

RESEARCH

New funding grants
awarded

FUNDRAISING

REDFEB Fun

STORIES

A mum's fight for life

We Life

NEWSLETTER – ISSUE 1, 2021


Heart
Research
Australia

The faces of the future



Winners of new
research funding announced

Giving **heart** to the future.

New funding announced



Hello – I hope this finds you well!

I am really delighted to be able to announce some positive news. With the help of your continued support, we have been able to award grant funding to two new research projects and one PhD student.

In these times it is a challenge for researchers and specialists to obtain funding for their projects. But, of course, it is so crucial if we are going to keep medical science moving forward and improve outcomes for us all.

From a rigorous selection process, we have chosen some very exciting projects. Each looks at different areas of Heart Disease, from examining plaque in the blood vessels to predicting the risk of a Heart Attack, to halting free radicals which alter the sodium pump

and can lead to heart failure, and finally, to improving outcomes in Coronary Artery Bypass Surgery. You can read about these talented researchers and their projects in more depth on pages 4 and 5.

Also have a look at the incredible lengths some of our supporters went to, to raise funds for our RED FEB campaign on page 6 – it should lift your spirits!

Finally, as always, I do want to extend a genuine and heartfelt thanks to you all and for your incredible support during these difficult times – it really does make a difference.

Warm Regards,

Nicci Dent - CEO, Heart Research Australia

Meet the team

Meet Diane, our Philanthropy Manager

Many of you may have had an opportunity to speak with Diane over the phone or in person at cardiac rehab seminars. Diane looks after Gifts in Wills, Trusts and Foundations and the Major Gifts programme. She says “I really enjoy the variety of tasks - as no day is the same! Some days I’m working with the researchers to submit a funding application, and the next day I may be talking to our donors about the option of leaving a gift in their Will.”

“I find learning about the research is so inspirational. It’s amazing the ideas the researchers come up with and the possible outcomes that they can achieve to improve treatment for heart disease. It’s so fascinating.”

“I also love working in a small team, where everyone is so passionate about our cause and lends their strengths to getting great results for the research projects we’re funding.” Outside work, you will find Diane spending time with her family and their gorgeous puppy Arlo (who you may have seen featured on our social media). She also enjoys walks with friends, being in her vegetable garden and going down to the beach for a swim. Like many of us, she hopes to be able to travel again soon, so she can visit her family in the Netherlands.

It was when supporting her father through his diagnosis of Atrial Fibrillation (AF), which she said gave her more of an understanding and personal connection to the seriousness of Heart Disease – it really hit close to home for the first time. Diane says, “I am now more aware that I, and those similar in age to me, are reaching a point where we are more likely to experience heart disease. This is why I am so passionate about bringing more awareness into the world, breaking down stigmas around the disease and encouraging people to have regular health checks - especially for women whose symptoms can often present differently to men. I’d like to thank you all - our generous supporters - who share our wish for a future free of heart disease. I have enjoyed every conversation with you, and I hope one day we can meet face-to-face again!”



Diane and her daughters

My heart story

Hi I’m Tina and I wanted to reach out to you all and tell my story. Because, while I have been so lucky, many others haven’t. I am talking about peripartum cardiomyopathy (PPCM), which is killing our new mums. I hope by telling my story I’ll raise awareness, encourage our mums to speak up if they don’t feel right and encourage others to listen to them, so together we can save lives.



Tina Holz and her lovely baby

In October 2019 my husband Scott and I welcomed our beautiful baby girl into the world via c-section.

I had a mostly easy pregnancy, well so I thought! I was tired, held fluid in my legs, my body ached, I couldn’t walk more than 10 meters without being short of breath and needing to sit down and I often suffered from a high heart rate. But I honestly thought this was normal - after all it had been 10 years since I had my last baby, and these are common pregnancy related symptoms - right?

In the final 2 weeks of my pregnancy my obstetrician put me in hospital, as I was retaining fluid and just not feeling right. I was discharged 5 days before I was due to have my baby and told to rest.

After the birth everything seemed fine, I just felt weak and I noticed my legs were still holding lots of fluid! Surely, I didn’t have toes they were that fat! On my second night home, I woke my hubby around 4am as

I was struggling to breathe, so he took our baby and I to the hospital, where I was placed on oxygen. My doctor, suspecting I had a pulmonary embolism, ordered several tests. The chest X-ray showed my heart was enlarged and indicated that I had had some sort of cardiac event. I was sent to the maternity ward of a larger hospital so I could keep my 6-day old baby with me.

Most of the night was spent holding my baby crying and being scared. By 5:30 am I had seen the medical and cardiology team who had informed me I was in heart failure and needed to be moved to ICU immediately! I can tell you I, (and my hubby), have never been so scared in our lives. In ICU, I was diagnosed as having peripartum cardiomyopathy.

It was a bit of a road to recovery, but we got there. Now, 14 months on, I am considered fully recovered. I am so lucky to get to live my best life with my beautiful family but, tragically, other mums don’t make it. PPCM can only be diagnosed with a blood test and an echocardiogram and because the symptoms mirror normal pregnancy symptoms it is often missed. This is now my life’s goal - to raise awareness of PPCM. So, I was heartened to hear of Dr Anthony Ashton’s PPCM study which is being funded by Heart Research donors like you – so thank you! You are supporting amazing research and giving people like me a second chance. Tina X

To read more about Dr Anthony Ashton’s research please visit:
www.heartresearch.com.au/research/pre-eclampsia/

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Tina’s story

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COMMUNITY
What our
supporters like
you are up to

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Meet the faces of the future. These talented individuals have been given research project funding in the latest grant round by Heart Research Australia. This funding, helped by your donations, will positively change the outcomes for all our friends and loved ones in years to come.

Belinda Di Bartolo – Predicting the risk of a Heart Attack

In Australia one person suffers a Heart Attack every 10 mins. It's the biggest cause of premature cardiovascular death and a major driver in disability of those that survive. The biggest contributor to heart disease is atherosclerosis. This disease starts with cholesterol build up in the blood vessels and is maintained by inflammation. Over time - a patient's genetic background, presence of obesity, diabetes and high cholesterol contributes to the disease's progression and in some cases to a heart attack or stroke.

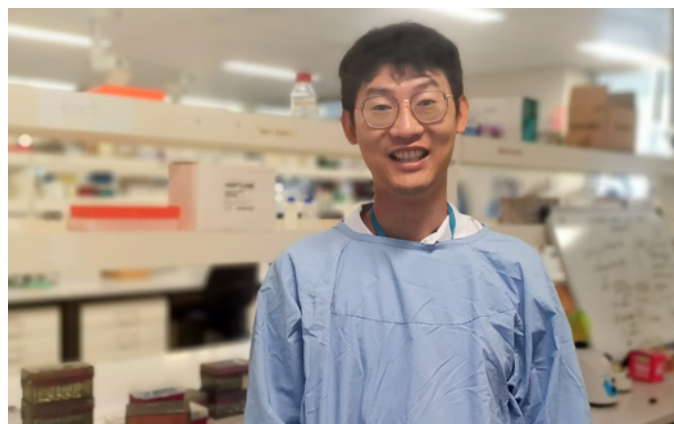
Dr Belinda Di Bartolo has been awarded a Heart Research Australia grant to research the two different risk factors in atherosclerosis – calcification and inflammation. Dr Di Bartolo is an early career researcher with a BMedSci (Hons) from the University of Sydney and has a PhD in Lipoprotein Biology. She has had 36 research articles published, with over 1500 citations and has won numerous awards.

She is looking to understand how the calcium gets into the blood vessel, how it affects the blood vessel and why, when combined with inflammation, is it so damaging.



By using advancements in new technology, she's looking at the structure of atherosclerotic plaque within the blood vessel, to identify the precise cell profile of the patient. She will then correlate this with what she can measure in the patient's blood - effectively taking a 'snapshot' of what is happening in patients with heart disease. She will then be able to use this information to predict their risk of having a heart attack and to tailor personalised treatment strategies - so that someday we can reduce number of Heart Attacks happening in Australia and world-wide.

Dr Di Wu – Halting free radicals which alter the sodium pump and can lead to heart failure



Once Heart disease is established it is hard to stop or cure – which is why we need to find ways of preventing it in the first place.

A common feature of heart failure is Cardiac fibrosis, or scarring, and may be triggered by direct tissue injury. This injury can be caused by free radicals which occur as a byproduct of oxygen in our biological systems. Sometimes free radicals are essential to normal processes, but at other times, when their production becomes out of control, they can cause disease. It is a common feature in many abnormalities or malfunctions which drive heart failure, that the free radicals alter

cellular membrane proteins which are responsible for regulating both electrical and hormonal signalling for normal heart function.

The heart cells contain a pump on the cell wall that controls the movement of certain ions which keeps the heart pumping. Changes to the function of this (sodium potassium) pump by free radicals can create a lot of scar tissue, which means the heart can't pump as well as it should and can lead to heart failure.

Dr Di Wu, a PhD student from the University of Sydney, who is being funded by Heart Research Australia, has been working on this project with Professor Gemma Figtree. He is undertaking pre-clinical studies to try a new therapy to stop this process from happening and therefore protect the pump and stop scarring of the heart. The next step will be to develop a new drug which offers protection to the heart pump, thereby helping reduce the development of scarring, which leads to heart failure.

Dr Levi Bassin - Improving outcomes in Coronary artery bypass surgery



Coronary artery disease represents an enormous burden of disease in the general population which has resulted in coronary artery bypass surgery evolving into one of the most commonly performed surgical procedures globally. However, because of its success, it remains largely unchanged from when it began 40 years ago.

This surgical procedure usually involves bypassing vessels on the surface of the heart, which have significant narrowing. By grafting new arteries or veins onto these blocked ones, a new blood flow is created to the heart to reduce the risk of Heart attack, angina and improve survival rates.

The most commonly used grafts are the Internal Mammary Artery (or IMA), which can be found behind the chest wall, or from veins in the leg.

While this procedure is effective and durable for complex coronary artery disease, there can still be a significant proportion of patients, up to 10%, whose grafts fail in the first year following the operation, meaning patients have to undergo further treatment.

Practicing cardiothoracic surgeon, Dr Levi Bassin, has received funding from Heart Research Australia for a project which essentially looks at ways to improve this life-saving procedure. Dr Bassin and his team are undertaking a randomised study over the next 2 years, of over 140 patients who are undergoing coronary artery bypass surgery at Royal North Shore Hospital. They will compare how open their grafts are after 1, 5, and 10 years and if this correlates to whether the graft is placed off the aorta vs off an IMA. They will also be assessing the flow characteristics within the arteries at the time of surgery, by using transit time flow measurement (TTFM). This uses ultrasound technology to assess the blood flow and flow characteristics through a coronary artery bypass graft at the time of surgery. Dr Bassin's team is planning to gather this data and to follow these patients over the longer term to establish whether there were any signs at the time of surgery which would indicate future graft failure.

It is hoped this trial will change the way coronary bypass surgery is done in the future by reducing graft failure and therefore the need for subsequent therapy.

This trial will also have the added benefit of involving and attracting new, young academics to cardiothoracic surgery, improving their knowledge and helping them to be better surgeons.

RED FEB, plus more

If REDFEB fundraising efforts by our community are anything to go by, we think lockdown has reinvigorated everyone's creativity - enjoy reading about them!

Who were YOU wearing RED for this REDFEB?

REDFEB is our way of highlighting and commemorating those we love who have been affected by heart disease – and to raise much needed funds for Heart Research, at the same time. This February we were so overwhelmed and grateful to everyone who got behind our campaign. We are so passionate about REDFEB and hearing all the stories of those who wore RED for their loved ones and for heart research makes us even more determined to change the current statistics surrounding heart disease.

From nursing homes to daycare centres, gyms, to shopping centres and beyond, so many individuals were decked out in RED and all the support truly meant the world to us – so a big thank you!

This REDFEB we focused on raising awareness of the signs and symptoms of a heart attack and promoting our Heart Smart Pocket Guide. You may have seen us as we did numerous radio interviews, and were on Channel 10 news, Studio 10, House of Wellness, The Morning Show on Channel 7, as well as regional news segments plus so much more. Our focus was to get the message out about the importance of knowing the symptoms of a heart attack and not to ignore them. If you missed out and would like to order your FREE heart smart pocket guide you can do so here:

www.heartresearch.com.au/heartattack/

Thanks again to all who participated.



Changing the future of heart disease, one red perm at a time

One of the most creative ideas from this RED FEB was the 3 sons of Darren William's who set their family and community a challenge. If they met their fundraising target - which they did... several times over - they'd permanently colour their hair red AND perm it. From these pages you may remember the story of the Williams family and their (and their community's) continued generosity to the cause of heart research.

In April 2019, Darren's 3 sons Michael, Ben, and Tom, watched as their Dad had a heart attack at the sidelines of their local football game. Sadly, he passed away, devastating his family, friends and entire community. These are the stories of REDFEB. These are the stories



we hear all too often. Families and communities being torn apart too early due to heart disease.

The family raised over \$12,000. An incredible effort which shows how truly respected and valued Darren and his family are in the community. As they also raised the most money for RED FEB, they were recipients of a defibrillator generously donated by ZOLL who had pledged to support REDFEB by donating their AED defibrillator to the individual and organisation that raised the most amount of money for REDFEB. As the defibrillator of their local Football Club, had recently been stolen – it came at just the right time.

Heart Research Australia continues to be incredibly humbled and grateful for the generosity of the Williams family and friends and all our RED FEB participant's on achieving such fantastic results.



Cook Building

Cook Building - a South Australian commercial and residential construction company - has a core value of making a visible difference by supporting people and communities. In living their values, they encouraged their team and suppliers to increase their fitness, while at the same time supporting Heart Research Australia.



Cook Building encouraged their internal staff to get moving by their 'walking towards healthier hearts' initiative. They also setup a fundraising page to encourage support from their employees and friends and families, to motivate them even further to build up their fitness.

In addition, they organised a golf day with their subcontractors and suppliers with a portion of the ticket cost being a donation to Heart Research Australia, with additional donations being received on the day.

The joint efforts from Cook Building raised a total of \$10,000 to help Heart Research Australia fund life-saving research! We are so grateful to Cook Building and all the effort the team went to in organising the events, as well as all those who participated and donated.

Rachel's Runners – 136km Challenge

"We've made so many exciting discoveries and hopefully a lot more to come thanks to people like you..." - Dr Chris Roche.

Rachel Allworth was a running coach managing her own business 'Rachel's Runners', helping people get moving and discover a love for running, when she collapsed while training for the 4-day stage race 'Run Larapinta' which covers 136 km.

On being diagnosed with Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) Rachel was told she was no longer able to run anymore. Devastating news for a running coach. Never one to shy away from a challenge, Rachel was determined to still complete the 136km event. She called in her team and together they covered a 136km distance, with Rachel walking.

Rachel set another challenge for her team, to raise the final \$3,800 required to cover the cost of the next stage of work for Dr Chris Roche. Rachel's passion and truly inspiring story helped her team complete the 136km as well as raise over \$4,000 for Heart Research Australia. We would like to join Dr Chris Roche in thanking Rachel, all her runners, and those who so generously helped contribute to Chris receiving the final funding he needs for the next stage of his work.





I have, *Will* you?

"My grandfather and great grandfather both died of heart attacks in their 70s. When my dad was the same age, his hereditary heart condition was diagnosed and he was successfully treated with open heart surgery. He went on to enjoy a further 10 happy and productive years, due to advances made possible through heart research.

I'm leaving a gift in my Will to Heart Research Australia to say thanks for those extra years we spent with my dad.

I'm aware that heart disease is still the leading cause of death and has a devastating affect on so many families. It's a privilege to know that my gift in the future will help researchers to find improved ways to predict and prevent heart



disease and also have more treatment options available that will save more lives."

Pam Davis

For more information: www.heartresearch.com.au/gifts-in-wills/

Or fill in the form below and return to:

Heart Research Australia, Reply Paid 543, St Leonards NSW 1590

Contact: Diane Van De Merwe on (02) 9436 0056 or diane@heartresearch.com.au

☐ Please send me more information about leaving a gift in my Will to Heart Research Australia

☐ I have already left a gift in my Will to Heart Research Australia

☐ I will update my Will to include Heart Research Australia

Title: _____ First Name: _____ Last Name: _____

Address: _____

Suburb: _____ State: _____ Postcode: _____

Email: _____ Phone: _____

Thank you so much! ***Your legacy, large or small, will have a positive impact on generations to come.***