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IMPROVING ALIGNMENT AND COORDINATION BETWEEN THE MEDICAL RESEARCH FUTURE FUND AND THE NHMRC'S MEDICAL RESEARCH ENDOWMENT ACCOUNT

Science & Technology Australia thanks the Department of Health and Aged Care for the opportunity to offer input on the department's discussion paper on improving alignment and coordination between the Medical Research Future Fund and the Medical Research Endowment Account.

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KEY POINTS

- It makes sense to strengthen alignment and coordination between the Medical Research Future Fund and the NHMRC's Medical Research Endowment Fund – while preserving the distinct but complementary roles that each plays in Australia's medical research system.
- The Medical Research Endowment Account supports discovery, investigator-led research. The Medical Research Future Fund is a flexible funding stream that supports urgent national health priorities, health services and public health research.
- Between them, these crucial funding streams support health and medical research across the whole pipeline – from searching for new discoveries right through to application, translation (including scaling and manufacturing), commercialisation and registration.
- A streamlined governance structure with single oversight of both funds which respects their distinctive roles can lead to more strategic and efficient funding administration, but should not erode the level of resourcing for any part of the research pipeline.
- Of the proposed models in the consultation paper, model 2 is the most robust structure to achieve these goals. Strong guidelines delineating the funding streams (and governance needs) to support the full range of health and medical research activities will be essential.

Medical Research Endowment Account and Medical Research Future Fund background

Funding from the National Health and Medical Research Council (NHMRC) – disbursed from the Medical Research Endowment Account (MREA) – is the backbone of critical medical research in Australia.

Australia's medical research breakthroughs include high profile work like identifying the genes associated with hereditary breast cancer, research that led to the cochlear implant, the first successful IVF pregnancy, developing the world's first successful treatment for HIV/AIDS, development of a cervical cancer vaccine and pivotal work mapping the SARS-CoV-2 virus genome.

It also extends to more unsung, but equally important, incremental advances in medical knowledge, techniques and clinical applications that improve the lives of Australians and help lessen the disease burden in our nation. The NHMRC distributes just under a billion dollars per year from the MREA for medical research, ranging from pure discovery research to clinical applications.

The Australian Government recognised the need for a coordinated national effort to oversee health and medical matters nearly a century ago, with the establishment of a Federal Health Council in 1926. The MREA was established in legislation under the *Medical Research Endowment Act 1937*. Although the NHMRC has existed since 1936 it was not established in legislation until 1992, under the *National Health and Medical Research Council Act 1992*. The NHMRC's governance structure consists of the NHMRC Council, which provides advice to the CEO, who reports to the Minister. Sitting under the Council are several committees with specific remits.

The Medical Research Future Fund (MRFF) currently distributes $650 million per year on priority-driven initiatives and commercialisation-focussed projects. MRFF funding is drawn from the interest earned on a $20 billion investment fund that was established in 2015 and reached the $20 billion capitalisation goal in 2020. It has been disbursing funds since 2019-20. MRFF priorities are determined by the Australian Medical Research Advisory Board (AMRAB) and investments are set out in 10-year investment plans. Final funding decisions are approved by the Minister.

With their very different origins and histories, it's not surprising that the MREA and MRFF administration and governance are markedly different. Improved coordination in setting strategic goals and ensuring consistent approaches to reach these goals would better leverage Australia's investment in health and medical research.

Strong governance to underpin a successful future strategy

This process precedes development of a national health and medical research strategy – a strategy that will underpin our nation's medical research capacity and our country's health and wellbeing for the decades to come. It is essential that the governance system is capable of supporting that strategy. Some preliminary thinking on the themes that will underpin the strategy is required.

The strategy will address Australia's health and medical research capability, and also the application of that capability in clinical environments, public health initiatives and policy, as well as translation and commercialisation avenues. It is critical that governance and funding systems are structured with a solid understanding of each of these important aspects and in ways that enable efficient and effective funding and oversight.

Security and agility across the full spectrum of research and its application

Securing funding streams for discovery research – investigator-led projects – is crucial. Any change in governance and alignment of funding streams must recognise that health and medical research funding needs to span the full spectrum of research and its application – from discovery research, the starting point for all subsequent research, through to application, translation and commercialisation, and also registration and manufacturing.

The new strategy must work to connect all areas of government that support the full spectrum of research – from discovery research, through to application, translation (including scaling and manufacturing) through to commercialisation and registration. The governance structure must also work to support this, with explicit acknowledgement of the different government funding structures that support research at the various stages along the technology readiness levels (TRLs), which range from 1 (pure discovery research) to 9 (operational systems and manufacturing).

For example, NHMRC Investigator grants primarily support work at TRL 1–3 and NHMRC Development grants support work from TRL 3–6. MRFF funding primarily works at levels 3–6, with some expansion to clinical trials stages at TRL 7–8. CSIRO future science platforms work at TRLs 6–9. Despite these overlapping and complementary ranges, there is currently a lack of connection between MRFF and CSIRO-funded work. Connection with Australia's Economic Accelerator, which will support work TRLs of 3–7 will also be critical. Subsequent connection to the National Reconstruction Fund will support manufacturing and further economic development opportunities at TRLs 6–9.

Coordination with other Government initiatives and priorities

The strategy development should also ensure a comprehensive approach that works in conjunction with other Government strategies and initiatives – the most significant of these will be the newly refreshed National Science and Research Priorities. It's inevitable that these will speak to the importance of health and medical research and will go some way in dictating any future health and medical research strategy.

Another notable example is the National Collaborative Research Infrastructure Strategy (NCRIS). NCRIS funds several facilities and initiatives that support Australia's research capability across the entire research sector. The Government has committed $4 billion in NCRIS funding over the decade 2018–2029, with funding allocations being made according to an Investment Plan, underpinned by a strategic Roadmap.

NCRIS funds several medical research infrastructure and/or commercialisation facilities[1]. At the same time, there is a current MRFF funding initiative to support medical research infrastructure, in which $650 million has been committed over 10 years from 2022–23. Clear funding strategies are essential to ensure that important research infrastructure – and the workforce that drives them – are securely funded. Clear governance structures are needed to ensure funding streams complement, not duplicate, each other, and to avoid tensions around where funding for particular research infrastructure should be derived.

[1] These include:
Australian Centre for Disease Preparedness
Bioplatforms Australia
Phenomics Australia
Population Health Research Network
Therapeutic Innovation Australia

It is equally important to retain agility and flexibility to pivot and adapt to the nation's changing health and medical needs, and respond to emerging or unexpected health needs – such as a global pandemic.

As such, operational arrangements for governance and funding must retain clear lines of funding for pure research, clinical application, priority-driven, and support for commercialisation pathways. Other critical areas the MRFF currently supports include public health and health services research.

There should be a clear delineation of how funding is to be directed to each of these important areas to ensure MREA and the MRFF funds work in a complementary manner to support the full spectrum of health and medical research in Australia. This clarity will also help the community see and respond to any major changes in how funding is directed in the future. Robust and efficient processes for administering funding – including a single system for grant applications and processing – would improve transparency and accountability for supporting the full spectrum of research.

Focus on people

All medical research has an inherent and obvious focus on people. Yet, a human-at-the-centre approach is sometimes lacking from critical medical research. Governance structures should include consumer perspectives to inform both strategy and funding decisions. Research that is consumer-led and consumer-driven will have greater impact – with improved benefit for the Australian population and greater capitalisation on the Government's investment in medical research.

A focus on people must also extend to secure support for the medical research workforce. Developing medical research precincts as focal hubs for research is important – but even more important are the researchers conducting breakthrough research. Fostering job security and positive workplaces helps secure Australia's medical research workforce – and ensures Australia doesn't lose talent, or groundbreaking projects, overseas. Governance and funding structures must promote long-term job security for medical researchers and support workplace cultures of inclusion, diversity and equity. More needs to be done to nurture Australia's health and medical research workforce, and strengthened governance oversight should include reforms to strengthen job security, career development and wellbeing in Australia's health and medical research sector.

Consultation questions

What benefits should be achieved through improving the alignment and coordination of the MRFF and MREA?

A new governance structure should aim to achieve a cohesive, yet clearly delineated, approach for supporting health and medical research from pure research through to clinical applications, translation into public health policy and commercialisation, manufacturing and registration. This lessens risk of duplication and improves efficiency. This would also help government health and medical research funding better support other government initiatives such as NCRIS, Australia's Economic Accelerator and the NRF.

A clear funding and governance structure will also improve transparency and accountability in funding decisions and at the same time enable clearer demonstration of how funding is working towards strategic goals and priorities.

Streamlining the system would reduce the administrative burden on the research workforce – this would be a huge benefit and potential boost to productivity. Currently, there are several grant schemes operating through the MRFF and the NHMRC, with applications closing nearly every week.

Researchers spend huge amounts of time applying for multiple different, but often similar grants, all with low success rates. A new structure should be designed with a single application system that has an option to direct applications into multiple pools for assessment. This would be a significant – even radical – change, but much needed to improve the sector's productivity and researchers' wellbeing.

Many researchers in universities and medical research institutes are employed on rolling cycles of short-term contracts. This does not provide the certainty and security needed to support Australia's talented researchers, nor the program of research the nation needs. Developing structured funding streams that establish medium- to long-term (5–15 years) priority-driven work, with longer-term grants and multiple funding rounds to build and iterate on previous research would be an effective way to support medical researchers' careers and job security.

Which features/s of the models will deliver these benefits?

Shifting oversight of the MRFF to the NHMRC as described in Model 2 would deliver these benefits.

The NHMRC has decades of experience in successful administration of funding from the MREA account to effectively support health and medical research in Australia. With a boost to staffing levels to ensure sufficient resourcing, the NHMRC would be well placed to also administer the MRFF funding.

Given that the NHMRC would take over from the Australian Medical Research Advisory Board (AMRAB), this model would require that the NHMRC Council and Selection Committees incorporate appropriate expertise to ensure proper oversight of MRFF funding. In particular, new expertise to assess grant applications at the research translation and commercialisation stage of the research spectrum will be essential. This will include health economics, consumer acceptance, manufacturing and registration capabilities.

The discussion paper suggests this model could include a new Principal Committee to advise on MRFF and MREA strategy, and a revised Research Committee to determine the allocation of MRFF and MREA funds. It's not clear that this structure would encompass sufficient translational and commercialisation expertise – while this could be addressed at the Panel level, sufficient expertise must also be included at the more strategic Committee level as well. The Science & Technology Australia membership includes expertise across the health and medical disciplines and aligned fields and we would be happy to provide advice or connect the Department with expertise in specific fields should that be helpful.

Model 1 is overly bureaucratic and complicated, running the risk of creating additional administrative layers that would be counter to efficiency and likely block efforts to remain agile and flexible.

Model 3, which proposed merging the MRFF and MREA funding into a single funding stream, runs the extremely high risk of diluting or losing the distinct purpose of each funding stream. As noted in the discussion paper, this model also runs the risk of blurring or not establishing in the first place clear delineation of funding for the various stages of health and medical research.

Additionally, without solid guardrails (i.e. legislative ones) that would ensure no drop in current levels of NHMRC funding, having MRFF funding transferred into the MREA account could run the risk of masking any decreases to underlying levels of NHMRC funding.

What elements of the existing arrangements for the MRFF and MREA work well and should be retained? Which feature/s of the models will help ensure these elements are preserved?

The current structure of NHMRC grant streams works well to support medical and health researchers throughout their career stages. The mixture of project funding, and salary support is critical to ensure opportunities are provided for a diverse range of researchers. NHMRC funding is currently also clearly dedicated to supporting investigator-led, discovery research. This essential support must be retained.

The focus on translation and commercialisation for MRFF funding is important – it acts as a complement to the MREA funding provided to the earlier stages of research. The way the MRFF currently conducts targeted, priority-driven funding calls should also be retained. This flexibility embedded in the MRFF ensures funding can be directed swiftly to areas of high priority to address national needs, or research aligned to specific policy goals – for example, the MRFF call 'Keeping Australians out of hospital'. However, this flexibility needs to be coupled with transparency and accountability for how priorities are determined and funding allocated.

Maintaining the MREA and the MRFF as two separate funding streams as outlined in Models 1 and 2 will retain these important features of both funds.

Which aspects of the current arrangements could be changed to deliver the most appropriate and effective change, and why? Which feature/s of the models will help deliver this change?

Shifting to a single governance and oversight model for both the MRFF and the MREA will enable broader oversight of both funds and improve visibility and coordination of strategic objectives. Australia should develop a clear strategy that includes explicit delineation of how each fund will support each stage of the full research spectrum, in a connected and translation-intended way. This will empower health and medical research to lead to effective change – and improve efficiency and return on the significant investment the Government makes in Australian health and medical research.

Streamlined governance and administration should also lessen the administrative burden on researchers. System upgrades may be needed to ensure administration systems will be capable of achieving the goals of the proposed governance change. Shifting all grants to Sapphire will improve efficiencies – researchers will not have to deal with multiple systems, and potentially the information collection can be streamlined. However, whether Sapphire is fit for purpose is an open question and its viability to support a significantly higher volume of grants should be assessed

Is there anything else you would like to raise that is not otherwise captured by these questions?

Development of a new governance structure could also consider how First Nations researchers, as well as the specific health needs of First Nations people can be best supported through Australian Government health and medical research funding.

The NHMRC currently includes the Principal Committee Indigenous Caucus, and supports the National First Nations Research Network. The MRFF includes specific initiatives to support Aboriginal and Torres Strait Islander health needs. Priority setting through Aboriginal and Torres Strait Islander leadership is required to ensure that current and proposed structures work to support Australia's

First Nations health researchers and the programs working to improve health and wellbeing needs of Aboriginal and Torres Strait Islander peoples.

An important consideration is whether to introduce a specific stream of funding drawn from both the MREA and the MRFF to support Aboriginal and Torres Strait Islander health research, and/or Aboriginal and Torres Strait Islander researchers (working in any area of health and medical research – similar to the ARC Discovery Indigenous scheme). This could include targeted funding coordinated with health priorities, social policy initiatives and community developed priorities to work towards Reconciliation and Closing the Gap.