

# Strategic Review of Health and Medical Research

## Submission summary:

The Health and Medical Research Sector is the engine room for innovation and discovery to improve patient outcomes and healthcare provision. Health and Medical Research can provide real cost-savings through the design of better drugs and clinical interventions for the diagnosis and treatment of disease and injury. The Health and Medical Research sector is also vital for **attracting scientific talent from around the world**, in order for **life-saving discoveries in medicine and healthcare management to be made in Australia**.

In funding medical research, provisions should be made to reflect the operational conditions required for research to be conducted optimally. Australia should increase funding in the medical research sector to enhance research, as well as attracting the top international researchers through increased project support and people support, particularly in Mental Health as a priority area.

To optimise research translation, schemes should be promoted to facilitate natural interactions between researchers, healthcare providers and hospitals. Cross-disciplinary collaboration from these elements of the Medical Research Sector will also promote dialogue so as to continually refine National Priorities for the sector.

***Of all our country's natural resources, the people of this country are by far the most valuable, sustainable and potentially inexhaustible. A serious commitment towards funding the Health and Medical Research Sector would ensure that life-saving medical discoveries will be made in this lucky country.***

## 1. Why is it in Australia's interest to have a viable, internationally competitive health and medical research sector?

One important benefit for Australia to have a viable, internationally competitive health and medical research sector is to attract scientific talent (both foreign and overseas-trained Australians) to Australia, as well as to attract investment in Australia.

As an early-mid career medical researcher, I have been fortunate to have been the beneficiary of competitive research funding through the National Health and Medical Research Council of Australia, and have trained overseas with the top scientists in my research field. As my overseas tenure drew to a close in late 2008, I was faced with the challenge of starting my research laboratory overseas or back in Australia. In the final decision, I had chosen to return to Australia, my country, because I found that medical research in Australia was both viable and internationally competitive. This was also an important opportunity for me to **give something back** to Australia as a medical researcher in the field of neuroscience and mental health, and to be able to mentor the next generation of scientists, and to pass on the benefits of the training I had received while overseas.

Australia has produced many talented medical research scientists, and this country boasts Nobel Laureates in the 20<sup>th</sup> century in the modern era of medical research:

Sir Howard Florey (Nobel Prize for Physiology or Medicine , 1945)

Professor Peter Doherty (Nobel Prize for Physiology or Medicine, 1995)

Professor Elizabeth Blackburn (Nobel Prize for Physiology or Medicine, 2009)

Professors Barry Marshall and Robin Warren (Nobel Prize for Physiology or Medicine, 2005)

These outstanding Australian Scientists provide good evidence for the medical research talent cultivated in Australia, and which can make an impact on world health and medicine. However, ***it is equally important to attract talented scientists of such calibre to provide the means for them to make their discoveries here in Australia.***

In my home city of Melbourne, medical research is internationally recognised in the fields of cancer research, immunology and developmental biology. One measure of the International competitiveness of Melbourne as a medical research centre can be observed through the attraction of outstanding international scientists at all levels. For example, Professor Nadia Rosenthal, an internationally recognised scientist specialising in cardiac regeneration research, was recruited to establish the Australian Regenerative Medicine Institute (ARMI), with support of the Brumby Government in 2007.

Within my immediate research community, I work alongside Research Group Leaders recently recruited from Europe, the United States and Southeast Asia. Medical Research in Australia is an international enterprise, both through collaborations formed between individual research laboratories, as well as through collaborative research links such as affiliation with the European research community through its registration with the European Molecular Biology Laboratories (EMBL). These links translate not only increase our visibility as Medical Research Scientists on an international scale, but also serve to draw scientific talent to Australia. One recent example is the recruitment of EMBL Australia Group Leaders, Drs Nicolas Plachta and Edwina McGlenn to set-up their labs within the ARMI in Melbourne, Australia. Dr Plachta is an outstanding expatriate researcher, while Dr McGlenn is home-grown, an Australian research scientist that has trained with the best and brightest in her field. These opportunities both for International scientists, as well as overseas-trained Australians are critical for halting the “brain-drain”. By nurturing young, emerging research talent, many more Nobel prize-winning discoveries could be made in Australia in times to come.

Through the Government’s commitment and future support of the Medical Research Sector, this country fosters an environment for innovation and discoveries which can lead to the development of novel medicines which improve clinical diagnosis, disease treatment, and patient care. This, in turn, can lead to cost-savings in healthcare provision and patient management.

## **2. How might health and medical research be best managed and funded in Australia?**

Above all, Health and Medical Research management and funding must involve the participation of scientists on the ground. A good understanding of the pulse of medical research in Australia can come from experienced scientific advisors to the Government with regards to research competitiveness, funding priorities and mentoring.

### **3. What are the health and medical research strategic directions and priorities and how might we meet them?**

With increasing age of the Australian population, Mental Health is an important research direction that should take priority. As an example, Intellectual disability affects around one per cent of the population of Australia. People who suffer intellectual disability experience cognitive deficits, and may have difficulty with skills and tasks required for everyday living.

In addition to an increase to the current commitment to cardiovascular disease, cancer, SIDS, asthma and muscular dystrophy (MD), priority for funding mental health research could significantly reduce the costs to mental healthcare.

### **4. How can we optimise translation of health and medical research into better health and wellbeing?**

A scheme could be devised to facilitate natural interactions between researchers, healthcare providers and hospitals. This could take the form of a National Directory of researchers, clinicians and healthcare professionals from which to draw their expertise, offer advice on research and research translation, foster collaborations and expand research directions. Cross-disciplinary collaboration from these elements which constitute the medical research sector will also promote continual dialogue to refine National Priorities for the Medical Research Sector.