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PRECIOUS GIFT SAVES LIFE AFTER VIRAL HEART INFECTION

After emigrating to WA from South Africa in 2013, Brett Driessen's life took an unprecedented turn when an unknown virus invaded, and ultimately, destroyed his heart.

Brett and his family had just settled in to their new home in Secret Harbour when he started to feel tired and developed flu-like symptoms. Thinking it was something that would resolve itself, Brett ignored the symptoms for two weeks before seeing his GP.

"I spent three days doing tests, but they couldn't find anything. On the third day I was greyish, with blue lips and the doctor said I needed to get to hospital." Mr Driessen said. "They thought it was my gallbladder and decided to do surgery the next morning."

A final ultrasound prior to the scheduled surgery revealed a far more serious circumstance for the young husband and father of two. Instead they found Brett was experiencing chronic heart failure, suspected to be caused by an unknown virus.

"They don't know what virus, where I got it, or how long for, but it absolutely ruined my heart; my whole heart was virtually useless." After three months of unsuccessful treatment Brett was placed on the transplant list, beginning what was to become an anxious seven month wait for a donor heart.

"You put everything else on hold because you don't want to be in the middle of something busy or important when the call comes in" Mr Driessen said.

"When you're on the waitlist you can't be more than an hour from the hospital."

That call finally came on a Saturday morning and thanks to the WA Heart and Lung Transplant team at Fiona Stanley Hospital Brett was fortunate enough to be back on the path to good health within 24 hours.

Brett is positive for the future, knowing he has been given a new lease on life as the result of the most generous sacrifice.

"From the donor's side, their family has lost a loved one, and you have received this precious gift, a second chance. It's something to be treasured."

The first heart transplant was performed in WA in 1995, when Esperance man Rodney Western received the gift of a heart by a new team led by cardiothoracic surgeon and WA transplant service pioneer Dr Rob Larbalestier AO. Before it was established Mr Western, then 35, had moved his family to Victoria for a year to wait for his new heart. With the opening of the service they were able to return home.

Since then, more than 391 lives have been saved by the team which is still led by Dr Larbalestier and continues to improve through a team of dedicated researchers at Fiona Stanley Hospital. They believe there is much to be done to improve the incidence of, and success rate, of heart and lung transplants.

"Too many potentially useable donor heart and lungs are discarded for potentially reversible causes" Dr Larbalestier said.



"More vital research is required in organ resuscitation to expand our donor pool and offer transplants to people desperately waiting on ever lengthening waitlists."

Dr Larbalestier is also board member of the Heart and Lung Research Institute whose members account for both the clinical and research team at Fiona Stanley Hospital. Spinner has provided several grants to the Institute since their establishment in 2013 and has now partnered with them to raise funds for an ongoing and sustainable program of research.

"As the world's most isolated city, donors and recipients in Perth face the unique challenge of overcoming the issues associated with long travel times and organ viability" said HLRI's Dr Lisa Alarcon.

Spinner is raising funds to ensure the Institute can continue its life-saving work for the people in our community who are critically ill and desperately waiting for their new start in life.

You can support this important work by donating directly to the Heart and Lung Research Institute WA program of research here:

www.spinnerhealth.org.au/donate

A MESSAGE FROM THE CEO



Since our last edition of news we have been fortunate to emerge from what was great uncertainty to a much more stable, and even almost normal, way of living our life. However I am all too conscious of the fact we remain in a bubble of exceptional privilege. We offer our deepest compassion to our friends and family in Victoria; we look on with despair as many countries continue to

grapple with the scale of this horrible pandemic – and fear as some succumb to second waves.

WA has done exceptionally well, but the battle is not over with just one fight. In this edition of Spinnaker News, you will read about the important work the Foundation has supported to look at what recovery actually means for people who are unfortunate to be COVID-19 positive – not even sick – but infected. We have committed to join the global fight because it is the right thing to do; and because we are best positioned to do so. We do not want to join the fight for the vaccine or the cure; there are many better positioned to do so. We have joined

the fight to learn how to treat our patients, here and beyond.

The Spinnaker team is grateful to be able to return to our hospitals, be back with our community of researchers and doctors, back with the patients where we belong – fighting for a better health future for all of you. I urge you to stay safe, remain vigilant and to continue to support the fight for our community's health and wellbeing in whatever way you possibly can.

A handwritten signature in blue ink that reads "Dana Henderson".

Dana Henderson, CEO

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PATRON ANNOUNCEMENT

We are very pleased to announce The Honourable Kim Beazley AC, Governor of Western Australia has accepted an invitation from Spinnaker Health Research Foundation to become a Patron of the Foundation.

Governor Beazley extends his support as Patron to many health and medical research organisations. His acceptance of this role further demonstrates his commitment to the importance of medical research and to ensure the significant work of Western Australian researchers, including those funded by the Foundation, is shared and celebrated on the WA, national and global stage.

“I am proud to be a Patron of Spinnaker Health Research Foundation - an organisation which supports innovative health and medical research in collaboration with universities and research institutions in Western Australia. Ensuring the best health outcomes for our community has never been more important and we are lucky to have Spinnaker contributing to our world-class research efforts here in WA.”



From left: Ms Dana Henderson, The Honourable Kim Beazley AC, Governor of Western Australia and Mr Mark Balfour.

Spinnaker initially benefitted from the support of the Governor's father, Mr Kim Beazley Snr AO, who was the Foundation's founding patron. Mr Beazley Snr was integral to the raising of significant funds that underpinned the commencement of our grant program more than two decades ago.

Spinnaker continues to benefit from the long-term support of its long-standing Patron, Professor Barry Marshall AC and, until most recently, Dr Patricia Kailis AM OBE who sadly passed in April this year. Patricia was a founding board member of the Foundation before becoming Patron in 2008 and we will be forever grateful for the many significant contributions she made over such an extended period of time.

Spinnaker's Chairman, Mr Mark

Balfour, said the acceptance of the invitation by the Governor represents an acknowledgement of the integrity of the Foundation in the not-for-profit sector and an important commitment to not just the Foundation but to our community in general.

“Medical research in Western Australia continues to grow in both strength and esteem and we deserve to be proud of that which we have achieved and continue to achieve. The support of the Governor will assist us in amplifying the positive impact in health research that we enjoy and we look forward to working closely with the Governor to further the success of our researchers and the important translation of the research to practice” Mr Balfour said.

Through the support of generous donors and an exceptional gift directly from the Foundation, Spinnaker has committed significant funding for world-leading research by the Australian National Phenome Centre (Murdoch University).

The project, a collaboration with Addenbrooke's Hospital at the University of Cambridge, will help us better understand the pathway to recovery for COVID-19 positive patients, including long-term, life-impacting disease risks.

This world first, international collaboration will examine samples collected from COVID-19 positive patients in WA and in the UK over three years to better understand how the virus effects people in the short, medium and long term and how patients recover from the disease. Early results have identified markers of diabetes and damage to the heart, lungs, liver and vascular system; irrespective of severity of the infection.

The information assessed and reviewed to date indicates this is a systemic disease, not just respiratory, and the opportunity to intervene at an earlier stage is likely to lead to improved short and long term outcomes for patients.

The findings of this study will be important to assist in understanding the impact of infection on an individual's health and allow early intervention to offset the possibility of lifelong disease and impairment.

Significantly, the information will allow health systems around the world to better prepare for the



Valuable COVID-19 blood plasma samples pictured on arrival from the UK at the ANPC, Murdoch

likelihood of continuing and increasing burden of disease, allowing governments to better plan for the longer term social and economic impacts.

Spinnaker is so proud to be able to support this important piece of research that will have an impact for our local and our global community. Importantly, the research findings will assist in informing further research in our hospitals that will support members of the community who may have the misfortune of enduring longer term, life impacting complications from infection.

The research is led by world-renowned phenomics pioneer and Executive Director of ANPC Professor Jeremy Nicholson in partnership with Addenbrooke's Hospital University of Cambridge, UWA and Bruker.

“This is the most important healthcare challenge on the planet and there is no better equipped metabolic lab in Australia, or possibly anywhere, to undertake this type of work in an excellent clinical framework. Our goal is to deliver a real solution for real people in an accelerated time-frame.”

Professor Nicholson

2019 Spinnaker Grant Recipient A/Professor Timothy Fairchild has reported some important early outcomes of his study to improve the health of children in south metropolitan Perth. Timothy's research assesses the role of cardiorespiratory fitness in children who are overweight or obese to mitigate their long term risks of cardiovascular and metabolic disease.



Above: A/Prof Timothy Fairchild

While the initial results of the study are encouraging in terms of overall improvements in weight loss and fitness the outstanding result has been in the improvements in mental health and wellbeing for the participants. The study demonstrates a 40% improvement in sleep and a reduction in stress as well as symptoms of depression and anxiety in all of the children who participated.

These exceptionally important results are theorised to be in response to the actual design of the program itself. With a focus on health and fitness and the teaching of new skills across a range of sports, the participants are gaining confidence by participating in school based activities with their peers that they might previously have felt excluded from. Children reported they were now being invited to play with others resulting in the further benefit of increased social interaction and a lift in self-esteem, with school attendance and engagement increasing respectively.

On behalf of the research team we extend a huge thanks to AUSTAL for supporting this important research and we look forward to sharing further updates as the study continues.



Pictured from left: Prof Jeremy Nicholson, Mark Balfour, Steve Robertson and Prof Elaine Holmes



From left: Ms Dana Henderson, Mr Sam Walsh AO, Dr Rob Larbalestier AO, Mr Kerry Stokes AC, Dr Warren Pavey, Mr Brett Driessen, Dr Lisa Alarcon and Mr Mark Balfour

STORIES FROM A TRANSPLANT TEAM

On 25 July Spinnaker hosted an event at the State Library of Western Australia to raise awareness of heart and lung transplant as part of DonateLife Week.

The free community event was a sell out as more than 200 people gathered to hear about the impact of organ transplant on a recipient and their family and the life-saving research that is being done to improve transplantation in WA.

The incidence of organ donation remains unacceptably low in Australia. Of the 80,000 hospital deaths in Australia last year, only 2% were able to be considered for organ donation. Of those, 548 donors were ultimately able to give the most precious gift of life to 1,444 grateful Australians.

Attendees at the forum heard from heart transplant recipient Brett Driessen, whose story is featured on this month's cover, as well as members of the Heart and Lung

Research Institute of WA (HLRI) Dr Warren Pavey, Dr Rob Larbalestier and Dr Lisa Alarcon. They shared stories, not just of their life-saving research, but also their personal motivations to commit to research over and above their clinical roles at Fiona Stanley Hospitals.

Spinnaker has partnered with HLRI to support their critical work, particularly their efforts to overcome the difficulties associated with organ access in remote WA. This isolation can impede the health and viability of the donated organ, minimising the opportunity for successful transplant to people so desperately unwell and waiting for their chance at a healthier future.

In addition to improvements in organ transplant, we are seeking to raise funds to help the Institute better understand heart and lung disease and ultimately avoid the need for transplant in some cases.

Transplant is, in fact, a treatment,

and not the ultimate cure. To improve understanding of disease, and how to better treat our patients, research is vital to develop enhanced methods of care that will ideally improve health, and mitigate the need for organ donation in the future.

Dr Warren Pavey, Chair of HLRI, embodies the ethos of the Institute members when he says:

“We need to do better...the more research you do, the more invested you get and it becomes more and more meaningful.”

[You can read more about Dr Pavey by clicking here.](#)

If you would like to support the work of HLRI, you can select 'Heart and Lung Research' in the [online donation form here.](#)



Pictured above left: Dr Rob Larbalestier AO

Pictured right: Dr Rob Larbalestier AO, Dr Lisa Alarcon, Dr Warren Pavey and Mr Brett Driessen