## LATEST NEWS



### **UBERCULOSIS STUDY REVEALS** POSSIBLE NEW TARGET TO REDUCE **DISEASE SUSCEPTIBILITY**

A collaborative study has revealed a possible new target to treat tuberculosis. The research has been published in Nature Communications.

Scientists led by Centenary's Professor Warwick Britton AO and Dr Carl Feng at the University of Sydney, found that a genetic variation called a single-nucleotide polymorphism, found in the human gene called the IFNAR1, is associated with decreased susceptibility to tuberculosis and an increased risk of viral hepatitis in Chinese populations- the study revealing the detrimental effect of IFN signalling in tuberculosis susceptibility.



### **CELEBRATING AUSTRALIAN** LUMINARIES WHO HAVE TRANSFORMED MELANOMA TREATMENT WORLDWIDE

The extraordinary contribution of Australia's most distinguished clinicians and researchers in the field of melanoma including

Centenary's Professor Peter Hersey (shown here as a young medical resident) was recently celebrated at a symposium hosted by the Melanoma Institute Australia.

More than 350 clinicians and researchers gathered at The Ultimate Melanoma Masterclass in Sydney to learn from the five luminaries as well as hear a comprehensive review on the latest advances in research and clinical management of melanoma.



### WORKING TOWARDS BETTER **UNDERSTANDING ALZHEIMER'S** DISEASE

It is estimated that 425,416 Australians are currently living with Alzheimer's disease. Dementia is the second leading cause of death of Australians,

and the leading cause of death for women in this country. With our ageing population, Alzheimer's, which is the most common form of dementia, has been identified as a national health priority. There is currently no known cure or effective treatment to halt this devastating disease.

Associate Professor Anthony Don and research fellow Dr Tim Couttas are working towards uncovering the causes and mechanisms of this disease, with their most recent work, published in the Journal of Alzheimer's Disease.

### **CENTENARY INSTITUTE** PAYS TRIBUTE TO A GREAT AUSTRALIAN

We have lost a faithful and loyal servant for science and for all of us here at the Centenary. Sir Nicholas Shehadie AC, OBE passed away recently leaving

a devoted family and numerous friends mourning his loss, including the Patron of this Institute, his wife, Dame Marie Bashir AD, CVO. The Institute was extremely fortunate to have the continued support and patronage of such a well-respected and much loved member of Australia's community, and someone who was so passionate about the health sector.



### **REVEALS NEW INSIGHTS** Scientists, led by Professor Chris Semsarian AM, monitored the daily step count of Hypertrophic

cardiomyopathy (HCM) patients for seven days, with minutes of light, moderate and vigorous

activity calculated. It has been discovered that those who were most at risk, took fewer daily steps than those living with less severe cases of HCM, "The step counts indicate how much physical activity a person is doing and whether their heart condition is leading to reduced physical activity," says Professor Semsarian.



### UNDERSTANDING THE MECHANISMS OF REGENERATION

Centenary's Professor John Rasko AO, Head of our Gene and Stem Cell Therapy Program featured on ABC radio sharing his ground-breaking recent

study which is helping scientists understand the mechanisms of regeneration by studying a specific worm species which can "re-grow" itself.

The hope is that this research will inform scientists on how this regeneration can occur in humans even leading to repairing major organs or regrowing limbs.

### Read all the full stories from our latest news <u>here</u>.

Ihank you for your ongoing support!

## **NEWS UPDATE AUTUMN 2018**



# Who will



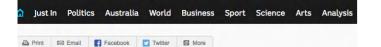


Cancer. Inflammation. Cardiovascula

## centenary.org.au

## **IN THE MEDIA**

RECOGNISING INTERNATIONAL DAY OF WOMEN AND GIRLS IN SCIENCE



But I persisted': Angelina Lay didn't start school until 12 but now she's a doctor helping to cure liver cancer

By Mary Lloyd Posted Sun at 6:00a



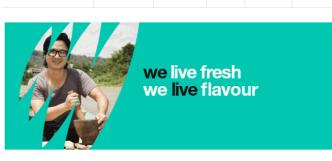
At Centenary, recognising women and girls in science is a year-round event, with our Gender Equity committee ensuring men and women have the same opportunities to advance in their careers. We have increased the number of female leaders and speakers, improved maternity and paternity leave for our staff and so much more!

Dr Angelina Lay is a mentor to many girls and women in science and is an example of how women can have a full-time career and a family if they are supported in flexible workplaces such as Centenary.

ABC online spoke to Angie as part of recognising International Day of Women and Girls in Science. Follow this <u>link</u> to read the interview or <u>here</u> to watch the video.



## AUSTRALIA'S SILENT HEROES ARE LIFE SAVING SCIENTISTS



### NEWS

### Centenary Institute reminds Australians science researchers are life savers too

February 6, 2018 9:09



Centenary Institute has launched a new brand campaign 'Beaches to Benches' to highlight life savers don't just work on the beach, but also at benches conducting scientific research to finding cures for cancer.

Centenary's new marketing campaign 'Some of Australia's most successful lifesavers don't work on beaches; they work on benches' was launched in February with the key focus message of 'Australia's silent heroes are life saving scientists.'

The campaign features Bondi Rescue's Jesse Polock, who generiously gave his time to support our life savers along with some of our very own scientists. The campaign has been rolled out to engage the community in understanding our medical researchers are our nation's unsung heroes and that their work is life saving. Follow this link to watch the television commercial that has been lauched as part of the campaign.



### Jessepolock • Pollow

Some of Australia's most successful lifesavers don't work on beaches; they work on benches. The benches in the laboratories at the Centenary Institute. That's where some of the country's mo respected scientists are working to fine curres for, life-threatening conditions su as cancer, inflammation and cardiovascular disease. Conditions, whi will affect 75% of us at some point. Whi means if you make a donation now, there's a 75% chance that one day you' get your morely back. Please make a donation at www.centenary.org.au or call 1800 677 977 @issepolock @bondlifeguards @bondirescuetv.@mrsjessicabowditch

3,933 likes

## HUMANS OF MEDICAL RESEARCH

PROFESSOR PETER HERSEY



Professor Peter Hersey is a true pioneer of immunotherapy for melanoma in Australia and in focusing on the properties of melanoma cells which make them resistant to successful treatment.

As a researcher, Professor Hersey has been a joint holder of a prestigious National Health and Medical Research Council (NHMRC) program grant since 2005, which has been renewed for a third five-year period. He has participated in most of the key clinical trials on immunotherapy with immune checkpoint inhibitors (a drug which blocks certain proteins made by some immune system and cancer cells) and he is a member of the Melanoma Research Institute of Australia.

Professor Hersey says, throughout his long career, the most important lesson he has learnt and now passes on to others is, "As a researcher, to be committed and have thinking time and as a clinician, to listen to patients and have responsibility for them."

Professor Hersey has been treating melanoma patients and researching 'Australia's cancer' for decades, "business leaders have said, success is finding a need and then filling it. I have tried to do the same thing in melanoma. The need was great and not being filled by current therapies". He says, as a scientist today, you must be able to "rise to challenges, to think laterally and maintain focus."

Professor Hersey's vast knowledge and experience makes him one of the great mentors at Centenary, helping to advance the careers of scientists in his team. Professor Hersey is generous with his time, despite being a prominent and in-demand national health identity.

His work has been a true passion for Professor Hersey, but of course his family and his hobbies are also important; sailing, swimming and dining among his favorite pastimes as well as spending time with his family. Professor Hersey has found the perfect balance thanks to "A supportive team, learning from others, respect and luck in finding great colleagues."

### JULIE HUNTER



Julie Hunter wasn't always destined for the laboratory, she went to university to study a psychology degree and realised that what she loved most was carrying out experiments and learning about viral genetics, so she changed fields and has been at home in the lab ever since, "I get excited when an experiment produces a clear cut result. I also enjoy showing work experience students what it is like to work in a lab."

Julie is part of the Vascular Biology Program, led by Professor Jenny Gamble, where she specialises in a range of techniques including tissue culture, gene cloning and expression. The Vascular Biology team is particularly focused on the endothelial cell, a cell that lines our blood vessels. Understanding this cell is leading towards the development of new treatments for a number of types of cancers, including pancreatic and liver cancers.

One of the most interesting parts of Julie's role is her weekly visit to collect a 'delivery' of umbilical cords donated by mothers at the Royal Prince Alfred Hospital, located next to Centenary Institute, for medical research. Cells from the cords are used for a variety of experiments. "I extract endothelial cells which line the vein. We study these cells in order to predict how they will be affected by disease, and we use them to test potentially new cancer drugs."

Julie is also a busy mum of three kids and as her children gain more independence, she is enjoying returning to her passions, including dog training with her young Groodle! "Dog training is an activity to do with your dog rather than just having them follow you around the house. My dog loves agility training. He gets very excited watching the other dogs do the obstacle course." Julie is fascinated by how much dogs are directed by body language, "If I happen to point my toes in the wrong direction, he will notice and take the wrong jump." Julie says training her dog to do agility courses is a continuous learning experience for her, much like life in the research laboratory.