



2018 GUIDE TO NHMRC PEER REVIEW

1	DEFINITIONS	2
2	INTRODUCTION	2
3	ENQUIRIES	3
4	PRINCIPLES, OBLIGATIONS AND CONDUCT DURING PEER REVIEW	3
4.1	NHMRC’s Principles of Peer Review	4
4.1.1	Understanding the Principles	4
4.2	Australian Code for the Responsible Conduct of Research	7
4.3	Disclosure of Interests.....	7
4.3.1	Failure to Declare an Interest.....	7
4.3.2	What is a Conflict of Interest (CoI)?	8
4.3.3	Potential COI Guide	8
4.3.4	Disclosure of Interest	13
4.3.5	Managing Conflicts of Interest during Peer Review	13
4.4	Contact between Applicants and Peer Reviewers	14
4.5	Privacy and Confidentiality	14
4.6	Freedom of Information	14
4.7	Relative to opportunity and career disruption.....	14
4.8	Use of Impact Factors and other metrics	14
4.9	Industry-Relevant Experience	16
4.10	Enhancing Reproducibility and Applicability of Research Outcomes	16
5	COMPLAINTS	16
6	PEER REVIEW PROCESS.....	16
6.1	Reviewing applications	16
6.2	Principles for setting conditions of funding for NHMRC grants.....	18
7	RESOURCES	18
7.1	NHMRC Resources.....	18

1 DEFINITIONS

The *Australian Code for the Responsible Conduct of Research* (the Code) describes peer review as the impartial and independent assessment of research by others working in the same or a related field. In the context of funding research grant applications, peer review involves the assessment of the scientific or technical merit of applications by individuals (peers) with knowledge and expertise appropriate for the applications they are reviewing.

All terms in the *Guide to NHMRC Peer Review* and its supporting documents have the same meaning as given in the *NHMRC Funding Agreement*, unless stated otherwise.

2 INTRODUCTION

The National Health and Medical Research Council (NHMRC) is responsible for managing the Australian Government's main investment in health and medical research in a manner consistent with Commonwealth legislation and guidelines. We have a responsibility for ensuring that taxpayers' funds are invested wisely and fairly to support the best health and medical research.

NHMRC Corporate Plan 2017-2018 includes NHMRC's strategic directions, the major health issues for this period, how NHMRC will deal with these issues and a strategy for medical research and public health research. NHMRC investment of the Medical Research Endowment Account (MREA) is guided by the strategic direction and major health issues outlined in the *NHMRC Corporate Plan 2017-2018* and incorporates Targeted Calls for Research and strategic priorities including measures to improve gender equality in funded rates.

NHMRC invests in the highest quality research and researchers, as determined through peer review, across the four pillars of health and medical research: biomedical, clinical, public health and health services.

The review process relies on the expertise and commitment of researchers who choose to serve on NHMRC Grant Review Panels (GRPs), and forms the basis of NHMRC's decision-making when recommending applications for funding.

This *Guide to NHMRC Peer Review* outlines the overarching principles and obligations under which NHMRC's peer review process operates, including:

- important information about the standards and best practice for the conduct of peer review
- obligations in accordance with legislation and guidelines
- guidance on how to declare and manage conflicts of interest in NHMRC peer review.

This guideline is aligned to the *NHMRC Principles of Peer Review* (see section 4) and apply to all funding schemes peer reviewed by NHMRC. They must be read in conjunction with:

- *NHMRC Funding Rules*, incorporating the scheme-specific funding rules, which set out the rules, objectives and other considerations relevant to NHMRC funding
- the scheme-specific peer review guidelines, which provide additional information about the steps in each scheme's peer review process
- the *NHMRC Advice and Instructions to Applicants*, incorporating the scheme-specific advice and instructions to applicants, which provide guidance to assist researchers and Administering Institutions with preparing and submitting applications

- the *NHMRC Funding Agreement*, which sets out the terms and conditions of funding between the NHMRC and Administering Institutions.

These guidelines will be updated annually and may be amended when considered necessary. Applicants and peer reviewers should refer to the latest versions as published on the NHMRC website accordingly.

3 ENQUIRIES

For enquiries regarding NHMRC's funding schemes, researchers are directed to the relevant funding scheme's web page on the NHMRC website under Apply for Funding or to the RGMS Training Program for guides on navigating the Research Grants Management System (RGMS).

Researchers requiring further assistance should direct enquiries to their Administering Institution's Research Administration Officer (RAO). RAOs can contact NHMRC's Research Help Centre (RHC) for further advice.

NHMRC's RHC

P: 1800 500 983 (+61 2 6217 9451 for international callers)

E: help@nhmrc.gov.au.

Please see the RHC webpage for opening hours or more information.

4 PRINCIPLES, OBLIGATIONS AND CONDUCT DURING PEER REVIEW

The peer review process requires applications to be reviewed by people with the expertise to assess the application. This carries an obligation on the part of reviewers to act in good faith, in the best interests of NHMRC and the research community and in accordance with NHMRC policy, *NHMRC's Principles of Peer Review*, the Code and the requirements of relevant Australian Government legislation and guidelines¹.

NHMRC expects GRP members to exemplify integrity in all involvement with the peer review process. This includes, but is not limited to, the maintenance of absolute confidentiality and not using their involvement (or information obtained from their involvement) to gain an advantage for themselves or any person, or to cause detriment to NHMRC.

Participants involved in the peer review process and their precise roles may vary between schemes. Refer to the scheme-specific peer review guidelines for a description of the roles and responsibilities of participants in NHMRC's peer review process.

With the exception of schemes that conduct interviews, e.g. Centres of Research Excellence, the identity of peer reviewers (including external peer reviewers, GRP members, Chairs and Assistant Chairs) is confidential and will not be revealed to the applicant at any time.

Key participants in the peer review process will be acknowledged on the NHMRC website without reference to the specific application that they assessed, following the peer review process.

¹ Including the *National Health and Medical Research Council Act 1992*, the *Public Governance, Performance and Accountability Act 2013* and the *Commonwealth Grants Rules and Guidelines*.

4.1 NHMRC's Principles of Peer Review

The Council of NHMRC endorsed the following Principles of Peer Review (the Principles) on 14 March 2013. The Principles are high-level, guiding statements that underpin NHMRC's peer review processes.

- **Fairness.** Peer review processes are fair and seen to be fair by all involved.
- **Transparency.** All stages of peer review are transparent.
- **Independence.** Peer reviewers provide independent advice. There is also independent oversight of peer review processes by independent Chairs and Observers.
- **Appropriateness and balance.** The experience, expertise and operation of peer reviewers are appropriate to the goals and scale of the funding vehicle.
- **Research community participation.** Persons holding taxpayer-funded grants should willingly make themselves available to participate in peer review processes, including mentoring of junior researchers, whenever possible².
- **Confidentiality.** Participants respect that confidentiality is important to the fairness and robustness of peer review.
- **Impartiality.** Peer review is objective and impartial, with appropriate processes in place to manage real and perceived conflicts of interest (CoI).
- **Quality and excellence.** NHMRC will continue to introduce evidence-based improvements into its processes to achieve the highest quality decision-making through peer review.

4.1.1 Understanding the Principles

Fairness

- Peer review processes are designed to ensure that peer review is fair and seen to be fair by all involved.
- Peer review participants have an obligation to ensure that each application is judged consistently and objectively on its own merits, against published assessment criteria. Peer reviewers must be fair and impartial and not introduce irrelevant issues into consideration.
- Applications will be subject to scrutiny and evaluation by individuals who have appropriate knowledge of the fields covered in the application.
- Peer reviewers should ensure that their assessments are accurate and honest and that all statements are capable of being verified³.
- All complaints to NHMRC relating to the process are dealt with independently and impartially.
- Complaints processes are outlined on the NHMRC website. If an applicant is not satisfied with the outcome of an internal review, a complaint may be lodged with the NHMRC Commissioner of Complaints.

² Section 6.4 of the *Australian Code for the Responsible Conduct of Research (2007)* states that all researchers in receipt of public funding have a responsibility to participate in peer review.

³ Peer reviewers should provide citations for all claims made.

Transparency

- NHMRC will publish key dates⁴ and all relevant material including scheme requirements, assessment criteria and scoring processes, peer review guidelines, guides to applicants and grant announcements on its website and through direct electronic communications.
- NHMRC publicly recognises the contribution of participants in the peer review process, through publishing their names on the NHMRC website⁵.

Independence

- The order of merit determined by GRPs is not altered by NHMRC staff, RC, Council or the Chief Executive Officer (CEO)⁶. GRP Chairs are independent and are not involved in the peer review of any application before that panel. Chairs act to ensure that NHMRC's processes are followed for each scheme, including adherence to the principles of this Guide.

Appropriateness and balance

- GRPs are established to meet the objectives and breadth of disciplines covered by applications received.
- NHMRC endeavours to ensure that panels are constituted to provide the required balance of experience and expertise, including the breadth required to assess multidisciplinary applications whilst also ensuring conflicts of interest are dealt with appropriately⁷.
- NHMRC endeavours to ensure that panels are constituted to ensure an appropriate representation of gender, geography and large and small institutions.

Research Community Participation

- Persons holding NHMRC grants willingly make themselves available to participate in NHMRC peer review processes whenever possible⁸. Consistent with the Code, section 6.2, it is important that participants in peer review:
 - are fair and timely in their review
 - act in confidence and do not disclose the content or outcome of any process in which they are involved
 - declare all conflicts of interest, do not permit personal prejudice to influence the peer review process and do not introduce considerations that are not relevant to the review criteria
 - do not take undue or calculated advantage of knowledge obtained during the peer review process
 - give proper consideration to research that challenges or changes accepted ways of thinking
 - prior to their involvement, make themselves aware of relevant NHMRC policies and procedures.

⁴ *NHMRC Act*, Section 8

⁵ Such information will be in a form that prevents applicants determining which particular experts were involved in the review of their application.

⁶ NHMRC Research Committee may recommend funding additional applications 'below the line' in priority areas, such as research to improve the health of Aboriginal and Torres Strait Islander peoples.

⁷ When the panel considers that the advice of key experts who have had to leave the meeting due to conflicts is essential, the Chair may request those experts to return to the meeting to answer technical questions, but absent themselves before scoring takes place.

⁸ Australian Code for the Responsible Conduct of Research, 6.4

Confidentiality

- All participants in peer review act in confidence and must not disclose any matter regarding applications under review to people who are not part of the process.
- Any information or documents made available to panel members during peer review are confidential and must not be used other than to fulfil their role or following the review if required by court order or statute⁹.
- NHMRC will endeavour to protect the identity of GRP members and peer reviewers assigned to any particular application, unless NHMRC is required to release such information by relevant legislation. On these occasions NHMRC will provide notification to the peer reviewers and panel members.

Impartiality

- Peer review participants must declare all interests and matters that may, or may be perceived to, affect their judgement on particular applications.
- GRP members must disclose relationships with other members of the panel, or with grants being reviewed by other panel members, including:
 - research collaborators
 - student, teacher or mentoring relationships
 - employment arrangements
 - any other relationship that may, or may be seen to, impair fair and impartial judgement.
- GRP Chairs manage conflicts of interest to ensure that no one with a significant conflict is involved in decision making on relevant applications.

Quality and Excellence

- NHMRC will continue to introduce evidence-based improvements into its peer review processes.
- Any significant change will be developed in consultation with the research community and may involve piloting new processes in smaller or one-off schemes.
- NHMRC will strive to introduce new technologies that are demonstrated to maximise the benefits of peer review, and improve the efficiency and effectiveness of the process while minimising individual workloads.
- NHMRC will undertake post-program assessment of all its schemes, based on feedback from applicants, panel members, Chairs, RC and the NHMRC Commissioner of Complaints.
- NHMRC will provide advice, training and feedback for peer reviewers new to NHMRC peer review.
- Where the GRPs find external peer reviews to be substandard, NHMRC may provide such feedback directly to the reviewer or their institution.

⁹ As per the Deed of Confidentiality signed by panel members.

4.2 Australian Code for the Responsible Conduct of Research

The Code describes the important role of peer review in assessment of grant applications and outlines responsibilities of institutions, peer reviewers and researchers in the peer review process. Peer review provides expert scrutiny of a project which helps to maintain high standards and encourages accurate, thorough and credible research reporting. Peer review can also draw attention to deviations from the principles of the Code, such as double publication, errors and misleading statements¹⁰.

All participants in NHMRC peer review are required to be familiar with the Code, in particular chapter 6.

4.3 Disclosure of Interests

NHMRC is committed to ensuring that interests of any kind are dealt with consistently, transparently and with rigour in accordance with Part 5, 42A of the NHMRC Act, sections 16A and 16B of the *Public Governance, Performance and Accountability Rule 2014*¹¹ and the *NHMRC's Privacy Policy* and disclosure procedures.

An “Interest” is defined in section 4 of the NHMRC Act as meaning “any direct or indirect, pecuniary or non-pecuniary, interest”. Under section 29 of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act), “an official ... who has a material personal interest that relates to the affairs of the entity must disclose details of the interest”.

A material personal interest arises in any situation in which a participant in a peer review process has an interest which may influence, or be perceived to influence, the proper performance of the participant's responsibilities to NHMRC. The perception of an interest is as important as any actual interest.

Guidance on the management of disclosure of interests, including conflicts, is provided below. Panel members and external peer reviewers will receive separate detailed instructions regarding the process for completing the CoI process within NHMRC's RGMS and a briefing on disclosure requirements under the PGPA Act.

4.3.1 Failure to Declare an Interest

The NHMRC Act requires interests to be identified and specifies the courses of action that apply when this requirement has not been met.

- Section 42A of the NHMRC Act requires members to disclose interests in matters being considered.
- Paragraph Section 44B(3)(b) requires the Minister or the CEO to terminate the appointment of a member for failing to comply, without reasonable excuse, with the disclosure of interest requirements outlined in the NHMRC Act.

It is important for participants to inform NHMRC of any circumstances which may constitute an interest.

¹⁰ *Australian Code for the Responsible Conduct of Research* (2007) Chapter 6

¹¹ Made under subsection 29(2) of the PGPA Act.

4.3.2 What is a Conflict of Interest (CoI)?

A CoI exists where there is a divergence between the individual interests of a person and their professional responsibilities such that an independent observer might reasonably conclude that the professional actions of that person are unduly influenced by their own interests.

CoIs in the research area are common and it is important that they are disclosed and dealt with properly. CoIs have the potential to compromise judgments and decisions that should be made impartially. Such compromise could undermine community trust in research.

Financial CoIs are foremost in the public mind but other conflicts of interest also occur in research, including personal, professional and institutional advantages.

For NHMRC peer review purposes, interests may fall into the broad domains of:

- involvement with the application under review
- collaborations
- working relationships
- professional relationships and interests
- social relationships or interests
- teaching or supervisory relationships
- financial relationships or interests
- other interests or relationships.

The perception that a CoI exists is also a serious matter and raises concerns about the integrity of individuals or the management practices of the institution.

Researchers frequently have a CoI that cannot be avoided. Decision making processes in research often need expert advice, and the pool of experts in a field can be so small that all the experts have some link with the matter under decision. An individual researcher should therefore expect to be conflicted from time to time, be ready to acknowledge the conflict and make disclosures as appropriate.

Your interest/s declaration will enable NHMRC to determine:

- whether or not, after the interest has been declared, you should be involved in the peer review process in relation to a particular application
- if you are to be involved, the scope of such involvement (e.g. provide a score or report but not be involved in further discussion or the final scoring /ranking of an application).

4.3.3 Potential COI Guide

The following CoI Situations and Additional Guidance for Work and Professional CoI tables outline matters that may need to be considered when deciding the level of potential conflicts and provide some examples of specific situations where CoIs in the peer review process apply.

The tables are intended to be for guidance only. They are representative of CoI situations rather than

definitive, as each situation is different and needs to be considered on its merits. The tables are provided to assist participants in the peer review process to identify the types of circumstances in which CoIs might arise, but are not intended to be checklists.

Note that CoIs relate to Chief Investigators – **not** Associate Investigators.

CoI situations requiring further clarification

Situation	Explanations and examples	Conflict level*
Application under review	You are a named participant on the application under review.	High
	You have had discussions/input into the study design or research proposal of this application.	High
Collaborations	You have actively collaborated re publications (co-authorship), pending applications, existing NHMRC or other grants.	High
	You have an indirect collaboration e.g. collaborating co-worker, member of a research or discussion group, co-author of a large multi-author paper where involvement was minimal, provided cells/animals etc. to applicants without financial gain or exchange.	Obtain a ruling from NHMRC
	You are planning, or have been approached to be involved in a future grant application or other future collaborative relationship with this applicant(s).	Obtain a ruling from NHMRC
Working relationship	Please refer to Additional Guidance table below.	
Professional relationships and interests	Please refer to Additional Guidance table below.	
Social relationship and/or interests	There is a personal/social relationship between you, your partner or other member of your family and the applicant.	Usually High, may need a ruling from NHMRC
	You have a personal / social relationship with the applicant's partner or other member of their family.	Usually High, may need a ruling from NHMRC

Teaching or supervisory relationship	For either undergraduate or postgraduate studies, you have taught or supervised the applicant; you co-supervised the applicant; your own research was supervised by the applicant.	High
Financial interest in the application	You have an associated patent pending; supply goods and services; improved access to facilities; provide cells/animals or similar to the applicant.	Usually High, may need a ruling from NHMRC
	You receive research funding or other support from a company and the research to be reviewed may impact upon the company.	Usually High, may need a ruling from NHMRC
Other interests or situations	You have a previous or pending dispute (may require consideration of events earlier than the last five years).	High

* Indicative only. Experienced NHMRC staff will exercise judgement when deciding the level of conflict and, in doing so, will consider the particular circumstance of each potential conflict.

Additional Guidance for Work and Professional CoI

Situation	Explanations and examples		Conflict level*
Working Relationship	You have the same employer or are part of the same organisation	Where an assessor and an applicant work at the same independent Medical Research Institute (e.g. Baker IDI Heart and Diabetes Institute, The Garvan Institute of Medical Research etc.) or in the same University/ Hospital Department	High
		Where an assessor or applicant holds a position of influence within an organisation, or has a pecuniary interest, e.g. Dean of Faculty or School/ Institute Directors.	High
		Where an assessor and an applicant work for	Low

		the same institution but at different campuses and do not know each other	
		Where an assessor and an applicant work in the same faculty but in different schools/departments and do not know each other.	Low
	You are working in the same department (or equivalent) within an organisation		High - in most situations due to perceived CoI relating to potential financial benefit from showing favour towards application, and the likelihood that the assessor and applicant know each other.
	You work in the same locality but for a different organisation, i.e. Where an assessor works for a University and an applicant works for an affiliated Medical Research Institute (or vice versa), such as relationships between: <ul style="list-style-type: none"> The University of Melbourne and Walter and Eliza Hall Institute of Medical Research (WEHI); or The University of New South Wales and The George Institute for Global Health. 	When there is a direct association/collaboration between the assessor and applicant, where the assessor may have or may be perceived to have a vested interest in this research.	High
		Where two organisations are affiliated but there is no direct association/collaboration between the assessor and applicant (e.g. researchers located at the University of Melbourne faculty that has no direct association/collaboration with applicant at WEHI).	Low
Professional relationships and interests	You are also a member of the same scientific advisory committee, review	Where you hold a membership in which you may be perceived to have a vested interest,	High

	board, exam board, trial committee etc.	i.e. pecuniary or other direct interests with the proposed research, e.g. when another board/committee member is associated with the grant application (a member of the CI team or is Faculty/Department Head where the research is to be conducted.)	
		You are a member of the same advisory board or committee but otherwise have no links or association that would constitute a High ruling.	Low
	You or your organisation are affiliated with the applicant's organisation, i.e. where an assessor and an applicant work for different organisations that have active/ongoing collaborations or affiliations, such as affiliations between: <ul style="list-style-type: none"> • The University of Melbourne and Walter and Eliza Hall Institute of Medical Research (WEHI), or • The University of New South Wales and The George Institute for Global Health, or • The Schools of Health Sciences at two or more different universities, as 	Where there is a direct link/collaboration between the applicant and assessor, in which the assessor may have or may be perceived to have a vested interest in this research.	High
		Where two organisations are affiliated but there is no direct association/collaboration between applicant and assessor (e.g. researcher located at the University of Melbourne and has no direct link/collaboration with individual at WEHI).	Low

	part of a research or teaching collaboration.		
	You or your organisation is affiliated or associated with organisations such as pharmaceutical companies, tobacco companies etc.	When you or your institution has an affiliation/association with the organisation(s) that may have or may be perceived to have vested interest in this research e.g. a pharmaceutical company that has provided drugs to the applicants for testing.	High
		When you or your institution has an indirect affiliation/ association with the organisation(s) that may have or may be perceived to have a vested interest in this research, e.g. you are employed at a large institution in an area distant from the organisation(s) in question.	Low

* Indicative only. Experienced NHMRC staff will exercise judgement when deciding the level of conflict and, in doing so, will consider the particular circumstance of each potential conflict.

4.3.4 Disclosure of Interest

If you are invited to participate in a peer review process, you will be asked to declare any actual or perceived Interests you have. Members of NHMRC peer review committees will be asked to disclose their Interests after appointment, but before assessing applications, through NHMRC's RGMS. Members will be asked to make a disclosure of Interests for each application that they will review. These processes are consistent with *NHMRC's Policy on the Disclosure of Interests Requirements for Perspective and Appointed Committee Members*.

4.3.5 Managing Conflicts of Interest during Peer Review

Under the PGPA Act, the disclosure obligation continues following appointment, for example as soon as practicable after a member becomes aware of an interest or where there has been a change in the nature or extent of the interest.

For any material personal interest, the NHMRC Act and PGPA Act require that the member not be present when the matter that relates to the interest is considered, or take part in any decision of the panel in relation to the matter unless it has been determined otherwise.

4.4 Contact between Applicants and Peer Reviewers

Applicants must not make contact or attempt to influence anyone about their application who is directly engaged with its peer review (such as GRP members or external peer reviewers). Such action must be reported to NHMRC and may result in their applications being excluded from consideration. Similarly, anyone directly engaged with the peer review of an application must not contact applicants about their application.

4.5 Privacy and Confidentiality

NHMRC peer reviewers are bound to act in accordance with the provisions of the Privacy Act 1988 and the confidentiality requirements under section 80 of the NHMRC Act. See the *NHMRC Funding Rules* and the *NHMRC's Privacy Policy* for further details.

4.6 Freedom of Information

NHMRC is subject to the *Freedom of Information Act 1982* (the FOI Act) and is committed to meeting the Australian Government's transparency and accountability requirements.

Subject to its FOI obligations, NHMRC remains committed to maintaining the confidentiality of grant applications, the peer review process and the privacy of people participating in peer review. If an FOI application is received in relation to a peer review document, NHMRC will take into account the nature of those documents and where appropriate, consult with anyone whose personal information or business information may be affected by the release of those documents.

Peer reviewers should familiarise themselves with *NHMRC's Freedom of Information Processes and Policy* before commencing peer review.

4.7 Relative to opportunity and career disruption

Panel members are required to assess each application against the assessment criteria for the funding scheme. Panel members must take into account productivity relative to opportunity and career disruption considerations as outlined in the *NHMRC Funding Rules*. 'Relative to opportunity' should be considered across all assessment criteria.

As an example of career disruption considerations: If, in the last five years, an applicant took 18 months maternity leave before returning to an active research career, then that applicant can add on an extra 18 months to the normal duration counted for all of the applicant's outputs. These outputs include publication and translation outcomes: refer to sections 6.2 and 6.2.1 of the *NHMRC Funding Rules*. A peer reviewer must then take into consideration in their assessment of track record, the additional outputs provided by the applicant to account for the career disruption.

4.8 Use of Impact Factors and other metrics

Peer reviewers should take into account their expert knowledge of their field of research, as well as the citation and publication practices of that field, when assessing the publication component of an applicant's track record. Track record assessment should take into account the overall impact, quality and contribution to the field of all of the published journal articles from the grant applicant, not just the standing of the journal in which those articles are published.

It is not appropriate to use publication metrics such as Journal Impact Factors or the previous

Excellence in Research for Australia (ERA) Ranked Journal List when assessing applications.

The San Francisco Declaration on Research Assessment (DoRA) makes recommendations for improving the evaluation of research assessment. NHMRC is a signatory of DoRA and adheres to the following recommendations, as outlined in DoRA, for its peer review processes:

General recommendation:

- Do not use journal-based metrics, such as Journal Impact Factors, as a surrogate measure of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions.

NHMRC has addressed this recommendation by eliminating the use of Journal Impact Factors and ERA in the assessment of research achievement of applicants.

Recommendations for funding agencies:

- Be explicit about the criteria used in evaluating the scientific productivity of grant applicants and clearly highlight, especially for early-stage investigators, that the scientific content of a paper is much more important than publication metrics or the identity of the journal in which it is published.

NHMRC publishes assessment criteria and provides detailed descriptors in relation to each criterion for each of its funding schemes. The weighting of each criterion and the elements which are taken into consideration are also included.

- For the purposes of research assessment, consider the value and impact of all research outputs (including datasets and software) in addition to research publications, and consider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice.

NHMRC requires consideration of a broad range of measures that affect the assessment of an applicant's research achievement. These include both quantitative and qualitative measures, such as the scientific value of publications and influence on current dogma, policy or practice.

The value of the research achievement is indicated by:

- *the number of citations of individual publications*
- *success in obtaining peer reviewed grants*
- *contribution to translational outcomes such as patents*
- *commercial output*
- *public policy or implementation of change in practice*
- *invitations to conferences*
- *mentoring, leadership*
- *speaking engagements*
- *numbers and types of prizes and awards*
- *contribution to the research community.*

Applicants and peer reviewers should refer to the assessment criteria and category descriptors for each scheme. Citation metrics such as h-index, m-index or g-index used in isolation can potentially be misleading when applied to the peer review of publication output, as they do not describe the impact, importance or quality of the publication(s). They are also dependent on the citation practices of different research fields and are therefore not a reliable comparative measure across research fields. Such metrics must be considered within a broad range of measures as outlined above and used with caution.

4.9 Industry-Relevant Experience

Peer reviewers should appropriately recognise an applicant’s industry-relevant experience and outputs. To assist peer reviewers with their assessment, a *Guide to Evaluating Industry-Relevant Experience* is available on the NHMRC website.

4.10 Enhancing Reproducibility and Applicability of Research Outcomes

Assessors are required to consider the general strengths and weaknesses of the experimental design of the proposal to ensure robust and unbiased results. Assessment of the experimental design should include consideration of the scientific premise of the proposed research (i.e. how rigorous were previous experimental designs that form the basis for this proposal), effect size and power calculations to determine the number of samples/subjects in the study, sex and gender elements of the research to maximise impact and any other considerations relevant to the field of research necessary to assess the rigour of the proposed design.

5 COMPLAINTS

Applicants may contact NHMRC seeking clarification on the outcome of their application for funding, or to state an objection to any part of the peer review process. Information on the objection and complaints process is provided on NHMRC’s website.

6 PEER REVIEW PROCESS

To address the aims, objectives and assessment criteria of different funding schemes, steps in the peer review process vary between schemes as outlined in the scheme-specific peer review guidelines.

6.1 Reviewing applications

Reviewers are required to assess the application relative to the scheme-specific Assessment Criteria and where applicable, the *Indigenous Research Excellence Criteria*. Assessments should focus on the strengths and weaknesses of the application.

The table below guides assessors on what NHMRC considers acceptable and unacceptable when providing feedback on an application.

Do	Do Not
<ul style="list-style-type: none"> • Do provide constructive feedback. • Do ask questions, provide comment or seek clarification on concerns if the process allows for an applicant to respond (rebuttal) Note that applicants must be able to address these questions without modifying 	<ul style="list-style-type: none"> • Do not provide ‘nil’ comments or leave the space ‘blank’. • Do not provide broad statements which suggest that the application may or may not be worthy of funding. • Do not indicate a lack of expertise to

<p>their research proposal.</p> <ul style="list-style-type: none"> • Do refer to the category descriptors associated with the Assessment Criteria. • Do consider both the strengths and weaknesses of the application relative to the Assessment Criteria. • Do consider any career disruptions and other “relative to opportunity” considerations to understand the longer term impact these have on scientific output. • Do provide references for any body of work that you think the applicant has overlooked. • Do prioritise major concerns over minor. 	<p>review an application within the assessment.</p> <ul style="list-style-type: none"> • Do not question the integrity of the application or applicant/s. Any integrity concerns must be raised with NHMRC separately. See NHMRC’s website for more information. • Do not raise issues of eligibility in the assessment. If you have concerns about the application or applicant/s eligibility they should be raised with NHMRC separately. • Do not provide scores in the commentary. • Do not focus on numerous minor matters that the applicant/s may not have the ability to respond to. • Do not provide inappropriate comments. More specifically, do not provide comments that are: <ul style="list-style-type: none"> ○ irrelevant ○ personal ○ unscientific/unprofessional ○ offensive ○ discriminatory ○ biased ○ defamatory (see examples below).
---	--

Examples of inappropriate comments:

- “*like all researchers at University X*, the Chief Investigator (X) has a poor track record.....” [researchers who are not named on the application are irrelevant to the application]
- “*The applicant/institution already receives too much funding and NHMRC must fund more in X field*” [comment is irrelevant to the Assessment Criteria or application]
- “The applicant is strongly supported by *his spouse*” [refers to a personal rather than professional relationship.]
- “The idea that this research could determine.....*is clearly ludicrous*” [unscientific/unprofessional language]
- “The Chief Investigator A has no idea about anything” [offensive]
- “this applicant is a woman and will probably take maternity leave at some point and this could affect her ability to undertake the research” [discriminatory]
- “my university is much better at this type of research” [biased].
- “The Chief Investigator A has probably stolen data from X” [defamatory].

Assessors’ comments are not previewed by NHMRC prior to distribution to applicants.

Any potentially inappropriate comments brought to NHMRC’s attention will be reviewed objectively.

If NHMRC determines that the comment/s is inappropriate then NHMRC, whenever it is possible and reasonable to do so, will take action. Actions taken will depend on the stage of the peer review process and will be proportional to the extent or nature of the comments. Actions may include redaction, instructions to the panel, new assessment by a replacement assessor or any other action NHMRC considers appropriate to mitigate the impact of the comments.

6.2 Principles for setting conditions of funding for NHMRC grants

Setting a condition of funding (CoF) on a grant through the peer review process is, and should be, a rare event. When this does occur, the GRP uses the principles set out below to decide the CoF. These principles aim to achieve a consistent approach, minimise the number of conditions set and support conditions that are unambiguous and able to be assessed should a condition be necessary. They are designed to complement NHMRC Funding Rules and the *NHMRC Funding Agreement*. Any CoF must not duplicate requirements set out in these documents.

CoFs relate to the awarding of funding, the continuation of funding or the level of funding. They do not relate to conditions which affect either eligibility to apply or subsequent peer review.

The principles are:

- NHMRC seeks to minimise the administrative burden on researchers and Administering Institutions.
- CoFs must not relate to the competitiveness of an application (e.g. project requires more community engagement); these issues should be considered during peer review, and be reflected in the scores for the application.
- Any CoFs must be clear and measurable, so that the condition can be readily assessed as having been met. For example, where a CI has applied for a Fellowship and for salary support in a research grant, a CoF should stipulate that the applicant cannot receive more than 100% of salary support from NHMRC.

7 RESOURCES

7.1 NHMRC Resources

Please refer to the NHMRC's website for the following documents:

- About NHMRC
- Access to the Research Grants Management System (RGMS)
- *Australian Code for the Responsible Conduct of Research (2007)*
- *Australian code for the care and use of animals for scientific purposes 8th edition (2013)*
- *Commissioner of Complaints*
- *Indigenous Research Excellence Criteria (previously known as the Criteria for Health and Medical Research of Indigenous Australians)*
- *Keeping research on track: A guide for Aboriginal and Torres Strait Islander peoples about health research ethics*
- *Administering Institutions policy*
- *Advice and Instructions to Applicants 2018*
- *Freedom of Information processes policy*
- *Funding Agreement*
- *NHMRC Funding Rules 2018*

- *Policy on Misconduct related to NHMRC Funding*
- *Research integrity fact sheet two: Concerns arising during peer review about possible research misconduct*
- *Policy on the Dissemination of Research Findings*
- *Privacy Policy*
- *NHMRC Corporate Plan*
- *The Statement on Consumer and Community Involvement in Health and Medical Research*
- *NHMRC Road Map II: A Strategic Framework for Improving the Health of Aboriginal and Torres Strait Islander Peoples through Research*
- *Values and Ethics: Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research.*

Legislation

- *Commonwealth Grants Rules and Guidelines (CGRGs 2014)*
- *Criminal Code Act 1995*
- *Freedom of Information Act 1982*
- *Public Governance, Performance and Accountability Act 2013 (PGPA Act 2013)*
- *National Health and Medical Research Council Act 1992 (NHMRC Act)*
- *Privacy Act 1988*
- *Prohibition of Human Cloning for Reproduction Act 2002 (PHCR Act)*
- *Research Involving Human Embryos Act 2002 (RIHE Act)*