

NEW MRFF PRIORITIES

Research Australia University Roundtable 29 March 2018

Introduction

The existing inaugural Medical Research Future Fund (MRFF) priorities apply for two years and a public consultation on the Priorities for the next two years is expected to commence shortly. The aim of this paper is to encourage discussion about the next Priorities and what should be included. Research Australia will be responding to the consultation and this discussion will inform our response.

Background

Established in 2015, and with the first funding announced in mid-2017, the MRFF has been hailed as a once-in-a-generation opportunity for health and medical research. The ambition is for a fund with \$20 billion in capital, from which the earnings are used each year to fund medical research and medical innovation, with a primary focus on translatable or translational research.

MRFF funding decisions are made by the Federal Minister for Health. Guidance is provided by an expert Advisory Board, which is responsible for determining a five-year strategy for the MRFF and setting funding priorities every two years.

The MRFF Advisory Board was appointed in April 2016, and currently consists of:

Professor Ian Frazer, AC (Chair)

Former Australian of the Year, founding member and President of the Australian Academy of Health and Medical Sciences, member of the Commonwealth Science Council

Dr. Deborah Rathjen

CEO, Bionomics, Director, Cancer Therapeutics CRC

Mr Yasser Al Ansary

CEO, Australian Private Equity and Venture Capital Association (AVCAL)

Professor Peter Hoj,

President and Vice Chancellor, University of Queensland (since Oct 2012)

Professor Doug Hilton AO

Director, Walter and Eliza Hall Institute

Professor Karen Reynolds

Deputy Dean, School of Computer Science, Engineering & Mathematics, Flinders University
Director, The Medical Device Research Institute

Ms Jennifer Williams AM

Former CEO of the Red Cross Blood Service, of Alfred Health and Austin of Health and former Director Aged Care Community Health and Mental Health, Department of Health Victoria

Professor Anne Kelso AO

CEO of the NHMRC- appointed in this official capacity

Beyond determining the Strategy and Priorities, the role of the Advisory Board outlined in the MRFF Act is to 'advise the Health Minister about other matters that the Health Minister refers to the Advisory Board.'

The First Strategy and Priorities

The inaugural Strategy and Priorities for the MRFF were published in November 2016 following a public consultation process.

The Strategy

The Strategy's vision is 'A health system fully informed by quality health and medical research' and its Aim is 'Through strategic investment, to transform health and medical research and innovation to improve lives, build the economy and contribute to health system sustainability.'

This focus in the vision on the health system is carried through into the Strategy's Aim and the objectives which underlie it. The objectives emphasise the importance of creating health and economic benefits, embedding research evidence in healthcare, and driving collaboration and innovation across research and healthcare.

The Strategy itself is new, but provides continuity with existing strategies and programs. It describes the MRFF Strategy as building on the vision outlined in the Strategic Review of Health and Medical Research (the McKeon Review) undertaken in 2012 and seeks to both work with and complement the programs of the NHMRC, the National Innovation and Science Agenda and Innovation and Science Australia.

The Strategy is not seeking to achieve everything - it identifies the role of the MRFF as reinforcing the existing research pipeline and filling in some of the gaps in areas like health services research and the 'valleys of death' at the pre-clinical and the post proof-of-concept commercialisation stages.

The Priorities

The Strategy identifies six Strategic Platforms, which in turn provide a framework for the Priorities identified for the first two years. The six Platforms and their related two-year Priorities are summarised below.

Strategic and International Horizons

This Platform seeks to position Australia as a leader and collaborator in several key areas of international significance.

Priorities in this Platform are:

- Antimicrobial Resistance;
- international collaboration; and
- the impact of disruptive technologies on health services delivery and training.

Data and Infrastructure

This Platform seeks to make better use of existing data and infrastructure.

Priorities in this Platform are:

- clinical quality registries;
- research with other agencies to identify how we can better utilise the MyHealth Record and linked health and social data for research;
- a consumer- driven health and research agenda;
- developing the means to measure and report on the economic returns from the MRFF's investments; and
- research on the surveillance of and response to current and emerging infectious diseases and antimicrobial resistance.

Health Services and Systems

Bolstering health services and systems research is identified by the Strategy as a particular need, and the Priorities in this Platform are:

- testing the feasibility of a national institute for evidence-based and cost-effective health care and public and preventive health;
- using the MBS Review to investigate and develop the evidence base for interventions that currently have limited supporting evidence;
- research in behavioural economics in public and preventive health; and
- post-clinical effectiveness studies of drugs and other health interventions and pre-clinical work on the re-purposing of existing drugs.

Capacity and Collaboration

Skills development of researchers and healthcare professionals and more collaboration across research disciplines and between sectors is identified as critical. The Priorities in this Platform are:

- identifying and accessing existing high-cost infrastructure;
- Industry Exchange Fellowships, and
- expanding the existing NHMRC Practitioner Fellowships Scheme.

Trials and Translation

Particular attention was given by the Strategy to the role of clinical trials. Priorities under this Platform are:

- support for new and existing national clinical trial networks;
- extending clinical trials of proven therapies with the limited commercial potential to at-risk groups; and
- working with the NHMRC-accredited Advanced Health Research and Translation Centres to support the translation of research in key areas including clinical variation, co-morbidity, and health inequity.

Commercialisation

Overcoming barriers to research commercialisation will initially be addressed by:

- creating incubator hubs for diagnostics,
- devices and molecular therapeutics; and
- the Biomedical Translation Fund.

The Strategy and Priorities can be downloaded [here](#).

Funding Principles

On 6 December 2017, the MRFF Advisory Board issued a Communique, introducing 16 Funding Principles.

'The Advisory Board welcomes the first programs funded by the MRFF and is encouraged by the commencement of announcements by the Australian Government on the next series of programs that will roll out from 2017-18 and beyond.

The Advisory Board has developed the MRFF Funding Principles to ensure that only the best health and medical research is funded. These Funding Principles champion transparency and recognise the importance of contestable processes, peer review, partnerships and collaboration across disciplines and with consumers.

The Funding Principles have been endorsed by Government and provide a foundation to guide MRFF program design and maintain the integrity of the fund.

The MRFF has a great potential to transform the experience of health care and health outcomes for Australians through the investment in research discovery, translation and commercialisation

of Australian ideas and ingenuity. Adherence to these Funding Principles will ensure that investment provides value for money.'

In summary, the 16 Funding Principles:

- commit to funding being provided through contestable peer-reviewed processes
- encourage collaboration and interdisciplinary research
- emphasise the need for funding to be based on the burden of diseases and unmet need
- promote innovation in funding administration systems so funding is justified, agile, effective and timely
- evaluate the return on investment
- appreciate the need for infrastructure support
- leverage other funding
- recommend 'Nurturing' people whose funding applications are not funded

The Communiqué and Principles are available at

<http://www.health.gov.au/internet/main/publishing.nsf/Content/mrff>

MRFF Disbursements to date

The first MRFF funding announcements were made in May 2017 and funding continues to be announced progressively. The total funding available for 2016/17 was \$65.9 million, with a further \$121 million to be allocated in 2017/18.

Of the \$121 million for 2017/18, around \$60 million of this amount has been announced so far, with around \$50 million still to go. (The announcements to date have often referred to funding being provided over several years, making it difficult to isolate the specific funding provided from the MRFF allocation for a particular financial year. Funding announced in the first financial year included spending over multiple years which included funding from the 2017/18 and future years' allocations, reducing the amount available for new announcements this year.)

To date across the two financial years, the big winners (with about two thirds of the money) are clinical trials, rare diseases (including cancers) and fellowships.

The Strategic Platforms that are yet to receive (or have received relatively little) funding are: Strategic and International Horizons, Data & Infrastructure, and Health Services and Systems. No funding has been allocated in 2016/17 or so far in 2017/18 to 11 of the 19 Priorities.

The table on the following pages provide more detail about the funding announced to date and seeks to align it with the Strategic Platforms and the Priorities.

Strategic and international horizons		
MRFF Priority	Funding 2016/17 and 2017/18	Comment
<p>Antimicrobial resistance Investment in this global challenge, consistent with Australia's First National Antimicrobial Resistance Strategy (2015–2019), with a focus on research to bring to market point-of-care solutions.</p>	<p>\$5.9 million for antimicrobial resistance to address knowledge gaps in relation to the development and spread of resistance; and the development of new products, including diagnostic technologies and therapies, policies and approaches to prevent, detect and respond to resistance. A Targeted Call for Research has closed; grants yet to be announced.</p>	<p>This expenditure is consistent with the Priority.</p>
<p>International collaborative research Create a reserve for rapid funding of international collaborative work in priority areas of health and medical research, capable of leveraging multiple agency, discipline, national or industry investment.</p>		<p>No funding has been allocated against this Priority to date.</p>
<p>Disruptive technology Assess the impact of disruptive technologies such as artificial intelligence, wearables, genomic engineering and emerging markets on health service delivery and health training requirements.</p>		<p>No funding has been allocated against this Priority to date.</p>

Data and infrastructure		
Priority	Funding 2016/17 and 2017/18	Comment
<p>Clinical quality registries Provide start-up investment in disease or therapy-focused clinical registries supported by a national framework to maximise interoperability and value of research to clinical practice.</p>		The component of this funding that relates to clinical quality registries is consistent with this Priority.
<p>National data management study Study, in collaboration with key agencies, the requirements for infrastructure enhancement that expands the use of secure, digitised (My Health Record) and linked health and social data and inter-agency collaborative research.</p>		No funding has been allocated against this Priority to date.
<p>MRFF infrastructure and evaluation Establish:</p> <ul style="list-style-type: none"> • a consumer-driven health and medical research agenda; • a method to guide future MRFF priorities; and • the means to measure and report on economic returns from investments. • 		No funding has been allocated against this Priority to date.
<p>Communicable disease control Enhance and coordinate research on national surveillance of and response to current and emerging infectious diseases and antimicrobial resistance.</p>	\$2 million to the Coalition for Epidemic Preparedness Innovations (CEPI), a new international initiative to address critical research and development gaps for pandemic preparedness and global health security.	While the Priority focuses on national surveillance and response, this funding for international preparedness appears to be at least partly relatable to this priority

Health services and systems		
Priority	Funding 2016/17 and 2017/18	Comment
<p>National Institute of Research In partnership with the states and territories, determine the feasibility of establishing a national institute focused on health services, and public and preventive health research to facilitate evidence-based and cost-effective healthcare.</p>		No funding has been allocated against this Priority to date.
<p>Building evidence in primary care Work alongside the Medicare Benefits Schedule Review Taskforce to identify interventions with limited supporting evidence that are amenable to randomised control trial investigations and engage the existing workforce to build capacity.</p>		No funding has been allocated against this Priority to date.
<p>Behavioural economics application Support development of research in applied behavioural economics that concentrates on public and preventive health, with an emphasis on early intervention in mental health, healthy eating and physical activity.</p>	<p>\$10 million to The Australian Prevention Partnership Centre (TAPPC):</p> <ul style="list-style-type: none"> • Tackling childhood obesity, nutrition and physical activity. • Applying behavioural economics approaches to positively influence smarter lifestyle choices. • Identifying effective behavioural interventions for at-risk populations (including those living with mental illness and Aboriginal and Torres Strait Islanders) and those living with complex and chronic disease. 	This grant is consistent with this Priority.
<p>Drug effectiveness and repurposing Invest in post-clinical effectiveness studies of drugs and other health interventions and support pre-clinical proposals that identify new uses for existing drugs.</p>		No funding has been allocated against this Priority to date.

Capacity and collaboration		
Priority	Funding 2016/17 and 2017/18	Comment
National infrastructure sharing scheme Develop and evaluate a national scheme that enables researchers to locate and access existing high cost infrastructure to maximise hardware use and foster research collaboration.		No funding has been allocated against this Priority to date.
Industry exchange fellowships Connect industry and academia via PhD and postdoctoral fellowships to enable and encourage talent exchange, with the aim of stimulating entrepreneurial and translation capabilities.		No funding has been allocated against this Priority to date.
Clinical researcher fellowships Expand the scope and scale of the existing NHMRC Practitioner Fellowships Scheme to increase engagement of research-focussed clinicians in problem-solving and the translation of research into clinical practice.	\$8 million to boost the scale of three existing NHMRC Fellowship schemes - Career Development Fellowships, (EMCR in clinical, population health, biomedical and bioinformatics fields); Translating Research into Practice Fellowships (health professionals translating evidence) and Practitioner Fellowships (implementing evidence-based practice among clinical, public health and health service professionals). \$10 million for the Next Generation Clinical Researchers Program for Fellowships to commence in 2019. A further \$20 million p.a. will be available in each of the next three financial years.	The funding fits well with this priority. If this MRFF funding is to 'complement and enhance' existing funding as required by the MRFF Act it is important the quantum of NHMRC funding committed to these Fellowship Programs is not reduced.

Trials and translation

Priority	Funding 2016/17 and 2017/18	Comment
<p>Clinical trial network</p> <p>Provide infrastructure support for existing and new national clinical trial networks to enhance innovation, collaboration, clinical research capacity and patient participation.</p>	<p>1. \$5 million to be administered by CanTeen for new targeted clinical trial activity for adolescents and young adults with cancer.</p> <p>“The funding announced in the Federal Budget tonight will enable CanTeen to establish a national network of trial sites that will recruit patients and run two early phase clinical trials targeting these deadly cancers.” (CanTeen website)</p> <p>2. Lifting Clinical Trials and Registries Program \$13 million over over four years to increase clinical trials and clinical quality registries’ capacity. A competitive funding program administered by DOH and NHMRC - no predetermined allocation to a) registries and b) clinical trials.</p> <p>A further \$13 million has been allocated to this program in 2017/18.</p> <p>3. \$5 million over four years to the Australian Clinical Trials Alliance (ACTA) as the national alliance partner to build the capacity of clinical trials networks.</p>	<p>1. While the next priority specifically refers to adolescents and young adults, this funding announcement appears to relate more closely to the clinical trial network priority. (No focus on proven therapies.)</p> <p>2. The component of this funding that relates to clinical trials is consistent with this Priority.</p> <p>3. Consistent with the Priority- announced as over four years but at least notionally disbursed from this year’s MRFF funding.</p>

Trials and translation		
Priority	Funding 2016/17 and 2017/18	Comment
<p>Public good demonstration trials Invest in extension of clinical trials of proven therapies with limited opportunity for further commercial sponsorship to at-risk groups including adolescents and young adults, culturally diverse groups, and people with complex co-morbidities.</p>	<p>Lifting Clinical Trials and Registries Program \$13 million over over four years to increase clinical trials and clinical quality registries' capacity. A competitive funding program administered by DOH and NHMRC- no predetermined allocation to a) registries and b) clinical trials or to specific public good trials but open to these.</p> <p>A further \$13 million has been allocated to this program in 2017/18.</p>	<p>No funding has been allocated against this Priority to date.</p>

Trials and translation		
Priority	Funding 2016/17 and 2017/18	Comment
<p>Targeted translation topics</p> <p>The Rapid Applied Research Translation Program Work with the NHMRC-accredited Advanced Health Research and Translation Centres to deliver research agendas in primary care, acute and sub-acute settings relating to:</p> <ul style="list-style-type: none"> • clinical pathways and care transition; • clinical variation; • co-morbidity; and • health inequities in Aboriginal and Torres Strait Islander Australians and other vulnerable populations. • 	<p>\$8 million is to be allocated across the four existing NHMRC Advanced Health Research Translation Centres.</p> <p>\$2 million to support new and existing Advanced Health Research and Translation Centres and the two soon-to-be-announced Centres for Innovation in Regional Health (CIRHs) to work together on national system-level initiatives. (The Rapid Applied Research Translation program)</p> <p>On 21 March the Minister for Health Greg Hunt announced NSW Regional Health Partners, one of two NHMRC designated Centres for innovation in Regional Health, will receive \$6.1 million over 3 years from the MRFF to fund translational research into strategies to improve the delivery of care.</p> <p>Marking National Close the Gap Day on 15 March, the Minister for Health announced MRFF funding of \$6 million over three years to the Central Australian Academic Health Science Centre (CAAHSC).</p>	<p>Full detail of how the AHRTCs will use the \$8 million in funding has yet to be provided but so far it appears consistent with the priorities.</p> <p>It is less clear how the \$2 million will be spent or how the initiative is consistent with the Priority. The only detail so far is \$225,000 for Diamantina Partners, and \$225,000 for The SPHERE. (2 of the new AHRTCs). There is no detail how this will be used by them.</p> <p>The funding to the CIHRs seems consistent with the Priority notwithstanding it refers only to AHRTCs (the CIHRs are a later invention).</p>

Commercialisation		
Priority	Funding 2016/17 and 2017/18	Comment
<p>Research incubator hubs Create and evaluate virtual or actual health research incubator hubs that stimulate partnerships across a range of academic, clinician and industry stakeholders to generate early-stage research ideas for diagnostics, devices and molecular therapeutics.</p>		No funding has been allocated against this Priority to date.
<p>Biomedical translation Through the Biomedical Translation Fund, seek out matched private capital to invest via licensed fund managers in pre-clinical to early clinical translation of research of commercial value.</p>		<p>The investment of the BTF has commenced, with investment managers appointed.</p> <p>The BTF is not actually part of the MRFF. The BTF was funded by diverting funds originally intended to be capital for MRFF before they reached the MRFF.</p>

No clear match

There are some funding announcements totalling \$24.5 million that cannot readily be matched to any of the Priorities.

Priority	Funding 2016/17 and 2017/18	Comment
	<p>\$5 million to establish the BioMedTech Horizons program, to provide early stage pre-clinical support for biotechnologies. Administered by MTP Connect. Applications closed in late 2017 with grants announced in Feb 2018.</p> <ul style="list-style-type: none"> • Initial investments will target 3D anatomical printing and precision medicine. • Investments that demonstrate innovation, strong industry partnership and have potential for translation to proof of concept will be prioritised. <p>A further \$5 million is to be allocated to the Program in 2017/18.</p>	<p>It is not clear how this funding relates to the Priorities. (It is not about establishing research incubator hubs, and it is quite separate to the BTF.)</p> <p>It does reflect some elements of the proposal put forward by Research Australia as a program emulating the ARC Linkage Program.</p>
	<p>\$2 million to the 'Big Freeze 3' fundraising campaign by Cure4MND</p> <p>'This will be used for dedicated clinical trials, which will test whether existing medicines can improve the treatment and outcomes for these patients.' Greg Hunt MP, Press Release</p> <p>'The Cure for MND Foundation works to... (fund) the latter stage, large-scale preclinical drug development phases and subsequent roll out into clinical trials for Australians living with MND.' (MND website)</p>	<p>It is not clear how this funding relates to the Priorities. While it will be used for clinical trials, there is no indication it will be directed to public good trials or to provide infrastructure support for clinical trials networks. (The Government provided \$2.8 million to the fundraising campaign in 2016, without the MRFF.)</p>

No clear match

There are some funding announcements totalling \$24.5 million that cannot readily be matched to any of the Priorities.

Priority	Funding 2016/17 and 2017/18	Comment
	<p>\$10 million for a Targeted Call for Research into Rare Cancers and Rare diseases announced on 24 January 2018. A further \$33 million is to be allocated to this in 2018/19.</p> <p>\$2.5 million will be available for a targeted call for research onto the diagnosis and treatment of endometriosis. The funding was announced by the Health Minister on 2 March 2018 as part of the Government's development of a National Action Plan for Endometriosis. The funding forms part of the Accelerated Research Program within the MRFF, designed to stimulate targeted research in areas of identified unmet need.</p>	It is not clear how this funding relates to the Priorities.
	<p>The Minister for Health has foreshadowed future funding from the MRFF for research to support the Million Minds National Mission and the National Congenital Heart Disease Plan, when these have been finalised.</p>	There is not enough information to know if or how these funding programs would relate to the current priorities.