



A World-First Study into Unexplained Heart Attacks

We're excited to announce Professor John Beltrame is the recipient of our inaugural Translational Grant, in partnership with The Hospital Research Foundation. With his passionate team, Prof Beltrame will pioneer the causes and treatment of patients living with chest pain following an 'unexplained heart attack'.

A typical heart attack occurs when there are cholesterol blockages within the coronary arteries which can be treated with the correct medication. However, for 10 percent of heart attack patients an x-ray of their heart (coronary angiogram) reveals no significant cholesterol blockages in their coronary arteries.

Unfortunately, there is no explanation for why these patients experience a heart attack and most importantly, there are no appropriate treatment methods.

Concerned these patients with 'unexplained heart attacks' were being overlooked by clinicians, Prof Beltrame invented the term MINOCA (Myocardial Infarction with Non-Obstructive Coronary Arteries) as a new diagnosis of the condition.

"This study will be a world-first in examining the role of the microscopic blood vessels in these unexplained heart attacks," Prof Beltrame said.

"Furthermore, this study is the first to scientifically evaluate if two current standard heart attack treatments alleviate the recurrent chest pain experienced by patients with MINOCA.

"With an estimated 6,000 patients affected by MINOCA each year, the results of this study will have a crucial impact in their care."

Prof Beltrame will work with Associate Professor Chris Zeitz, who is an interventional cardiologist, helping to understand the challenges in managing patients with MINOCA.

A/Prof Zeitz will lead the microscopic blood vessels studies and the internationally-acclaimed Coronary Angiogram Database of South Australia (CADOSA) will play a key role in the data collection with the support of Dr Rosanna Tavella and Dr Sivabaskari (Tharshy) Pasupathy.

"We will be collaborating internationally with leading researchers from Sweden, Denmark, Norway and the United Kingdom. These investigators will not only participate in the treatment study but also in a larger study investigating if these medications prevent future major complications in patients suffering MINOCA," Prof Beltrame said.



Professor John Beltrame and Dr Rosanna Tavella.

With no specific treatments that have proven to be effective to date, with your support, this research has the ability to change the lives of so many people around the world suffering from chest pain after MINOCA. We look forward to keeping you informed on this life-changing research as it progresses.



Living in Hope for a Better Life



Prof Beltrame's research will prove life-changing for Tim.

Tim Lamming's life was turned upside down after he was diagnosed with MINOCA. He's been experiencing severe daily chest pain ever since, living in hope that Professor Beltrame will bring an end to his pain, with his world-first research.

Having always lived an active lifestyle, it came as a shock to Tim when at only 42-years-old he was rushed to hospital after suffering severe chest pain and requiring resuscitation in the ambulance.

Doctors are still unsure what caused that particular episode, which was the beginning of a two year ordeal of ongoing heart issues and trips in and out of hospitals, until Tim was finally diagnosed with MINOCA.

"There were many times I was rushed to hospital and left with no diagnosis. It wasn't until I suffered two heart attacks in hospital that doctors could see something wasn't quite right on their machines," Tim said.

"I was referred to Prof Beltrame at The Queen Elizabeth Hospital who diagnosed me with MINOCA. I felt relief after I was diagnosed but sadly I still experience daily chest pain. I live in hope Prof Beltrame's world-first research can help me."

Unfortunately, there is no cure for MINOCA or the reoccurring chest pain, which means Tim is on several types of medication to manage and reduce his pain. Sadly this medication comes with severe side effects, including migraines.

As a result of his ongoing pain impacting his quality of life, a now 48-year-old Tim was recently forced to leave his management position at Bunnings and had to stop intense physical exercise to keep the pain at bay.

"I have sporadic chest pain every day, sometimes up to three times a day which stops me from living a lifestyle I am in control of," Tim said.

"As it's an unknown condition I have to be careful with how I handle myself. On the better days I can walk my dogs a short way but when the pain is very severe I can be bed ridden for up to three days.

"It's very severe when I experience a heavy chest and extremely sharp pain up my neck and down my left arm, which is a sign I need to go to hospital."

Prof Beltrame's promising research will change the lives of people like Tim, who has put his life on hold while battling daily chest pain.

Knowing there's no current successful treatments, it can be difficult for patients in Tim's position to remain positive. This research, with your support, will bring hope to people like Tim.

"Being such a rare condition and with no known documented medical treatment there needs to be a lot more research into this area to help myself and the many other people out there living with this condition," Tim said.

"Effective treatment would be absolutely brilliant and I can't wait to hear the outcomes of Prof Beltrame's trial. New treatment for me would mean my daily life could return to something normal again."

Thanks for helping Dr Ngo beat heart disease!



You may remember meeting Dr Doan Ngo in our last newsletter. We're excited to share Dr Ngo will be continuing her lifesaving research aimed at developing a new method to predict risk of heart failure at the University of Newcastle as Associate Professor in the School of Biomedical Cardiometabolic Laboratory.

We thank Dr Ngo for her expertise and the research outcomes she has made so far and look forward to keeping you updated as she continues her vital research in this exciting new role.

Lifesaving Research in Your Local Hospital

Clinician and researcher Dr Isuru Ranasinghe is leading an exciting Australian-first research project, focused on improving the quality of care for cardiac patients.

Currently one in four cardiac patients are readmitted into hospital, which can be extremely distressing for their physical and mental state. Through his research Dr Ranasinghe hopes to change this scary statistic.

Dr Ranasinghe and his team are the first researchers to obtain existing data from the past 10 years from over 450 hospitals across Australia and New Zealand. This exciting achievement will provide the vital information they need to assess the quality of cardiac care provided to patients, along with hospitalisation rates for heart conditions, readmissions and survival rates after a hospital episode.



“Our first aim is to develop standardised methods so that we can compare data nationally across all hospitals to assess quality of cardiovascular care. I am hoping this will help to distinguish hospitals that have a high level of quality care to the ones that need improvement,” Dr Ranasinghe said.

“We then hope to develop methods that could be applied across all hospitals to routinely monitor cardiac patient’s care and ultimately individual hospitals can apply these internal reporting systems at minimal cost.”

Dr Ranasinghe has also been testing various methods hospitals could potentially use to monitor readmission rates of patients after a heart attack or heart failure.

“It is important for hospitals to have the resources to monitor these rates; if no one is keeping track then nothing will improve. As a researcher, we cannot implement these methods, but we can develop methods to monitor readmission rates which may assist hospitals to improve patient care,” Dr Ranasinghe said.

“I hope that one day my research will lead to better methods to monitor patient care and this is only possible through awareness of the problem.”

Collaborating with Yale University in America who are world renowned for developing similar systems, Dr Ranasinghe hopes to leverage skills from them along with techniques and methods to then translate into the Australian setting.

“Right now our focus is on trying to work out why hospitals have such varied readmission rates for heart attacks and heart failure. We know the rates



are extremely high and these two conditions have the biggest impact on our health systems,” Dr Ranasinghe said.

“I am very grateful for the generous support and regular giving of Australian Heart Research (AHR) donors. The work that AHR does in partnership with The Hospital Research Foundation for researchers like me is just fantastic and will save lives.”

With your continued support Dr Ranasinghe’s research will improve patient care in hospitals Australia wide.

You Can Help Beat Heart Disease!

Did you know when you host a fundraiser for AHR that as always, 100% of the funds you raise will directly support lifesaving heart research?

Your fundraiser can be whatever you like it to be! From joining in on your local fun run, to hosting a small dinner with friends or a garage sale, whatever you decide it’s a wonderful way to have fun whilst raising funds for vital research at the same time.



Together, with our dedicated researchers, we can truly make a difference in the lives of people diagnosed with heart disease now and in the future. If you would like to host a fundraiser or learn more, email us at contactus@ausheartresearch.com.au or call (08) 8244 0591.

Giving Back to Research After a Broken Heart



Vicki with her beloved husband Ron many years ago.

A passionate Australian Heart Research (AHR) donor, Vicki's world came crashing down when she was diagnosed with Takostubo Cardiomyopathy (TTC), also known as 'broken heart syndrome,' after her husband of almost 40 years Ron, passed away suddenly of a heart attack at 76-years-old. Vicki now gives back to the vital research that is improving her quality of life.

"Ron's passing was a complete shock and left me extremely fragile. The fact that he passed away at home made it even harder for me," Vicki said.

"I didn't know what was happening to me when I started suffering from heart palpitations and felt like I wanted to pass out. When the doctor diagnosed me with TTC, I was both relieved and grateful they could diagnose me and help me understand what was happening. This was all possible thanks to medical research."

Little was known about TTC at the time of her diagnosis, but thanks to Vicki and many others like her who regularly donate to AHR, world-class heart research is underway dedicated to finding cures and improving treatments for TTC and other debilitating heart conditions.

With a background in nursing, Vicki understands the importance of supporting vital research aimed at improving outcomes for you and your loved ones.

"Research has come so far since I was diagnosed with TTC and to read that researchers now have a better understanding and improved diagnosis of the condition truly proves how important research is," Vicki said.

"Knowing that my support has contributed to this is such a

great feeling. Now when someone is diagnosed with TTC I know I have made an impact towards their improved care."

After being diagnosed with TTC, Vicki suffered another setback, and was diagnosed with atrial fibrillation, a type of abnormal rhythm of the heart.

"I visit my doctor for regular check-ups and understand the importance of monitoring my heart as heart disease is also hereditary in my family. I now have enough knowledge thanks to medical research to maintain my heart the best way I can," Vicki said.

Vicki's story is testament to the benefits of research into heart disease and the improved care researchers can provide with your support. With your ongoing support we can help change the lives of so many Australian's like Vicki who are suffering from life-threatening heart conditions.

Have you been touched by heart disease?

We would love to share your story! Email us at contactus@ausheartresearch.com.au or call (08) 8244 0591.

Healthy Heart Tips



Eat plenty of fruit and vegetables every day



Nuts and seeds are great heart healthy snack options



Eat fish and seafood at least two or three times a week – oily fish like salmon contain omega-3 fats which help lower your blood pressure



Eat healthy fats – avocado contains naturally good fats



Cook with healthy oil options like flaxseed or canola oil which both contain omega-3 fats



Limit your salt intake! Eating too much salt can increase your risk of high blood pressure, a major risk factor for heart disease



Drink lots of water

