



NEWS UPDATE Spring 2019



Discovered: sea sponge fights TB

An Australian sea sponge could hold the key to successfully combatting the deadly disease tuberculosis (TB), a new study from the Centenary Institute and the University of Sydney suggests.

The sea sponge was found to contain an exceptionally potent anti-bacterial agent able to inhibit *Mycobacterium tuberculosis* – the bacteria that causes TB in humans.

Every year more than 10 million people fall ill with TB and 1.8 million die from the disease. The new finding has the potential to open-up a new avenue of research to target what is the world's top infectious disease killer.

Michael Mosley brings to light research on inflammation

Internationally recognised science journalist and health broadcaster Dr Michael Mosley has delivered the 2019 *Centenary Institute Oration* to a crowd of more than 1,000 researchers and members of the public at Sydney's International Convention Centre.

The Oration helps inform the community as to the exciting health advances that are taking place via research and this year was timed to coincide with the World Congress on Inflammation.



In keeping with the theme of the Congress, Dr Mosley spoke on the topic of 'Inflammation, obesity and depression'.

Over the course of an hour, Dr Mosley made the connection between inflammation and chronic disease. He emphasised that intermittent fasting

and a switch to a Mediterranean style (anti inflammatory) diet could help reduce the risk of disease. If you'd like to download the talk, visit the *Radio National Big Ideas* web site.

Launched: new cancer genetics laboratory

We're proud to announce the launch of our newest initiative, *The David Richmond Laboratory for Cardiovascular Development: Gene Regulation and Editing* headed up by A/Prof Mathias Francois. He will be focused on identifying new and innovative therapeutic approaches targeting arterial disease (any abnormal condition relating to arteries, capillaries, veins and lymphatic vessels). Abnormalities in the growth and development of these vessels are associated with cardiovascular illness, cancer metastasis and inflammatory diseases.



Our donors and supporters are behind every breakthrough at Centenary

For the full stories of the articles in this News Update visit www.centenary.org.au. If you are interested in making a donation to a specific area of our research, taking part in or holding a community fundraising event or having a tour of Centenary, please contact us on 1800 677 977 or email us at donations@centenary.org.au

Thank you for your ongoing support!

Find the latest news!

www.centenary.org.au/news

[/centenaryinstitute](https://www.facebook.com/centenaryinstitute)

[/centenaryinst](https://twitter.com/centenaryinst)

[/centenary_institute](https://www.linkedin.com/company/centenary_institute)

Medical innovation recognised in our awards



An Australian scientist who has revealed how specialised immune cells protect against cancer – Dr Simone Park from the Peter Doherty Institute for Infection & Immunity (second right) – is the winner of the *In Memory of Neil Lawrence Prize* at the 2019 Centenary Institute Medical Innovation Awards. She received \$30,000 from proud Centenary sponsor Commonwealth Private to support her ongoing research.

Dr Elinor Hurtle (second left) from the Centenary Institute won the \$15,000 *Bayer Innovation Award* finishing in second place for her discovery that platelets (cells that help the body form clots to stop bleeding) have an active role in the development of tuberculosis. She was also awarded the *Harvard Club of Australia Foundation Travel Prize* worth \$5,000 for the purpose of travelling to the USA to explore opportunities for collaboration.

We were honoured to have our Patron Professor The Hon Dame Marie Bashir (left) attend this event celebrating the scientific excellence of innovative young Australians.

Centenary City2Surf team doing us proud



Centenary Institute scientists and supporters successfully braved the weather, took on 'Heartbreak Hill' and completed this year's 14km *City2Surf* fun run, promoting and raising funds for medical research. First Centenary runner to cross the finish line was Dr Claudio Counoupas (left), tuberculosis researcher, in an impressive time of 61min and 31 seconds. Eight further 'Team Centenary' members completed the world's largest fun run which this year consisted of over 84,000 entrants.



Dr Hui Emma Zhang

For Dr Hui Emma Zhang life is all about learning and experimentation—whether it be investigating potential liver cancer treatments in the laboratory or cooking-up a large family meal in her kitchen at home. Both activities provide her with an immense amount of joy and satisfaction.

Research and cooking share a lot of commonality says Emma. "You need to be creative, you need the right tools and techniques, you need to be methodical, and you need to be able to accept that your experimentation may not necessarily work. Perseverance is absolutely required!" A key focus for Emma is family time and raising her daughter and cooking together is an enjoyable and important part of that experience.

"I love making dumplings with my daughter. We cook together as much as we can. She's only three but already knows how to make the dumpling skin. Cooking not only builds up her skills, but we bond together and everyone in the family gets involved which is just great."

In the workplace, Emma's experimentation is focused on chronic liver disease and more specifically on attempting to find potential treatments for liver cancer. "Liver cancer is fairly common in Australia and is the third leading cause of cancer-related deaths worldwide," she says. "Sadly, there are only two medications currently available and they offer only 3-5 months of improved survival rate. I'm hoping to develop a new way to target liver cancer. This involves exploring new methods to inhibit the activity of a particular enzyme that drives this deadly and debilitating disease."

Learn more about our Humans of Medical Research www.centenary.org.au/meet-us.

Consumer Review Panel

Interested in joining our Consumer Review Panel? It's a great way to help our scientists communicate effectively to non specialist audiences.

Find out more www.centenary.org.au/consumer