Australian Academy of Science

SUBMISSION TO THE SENATE COMMUNITY AFFAIRS LEGISLATION COMMITTEE INQUIRY INTO THE MEDICAL RESEARCH FUTURE FUND BILL (2015) AND THE MEDICAL RESEARCH FUTURE FUND (CONSEQUENTIAL AMENDMENTS) BILL 2015

FROM THE AUSTRALIAN ACADEMY OF SCIENCE / JULY 2015

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ABOUT THE AUSTRALIAN ACADEMY OF SCIENCE

The Australian Academy of Science champions, celebrates and supports excellence in Australian science, promotes international scientific engagement, builds public awareness and understanding of science and provides independent, authoritative and influential scientific advice. The Academy comprises over 500 of Australia's leading scientists, each elected for his or her personal contribution to science. The Academy welcomes the opportunity to provide a submission to the Senate Community Affairs Legislation Committee on the parliamentary Bills to establish a Medical Research Future Fund, and would be pleased to provide further information or explanation on any of the points made in this submission.

The Academy wishes to make comment in three areas:

1. Support for the establishment of the Medical Research Future Fund
2. Governance and the decision making process
3. Ensuring that the principles of research excellence, competitive process and review, and strategic health importance are incorporated into the legislation to ensure value for money

1 SUPPORT FOR THE ESTABLISHMENT OF THE MEDICAL RESEARCH FUTURE FUND

The Academy supports the establishment of the Medical Research Future Fund. Increased investment in health and medical research is a smart investment that will improve health outcomes and it will deliver direct and indirect economic benefits for Australia. The substantial benefits Australia derives from its investment in health and medical research, and the need to build on this investment, are outlined in detail in the Strategic Review of Health and Medical Research (the McKeon review). These benefits are briefly summarised here:

- Health and medical research investment supports innovation, improvement and efficiency in Australia's $135 billion per annum health sector. Investment in health and medical research delivers positive health outcomes, reduces inefficiency within the health system, and creates national wealth.
- Health and medical research has improved life expectancy from around 50 years in the late 19th century to 82 years today.
- Health and medical research delivers an estimated return on investment of 117%, with every dollar invested returning an average health benefit of $2.17.
- Investment in health and medical research has helped medicinal and pharmaceutical exports to become Australia's largest manufacturing export category.
- The Australian health and medical research sector consists of over 23,000 research professionals who support a broader medicines industry of over 40,000 employees.
- Chronic disease affects about 3.4 million Australians, and has a substantial impact on productivity, with rates of non-participation in the workforce twice as high as people without a chronic disease.
- The cost of chronic disease is approximately $30 billion per annum in direct costs and lost productivity. Eliminating chronic disease would improve productivity by an estimated 10%.
- In the previous decade Australia's expenditure on health grew in real terms at an average of 5.3% per annum, and future increases are projected. Future expenditure on health and medical research is set to continue to grow at a rate above growth in GDP. Health and medical research is our best hope to reduce such expenditure growth by reducing disease burden, and improving health care system efficiencies.

Adapted from McKeon et al (2013)

Australia's existing investment in health and medical research is already delivering substantial benefits. However, with a growing disease burden and an ageing population, there is a need to do more. There are particular areas where Australia is doing well with its health and medical research, but there are areas where further investment is needed. Every year numerous outstanding opportunities for high quality fundamental and translational research are passed up because of a lack of funding. More specifically, around one third of research proposals submitted to project and program grant rounds of the National Health and Medical Research Council (NHMRC) are deemed to be of sufficient scientific quality and potential benefit to warrant funding based on the NHMRC's rigorous peer-review processes, but are unable to be supported due to a lack of funding. Similarly, opportunities to translate research findings into innovative products with commercial and public health returns are routinely missed as the timeframes for pre-clinical research does not fit well with private sector investment timeframes. The Medical Research Future Fund has the potential to address these key gaps and revolutionise medical research and innovation in Australia. To maximise the potential benefits that the fund can deliver, the Academy offers the following comments on the Bill.

2 GOVERNANCE AND THE DECISION MAKING PROCESS

The Supplementary Explanatory Memorandum provides an overview of the process by which decisions of financial assistance from the Medical Research Future Fund will be made. It states that:

> "The independent expert Advisory Board will set the Strategy and Priorities for medical research and innovation. The Health Minister and Cabinet, through the Budget process, will take these into account when making decisions on funding at the program level. The NHMRC and other expert bodies will at times be engaged to allocate funds to specific projects in order to implement the Budget measures."
>
> House of Representatives (2015)

The Government has committed to ensuring value for money from all of the investments it makes on behalf of Australian taxpayers. For the MRFF, value for money will require mechanisms to ensure maximum likelihood of value and health benefits from the investment in medical research and innovation made through the Fund. This necessitates a rigorous and transparent decision making process be put in place to ensure that only the very highest quality projects with the greatest chance of making a difference in areas of strategic importance are funded. It also requires a coherent strategy at the high level so investments are made in areas where a positive impact is most likely, along with careful evaluation at the program and implementation level so that when presented with multiple different proposals within a given area, the most effective can be pursued.

The establishment of the MRFF Advisory Board to develop an overall strategy and advise on detailed priorities for funding will help ensure that an effective high level approach is put in place the broad areas where investment is needed and will make a difference. Furthermore, the inclusion of the Chief Executive of the NHMRC as a member of this Board, and the need for the Board to refer to NHMRC's national strategy in developing the MRFF Strategy will help ensure that the high level strategic approach to identifying areas for investment is aligned with Australian's national health priorities.

A broad and representative membership of Advisory Board including key stakeholders such as the Australian Chief Scientist, professional medical associations, relevant scientific organisations such as the Australian Academy of Science and the Australian Academy of Health and Medical Research, and relevant consumer and patient advocacy groups would also help to ensure alignment of MRFF

priorities with Australia's broader national research priorities, and with the priorities of the Australian people as represented by health consumer and professional organisations.

It is less clear in the Bill on what basis program level decisions will be made; that is, the criteria against which potential programs and projects will be assessed and compared. The Supplementary Explanatory Memorandum states that program level decisions will made by Cabinet through the Budget process, and that such decisions should take into account the Strategy and Priorities set by the independent expert Advisory Board. In addition to this, the memorandum states that Cabinet can seek advice from Government departments and agencies to assist with such decision making. Presumably this advice would come in the form of non-binding funding recommendations based on criteria including excellence, potential impact on health outcomes, value for money, and alignment with the Strategy and Priorities, but this is not made clear. Other broader criteria that could inform the advice given to Cabinet include the public perception of a particular research area, or perceived public endorsement of the location of a project in a particular geographic area. It is the prerogative of the Government as to whether such broader criteria form an important part of the decision making process, and as the Bill stands, such an option would remain open. However, it should be noted that when such broader criteria are introduced there is a risk of funding lower quality medical research and innovation opportunities, and therefore not realising the maximum potential that the MRFF has to offer.

The Academy suggests that further details should be included in the Bill and associated memoranda on the governance and decision making process surrounding expenditure from the MRFF.

It is not clear whether the reference in the Supplementary Explanatory Memorandum to Cabinet decision making at the program level would result in Cabinet being responsible for making decisions on specific projects (for example whether to fund a specific project at an eligible organisation), or alternatively if this means Cabinet would be responsible for making decisions on broader initiatives (for example prioritisation of funding for brain research, with specific project funding decisions taken through a different mechanism). The legislation appears to be flexible in this regard and would allow either process.

The Academy suggests that further details should be included in the Bill and associated memoranda on the level and nature of funding decisions that will be made by Cabinet

3 SUPPORTING THE PRINCIPLES OF EXCELLENCE, COMPETITIVE PROCESS AND REVIEW AND STRATEGIC PRIORITY TO ENSURE VALUE FOR MONEY

Australia's world-class reputation for producing the very best health and medical research is based on the robust systems in place to ensure only the very best research, and the very best researchers receive public funding. It is this careful targeting of the limited funds available to the very best research and researchers that ensures value for money and delivers outstanding health benefits. It is clear from the Supplementary Explanatory Memorandum that these values will be important considerations for MRFF funding decisions. For example, the Supplementary Explanatory Memorandum states:

> "The application of the Priorities to inform decision-making is expected to ensure that any expenditure from the MRFF will have a strong business case, underpinned by consideration of how the financial assistance provided from the MRFF delivers the greatest value for all Australians"
>
> House of Representative (2015)

Using the Priorities to inform decision-making will help ensure funding is directed towards priority areas, but it does not necessarily mean expenditure from the MRFF will have a strong business case, as the Supplementary Explanatory Memorandum suggests. A strong business case can only be assured through mechanisms to ensure that the MRFF supports the very highest quality research and researchers; where there is identified potential to deliver benefit; and that it delivers value for money. Mechanisms that achieve these outcomes within any priority area will require competitive processes and expert review mechanisms to be put in place. Whether and how any such competitive processes might be employed is not mentioned in the Bill, and as such it appears that this decision making will either rest with the Ministerial or be devolved.

This flexibility will mean that after the Government has consulted the Strategy and Priorities, it will have the option of either seeking competitive proposals which could be evaluated by a robust set of criteria; that it could make direct uncompetitive awards to eligible organisations, or a combination of these two processes. It is not clear in the Bill which approach might be used.

The Academy firmly believes that the best approach to allocation of MRFF funding within identified Priorities is to use a competitive process and expert review mechanism to ensure funding is targeted towards the very highest quality research. It would be to Australia's advantage to utilise the expertise and processes that are already in place through agencies such as the NHMRC to make sure maximum benefits are gained from future investments in medical research and innovation.

The precise mechanisms might differ according to the priority areas to be targeted by the fund, and the level at which funding is being allocated. For example the peer review approach utilised by the NHMRC would be most appropriate for investigator led research, and it would be advantageous to take advantage of the NHMRC's expertise in this regard. Whereas broader research support, such as for the development of research infrastructure, might best be competitively awarded using mechanisms similar to the university block-grant arrangements, or the ARC ERA, or other indicators of excellence.

There will be particular circumstances where a direct uncompetitive award might be warranted, for example an emerging or imminent disease threat that requires a speedy response, but such decisions should be justified by sound science and against established criteria.

The Academy recommends that competitive processes and expert review mechanisms be put in place to evaluate proposed expenditure from the MRFF.

REFERENCES

Department of Health and Ageing (2013) *Strategic Review of Health and Medical Research*. Available at: http://www.health.gov.au/internet/ministers/publishing.nsf/Content/mr-yr13-tp-tp025.htm?OpenDocument&yr=2013&mth=04

House of Representatives (2015) *Medical Research Future Fund Bill 2015 and Medical Research Future Fund (Consequential Amendments) Bill 2015: Supplementary Explanatory Memorandum*.