CIHR Grant Writing Workshop

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Overview

• CIHR overview

• CIHR funding

• Grantsmanship, with CIHR specific commentary
## CIHR Overview

### Pillars
1. Clinical
2. Biomedical
3. Population health
4. Health systems & services

### Institutes
1. Aboriginal People’s Health
2. Aging
3. Cancer Research
4. Circulatory & Respirology Health
5. Gender & Health
6. Genetics
7. Health Services & Policy
8. Human Development, Child & Youth Health
9. Infection and Immunity
10. Musculoskeletal Health & Arthritis
11. Neurosciences, Mental Health & Addiction
12. Nutrition, Metabolism & Diabetes
13. Population & Public Health

### Knowledge Translation
CIHR Knowledge Translation:

“A dynamic and iterative process that includes the synthesis, dissemination, exchange and ethically sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the healthcare system.”

CIHR Knowledge Translation

Assess barriers and supports

Evidence-based innovation
- development process
- innovation attributes

Potential adopters
- awareness
- attitudes
- knowledge/skill
- concerns
- current practice

Practice environment
- patients
- culture/social
- structural
- economic
- uncontrolled events

Monitor intervention and degree of use

Implementation intervention strategies
- barrier management
- transfer
- follow-up

Adoption
- intention
- use

Evaluate outcomes

Outcomes
- patient
- practitioner
- system

CIHR Open Operating Grant Funding

Table 4.2: Research considered fundable and research that is approved*

<table>
<thead>
<tr>
<th>Month 99</th>
<th># Not approved, Rating &lt;3.5</th>
<th># Not Approved, Rating &gt;=3.5</th>
<th># Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 99</td>
<td>430</td>
<td>177</td>
<td>379</td>
</tr>
<tr>
<td>Sep 99</td>
<td>551</td>
<td>204</td>
<td>420</td>
</tr>
<tr>
<td>Mar 00</td>
<td>544</td>
<td>278</td>
<td>381</td>
</tr>
<tr>
<td>Sep 00</td>
<td>574</td>
<td>293</td>
<td>429</td>
</tr>
<tr>
<td>Mar 01</td>
<td>543</td>
<td>298</td>
<td>404</td>
</tr>
<tr>
<td>Sep 01</td>
<td>678</td>
<td>338</td>
<td>476</td>
</tr>
<tr>
<td>Mar 02</td>
<td>565</td>
<td>359</td>
<td>459</td>
</tr>
<tr>
<td>Sep 02</td>
<td>701</td>
<td>422</td>
<td>438</td>
</tr>
<tr>
<td>Mar 03</td>
<td>613</td>
<td>463</td>
<td>442</td>
</tr>
</tbody>
</table>

*Approved applications were not necessarily funded applications. Some applicants decline funding or were not funded for some other reason.

Evaluation study of the open operating grants program, 2004
http://www.cihr-irsc.gc.ca/e/28343.html
CIHR Success Rates – New Investigators

Table 4.5
Success rates by: Total number of CIHR grants held prior to application

Table 4.6
Success Rates by Renewal Status

Table 4.6
Success Rates by Renewal Status

Evaluation study of the open operating grants program, 2004
http://www.cihr-irsc.gc.ca/e/28343.html
“CIHR doubles support for clinical research”
CMAJ 184(7): E343-E344, 2012
So how can you stand out of the crowd?
Wellcome Signposts

1. Is the work novel, exciting and necessary?

2. Are you repeating experiments that have already been undertaken?

3. Have you justified various aspects of the funding requested?

4. Have you filled out the “housekeeping” portions of the form correctly?

5. Have you checked your form for spelling and grammatical mistakes?
Grantsmanship – What Makes Proposals Work?

1. Innovation
2. Follow directions
3. Something old, something new
4. Alternative strategies
5. The big picture
6. Write and re-write
7. Write for professional faculty, not the 5-6 experts in your field
8. Write “tightly”
9. Target the funding agency
   - CIHR - Institute, grant panel, priority announcement
10. Speak with the program officers
    - CIHR - Deputy Director
CIHR Guidebook for New Principal Investigators
8 Things to do to Write Great Grants

1. Organize an internal review panel
2. Start writing early
3. Write daily
4. Finish the “junk” in month one
5. Tips for good grant writing
6. Writing the application - structure
7. Number of grants, external reviewers
   - Apply when you have the track record to support it
   - Do not submit more than 1 application to the same panel unless excellent
   - Choose external reviewers that are known to be fair and respected
8. Apply for an appropriate budget and term
   - Apply for a 3-year grant with a reasonable & justified budget

McInnes R, Andrews B, Rachubinski R, CIHR Institute of Genetics
CIHR Guidebook for New Principal Investigators
7 Tips for Good Grant Writing

1. Getting the style – read successful grants
2. Get it down! Don’t be a sentence “caresser”
3. Good expository writing – paragraph structure
4. Target your audience
5. Give the BIG picture
6. Use illustrations
7. Use the first or third person

McInnes R, Andrews B, Rachubinski R, CIHR Institute of Genetics
### Structure of a Grant Application (in CIHR Grants)

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary of Research Proposal</td>
<td>(1 page)</td>
</tr>
<tr>
<td>Summary of Progress</td>
<td>(1 page)</td>
</tr>
<tr>
<td>Research Proposal</td>
<td></td>
</tr>
<tr>
<td>Background</td>
<td>(approximately half the allotted pages)</td>
</tr>
<tr>
<td>- General background - the literature with your published work cited</td>
<td></td>
</tr>
<tr>
<td>- Your preliminary results</td>
<td></td>
</tr>
<tr>
<td>- Rationale</td>
<td></td>
</tr>
<tr>
<td>Research Plan</td>
<td>(approximately half the allotted pages)</td>
</tr>
<tr>
<td>- General Objective and Specific Aims</td>
<td></td>
</tr>
<tr>
<td>- Specific Aim 1</td>
<td>Proposed Research</td>
</tr>
<tr>
<td></td>
<td>Expected Results</td>
</tr>
<tr>
<td></td>
<td>Difficulties Anticipated</td>
</tr>
<tr>
<td></td>
<td>Timeline</td>
</tr>
<tr>
<td></td>
<td>Specific Aim 2, etc.</td>
</tr>
<tr>
<td>Significance</td>
<td>(a short paragraph)</td>
</tr>
</tbody>
</table>

### Order of Writing the Sections of the Application

1. Summary of Research Proposal
2. Summary of Progress
3. Research Proposal
   - Research Plan
     - Background and Preliminary Results
       - Write the Research Plan before the Background section, since your Research Plan will indicate to you the background information you should include.
4. Significance
10 Common CIHR application mistakes

1. Organization of the research proposal deviates from the norm
2. Proposal & summary page do not adequately highlight the specific aims & hypotheses
3. Inadequate rationale for the proposal is presented
4. Justification is not provided for the relevance to Canadian health care
5. Figure captions are too long or include info that should be in the proposal
6. The significance or relevance is not summarized in the conclusions
7. Excessive jargon and abbreviations
8. “See below” or “see above”
9. Formatting is difficult to follow
10. Formatting does not conform to CIHR guidelines

http://med.ubc.ca/files/2012/02/Common_CIHR_Applicant_Mistakes.pdf
Some additional thoughts…
and clinical trials considerations

1. Try not to get too married to your ideas…
2. Feasibility
3. Preliminary data
4. Get lots of feedback within & outside your field
   University of Manitoba CIHR internal panel review
5. Multidisciplinary team grants
6. Knowledge translation
The good news: 50% of applicants are funded by their 3rd submission

McInnes R, Andrews B, Rachubinski R, CIHR Institute of Genetics

www.despair.com
Resources

• CIHR Guidebook for New Principal Investigators, CIHR Institute of Genetics
  – http://www.cihr.ca/e/27491.html

• How to write a CIHR operating grant Dr Hugh Brock
  – http://med.ubc.ca/files/2012/02/How_To_Write_a_CIHR_Operating_Grant.pdf

• The art of grantsmanship Dr Jacob Kracier

• The art of obtaining grants
Acknowledgements

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Satellite Healthcare
Dialysis • Wellbound • Research

Canadian Institutes of Health Research
Instituts de recherche en santé du Canada