

V Herald Sun **WEEKEND**

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ROBYN RILEY

HEART

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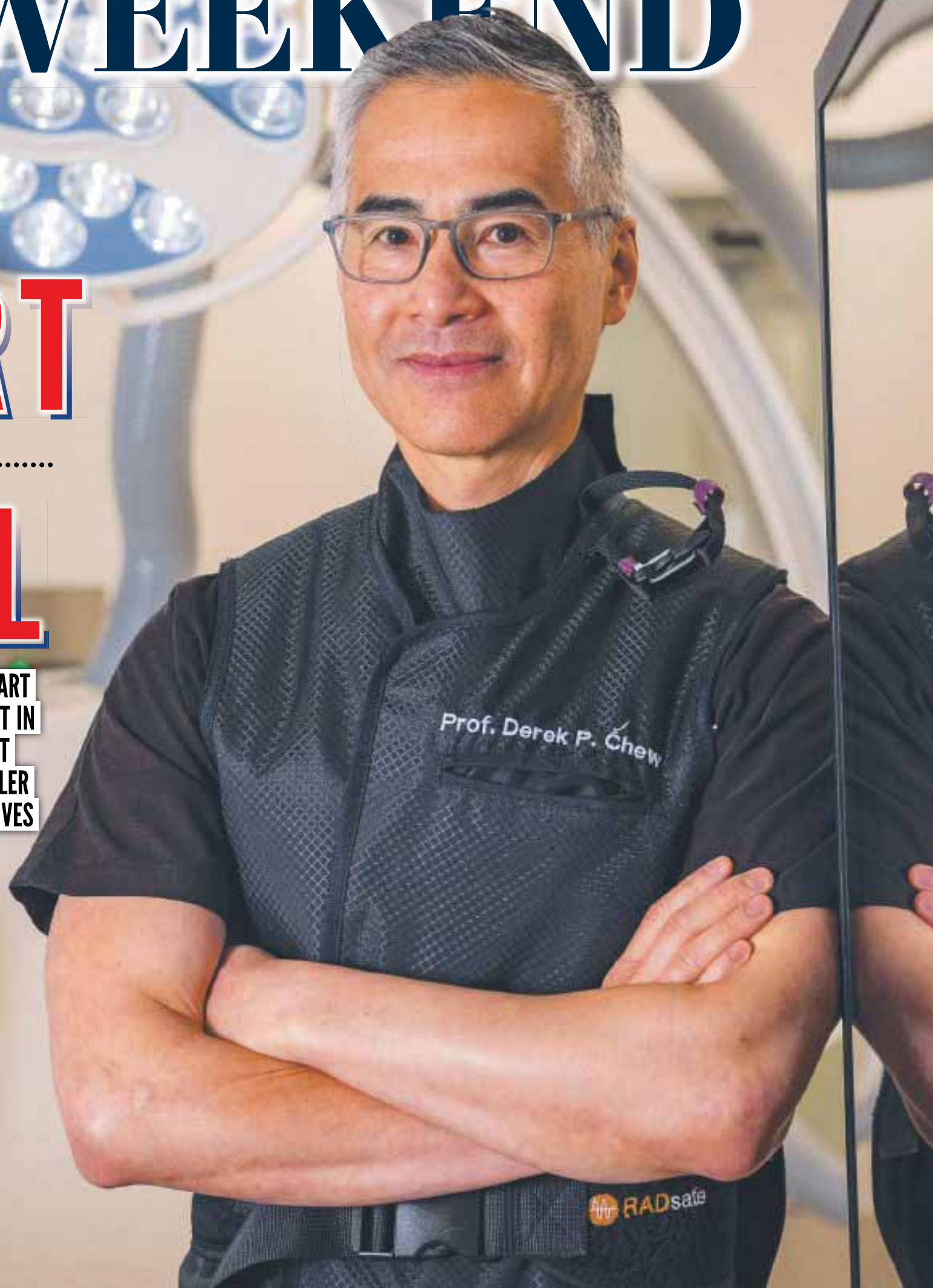
SOUL

**INSIDE THE VICTORIAN HEART
HOSPITAL, WHERE THE BEST IN
THEIR FIELD DAILY FIGHT
AUSTRALIA'S BIGGEST KILLER
TO SAVE THOUSANDS OF LIVES**



PRIDE OF A LION
LACHIE NEALE'S NEW
SON BRINGS JOY

BROKEN GENERATION
THE TERRIBLE AFTERMATH
OF COVID LOCKDOWNS



Story ROBYN RILEY

FEEL THE BEAT

SIMON TOUSSAINT AND JUDITH STONE ARE HERE TODAY BECAUSE OF A UNIQUE HOSPITAL AT THE FOREFRONT OF CARDIAC HEALTHCARE IN AUSTRALIA. ONE IN FIVE VICTORIANS WHO HAVE HEART ATTACKS END UP HERE. THESE ARE THE STORIES OF ITS PATIENTS AND STAFF



Simon Toussaint's life came very close to ending on a cricket pitch in February. The reality of that dawn on Toussaint, 56, as he speaks from his hospital bed days later. He is talking about how what he thought was reflux turned out to be a cardiac arrest, one witnessed by his teenage son Joel Marshall Toussaint and his cricket teammates – and one he almost didn't survive.

Cardiac arrest is the sudden, unexpected loss of heart function. It is different to a heart attack, which is caused when blood flow is blocked, but both can be deadly.

Toussaint remembers the unrelenting heat of that Saturday. It was 38C – tough conditions for a wicketkeeper, especially one feeling a bit crook.

It was his first game of the year for the East Sandringham Cricket Club. Joel, 15, was at the other end, bowling. Theirs was a partnership perfected in the back yard.

"I took a catch from Joel," Toussaint says. "We were having fun."



Their club is legendary, as much for its long history as for being the first home of spin king Shane Warne, who died from a suspected heart attack three years ago, aged 52.

The irony isn't lost on Toussaint.

"I thought (the pain) was gastric reflux and then I got a bit weak at the knees, so I went off and sat down," he says.

Toussaint tried to return, but after one over went back to the shade to lie down. He says he was lucky he did. Toussaint went into cardiac arrest, and if ever there was a time you needed luck on your side, this was it.

The cricket ground was only minutes from the new Victorian Heart Hospital (VHH) in Clayton. In Toussaint's cricket team was a former police officer who was a trained medic, who just happened to have a portable defibrillator in the boot of his car.

On the sidelines was a former firefighter, trained in cardiopulmonary resuscitation (CPR), as was the opposition team's captain. They worked together to keep Toussaint's heart pumping until the ambulance arrived. A team effort.



He was lucky. “The defibrillator kicked me back into life, apparently,” Toussaint says. “I showed signs of life in the ambulance and they got me here pretty quickly.”

“I owe my life to the boys at the East Sandringham Cricket Club for providing some primary care that saved my life, and the hospital and ambulance staff for putting me back together again and patching me up.”

He wants Joel to know he is sorry he had to see his father so unwell, and not to worry, as they will have a lot more time together.

The VHH, led by Professor Stephen Nicholls, a cardiologist, is a good place to be when your ticker is in trouble.

The public hospital is a joint project by the Victorian government, Monash Health and Monash University, and cost \$577m to build.

It opened in March two years ago and has since treated 20,000 Victorians in need of tailored cardiovascular care.

It has capacity for 206 beds and the ability to treat 28,000 cardiac emergency patients annually, for everything from heart attacks

caused by blocked arteries to cardiac arrest – when the “electrics” of the heart rhythm goes awry – to the complex causes of heart failure that stop the heart muscle pumping blood as it should.

A team led by professor of cardiology Derek Chew has carried out more than 10,000 interventional cardiac catheterisation procedures in the past two years, in its seven dedicated “cath labs”.

Chew is a clinical and interventional cardiologist and a cardiovascular health systems researcher, and also the service director of the VHH. The labs provide precision intervention by skilled teams, who guide robotic arms to remove blockages from coronary arteries using advanced imaging.

They literally hold lives in their hands.

Chew is never still, running between the labs under his supervision while also mentoring the highly skilled teams running them. These include interventional cardiologists, electrophysiologists, nurses, registrars and radiographers.



A game of cricket nearly ended in tragedy for Simon Toussaint, main picture, who ended up at The Victorian Heart Hospital; below left, VHH's service director, cardiologist Derek Chew; and VHH head, cardiologist Stephen Nicholls. Pictures: Jason Edwards

“So we’re dealing with the plumbing in here,” he says. “The electrophysiologists are the electricians who deal with all the electrical activity of the heart.”

In one of the labs is a 50-year-old Melbourne man relying on their skills and confidence to push a catheter up through his leg to clear the plaque that has blocked an artery – a problem that could become what’s known as a “widow-maker”.

Chew’s eyes never leave the screen as he calmly works through the procedure with the team, all the time teaching, encouraging.

“You can see here that he’s got a narrowing right at the very top,” Chew says. “This is the only indication this person needs bypassing.”

The surgical procedure creates a new path for blood to go around a blocked artery in the heart. It will save this man.

“Not every patient who comes here would need to come through the cath lab,” Chew says. “This is only for blockages; how we diagnose them.”

He says modern cardiology has become what >

BY THE NUMBERS

1000
people in the team
(includes healthcare professionals, researchers, support staff and students)

One in five
heart attacks in Victoria are treated at the VHH

10,000
patients a year

3 to 5
arrivals each week via the helipad, connecting the hospital to regional Victoria

7
cardiac cath labs, the largest of their kind in the world

640
papers published since opening

110
Monash University researchers located on site

60
clinical trials under way, translating research into real-world outcomes

19
die every day in Australia by heart attack, the leading cause of hospitalisation and death

it is because of these labs, as they give doctors instant information.

"You can see the problem straight away and we can get access to the blockage."

Lifesaving.

Chew also runs the cardiovascular disease monitoring group for the Australian Institute of Health and Welfare.

He says in Australia the rate of heart attacks is on the increase, particularly in young people under the age of 45. Chew puts that down to the increase in obesity.

Stephen Nicholls knows every nook and cranny of the award-winning hospital, which even has an electrocardiogram (ECG) incorporated into the design of its imposing facade.

The ECG in the design is subtle – more a suggestion of what's going on behind the scenes of Australia's first dedicated cardiac hospital. The facade is made of steel, a bit like the 1000 people who work behind the scenes, treating thousands of Victorians each year for cardiac-related problems.

One in five Victorians who have a heart attack will come through its doors and into the serene – never tempt fate by using the word "quiet" – emergency room.

Nicholls says the brief was that the building had to be both an important place for the clinicians and researchers and teachers, but crucially had to integrate with the Monash University campus on Blackburn Rd.

Two years on, the hospital is at the heart of this thriving technology and innovation hub in southeast Melbourne.

It sits opposite Moderna's new vaccine-manufacturing facility and the Australian Synchrotron, which is a major research facility.

Across the road the precinct's next addition nears completion: Monash University's \$17.5m state-funded project to accelerate healthcare innovation aligned with cardiovascular, kidney and metabolic diseases.

It's a critical step in the pipeline to allow the hospital, university and industry to quickly translate discoveries into real solutions for the community.

Nicholls is happy with the result, saying the design of the VHH enables its vision: integration

Judith Stone of Pakenham, right, displays the scar from her open heart surgery; and nurse unit manager Radhika John with cardiologist Dr Esther Davis (left), co-lead of the Women's Heart Health research grand challenge. Pictures: Jason Edwards

“I thought I had indigestion, then I got pressure in my left arm and it was numb



and a reimagining of heart care. "It had to be about innovation and how we were not just going to provide innovative care for a lot of people, but how were we going to teach people, how were we going to do cutting edge research, how industry was going to play into what we do," he says.

Judith Stone likes the view from her room.

The 80-year-old Pakenham great-grandmother has a big window overlooking a garden.

She also has a neat scar running across her chest after undergoing open heart surgery to repair a blockage to a valve – one of 1500 Victorians to have surgery at the VHH since it opened.

"I thought I had indigestion, then I got pressure in my left arm and it was numb," Stone says. "I went to the cardiologist and had a stress test and he sent me for an angiogram, but they weren't happy and I was told I needed more medical attention."

Four days later Stone is sitting in a chair in the hospital, enjoying the sunshine and sending texts to her family about when she will be home.

"The scar is not that big, actually," she says. "But they had to open me up, cut the rib cage."

Minister for Health Mary-Anne Thomas says since the VHH opened in 2023, the service has transformed and saved the lives of thousands of Victorians, and set a new standard as Australia's first specialist cardiac hospital.

"The hospital cements Victoria's reputation as a world leader in cardiac medicine – with co-located services, research and education under the one roof set to benefit for generations to come," she says.

Thomas also points out that not only is the

VHH supporting Melburnians, but it is delivering critical care to regional patients through its telehealth facilities, connecting country Victorians with heart specialists.

Professor Jayme Bennetts is the hospital's director of cardiothoracic surgery who – along with Chew – was headhunted from Flinders University in South Australia by Nicholls to join the VHH team.

Like Nicholls, Bennetts was born and raised in South Australia, and although they had never worked together, they knew each other by reputation.

But why move, leaving behind a busy and established practice, a lifetime of friends and his parents? Bennetts says it was about making a difference.

"I think the collegial interaction between surgery and cardiology is key," he says. "That's probably why they headhunted Derek and I, because we had that at Flinders University."

"So I think trying to duplicate that here and make it bigger is what we are aiming for and, surgically, my goal is that this is the biggest surgical service in Australia, and the best."

He says they haven't quite got there yet, but expects to reach that goal within 12 months.

"We're now the biggest surgical service in Victoria," Bennetts says.

"One of the biggest three or four in the country, so we've already grown far quicker than perhaps expected. I think the potential to grow further is already there."

Bennetts says what's unique about VHH is being able to also get patients in from regional Victoria.

"All of those things mean that we've got the





“*You’ve got access to everything through the university. But being in the hospital is that next level*”

“And so I think it’s about all cardiologists and also all practitioners in general understanding about heart disease in women, so that we can all be empowered to look after women well.”

In a sun-filled laboratory, Dr Kristen Bubb’s team is all about “bed-to-bench” research.

“The advantage of being here in the hospital, is that we have quick access to the patient samples,” Bubb says.

“Today we’re getting some blood from some people we’ve recruited to a study where we’re interested in understanding why people with certain genetic changes end up being predisposed to cardiovascular disease, heart attacks and so forth.”

Bubb did her PhD at Monash University before heading to London and then Sydney, before coming back to take on the role of head of the Vascular Therapeutics Group.

She is part of the university’s Victorian Heart Institute (VHI), embedded within VHH. It enables research, education and training to happen under one roof, benefiting from integration with the health service.

“It is fantastic because you’ve got access to everything through the university,” Bubb says.

“But being in the hospital is that next level, so we’re on campus, but here in the hospital as well.”

Clinical trials are run across Australia and the Asia Pacific through the VHI team, and locally at VHH.

Bubb says VHH is a world-leading facility, up there with the best.

“I think the facilities here are so nice and shiny and new, which is great,” she says.

Nicholls also sees the role of the hospital to educate, and says there needs to be better awareness of heart health “because this hospital is also the most successful if it links in with the community”.

“So people understanding how to prevent, knowing their numbers, people knowing that if they get symptoms, they go to the hospital, and everybody learning how to do CPR,” he says. “That is the community call for action.”

“We need ongoing investment in integrating care, research, education and community understanding, so the Victorian Heart Hospital can continue to deliver and be a global player. We’ve got a bold agenda and we’re not apologetic about that.”

Patient Judith Stone says the VHH team who have cared for her are “absolutely marvellous”.

“I haven’t been in hospital for 20 years and they have just been so helpful,” she says. “I knew it was a big thing, but I didn’t have any fear.”

Now she is heading home to her six beautiful grandchildren and two great-granddaughters.

“We are very lucky; we are all healthy, and health is the most important thing,” Stone says. ■

ability to grow further, quickly,” he says. “I think we’ve created a very efficient service that is regarded as being excellent by our peers. Now we need to make it work more efficiently, which is what we’re trying to do because, potentially, I guess everybody will want to come here.”

While most of VHH’s patients are men, because heart disease in Australia is more common in men, women are catching up.

Dr Esther Davis is a cardiologist and researcher at the VHH and co-lead of its Women’s Heart Health research grand challenge.

She wants to see more women in cardiology trials and to do that, she says, will take building good relationships with the women in the hospital and in its clinics.

“I think that will help overcome some of the nerves, potentially, around clinical trials,” Davis says. “The other thing is obviously designing trials that are dedicated to answering questions about heart disease in women.”

She says VHH is contributing to several large trials around the country looking at heart disease that is more common in women, or specific to women.

The team has also developed a women’s heart clinic with a focus on diseases that are more common to women.

“So the more unusual cause of heart attacks, spontaneous coronary artery dissection, heart attacks where we don’t find blockages in the arteries, coronary spasm – things like that,” Davis says.

“And then we also do a lot of work in looking after women before and after pregnancy and looking at risk factors that are specific to



women. So all the pregnancy-related risk factors that ... are risk factors for heart disease in the future.”

Davis says it is also about educating women on their future cardiovascular risk, so they can be proactive about their heart health now.

Her aim is also to help educate all cardiologists, regardless of gender. “Because, ultimately, if somewhere in the vicinity of more than half the population is female, every cardiologist, male or female, is going to have female patients,” Davis says.

Top, head of the Vascular Therapeutics Group at the Victorian Heart Institute, Kristen Bubb, in the lab; and Jayme Bennetts, who was lured from South Australia to be VHH’s director of cardiothoracic surgery. Pictures: Jason Edwards