

STRUCTURAL REVIEW OF NHMRC'S GRANT PROGRAM

Research Australia's submission in response to the Consultation Paper

August 2016

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Research Australia's mission is to make health and medical research a higher priority for the nation. We have four goals that support this mission:

- A society that is well informed and values the benefits of health and medical research.
- Greater investment in health and medical research from all sources.
- Ensure Australia captures the benefits of health and medical research.
- Promote Australia's global position in health and medical research.

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RESEARCH AUSTRALIA'S SUBMISSION IN RESPONSE TO THE CONSULTATION PAPER

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Alternative model 1

Question 1.1:

How effectively would the model optimise NHMRC's public investment in health and medical research by meeting the aims of this Review, including the major objectives of NHMRC's grant program found on page 12 of the consultation paper? (500 words max)

Research Australia supports the proposal to have one scheme that emphasises track record and another that emphasises the idea. We look forward to further consultation on the assessment criteria to be applied and we provide further comments on this in response to Question 4.

Research Australia is supportive of the proposal to allow multiple Chief Investigators on Team Grants and questions the need for limits on the number of CIs. There is no rationale provided for limiting the number of CIs to 10.

In relation to the proposal for caps, Research Australia recognises that caps on applications made and/or grants held are necessary if the goal of substantially reducing the number of applications is to be achieved.

Research Australia is supportive of the greater flexibility provided for Team and Ideas Grants in relation to how funds are expended.

Research Australia supports the use of a 'framework of milestones to support the achievement of the research goals' for larger Ideas Grants.

The emphasis on innovation in proposals for Ideas Grants enables the funding of higher risk ideas. It is likely that many of these proposals will fail, and where this is the case it is desirable that they fail early. The Ideas Grants should be subject to specific milestones, with further funding subject to achieving a pass. Early termination of an innovative Ideas Grant because the idea has been disproved or shown to be unviable should not be seen as a 'negative' in terms of the investigator's track record.

Ideas Grants also provide the opportunity to fund research proposals from individuals in allied disciplines, where the track record of neither individual may be particularly strong, but where their combined experience and expertise can lead to novel approaches to existing problems.

Research Australia is supportive of the People Grants for early career researchers, and of the inclusion in this program of a component of funding towards research costs. Importantly, this research cost component could be used by early career researchers to generate the early stage data needed to make a successful application for an Ideas Grant. Undertaking research for this purpose should be recognised as an appropriate research proposal for a People Grant. People Grants should also be available to early career researchers whose research proposal will involve their participation as part of a larger research team; either a Team Grant or an Ideas Grant. Where they are part of a larger team, consideration needs to be given to how discrete an area the research proposal is required to address. Research Australia looks forward to further consultation on the criteria for such a scheme if this approach is pursued.

Question 1.2:

What advantages and disadvantages of this model do you see for you or your organisation if the model was introduced? (For example, what impact would it have on a researcher at your stage of experience? Would it support research in your research area?) (500 words max)

Research Australia notes that whichever model is adopted, there will need to be rigorous modelling to assess the extent to which the model can achieve the specified goals and avoid unintentional consequences.

Question 1.3:

Can you identify negative consequences for Australia's health and medical research system if the model was introduced and how might these be mitigated? (500 words max)

The model appears to suggest a fixed term of five years for all Team Grants. While Research Australia supports the policy objective of moving to a longer average grant duration overall, we do not believe a fixed duration is the best way to achieve this. The mitigation is outlined in our response to question 1.4.

The caps appear to be structured in a manner that discriminates against CIs who are involved in a project on a part-time basis or for only a part of the research project. Examples include a clinician researcher who may be contributing on a part time basis to more than one clinical trial, or a research specialist such as a biostatistician whose involvement with a project is critical but who is only actively involved at specific stages of the research. Mitigations, including adjusting the caps for part-time and short duration CIs and providing Fellowships independent of Team Grants, are outlined in our response to question 1.4.

Question 1.4:

Could the model be adjusted to optimise its impact? If so, how? (500 words max)

Research Australia notes the proposed Team Grants have a maximum of 10 CIs and (presumably) a minimum of two. Research Australia proposes that the minimum and maximum CI requirements be removed. Doing so will provide greater flexibility for applicants. As is the case for Program Grants now, applicants will still need to carefully consider who they choose as CIs.

Applicants are advised to critically review the composition of their team prior to submission of a Program Grant application. An otherwise competitive application might be disadvantaged by the inclusion of clearly non-competitive CIs. [Program Grants scheme-specific funding rules for funding commencing in 2018]

Research Australia notes that the proposed Team Grants have a fixed term of five years. Research Australia proposes that there should be no minimum or maximum term for Team Grants. The applicants should be required to identify the outcome they are seeking to achieve and to estimate the time required to achieve the outcome with the requested budget.

Consideration needs to be given to how 'specialist' researchers who may be involved in a research project on a part-time basis or for a specific part of the project are to be recognised. Research Australia proposes that the rules for Team Grants and Ideas Grants be modified for part-time and short duration CIs to allow them to be involved in multiple projects. Alternatively, consideration needs to be given to how appropriate recognition can be provided to these individuals to support their appropriate career progression. Fellowships could play a critical role in this regard, particularly for mid-career researchers and those whose research practice typically involves them in a large number of research projects.

Research Australia supports the use of a 'framework of milestones to support the achievement of the research goals' for larger Ideas Grants and considers that this approach should be adopted more broadly, including with Team Grants. Milestones should be established at the commencement of the grant, with further funding dependent on successful completion of each milestone (subject to a review/modification process).

Research Australia notes that Fellowships are available under Model 1 and are only available to CIs on Team Grants. The role of Fellows and the rationale for the continued existence of Fellowships has not been articulated in the Consultation Paper. While it is clear that granting a Fellowship to a CI on a Team Grant means that the Team Grant is not required to fund his/her salary, what other benefits does being a Fellow bring? Research Australia submits that Fellowships can play an important continuing role independent of Team Grants. In particular, Fellowships can provide support and mobility for mid-career researchers, and have a key role in funding researchers who are frequently involved in multiple research projects, for example as a biostatistician, on a part-time basis.

Question 1.5:

Do you have other comments about the model? (500 words max)

Team Grants and larger Ideas Grants provide the opportunity to employ and support early and mid-career researchers. Applicants for grants should be required to include the number of researchers at different career stages they expect to employ and to provide a career development plan for assessment as part of the grant application.

Alternative model 2

Question 2.1:

How effectively would the model optimise NHMRC's public investment in health and medical research by meeting the aims of this Review, including the major objectives of NHMRC's grant program found on page 12 of the consultation paper? (500 words max)

Research Australia is supportive of the greater flexibility provided for Investigator Grants and Ideas Grants in relation to how funds are expended.

Research Australia supports the proposal to have one scheme that emphasises track record and another that emphasises the idea. We look forward to further consultation on the assessment criteria to be applied, and provide some further comments on this in response to Question 4.

Research Australia supports the use of a 'framework of milestones to support the achievement of the research goals' for larger Ideas Grants.

In relation to the proposal for caps, Research Australia recognises that caps on applications made and/or grants held are necessary if the goal of substantially reducing the number of applications is to be achieved.

The emphasis on innovation in proposals for Ideas Grants enables the funding of higher risk ideas. It is likely that many of these proposals will fail, and where this is the case it is desirable that they fail early. The Ideas Grants should be subject to specific milestones, with further funding subject to achieving a pass. Early termination of an innovative Ideas Grant because the idea has been disproved or shown to be unviable should not be seen as a 'negative' in terms of the investigator's track record.

Ideas Grants also provide the opportunity to fund research proposals from individuals in allied disciplines, where the track record of neither individual may be particularly strong, but where their combined experience and expertise can lead to novel approaches to existing problems.

Question 2.2:

What advantages and disadvantages of this model do you see for you or your organisation if the model was introduced? (For example, what impact would it have on a researcher at your stage of experience? Would it support research in your research area?) (500 words max)

Research Australia notes that whichever model is adopted, there will need to be rigorous modelling to assess the extent to which the model can achieve the specified goals and avoid unintentional consequences.

Question 2.3:

Can you identify negative consequences for Australia's health and medical research system if the model was introduced and how might these be mitigated? (500 words max)

Research Australia does not support the proposal for an Investigator Grant with a single CI. Research Australia proposes that the minimum and maximum CI requirements be removed. Doing so will provide greater flexibility for applicants. As is the case for Program Grants now, applicants will still need to carefully consider who they choose as CIs.

Applicants are advised to critically review the composition of their team prior to submission of a Program Grant application. An otherwise competitive application might be disadvantaged by the inclusion of clearly non-competitive CIs. [Program Grants scheme-specific funding rules for funding commencing in 2018]

The model appears to suggest a fixed term of five years for all Investigator Grants. While Research Australia supports the policy objective of moving to a longer average grant duration overall, we do not believe a fixed duration is the best way to achieve this.

The proposal for a single CI on an Investigator Grant with a term of five years prevents an individual researcher who is involved in a project on a part-time basis or for only a part of the research project from being a CI. Examples include a clinician researcher who may be contributing on a part time basis to more than one clinical trial, or a research specialist such as a biostatistician whose involvement with a project is critical but who may only be actively involved at specific stages of the research.

Question 2.4:

Could the model be adjusted to optimise its impact? If so, how? (500 words max)

Research Australia proposes that there should be no minimum or maximum term for Investigator Grants. The applicants should be required to identify the outcome they are seeking to achieve and to estimate the time required to achieve the outcome with the requested budget.

Consideration needs to be given to how 'specialist' researchers who may be involved in a research project on a part-time basis or for a specific part of the project are to be recognised. Research Australia proposes that the rules for Investigator Grants and Ideas grants be modified for part-time and short duration CIs to allow them to be involved in multiple projects. Alternatively, consideration needs to be given to how appropriate recognition can be provided to these individuals to support their appropriate career progression. Fellowships could play a critical role in this regard, particularly for mid-career researchers and those whose research practice typically involves them in a large number of research projects.

Little information is provided in relation to the Collaborative Bonus. Research Australia submits that such a bonus may be valuable where the collaboration involves additional cost and effort. International collaboration is one such case, where there are frequently additional costs associated with overseas travel. Anecdotally at least, multidisciplinary collaborations often have longer start-up phases because of the need to establish a common language and terminology among team members from different disciplines and to establish new methodologies for working. Research Australia proposes that the collaborative bonus be limited to international collaborations and those

involving multidisciplinary teams. In the case of the latter, consideration should be given to providing the bonus as a funded extension to the term of the grant.

Research Australia notes that Fellowships are available under Model 2 and only to CIs on Investigator Grants. The role of Fellows and the rationale for the continued existence of Fellowships has not been articulated in the Consultation Paper. While it is clear that granting a Fellowship to a CI on an Investigator Grant means that the grant is not required to fund his/her salary, what other benefits does being a Fellow bring? Research Australia submits that Fellowships can play an important continuing role independent of Team Grants. In particular, Fellowships can provide support and mobility for mid-career researchers, and have a key role in funding researchers who are frequently involved in multiple research projects, for example as a biostatistician, on a part-time basis.

Research Australia supports the use of a 'framework of milestones to support the achievement of the research goals' for larger Ideas Grants and considers that this approach should be adopted more broadly, including with Investigator Grants. Milestones should be established at the commencement of the grant, with further funding dependent on successful completion of each milestone (subject to a review/modification process).

Question 2.5:

Do you have other comments about the model? (500 words max)

While the caps are likely to reduce the number of applications, further consideration should be given to other means of reducing the application burden.

Investigator Grants and larger Ideas Grants provide the opportunity to employ and support early and mid-career researchers. Applicants for grants should be required to include the number of researchers at different career stages they expect to employ and to provide a career development plan for assessment as part of the grant application.

Alternative model 3

Question 3.1:

How effectively would the model optimise NHMRC's public investment in health and medical research by meeting the aims of this Review, including the major objectives of NHMRC's grant program found on page 12 of the consultation paper? (500 words max)

Research Australia is supportive of the greater flexibility provided for how funds are expended.

Research Australia notes that while the Research Support Grant would provide funding for 'teams of researchers' it does not specify a minimum or maximum number of CIs. Research Australia is supportive of this feature.

Research Australia notes that grants would be for up to five years, and is supportive of the flexibility provided for all grants to be of less than five years' duration.

Research Australia supports the proposal to have Knowledge creation and Translation sub-types, and to have separate streams for established researchers and new investigators. We look forward to further consultation on the assessment criteria to be applied to each sub-type and stream if this approach is pursued.

In relation to the proposal for caps, Research Australia recognises that caps on applications made and/or grants held are necessary if the goal of substantially reducing the number of applications is to be achieved.

Question 3.2:

What advantages and disadvantages of this model do you see for you or your organisation if the model was introduced? (For example, what impact would it have on a researcher at your stage of experience? Would it support research in your research area?) (500 words max)

Research Australia notes that whichever model is adopted, there will need to be rigorous modelling to assess the extent to which the model can achieve the specified goals and avoid unintentional consequences.

Question 3.3:

Can you identify negative consequences for Australia's health and medical research system if the model was introduced and how might these be mitigated? (500 words max)

The creation of different streams and sub-types poses a risk that some research proposals may not fit within the specific criteria for one or other scheme. This is a particular concern with the Knowledge Creation and Knowledge Translation sub-types; in practice many research projects sit on a continuum between Knowledge Creation and Translation and many will involve elements of each.

The criteria for each sub-type will need to be developed in a way that reflects this reality and does not disadvantage proposals that contain elements of each. Research Australia looks forward to further consultation on the assessment criteria to be applied to each sub-type and stream if this approach is pursued.

For the implementation stream, the requirement for a partner organisation to provide a co-contribution to research funding could be an impediment depending on the nature and size of the co-contribution required. For example, Research Australia would propose that where a clinician participating in a research project is paid by a healthcare provider and the salary includes time spent on the research project, this should be recognised as a co-contribution to the funding.

Question 3.4:

Could the model be adjusted to optimise its impact? If so, how? (500 words max)

Research Australia is supportive of the People Grants for early career researchers proposed in Model 1 and believe this could be usefully incorporated in Model 3. Importantly, these People Grants could be used by early career researchers to generate the early stage data needed to make a successful application for a New Investigator Grant. Alternatively, the New Investigator Grants could include an initial stage of funding provided to enable this early stage data to be developed, with further funding dependent on successful completion of this stage.

Research Australia proposes that there should be no maximum term for Research Support Grants. The applicants should be required to identify the outcome they are seeking to achieve and to estimate the time required to achieve the outcome with the requested budget.

Question 3.5:

Do you have other comments about the model? (500 words max)

Research Support Grants provide the opportunity to employ and support early and mid-career researchers. Applicants for grants should be required to include the number of researchers at different career stages they expect to employ and to provide a career development plan for assessment as part of the grant application.

General

Question 4:

Do you have comments on the other issues discussed in this paper? (500 words max)

Research Australia is sympathetic to the objectives of reducing the burden on peer review panels and applicants alike, and also endorses the aim of seeking to provide greater opportunities for early and mid-career researchers. In respect of the major objectives of the NHMRC's grant program outlined on page 12 of the consultation paper, Research Australia believes that it is important to be clear about *which* are the most important when redesigning the structure of NHMRC's funding programs.

The three models presented in the Consultation Paper are described at a high level and it is difficult to be precise about the likely outcomes. As the Expert Group considers the submissions and further refines and develops its thinking, it will be possible to do some more precise modelling of different aspects of the proposals - e.g. assumptions about average numbers of CIs and grant terms and the application of the caps will enable modelling of the likely reduction in application numbers. Whatever the final model (including the one proposed by Research Australia below) Research Australia submits that it will be essential to undertake strenuous modelling and risk assessment of any chosen model's efficacy and to be vigilant for any unintended consequences.

There are significant risks to individual researchers and institutions in changing the NHMRC model for funding. The current funding system has evolved together with the health and medical research sector over several decades and has become integral not only to the research performed in Australia, but to the standing of individuals and institutions and to the latter's international rankings. It is important to recognise that NHMRC funding, as a 'grant in aid' scheme, does not exist in a vacuum and any changes the NHMRC make, needs to take into account other funding mechanisms. This includes other Commonwealth agencies and departments, the research institutions themselves, state governments, philanthropists and industry.

Research Australia is supportive of a number of the components of the Models and is effectively proposing a hybrid model:

- Maintain two streams with an emphasis on a) track record and b) the idea.
- Do not impose a minimum or maximum limit on the number of CIs on an application.
- Do not impose a minimum or maximum duration on grants, instead providing funding to achieve a specific outcome.
- Part-time and short duration CIs should be allowed, and the caps adjusted appropriately.
- The People Grants for early to mid-career researchers proposed in Model 1 should be a component of any future NHMRC funding model.
- Milestones should be employed for most grants, with continued funding subject to satisfaction of each milestone (subject to negotiation where necessary).
- How a research proposal will support the career progression of early and mid-career researchers engaged in the project should be considered as part of the grant assessment.

- Fellowships that are independent of grants should be maintained for specific career stages and groups. In particular, recognising that Fellowships often contribute only part of a Fellow's remuneration, consideration should be given to Fellowships that allow the Fellow to undertake other duties such as teaching and working in industry, including as a healthcare provider. Such Fellowships could be particularly important in supporting mid-career researchers and encouraging mobility between sectors.

NHMRC funding is typically provided as 'grant in aid' without a commitment that the funding provided will be sufficient to fund the whole of the research. The NHMRC should consider a formal process whereby, if it funds only part of the costs of the proposed project, it requires the applicants to demonstrate how the balance of the costs, including indirect research costs, will be funded. One advantage of an explicit requirement of this nature is that it gives researchers the opportunity to leverage a philanthropic contribution to fund the balance of the research budget.

Consumer participation in research is not addressed in the Consultation paper. Research Australia believes that this review provides an opportunity to consider how and where consumer participation in research should be incorporated in the new funding programs arising from this review.

While recognising the objectives of the caps in all three models, Research Australia is of the view that they will need to be applied carefully. The caps will need to accommodate circumstances in which a CI ceases to be involved with a research project. Research Australia proposes that rules be developed which clearly outline the circumstances in which an individual researcher can be removed from a project and be eligible to apply for and/or hold another grant.

Careful consideration also needs to be given to whether CIs are effectively required to be full time on a particular project. If the participation of CIs on a part-time basis, or for a specific period is to be permitted, the caps should be modified to recognise these circumstances. Particular consideration needs to be given to the implications of the caps for 'specialist' researchers who are likely to be involved in a project on a part-time basis, or for a specific stage of the project. If these individuals are eligible to be a CI, the rules will need to be adjusted. If part-time and short duration CIs are not allowed, further consideration will need to be given to how career progression for these individuals can be supported.

The track record of applicants needs to be considered in the context of the research proposal. For example, clinician researchers should receive credit for their clinical experience and achievement where these are relevant to the proposal. Similarly, the prior experience of grant applicants in the translation and commercialisation of research and in product development should be considered positively where these skills and experience are likely to be relevant to the research proposal. The demonstrated leadership qualities of the CIs are another key element that should be considered in the assessment of grants, particularly those with larger budgets and research teams.

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