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Association of Australian
Medical Research Institutes

SUBMISSION

**INNOVATION AND SCIENCE AUSTRALIA -
2030 STRATEGIC PLAN ISSUES PAPER**

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2030 STRATEGIC PLAN ISSUES PAPER

AAMRI welcomes the opportunity to comment on the 2030 Strategic Plan Issues Paper. Overall the Strategic Plan discussion document highlights the areas and challenges that we need to focus on to ensure we continue to have a world-leading science and innovation system.

Recommendations from AAMRI for the Strategic Plan

There are four recommendations that AAMRI would like to put forward for further consideration in the development of the 2030 Strategic Plan.

1. The Strategic Plan should outline the continued necessity for Australian science to be internationally linked, and for **there to be appropriate migration options to allow the flow of outstanding science talent to and from Australia.**
2. **Equitable funding arrangements should extend to supporting excellent research without prejudice to the type of research organisation undertaking it.** The current funding arrangements for research support costs, access to Australian Research Council programmes, and access to the Cooperative Research Centres programme, are inequitable and prejudiced against both medical research institutes and hospitals.
3. **Any future science strategy for Australia must be working towards a goal of gender equity within science.** This important area is currently absent from the Issues Paper and needs to feature in the final strategy.
4. Key findings and **recommendations within the ACOLA review of research training that should be considered with regards to improving collaboration between research organisations and industry.**

1-Maximising advantage from international knowledge, talent and capital

Recent changes to Australia's migration program mean it is no longer possible to recruit outstanding international scientists to help fill skills gaps, and to help train and collaborate with Australian researchers. This change will prevent Australia from realising the goal in the Issues Paper of Australia being counted within the top tier of innovation nations.

The Strategic Plan should outline the continued necessity for Australian science to be internationally linked, and for there to be appropriate migration options to allow the flow of outstanding science talent to and from Australia.

For Australia to be counted within the top tier of innovation nations it will need to collaborate with the world's best. This will include some Australian scientists working overseas, and international scientists working in Australia. This free flow of ideas and knowledge is fundamental to a healthy and innovative science system.

The advantages of international science collaboration are multiple and include

- accessing world-class research infrastructure located overseas,
- working with and learning from the world's best researchers,
- increased profile and exposure for Australian research,
- additional research funding opportunities,
- and greater access to research commercialisation and markets.

What is arguably the greatest threat to international science collaboration is highlighted by the following question in the Issues Paper:

“What happens if the current protectionist mood in some major countries becomes a major trend and international mobility of knowledge, talent and capital reverses its recent trend of growth.”

Innovation and Science Australia (2017), p.10¹

The ‘current protectionist mood’ as it is described in the Issues Paper undermines international science collaboration, and impacts on the mobility of knowledge, talent and capital. As Australia is a relatively small nation in terms of the size of its population, it will be disproportionately affected by such a trend. Much larger nations while affected to some degree, will be more insulated as they will have a greater capacity for internal collaboration.

It is unfortunate that the international mobility of knowledge and talent has recently been hugely curtailed in Australia. Australia is now the only major science nation that has chosen to lock itself out of the international science talent market. The recent changes to Australia’s migration program, and specifically the removal of core medical researcher occupations from the skilled occupation list, has meant there is now no viable way to recruit outstanding scientists in most fields. It also means that many talented international scientists working in Australia, training Australians and creating new jobs for Australians will have to leave the country when their visa ends.

Achieving the Issues Paper’s vision of maximising advantage from international knowledge, talent and capital will require a migration program that is open to the two-way flow of scientists. This is already a stated policy goal of the Australian Government, but will require changes to the current migration system to be realised.

2-Appropriate and equitable funding for science

The discussion paper states that appropriate funding levels that are equitably shared across the system and supported by world-class research infrastructure are required for an impactful world-class research base. This should mean supporting excellent research without prejudice to the type of research organisation undertaking it. The current funding arrangements for research support costs, access to Australian Research Council programmes, and access to the Cooperative Research Centres programme, are inequitable. These programmes are inequitable and prejudiced against both medical research institutes and hospitals.

Research support costs

The funding of research support costs (sometimes referred to as indirect costs) is the number one issue affecting the productivity of the medical research institute sector. The current funding levels for research support costs are neither sufficient nor equitable. There have been no less than nine reviews in the last 20 years that have looked at this issue and proposed action, but have then fallen on deaf ears.² The 2030 Strategic Plan is an ideal opportunity to address this issue.

Funding from the NHMRC and the ARC only covers the direct costs of undertaking individual research projects, such as researchers’ salaries and research materials. The research support costs that cannot

¹ Innovation and Science Australia (2017) *2030 Strategic Plan: Issues Paper*. Available at: <https://industry.gov.au/Innovation-and-Science-Australia/Documents/2030-Strategic-Plan-Issues-Paper.pdf>

² Watt review 2015; Ferris review 2015; National Commission of Audit 2014; McKeon review 2012; Bennett report 2009; Cutler review 2008; Bradley review 2008; Grant review 2004; Wills review 1998

be attributed to an individual research project (such as laboratory equipment, IT, overheads, building maintenance, HR and finance, research ethics approvals etc) are funded through an array of different arrangements. These costs have been estimated by previous studies to be around 60 cents for 'direct' NHMRC/ARC grant dollar.

Estimates vary but universities receive around 40-50 cents of research support funding per dollar of competitive research grants through the Department of Education's Research Support Scheme. Medical research institutes should, according to NHMRC policy receive 20 cents of research support funding per dollar of NHMRC competitive grant funding through IRIISS³, although last year this scheme paid just 18 cents. Hospitals receive no funding for research support costs.

The funding gap for MRIs is bridged through the use of philanthropy and in some states, through state government support. The outcome for MRIs is an inequitable and overly complex system. As this issue that spans across multiple federal government departments as well as state governments. The 2030 Strategic Plan should make addressing this issue a high priority, and Innovation and Science Australia are well placed to provide strategic advice on how this could be achieved.

Australian Research Council

The funding rules for ARC programs are not equitable in that they only permit universities to host ARC funded projects, and this restriction is excluding some of Australia's best researchers located in independent medical research institutes and hospitals from undertaking world class research that is in the national interest.

Australia's research council funding systems serves the nation well, with the NHMRC responsible for health and medical research, and the ARC responsible for all other areas of research. However, there are increasingly many areas of research that potentially intersect with both ARC and NHMRC responsibilities. The ARC recognises this issue with its Medical Research Policy statement, and provides clear advice on the areas of research the ARC will support, such as bioengineering, the natural sciences and observational research.

This policy allows university based medical research institutes, departments or schools to host ARC funded research, and there are many examples where this is the case. Unfortunately, the exclusion of independent medical research institutes within the funding rules prevents many of Australia's most exceptional researchers pursuing research opportunities that fall within the ARC's area of funding responsibility.

AAMRI is not seeking any change in policy to the types of research funded by the ARC. However, it is seeking an equitable approach to the types of research organisations that are permitted to host ARC funded research. Researchers at independent medical research institutes should be permitted to compete on the basis of excellence, rather than held back by arbitrary and inequitable rules.

Cooperative Research Centres

The Cooperative Research Centre program is another area where there is an inequitable funding framework in place that needlessly disadvantages independent medical research institutes and hospitals. The rules for the CRC programme state that to be considered the application must include at least one Australian Research Organisation among its participants. The definition of an Australian

³ NHMRC (2010) *Independent Research Institutes Infrastructure Support Scheme (IRIIS) Funding Policy*. Available at: https://www.nhmrc.gov.au/files/nhmrc/file/grants/iriis_2010_jun2011.pdf

Research Organisation is given as a university, government department or government agency. This definition does not include independent medical research institutes. There is no logical basis for this exclusion and it could be resolved through an amendment to the programme rules.

3-Workforce – achieving gender equity in science

Any future science strategy for Australia must be working towards a goal of gender equity within science. This important area is currently absent from the Issues Paper and needs to feature in the final strategy. Gender inequity in science has resulted in too many outstanding and talented individuals leaving the science workforce. The Strategic Plan's vision for Australia in 2030 will only be achieved if there is a highly skilled workforce in Australia, and this means maximising the science talent pool by reducing gender inequity.

The gender inequity problems within science have been well documented previously.⁴ There are positive sector-led initiatives underway to address this, such as the SAGE Forum. Continuing support for such initiatives, and setting ambitious but achievable targets should be a feature of the final science strategy.

4-Developing a culture of collaboration between research and industry

The Innovation and Science Australia audit found that collaboration between research and industry was an area in need of improvement in Australia. This requires cultural change, and one of the best ways to address this cultural change is within a researcher's career. Connecting HDR candidates with the end-users of research at an early stage in their career offers great potential in terms of building an ongoing collaboration culture within Australia.

The Issues Papers asks what actions could be taken to ensure the research training system is connected of end user needs. There are a number of initiatives key findings and recommendations within the ACOLA review of research training that should be considered. This includes the development of broader transferable skills (key finding 4), ways to increase industry engagement in research (key finding 5), and providing industry placements for HDR candidates (key finding 6)

⁴ For example, see Australian Academy of Science (2015) *Science in Australia Gender Equity Forum: Gender Equity in Science Workshop, November 2014*. Available at: <https://www.science.org.au/files/userfiles/support/reports-and-plans/2015/sage-form-workshop-summary-report-20150518.pdf>

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