



## Investigator Grant 2020 Peer Review Guidelines

Opening date: Closing date and time:	<b>2 October 2019</b> 17.00 AEDT on 27 November 2019
Commonwealth policy entity:	National Health and Medical Research Council (NHMRC)
RGMS assistance and enquiries:	NHMRC Research Help Centre
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	Email: <u>help@nhmrc.gov.au</u>
	Note: NHMRC's Research Help Centre aims to provide a reply to all requests for general assistance within two working days. This timeframe may be delayed during peak periods or for more detailed requests for assistance.

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#### 1 INTRODUCTION

The National Health and Medical Research Council (NHMRC) is responsible for managing the Australian Government's investment in health and medical research in a manner consistent with Commonwealth legislation, guidelines and policies. NHMRC has a responsibility to ensure taxpayers' funds are invested appropriately to support the best health and medical research. Expert peer review assists us in fulfilling this responsibility.

This guide outlines the overarching principles and obligations under which the Investigator Grant peer review process operates, including:

- obligations in accordance with legislation, guidelines and policies
- how to declare and manage conflicts of interest (CoI), and
- standards and best practice for the conduct of peer review.

This guide should be read in conjunction with the:

- *Investigator Grant 2020 Guidelines*, which set out the rules, objectives and other considerations relevant to NHMRC funding.
- Policy on the Disclosure of Interests requirements for prospective and appointed
   NHMRC committee members
   (Section 39 Committees). This Policy outlines peer reviewers' responsibilities in order to ensure all disclosures of interests are addressed in a rigorous and transparent way throughout the period of a peer reviewer's participation in NHMRC Committees.

#### **2 KEY CHANGES**

Peer reviewers should note the following significant changes for the Investigator Grant 2020 peer review:

- Qualitative feedback will be provided to applicants. Peer reviewers will be required to write a single statement summary of their review for each application assigned to them
- Panel Assessment Confirmation meetings will no longer be held to discuss applications by exception.
- Peer reviewers will be able to seek clarification on peer review policies and processes during the assessment phase from independent Chairs.

## 3 PRINCIPLES, CONDUCT AND OBLIGATIONS DURING PEER REVIEW

The peer review process requires all applications to be reviewed by individuals with appropriate expertise. This carries an obligation on the part of peer reviewers to act in good faith, in the best interests of NHMRC and the research community and in accordance with NHMRC policies (outlined below).

#### 3.1 NHMRC's Principles of Peer Review

NHMRC's Principles of Peer Review (the Principles) are high-level, guiding statements that underpin all NHMRC's peer review processes, and include:

- Fairness. Peer review processes are fair and seen to be fair by all.
- Transparency. Applies to all stages of peer review.
- **Independence.** Peer reviewers provide independent advice. There is also independent oversight of peer review processes by independent Chairs and Observers.
- **Appropriateness and balance.** There is appropriate experience, expertise and representation of peer reviewers assessing applications.
- Research community participation. Persons holding taxpayer-funded grants should willingly make themselves available to participate in peer review processes, whenever possible, in accordance with the obligations in the Funding Agreement.
- 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 disclosures of interest.
- Quality and excellence. NHMRC will continue to introduce evidence-based improvements into its processes to achieve the highest quality decision-making through peer review.

Additional details underpinning the Principles can be found at Appendix A.

## 3.2 The Australian Code for the Responsible Conduct of Research

The <u>Australian Code for the Responsible Conduct of Research</u> (the Code) requires researchers participating in peer review do so in a way that is 'fair, rigorous and timely and maintains the confidentiality of the content'.

The Code is supported by additional supplementary guidance, including <u>Peer Review:</u>
A guide supporting the Australian Code for the Responsible Conduct of Research.

#### 3.3 Disclosures of Interest

#### 3.3.1 What is an interest?

NHMRC is committed to ensuring that interests<sup>1</sup> of any kind are dealt with consistently,

<sup>&</sup>lt;sup>1</sup> 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".

transparently and with rigour, in accordance with Part 5, section 42A of the *National Health and Medical Research Council Act 1992* (NHMRC Act) and sections 16A and 16B of the *Public Governance, Performance and Accountability Rule 2014*<sup>2</sup> (made under the subsection 29(2) of the *Public Governance, Performance and Accountability Rule 2013* (PGPA Act)).

#### In particular, under:

- subsection 42A(3) of the NHMRC Act, peer reviewers of Council and Committees must "give to the CEO a written statement of any interest the peer reviewer has that may relate to the activity of the Council or Committee" before starting to hold office. "Interest" is defined in section 4 of the NHMRC Act as meaning "any direct or indirect, pecuniary or non-pecuniary interest."
- section 29 of the PGPA Act, "an official... who has a material personal interest that relates to the affairs of the entity must disclose details of the interest". This obligation (unlike the obligation in subsection 42A(3) of the NHMRC Act) is ongoing and not limited to a particular point in time.

For the purposes of this document, the terms "material personal interest" and "interest" are regarded as interchangeable, and whilst the term "interest/s" has been used for ease of reading, this policy includes guidance on each.

Although many positives may emerge from collaborations and partnerships with industry, there is potential for CoIs to arise. These conflicts may arise from competing commitments and Financial Interests that may, or may be perceived to affect scientific endeavours.

#### 3.3.2 What is a Conflict of Interest (Col)?

A CoI exists when there is a divergence between professional responsibilities (as a peer reviewer) and personal interests. Such conflicts have the potential to lead to biased advice affecting objectivity and impartiality. By managing any conflict, NHMRC maintains the integrity in its processes in the assessment of scientific and technical merit of the application.

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

- Involvement with the application under review
- Working relationships
- Professional relationships and associations
- Social relationships or associations

- Collaborations
- Teaching or supervisory relationships
- Financial relationships or interests
- Other relevant interests or relationships

<sup>&</sup>lt;sup>2</sup> Made under subsection 29(2) of the PGPA Act.

For further information peer reviewers should consult the NHMRC <u>Policy on the</u>
<u>Disclosure of Interests Requirements for Prospective and Appointed NHMRC Committee</u>
<u>Members</u> (Section 39 Committees).

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 consideration. An individual researcher should therefore expect to be conflicted from time to time, be ready to acknowledge the conflict and make disclosures as appropriate.

An outline of potential CoI situations and guidance is provided for peer reviewers at Appendix B.

#### 3.3.3 Disclosure of Interests in the Peer Review Process

Peer reviewers must identify and disclose interests they may have with any of the Chief Investigators (CIs) and Associate Investigators (AIs) on applications they will be reviewing. After appointment as a peer reviewer, but before assessing any applications, peer reviewers are required to disclose their interests in writing. While disclosures of interest must be declared at the beginning of the peer review process, new or previously unrecognised disclosures of interest must be declared at any stage of the peer review process. Declarations must include details that substantiate when collaborations occurred (i.e. month and year). NHMRC will use these details to verify and determine the level of conflict. Any peer reviewer who has an interest that is determined by NHMRC to have a 'high' CoI will not be able to participate in the review of that application. However, they can provide scientific advice at the request of the Chair.

#### 3.3.4 Failure to disclose an interest

A failure to disclose an interest without a reasonable excuse will result in the termination of the peer reviewer's appointment under section 44B of the NHMRC Act (section 44B also covers failure to comply with section 29 of the PGPA Act).

It is important for peer reviewers to inform NHMRC of any circumstances which may constitute an interest, at any point during the peer review process. Accordingly, peer reviewers are encouraged to consult the Secretariat if they are uncertain about any disclosure of interest matter.

## 3.4 Freedom of Information (Fol)

NHMRC is subject to the *Freedom of Information Act 1982* which provides a statutory right for an individual to seek access to documents. If documents that deal with peer review fall within the scope of a request, the FoI process includes consultation and exemptions. NHMRC endeavours to protect the identity of peer reviewers assigned to a particular application.

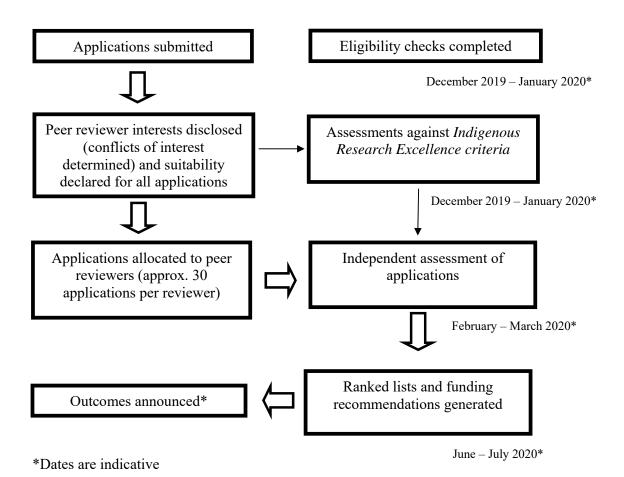
## 3.5 Complaints

NHMRC deals with any complaints, objections and requests for clarification on the peer review process. NHMRC may contact peer reviewers and/or Chairs involved to obtain

additional information on particular application/s. Further information about the NHMRC complaints process can be found on the NHMRC website.

#### 4 INVESTIGATOR GRANT PEER REVIEW PROCESS

### 4.1 Overview of the Investigator Grant peer review process



Date	Activity
27 November 2019	Deadline for Investigator Grant application submission
December 2019 –	Application eligibility review and confirmation
January 2020	
December 2019	Peer reviewers disclose interests and suitability against applications
December 2019 –	Assessments against Indigenous Research Excellence Criteria obtained
January 2020	
January 2020	Allocation of applications to peer reviewers
February 2020	Panel briefing
February – March	Peer reviewers review applications and submit scores against Investigator
2020	Grant assessment criteria for each allocated application
June – July 2020	Notification of outcomes*

<sup>\*</sup>Date is indicative and subject to change.

Further information on the steps outlined in this process is provided in section 4.3

Reviewing Investigator Grant applications.

## 4.2 Roles and responsibilities

The roles and responsibilities of those participating in the Investigator Grant peer review process are identified in the table below.

## **Investigator Grant Peer Review Participants Table**

Roles	Responsibilities
Chair	The Chair's role is to ensure NHMRC's procedures are adhered to and that fair and equitable consideration is given to every application being reviewed by peer reviewers.
	Chairs do not assess applications. However, they must manage the process of peer review in accordance with this Guide.
	Chairs need to:  • familiarise themselves with this document and other material as identified by NHMRC staff
	• identify and advise NHMRC of all interests they have with applications assigned to them
	assist peer reviewers with their duties and in understanding what is expected of them
	<ul> <li>ensure that all peer reviewers consider 'relative to opportunity', including career disruptions, when providing their advice</li> </ul>
	<ul> <li>ensure all advice given to reviewers leads to an outcome where applications are appropriately considered against the Investigator Grant assessment criteria (<u>Appendix C</u>) and associated category descriptors (<u>Appendix D</u>)</li> </ul>
	ensure peer reviewers consistently consider the assessment against the <i>Indigenous Research Excellence Criteria</i> (Appendix E) for applications with an Aboriginal and Torres Strait Islander health focus
	<ul> <li>ensure all advice given to reviewers is consistent with NHMRC policies and processes.</li> </ul>
	Chairs may need to:  • review assessor application statement summaries for inappropriate, biased or defamatory comments.

reviewing allocation of applications to peer reviewers     assisting and advising on the peer review process.  Under direction from the CEO, NHMRC staff will be responsible for overall administration of the peer review process and for the conduct of specific activities.  NHMRC staff will:     invite individuals to participate as peer reviewers or as a Chair     determine whether disclosed interests pose a conflict and the level of that conflict     act as the first point of contact for peer reviewers and community observers     provide briefings to peer reviewers     determine eligibility of applications     assign applications to the appropriate peer reviewers     support the operation of the Research Grants	n .		
with applications assigned to them  • provide a fair and impartial assessment against the Investigator Grant assessment criteria (Appendix C) and associated category descriptors (Appendix D) for each application assigned, in a timely manner  • assess track record by taking into consideration research achievements 'relative to opportunity', including any career disruptions, where applicable  • consider the assessment against the Indigenous Research Excellence Criteria (Appendix E) provided for applications with an Aboriginal and Torres Strait Islander focus  • write a summary of their assessment of each application assigned to them.  NHMRC staff with appropriate expertise may be involved in:  • reviewing allocation of applications to peer reviewers  • assisting and advising on the peer review process.  NHMRC Staff  Under direction from the CEO, NHMRC staff will be responsible for overall administration of the peer review process and for the conduct of specific activities.  NHMRC staff will:  • invite individuals to participate as peer reviewers or as a Chair  • determine whether disclosed interests pose a conflict and the level of that conflict  • act as the first point of contact for peer reviewers and community observers  • provide briefings to peer reviewers  • provide briefings to peer reviewers  • determine eligibility of applications  • assign applications to the appropriate peer reviewers  • support the operation of the Research Grants	Peer reviewers	familiarise themselves with this Guide and other	
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application assigned to them.  NHMRC staff with appropriate expertise may be involved in:		Research Excellence Criteria (Appendix E) provided for applications with an Aboriginal and Torres Strait	
reviewing allocation of applications to peer reviewers     assisting and advising on the peer review process.  Under direction from the CEO, NHMRC staff will be responsible for overall administration of the peer review process and for the conduct of specific activities.  NHMRC staff will:     invite individuals to participate as peer reviewers or as a Chair     determine whether disclosed interests pose a conflict and the level of that conflict     act as the first point of contact for peer reviewers and community observers     provide briefings to peer reviewers     determine eligibility of applications     assign applications to the appropriate peer reviewers     support the operation of the Research Grants			
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responsible for overall administration of the peer review process and for the conduct of specific activities.  NHMRC staff will:  invite individuals to participate as peer reviewers or as a Chair  determine whether disclosed interests pose a conflict and the level of that conflict  act as the first point of contact for peer reviewers and community observers  provide briefings to peer reviewers  determine eligibility of applications  assign applications to the appropriate peer reviewers  support the operation of the Research Grants		assisting and advising on the peer review process.	
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<ul> <li>community observers</li> <li>provide briefings to peer reviewers</li> <li>determine eligibility of applications</li> <li>assign applications to the appropriate peer reviewers</li> <li>support the operation of the Research Grants</li> </ul>		-	
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• support the operation of the Research Grants		determine eligibility of applications	
		assign applications to the appropriate peer reviewers	
Management System (RGMS)			
assist the Chair in responding to peer reviewer enquiries		2 2	
ensure that all peer reviewers are provided with the necessary information to review each application			

	<ul> <li>seek feedback from Chairs, peer reviewers and community observers on improvements for future processes.</li> </ul>
Indigenous health research peer reviewers	Applications nominated as Aboriginal and Torres Strait Islander health will be considered by an Indigenous Health Research peer reviewer with appropriate expertise in Aboriginal and Torres Strait Islander health.
	Indigenous health research peer reviewers will review how well each application addresses NHMRC's <i>Indigenous Research Excellence Criteria</i> (Appendix E).
	Indigenous health research external assessors will not participate in scoring. They will act as external experts and provide guiding comments to the peer reviewers relating to the <i>Indigenous Research Excellence Criteria</i> .
	Indigenous Health Research peer reviewers may also be invited to participate on grant review panels. In these instances, they may also provide an assessment against the Investigator Grant Assessment Criteria.
Community Observers	NHMRC invites respected members of the general community to observe whether NHMRC policy and procedures are being adhered to during the peer review process. Observers assist NHMRC in ensuring that the assessment of all applications is fair, equitable and impartial.
	Observers will be briefed on the processes and procedures of the peer review of Investigator Grant applications. They will not participate in the review of any application.
	Observers will:  • identify and advise NHMRC of all conflict of interests  • monitor the procedural aspects of peer review  • provide feedback to NHMRC on the consistency of peer review processes and policies.
	Observers may raise issues of a general nature for advice or action as appropriate with NHMRC staff.
	Observers are subject to the same disclosure of interest requirements as peer reviewers. Where a high CoI exists, the observer will not observe the review of the respective application(s).

## 4.3 Reviewing Investigator Grant applications

All Investigator Grant applications are assessed against the *Investigator Grant 2020 Assessment Criteria* (Appendix C) and the associated category descriptors (Appendix D). Further guidance on assessing applications against the Investigator Grant assessment criteria is provided at Appendix F.

Applications that are accepted by NHMRC as relating to the improvement of Aboriginal and Torres Strait Islander health (see section 4.3.1) are also assessed against the *Indigenous Research Excellence Criteria* as set out at <u>Appendix E</u>.

## 4.3.1 Identification of applications with an Aboriginal and Torres Strait Islander health focus

Applications relating specifically to Aboriginal and Torres Strait Islander people's health will be identified by information provided in the application. Researchers with Aboriginal and Torres Strait Islander health expertise will check whether these applications have at least 20% of their research effort and/or capacity building focused on Aboriginal and Torres Strait Islander health.

For applications confirmed as relating specifically to Aboriginal and Torres Strait Islander health research, NHMRC will endeavour to obtain at least one external assessment against the *Indigenous Research Excellence Criteria* (Appendix E) from an assessor with expertise in Aboriginal and Torres Strait Islander health. For further information on assessing applications that have a focus on the health of Indigenous Australians, see *Guidance for Assessing applications against the Indigenous Research Excellence Criteria* at Appendix G.

The assessment against the *Indigenous Research Excellence Criteria* will be considered by peer reviewers when scoring the assessment criteria at <u>Appendix C</u>.

#### 4.3.2 Receipt and initial processing of applications

NHMRC staff will verify that Investigator Grant applications meet eligibility criteria. Applicants will be advised if their application is ineligible. However, in some instances these applications will remain in the peer review process until their ineligibility is confirmed. Eligibility rulings may be made at any point in the peer review process.

Applications to Investigator Grants will be submitted in two categories, Emerging Leadership (EL) and Leadership (L), comprising five levels of salary, as set out in the table below:

	Salary	RSP	
Category	Levels	Tiers	Title
	L3	LT4	
Leadership	L2	LT3	NHMRC Leadership
		LT2	Fellow
	L1	LT1	
Emerging Leadership	EL2	ELT2	NHMRC Emerging
	EL1	ELT1	Leadership Fellow

The EL Category is restricted to researchers who are ≤10 years post-PhD or equivalent and comprises two salary levels (EL1 and EL2) with corresponding Research Support Packages (RSPs). The L Category comprises three salary levels (L1, L2 and L3) with four tiers of RSP (LT1, LT2, LT3 and LT4). The tier of RSP is not tied to the level of salary for Leadership Investigator Grants. A *Statement of Expectations* for each level of Investigator Grant is at Appendix H.

### 4.3.3 Disclosure of interests and peer reviewer suitability

Peer reviewers will be provided with an overview of applications within the Research Grants Management System (RGMS) and will need to disclose their interests in accordance with the guidelines provided at *Section 3.3* and <u>Appendix B</u>.

Some peer reviewers may have a disclosure of interest for which they require a decision. For these, NHMRC will assess the information provided by the peer reviewer and specify in RGMS a level of peer review participation for the peer reviewer.

Peer reviewers are also required to select their level of suitability for applications, based on the information available to them in the application summary.

#### 4.3.4 Assignment of applications to peer reviewers

Taking into account CoIs and peer reviewer suitability, NHMRC staff will assign applications to peer reviewers. It is expected each reviewer will be assigned approximately 30 applications. However, this is subject to change, depending on the number and peer review area of applications. Each application will be assigned up to five reviews.

#### 4.3.5 Briefing

NHMRC will provide briefing material that will provide peer reviewers further details on their duties and responsibilities associated with the Investigator Grant peer review process. This will be made available to peer reviewers prior to assessing applications. Further information may be provided as necessary throughout the peer review process.

#### 4.3.6 Assessment of applications

Peer reviewers will be given access to applications (where no high CoI exists) and will be required to assess and enter their scores in RGMS. Peer reviewers will assess all applications assigned to them against the assessment criteria, using the category descriptors, taking into account career disruptions and other 'relative to opportunity' considerations (Appendix I), where applicable.

Peer reviewers will be able to seek clarification from independent Chairs on peer review policies and processes during the assessment phase.

Peer reviewers are required to provide a brief summary of their assessment for each application they assess, summarising the strengths and weaknesses of the application. This feedback will be provided to the applicant. Peer reviewers must remember their obligation to remain fair and impartial when providing their feedback to applicants.

Peer reviewers are not to discuss applications with other peer reviewers. This is to ensure peer reviewers provide independent scores.

Peer reviewers must ensure scores and application summaries are completed by the nominated due date. If peer reviewers are unable to meet this requirement, they must contact NHMRC promptly to discuss alternative arrangements.

Peer reviewers' scores will be used to create ranked lists from which funding recommendations will be based.

For all applications, the following should be considered during the review and subsequent scoring, where applicable.

#### 4.3.6.1 Relative to opportunity and career disruption

Peer reviewers must take into account productivity relative to opportunity and, where applicable, career disruption considerations in the assessment of all applications. This reflects NHMRC's policy that assessment processes should accurately assess an applicant's track record and associated productivity relative to stage of career, including consideration as to whether productivity and contribution are commensurate with the opportunities available to the applicant. To assist peer reviewers with their assessment, further details regarding relative to opportunity and career disruptions are provided at Appendix I.

#### 4.3.6.2 Industry-relevant experience

Peer reviewers are to recognise an applicant's industry-relevant experience and outputs. To assist peer reviewers with their assessment, the *Guide to Evaluating Industry-Relevant Experience* is provided at <u>Appendix J</u>.

#### 4.3.6.3 Use of Impact Factors and other metrics

Peer reviewers are to 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 takes into account the overall impact, quality and contribution to the field 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.

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

## 4.3.6.4 Enhancing reproducibility and applicability of research outcomes

Peer reviewers 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 following, as appropriate:

- scientific premise of the proposed research (i.e. how rigorous were previous experimental designs that form the basis for this proposal)
- techniques to be used
- details for appropriate blinding (during allocation, assessment and analysis)
- strategies for randomisation
- details and justification for control groups
- effect size and power calculations to determine the number of samples/subjects in the study (where appropriate)
- consideration of relevant experimental variables, and
- 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.

#### 4.3.6.5 Research Integrity Issues

The peer review process can sometimes identify possible research integrity issues with applicants (e.g. concerns about possible plagiarism, inconsistencies in the presentation of data, inaccuracies in the presentation of track record information) or the behaviour of other peer reviewers. NHMRC has established specific processes for addressing research integrity concerns that arise in peer review. Peer reviewers must not discuss their concerns with other peer reviewers as this may jeopardise the fair assessment of an application. Instead, these issues should be raised with NHMRC separately from the peer review process. Advice about how to raise concerns and a description of how this process is managed is provided on the NHMRC website.

Applications that are the subject of a research misconduct allegation will continue to progress through NHMRC peer review processes while any investigations are ongoing. NHMRC liaises with the institution regarding the outcome of any investigation and, if necessary, will take action under the *NHMRC Research Integrity and Misconduct Policy* 

available on the NHMRC website.

#### 4.3.6.6 Contact between peer reviewers and applicants

Peer reviewers must not contact applicants about their application under review. If this occurs, the peer reviewer may be removed from the process, and there is the potential for exclusion from future NHMRC peer review.

Where an applicant contacts a peer reviewer, the relevant application may be excluded from consideration.

In either case, contact between applicants and peer reviewers may raise concerns about research integrity and NHMRC may refer such concerns to the relevant Administering Institution.

## 4.3.7 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 panel or NHMRC will use the principles set out below to decide the CoF. These principles aim to achieve a consistent approach, minimise the number of conditions set and ensure conditions are unambiguous and able to be assessed.

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.

#### 4.3.8 Funding Recommendation

Application scores from all peer reviewers are used to create three ranked lists (Leadership, Emerging Leadership 2 and Emerging Leadership 1). Each ranked list has a pre-determined total budget within the scheme's budget allocation. These ranked lists will be used to prepare funding recommendations to NHMRC's Research Committee and Council for advice to the CEO, who will then make recommendations to the Minister for Health.

#### 4.3.9 Notification of Outcomes

Applicants will be notified of the outcomes via RGMS and their Administering

Institution's Research Administration Officer.

Feedback will be provided to all applicants in the form of an Application Assessment Summary and a written summary from each assigned peer reviewer. The Application Assessment Summary will contain numerical information on the competitiveness of the application that will be drawn from the scores given by peer reviewers.

### Appendix A – Understanding the Principles of Peer Review

#### **Fairness**

- Peer review processes are designed to ensure that peer review is fair and seen to be fair by all involved.
- Peer reviewers have an obligation to ensure that each application is judged consistently and objectively on its own merits, against published assessment criteria. Peer reviewers must not introduce irrelevant issues into the assessment of an application.
- 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 that all statements are capable of being verified.
- Complaints processes are outlined on the <u>NHMRC website</u>. All complaints to NHMRC relating to the peer review process are dealt with independently and impartially.

#### **Transparency**

- NHMRC will publish key dates, all relevant material for applicants and peer reviewers, and grant announcements on its website and/or via <a href="GrantConnect">GrantConnect</a>.
- NHMRC publicly recognises the contribution of participants in the peer review process, through publishing their names on the NHMRC website<sup>1</sup>.

#### Independence

- The order of merit determined by peer reviewers is not altered by NHMRC. However, additional applications may be funded 'below the funding line' in priority or strategic areas.
- Panel 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

- Peer reviewers are selected to meet the program's objectives and to ensure adequate expertise to assess the applications received.
- NHMRC endeavours to ensure that panels are constituted with an appropriate representation of gender, geography and large and small institutions.

#### **Confidentiality**

• NHMRC provides a process by which applications are considered by peer

<sup>&</sup>lt;sup>1</sup> Such information will be in a form that prevents applicants determining which particular experts were involved in the review of their application.

reviewers in-confidence. In addition NHMRC is bound by the provisions of the Privacy Act 1988 in relation to its collections and use of personal information, and by the commercial confidentiality requirements under section 80 of the NHMRC Act.

- Peer reviewers are to treat applications 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 peer reviewers in the peer review process are confidential and must not be used other than to fulfil their role.
- NHMRC is subject to the Freedom of Information Act 1982 which provides a statutory right for an individual to seek access to documents. If documents that deal with peer review fall within the scope of a request, there is a process for consultation and there are exemptions from release. NHMRC will endeavour to protect the identity of peer reviewers assigned to a particular application.

#### **Impartiality**

- Peer reviewers must disclose all interests and matters that may, or may be perceived to, affect objectivity in considering particular applications.
- Panel members must disclose relationships with other members of the panel, or with grants being reviewed by other panel members, including:
  - o research collaborations
  - o student, teacher or mentoring relationships
  - o employment arrangements
  - o any other relationship that may, or may be seen to, undermine fair and impartial judgement.
- Disclosures of interest are managed to ensure that no one with a high 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.
- 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 with feedback from the sector.
- NHMRC will provide advice, training and feedback for peer reviewers new to NHMRC peer review.
- Where NHMRC finds peer reviewers to be substandard in their performance, NHMRC may provide such feedback directly to the peer reviewer or their institution.

## Appendix B – Guidance for Declaring and Assessing Disclosures of Interest

Conflicts frequently are regarded as a positive indicator that peer reviewers are recognised leaders who:

- have expert advice or skills
- have been given professional opportunities
- have received government funding, and
- are supported by the companies working to raise the standard of individual and public health throughout Australia.

A disclosure of interest does not mean that a peer reviewer has engaged in an inappropriate activity. It is a collaboration which may, or could be perceived to, impact impartial peer review and thus needs to be disclosed and transparently managed (where necessary) to safeguard the integrity of the peer review process. It is the peer reviewer's responsibility to disclose all interests. Failure to do so without a reasonable excuse may result in the peer reviewer being removed from the panel in accordance with subsection 44B(3) of the NHMRC Act.

In determining if an interest is a conflict, peer reviewers should give consideration to the following values that underpin the robust nature of peer review:

- Excellence through expert peer review: The benefits of peer reviewers' expert advice need to be balanced with the risk of real and or perceived interests affecting an impartial review.
- **Significance:** Not all interests are equal. The type of interest needs to be considered in terms of its significance and time when it occurred.
- Integrity through disclosure: Peer review rests on the integrity of peer reviewers to disclose any interests and contribute to transparently managing any real or perceived conflicts in a rigorous way. The peer review system cannot be effective without trusting peer reviewers' integrity.

In determining if an interest is a 'High', 'Low', or 'No' CoI, the responsibility is on the peer reviewer to consider the specific circumstances of the situation. This includes:

- the interest's significance
- its impact on the impartiality of the reviewer, and
- maintaining the integrity of the peer review process.

Once a peer reviewer discloses a conflict they can detail a brief explanation of the disclosure of interest in NHMRC's Research Grants Management System to enable accurate clarification for decisions. Wherever possible, peer reviewers are encouraged to provide sufficient detail in the explanation such as date (month and year) of collaborations. Disclosures of interest where appropriate are to be documented for conflicts with both CIs and AIs.

The written declaration of interest is retained for auditing purposes by NHMRC. The details below provide generalist examples but are not to be regarded as a prescriptive

HIGH Interest			
Situation		Example	
Associated with Application	<b>✓</b>	Peer reviewer is a CI or AI on the application under review.	
and/or Chief Investigator (CI)	<b>✓</b>	Peer reviewer has had discussions/significant input into the study design or research proposal of this application.	
Collaborations	<b>✓</b>	Peer reviewer has collaborated, in a significant way, on publications within the last three calendar years (co-authorship), pending current-round applications, existing NHMRC or other grants.	
	<b>✓</b>	There is a direct association/collaboration between the peer reviewer and a member of the CI team that may have, or may be perceived to have, a vested interest in this research.	
	<b>✓</b>	Peer reviewer has the same employer, is part of the same organisation, or is negotiating for employment at the applicant's institution, including:  • in the same research field at an independent Medical Research Institute.  • in the same Department or School of a university.	
Working		• in the same Department of a hospital.	
Working relationships	<b>✓</b>	Peer reviewer is in a position of influence within an organisation, or with a pecuniary interest, e.g. Dean of Faculty or School/Institute Directors.	
	<b>√</b>	Peer reviewer would benefit if the proposal was successful as an associate of the same scientific advisory committee, review board, exam board, trial committee, Data and Safety Monitoring Board etc. For example, a board of the hospital in which the research would be conducted.	
Professional relationships and interests	<b>✓</b>	Peer reviewer's organisation is affiliated or associated with organisations that may have, or may be perceived to have, vested interest in the research. For example, a pharmaceutical company has provided drugs for testing and therefore has a vested interest in the outcome.	
Social relationship and / or interests	<b>✓</b>	The peer reviewer has a known personal/social/perceived relationship with a CI on the application.	
Teaching or supervisory relationship	<b>✓</b>	Peer reviewer has taught or supervised the applicant for either undergraduate or postgraduate studies, cosupervised a CI, within the last three years.	

Direct financial interest in the application	<b>✓</b>	Peer reviewer has the potential for financial gains if the application is successful, such as, benefits from: payments from resulting patents, supply of goods and services, access to facilities, and provision of cells/animals as part of the collaboration.
	<b>✓</b>	Peer reviewer receives research funding or other support from a company and the research proposal may involve collaboration/association with relevant company.
Other interests or situations	<b>✓</b>	Peer reviewer has had an ongoing scientific disagreement and/or dispute with the applicant/s. This may still be ruled high if the events in question occurred beyond the last three years.
	<b>✓</b>	The peer reviewer feels that there are other interests or situations not covered above that could influence/or be perceived to influence, the peer review process

LOW Interest			
Situation		Example	
	<b>√</b>	Peer reviewer and a CI on the application have collaborated more than three years ago.	
	<b>✓</b>	Within the last three years the peer reviewer has published with the CI as part of a multi-author collaborative team (i.e. ≥10) where the peer reviewer did not have a major professional interactive role (i.e. the peer reviewer's role was a leadership role).	
	<b>√</b>	A co-worker is planning future collaborations with a CI.	
Collaborations	<b>✓</b>	Peer reviewer and a named AI on the application are actively or have previously collaborated within the last three years.	
	<b>✓</b>	Without financial gain or exchange, a peer reviewer and a contributor of the research team have shared cells/animals/reagents/specialist expertise (biostatistician) etc. but have no other connection to each other.	
	<b>✓</b>	Collaboration between a CI and the peer reviewer's research group.	
	<b>✓</b>	Peer reviewer is considering/planning/or has planned a future collaboration with a CI on the application but have no current collaborations or joint applications.	
	<b>√</b>	Peer reviewer has the same employer, is part of the same organisation or is negotiating employment at the applicant's institution	
		Peer reviewer and a CI work:  • at the same institution and do not know each other.	
NV - ul-iu -	<b>√</b>	<ul> <li>in the same Faculty or College of a university but in different Schools or Departments and do not know each other.</li> </ul>	
Working relationships		• in the same organisation, but the peer reviewer or applicant holds an honorary appointment.	
	<b>✓</b>	Peer reviewer and a CI work for two organisations that are affiliated but there is/are no direct association/collaboration.	
	<b>✓</b>	Peer reviewer and a CI are on the same scientific advisory committee, review board, exam board, trial committee, Data and Safety Monitoring Board etc., but otherwise have no association that would constitute a High decision.	
Professional relationships	<b>√</b>	Peer reviewer's organisation is affiliated with the CI's organisation.	

and interests	<b>√</b>	Where two organisations are affiliated but there is no direct association/collaboration between the CI and peer reviewer and there is no other link that would constitute a 'High' decision.	
	<b>√</b>	When the peer reviewer's 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. For example, peer reviewer is employed at a large institution that does not have a direct research interest/association with the organisation(s) in question.	
Social relationship and / or interests	1	Peer reviewer's partner or an immediate family member have a known personal/social (non-work)/perceived relationship with a CI on the application, but the peer reviewer themselves does not have any link with the CI that would be perceived or constitute a 'High' decision.	
Teaching or supervisory relationship	<b>√</b>	Peer reviewer taught or supervised the applicant for either undergraduate or postgraduate studies, co-supervised a CI, or the peer reviewer's research was supervised by a CI, more than three years ago.	
	<b>√</b>	Peer reviewer has an associated patent pending; supplied goods and services, improved access to facilities, or provided cells/animals etc. to a named CI for either undergraduate or postgraduate studies.	
Financial interest in the application	<b>√</b>	Peer reviewer has intellectual property that is being commercialised by an affiliated institution. Peer reviewer has previously provided and/or received cells/animals to/from a CI on the application, but has no other financial interests directly relating to this application that would constitute a 'High' decision.	
	<b>✓</b>	Peer reviewer receives research funding or other support from a company, and the research proposal may impact upon the company.	
Other interests or situations	<b>√</b>	Peer reviewer may, or may be perceived to be, biased in their review of the application. For example, peer reviewer is a lobbyist on a particular issue.	

### Appendix C – Investigator Grant 2020 Assessment Criteria

Applications for Investigator Grants 2020 are assessed by peers on the extent to which they address the assessment criteria:

- Track record, relative to opportunity (70%)
- Knowledge Gain (30%).

Applications will be assessed against the category descriptors at Appendix D.

**Track Record** - NHMRC defines 'Track Record' for the Investigator Grant scheme as the value of an individual's past research achievements, relative to opportunity, not prospective achievements, using evidence. Assessment of Track Record comprises peer reviewers' consideration of:

- Publications (35%)
- Research Impact (20%)
- Leadership (15%).

**Knowledge Gain** - NHMRC defines 'Knowledge Gain' for the Investigator Grant scheme as the quality of the proposed research and significance of the knowledge gained. It incorporates theoretical concepts, hypothesis, research design, robustness and the extent to which the research findings will contribute to the research area and health outcomes (by advancing knowledge, practice or policy).

Applications are assessed relative to opportunity, taking into consideration any career disruptions, where applicable (see Appendix I).

It is recognised that Aboriginal and Torres Strait Islander applicants often make additional valuable contributions to policy development, clinical/public health leadership and/or service delivery, community activities and linkages, and are often representatives on key committees. If applicable, these contributions will be considered when assessing research output and track record.

### **Appendix D – Investigator Grant 2020 Category Descriptors**

The following category descriptors are used as a guide to scoring an application against each of the assessment criteria.

While the category descriptors provide peer reviewers with some benchmarks for appropriately scoring each application, it is not essential that all descriptors relating to a given score are met.

The category descriptors are a guide to a "best fit" outcome. Peer reviewers will consistently refer to these category descriptors to ensure thorough, equitable and transparent assessment of applications.

#### **Assessing Aboriginal and Torres Strait Islander Contributions**

It is recognised that Aboriginal and Torres Strait Islander applicants make additional valuable contributions to policy development, clinical/public health leadership and/or service delivery, community activities and linkages, and are often representatives on key committees. If applicable, these contributions should be considered when assessing research output and track record.

# Track Record, relative to opportunity (70%) Publications (35%)

**Table 1. Publications** 

Score	Performance Indicator	Category Descriptors
7	Exceptional	Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates:  • an exceptional record of publications in terms of quality and contribution to science
6	Outstanding  Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates:  • an outstanding record of publications in terms of quality and contribution to science	
5	Excellent  Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates  • an excellent record of publications in terms of quality and contribution to science	
4	Very Good  Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates:  • a very good record of publications in terms of quality and contribution to science	
3	Good	Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates:  • a good record of publications in terms of quality and contribution to science
2	Satisfactory	Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates:  • a satisfactory record of publications in terms of quality and contribution to science
1	Weak or limited  Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates:  • a weak or limited record of publications in terms of quality and contribution to science	

### Research Impact (20%)

Table 2. Reach and significance of the research impact (Emerging Leadership and Leadership) (7%) <sup>1</sup>

E	Category Descriptor	rs		Leadership Score
Emerging Leadership Score	There is robust, verifiable evidence of:	Note: Applicants do not need to demonstrate all types of research impact	There is robust, verifiable evidence of:	
		<ul> <li>Knowledge:         <ul> <li>a paradigm changing development that has led to (a) new knowledge within the field that is recognised across multiple countries, (b) significant influence beyond the specific field of research or (c) the development of a new field(s) of research that has been recognised across multiple countries/beneficiaries</li> </ul> </li> <li>Health         <ul> <li>a paradigm changing development that has improved health or health systems,</li> </ul> </li> </ul>	an exceptional knowledge, health, economic and/or social impact	7
7	an exceptional knowledge, health, economic and/or social impact	services, policy, programs or clinical practice that (a) had a significant impact on health with an extensive reach, (b) had a profound impact on health with a modest reach, (c) profoundly improved the health of Australia's Indigenous people or (d) led to a significant, scalable and sustainable change in health systems and services in a large number of communities  Economic  • development of a service delivery or system change, prevention program, intervention, device, therapeutic or change in clinical practice that led to (a) the generation of significant commercial income or (b) a profound reduction in healthcare costs  Social  • changes in policy that have had (a) a significant impact on the social well-being, equality or social inclusion of very large numbers of people at a national level or across multiple countries or (b) a profound impact on the social well-being of the	an outstanding knowledge, health, economic and/or social impact	6

<sup>&</sup>lt;sup>1</sup> For the assessment of research impact, different seven point scales are used for Emerging Leadership and Leadership applicants. This is to recognise that early and mid-career researchers will have had less time to accumulate research impact.

E	Category Descripto	rs		Leadership Score
Emerging Leadership Score	There is robust, verifiable evidence of:	Note: Applicants do not need to demonstrate all types of research impact	There is robust, verifiable evidence of:	
		end-user, public and community of a smaller number of individuals at a national level or across multiple countries		
7	an exceptional knowledge, health, economic and/or social impact	<ul> <li>knowledge:         <ul> <li>a major development that has led to (a) new knowledge within the field that is recognised nationally or across multiple countries, (b) a major influence beyond the specific field of research or (c) a major influence on the development of a new field(s) of research that has been recognised nationally or across multiple countries/beneficiaries</li> </ul> </li> </ul>	an excellent knowledge, health, economic and/or social impact	5
6	an <b>outstanding</b> knowledge, health, economic and/or social impact	<ul> <li>e an important development that has improved health or health systems, services, policy, programs or clinical practice that (a) had a major impact on health with an extensive reach, (b) had a significant impact on health with a modest reach, (c) led to a significant improvement in the health of Australia's Indigenous people or (d) led to major scalable and sustainable change in health systems and services in a number of communities</li> <li>Economic</li> <li>development of a service delivery or system change, prevention program, intervention, device, therapeutic or change in clinical practice that led to (a) the generation of considerable commercial income or (b) a major reduction in healthcare costs</li> <li>Social</li> <li>changes in policy that have either had (a) a major impact on the social well-being, equality or social inclusion of very large numbers of people at a local, state/territory or national level or (b) a significant impact on the social well-being of the end-user, public and community of a smaller number of individuals at a</li> </ul>	a very good knowledge, health, economic and/or social impact	4

Emansina	Category Descriptor	rs		Leadership Score
Emerging Leadership Score	There is robust, verifiable evidence of:	Note: Applicants do not need to demonstrate all types of research impact	There is robust, verifiable evidence of:	
		local, state/territory or national level		
5	an excellent knowledge, health, economic and/or social impact	<ul> <li>Knowledge:</li> <li>a change that has led to (a) new knowledge within the field that is recognised nationally or across multiple countries, (b) had some influence beyond the specific field of research, or (c) some influence on the development of a new field(s) of</li> </ul>	a <b>good</b> knowledge, health,	3
4	a very good knowledge, health, economic and/or social impact	research that has been recognised nationally or across multiple countries/beneficiaries  Health  • a development that has improved health or health systems, services, policy,	economic and/or social impact	3
3	a <b>good</b> knowledge, health, economic and/or social impact	programs or clinical practice that (a) had some impact on health with an extensive reach, (b) had a major impact on health with a modest reach, (c) led to a major improvement in the health of Australia's Indigenous people, or (d) led to some scalable and sustainable change in health systems and services in a small number		
2	a satisfactory knowledge, health, economic and/or social impact	of communities  Economic  development of a service delivery or system change, prevention program, intervention, device, therapeutic or change in clinical practice that led to (a) the generation of some commercial income or (b) some reduction in healthcare costs  Social  changes in policy that have had (a) some impact on the social well-being, equality or social inclusion of very large numbers of people at a local, state/territory or national level or (b) an impact on the social well-being of the end-user, public and community of a smaller number of individuals at a local, state/territory or national level	a satisfactory knowledge, health, economic and/or social impact	2

Emonaina	Category Descriptors			
Emerging Leadership Score	There is robust, verifiable evidence of:	Note: Applicants do not need to demonstrate all types of research impact	There is robust, verifiable evidence of:	Score
1	a weak or limited knowledge, health, economic and/or social impact and/or the applicant has not supplied robust verifiable evidence	<ul> <li>There is limited or weak evidence of:</li> <li>the development of new knowledge</li> <li>improved health systems and services</li> <li>reductions in health care costs or economic growth</li> <li>improvements in social well-being, equality or social inclusion.</li> </ul>	a weak or limited knowledge, health, economic and/or social impact and/or the applicant has not supplied robust verifiable evidence	1

Table 3. Research Program's contribution to the Research Impact (6%)

Score	Performance Indicator	Category Descriptors
7	Exceptional	Relative to opportunity and to their field of research, there is robust verifiable evidence that the applicant's research program made:
		an exceptional contribution to the knowledge, health, economic and/or social impact
6	Outstanding	Relative to opportunity and to their field of research, there is robust verifiable evidence that the applicant's research program made:
O	Outstanding	<ul> <li>an outstanding contribution to the knowledge, health, economic and/or social impact</li> </ul>
		Relative to opportunity and to their field of research, there is robust verifiable evidence that the applicant's research
5	Excellent	program made:
		• an excellent contribution to the knowledge, health, economic and/or social impact
	Very good	Relative to opportunity and to their field of research, there is robust verifiable evidence that the applicant's research
4		program made:
		a very good contribution to the knowledge, health, economic and/or social impact
	Good	Relative to opportunity and to their field of research, there is robust verifiable evidence that the applicant's research
3		program made:
		a good contribution to the knowledge, health, economic and/or social impact
2		Relative to opportunity and to their field of research, there is robust verifiable evidence that the applicant's research
2	Satisfactory	program made:
		a satisfactory contribution to the knowledge, health, economic and/or social impact    Description   Descript
	Weak, Limited or No	Relative to opportunity and to their field of research, the applicant's research program made:
1		• a weak, limited or no contribution to the knowledge, health, economic and/or social impact
		and/or
		the applicant has not supplied robust verifiable evidence

Table 4. Applicant's contribution to Research Program (7%)

Score	Performance Indicator	Category Descriptors		
7	Exceptional	Relative to opportunity and to their field, there is robust verifiable evidence that the applicant made:  • an exceptional contribution to the research program that led to a knowledge, health, economic and/or social impact	Leadership AND/OR	
6	Outstanding	Relative to opportunity and to their field, there is robust verifiable evidence that the applicant made:  • an <b>outstanding</b> contribution to the research program that led to a knowledge, health, economic and/or social impact	instrumental role in a research program	
5	Excellent	Relative to opportunity and to their field, there is robust verifiable evidence that the applicant made:  • an <b>excellent</b> contribution to the research program that led to a knowledge, health, economic and/or social impact	Leadership of a component AND/OR collaborative role	
4	Very Good	Relative to opportunity and to their field, there is robust verifiable evidence that the applicant made:  • a very good contribution to the research program that led to a knowledge, health, economic and/or social impact	(e.g. co-investigator) in a research program	
3	Good	Relative to opportunity and to their field, there is robust verifiable evidence that the applicant made:  • a good contribution to the research program that led to a knowledge, health, economic and/or social impact	Contribution to a research	
2	Satisfactory	Relative to opportunity and to their field, there is robust verifiable evidence that the applicant made:  • a satisfactory contribution to the research program that led to a knowledge, health, economic and/or social impact	program	
1	Weak, Limited or No	<ul> <li>Relative to opportunity and to their field, the applicant made:</li> <li>a weak, limited or no contribution to the research program that led to a knowledge, health, economic and/or social impact</li> <li>and/or</li> <li>the applicant has not supplied robust verifiable evidence</li> </ul>	Limited or no contribution to a research program	

## Leadership (15%)

Table 5. Leadership

Score	Performance Indicator	Category Descriptors
		Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates <b>exceptional</b> performance in:
		• supervision, mentoring, training and/or career development of staff and/or students within and/or beyond their research group
		experience and contribution to the peer review of publications and grant applications, nationally and/or internationally
7	Exceptional	• contribution to community engagement, public advocacy, government advisory boards or committees, professional societies at a local, national and/or international level
		• non-research contribution(s) to department, centre, institute or organisation e.g. leadership or membership of committee
		conception and direction of a research project or program
		building and maintaining collaborative networks necessary to achieve research outcomes within and/or beyond their institution.
		Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates <b>outstanding</b> performance in:
		• supervision, mentoring, training and/or career development of staff and/or students within and/or beyond their research group
		experience and contribution to the peer review of publications and grant applications, nationally and/or internationally
6	Outstanding	• contribution to community engagement, public advocacy, government advisory boards or committees, professional societies at a local, national and/or international level
		non-research contribution(s) to department, centre, institute or organisation e.g. leadership or membership of committee
		conception and direction of a research project or program
		building and maintaining collaborative networks necessary to achieve research outcomes within and/or beyond their institution.

5	Excellent	Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates <b>excellent</b> performance in:  • supervision, mentoring, training and/or career development of staff and/or students within and/or beyond their research group  • experience and contribution to the peer review of publications and grant applications, nationally and/or internationally  • contribution to community engagement, public advocacy, government advisory boards or committees, professional societies at a local, national and/or international level  • non-research contribution(s) to department, centre, institute or organisation e.g. leadership or membership of committee  • conception and direction of a research project or program  • building and maintaining collaborative networks necessary to achieve research outcomes within and/or beyond their institution.
4	Very Good	Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates <b>very good</b> performance in:  • supervision, mentoring, training and/or career development of staff and students within and/or beyond their research group  • experience and contribution to the peer review of publications and grant applications, nationally and/or internationally  • contribution to community engagement, public advocacy, government advisory boards or committees, professional societies at a local, national and/or international level  • non-research contribution(s) to department, centre, institute or organisation e.g. leadership or membership of committee  • conception and direction of a research project or program  • building and maintaining collaborative networks necessary to achieve research outcomes within and/or beyond their institution.
3	Good	Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates <b>good</b> performance in:  • supervision, mentoring, training and/or career development of staff and/or students within and/or beyond their research group  • experience and contribution to the peer review of publications and grant applications, nationally and/or internationally  • contribution to community engagement, public advocacy, government advisory boards or committees, professional societies at a local, national and/or international level  • non-research contribution(s) to department, centre, institute or organisation e.g. leadership or membership of committee  • conception and direction of a research project or program

		building and maintaining collaborative networks necessary to achieve research outcomes within and/or beyond their institution.
		Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates <b>satisfactory</b> performance in:
		• supervision, mentoring, training and/or career development of staff and/or students within and/or beyond their research group
	Satisfactory	experience and contribution to the peer review of publications and grant applications, nationally and/or internationally
2		• contribution to community engagement, public advocacy, government advisory boards or committees, professional societies at a local, national and/or international level
		non-research contribution(s) to department, centre, institute or organisation e.g. leadership or membership of committee
		conception and direction of a research project or program
		building and maintaining collaborative networks necessary to achieve research outcomes within and/or beyond their institution.
		Relative to opportunity (including career stage) and to their field of research, the applicant demonstrates <b>weak or limited</b> performance in:
		• supervision, mentoring, training and/or career development of staff and/or students within and/or beyond their research group
	Weak or limited	experience and contribution to the peer review of publications and grant applications, nationally and/or internationally
1		• contribution to community engagement, public advocacy, government advisory boards or committees, professional societies at a local, national and/or international level
		non-research contribution(s) to department, centre, institute or organisation e.g. leadership or membership of committee
		conception and direction of a research project or program
		building and maintaining collaborative networks necessary to achieve research outcomes within and/or beyond their institution.

## **Knowledge Gain (30%)**

Table 6. Knowledge Gain

Score	Performance	Category Descriptors				
	Indicator					
7	<ul> <li>additional expertise necessary to achieve proposed outcomes</li> <li>will result in extremely significant and transformative changes/outcomes in the scientific knowledge underpinning human health issues</li> <li>will lead to extremely significant research outputs (e.g. intellectual property, publications, policy adteaching aids, consulting, contract research, spin-offs, licensing)</li> </ul>					
6	Outstanding	<ul> <li>would be extremely competitive with the best, similar research proposals internationally.</li> <li>The proposed research: <ul> <li>is supported by a very well justified and reasoned hypothesis/rationale</li> <li>has a scientific framework, design, methods and analyses that are well developed and highly appropriate with only a few minor weaknesses</li> <li>demonstrates to a very high level that it addresses an issue that is very important to advance the research or health area (not prevalence or magnitude of the issue)</li> </ul> </li> <li>has or has access to outstanding technical resources, infrastructure, equipment and facilities, and if required, has access to additional expertise necessary to achieve proposed outcomes</li> <li>will result in very highly significant and substantial changes/outcomes in the scientific knowledge, practice or policy underpinning human health issues</li> <li>will lead to very highly significant research outputs (e.g. intellectual property, publications, policy advice, products, services, teaching aids, consulting, contract research, spin-offs, licensing)</li> <li>would be highly competitive with the best, similar research proposals internationally.</li> </ul>				
5	Excellent	The proposed research:  • is supported by a well justified and reasoned hypothesis/rationale  • has a scientific framework, design, methods and analyses that are well developed and highly appropriate with several minor weaknesses				

<ul> <li>demonstrates to a high level that it addresses an issue that is of considerable importance to advance the research or health area (not prevalence or magnitude of the issue)</li> <li>has or has access to excellent technical resources, infrastructure, equipment and facilities, and if required, has access to additional expertise necessary to achieve proposed outcomes</li> <li>will result in highly significant and substantial changes/outcomes in the scientific knowledge, practice or policy underpinning human health issues</li> <li>will lead to highly significant research outputs (e.g. intellectual property, publications, policy advice, products, services, teaching aids, consulting, contract research, spin-offs, licensing)</li> <li>would be competitive with the best, similar research proposals internationally.</li> <li>The proposed research:</li> <li>is supported by a well justified and reasoned hypothesis/rationale</li> <li>has a scientific framework, design, methods and analyses that are well developed and highly appropriate with a few minor</li> </ul>	rude of the issue) rechnical resources, infrastructure, equipment and facilities, and if required, has access to achieve proposed outcomes t and substantial changes/outcomes in the scientific knowledge, practice or policy sues research outputs (e.g. intellectual property, publications, policy advice, products, service ract research, spin-offs, licensing) best, similar research proposals internationally.  I and reasoned hypothesis/rationale	to ces,
<ul> <li>has or has access to excellent technical resources, infrastructure, equipment and facilities, and if required, has access to additional expertise necessary to achieve proposed outcomes</li> <li>will result in highly significant and substantial changes/outcomes in the scientific knowledge, practice or policy underpinning human health issues</li> <li>will lead to highly significant research outputs (e.g. intellectual property, publications, policy advice, products, services, teaching aids, consulting, contract research, spin-offs, licensing)</li> <li>would be competitive with the best, similar research proposals internationally.</li> <li>The proposed research:</li> <li>is supported by a well justified and reasoned hypothesis/rationale</li> </ul>	technical resources, infrastructure, equipment and facilities, and if required, has access to achieve proposed outcomes and substantial changes/outcomes in the scientific knowledge, practice or policy sues research outputs (e.g. intellectual property, publications, policy advice, products, service ract research, spin-offs, licensing) best, similar research proposals internationally.	ces,
additional expertise necessary to achieve proposed outcomes  • will result in highly significant and substantial changes/outcomes in the scientific knowledge, practice or policy underpinning human health issues  • will lead to highly significant research outputs (e.g. intellectual property, publications, policy advice, products, services, teaching aids, consulting, contract research, spin-offs, licensing)  • would be competitive with the best, similar research proposals internationally.  The proposed research:  • is supported by a well justified and reasoned hypothesis/rationale	to achieve proposed outcomes t and substantial changes/outcomes in the scientific knowledge, practice or policy sues research outputs (e.g. intellectual property, publications, policy advice, products, service ract research, spin-offs, licensing) best, similar research proposals internationally.  I and reasoned hypothesis/rationale	ces,
<ul> <li>will result in highly significant and substantial changes/outcomes in the scientific knowledge, practice or policy underpinning human health issues</li> <li>will lead to highly significant research outputs (e.g. intellectual property, publications, policy advice, products, services, teaching aids, consulting, contract research, spin-offs, licensing)</li> <li>would be competitive with the best, similar research proposals internationally.</li> <li>The proposed research:</li> <li>is supported by a well justified and reasoned hypothesis/rationale</li> </ul>	t and substantial changes/outcomes in the scientific knowledge, practice or policy sues research outputs (e.g. intellectual property, publications, policy advice, products, service ract research, spin-offs, licensing) best, similar research proposals internationally.  I and reasoned hypothesis/rationale	
underpinning human health issues  • will lead to highly significant research outputs (e.g. intellectual property, publications, policy advice, products, services, teaching aids, consulting, contract research, spin-offs, licensing)  • would be competitive with the best, similar research proposals internationally.  The proposed research:  • is supported by a well justified and reasoned hypothesis/rationale	research outputs (e.g. intellectual property, publications, policy advice, products, service ract research, spin-offs, licensing)  best, similar research proposals internationally.  I and reasoned hypothesis/rationale	
<ul> <li>will lead to highly significant research outputs (e.g. intellectual property, publications, policy advice, products, services, teaching aids, consulting, contract research, spin-offs, licensing)</li> <li>would be competitive with the best, similar research proposals internationally.</li> <li>The proposed research:         <ul> <li>is supported by a well justified and reasoned hypothesis/rationale</li> </ul> </li> </ul>	research outputs (e.g. intellectual property, publications, policy advice, products, service ract research, spin-offs, licensing)  best, similar research proposals internationally.  I and reasoned hypothesis/rationale	
teaching aids, consulting, contract research, spin-offs, licensing)  • would be competitive with the best, similar research proposals internationally.  The proposed research:  • is supported by a well justified and reasoned hypothesis/rationale	ract research, spin-offs, licensing) best, similar research proposals internationally.  I and reasoned hypothesis/rationale	
<ul> <li>would be competitive with the best, similar research proposals internationally.</li> <li>The proposed research:</li> <li>is supported by a well justified and reasoned hypothesis/rationale</li> </ul>	best, similar research proposals internationally.  I and reasoned hypothesis/rationale	ninor
The proposed research:  • is supported by a well justified and reasoned hypothesis/rationale	I and reasoned hypothesis/rationale	ninor
is supported by a well justified and reasoned hypothesis/rationale		ninor
		ninor
has a scientific framework, design, methods and analyses that are well developed and highly appropriate with a few minor	sign, methods and analyses that are well developed and highly appropriate with a few r	nınor
concerns		
• demonstrates that it addresses an issue that is of importance to advance the research or health area (not prevalence or	an issue that is of importance to advance the research or health area (not prevalence or	
magnitude of the issue)		
• has or has access to very good technical resources, infrastructure, equipment and facilities, and if required, has access to		s to
additional expertise necessary to achieve proposed outcomes	· ·	
• is likely to result in significant and substantial changes/outcomes in the scientific knowledge, practice or policy		
underpinning human health issue		
• is likely to lead to significant research outputs (e.g. intellectual property, publications, policy advice, products, services,		ces,
teaching aids, consulting, contract research, spin-offs, licensing)		
would likely be competitive with high quality, similar research proposals internationally.	ith high quality, similar research proposals internationally.	
The proposed research:		
• is supported by a justified and sound hypothesis/rationale		
• has a scientific framework, design, methods and analyses that are developed and appropriate with several minor concerns		
• demonstrates that it is addressing an issue that is of some importance to advance the research or health area (not prevalence)	ing an issue that is of some importance to advance the research or health area (not previous	alence
or magnitude of the issue)		
Good  • has or has access to good technical resources, infrastructure, equipment and facilities, and if required, has access to	nical resources, infrastructure, equipment and facilities, and if required, has access to	
additional expertise necessary to achieve proposed outcomes	to achieve proposed outcomes	
• could result in significant and substantial changes/outcomes in the scientific knowledge, practice or policy underpinning	substantial changes/outcomes in the scientific knowledge, practice or policy underpinn	ing
human health issues		
• could lead to significant research outputs (e.g. intellectual property, publications, policy advice, products, services, teaching	ch outputs (e.g. intellectual property, publications, policy advice, products, services, te	aching
aids, consulting, contract research, spin-offs, licensing)		-
• would be somewhat competitive with high quality, similar research proposals internationally.	• •	

2	Satisfactory	<ul> <li>The proposed research:</li> <li>is supported by a reasoned hypothesis/rationale</li> <li>has a scientific framework, design, methods and analyses that are generally sound but may lack clarity in some aspects and/or may contain notable weaknesses/concerns</li> <li>demonstrates that it is addressing an issue that is of marginal importance to advance the research or health area (not prevalence or magnitude of the issue)</li> <li>has or has access to some/most but not all of the technical resources, infrastructure, equipment and facilities, and if required, has access to additional expertise necessary to achieve proposed outcomes</li> <li>could result in appreciable improvements/outcomes in the scientific knowledge, practice or policy underpinning human health issues</li> <li>could lead to moderately significant research outputs (e.g. intellectual property, publications, policy advice, products, services, teaching aids, consulting, contract research, spin-offs, licensing)</li> </ul>
1	Marginal to Poor	<ul> <li>would be marginally competitive with high quality, similar research proposals internationally.</li> <li>The proposed research:</li> <li>has a weak hypothesis/rationale</li> <li>has a scientific framework, design, methods and analyses that have significant flaws and may contain major weaknesses</li> <li>demonstrates that it is addressing an issue of some concern to advance the research or health area (not prevalence or magnitude of the issue)</li> <li>does not have access to the technical resources, infrastructure, equipment and facilities or access to additional expertise necessary to achieve proposed outcomes (if required)</li> <li>is unlikely to result in improvements/outcomes in the scientific knowledge, practice or policy underpinning human health issues of significance</li> <li>is unlikely to lead to research outputs (e.g. intellectual property, publications, policy advice, products, services, teaching aids, consulting, contract research, spin-offs, licensing) of significance</li> <li>is unlikely to be competitive with similar research proposals internationally.</li> </ul>

## **Appendix E – Indigenous Research Excellence Criteria**

To qualify as Aboriginal and Torres Strait Islander health research, at least 20% of the research effort and/or capacity building must relate to Aboriginal and Torres Strait Islander health.

Qualifying applications must address the NHMRC Indigenous Research Excellence Criteria as follows:

- Community engagement the proposal demonstrates how the research and potential outcomes are a priority for Aboriginal and Torres Strait Islander communities with relevant community engagement by individuals, communities and/or organisations in conceptualisation, development and approval, data collection and management, analysis, report writing and dissemination of results.
- Benefit the potential health benefit of the project is demonstrated by addressing an important public health issue for Aboriginal and Torres Strait Islander people. This benefit can have a single focus or affect several areas, such as knowledge, finance and policy or quality of life. The benefit may be direct and immediate, or it can be indirect, gradual and considered.
- Sustainability and transferability the proposal demonstrates how the results of the project have the potential to lead to achievable and effective contributions to health gain for Aboriginal and Torres Strait Islander people, beyond the life of the project. This may be through sustainability in the project setting and/or transferability to other settings such as evidence based practice and/or policy. In considering this issue, the proposal should address the relationship between costs and benefits.
- Building capability the proposal demonstrates how Aboriginal and Torres Strait Islander people, communities and researchers will develop relevant capabilities through partnerships and participation in the project.

Peer reviewers will consider these in their overall assessment of the application, when scoring the assessment criteria set out in <u>Appendix C</u>.

# Appendix F – Guidance for Assessing Applications Against the Investigator Grant 2020 Assessment Criteria

Investigator Grants support the research program of outstanding investigators at all career stages. The assessment criteria for Investigator Grant applications are:

- Track record, relative to opportunity
  - o Publications (35%)
  - o Research Impact (20%)
  - o Leadership (15%)
- Knowledge Gain (30%).

The following advice should be taken into consideration when assessing applications.

#### Track Record (70%)

NHMRC defines 'Track Record' for the Investigator Grant program as the value of an individual's past research achievement, relative to opportunity, not prospective achievements, using evidence-based components. Assessment of Track Record comprises peer reviewers' consideration of:

- Publications (35%)
- Research Impact (20%)
- Leadership (15%).

#### 1. Publications

Assessment of publications will use a seven-point scoring system, supported by category descriptors. Peer reviewers will be required to form a judgement based on the applicant's publications from the past 10 years (taking into account career disruptions) and the five best publications from those 10 years, as highlighted by the applicant.

Publications category descriptors are at Table 1 of Appendix D.

#### 2. Research Impact

Assessment of an applicant's research impact will be based on:

- i. the reach and significance of their claimed research impact (7%)
- ii. the contribution of their research program to the research impact (6%)
- iii. the contribution of the applicant to the research program (7%).

These three components of research impact are assessed separately using three seven-point scoring systems supported by category descriptors at Tables 2, 3 and 4 of <u>Appendix D</u>.

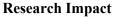
For the assessment of 'reach and significance', the seven point scoring system is further divided for Emerging Leadership and Leadership applicants (Table 2 of <u>Appendix D</u>). This is to recognise that early and mid-career researchers will have had less time to accumulate research impact.

NHMRC defines the impact of research as the verifiable outcomes that research makes to knowledge, health, the economy and/or society. Impact is the effect of the research after it has been adopted, adapted for use, or used to inform further research.

Research impact is the verifiable outcomes from research and not the prospective or anticipated effects of

the research. For example, a prospective publication linked to the applicant's research program is not demonstrated or corroborated impact.

Research impact also includes research that leads to a decision not to use a particular diagnostic, treatment or health policy.



The verifiable outcomes that research makes to knowledge, health, the economy and/or society. Impact is the effect of the research after it has been adopted, adapted for use, or used to inform further research.

#### Research Program

A cohesive body of research by the applicant, not limited to an individual case study (as used in a clinical context) or a single publication. It may be recent or in the past.

#### Research program's contribution to the research impact

The degree to which the applicant's research program was necessary to achieve the impact(s) (knowledge, health, economic, and/or social impact).

## Applicant's contribution to the research program

The level of the applicant's contribution (e.g. leadership, intellectual and/or technical input) to the research program.

Figure 1: Key definitions for the assessment of Research Impact

Peer reviewers should consider, based on the corroborating evidence provided:

- the reach of the research impact
- the significance of the research impact in:
  - o informing knowledge to advance research
  - o improving products, processes, behaviours/prevention, policies, practices
  - o improving the nation's economic performance
  - o improving the health and well-being of the community.

For the purposes of assessing impact, NHMRC uses four specific descriptors:

- **Knowledge impact** Research that has contributed to discoveries and/or demonstrable benefits emerging from adoption, adaption or use of the discovery to inform further research.
- **Health impact** Research that has contributed to improvements in health through new therapeutics, diagnostics, or disease prevention; or by contributing to improvements in disease prevention, diagnosis and treatment, health policy, health systems, and quality of life.
- **Economic impact** Research that has contributed to the nation's economic performance by creating new industries, jobs and valuable products, and reducing health care costs. An economic impact may also contribute to social or health impacts, including human capital gains and the value of life and health.
- **Social impact** Research that has contributed to improvements in the health of the society, including the well-being of the end user and the community. This may include improved ability to

access health care services and to participate socially.

Peer reviewers should note that applicants can demonstrate the contribution of their research program within a single category of impact (knowledge, health, economic and social) or across multiple categories. As one research program may result in multiple impact types, peer reviewers should refer to the definitions of the four impact types when assessing claims. If impacts from one research program are claimed across multiple categories, the overall research impact score is determined holistically and on balance across the different categories (it is not additive).

For applicants who have provided impacts for <u>more than one research program</u>, peer reviewers are to determine whether <u>any</u> one of the research programs and their impacts have been sufficiently demonstrated and corroborated, and score accordingly. Applicants are not to be scored in an additive method for multiple research programs.

**Reach** is the extent, spread, breadth, and/or diversity of the beneficiaries of the impact, relative to the type of research impact.

**Significance** is the degree to which the impact has enabled, enriched, influenced, informed or changed the performance of policies, practices, products, services, culture, understanding, awareness or well-being of the beneficiaries (not the prevalence or magnitude of the issue).

Applicants were instructed to include <u>one research program</u> to demonstrate research impact(s) across one or more of the four types of impact. A research program is a cohesive body of research by the applicant, as opposed to disparate bodies of research that each have different objectives and impacts. It is not limited to an individual case study (as used in a clinical context) or a single publication. A research program may be recent or in the past.

Applicants need to outline the research program with corroborating evidence that can be independently assessed by peer reviewers. Applicants were required to provide evidence sufficient and strong enough to demonstrate their claims for all three impact criteria. Applicants may use the same evidence across the three impact criteria if appropriate. Peer reviewers will need to decide whether the impact claims have been sufficiently demonstrated and corroborated. A poorly corroborated or non-corroborated research impact or contribution to impact should receive a score of one, in alignment with the category descriptors.

Peer reviewers should consider the degree to which the applicant's research program was necessary to achieve the impact(s) (knowledge, health, economic, and/or social impact) based on robust and verifiable evidence. The relationship between the applicant's research program (including related activities) and the impact may be foreseen or unforeseen, and may be an end product or demonstrated during the research process. Research impact examples may include the adoption or adaptation of existing research.

Relative to opportunity and to the applicant's field of research, peer reviewers should consider the level of the applicant's contribution (e.g. leadership, intellectual and/or technical input) to the research program based on robust and verifiable evidence.

#### Verification of evidence provided against research impact claims

Peer reviewers <u>can verify evidence provided by applicants</u>. If an applicant has not provided evidence of their research impact, they should receive a score of one, in alignment with the category descriptors. Peer reviewers <u>must not seek evidence</u> to support the research impact claims of an applicant who has not provided evidence.

Peer reviewers should also note that, for corroborating evidence, it is the quality of the evidence provided,

not the quantity, that should be considered. Applicants only need to provide evidence sufficient and strong enough to verify the claims, not all evidence that may be on the public record. A poorly or non-corroborated research contribution should receive a score of one, in alignment with the category descriptors at Tables 2, 3 and 4 of <u>Appendix D</u>.

Examples of evidence are listed in Table 1 below. Evidence examples may be relevant to more than one research impact type.

Table 1: Types of Research Impact and Examples of Evidence of Research Impact

Type of impact	Description of research impact	Examples of evidence (not exhaustive)				
Knowledge impact	New knowledge, demonstrating the benefits emerging from adoption, adaption or use of new knowledge to inform further research, and/or understanding of what is effective.	<ul> <li>recognition of research publications         (e.g. citation metrics, particularly field weighted)</li> <li>data sharing</li> <li>contribution to registries or biobanks</li> <li>prizes and conference presentations</li> <li>uptake of research tools and techniques</li> <li>evidence of uptake of the research by other disciplines</li> </ul>				
Health impact	Improvements in health through new therapeutics, diagnostics, disease prevention or changes in behaviour; or improvements in disease prevention, diagnosis and treatment, management of health problems, health policy, health systems, and quality of life.	<ul> <li>policy or program adopted</li> <li>a clinical guideline adopted</li> <li>international or national practice standards adopted</li> <li>improved service effectiveness</li> <li>Phase I, Phase II and Phase III clinical trials underway or completed</li> <li>improved productivity due to research innovations (e.g. reduced illness, injury)</li> <li>Quality-Adjusted Life Years, Disability-Adjusted Life Years, Potential Years of Life Lost, Patient Reported Outcome Measure and other relevant indicators</li> <li>relative stay index for multi-day stay patients, hospital standardised mortality ratio, cost per weighted separation and total case weighted separation</li> <li>reports (including community and government)</li> </ul>				
Economic impact	Improvements in the nation's economic performance through creation of new industries, jobs or valuable products, or reducing health care costs, improving efficiency in resource use, or improving the welfare/well-being of the population within current health system resources. An economic impact may also contribute to social or health impacts, including human capital	<ul> <li>Health Care System Savings</li> <li>relative stay index for multi-day stay patients, hospital standardised mortality ratio, cost per weighted separation and total case weighted separation</li> <li>reduction in Medicare Benefits Scheme costs</li> <li>improved productivity due to research innovation (e.g. reduced illness, injury)</li> </ul>				

	gains and the value of life and health.	improved service effectiveness			
		Product Development			
		• a research contract with an industry partner and an active collaboration			
		granting of a patent			
		execution of a licensing agreement with an established company			
		income from intellectual property			
		raising funding from venture capital or other commercial sources or from government schemes that required industry co-participation			
		<ul> <li>successful exit from start-up company (public market flotation, merger or acquisition)</li> </ul>			
		development of pre-good manufacturing practice prototype			
		successful generation or submission of:			
		o a regulatory standard data set			
		<ul> <li>applications for pre-market approval of a medical device</li> </ul>			
		o a new drug or device for registration (e.g. by Food and Drug Administration, European Medicines Agency, Therapeutic Goods Administration)			
		• product sales			
Social impact	Improvements in the health of society, including the well-being of the end user and the community. This may include improved ability to access health care services, to participate socially (including empowerment and participation in decision making) and to quantify improvements in the health of	uptake or demonstrated use of evidence by decision makers/policy makers			
		<ul> <li>qualitative measures demonstrating changes in behaviours, attitudes, improved social equity, inclusion or cohesion</li> </ul>			
		improved environmental determinants of health			
		improved social determinants of health			
	society.	changes to health risk factors			

#### 3. Leadership

For the assessment of Leadership, peer reviewers are required to review applicant outputs over the past 10 years (taking into account career disruptions) across each of the four Leadership elements:

- Research Mentoring
- Research Policy and Professional Leadership
- Institutional Leadership
- Research Programs and Team Leadership.

The assessment of Leadership will be against the category descriptors at Table 5 of Appendix D.

#### **Knowledge Gain (30%)**

NHMRC defines 'Knowledge Gain' for the Investigator Grant program as the quality of the proposed research and significance of the knowledge gained. It incorporates theoretical concepts, hypothesis, research design, robustness and the extent to which the research findings will contribute to the research area and health outcomes (by advancing knowledge, practice or policy).

For the assessment of 'Knowledge Gain' peer reviewers are to consider:

- the clarity and justification of the of the research hypotheses/rationale
- the strengths and weaknesses of the scientific framework, study design, methods and analyses
- whether the proposal tackles a major question addressing an issue of critical importance to advance the research or health area (not prevalence or magnitude of issue)
- the access to the technical resources, infrastructure, equipment and facilities, and if required, access to additional expertise necessary to achieve the proposed outcomes
- access to the technical resources required to achieve project outcomes
- the potential for significant and transformative changes/outcomes in the scientific knowledge, practice or policy underpinning human health issues
- the potential research outputs including: intellectual property, publications, policy advice, products, services, teaching aids, consulting, contract research, spin-offs, licensing etc.

The significance of the study is not a measure of the prevalence/incidence of the health issue (e.g. cancer versus sudden infant death syndrome) but the extent to which the study will address the health issue.

Applications are assessed relative to opportunity, taking into consideration any career disruptions, where applicable (see <u>Appendix I</u>).

Category descriptors for Knowledge Gain are at Table 6 of Appendix D.

# Appendix G – Guidance for assessing applications against the Indigenous Research Excellence Criteria

Peer reviewers should consider the following when assessing applications that have a focus on the health of Indigenous Australians. The points below should be explicit throughout the application and not just addressed separately within the Indigenous criteria section.

#### **Community Engagement**

- Does the proposal clearly demonstrate a thorough and culturally appropriate level of engagement with the Aboriginal and Torres Strait Islander community or health services prior to submission of the application?
- Is there clear evidence that the level of engagement throughout the project will ensure the feasibility of the proposed study?
- Has the application demonstrated evidence that any of the methods, objectives or key elements of the proposed work have been formed, influenced or defined by the community?
- Were the Indigenous community instrumental in identifying and inviting further research into the health issue and will the research outcomes directly benefit the 'named' communities?
- Is there a history of working together with the 'named' communities e.g. co-development of the grant, involvement in pilot studies or how the 'named' communities will have input/control over the research process and outcomes across the life of the project?

#### **Benefit**

- Does the proposal clearly outline the potential health benefits (both intermediate and long term, direct and indirect) to Aboriginal and Torres Strait Islander people?
- Does the proposal demonstrate that the benefit(s) of the project have been determined or guided by Aboriginal and Torres Strait Islander people, communities or organisations themselves?

#### **Sustainability and Transferability**

- Does the proposal:
  - o Provide a convincing argument that the outcomes will have a positive impact on the health of Aboriginal and Torres Strait Islander peoples, which can be maintained after the study has been completed?
  - o Have relevance to other Indigenous communities?
  - o Clearly plan for and articulate a clear approach to knowledge translation and exchange?
  - o Demonstrate that the findings are likely to be taken up in health services and/or policy?
- Will the outcomes from the study make a lasting contribution to Aboriginal and Torres Strait Islander communities and their wellbeing?

### **Building Capability**

• Does the proposal outline how Aboriginal and Torres Strait Islander people and/or communities will benefit from capability development?

Does the proposal outline how researchers and individuals/groups associated with the research project will develop capabilities that allow them to have a greater understanding/engagement of Aboriginal and Torres Strait Islander peoples?

## Appendix H – Statement of Expectations

The *Statement of Expectations* outlines the baseline expectations of applicants within each level of Investigator Grant. Applicants who have never received an NHMRC Fellowship or Investigator Grant should refer to these expectations and apply at a level commensurate with their experience and profile. The descriptors provide a broad benchmark and it is not essential that all elements be met.

#### Leadership Level 3 (L3)

L3 Investigator Grant recipients will be leading international authorities in their research area with demonstrated:

- significant original contributions of major importance that have had a positive impact on health and medical research, the health system, economy and/or the health of the population
- experience in leading a major independent research program(s) involving national and international collaborative networks
- national and international contributions through leadership in their scientific discipline (e.g. in research policy and on advisory committees)
- extensive supervision, mentoring and promotion of early and mid-career researchers
- significant leadership roles within their department, centre, institution or organisation, that extend beyond their research.

#### Leadership Level 2 (L2)

L2 Investigator Grant recipients will be leading national and rising international authorities in their research area with demonstrated:

- substantial and original contributions that are of major benefit to health and medical research, the health system, economy and/or the health of the population
- experience in leading an independent research program(s) involving national collaborative networks
- national and possibly international contributions to their scientific discipline (e.g. research advisory boards, peer review)
- supervision, mentoring and promotion of early and mid-career researchers
- leadership roles within their department, centre, institution or organisation that extend beyond their research.

#### Leadership Level 1 (L1)

L1 Investigator Grant recipients will be national authorities in their research area with demonstrated:

- original contributions that are of major benefit to health and medical research, the health system, economy and/or the health of the population
- ability to independently conceive and direct research programs, coordinate a team of researchers and generate national collaborations
- national contributions to their scientific discipline (e.g. public advocacy, peer review, research advisory boards or professional societies)
- supervision, mentoring and promotion of early and mid-career researchers
- contribution(s) within their department, centre, institute or organisation that extend beyond their research e.g. membership of regulatory or management committees.

#### **Emerging Leadership Level 2 (EL2)**

EL2 Investigator Grant recipients will be ≤10 years post-PhD (or equivalent) and recognised for their expertise in their research area with demonstrated:

• original contributions of influence in their field of expertise

- ability to contribute to the conception and direction of research projects, while developing independence
- experience in supervising a small research team
- national contributions to their scientific discipline (e.g. public advocacy, community leadership, peer review and professional societies)
- contributions within their department, centre, institution or organisation e.g. organising journal clubs, seminar series etc.

#### **Emerging Leadership Level 1 (EL1)**

EL1 Investigator Grant recipients will be ≤10 years post-PhD (or equivalent) and will be beginning to gain recognition in their research area with demonstrated:

- original contribution(s) in their field of expertise
- ability to contribute to the conception of research projects
- scientific contributions within their region, state or territory (e.g. community leadership, state level contribution to a professional society)
- limited but developing supervision of research staff and students
- contributions within their department, centre, institution or organisation e.g. organising journal clubs, seminar series etc.

Guidance on relationships between NHMRC Fellowship schemes and the Investigator Grant Levels is outlined in Table 1 below.

**Table 1.** Guidance on relationships between NHMRC Fellowship schemes and Investigator Grant Levels

Current NHMRC Fellowship	Corresponding Investigator Grant Level		
Senior Principal Research Fellowship Australia Fellowship	Leadership Level 3		
Principal Research Fellowship Practitioner Fellowship Level 2	Leadership Level 2		
Practitioner Fellowship Level 1 Senior Research Fellowship Levels A and B Career Development Fellowship Level 2	Leadership Level 1		
Career Development Fellowships Levels 1 and 2 Translation of Research into Practice (TRIP) Fellowship	Emerging Leadership Level 2		
Early Career Fellowship Translation of Research into Practice (TRIP) Fellowship	Emerging Leadership Level 1		

## Appendix I – NHMRC Relative to Opportunity and Career Disruption Policy

#### **Purpose**

The purpose of this document is to outline NHMRC's Relative to Opportunity Policy with respect to peer review and eligibility to apply for Emerging Leadership Investigator Grants.

NHMRC's objective is to support the best Australian health and medical research and the best researchers, at all career stages. NHMRC seeks to ensure that researchers with a variety of career experiences and those who have experienced pregnancy or a major illness/injury or have caring responsibilities, are not disadvantaged in applying for NHMRC grants.

#### Policy approach

NHMRC considers Relative to Opportunity to mean that assessment processes should accurately assess an applicant's track record and associated productivity relative to stage of career, including considering whether productivity and contribution are commensurate with the opportunities available to the applicant. It also means that applicants with career disruptions should not be disadvantaged (in terms of years since they received their PhD) when determining their eligibility for Emerging Leadership Investigator Grants and that their Career Disruptions should be considered when their applications are being peer reviewed.

In alignment with *NHMRC's Principles of Peer Review*, particularly the principles of fairness and transparency, the following additional principles further support this objective:

- **Research opportunity**: Researchers' outputs and outcomes should reflect their opportunities to advance their career and the research they conduct.
- Fair access: Researchers should have access to funding support available through NHMRC grant programs consistent with their experience and career stage.
- Career diversity: Researchers with career paths that include time spent outside of academia should not be disadvantaged. NHMRC recognises that time spent in sectors such as industry, may enhance research outcomes for both individuals and teams.

The above principles frame NHMRC's approach to the assessment of a researcher's track record during expert review of grant applications and eligibility of applicants applying for Emerging Leadership Investigator Grants. NHMRC expects that those who provide expert assessment during peer review will give clear and explicit attention to these principles to identify the highest quality research and researchers to be funded. NHMRC recognises that life circumstances can be very varied and therefore it is not possible to implement a formulaic approach to applying Relative to Opportunity and Career Disruption considerations during peer review.

#### Relative to Opportunity considerations during peer review of applications for funding

During peer review of applications, circumstances considered under the Relative to Opportunity Policy are:

- amount of time spent as an active researcher
- available resources, including situations where research is being conducted in remote or isolated communities
- building relationships of trust with Aboriginal and Torres Strait Islander communities over long periods that can impact on track record and productivity
- clinical, administrative or teaching workload

- relocation of an applicant and his/her research laboratory or clinical practice setting or other similar circumstances that impact on research productivity
- for Aboriginal and/or Torres Strait Islander applicants, community obligations including 'sorry business'
- the typical performance of researchers in the research field in question
- research outputs and productivity noting time employed in other sectors. For example there might be a reduction in publications when employed in sectors such as industry
- carer responsibilities (that do not come under the Career Disruption policy below).

## Career Disruption considerations during peer review and eligibility to apply for Emerging Leadership Investigator Grants

A Career Disruption is defined as a prolonged interruption to an applicant's capacity to work, due to:

- pregnancy
- major illness/injury
- carer responsibilities.

The period of career disruption may be used:

- to determine an applicant's eligibility for an Emerging Leadership Investigator Grant
- to allow for the inclusion of additional track record information for assessment of an application
- for consideration by peer reviewers.

To be considered for the purposes of eligibility and peer review, a period of Career Disruption is defined as:

- a continuous absence from work for 90 calendar days or more, and/or
- continuous, long-term, part-time employment (with defined %FTE) due to circumstances classified as Career Disruption, with the absence amounting to a total of 90 calendar days or more1.

#### Career Disruption and eligibility to apply for Investigator Grants

A Career Disruption can affect an applicant's eligibility to apply for an Emerging Leadership Investigator Grant. For such grants, the 10-year time limit on the number of years post-PhD may be extended commensurate with the period of the Career Disruption.

<sup>&</sup>lt;sup>1</sup> For example, an applicant who is employed at 0.8 FTE due to childcare responsibilities would need to continue this for at least 450 calendar days to achieve a Career Disruption of 90 calendar days.

## **Appendix J – Guide to Evaluating Industry-Relevant Experience**

#### **Principles**

NHMRC is committed to ensuring that knowledge from health and medical research is translated through commercialisation (e.g. by pharmaceutical or medical devices companies), improvements to policy, health service delivery and clinical practice.

Therefore, as a complement to other measures of research excellence (e.g. publication and citation rates), NHMRC considers industry-relevant skills, experience and achievements in its assessment of applicants' track records.

These measures recognise that applicants who have invested their research time on technology transfer, commercialisation or collaborating with industry, may have gained highly valuable expertise or outputs relevant to research translation. However, NHMRC acknowledges that these researchers will necessarily have had fewer opportunities to produce traditional academic research outputs (e.g. peer reviewed publications).

Therefore, peer reviewers should:

- Appropriately recognise applicants' industry-relevant experiences and results
- Allow for the time applicants have spent in commercialisation/industry for "*Relative to Opportunity*" considerations.

#### Who might have industry experience or be preparing for industry experience?

Many applicants to NHMRC may have had industry experiences of various kinds. Examples include, but are not limited to:

- 1. Researchers who have left academia to pursue a full time career in industry (e.g. in pharmaceutical, biotechnology or start-up companies). In such instances, outputs must be assessed 'relative to opportunity', as there may have been restrictions in producing traditional research outputs (such as peer reviewed publications), but highly valuable expertise gained or outputs produced relevant to research translation (such as patents or new clinical guidelines).
- 2. Academic researchers whose work has a possible commercial focus. These researchers might not have yet entered into commercial agreements with industry and have chosen to forego or delay publication in order to protect or extend their intellectual property (IP).
- 3. Academic researchers who have translated their discovery into a collaborative agreement with industry. The researcher may be collaborating with the company in further research and development; may have a licensing agreement; or may have licensed or assigned their IP to the company. A researcher may ultimately leave the academic institution and become Chief Executive Officer, Chief Scientific Officer, Chief Technology Officer, Scientific Advisory Board Member or consultant for a start-up or other company, based on their experience.
- 4. Academic researchers who are actively collaborating with companies, for example by providing expert research services for fees. Publications of such work might be precluded or delayed according to contract arrangements. The specialised nature of this research might also restrict publication to specialised journals only, as opposed to generalist journals.

## Relevant industry outputs

Level of experience/ output	IP	Collaboration with an industry partner	Established a start- up company	Product to market	Clinical trials or regulatory activities	Industry participation
Advanced	Patent granted: consider the type of patent and where it is granted. It can be more difficult to be granted a patent in, for example, the US or Europe than in Australia, depending on the patent prosecution and regulatory regime of the intended market     National phase entry and prosecution or specified country application	Executed a licensing agreement with an established company     Significant research contract with an industry partner     Long term consultancy with an industry partner	Achieved successful exit (public market flotation, merger or acquisition)     Raised significant (>\$10m) funding from venture capital or other commercial sources (not grant funding bodies)     Chief Scientific Officer, Executive or non-executive role on company boards	Produce sales     Successful     regulator submission     to US Food and Drug     Administration     (FDA), European     Medicines Agency,     TGA etc.     Medical device     premarket     submission e.g. FDA     510(k) approved	Phase II or Phase III underway or completed	Major advisory or consultancy roles with international companies
Intermediate	<ul> <li>Patent Cooperation Treaty (PCT) or 'international application'</li> <li>Provisional patent</li> </ul>	Established a formal arrangement such as a consultancy or research contract and actively collaborating	Incorporated an entity and established a board     Has raised moderate (>\$1m) funding from commercial sources or government schemes that required industry coparticipation (e.g.	Generated regulatory standard data set     Successful regulatory submission to Therapeutic Goods Administration or European Conformity (CE) marking	Phase I underway or completed     Protocol development     Patient recruitment	Advisory or consultancy role with a national company

			ARC Linkage, NHMRC Development Grant)	Medical device: applications for pre- market approval		
Preliminary	IP generated     Patent application lodged     Invention lodged with Disclosure/s with Technology Transfer/Commercial isation Office	• Approached and in discussion with an industry partner under a non-disclosure agreement. No other formal contractual arrangements.	• Negotiated licence to IP from the academic institution	• Developed pregood manufacturing practice (GMP) prototype and strong supporting data • Established quality systems	Drug candidate selected or Investigative New Drug application filed     Preclinical testing	