

Australian Medical Research and Innovation Five-Year Strategy

Title: Baker IDI submission on Australian Medical Research & Innovation Strategy

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Baker IDI fully supports the recommendations of the Strategic Review of Australian Health and Medical Research (the McKeon Review), and considers the MRFF to be a key contributor to the fulfilment of its recommendations. In this submission, we highlight five high level areas of critical importance for the Australian Medical Research and Innovation Strategy in respect of the implementation of the MRFF.

1. Full, transparent funding to underpin an effective, efficient & sustainable medical research sector

(a) Gap/issue

Currently, Commonwealth Government grants for medical research do not cover the indirect costs of research (estimated in Wills (1999), McKeon (2012) and similar reviews in US & Canada at 60¢ per dollar of grant income), which are partially funded at different rates for universities and MRIs through a range of schemes, and not at all by the Commonwealth Government for hospitals. Insufficient funding for the indirect costs of research compromises the sustainability and efficiency of the medical research sector, as institutions cross-subsidise indirect costs with a patchwork of funding meant for other activities, while different rates of funding make MRIs and hospitals less competitive for the best researchers, and discourage hospital-based research. If MRFF grants do not fund indirect research costs, the additional \$1 billion in annual funding from the MRFF will leave a \$600 million indirect cost bill that universities, MRIs, hospitals, the Department of Education & Training, and the Department of Health simply cannot meet. Put simply, success in securing MRFF funding will render the successful organisations unsustainable.

(b) Strategy building blocks

Aims: Reconsidering infrastructure support to better meet research needs; leveraging and enhancing collaboration and integration to standardise level of contribution towards those indirect costs from all State and Territory Governments.

Mandatory considerations: For Ensure financial assistance provides the greatest value for all Australians; ensuring that disbursements complement and enhance other assistance provided to the sector.

(c) Solution

We recommend that all MRFF grants should attract 60¢ per dollar in indirect cost support to institutions in which the work is performed, regardless of institute type – hospital, MRI, university or other. Corresponding modifications would need to be made to Research Block Grant (RBG) calculations for universities, to avoid double counting of MRFF grants in the allocation of funding for the indirect costs of research.

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(d) Measures of success

Every aspect of the medical research ecosystem and outcomes would be improved by full and equitable funding for indirect costs: e.g. research efficiency; commercialisation/non-commercial translation outcomes; quality of research facilities; level of collaboration; researcher job security; and level of competitive grants awarded to hospital-based researchers.

2. Leverage of more non-government revenue into the national health & medical research strategy

(a) Gap/issue

It would clearly be beneficial for the MRFF to disburse funds in a way that makes it more attractive for philanthropic supporters of health and medical research, as well as commercial partners and international granting bodies, to contribute funding to the national research effort. Whilst the NHMRC Partnership program is successful in this respect, MRFF grants should be designed to leverage further such non-Government funding into the sector from other sources. This might serve as an economically prudent model for the Medical Research Endowment Account moving forward.

(b) Strategy building blocks

Aims: Leveraging and enhancing collaboration and integration; economic benefits; sustainable, high-quality, cost-effective health care.

Mandatory considerations: Ensure financial assistance provides the greatest value for all Australians; ensuring that disbursements complement and enhance other assistance provided to the sector.

(c) Solution

We recommend explicit incentives for co-investment in health and medical research be incorporated into the funding rules for the MRFF. This would involve consultation with major donors, foundations, commercial sponsors and international granting bodies with a profile in Australian research to identify the level and type of support that would make it more likely that they would co-invest. A series of specifically developed 'leverage programs' should then be developed, tested and re-developed once success rates in attracting co-investment have been evaluated.

(d) Measures of success

An identifiable increase in the leverage of new sources of philanthropic, commercial and international grant revenues into new areas of health and medical research interest.

3. Funding for proof of concept research

(a) Gap/ Issue

NHMRC funding does not support the early development of intellectual property which has commercialisation potential, and patent costs are not accepted as legitimate expense items for NHMRC funded research. This tends to drive NHMRC research funded outputs away from commercially sponsored translation and effectively reduces the pipeline of investible IP for review by Venture Capital funds.

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(b) Strategy building blocks

Aims: A translation pathway that maximises opportunities for success; sustainable, high-quality, cost-effective health care, economic benefits.

Mandatory considerations: Delivering practical benefits from medical research and medical innovation to as many people as possible; ensuring disbursements complement and enhance other assistance provided to the sector.

(c) The solution

We recommend the MRFF should initiate a program of early grants for ‘blue sky’ proof-of-concept research, chosen via a commercially informed peer review mechanism on the basis of their translational potential in partnership with commercial sponsors rather than the scientific and publication track record of the investigators. A good start would be for the MRFF to call for examples of research projects with high translational potential that have not been funded through NHMRC mechanisms, with a view to understanding and better defining the gap, and as a basis for the design of the MRFF proof-of-concept program. A further important step would be identification of potential co-investors in such research.

(d) Measures of success

These include, but are not limited to, the following:

- Commercial / seed or venture fund investment.
- Development of a culture of innovation in clinical settings such as hospitals, and flow-on into future success with grant and philanthropic funding.

4. A national strategy for research relevant to the major national health priorities

(a) Gap/issue

Individual pockets of excellent research are supported through NHMRC programs but no coherent national framework around areas of specific need exist — allocation of research output to national health priority areas is *post hoc*. As a result there is a mismatch between national research output and capacity and areas of high priority clinical need in the Australian community.

(b) Strategy building blocks

Aims: a review of national health priorities which identifies where the burden of disease is not matched by commensurate levels of research activity; a review of national capacity for research in areas of highest national priority; establishment of co-ordinated programs of research planning in areas of greatest disease burden.

Mandatory considerations: national health priorities; AIHW statistics on national disease burden; research capacity and research training in priority areas.

(c) Solution

The Canadian Institutes of Health Research (CIHR) offers a model which provides a relatively small amount of funding to an acknowledged leader in each of a selected number of priority areas, who are given the task of drawing together the strands of research relevant to those priorities into a coherent

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national effort. The positive impact of this is the encouragement of collaboration, and avoidance of duplication and redundancy.

(d) Measures of success

The primary success factor for this initiative would be the development of a coherent national plan for research in each identified national health priority area. It should also identify areas of major mismatch between Australian disease burden and research capacity which in turn should inform research training strategy.

5. Balanced investment in priority-driven and investigator-driven research

(a) Gap/issue

The majority of Government funding for medical research is investigator-driven, aligning with Australia's research strengths. There is increasing recognition of the need for more funding towards priority-driven research that targets specific knowledge/innovation gaps in areas of health need. The aim of this funding should be to fund research that is aligned with national health priorities, and to support the development of capacity in those areas.

(b) Strategy building blocks

Aims: Sustainable, high-quality, cost-effective health care; preventions and cures of tomorrow.

Mandatory considerations: Burden of disease on the Australian community; research capacity in selected areas; financial assistance provides the greatest value for all Australians.

(c) Solution

We recommend that the MRFF includes a scheme that funds priority-driven research, taking a 'top down' approach based around a number of key diseases or population groups, and bringing together expert groups in these areas to identify tightly-defined priority research areas, targeting specific knowledge/innovation gaps that are hindering progress in the health area. Funding could be provided through a request for application (RFA) processes, similar to the US National Institutes of Health RFA scheme. There is also potential for this scheme to leverage external funds, including from philanthropy and disease-related trusts and foundations. A model such as the Canadian Institutes of Health Research should also be considered. This model provides a relatively small amount of funding to an acknowledged leader in each of the selected priority areas, who are tasked with drawing together strands of research relevant to those areas in a coherent national effort.

(d) Measures of success:

- More impactful research (various metrics) through targeted investment and greater consultation and collaboration between consumers, clinicians, researchers, government and other stakeholders.
- Coherent national plan for research in identified national health priority areas.
- Increased leveraging of funding from stakeholders, industry and philanthropy.
- Avoids duplication and redundancy across key disease and population groups.

6. Long term support for excellent, established groups

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(a) Gap/issue

It has long been understood that a considerable amount of time is wasted by potentially very productive, established groups in applying for multiple small, short term grants. The negative impact on the productivity of established groups of this is well established.

(b) Strategy building blocks

Identification of the national priority areas in which such groups are to be appointed; selection of such groups through a transparent, national and peer reviewed process; unobtrusive but reliable indicators of ongoing success during the period of funding.

(c) The solution

In areas of national priority in which established groups can be identified that have the potential to undertake very high impact research, a small number of national 'flagship' groups should be appointed with 5–7 year funding which enables them to reduce their exposure to the rounds of Fellowship / Project / Program funding.

(d) Measures of success

High impact research output in areas of national priority.