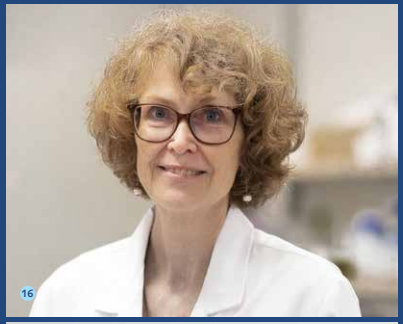













1. Dr Jordan Thorpe
2. Dr Charles Cox
3. Dr Vaibhao Janbandhu
4. Associate Professor Adam Hill
5. Dr Justin Phan
6. Associate Professor Kavitha Muthiah
7. Dr Christian Said
8. Professor Diane Fatkin
9. Dr Monique Windley
10. Dr Sarah Hancock
11. Associate Professor Mayooran Namasivayam
12. Dr Nikki Bart
13. Dr Jamie-Lee Thompson
14. Associate Professor Eleni Giannoulatou
15. Professor Jamie Vandenberg
16. Dr Siiri Iismaa
17. Professor Bob Graham
18. Professor Chris Hayward
19. Dr Stewart Heitmann
20. Dr Vikram Tallapragada
21. Dr Osvaldo Contreras

Awards and Appointments

Professor Jason Kovacic was appointed the new Australian Cardiovascular Alliance (ACvA) President. "I look forward to directly addressing unmet needs in cardiovascular and stroke health," says Professor Kovacic, Director and CEO of the Institute.

Associate Professor Emily Wong was awarded the Fenner Medal by the Australian Academy of Science for her work exploring the dark genome.

Dr Kathryn Wolhuter was presented with the Darlene Solomon Award in recognition of her contribution to heart research by Agilent Technologies and Females in Mass Spectrometry.

Dr Osvaldo Contreras was awarded the Humberto Maturana Prize from the Chilean Biological Society.

Dr Charles Cox and **Eliana De Sousa** were recipients of the 2023 Institute's Director's Awards.

NSW Government Cardiovascular Collaborative Grants

- A team including **Professor Jamie Vandenberg**, **Professor Diane Fatkin**, **Associate Professor Adam Hill**, and **Associate Professor Eleni Giannoulatou** will use the funds to identify patients at risk of developing atrial fibrillation far earlier.
- A project involving **Professor Bob Graham** and **Dr Siiri Iismaa** aims to develop a promising new drug to repair damaged heart muscle to improve outcomes, well-being, and survival after heart attack and other cardiomyopathies.
- **Professor Fatkin** will use her grant to better understand the role the condition atrial myopathy (AM) plays in stroke reoccurrence. The overall aim is to help reduce the number of people having another stroke by better diagnosing, treating, and monitoring AM.

NHMRC Ideas Grant Funding

- **Professor Jamie Vandenberg** will lead a team to develop more effective drugs to target cardiac arrhythmias such as atrial fibrillation – which will affect one in three Australians during their lifetime. Despite, being a major cause of morbidity and mortality, current drugs to treat arrhythmia are plagued by safety concerns and lack of long-term effectiveness.
- **Dr Iismaa**, **Professor Graham** and **Professor Sally Dunwoodie** are part of a team led by the Centenary Institute's **Dr Daniel Hesselson**, which was awarded funding to deliver new treatments to help people living with cardiomyopathies that have a five-year survival rate of around 50 percent.

Stem Cell Therapies Mission MRFF Grant

Safer and more effective atrial fibrillation drugs could be one step closer thanks to a grant awarded to a team led by **Associate Professor Adam Hill**. They will use bioengineered atrial tissues to screen for repurposed drugs that can be used as preventative therapies for AF.

ARC Discovery Project

Dr Charles Cox was awarded an ARC Discovery Project grant for his ground-breaking work on PIEZO ion channels. The funding will enable the team, including USYD's **Professor Arnold Ju**, to further understand the molecular basis of this interaction and its implications for heart cells.

Other Funding

- **Dr Jordan Thorpe** and **Dr Justin Phan** were awarded UNSW Sydney Cardiac, Vascular and Metabolic Medicine Theme Collaborative grants.
- **Associate Professor Kavitha Muthiah**, **Dr Jamie-Lee Thompson** and **Dr Osvaldo Contreras** received NSW CVRN Professional Development Awards.
- The Institute's **Dr Vikram Tallapragada** and **Dr Vaibhao Janbandhu** will undertake state-of-the-art analysis of heart physiology, thanks to funding from the Hillcrest Foundation, whilst **Dr Stewart Heitmann** will use funding from the Baxter Charitable Foundation to improve the cardiac safety of drugs without testing on animals.
- Congrats also go to **Dr Sarah Hancock** and **Dr Monique Windley** for being awarded NSW CVRN 2023 Career Advancement Grants to better understand lipids that drive diabetes and heart disease and to pursue new drug targets for atrial fibrillation.
- **Professor Chris Hayward**, **Associate Professor Kavitha Muthiah** and **Associate Professor Mayooran Namasivayam** were also successful 2024 St Vincent's Clinic Research Foundation Grant Recipients.
- And lastly congratulations to 2024 RACP Grant recipients **Associate Professor Nikki Bart** for receiving funding for her cardiac amyloidosis research, **Associate Professor Kavitha Muthiah** for investigating adverse events in heart failure patients with mechanical heart pumps, and **Dr Christian Said** for researching the effects of ECMO and microaxial transvalvular ventricular assist devices on myocardial oxygen consumption in cardiogenic shock.

Chapter 8

Events & Fundraising

Making sure we reach all communities and all ages has always been central to the mission of the Victor Chang Cardiac Research Institute.

It's why our events are so diverse, ranging from the Victor Chang School Science Awards, to our Women Against Heart Disease Lunch and our fabulous fundraiser Soirée by the Sea.

Sohn Hearts & Minds 2023

Sohn Hearts & Minds reaches milestone of $65 million to support Australian medical research.

In 2023, the Sohn Hearts & Minds Conference returned to Sydney for its eighth annual event. The conference theme challenged attendees to 'Think, Unthink, Rethink' and reflect on the world we live in today, where there is a need to adapt quickly to question and challenge conventional wisdom.

The event, which is dedicated to advancing Australian medical research, began in style for VIP guests with an exclusive museum and cocktail dining experience at Sydney Modern at the Art Gallery of NSW the evening prior.

Attendees were welcomed by Hearts & Minds co-founders Guy Fowler OAM and Victor Chang Cardiac Research Institute board member Dr Gary Weiss AM, along with Sohn Foundation Founder Evan Sohn, before being invited to explore the galleries after hours.

As in prior years, the conference delivered exclusive content relevant to global economic affairs and the importance of medical research. Featuring Wall Street icon Dan Loeb, CEO of Third Point, longevity expert Peter Attia MD and quantum computing pioneer Professor Michelle Simmons AO.

Alongside these luminaries, attendees heard from twelve hand-selected portfolio managers. These experts were tasked with presenting their highest conviction stock ideas for the Hearts and Minds Investments Limited (HM1) portfolio, which ultimately helps to fund leading medical research organisations in Australia, including the Victor Chang Cardiac Research Institute.

A leading corporate philanthropist

Hearts and Minds Investments Limited (HM1.ASX) is a philanthropic listed investment company that was established in 2018 with the dual objective of providing a concentrated portfolio of the highest conviction ideas from respected fund managers, whilst also supporting leading Australian medical research organisations.

The HM1 portfolio invests in the stocks presented at the annual Sohn Hearts & Minds Investment Leaders Conference, as well as recommendations from seven core fund managers: Caledonia Investments, Cooper Investors, Magellan Financial Group, Munro Partners, Regal Funds Management, TDM Growth Partners and Tribeca Investment Partners.

Participating fund managers generously share their highest conviction stock recommendations to HM1 on a pro-bono basis enabling the company to donate an amount equal to 1.5% of Net Tangible Assets per annum to a suite of designated Australian medical research organisations including the Victor Chang Cardiac Research Institute.

Since its inception in 2016, the Hearts & Minds Group has donated more than $65m to further advance research in the areas of cardiovascular disease, mental health, emergency and trauma medicine, diabetes, paediatrics, pain management and a range of neurodegenerative diseases. Today, they are proudly one of Australia's top corporate philanthropists.

Soirée by the Sea a Sparkling Success

More than 200 people attended the Institute's revamped signature fundraising event Soirée by the Sea in May.

Held at its new home – Sydney's Icebergs Dining Room and Bar – guests were treated to beautiful cocktails and canapes on a perfect autumn's day overlooking the Pacific Ocean.

More than $100,000 was raised for the Victor Chang Cardiac Research Institute from an incredible raffle and auction.

Our special thanks go to the Institute's Dr Tom Meredith who reminded the crowd that cardiovascular disease takes the lives of one in four Australians.

The Institute's Young Appeals Committee, including the new Chair James Camilleri, Jonathan Henry Daniela Elser and Marcus Chang are also to be praised for securing the new location and all the amazing prizes.

A big thank you to DJ Alice Quiddington, to the Icebergs team, and to everyone who sponsored the event - McGrathNicol, Highland Property and Gough Recruitment.

Also thank you to those who donated so many wonderful prizes and made the day such a success through their support of our inaugural Soirée:

MediSpa by Matty and Kristin Fisher Eyebrows – AUTOREMODA – Candi Beach Resort, Bali – Sydney Sea Planes and Catalina – Four Seasons Bangkok – Moss Manor – Michael Lo Sordo – Camilla – Sydney Restaurant Group – East Side Bar & Grill + Kensington St – Susan Avery Flowers – Venroy – Diageo – Veuve Clicquot – Elaine Walters Foundation.


SOIRÉE
BY THE SEA

The Scientists of the Future

Our School Science Awards keep getting bigger and better every year.

114 schools in NSW and Western Australia took part in 2023, with 183 pupils receiving Victor Chang School Science Awards to mark their outstanding contributions to the field of Science, Technology, Engineering and Mathematics (STEM).

Their achievements were highlighted at five different ceremonies held across Sydney organised by North Sydney, Camden, Campbelltown, Blacktown and Penrith councils. A ceremony was also held at ANSTO on behalf of Liverpool, Sutherland and Canterbury Bankstown Councils.

"I am extremely proud of the bright minds from the schools in Blacktown City who are working hard in their studies andare passionate about science," says Blacktown Mayor Tony Bleasdale.

"They are preparing to shape the future. It is heart-warming to see so many young people with an interest in science and improving lives, just like Dr Victor Chang, who was one of the world's leading heart surgeons."

Dr Charles Cox, who spoke at the Blacktown ceremony, says: "As a scientist myself, I know how rewarding a career in STEM can be. It's so exciting to see we have so many passionate students who will ensure that this proud history will continue and flourish."

A huge thanks to all our scientists who spoke so inspirationally at the ceremonies – Drs Monique Bax, Osvaldo Contreras, Valentin Romanov, Kayleigh Bozon, Charles Cox, Jeanette Villanueva, Emma Rath, and Professor Jamie Vandenberg.

We also want to mention Al Faisal College in Auburn which raised $10k for the Institute after the awards.

Victor Chang Heart Health Check team at NSW Parliament

In what is hoped will become an annual event, around 80 NSW MPs, staffers and the NSW Minister for Health Ryan Park underwent Victor Chang Heart Health Checks.

The Institute's specialist team, who were joined by the Institute's Professor Jason Kovacic, performed blood pressure, blood sugar and cholesterol tests.

Minister Park says: "Heart disease is the leading cause of death in Australia. Simple initiatives like this one by the Victor Chang Cardiac Research Institute are an ideal opportunity for early intervention and they are literally saving lives.

"Picking up on problems early means you and your doctor can better manage and prevent other health issues from occurring further down the line.

"Nearly 40 per cent of the disease burden in Australia is due to risk factors such as the ones being measured in heart health checks."

Whilst Minister Park's results were in the healthy range, almost a third of people tested had high cholesterol and almost half were recommended to visit their GP.

Chris Minol, 49, also reminded people of just how critical a heart health check could be. Five years ago, Chris underwent heart surgery after it was found he had major blockages in three of his arteries.

Chris told Minister Park that he never expected heart disease to impact him so young, saying: "It can happen to anyone and is not a disease that just affects the old. If I had not got a heart health check, I would never have known I was at risk or been referred to a specialist."

Top NSW Health Minister Ryan Park
Left Blacktown Council awards presentation

Left Laura Jayes & Victoria Macarthur-Stanham

Spotlight on Women and Heart Disease

The Victor Chang Cardiac Research Institute's annual Women Against Heart Disease Lunch in Sydney once again reminded attendees that heart disease remains one of the biggest killers of Australian women.

The event held at the Establishment Ballroom also provided hope for a better future thanks to pioneering work taking place within the Institute and armed guests with heart-healthy tips everyone can practice.

They also heard from keynote speaker Victoria Macarthur-Stanham, who relived the night when she had a sudden cardiac arrest and was kept alive by her husband Tim.

With her mother Edwina and husband Tim in the room, there was barely a dry eye in the house as Victoria recalled her incredible survival story and relayed how the Institute's new electrical screening test is helping to protect her family.

The Institute's Professor Jason Kovacic also updated the audience on research taking place into spontaneous coronary artery dissection (SCAD) and fibromuscular dysplasia.

In a Q and A moderated by MC Laura Jayes from Sky News, Professor Kovacic reminded the audience of heart-healthy tips.

A huge thank you to our generous sponsors who provided beautiful raffle prizes and gifts - Cockatoo Grove, Park Hyatt Sydney, Carla Zampatti, Margaret, Bidinis, Mark the Florist, and Pilu at Freshwater.

Packer Family Foundation's $3.75 Million Donation

The Victor Chang Cardiac Research Institute received a transformational donation from the Packer Family Foundation to its cutting-edge Innovation Centre.

The gift continues a long-standing relationship between the Packer family and the Institute dating back almost 30 years.

Professor Jason Kovacic says: "We are so proud that this partnership has continued and that their contribution comes at a tipping point for heart disease.

"We are committed to ensuring every one of our discoveries is translated into new treatments, devices, or cures for patients. This donation to our cutting-edge Innovation Centre will ensure we deliver on that promise far sooner."

Mrs Roslyn Packer, AC, a VCCRI board member for many years, says the family was proud to have such a long-standing association with the Institute.

Mrs Packer says: "I have witnessed the dedicated work being carried out by the Institute's scientists and know that our support will help deliver a better future for people the world over."

The $3.75 million gift will support two key facilities housed in the Institute's Innovation Centre. The Stem Cell Production Facility and the Cell Function and Screening Facilities. These two facilities play a crucial role in the Institute's work in unlocking the genetic causes of heart disease.

Roslyn Packer, AC, and Sister Bernice Elphick, AC, OBE

Roslyn Packer, AC, Sister Bernice Elphick, AC, OBE and the late Kerry Packer, AC

Making Phi's Dreams Come True

Open heart surgery before she was even two years old didn't stop Phi from becoming a keen soccer player – a sport she loves with all her heart.

The Institute helped arrange for this football fanatic to watch the Matildas play at the FIFA Women's World Cup 2023 opener as a little thank you for the family's support over the years.

A feat that would never have happened without the FIFA Women's World Cup team who helped make this heart warrior's day.

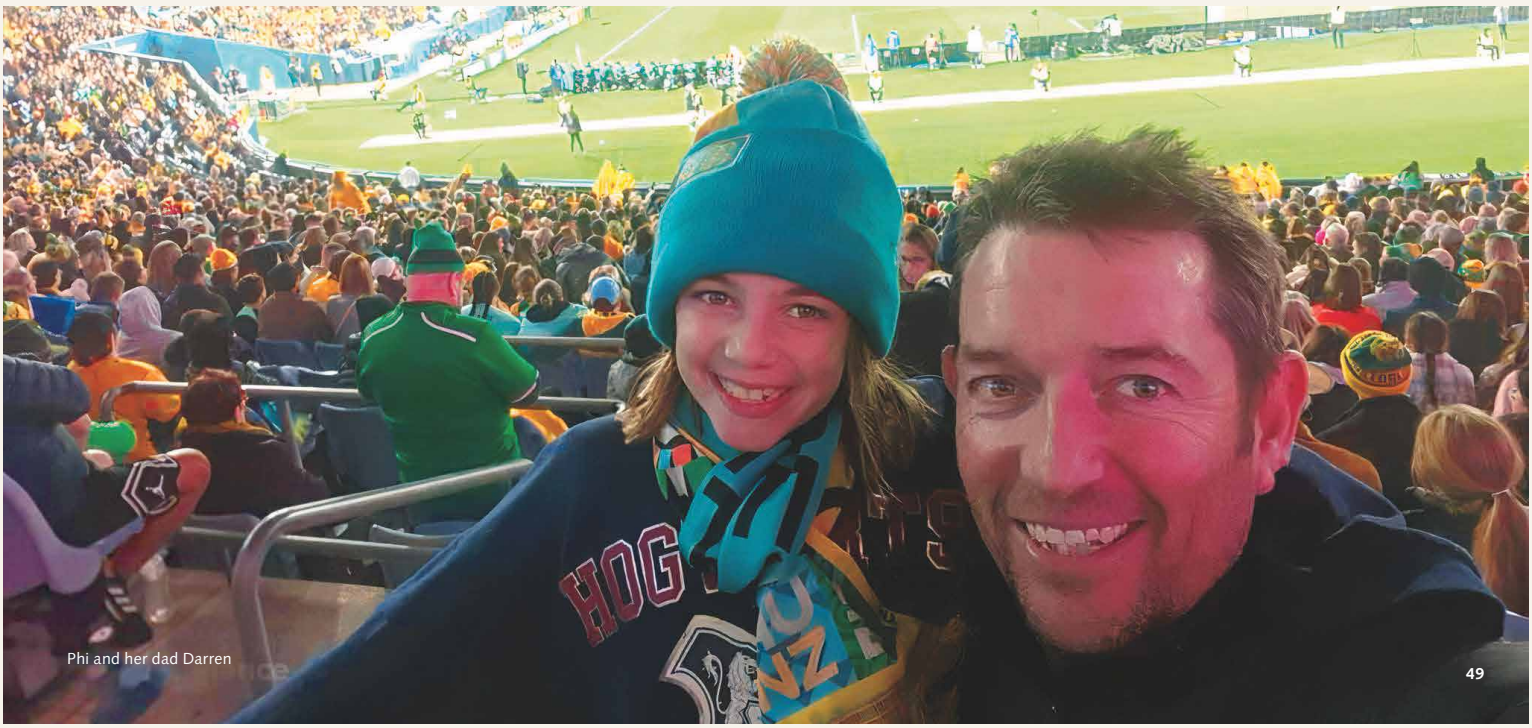
The family were also our guests at the Sydney Royal Easter Show, where they oversaw the Schute Bell Badgery Lumby Charity Steer.

It was once again an unqualified success, with funds raised for the Institute going towards helping children like Phi who was born with a hole in her heart.

We'd like to thank the Show Cattle Team at PLC Armidale and Jackungah Speckle Park and Ersyldene Speckle Park Stud who bought the mighty steer.

Mum Jackie says: "Until I had Phi, I had no idea that eight precious babies are born with heart defects or congenital heart disease every day here in Australia. Just like my little girl, these babies each have their own story.

"But I know not all of them will be as lucky as Phi, which is why our family advocates for heart research at the Victor Chang Cardiac Research Institute."



Phi and her dad Darren

Chapter 9

Financials & Support

Image of an aorta by Emma Wolfe

Financials

For the year ended 31 December	2023 $	2022 $
Income		
Research Grants	$17,403,287	$16,278,903
Innovation Centre Grant	$1,677,460	$1,677,460
Donations and Fundraising*	$13,867,869	$12,888,390
Investment and Other income	$2,747,246	$1,676,816
Total income	**$35,695,862**	**$32,521,569**
Expenses		
Research expenses	$22,524,289	$20,265,630
Administration expenses	$8,619,210	$7,535,286
Fundraising expenses	$2,705,094	$2,338,588
Total Expenses	**$33,848,593**	**$30,139,504**
Operating Surplus	$1,847,269	$2,382,065
Non-Operating income/(expenses)		
Gain/(loss) on revaluation financial assets	$2,264,695	($2,162,397)
Net Surplus for the year*	**$4,111,964**	**$219,668**

* 2023 includes receipt of upfront multi-year gift of $3,750,000

The above is an extract from the 2023 audited Financial Statements. The extract does not include the information normally included in the financial statement. Accordingly, this extract is to be read in conjunction with the audited Financial Statements for the year ended 31 December 2023.

Our Board of Directors 2023

Mr Matthew Grounds AM
Chairman

Mr David Craig
Deputy Chairman

Professor Jason Kovacic
Director & CEO

Mr Peter K Allen

Mr Hamish Douglass

Ms Jennifer Doubell
OAM

Ms Eileen Hoggett

Dr Gary Weiss AM

Professor Vlado Perkovic

Ms Elizabeth Gaines

Ms Anna McFadgen

Adjunct Professor Anthony Schembri AM

For more about our organisational structure visit:
victorchang.edu.au/about-us/our-structure

Supporters and Acknowledgements

The Victor Chang Cardiac Research Institute would like to thank our supporters. Our research would not be possible without your incredible generosity.

The Robert M Graham Chair in Medicine

The Douglass Family
The Simon Lee Foundation
The Lowy Family
The Oatley Family
The Ritchie Family
The Johnson Family
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The Gutman Family
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Mr & Mrs Paul & Valerie Ferry
Mr Stephen Johns
Navarra Venues
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Chairman's lab

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The Simon Lee Foundation
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Westfield Holdings Limited

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Estate of the Late Clare Cohen
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De Groot Industries Pty Limited
Department of State Growth
Goldenland Australia Property Pty Ltd

Goldman Sachs Australia Services
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Mr Gregory King
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Estate of the Late Thomas Martindale
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Estate of the Late Tatiana Suslov
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Discoverers

Advanced Personnel Management
Mr Leonard Ainsworth
Alceon Group Pty Ltd
AMP Foundation Charitable Trust
Angles Family Foundation
Aquatic Leisure Technologies Pty Ltd
Auscap Asset Management
Australian Innovation Association
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Estate of the Late Rex Owen Banks
Estate of the Late William Bell
Bing Lee Electronics
Brown Neaves Foundation
Burns Philp Foundation
Caledonia (Private) Investments Pty Limited
Estate of the Late Ralph Carrick
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Estate of the Late Margaret Fay Cruttenden
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Estate of the Late Noreen Dickinson
Estate of the Late Valerie Duncan
Mr Richard Elmslie
Elsie Cameron Foundation
Ernst & Young
Estate of the Late Patricia Evans
Mr Paul Ferry
Glen Carling Golf Day
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Mr John Kean, OAM
Mr Ralph Keyes
Estate of the Late Joy Hulda Kinghorn
Estate of the Late Margaret Knight
Estate of the Late Paul and
Jennifer Korner
Estate of the Late Lillian 'Joan' Larkin
Estate of the Late Marjorie Grace Lawn
Le Montage
Estate of the Late Audrey Lois Lee
Mr Tony Littlemore
Estate of the Late Robyn Loder
Estate of the Late Beryl Lyons
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Estate of the Late Moira Marlin
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Mineral Resources Limited
Munro Partners
Ms Nisha Nanda
Neilson Foundation
Ms Patricia New
Estate of the Late Marlene Nitschke
Estate of the Late John Noble
Estate of the Late Rose O'Keefe
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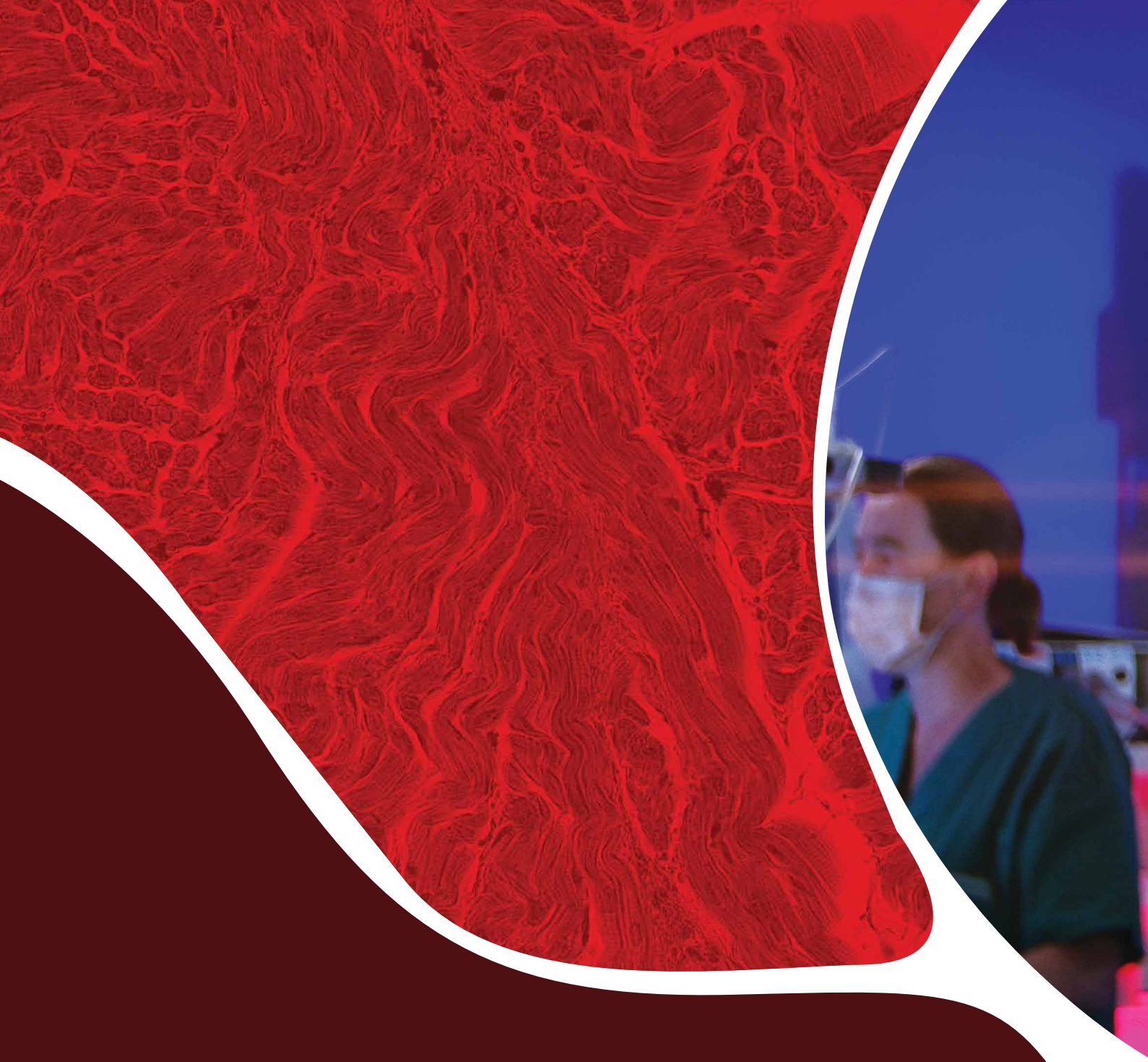

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