

# Keynote address at the 2017 Prime Minister's Prizes for Science

## **PRIME MINISTER:**

Thank you very much Jonica.

And the interesting story about innovation in birds' nests is something to reflect on but I don't think any of us are going to give smoking a tick.

[Laughter]

*Yanggu gulanyin ngalawiri, dhunayi, Ngunawal dhawra. Wanggarraijinyin mariny bulan bugarabang*

We are here gathered together on the lands of the Ngunawal people and we honour their elders, today, in the past and emerging.

It's great to be here to celebrate the outstanding achievements of some of our greatest minds – our scientists and science teachers, researchers and innovators. You are the unsung heroes of our nation. Not entirely unsung but not sung enough.

Few of you have the public profile of our leading sports stars, yet your work has shaped our nation, enriched our lives, saved our lives. Your contribution to Australia and to our nation, is utterly remarkable.

There isn't an Australian alive today who hasn't benefited, directly or indirectly, from your remarkable contributions.

Much of this credit, of course, should go to the science teachers in the room.

[Applause]

And to the science teachers, the many of them that can't be with us here tonight.

In an age when the pace and scale of change is utterly without precedent, all of us need to be constantly curious, always learning – pushing boundaries, questioning assumptions – those are the skills for success in this century whether you are contending for a Nobel Prize or staying ahead in a small business.

This is the age when innovation is an absolute necessity and that characteristic, that is what sets so many scientists and researchers apart from other professions. Inquisitive and questioning – you are trained to push those boundaries, and you do so to build on the great body of human knowledge that has done so much to enhance our lives.

And might I add, your inquisitive and challenging approach has pushed a few politicians out of their comfort zone over the years – and our current Chief Scientist, Alan Finkel, is continuing this great tradition.

[Laughter]

We are honouring and celebrating your remarkable achievements through these, the Prime Minister's Prizes for Science.

And as your Prime Minister it is a great privilege to present these awards. I want to thank you for your passion, your perseverance that I know underlines your work and for the part you make in ensuring Australia is a leading nation in science.

Your work has never been more important to the resilience and progress of Australia than it is today.

Because every test, every experiment, every failure, every breakthrough deepens our understanding of who we are.

Your discoveries go to the very heart of our origins and extend outward to our future possibilities.

Earlier this year, for example, Australian scientists proved that our First Peoples came here at least 65,000 years ago.

Ancient objects unearthed by archaeologists from the University of Queensland, matched with new dating methods developed at the University of Wollongong, tell us that Australia's First Peoples arrived from Africa—almost 20,000 years earlier than previously thought.

This new fact has expansive repercussions for understanding not just Australia, but the development of modern humanity.

It casts new light on just how much the eastern hemisphere has shaped the modern forms of technology and artistic expression we know today.

At the other end of the spectrum, Australian scientists have contributed to the Nobel Prize-winning detection of gravitational waves – ripples in space-time from events like exploding stars or merging black holes, proving, at long last, the existence of a phenomenon predicted by Albert Einstein in 1916.

Now as a lawyer, I'll leave the more detailed explanation to the many experts in the room, but I will pay tribute to Australia's contribution to this extraordinary breakthrough.

And the discovery would not have been possible without the precision optics used in the instrumentation, and the optical coatings developed at CSIRO. And the University of Sydney and the ARC Centre of Excellence for All-sky Astrophysics used CSIRO's Compact Array to confirm the event.

That shows not only the calibre of our scientists and research institutions,

but also the importance of collaboration, of what we can achieve as a nation when our scientific organisations work together.

I recently hosted an afternoon with Lucy at Kirribilli House with the Juvenile Diabetes Research Foundation.

I got the chance to catch up again with Tanna, a young boy who had asked me a few years ago what I could do to make Continuous Glucose Monitoring devices more accessible to kids like him.

I told him I'd see what I could do, and I'm proud to have been able to make good on my promise.

CGM devices are now subsidised for all Australians under 21 years of age.

[Applause]

Life changing. Lifesaving.

Tanna showed me how his new device has changed his life.

He showed me how the app on his phone monitors his blood glucose day and night, and he showed me how his parents can track it in real time with the swipe of a finger.

It's meant being free to go to sleepovers with his friends and more importantly, less risk of hypos and fewer trips to emergency.

Getting treatments and technologies from the development phase into the hands of patients requires an enormous investment of expertise, a huge engagement with risk, and a very long time.

But seeing that investment finally pay off – what an unbelievable feeling that must be.

Australian researchers are used to it.

Professor David Craik's discovery that synthetic derivatives from scorpion venom can be used to show up brain tumours more clearly.

Professor Scott O'Neill's work understanding how the Wolbachia bacteria can stem the spread of viruses like dengue and Zika.

Professor Barry Marshall's recent breakthrough in understanding how bacteria survives in the human stomach.

Professor Elizabeth Blackburn's Nobel Prize-winning discovery of the DNA of telomeres.

Professor Fiona Wood with spray-on skin.

Professor Graeme Clark with the cochlear implant.

Last week I announced the roll-out of the new and improved Gardasil vaccine –

Gardasil 9. The new vaccine protects against a further five strains of the Human Papillomavirus and will provide young Australian men and women with increased protection against a range of cancers.

As we all know, the vaccine came about because of the work of Professor Ian Frazer and his colleagues at the University of Queensland. And of course Professor Frazer was the recipient of the Prime Minister's Prize for Science in 2008.

Now, every scientist in the room tonight understands the importance of big dreams and broad imagination.

Whether it's seeing a lightbulb moment spread across a student's face. Whether it's developing next-generation medical technologies and bringing them to market. Whether it's understanding how our genes are mapped, and how they inform who we are – tonight's prizewinners know it too.

And so, to each of our prize winners, all of those highly commended, the nominees, and everyone here, thank you for your commitment to our scientific endeavor, and your contribution to building the skills and the knowledge that secure our nation's future.

Congratulations. Thank you for your remarkable endeavours and your service to our nation.

**[ENDS]**