

National Association of Research Fellows Submission to McKeon Review, 30 March 2012

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

Australian investment in the health and medical research sector relative to GDP is quite low when compared to similar countries (Europe/ North America) and yet ERA showed that Australia is performing well above the world average in health research. The return on each dollar invested in health and medical research has consistently been greater than 2:1¹.

This investment is essential to sustain an efficient, equitable, evidence-based health care system for Australians. Local (national) expertise is essential for evaluation of the quality of overseas research and health care practices in relationship to the needs of Australians, some of which are global concerns and others specific to our population. Our relatively strong economic position has the potential to improve our competitive edge in this sector and in related biotechnology industries, however this situation also highlights our global responsibility to contribute to the basic research and harness opportunities for diagnostic and therapeutic advances which will alleviate medical burdens faced by our poorer neighbours. Support for this sector is important for job creation and skill retention in areas where the general public benefits from/relies upon the dedication of a highly-skilled workforce. Investment in this sector enriches our economy, elevates our international profile, and feeds our education sector. Health and medical research is needed to support Australia's highly respected cohort of universities and research institutions and to train medical practitioners, research scientists and other professions essential for delivery of high calibre health care.

Growth in this sector to capitalize on our already strong credentials creates an opportunity for Australia to generate new wealth that will enable us to become the leading nation in terms of health and medical research in our region.

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

The current scheme for funding HMR is not efficient in terms of peer review, does not provide a credible career path for most individuals and it does not consistently support the long-term strategic research that drive significant discoveries and health care advances.

The Biotechnology industry should be enlarged and at the same time more effectively involved in supporting the health and medical research sector through the provision of tax incentives for investment in research and clinical trials and in research training and fellowship support. Many European nations have successfully integrated Biotechnology and HMR sectors. The Australian Government should continue to facilitate participation by Australian scientists and our HMR sector in multi-national clinical trials through direct funding opportunities as well as providing tax incentives.

Administrative and reviewing burdens imposed on applicants have escalated with no improvements in process outcomes. Applications to Australian government funding schemes could be streamlined by using a single software program to collect CV and funding data. In addition, submission processes for ethical review are unnecessarily complex and could be greatly streamlined. The Office of the Gene Technology Regulator serves as an excellent example of efficient, responsive federally-governed compliance management organisation in which the application, recording and reporting procedures have been established and improved through iterative consultation with stakeholders.

Government funding of full-time research positions through the NHMRC is inadequate. The established system of Personal Support Positions typically covers <80% of true salary costs, with result that research projects are either under-serviced or funding gaps have to be borne locally. In this traditionally lean sector, the latter is unsustainable. We advocate full funding of research projects to a level that reflects the true local salary cost and reflects cost of living increases, as a means to increase the potential to reach those important research outcomes. Similarly, while NHMRC Fellowships are awarded through a very competitive process to individuals deemed to be contributing to the HMR sector at the highest international level, Fellows generally spend up to 20% of their time applying for grants to support their research. This is a waste of time and resources. We advocate coupling 5 year Fellowships with research support commensurate with the Fellows' level of seniority. The lack of tenure associated with these positions is a disincentive for many, including individuals with current or anticipated family/carer responsibilities. Disenfranchisement of women and of younger researchers facing these issues restricts the talent pool which is accessed by the HMC sector, and development of support schemes which directly address this are needed. The less-senior Fellowships which are of a duration shorter than 5 years hamper the capacity of those with outstanding potential to build solid collaborations and develop innovations into outcomes. We recommend expanding the duration of these Fellowships to 5 years. Project grant support is also traditionally viewed as being on a 3 year cycle, and we advocate increasing the proportion of 5 year grants to a level of 80% of the investigator-driven projects.

Peer review by the NHMRC needs to be examined as a separate matter, as it is widely regarded as inequitable between disciplines and places an excessive burden on the research and academic community. Maintenance of a suitable balance between funding for basic and translational research is essential to the integrity of the sector; how this is sustained across disciplines and is used to enhance strategic outcomes should be considered within each discipline, and not imposed as a one-size-fits-all directive. A fundamental issue for how peer review selects outcomes is that the NHMRC grant application and funding processes are not always sympathetic to the time or pathways required for investigators to develop the applications of their science (e.g. not giving sufficient weight to products/services/processes developed in applicants' track records, or weighting publications too highly to the detriment of other achievements).

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

The HMR strategic priorities should address major public health issues and causes of hospitalisation and morbidity. However it is imperative to have investigator-driven research funded by a credible peer-review system to sustain our ability to deliver this. Local research expertise is essential to keep our strategic “eyes” above the horizon, to identify, capture and develop those new avenues for diagnostics, therapeutic intervention or biotechnology developments which will enhance health and welfare of our community. Some of the opportunities come slowly and over a long period of time. Establishment and funding of Australian Health and Medical Research Centres would provide an opportunity for an ongoing dialogue between researchers and clinicians that is linked with research training.

We need focussed training opportunities for emerging areas of HMR (e.g. biostatistics, bioinformatics) which can be delivered through ongoing postgraduate training programs in these areas and through purposeful establishment of expert programs in our Universities. Some of this is already happening, but it has been slow. Strategic planning for our postgraduate education sector at a national level is needed.

Investment in technological developments is essential, and partnerships with industry will continue to fuel some technological developments, as will international partnerships. These should be linked with training opportunities for researchers and research trainees, including those in the Biotechnology industry.

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

Strategies do exist and can be strengthened to improve the cycle from basic research to health outcomes and then back again. Support for clinician/researchers, such as the Practitioner Fellowships Scheme is essential, as are public awareness and education campaigns on specific issues. Offering more than one round per year of grant submissions would make the HMR sector more dynamic and responsive. Recently this has been accomplished by the NHMRC with calls for applications to address particular health care issues (i.e. the H1N1 flu). This provided an avenue by which our existing research strengths were mobilized to make a rapid response to emerging health care needs.

Calls for applications to address specific needs this will only work if we have a strong, internationally competitive research and research training base from which to recruit. Funding to encourage medical students to engage in research, such as funding for MD-PhD programs, would address the long-term need to have a highly skilled workforce that can drive translation. Programs which expose undergraduate and postgraduate students to medical needs and biotechnology opportunities exist in many institutions and

are supported by national organisations such as the Australian Society for Medical Research. In the absence of coordinated national funding, the limited resources within the HMR sector will have a limited, albeit important, impact; additional funding in this arena should be considered, perhaps on a project-by-project basis. A national repository of data, linking scientists, health care professionals and members of the biotechnology sector could also be established as an extension of the database that is an established part of the existing peer-review grant submission process.

Reference

¹(Access Economics (2008) Exceptional Returns. The Value of Investing in Health R&D in Australia II.)

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