

Structural Review of NHMRC's Grant Program

Public consultation

Template for written submissions

The NHMRC will consider submissions that address the consultation questions and use the template provided. The consultation questions are listed below for each of the three models canvassed in the discussion paper, with a general question at the end of this template. You may answer as many of the questions as you wish. The questions can also be found on page 22 of the consultation paper.

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Alternative model 1

Refer to information about alternative model 1 in the consultation paper and respond to the consultation questions below.

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)

This model will adequately address some of the major objectives of: research excellence; research breadth; and collaboration & partnerships as it relies on teams of researchers working together, irrespective of discipline. It should be noted other models will also deliver these objectives.

It is not clear how this model would deliver the other major objectives: research translation; and national researcher capability.

Research translation requires engagement with industry, government and non-academic areas of the sector. It is not clear how this model would support or allow researchers to move in and out of this type of engagement.

Early and Mid-Career Researchers have raised concerns that this model will not support early and mid-career researchers to address new, innovative ideas or to achieve to start independent careers. The model relies on Senior Researchers leading large teams containing selected EMCRs, where there is little opportunity to explore new ideas. This would essentially stall the future of Australian Science, by funding the same groups that have historically been funded.

Innovative, breakthrough discoveries may also be overlooked if the researcher does not 'fit' within an established team or is from a field that might be under-represented in Australia.

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)

The mid career stage is proving the most challenging period in research careers. An immediate and major disadvantage is that this model will exclude mid-career researchers to an even greater extent than current schemes. The requirement to include an EMCR on the grant will not impact on

the majority of EMCRs, as only the very top, “personally selected” EMCRs would be included on the grant by the senior researchers. Past grant behaviour would suggest that it is likely that applicants would include a minimal number of EMCRs on the grant (i.e. probably one) in order to be eligible. The inclusion of an early career personal grant would provide some career stability for ECRs, but this would not be available to mid-career researchers who are not eligible for the ECR people support, thereby putting further instability onto what is already the most challenging period in a research career.

A further unintended negative consequence of this model may be a reduction in collaboration. With a limitation on the number of applications per person, researchers may be reluctant to participate in someone else’s program at the expense of applying for or holding their own program.

As this model is an expansion of the current Program Grant scheme, it is important to consider whether that scheme has successfully addressed **all** of the objectives outlined in the consultation document.

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)

This model includes mid-career researchers in someone else's research program, rather than them driving the research program and establishing an independent research career. The model may not achieve diversity, broader thinking or build the capacity of EMCRs. If implemented, this model would need mid-career researchers to be treated separately from early-career researchers, with dedicated funding for teams led by mid-career researchers and/or mid career people funding stream.

There was some concern that large Program Grants that require collaboration across multiple institutions may have implications for institutional block funding allocations. The potential negative consequences need to be thoroughly explored to avoid any disincentive for cross-institution collaboration and therefore multidisciplinary collaborations.

The fact that applicants can only have one team grant increases the risk that productive teams may fall over if they are unable to secure subsequent funding in years 4 and 5.

Question 1.4:

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

This model would be more favourably if the Program Grants were smaller, shorter and there were more of them. The career-stage streams in Model 2 could also be considered for Model 1, as well as a bonus for equity, diversity, career-stage or capacity-building, potentially through the use of incentives (e.g. for including mid-career researchers).

An “Ideas scheme” to provide funding for innovative ideas, particularly for funding short grants (1 year) for high-risk, high-reward ideas (similar to seed grants) would allow researchers to test new ideas outside of the context of a large team.

Question 1.5:

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

Alternative model 2

Refer to information about alternative model 2 in the consultation paper and respond to the consultation questions below.

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)

This model will adequately address the major objectives of research excellence and research breadth. It should be noted that all of the models will deliver these objectives. There are concerns that disciplines requiring large teams (i.e. public health, clinical trials and aboriginal/Torres Strait Islander research programs) will not fit well in this model.

It is not clear how this model would deliver the other major objectives: collaboration & partnerships; research translation; and national researcher capability:

Research translation requires engagement with industry, government and non-academic areas of the sector. It is not clear how this model would support or allow researchers to move in and out of this type of engagement. This type of scheme relies heavily on track record, therefore time out of academia and working in collaboration with non-academia would have to be considered as a major track record bonus.

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)

This model may inhibit collaboration, as it focuses on individuals obtaining a grant based largely on track record. Funding individual researchers may lead to 'self-centred' research outputs, i.e. participation only if there is a clear benefit to the individual.

Conversely, this model might facilitate collaboration by providing greater flexibility for individual researchers (e.g., if a project changes direction requiring new collaborations, there is flexibility to do this).

Early and Mid-Career Researchers have raised concerns that this model will only support the very top researcher in each career stage, overtime these researchers will progress through the system with little room for new investigators to enter the system at each career stage. Greater detail about the streams is needed to ensure that early and mid career researchers are not disadvantaged.

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)

This model could result in fewer people obtaining grants. Modelling will be required to ensure that the impact on the sector will not be too large.

The model provides a lot of flexibility and freedom for the researcher but this freedom may result in some researchers changing direction or not completing a project. Regular reporting and follow-up on undelivered outcomes will have to be implemented by the NHMRC.

Concerns from the non-academic sector were raised about the possibility of significant amounts of funding (including salaries) being provided to individuals with no clear course of accountability. How would the average Australian citizen respond to government funding being distributed to individuals based on track record rather than a clear plan with accountable stages built-in?

There is also a risk that this structure will discourage multidisciplinary collaborative projects of the kind identified as necessary for Australia's long-term health and well being. It is not clear how the collaborative bonus would create the large multidisciplinary and multisite projects that other and current schemes afford.

Question 2.4:

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

Question 2.5:

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

This model would be more appropriate for high-risk/high return philanthropic or private sector funding. The risk of limited outcomes and accountability raises significant concerns for use of NHMRC funds.

There was a suggestion that we ask the Walter and Eliza Hall Institute of Medical Research about whether its Laboratory Head scheme has been successful (as this scheme provides allocations of funding to Laboratory Heads, similar to the approach in Model 2).

Alternative model 3

Refer to information about alternative model 3 in the consultation paper and respond to the consultation questions below.

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)

This model would most effectively address all 5 major objectives of NHMRC's grant program. The flexibility of this model would allow small, medium and large teams from all disciplines to be funded.

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)

Most EMCRs favour this model, as it focusses on the research idea and outcomes for Australian health. Like Model 1, this scheme has the potential to negatively impact on mid-career researchers who would not be eligible for new investigator grants, and are excluded by senior CIs in order to maximise the chance of the grant being successful.

The disadvantage of this model is that it has been perceived as the status quo, the limited information in the consultation document describes a model very similar to the current project grant scheme. The model would require further refinements to differentiate it from the current scheme.

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)

An unintended consequence of this model might be smaller teams, as CIs (including senior CIs) would be restricted in the number of grants they are involved in. This will result in ‘real’ engagement from CIs in the projects and senior researchers could be involved in alternate roles (e.g., in a 'mentoring investigator' role).

Question 3.4:

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

There should not be a limit on the number of CIs who can be on a grant.

Provide incentive (bonus scores) for mid-career and senior researchers with salaries funded by institutions. This would reduce the reliance on the NHMRC schemes for large salaries and to deter tenured investigators drawing salaries from the NHMRC (which is where the current system provides incentives to institutions).

Incentives should also be employed on the grant to increase greater diversity of applicants. Exceptions should be made for Industry/CSIRO/Health service employees that require NHMRC salary support for time allocated to complete the study.

There needs to be partitioned early and mid-career streams with dedicated funding. The level of the most senior researcher on the grant would determine the stream that they can apply for (i.e., if a mid-career researcher is the most senior CI, then it goes into the mid-career funding stream). An example funding matrix is outlined below:

	Tier 1 funding level Eg: < 1 x quanta/year	Tier 2 funding level Eg: 1 x quanta – 2 x quanta/year	Tier 3 funding level Eg: > 2 x quanta/year
ECR	First grant	ECR/MCR team	

MCR	Return to research/Change in discipline*	ECR/MCR team	Leading Medium - Large Team
SR		New Discipline and Team* Mentor role ONLY for ECR/MCR*	Leading Large Team

*Requires extra evidence and no or very limited track record assessment
Salary can be requested for any researcher in any Tier, included in quanta. Example of quanta would be \$100K-\$200K.

Question 3.5:

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

This scheme could include a mentoring award similar to the NIH's 'K01' award to encourage very senior researchers to mentor other investigators rather than lead projects.

There should be bonuses for collaboration, as well as diversity (e.g., career stage and gender diversity).

General

Question 4:

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

The EMCR Forum and EMCRs in the health and medical research sector acknowledge that all 3 models are feasible and would alleviate the burden of grant writing and reviewing on the sector.

There remains a requirement for explicit initiatives and guidelines that will address gender inequity at mid-career and senior levels and EMCRs having low success rates. Both of these issues are an unintended consequence of funding 'excellence' based on track record, as current assessment metrics still do not address against career disruption and EMCRs adequately. Partitioned funding for EMCRs and career disruption is required, or removal of track record assessment from funding decisions.