

Australian health and medical research: are we there yet?

We need to increase our investment to maintain and improve our position in the global knowledge economy

Of all human endeavours, health and medical research arguably offers the greatest potential to improve human life. Research discoveries have extended and enhanced our lives, reduced the burden of many diseases in our society, and are changing the shape of health care. In an era of unparalleled promise offered by genomics, bioinformatics, stem-cell technology, biomedical devices, and therapeutic vaccines, the very nature of clinical practice could shift profoundly over the coming decades. There is, however, another very positive outcome of health and medical research — with the right support from government and industry, it could hold the key to Australia's future prosperity in a global knowledge economy.

The reality of this assertion is exemplified by the vibrant biotechnology and pharmaceutical industries so evident in the United States today. This powerhouse status is the outcome of political strategies put into place 25 years ago. The success of these strategies is reflected in a tenfold increase in the number of patents, royalty and licensing fees (amounting to one billion dollars US per year), strong links between academia and industry, and a fourfold increase in corporate research funding.¹

Many overseas governments are now emulating this success by promoting the link between a country's ability to foster and grow knowledge-based industries and its future economic prosperity. Developed countries, such as the US, Japan, Canada and the UK, are also implementing significantly resourced strategies to encourage citizens to become literate in science and technology, cultivate and attract the brightest minds, build infrastructure and capacity in basic sciences and research, develop commercial competence and grow new businesses.

In April this year, the European Commission announced it would double its research budget to €70 billion over 7 years to bolster growth and competitiveness, catch up with American and Japanese spending on innovation, and transform the European Union (EU) into a knowledge-based economy.² This spending is in addition to funds committed by the individual EU member states to support research within their own borders. The UK Medical Research Council (MRC), a taxpayer-funded organisation that supports and promotes biomedical research, lists among its goals "contributing to the wealth of the nation". In the most recent financial year, the MRC spent nearly £450 million on research and earned about £15 million in licensing revenue.

In Australia, the recommendations of the government's 1999 Health and Medical Research Strategic Review (the "Wills Report") were based on data showing that Australia had fallen behind other developed countries in its relative funding of health and medical research. The report found that additional investment would reap significant returns over the long term by improving the health of the Australian population, building the economy, and creating valuable jobs.³ Following its acceptance of the report, the government made an historic decision to increase National Health and Medical Research Council (NHMRC) funding over a 5-year period by injecting an additional \$614 million, effectively doubling the annual NHMRC budget to about \$412 million by 2005.⁴

State governments have focused on capturing the commercial potential of research outcomes and creating new business and industry. Initiatives like Queensland's Smart State, BioMelbourne, BioInnovation SA and BioFirst NSW reflect the recognised importance and economic realities of catching the biotech wave.

In December 2004, the Australian government released the report of the Investment Review of Health and Medical Research (the "Grant Report") conducted by a committee of eminent experts from the commercial and research arenas.⁵ The government initiated this review to determine the impact of the additional investment made in response to the Wills Report and to revisit the Wills Report's vision and assess if any changes of emphasis would be beneficial.

Although it was carried out only 4 years after the government's decision to accelerate the medical research investment cycle, the Grant Report's independent assessment of the outcomes and returns generated by health and medical research showed that there had already been some successes, and that further commercial and health care benefits are likely in the near and long term. Two key success indicators are Australia's comparatively high research productivity and quality, and the formation of 350 new businesses in the biomedical field from 1992 to 2003.

Besides recommending continued strong growth in government funding to remain internationally competitive, the Grant Report also suggested that innovative new policies and incentives were needed to encourage greater private industry investment in research, targeting an increase in annual spending in Australia by multinational pharmaceutical and biotech companies from the current about \$420 million⁶ to \$1 billion.

The Grant Report, completed in May 2004, was not released until December, and it has since slipped off the radar at this crucial time. If the Australian Government takes no further action, we could see Australia quickly drop away from the front-runners in biomedical research and innovation. Even flatline funding would be a reduction in real terms, and would see us fall further behind other countries as their investment and policy environments focus on optimising their leadership position.

The Australian community supports increased health and medical research efforts. Research Australia's annual health and medical research public opinion polls in 2003 and 2004 showed that most Australians wanted to see increased government and industry investment, and are prepared to contribute to that investment themselves.⁷ In fact, 47% of Australians said they would rather see surplus government funds invested in health and medical research than in tax cuts.⁸

Securing a strong, enduring, sustainable economic future for Australia requires a long-term view for building on the valuable investment to date. This will be achieved only by continued focus and leadership by national, state and territory governments in partnership with researchers, industry, and the community. Government commitment to the recommendations of the Grant Report would be a good first step towards showing this leadership.

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Competing interests: Michael Vitale was a member of the Review Committee for The Grant Report.

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- 2 Laitner S. Brussels hopes extra research money will aid innovation. *Financial Times Asia* 2005; 4 April: 5.
- 3 The virtuous cycle: working together for health and medical research. Health and Medical Research Strategic Review, May 1999 ("The Wills Report"). Available at: <http://www.nhmrc.gov.au/wills/contents.htm> (accessed May 2005).
- 4 Health and Ageing Portfolio Budget Statements 2005–06. Budget Related Paper no. 1.11. Canberra: Commonwealth of Australia, 2005.
- 5 Sustaining the virtuous cycle for a healthy, competitive Australia. Investment Review of Health and Medical Research. Final Report. December 2004 ("The Grant Report"). Canberra: Commonwealth of Australia, 2004.
- 6 Exceptional returns — the value of investing in health R&D in Australia. Canberra: Access Economics, September 2003.
- 7 Research Australia Health and Medical Research Public Opinion Poll 2003. Available at: <http://researchaustralia.republicast.com/PublicOpinionPoll2003/republicast.asp> (accessed May 2005).
- 8 Research Australia Health and Medical Research Public Opinion Poll 2004. Available at: <http://researchaustralia.republicast.com/PublicOpinionPoll2004/republicast.asp> (accessed May 2005). □