How Do You Write a Successful CIHR Grant?

- Tips for solving the puzzle
- More than one approach
CIHR’s Objectives

“To excel, according to internationally accepted standards of scientific excellence in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system…”
Open Competition-Operating Grants

- Government of Canada’s health research funding agency
- Provide operating funds to support research proposals in all areas of health research
- Investigator-initiated research proposals
- Major funding mechanism
Can’t Despair About Success Rates
Getting Started

- Start early - the earlier the better

- Ideally 6-12 months prior to deadline or earlier

- Establish internal reviewers (panel?)
  - Set up review ~2 months prior to deadline
Process

- Grants & Awards Guide
  - [http://www.cihr-irsc.gc.ca/e/805.html](http://www.cihr-irsc.gc.ca/e/805.html)
  - [http://www.cihr-irsc.gc.ca/e/795.html](http://www.cihr-irsc.gc.ca/e/795.html)

- Stay up to date with changing requirements

- Your application must relate to purpose and goals of CIHR
Approach?

- **Sole investigator**
  - Collaborators, letters of support

- **2 or Multiple co-applicants**
  - Clearly need to define everyone’s involvement throughout the project
Overall Application

- Title: needs to be appropriate, descriptive and (?) imaginative- first impression
- Research, CV and Budget modules
- ResearchNet, Common CV
- Write something every day
- Letters of collaboration, quotes etc all take time
Research Module

- Goal: Reviewers will ENJOY reading your application
  - Proposal needs to flow logically

- Draft **Summary of Research Page** first
  - Overall goal, specific objectives, significance
  - Force yourself to **focus**
  - Most important section of proposal (first impression and used to assign reviewers & assess fit with committee)

- Write something every day
Research Module

Abstract:
- Succinct and accurate
- Read by the community member
- Clearly define importance of the research
- Write it last
Research Proposal

- Need a strong solid hypothesis which forms the foundation of your application.
  - Solid, important to the field (WHY), you MUST be able to test it
- Background
- Preliminary data
- Research Plan
- Significance
Research Plan

Focus around the specific aims (driven by your hypothesis)

For each aim state rationale, what is unknown, expected outcomes, potential problems, what will experiments tell you:

- “These studies will define the role of (some protein) in (some biological activity). More generally, this work will identify the major interacting partners of (some protein), providing the first link between (whatever you are studying) and (whatever you want to link it with).”

CIHR
Research Plan

- Identify preferred methods and justify, convince the reviewer you have expertise
- “If this approach unexpectedly proves to be unsuccessful, we will use the method of x which..”
- Collaborators for technical gaps
- State how you will interpret the results
- State timelines for each aim
Research Proposal

- Background - Start with an introductory paragraph to provide excitement
- What are the big questions? What is known? Unknown?
- Should be logically organized, use headings
- Preliminary data/progress
- Outline specific plans for knowledge translation
Research Proposal

- Reviewer needs to be convinced that research is novel, feasible, addresses a specific hypothesis and that the research is likely to lead to significant new knowledge that will translate into improvements to health.

- Remember: Proposal needs to be clear, concise, free of jargon and undefined acronyms.

- Don’t make assumptions.

- Proof-read!
Research Proposal

- Common mistakes:
  - Big picture is not clear
  - Rationale not clear
  - Excessive details, or irrelevant background
  - Unfocused aims, too ambitious
  - Feasibility of each aim not shown
  - No direct testing of hypothesis
  - No discussion of potential pitfalls or how data will be interpreted
  - Role of collaborators not clear
  - Inadequate/poor response to previous reviews
Research Module

Progress:

- **Renewal:**
  - State timelines of previous award
  - Summarize the previous research and state how the new project will build on your high quality work
  - List all manuscripts generated with previous grant
Research Module

- Progress:
  - **New Applicant:**
    - Convince reviewer of excellent and relevant training
    - Highlight unique skills and how these will be valuable to your proposal
Response to Reviewers:

- Thank Reviewers
- Tone is crucial-willingness to participate in review process
- Need to win good will of the Reviewer
- Pay particular attention to SO comments
- Note any previous positive feedback and score (if high)
Budget Module

- Must correspond to the narrative in proposal
- Committee considers after discussion of grant, but may influence Reviewers score
- Don’t inflate or under budget
- Read guide for allowable expenses
- Name personnel/trainees if possible
CV Module

- Give a complete picture of your scholarly progress

- Publication record is assessed according to the discipline to which you belong
CIHR Review Committees

- 48 committees
- Each committee has a mandate
  - Chair
  - Scientific Officer
  - 6-18 members
  - Community member (sometimes)
  - CIHR staff member
- Review ~10-70 applications over 1-3 days, twice a year
Selecting the Right Committees

- Applicants suggest first and second choice
- Look up committee mandates
- Look up grants successfully funded by committee
- Can ask the Deputy Director responsible for the committee for advice
Review Process

- Two reviewers give initial scores and read reviews
- Reader may add comments, community member
- Committee discusses and come to a consensus score
- Each member of committee then rates privately ($\pm 0.5$ from consensus)
- Budget is discussed only if consensus over 3.5
# Review Process

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Range</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>outstanding</td>
<td>4.5 – 4.9</td>
<td>MAY BE FUNDED – WILL BE DISCUSSED BY THE COMMITTEE</td>
</tr>
<tr>
<td>excellent</td>
<td>4.0 – 4.4</td>
<td></td>
</tr>
<tr>
<td>very good</td>
<td>3.5 – 3.9</td>
<td></td>
</tr>
<tr>
<td>acceptable, but low priority</td>
<td>3.0 – 3.4</td>
<td>NOT FUNDABLE – MAY OR MAY NOT BE DISCUSSED BY THE COMMITTEE</td>
</tr>
<tr>
<td>needs revision</td>
<td>2.5 – 2.9</td>
<td></td>
</tr>
<tr>
<td>needs major revision</td>
<td>2.0 – 2.4</td>
<td></td>
</tr>
<tr>
<td>seriously flawed</td>
<td>1.0 – 1.9</td>
<td></td>
</tr>
<tr>
<td>rejected</td>
<td>0.0 – 0.9</td>
<td></td>
</tr>
</tbody>
</table>
Review Process

- Outstanding
- Very good
- Excellent
- Weak

Diagram showing a distribution with 'Very good' and 'Excellent' at the top, 'Weak' at the bottom, and 'Outstanding' on the right side.
Not Funded?

- You’re NOT alone!
- Read reviews and let others read the reviews
- Revise and try again!

“Success is not final,
Failure is not fatal,
It is the courage to continue that counts”

-Winston Churchill
Not Funded?

- From CIHR: “The increase in number of applications – especially in those that are essentially resubmissions of unsuccessful applications – represents a growing concern for our peer reviewers. Consequently, we intend to ask researchers to submit only their most competitive applications. Conversely, we discourage researchers from immediately resubmitting unsuccessful applications to the next competition with no change or reflection. As well, we suggest that after an application has been unsuccessful 2 or 3 times that it not be resubmitted.”
No Matter How Long It Takes: Keep Swimming!