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IDEAS: Innovation and Creativity

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OVERVIEW



- Introduction and Architecture of an IDEAS Grant
- Deep Dive into the one-page statements
 - Innovation and Creativity
 - Significance
 - Capability

The Basics



- Grant periods for between 1-5 years
- Not intended to support research where a clinical trial or cohort study is the primary objective

The Basics



- Funding of researchers (maximum of 10 CIs and AIs) at **all career stages**
- Funding any area of health and medical research from **discovery to implementation**
- **INNOVATIVE** and **CREATIVE** research
 - *Avoid temptation for repackaging*
 - *Approach as new*

What makes a grant competitive?



- Addresses the criteria
- Clear and concise
- Layers information
- Coheres across components
- Engaging
- Feasible
- Solid plan

Team quality and capability



- It is expected that the CIA will have the leadership and skills to achieve the proposed project aims
- Provides opportunities for early and mid-career researchers
- Not a numbers game
- Recruit/prospect based on discrete role/skills to achieve objectives

Market your Research



- What is your elevator pitch?
- Who will benefit?
- What is the anticipated IMPACT?
- Frame your VALUE PROPOSITION

Market your Research



Presentation

- Communications
- Imagery
- White space

Engagement

- Capture reviewers attention and keep them intrigued
- Take them on the journey
- Clarify your stakeholders

Plan for Success



- 70% Strategy and 30% Writing
- Open and Organised
- Seek Feedback and Review
- Address the Criteria

Addressing the Criteria



- Research Quality (35%)
- Innovation and Creativity (25%)
- Significance (20%)
- Capability (20%)

Research Quality (35%)



The project aims and proposed research plan:

- are supported by an extremely well justified hypothesis/rationale
- are focused, well-defined, extremely coherent and have a flawless study design and approach
- would be extremely competitive with the best, similar research proposals internationally
- have extremely well identified and managed scientific and technical risks

Research Quality (35%)



Research Proposal – 7 pages

- Aims – include a clear statement of hypotheses to be tested
- Background – provide a rationale for the project
- Research Plan (methods and techniques)
- Identified Risks
- Timelines – map activities and outcomes and justify the duration requested
- Outcomes and Significance – deliverables and potential

Research Quality (35%)



Ideas has a focus on innovation and creativity, therefore, it is expected:

- preliminary results and pilot studies are not mandatory
- applications will include some element of risk

Research Quality (35%)



How does the NHMRC define risk?

- “Applicants should demonstrate an appreciation of those risks and incorporate strategies to address any uncertainties as part of their proposed research plan”

Research Quality (35%)



- Describe the **scientific and/or technical risks** associated with the research plan and how these will be managed.
- This could include risks and mitigations relating to the impact of COVID-19 on the research plan.

Research Quality (35%)



An approach to risk

- Risk can be foreseen and unforeseen
- Demonstrate you have thought about the project
- Understand how things could go wrong
- You have a plan to mitigate risk should it arise

Consider using a table

- Risk (or theme)
- Rating (include justification)
- Risk Mitigation (describe the contingency plan and include the Risk Owner)

Research Proposal Pitfalls



- TMI up front
- Shape and balance
- Diffuse and opaque discussion
- No clear value proposition
- Visually confronting

One Page Statements



- Deeper discussion on key concepts, aligned with the criteria, that was seeded within the proposal
- Map out a plan

Innovation and Creativity (25%)



Applicants should clearly explain their point of difference from current concepts, approaches, methodologies, technologies or interventions in order to sufficiently demonstrate innovation and creativity in their proposed research.

Innovation and Creativity (25%)



NHMRC defines ‘Innovation and Creativity’ for the Ideas Grant scheme as health and medical research that seeks to challenge and shift current paradigms and/or have a major impact on a health research area through one or more studies that creatively:

- develop or use novel research concepts, approaches, methodologies, technologies or interventions
- propose a reinterpretation, refinement, improvement or new application of existing theoretical concepts, approaches, methodologies, technologies or interventions, or
- integrate and adapt concepts, approaches, methodologies, technologies or interventions from other research fields or disciplines for a new purpose or in a new way

Innovation and Creativity (25%)



Innovation

- making a change
- doing something in a new way
- radical, disruptive, incremental
- downstream impact

Creativity

- approach to idea
- embrace intellectual risk
- new research areas
- drive practice change

Innovation and Creativity (25%)



Relative to the research field, the planned research demonstrates extremely innovative project aims, which will result in an extremely substantial shift in the current paradigm, and/or lead to an extremely substantial breakthrough or impact in the research area.

TEMPLATE



Key Innovation

<deconstruct using aims for justification, radical/disruptive/incremental>

Creative Approach

<intellectual risk, uncharted research area, what is novel about your approach>

Paradigm Shift

<describe state of play and how the research outcomes will result in a shift/change>

Research Impact

<application of research, downstream impact, translation>

EXAMPLE



Development of a new device to self-administer vaccines

Key Innovation

- Disruptive technology platform that would change dissemination and administration of vaccines

Creative Approach

- Combining existing technology platforms used in dermatology (e.g., dermabrasion and skin patches) to develop a novel and safe device for consumer vaccine delivery

Paradigm Shift

- Healthcare workers are needed to administer vaccines (needle and stick) and this technology represents a paradigm shift allowing consumers to self-administer

Research Impact

- Healthcare workers protected against viral transmission (e.g., COVID-19)
- Economic benefit associated with commercialisation and potential global export

Significance (20%)



NHMRC defines 'Significance' for the Ideas Grant scheme as the extent to which the outcomes and outputs will result in advancements to the research or health area.

Significance in this context does not refer to the prevalence of disease or magnitude of the issue.

Significance (20%)



The planned research, relative to the research field:

- will address an issue of critical importance to advance the research or health area (not prevalence or magnitude of the issue)
- will result in extremely significant outcomes in the science, knowledge, practice or policy underpinning human health issues
- will lead to extremely significant research outputs (intellectual property, publications, products, services, conferences, teaching aids, consulting, contract research, spin-offs, licensing etc.)

TEMPLATE



Addressing the Gap/Need for the Initiative

<detail the gap which exists and how your research will fill this void>

Key Deliverables

<anticipated outcomes and how the project will deliver impact – knowledge, practice, policy>

Quality Outputs

<tangible outputs – IP, publications, commercialisation opportunities>

EXAMPLE



Development of a new device to self-administer vaccines

Addressing the Gap/Need for the Initiative

- COVID-19 has highlighted the need for vaccinations to be disseminated quickly without adding to the healthcare burden
- Self-administration devices would allow drones to distribute vaccines to problem locations

Key Deliverables

- Knowledge gain on skin penetration profiles and consumer feedback

Quality Outputs

- IP on prototype device and commercialisation partner
- Clinical trial plan

Capability (20%)



NHMRC defines 'Capability' for the Ideas Grant scheme as the appropriateness of the applicant team and their expertise, the resources and access to additional personnel necessary to achieve the project aims.

Capability is not an assessment of traditional track record elements, such as number of publications, grants held, or conference invitations.

Capability (20%)



- CIA must demonstrate their ability to lead the project, including managing the project's resources, personnel, budget and administrative requirements, in order to execute the project.
- Associate Investigators (AIs) can be included to strengthen the overall technical capability of the team (e.g. specialists such as statisticians), but they must not be essential for the leadership of the project.
- Consideration should also be given to the gender balance and development of new researchers within the applicant team.

Capability (20%)



The CIA demonstrates a very strong capability to lead the team in achieving the project aims.

Capability (20%)



The CI applicant team overall:

- has exceptional capability to execute the project and deliver outcomes.
- has access to exceptional technical resources, infrastructure, equipment and facilities and if required, has access to additional support personnel (Associate Investigators) necessary for the project.
- has an extremely appropriate balance of integrated expertise, experience and training that specifically targets all aspects of the proposed research, in terms of both depth and breadth.

TEMPLATE



Leadership

<CIA credentials with respect to aims>

Multidisciplinary Team for Paradigm Shift

<CIs and AIs, evidence of collaboration, past grants>

Critical Infrastructure / Supportive Environment

<physical assets, intellectual environment, consortium>

Leveraging Expertise

<right team, right environment, risk management strategy, timelines>

EXAMPLE



Development of a new device to self-administer vaccines

Leadership

- CIA led the development of the nicotine patch program, which is one of the technology platforms being leveraged

Multidisciplinary Team for Paradigm Shift

- CI team is a combination of experts from engineering through to clinician-scientists in vaccine development

Critical Infrastructure / Supportive Environment

- CIA and CIC have key infrastructure for plastics prototype development
- CIB has access to consumers for testing attitudes and beliefs to prototypes

Leveraging Expertise

- Strong track record in product development, therefore, understand inherent risk associated with ambitious program and have developed sound strategies to mitigate

Some Common Mistakes

- Doesn't address the criteria
- Overcomplicated and too technical
- Lacks context
- Duplication of information
- Don't overpromise or polarise



Tips for success



Research classification, keywords and synopsis

- The synopsis should accurately, and briefly, summarise the research proposal
- Assign applications to panels and peer reviewers (5)

Plain English Summary

- Describe the overall aims of the research and expected outcomes in simple terms
- Understood by the general public
- Avoid technical terms

Tips for success



70% STRATEGY

- Start early
- Map out a plan
- Obtain feedback
- Refines value proposition
- Ensures components cohere
- Minimises risk of duplication



Tips for success



30% WRITING

- Avoid unsubstantiated/grandiose claims
- Minimise throw away statements
- Diagrams
- Dot points
- Review, Revise, Repeat



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Thank you

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