Office of the Vice Dean, Research & Innovation

Applying for & Administering Research Funding
FIND FUNDING OPPORTUNITY

• “What’s New?”
• Research Alerts
• Pivot

APPLY

• MRA
• Sponsor-specific criteria

RESULT

• Success?
• Reviewer feedback

REPORT

• Financial and scientific reporting

Ethics Protocol

PROPOSAL PROCESS
Sources for Finding Funding Opportunities

• “What’s New in Research Funding” – Faculty of Medicine e-newsletter

• **Research Alerts** – Central OVPRI communications tool

• **Pivot** – 3rd party grant database (ProQuest)

• Federal and provincial websites, colleagues, and Google
My Research Applications (MRA)

• Mandatory automated system for tracking, reviewing, and approving grant applications from University of Toronto

• Internal web tool – log on with UTORID

• MRA is required in addition to submission to granting agency, e.g. CIHR

• Tracks: co-Pl’s, ethics, overhead, location of research, and more...
OVDRI – Proposal Development Team

• Daniel Harney, PhD, Grants & Awards Editor

• Cindy Faber, Research Services Officer

Funding applications are approved by:

• Dr. Richard Hegele, Vice Dean, Research & Innovation
  • Based on approval by Departmental Chair(s)
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Jeremy Knight, Manager, Research Administration & Operations
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UNIVERSITY OF TORONTO
FACULTY OF MEDICINE
GRANT FUNDAMENTALS AND PROPOSAL DEVELOPMENT

Daniel Harney, PhD
Grants and Awards Editor
Office of the Vice Dean, Research & Innovation
Pre-Writing Fundamentals
The Proposal Triangle

- Project
- Team
- Resources
Scientific Paper

Grant Proposal
Backward-facing text vs. Forward-Facing text
PURPOSE

To inform vs. To persuade
Dispassionate vs. Conveying Excitement and Urgency
DICTION

Jargon/Technical vs. Multidisciplinary/Lay
How do Reviewers Read Grant Proposals?

- Selective in their Focus
- Always Skeptical
- Sometimes Distracted
- Often Multidisciplinary
Top Five Reviewer Critiques
“The science is hindered by confusing sentence structure. The spelling errors are particularly frustrating to encounter.”
Confocal deoxygenation and superoxide, a promising new tool in the treatment of heart failure, is a major cause of chronic heart failure. The underlying mechanisms are complex and not fully understood. This project is aimed at understanding the molecular pathways that underlie heart failure and developing new therapeutic strategies.

We will use advanced imaging techniques to study the effects of deoxygenation and superoxide on cardiac function. Our approach will involve the use of genetically modified mouse models and cultured cardiac cells. We will also develop new therapeutic agents that can target these pathways to improve cardiac function.

Our findings will be validated in animal models and eventually translated into clinical trials. This project is supported by a grant from the National Institutes of Health.

In summary, we believe that this project has the potential to make a significant contribution to our understanding of heart failure and develop novel therapeutic strategies.
Convergent Therapeutics

Preface

The goal of this research is to address the underlying causes of heart failure in canine patients. A new
challenge for the emerging field of heart failure research is to find Cures. Conventional treatments all essentially
tackle the disease itself. There are no adequate solutions to the underlying cause.

The project aims at providing decisive clinical insights into heart failure and identifying the root causes of cardiac remodeling and dysfunction.

Methodology

The project involves a comprehensive approach, including clinical studies, genetic analyses, and advanced imaging techniques. The primary objective is to identify the genetic basis of heart failure and develop targeted therapies for its prevention.

Results

Initial findings from the project indicate promising results in identifying genetic variations associated with heart failure. Further studies are underway to validate these findings and develop potential therapeutic targets.

Conclusion

The research project aims to provide a comprehensive understanding of the underlying mechanisms of heart failure, paving the way for the development of novel therapeutic strategies.
INCOHESIVE

“The arguments provided in the translation section don’t align with the activities and scope of the proposed projects and requested infrastructure enhancements.”
INSIGNIFICANT

“There was no mention of what will happen if the proposal is not funded.”
THE REALITY OF SPINAL CORD INJURY

Spinal cord injuries (SCI) have a devastating impact on the health and well-being of individuals. Many would categorize SCI as one of the greatest survivable catastrophes experienced by a human being. Health care services for people who sustain a SCI are highly specialized and complex. Regardless of cause or age at injury, SCI has far reaching consequences for individuals and their families.

SOME FACTS ON SCI IN CANADA

People living with SCI in Canada: 86,000
Number of new cases of SCI each year: 4,300
121,000 projected by 2030
5,800 a year by 2030

Traumatic SCI occurs most commonly in males between the ages of 20-29 years old.

COST OF TRAUMATIC SCI

The estimated economic cost of traumatic SCI for newly injured Canadians is $2.7 Billion per year.

Financial care requirements over a lifetime for each individual can vary from:
- Paraplegia: $1.5 Million
- Quadriplegia: $3.0 Million

Health care, equipment and modifications, long-term care. Costs are even greater when including those with chronic injuries.

CANADIANS WITH TRAUMATIC SCI

- Are re-hospitalized 2.6x more often
- Require contact with a physician 2.7x more often
- Require home care services 30x more hours
- Have a far shorter life expectancy 15–30 fewer years

Sources:
- Drake et al., 2014, "Incidence of health care use following spinal cord injury among a population-based sample with complete follow-up data".
- Haynes et al., 2011, "The association between admission transform and injury severity in Canada".
- Cameron et al., 2012, "The economic burden of spinal cord injury in Canada: A review of the literature".
- Rick Hansen Institute, 2018, "The Incidence and Prevalence of Spinal Cord Injury in Canada".

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INFEASIBLE

“It’s not clear to me that the PI has the expertise or the time to complete the 3 ambitious proposed projects in the 5-years of the grant.”
LACKING IMPACT

“The proposed activities don’t go beyond what has been done and is still fruitlessly being done in other programs.”
For additional Grant and Award resources, visit our website: http://medicine.utoronto.ca/research

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