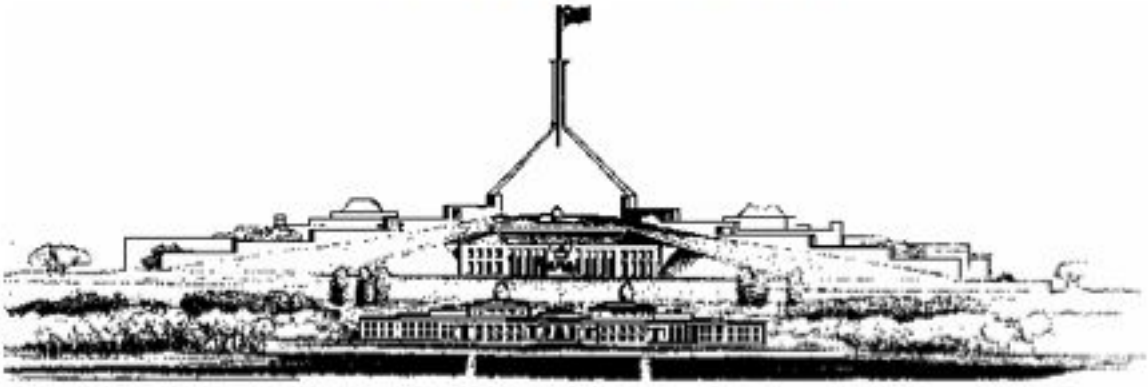
COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY DEBATES



# HOUSE OF REPRESENTATIVES

# BILLS

# Australian Research Council Amendment Bill 2013

# Second Reading

# SPEECH

**Thursday, 14 November 2013**

BY AUTHORITY OF THE HOUSE OF REPRESENTATIVES

# SPEECH

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| **Speaker** | Pyne, Christopher, MP | **Question No.** | |

**Mr PYNE** (Sturt—Minister for Education and Leader of the House) (09:58): I move:

That this bill be now read a second time.

**Australian Research Council**

This bill to amend the Australian Research Council Act 2001 is an essential item of housekeeping to ensure that the ARC can continue to support and serve Australia's vibrant research community. The ARC is fundamental to the support of both blue sky and applied research, and its peer reviewed competitive funding schemes are the lifeblood of many of the most significant research endeavours in the country.

This appropriation bill increases the ARC's funding caps in line with inflation and ensures that government support for thousands of research projects does not weaken. If we are to address the great challenges of our time, to improve the quality of people's lives, to support the development of new industries and to remain competitive in the global knowledge economy, then we need a strong research community and this bill is underwriting that strength.

The ARC is the most significant single source of funding for new, breakthrough, investigator driven research that covers all disciplines in Australia. This funding has underpinned the life work of so many of our greatest researchers that it is hard to know where to begin, but I will give a few examples, just to give a taste of the variety of the research that this funding supports.

Professor Rick Shine, at the University of Sydney, is one of Australia's number one experts on cane toads. As we all know, the cane toad was brought in to solve a problem, beetles in sugarcane, and the solution turned out to be far worse than the original problem. It is an example of good science fighting the mistakes of the past—and of how scientists are using new research to find practical solutions to a serious invasive pest. Professor Shine and his research team, supported by an ARC Laureate Fellowship of over $2 million, are a fundamental part of Australia's effort to combat this poisonous exotic species. Professor Shine has said that his research career would not have been possible without the Australian Research Council. Perhaps his efforts will help rid Australia of the cane toad forever.

The ARC's Future Fellowships scheme is coveted by researchers throughout Australia as it provides the funding boost that can change the course of a career, and enable them to make a crucial contribution to solving major problems. Targeted at a critical time—the mid-career—a Future Fellowship frees a researcher to focus on a topic of great interest and importance. The ARC's value here is in its flexibility—for the ARC works in all disciplines. Take for example the Future Fellow Professor Martina Stenzel. Although her background is in chemistry, she has taken her breakthrough work in nanoparticles into the hospital, to help cancer patients. Her unique platinum project, to develop nano-sized drug delivery containers for the targeted delivery of platinum containing anti-cancer agents, bridges a gap between chemistry and medicine in a way that perhaps only an ARC fellowship can effectively support.

Of the five recent recipients of the 2013 Prime Minister's prizes for science, a function at which I was present, three have had significant ARC funding during their career. Statistician Professor Terry Speed—who received the overall Prime Minister's Prize for Science for his outstanding achievements in applying statistical techniques to genetics—previously received funding as a Partner Investigator with the ARC Centre of Excellence for Kangaroo Genomics, a centre which was funded with over $5 million beginning in 2003. ARC Centres of Excellence are powerhouses of Australian research, and their value as proving grounds for the great researchers of tomorrow cannot be underestimated.

Also announced as part of the Prime Minister's prizes, the winner of the Malcolm McIntosh Prize for Physical Scientist of the Year, Associate Professor Andrea Morello, is housed at the ARC funded Centre of Excellence

for Quantum Computation and Communication Technology, which is receiving over $24 million from 2011 to 2017. This centre is making major inroads into making quantum computing a reality, which, it is expected, will radically transform the security and capability of computing around the world. There are very few people in the world like Professor Morello who can actually explain how quantum computing works let alone excel in it. We can be proud to have an ARC funded centre here in Australia which is making very significant breakthroughs in quantum computing technology and which is getting frequent accolades on the world stage. There is said to be potential here for a breakthrough just as great as the breakthroughs we have witnessed in conventional computing.

It is significant that both Associate Professor Andrea Morello and Professor Terry Speed have been associated with ARC Centres of Excellence, and it speaks volumes for the role that these centres so often play in the research careers of our best and brightest, both at the formative stages and at the pinnacle of their career.

Associate Professor Angela Moles from the University of New South Wales' Evolution and Ecology Research Centre was recipient of the Frank Fenner Prize for Life Scientist of the Year and has spoken of the inestimable role of ARC funding in kick-starting her breakthrough research in ecology. Associate Professor Moles visited 75 different ecosystems around the world as a part of the World Herbivory Project, collecting and interpreting ecological data. She has received funding from two ARC Discovery Projects grants, ARC Linkage Infrastructure, Equipment and Facilities funding, an Australian Postdoctoral Fellowship in 2004 and a 2009 Queen Elizabeth II Fellowship. Her work has challenged conventional wisdom in global ecology, transforming our understanding of where to look for natural plant compounds of medicinal value.

These are just some examples of how ARC funded research has played and continues to play an important role in improving the lives of Australians. There are thousands of stories like these to tell.

But the ARC is not only the most significant source of funding for innovative, investigator driven research in Australia. It is also a significant source of knowledge about the research community, including through running the Excellence in Research for Australia—or ERA—assessment of research.

The challenges of a changing research sector are also being tackled by the ARC through its new open access policies, closely watched by the research sector. These policies seek to ensure that publicly funded research is made publicly available, as part of a new worldwide drive towards openness, and an unlocking of the doors of traditional research storehouses. The ARC's consultation on measuring research impact, and its ongoing role in attracting international researchers to our shores are other examples of how significant it is to the health of Australian research and our universities.

It is clear that ongoing funding for the ARC is essential to the vitality of the Australian higher education system.

The peer review system managed by the ARC is an important driving force in keeping our research sector innovative. Peer review is a cornerstone of the process of scientific advancement, and is fundamental wherever research is free to be practised throughout the world. The ARC uses peer review to establish research merit across the spectrum of disciplines. Peer review by experts, experts drawn from all over the nation and abroad, is at the heart of both the ARC's Excellence in Research for Australia program, and the awarding of the ARC's grants and fellowships. Every proposal, every research output, is judged by experts in the field on its merit.

I will briefly mention two other ways in which the ARC is helping to diversify the research workforce. The ARC plays an important role in attracting and supporting Indigenous Australians to engage in research, through its Discovery Indigenous scheme. This is of great importance to untapping the research potential of Indigenous Australians, and to enriching our national research effort.

Women in research are also supported by the ARC, and will benefit from this amendment bill, which supports among other things two Australian Laureate Fellowships specifically for women: the Kathleen Fitzpatrick Australian Laureate Fellowship for a female candidate from the humanities, arts and social sciences disciplines, and the Georgina Sweet Australian Laureate Fellowship for a female candidate from the science and technology disciplines. Named after great Australian women who were research pioneers, these fellowships have an ambassadorial role, and will support the role models for our next generation of female researchers. The ARC also seeks to ease the transition for women returning to research following career breaks. The ARC's Research Opportunity and Performance Evidence (ROPE) measures enable assessors to take into account any career interruptions, including those for childbirth and caring responsibilities.

Through these initiatives and through the whole National Competitive Grants Program, the ARC is helping to reduce research career barriers and ensure the nation reaps the benefit of all of its research talent.

The government's strong support for research and specifically for the Australian Research Council was reflected on 8 November when I announced $522 million in ARC grants and fellowships, supporting 1,177 research projects on diverse topics throughout Australia arising from the competitive peer review processes of the ARC.

Supporting the ARC through this amendment bill is fundamental to the continued health of our research sector. It is good to reflect on the role that the ARC plays in nurturing and sustaining the research community, working to solve great challenges which face us, and strengthening the world standing of our higher education sector.

I commend this Bill to the House.

Debate adjourned.