Q&A with Project Competition Peer Reviewers

January 31, 2019
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• Dr. Joe Casey
  • Professor, Department of Biochemistry
Submission Deadlines

• Internal Deadline is **Tuesday, February 26, 2019** to have
  – your complete application uploaded to ResearchNet, and
  – a fully signed copy of the Request form and the application reviewed by Faculty emailed to rsohs@ualberta.ca

• RSO will review and return your application to you for minor revisions before CIHR’s deadline.
Please remember ...

• All applicants must be eligible to apply for research funding as per the University’s Eligibility policy and CIHR’s Eligibility policy.

• UofA co-applicants must sign the Request form created via the Researcher Home Page. Their names can be added in the “UofA Co-Investigator(s) section of the Create Proposal Page.
Partnered/Integrated Knowledge Translation (iKT)

Task 2: Enter Proposal Information > Details – iKT

Regarding iKT Projects, you are asked the following question:

Does your application include a partner and/or a knowledge user?

If you answer "yes" to this question, you are stating that your proposal:

- **Consists of a knowledge translation or commercialization project,**
  and applies the principles of knowledge translation to the entire research process.

- Involves knowledge users as equal partners alongside researchers,
  proposing research that is more relevant to, and more likely useful to,
  the knowledge users.

Discoveries for life
Contact your Research Facilitator if you have any questions.
Project Grant Competition: Overview of Review Process
Overview

- Committee membership
- Assignment of application to committee
- Assignment of application to reviewers
- Work prior to the meetings
- Streamlining
- Process during the meeting
- Tips
Committee Membership

For Fall 2018:

Chair & 2 SO invites members
CIHR

Based on CIHR criteria invites
Committee Members

Chair & SOs recommendations based on registration received
• Match proportion of expertise of committee members to proportion of registrations received

Starting Spring 2019:
3-year term for membership has been instituted
Assignment of application to committee

Based on registration material

Committee of Applicant’s 1st choice

Poor fit with mandate of the committee

Committee of Applicant’s 2nd choice

Poor fit with mandate of the committee

A committee with the best fit mandate
Assignment of applications to committee reviewers

Committee members declare conflict & ability to review for every application

Ability:
- High
- Medium
- Low

CIHR assigns applications to reviewers based on:
- Ability high or medium
- Total number 8-10/reviewer

3 Reviewers for every application

Invite external members as needed
Prior to the meeting

Reviewers:
• Submit full written review
• Submit initial score
• Tick box: top half/bottom half

Chair & SOs:
• Read all abstracts
• Read reviews
Rationale and conditions for streamlining

Rationale:
• Committee focuses on potentially fundable applications

Conditions for streamlining:

1) Average score from 3 reviewers in bottom 50%  
2) At least 1 reviewer placed application in ‘bottom half’  
3) No objections from any committee member

Reviewers tick box: top/bottom
Process for committee meeting

Committee calibrates using 3-4 applications selected by the Chair (high, medium, low)

Reviewer 1 present summary and review

Reviewer 2 & 3 add new points & rationale if rating very different

Integration of sex/gender considered when applicable

Discussion open

Final score by consensus or average of 3Rs

SO reads notes & edits

Committee members vote ±0.5 of final score
After meeting

Chair & SOs submit evaluation of each committee member

• Based on reviews submitted
• Timeliness of submissions
• Discussions during meeting
Resubmissions

• If applicant submits response to previous reviews, then previous reviews must be included in their application

• If not, then previous reviews not discussed...... but remember that some committee members will have been reviewers in previous competitions and may remember
SO notes - interpretation

• We are given a template: Strengths, Weaknesses, Budget,
• Highlight issues that influenced scoring
• If contradictory reviews and no agreement reached – some mention of disagreement/controversy
• We try to including suggestions that might help
Tips

• Tell a story
• Make life easy for the reviewers
• Be polite when addressing previous reviews
• Don’t give up
Resubmitting a CIHR OOGP Application
Tips and Considerations

Joe Casey, Ph.D.
Department of Biochemistry
Membrane Protein Disease Research Group
University of Alberta
Criteria to decide - should this application be resubmitted?

Decoding CIHR Scores

<table>
<thead>
<tr>
<th>Score Range</th>
<th>CIHR Descriptor</th>
<th>What it really means</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5-4.9</td>
<td>Outstanding</td>
<td>Fantastic. They love it. You’ll get funded!</td>
</tr>
<tr>
<td>4.0-4.4</td>
<td>Excellent</td>
<td>Important part of the scale.</td>
</tr>
</tbody>
</table>

4.3-4.4 means it is terrific, but not a home run; reviewer’s message is they think it would be great if the grant were funded, but it isn’t essential (especially at 4.3)

4.1-4.2 means the reviewer likes it, but doesn’t think it should be funded; shy of the funding mark.

4.0 Significant merit, but not really in the competitive range; something significant is holding the grant back
Criteria to decide - should this application be resubmitted?

Decoding CIHR Scores

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<tr>
<td>3.5-3.9</td>
<td>Very good</td>
<td>This whole range means the grant</td>
</tr>
<tr>
<td>3.7-3.9-</td>
<td></td>
<td>Still a way to go to get funded</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not close to the cut-off; something(s) significant will need to change to be fundable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>has merit,t</td>
</tr>
<tr>
<td>3.5-3.6</td>
<td>A long way from fundable</td>
<td></td>
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Criteria to decide - should this application be resubmitted?

### Decoding CIHR Scores

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<tr>
<td>3.0-3.4</td>
<td>Acceptable, but low priority</td>
<td>The grant has major flaws. Wholesale changes required.</td>
</tr>
<tr>
<td>2.5-2.9</td>
<td>Needs Revision</td>
<td>Fundamental flaws. Serious issues about feasibility, experimental design etc.</td>
</tr>
<tr>
<td>Below 2.5</td>
<td>Needs major revision</td>
<td>Fatally flawed. Start again.</td>
</tr>
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Criteria to decide - should this application be resubmitted?

What score did the grant receive?
Indicates of amount of change needed and time required for revision

What comments did reviewers have?
Can they can be addressed before next deadline?

Will delay of resubmission increase quality of application?
Additional published papers
Additional preliminary data
Recruitment of collaborators
Design and writing of new Aims
Internal review by colleagues

Grant panels often look favourably upon delayed re-submission
Reviews were taken seriously, esp. if significant revision evident
Best Timing for a Resubmission?

Resubmit when the grant is “ready”
  When the grant is significantly better than earlier submission
  Reviewer comments have been addressed

Grant panels often look favourably upon delayed re-submission
  Reviews were taken seriously, esp. if significant revision evident
  May decide to wait one or two competitions to take time to:
    Collect more preliminary data
    Enlist Collaborators
    Revise Grant Aims
    Strengthen CV (publish more papers)
Writing a resubmission

Spend time on the response, which is very important
   Do not leave it to the last minute and have internal reviewers read it

New reviewers will likely be different
   Turnover of panel members
   Generally no more than one of original reviewers will review resubmission
      Write the resubmission with this in mind

A resubmission will receive a completely new review
   Even with improvements, it may not receive a higher score (sorry)
Interpreting CIHR Peer Reviewer and Scientific Officer Notes

What happens at a grant panel meeting

1° reviewer discusses grant, providing reasons to support their score

2° reviewer adds their comments

Reader elaborates and provides a third opinion

Discussion ensues, guided by the Panel Chair

Consensus score emerges

Scientific Officer (S.O.) encapsulates the tenor of discussion, attempting to explain how the score was reached

S.O. reads their report to the panel and asks for suggested changes
Some S.O.s do a better job than others. It is a tough job 40, or so reviews over two days.

Usually the main issues are clear in the written reviews. Focus on the reviews.

Good S.O. notes help to clarify the key issues were that led to score. Sometimes committee discussion will bring in new issues, or change the focus. This is when S.O. notes are needed.
Interpreting CIHR Peer Reviewer and Scientific Officer Notes

Written Peer Reviews Demystified
Peer reviewers are peers and volunteers

Understand where they are coming from:

Each peer reviewer will review 7-12 grants
  Spending 0.5-1 day on each review

Therefore...
Interpreting CIHR Peer Reviewer and Scientific Officer Notes

Knowing the Reviewer’s mind-set write a grant that is:

- Free of grammatical and typographic errors
- Well organized
- Emphatic (**bolding**, *underlining* of key ideas)

  Written with a level of background allowing a non-expert to follow your arguments

- Full of repetition of your key messages
- Relentlessly positive and enthusiastic
Most important changes to encourage funding of a resubmission?

Read the reviews and S.O. notes *carefully*

Revise the application accordingly:
- Experimental design
- Collaborators
- Preliminary data

Grant can *ALWAYS* be improved

Reviewers determine score on basis of *whole grant impact*
- Clarity, organization, key messages, background
- Ask experts AND non-experts to read the grant critically
  - a good friend is one who savages your grant before the panel can

Get your papers published

- Recently published papers matter
- Especially if related to the submitted grant
Writing the “Response to Previous Review” section?

Be positive!
Positivity feeds forward and so does negativity

Reviewers are human and not so different than you
Feed their egos
Reviewers “stick together”: criticizing an earlier review is unwise

Write tactically
You don’t have to respond to everything
Best foot forward- Highlight positive changes, not just responses to critique
  e.g. new data, additional publications
Sex and Gender Based Analysis (SGBA)

It’s important for CIHR to promote rigorous science that considers sex and gender. Peer reviewers are required to explicitly assess whether the integration of sex (as a biological variable) and/or gender (as a socio-cultural factor) is a strength, a weakness or not applicable to the proposal.

In an effort to support reviewers with this task, please note the following: SGBA questions have been updated to ask how you have integrated sex and/or gender into your:

- Research design,
- Methods,
- Analysis and interpretation, and/or
- Dissemination of findings.

Applicants are expected to include details about how sex and/or gender is integrated within their 10-page research proposal, if applicable.
Resources for Sex & Gender in Research

Have you considered the possibilities?

Learn more: www.cihr-irsc.gc.ca/shapingscience.html
CIHR Resources on How to Incorporate Sex & Gender in Research

- **Definitions of Gender & Sex** (1 page)
- **Online Training Modules:**
  - Sex and Gender in Biomedical Research (45 min)
  - Sex and Gender in Primary Data Collection with Humans (30 min)
  - Sex and Gender in the Analysis of Data from Human Participants (45 min)
- **Assessing Sex & Gender in Peer Review** (video 5 min) Describes when sex & gender is relevant. *Key considerations for the appropriate integration of sex and gender in research* (1 page - same information as video)
- **What is a sex & gender champion, best practices & roles** (1 page)
- **Sex, Gender and Knowledge Translation** (1 page)
- **Sex/Gender-responsive assessment scale for health research** (1 page table)
- **Ethical Imperative of Sex & Gender Considerations in Health Research** (1 page)
- **Reviewer Guidance to Evaluate Sex as a Biological Variable** (1 page)
- **Considerations for Inclusion of Women in Clinical Trials and Analysis of Sex Differences (Health Canada)** (24 page guidance document)
- **If I include female animals, do I need to double my sample size?** (1 page)
Peer Reviewed Articles on Sex & Gender

- **Better science with sex and gender: Facilitating the use of a sex and gender-based analysis in health research** (11 page article)

- **How to study the impact of sex and gender in medical research: a review of resources** (12 page article)

- **Sex and Gender Equity in Research (SAGER) Guidelines (European Association of Science Editors)** (9 page article)
Revision of Project Peer Review Committee Mandates

The Cell Biology & Mechanisms of Disease (CBM) and Cell Physiology (CP) committee mandates have been significantly revised leading to the creation of new committees: Cell Biology – Molecular/Fundamental (CB1), Cell Biology – Disease (CBB), Cell Biology – Physiology (CBC).

The following committee mandates have been updated without major change in scope:
- Public, Community & Population Health (PH1)
- Health Services Evaluation & Interventions Research (HS1)
- Randomized Controlled Trials (RC1)
- Behavioural Sciences – A: Neurobiological Basis of Behavioural Processes (BSA)
- Behavioural Sciences – B: Clinical Behavioural Sciences (BSB)
- Behavioural Sciences – C: Behavioural Studies, Neuroscience and Cognition (BSC)
- Systems & Clinical Neurosciences (NSA)
- Molecular & Cellular Neurosciences (NSB)
- Gender, Sex & Health (GSH)
- Social & Developmental Aspects of Children's & Youth's Health (CHI)
Likelihood of Peer Review Committee Match & Associated Funding Rate
### Data Stratified by Peer Review Committee

<table>
<thead>
<tr>
<th>PRC Assigned</th>
<th>% By Receiving</th>
<th>Funding Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; choice of PRC</td>
<td>84.3%</td>
<td>21.2%</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; choice of PRC</td>
<td>5.7%</td>
<td>12.5%</td>
</tr>
<tr>
<td>No match</td>
<td>10%</td>
<td>7.14%</td>
</tr>
<tr>
<td>Overall</td>
<td>100%</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

- The average funding rate for an application falls as the percent of applicants matched with their chosen PRC falls, but the data above are from only one competition (Spring 2018).
- Additional competition data to follow.
National Data: Applications Assigned to 1st Choice of PRC >85% of the Time

Landing spot for Applications Relative to Applicant PRC Choice

<table>
<thead>
<tr>
<th>Final 5 OOGPs</th>
<th>201709PJT</th>
<th>201803PJT</th>
</tr>
</thead>
<tbody>
<tr>
<td>In 1st Suggested PRC</td>
<td>85.1%</td>
<td>84.8%</td>
</tr>
<tr>
<td>In 2nd Suggested PRC</td>
<td>7.1%</td>
<td>7.4%</td>
</tr>
<tr>
<td>In Neither</td>
<td>7.8%</td>
<td>7.8%</td>
</tr>
</tbody>
</table>

The chart shows the percentage of applications landing in the 1st, 2nd, or neither suggested PRC, comparing across different datasets.
National Data: Funding Rate Falls When Assigned PRC Does Not Match Applicant’s Suggested PRC

Success Rates Relative to PRC Assignment

<table>
<thead>
<tr>
<th></th>
<th>Final 5 OOGPs</th>
<th>201709PJT</th>
<th>201803PJT</th>
</tr>
</thead>
<tbody>
<tr>
<td>In 1st Suggested PRC</td>
<td>16.8%</td>
<td>15.7%</td>
<td>15%</td>
</tr>
<tr>
<td>In 2nd Suggested PRC</td>
<td>9.7%</td>
<td>11.9%</td>
<td>5.3%</td>
</tr>
<tr>
<td>In Neither Suggested PRC</td>
<td>8.6%</td>
<td>10.5%</td>
<td>4%</td>
</tr>
</tbody>
</table>