

Response ID ANON-823Y-XGZQ-Z

Submitted to **Medical Research Future Fund consultation to inform the second Australian Medical Research and Innovation Priorities 2018-2020**
Submitted on **2018-08-31 16:28:46**

Introduction

1 What is your name?

Name:

Professor Duncan Ivison

2 Are you affiliated with an organisation?

Yes

3 What kind of organisation do you work for?

University

4 Are you representing your organisation in making this submission?

Yes

5 What state or territory do you live in?

New South Wales

6 Which 2016–2018 MRFF Priorities do you think need further focus? (please select a maximum of three Priorities)

Disruptive technologies, Communicable disease control, Public good demonstration trials

7 How can the 2016–2018 MRFF Priorities you identified in Question 6 be extended or re-emphasised in the 2018–2020 MRFF Priorities?

How can the most important Priority identified in Question 6 be extended or re-emphasised? (max 500 words):

Disruptive technologies

The Genomics Health Futures Mission within the Disruptive Technologies priority should be expanded to include all 'omics' and fund data analytics research. While this work has immediate application for many diseases including cancer and infectious diseases, the mission should be re-framed as a Precision Medicine Health Futures Mission, which will have relevance to metabolic disease, wearable technology, medication safety and health economics. This funding should be dispersed via a competitive national collaborative scheme rather than a series of individual grant schemes to avoid silos. In addition, the funding level should be increased.

It is imperative that this Mission includes funding for health ethics research, to produce a National Precision Medicine Code (e.g. to address topics such as universal consent for the use of de-identified data).

There is significant opportunity for increased capacity across the health care continuum and research pipeline in the delivery of genomic-based health care. The combination of genomics, novel stem cell and genetic therapeutic approaches has the capacity to address areas of unmet clinical need in many illnesses that are currently incurable, with significant societal impact.

There are opportunities for increased capacity in the following areas:

1. Genomic diagnostic capacity for patients with genetic diseases, through translation of genomic and functional genomic methods for genetic variant identification.
2. Functional genomics capacity for increasing our understanding of human disorders and genetic variants, other model systems, and gene-editing approaches for functional validation of variants and for fundamental studies towards novel drug and other therapies.
3. Enhancement of gene therapy and other therapeutic approaches for treatment of genetic diseases.
4. Maximisation of delivery of treatments using novel technologies for therapeutic delivery.
5. Enhancement of registries and phenotypic data collation and preparation for clinical trials, in the area of novel genetic and stem cell therapies.
6. Generation of health economic and social impact data related to genetic disease diagnosis and treatment, and exploration of ethical and legal issues around novel diagnostics and therapies.

Frontiers in health and medical research

Further investment should be made in supporting innovative diagnostic, biotechnological and therapeutic applications including stem cell technology and regenerative medicine.

If you identified a second Priority in Question 6 please explain how it needs to be extended or re-emphasised? (max 500 words):

If you identified a third Priority in Question 6 please explain how it needs to be extended or re-emphasised? (max 500 words):

8 What unaddressed gaps in knowledge, capacity and effort across the healthcare system and research pipeline need to be addressed in the 2018–2020 MRFF Priorities?

Most important gap identified that needs to be addressed in the 2018-2020 MRFF Priorities (max 500 words):

The MRFF Priorities listed in the Consultation Paper do not give sufficient attention to diseases of ageing and chronic diseases, including kidney disease.

If you identified a second gap please explain how it needs to be addressed in the 2018-2020 MRFF Priorities (max 500 words):

The MRFF Priorities listed in the consultation paper do not give sufficient attention to musculoskeletal disorders.

If you identified a third gap please explain how it needs to be addressed in the 2018-2020 MRFF Priorities (max 500 words):

The MRFF Priorities listed in the consultation paper do not give sufficient attention to Prevention Health Research

A coordinated and coherent national effort is required to prevent chronic disease including cardiovascular disease, cancer, diabetes, musculoskeletal disorders and dementia. This is the greatest burden of disease in Australia and measures that address one disease on the list will benefit all.

This effort will require putting aside small pilot and demonstration studies or social marketing programs that go nowhere. The development of a national research program is a significant effort in itself involving review of the evidence base, development of a business case, multi-sector involvement, educational activities and resources and implementation science at the macro, meso and micro levels.

Many of the seeds of chronic disease lie in early life and take decades to evolve through periods of sub clinical organ damage and acute episodes that have long term consequences. At present the health system is geared towards care of extant disease, short term episodes of care and activity driven in part by perverse funding incentives.

We recommend the appointment of a member to the Australian Medical Research Advisory Board (AMRAB) with a prevention health research background.

9 What specific priority or initiative can address the above gaps?

What specific priority or initiative can address the first gap identified in Question 8? (max 500 words):

For each of the gaps identified above, the most effective additional funding initiative would be a program of large collaborative grants to build scale and national research capacity. These could also provide a platform for researcher skill development programs in areas such as commercialisation and industry engagement, implementation science and clinical data analytics (among others).

Possible funding mechanisms:

- Large collaborative grants (similar to ARC Centres of Excellence or Cooperative Research Centres) that could, among other things, mandate partnerships with industry to enable biomedical translation.
- Increasing the funding level of NHMRC Centres of Research Excellence from \$2.5m to ~\$30m, with mandatory Local Health District membership to enable implementation research.
- Increasing the funding level of NHMRC Synergy Grants from \$5m to ~\$20m.
- Where large-scale, collaborative research infrastructure investment is required (e.g. drug discovery capability; data commons for combining omics, imaging and other clinical phenotyping data), the MRFF could establish a health and medical equivalent of the ARC Linkage Infrastructure, Equipment and Facilities scheme.
- The MRFF's investment in Advanced Health & Medical Research Training Centres (AHRTCs), such as Sydney Health Partners, should be increased and made continuous. While AHRTCs are a new phenomenon in Australia they are part of a worldwide movement, Academic Health Science Centres, that try to embed research, innovation and evaluation in the health system. AHRTCs offer the promise of driving improvements in the health system, decreasing the time between discovery and innovation in the health system, and the development of an appropriate workforce to address contemporary health issues.

If you identified a second gap in Question 8 what specific priority or initiative can address this gap? (max 500 words):

As above

If you identified a third gap in Question 8 what specific priority or initiative can address this gap? (max 500 words):

As above

10 What Strategic Platforms (identified in the MRFF Strategy document) would the Priority/ies you identified in Question 8 fall under?

Health services and systems, Capacity and collaboration, Trials and translation, Commercialisation

11 How can current research capacity, production and use within the health system be further strengthened through the MRFF? (max 500 words)

Please give us your views:

The University of Sydney supports the following positions of the Go8 and AAMRI.

Australian Medical Research and Innovation Priorities

1. The Priorities should be separated from the National Missions which should have their own priorities within the context of the Mission strategy;
2. There should be a small number of coordinated Priorities acknowledging that Priorities cannot cover all research areas;
3. Priorities should include details about "what" but also "how" to ensure that priorities can be actioned; and
4. Priorities should explicitly address the criteria in the MRFF Act:
 - a. the burden of disease on the Australian community
 - b. how to deliver practical benefits from medical research and medical innovation to as many Australians as possible
 - c. how to ensure that financial assistance provided under this Act provides the greatest value for all Australians
 - d. how to ensure that financial assistance provided under this Act complements and enhances other financial assistance provided for medical research and

medical innovation

Governance and funding decision making process

5. The role of AMRAB in providing advice on future MRFF projects and missions should be formalised.
6. AMRAB/the Office of Health and Medical Research should be given a formal role in developing future projects and missions, and they should periodically develop public calls for consortia to put forward proposals for new missions and programs.
7. Competitive processes should be used to evaluate which future strategic MRFF projects and missions to fund.
8. Competitive processes should be used to evaluate the individual research projects within the MRFF missions and projects.
9. In line with the NHMRC being represented on AMRAB, the Chair of AMRAB should be represented on the NHMRC Council.
10. An overarching light-touch coordination body for health and medical research could be established. This would provide joined-up strategic leadership and direction for the whole of the Australian Government's health and medical research effort.

Administration of the MRFF

11. As far as possible the NHMRC should administer MRFF funding opportunities.
12. For other funding opportunities a common application and reporting process should be developed.
13. MRFF funding opportunities should wherever possible avoid conflicting with the major NHMRC/ARC grant rounds.

MRFF Communication issues

14. The Department of Health's Office of Health and Medical Research needs to implement a sector communications plan.
15. The Office of Health and Medical Research should develop its MRFF website to be a "single source of wisdom" on the MRFF using the NHMRC website as a model where possible.
16. Irrespective of the grant administering body, all MRFF grant opportunities should be advertised for a minimum of eight weeks using the Grant Connect website.
17. Irrespective of the grant administering body, the criteria by which funding applications are assessed should be clear and transparent.
18. When funding opportunities are advertised a timeframe for making decisions should be stated.
19. As far as possible, grant funding opportunities should avoid clashes with the major ARC/NHMRC programs.
20. An MRFF funding outcome register similar to that published by the NHMRC should be developed for the MRFF.

12 Do you have any additional comments on the Discussion Paper? (max 250 words)

Please give us your feedback on the Discussion Paper:

The Discussion Paper is a welcome opportunity to provide feedback on the MRFF priorities. One large gap in the paper is an acknowledgement of the importance of Aboriginal & Torres Strait Islander Health Research. This could be incorporated into a number of the MRFF priorities, such as building evidence in primary care.

There was also a lack of clarity on the idea of a National Institute of Research. Although not selected as one of the top three priority areas for further focus, The University of Sydney is supportive of the establishment of a National Institute of Research, which would assess current implementation research and provide national guidance on best practice. The capacity to turn new research findings into changes in policy and practices in our hospitals, or indeed our health policies, and to bring issues faced by health system practitioners to the parts of the research world that have the solutions, is a constant challenge.

13 Do you consent to this submission being made public on the MRFF website?

No