ANZCA
FPM

ANZCA
CLINICAL
TRIALS
NETWORK

# Preparing a grant application and clinician-researcher pathways: Guidance for anaesthesia investigators

August 2025

## Purpose of document:

This document provides guidance from experienced clinician-researchers on how to prepare grant applications. It draws from the "Preparing a Grant Application" workshop at the 2025 ANZCA ASM and includes guidance for clinical academic career development, practical advice, and actionable strategies for writing compelling research grants.

## Acknowledgements:

The development of the Anaesthesia Research Coordinator Network (ARCN) and ANZCA CTN toolkit is being led by the CTN office team, in collaboration with the ARCN sub-committee and the CTN executive. We gratefully acknowledge the contributions of the ANZCA CTN members, CTN office, ARCN sub-committee, and CTN executive in the creation, preparation, development, and review of this document.

## Disclaimer:

The information in this document is for general guidance only. ANZCA CTN does not make any representations or warranties (expressed or implied) as to the accuracy, currency or authenticity of the information provided.

## Copyright statement:



## DOI:

10.60115/11055/1349

## Suggested citation for this document:

ANZCA Clinical Trials Network. *Preparing a grant application and clinician-researcher pathways: Guidance for anaesthesia investigators.* Melbourne: Australian and New Zealand College of Anaesthetists; 2025. doi. 10.60115/11055/1349

## Document history:

| Version | Contributors | Reviewed/Approved | Date Approved by ARCN Sub-Committee & CTN Executive | Changes |
|---|---|---|---|---|
| 1.0 | Prof Tomás Corcoran<br>A/Prof Lis Evered<br>Dr Marta Seretny<br>A/Prof Andrew Toner<br>Paige Druce<br>Gillian Ormond<br>Karen Goulding | Samantha Bates<br>Dhiraj Bhatia Dwivedi<br>A/Prof Andrew Toner | 1/8/2025 | Creation |

# Table of contents

# Preparing a grant application and clinician-researcher pathways: Guidance for anaesthesia investigators

## 1. Introduction

This document provides guidance from experienced clinician-researchers on how to prepare grant applications. It draws from the "Preparing a Grant Application" workshop at the 2025 ANZCA ASM by Prof Tomás Corcoran, A/Prof Lis Evered, Dr Marta Seretny, and A/Prof Andrew Toner. It includes guidance for clinical academic career development, practical advice, and actionable strategies for writing compelling research grants.

## 2. What it means to be a clinician-researcher

Embarking on a clinical academic pathway involves balancing clinical duties with research responsibilities. It is demanding but offers intellectual stimulation, flexibility, and the opportunity to drive meaningful change in patient care.

- Expect setbacks: Rejection is not failure but part of the learning curve.
- Seek out opportunities early: Case reports, audits, quality improvement projects, or joining existing trials.
- Find your research identity: Consider what drives your curiosity—education, technology, systems improvement, or disease-focused work.
- Find a mentor from your area of research early on.

## 3. Education and training in research

Research is a discipline. Like clinical medicine, it requires formal training.

Recommended programs:

- Master of Public Health (MPH): A core research methods degree, often underestimated.
- Clinical Research Short Courses: 1–2 day workshops in statistics, trial design, or ethics.

*Tip: Be critical about program selection. Not all MPHs are created equal. Choose ones with solid training in both quantitative and qualitative research methods.*

## 4. The grant writing lifecycle

Many successful careers begin with modest grants from:

- Hospital research funds (e.g. internal seed grants).
- Specialty societies like ANZCA.
- University grants.

These are ideal for:

- Pilot studies.
- Establishing feasibility.
- Demonstrating delivery (funders want to see your ability to complete projects, publish results, and manage budgets).

## 5. Writing a competitive grant proposal

The core components of a strong grant proposal are as follows:

- Clear problem definition.
- High significance (i.e. why does it matter?) or scientific significance.
- Strong rationale (i.e. what is already known? what's the gap?).
- Well-defined aims.
- Robust methods.
- Feasibility and pilot data.
- Track record of the team.
- Plans for knowledge translation.
- Evidence of consumer input and any media coverage of pilot studies or any preliminary studies done.

Structure and style tips:

- Leave white space – this enhances readability and professionalism.
- The front page matters - it should clearly communicate:
    - The problem.
    - Your solution.
    - What the study will achieve.
    - Why it matters.
- Use simple, accessible language - reviewers may not be experts in your field.
- Stick to the guidelines - format, word count, and file types must be strictly followed.

## 6. Importance of pilot data

Most major funders require preliminary evidence that your project is feasible (i.e. pilot data).

This evidence:

- May come from your own earlier work.
- Can be from published research by others (with appropriate justification).
- Shows that your idea is more than theoretical.

*Note: Without pilot data, reviewers are unlikely to consider your application competitive unless it's explicitly a pilot or exploratory grant.*

## 7. Collaboration and mentorship

Building your research team:

- Collaborate with statisticians, consumer representatives, and subject experts.
- Use national networks like ANZCA Clinical Trial Network (CTN) to find co-investigators and mentors.

Getting feedback:

- Ask senior colleagues to read your drafts or present your proposal at departmental research meetings to seek ideas from the senior researchers.
- Engage non-specialists to check for clarity.
- Use repeated reviewer feedback to refine your grant. If the same concern appears multiple times, address it proactively in future applications.

## 8. Track record building

Every experience counts. Include:

- Peer-reviewed publications (even letters or case reports).
- Oral/poster presentations.
- Committee work (especially research committees).
- Grant or manuscript reviewing.
- Any form of teaching or mentoring.
- Create an Open Researcher and Contributor ID (ORCID) or similar digital identifier to link your research profile and outputs.
- Set up your personal account profile well in advance for online grant application systems such as SAPPHIRE (used by the National Health and Medical Research Council (NHMRC) in Australia) or the Health Research Council (HRC) of New Zealand. Keep this profile up to date.

*Tip: Keep an up-to-date academic CV and a brag sheet with every little win.*

*Note :See ANZCA CTN toolkit document on Showcasing your research.*

## 9. Understanding the reviewer's perspective

Reviewer realities

- Reviewers are often busy clinicians or academics with limited time.
- They may lack expertise in your specific field.
- They may judge multiple grants back-to-back - clarity is critical.
- They expect precision, clarity, and feasibility.
- As researchers build their grant track record, they're often invited to serve as reviewers themselves—sharpening their ability to write better grants.

Make their job easy

- Write clearly.
- Avoid jargon.
- Use headings, diagrams, and space strategically.
- Use bold text and italics to help emphasise important points.
- Proof read to avoid grammatical mistakes.

## 10. Cultural and consumer engagement

An essential part of preparing many grant applications is demonstrating consumer engagement.

Reviewers are looking for:

- Genuine inclusion of patient voices and communities (e.g. Indigenous and/or Maori communities, CALD communities).
- Early engagement - involve affected populations from study conception, not just as an afterthought.
- Respectful, transparent partnership - for example, HRC in New Zealand requires robust Māori engagement.

Tokenistic engagement will be penalised. Reviewers can tell – particularly if the grant budget does not include remuneration for consumers. One way to include consumers is to review the patient facing documents such as the Patient Information Statement and Consent form (PISCF) or any advertising materials related to the study.

## 11. Maximising grant success

Some practical strategies to maximise grant success are as follows:

- Start early: Begin writing 6–12 months before the deadline.
- Reuse content: Create a grant "library" of reusable sections.
- Track rejection reasons: Learn from them, don't take them personally.
- Resubmit and reframe: Each iteration should be stronger.
- Use unsuccessful grants as templates: Every effort counts.
- Review successful grants: Ask a colleague to share or seek held copies in academia. Take note of good writing style and scientific communication.

## 12. Planning for translation and implementation

Think beyond the data

- How will your research be used?
- Who are the end users?
- What will be the next step after your project?
- How will you disseminate findings to consumers and the scientific community?

Implementation science is now a key priority for many funders, demonstrate your project's practical relevance and pathways to change.

## 13. How the ANZCA CTN can help you:

- Present protocol ideas at annual workshops for feedback.
- Get connected with consumer groups and collaborators.
- Research coordinators are experts on trial logistics and research delivery. Early collaborative input is recommended.
- Apply for pilot funding to gather preliminary data.
- Find mentors through the CTN community.

## 14. Reviewer criteria: What reviewers look for

### 14.1 Track record

- Does the applicant have experience running similar studies?
- Multi-centre trial leadership is especially valued.
- Diversity of team expertise matters. Seek multi-discipline input.
- Weakness: Solo applicants or inexperienced teams without senior support.

### 14.2 Scientific merit

- Are the research questions plausible, relevant, and well justified?
- Leaps from animal data to human trials are risky without pilot studies.
- Systematic reviews and meta-analyses lend credibility.
- Weakness: Over-ambitious claims, lack of feasibility data, pilot data from only one site.

### 14.3 Originality

- Is the idea novel, or simply incremental?
- Originality scores well when no direct comparison exists.
- Weakness: Ideas already well explored in literature.

### 14.4 Design and methods

- Is the methodology sound, detailed, and replicable?
- Justified sample size and power calculation are critical.
- Open-label trials must be defensible; double-blind preferred.
- Weakness: Spelling and formatting issues signal lack of attention to detail.

### 14.5 Feasibility

- Can the trial be realistically implemented with the resources described?
- Is the recruitment timeline and setup achievable?
- Factors like blinding logistics, drug preparation, and timing of interventions are important.

### 14.6 International competitiveness

- Would the study influence global practice or be accepted by top journals?
- External validity is crucial—does the study apply across health systems?
- Weakness: Studies limited to specific contexts with unclear generalisability.

## 15. Key takeaways

- Start early: Give yourself time to craft, edit, and review.
- Think like a reviewer: Expect hypercriticism—find your own flaws before they do.
- Build a  multidisciplinarory team: Weak track record? Bring in experienced collaborators.
- Be precise: Avoid grammatical mistakes, formatting issues, and vague titles.
- Be transparent: Justify your choices clearly—especially methodology, blinding, and outcome selection.
- Reference evidence: Cite systematic reviews, pilot data, and existing trials.
- Draw the line to impact: Show how your research translates to practice change.
- Use feedback loops: Circulate drafts with colleagues, mentors, and past reviewers.
- Practice reviewing: Reviewing other grants sharpens your instincts for writing your own.