Grant application success: Thinking like a reviewer

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Proposal Crafting and Writing Tips

- 1. Start early: start <u>earlier</u> if you can.
- 2. Write the application supported by your expertise and preliminary data.
- 3. Write a compelling and persuasive proposal.
- 4. Write for your reviewer and <u>directly</u> address the review criteria in your application.
- 5. Use all the available space for your application but also.....
- 6. Use figures, a bit of blank space, headings and formatting to your advantage
- \rightarrow no big text blocks!
- 7. Seek as much input on your application as possible → have it reviewed multiple times before you submit, use an iterative review process.

CSB internal review of grant applications

- What's the process?
 - 2-3 reviewers per application; keep the meeting under 3hrs split into separate groups if needed
- Why do we do this?
- Who are the best reviewers for an application?
 - Its not the person with most knowledge of your research area.
 - The group of people most similar to your reviewers.
- Challenges?
 - Applications need to be completed early.....but, it is best practice to start as early as possible anyway.

Best practices in application review: Round table review vs Single review



- Feedback from multiple people
- You learn by reviewing what is effective and what is not effective
- You learn based on the feedback that others receive.



- Feedback from a single person that is more specific to your application.
- You don't see how a number of other applications are structured.

How does Tri-Council Grant review work?

- There are panels or committees with specific expertise, but the expertise is still quite broad so there may only be one reviewer who has more expertise in your area.
- Grants are assigned Reviewers 1, 2 and 3.
- Anyone in the committee who is not in conflict can read and/or just comment on any application after assigned reviewers summarize.
- There is a focus on the Strengths/Weaknesses of each application.
 → Is there a critical flaw in the hypothesis/research plan?
 → Missing expertise?
 - \rightarrow Missing reagents?

Reviewers are given a set of evaluation criteria

- When you are reviewing look for evidence of the review criteria and provide advice on how that evidence could be made more clear or what is missing.
- As you read the application note any questions you have or anything that that is not clear. Don't assume its due to a lack of your understanding that you are struggling to follow the application.

When you are writing an application:

(write your application with the review criteria in mind – don't make your reviewer look for anything)

• As you prepare your application ask yourself – will it be easy for a reviewer to find evidence for each of the evaluation criteria?

QUESTION: How can you make information easy to find?

BEST PRACTICES

Based on feedback from the Review Quality Assurance (RQA) process*, here are some helpful tips from CIHR on how to prepare for peer review committee meetings:

Review your comments and prepare high-level notes for assigned applications

Your notes should identify factors most relevant to the rating. This proactive step allows you to deliver an engaging and succinct presentation **(i.e. avoid reading reviews verbatim)**.

Reflect on the ways in which bias can influence reviews
 Take CIHR's Bias in Peer Review online training module and review your comments for possible bias that may contribute to inequities.

3 Allocate sufficient time to complete and submit your reviews

Follow peer review process timelines so committee members can reflect on your scores/scientific opinion prior to the meeting. This also allows CIHR staff to create a **well-defined agenda** in advance of the meeting and a **streamlined list**.

Familiarize yourself with other reviewers' scores and written comments for assigned applications

Pay particular attention to those with a wide divergence in scores.

Prepare your presentation to align with your allotted time

Primary reviewer: 5 minutes; Secondary reviewers: 2-3 minutes. By following the allotted time, the scheduled times for external reviewers to join the meeting can be respected.

Plan to be in attendance for the duration of the meeting

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Advise CIHR staff as soon as possible if you are unable to attend the entire meeting.

The review process (CIHR)

- First reviewer (5 min): Summary of the application, strengths and weaknesses.
- Second (2-3 min): agree/disagree with R1, adds any additional comments.
- Third (2-3 min): agree/disagree with R1/2, adds any additional comments.
- Discussion with entire committee: Any new concerns/questions? Any rebuttals to main reviewers?

Total ~ 15-20 min per application!

What type of feedback should we provide?

- **Be constructive and precise:** "Missing preliminary data" is not as helpful as "the critical mutant animal model has not yet been generated. If it is not possible to generate this model the rest of the application is not possible. As a result, there is a significant concern about feasibility"
- Avoid derogatory language.
- How can the current application be improved? (if you are reviewing for a colleague before submission)
- What would significantly improve the next application?
 - New collaborator to fill an expertise gap?
 - Critical research reagents not identified or constructed?
 - Clarification of the hypothesis and aims?

Having the right mindset when considering comments on your work.

Reviewer comment:

- Hypothesis and proposal plan are not clear.
- Applicant does not have the correct expertise to conduct experiment "Y".
- Critical mutant "Z" is not available.

- Reviewer is stupid, they didn't understand.
- I didn't make it clear enough for the reviewer.
- Didn't they look closely enough at my CV?
- I need to make this expertise clear in the main proposal.
- But my collaborator published that last year – the reviewer doesn't know the literature!
- I need to indicate I have access to this in the main proposal.

Review manuals

- CIHR Project Grant : <u>https://cihr-irsc.gc.ca/e/49564.html</u>
- NSERC Discovery Grant: <u>https://www.nserc-crsng.gc.ca/_doc/Reviewers-</u> <u>Examinateurs/CompleteManual-ManualEvalComplet_eng.pdf</u>
- Banting PDF: <u>https://banting.fellowships-bourses.gc.ca/en/rev-eval_overview-apercu.html</u>
- CIHR PDF: <u>https://cihr-irsc.gc.ca/e/26720.html</u>
- NSERC PDF: <u>https://www.nserc-crsng.gc.ca/ doc/Students-</u> <u>Etudiants/SelectionCommitteeGuide_e.pdf</u>
- Demystifying the review process for NSERC scholarships and fellowships: <u>https://www.nserc-crsng.gc.ca/ doc/Students-Etudiants/SF-process eng.pdf</u>

These are all easy to find using a web search!



https://mitchell.csb.utoronto.ca/

A bit about me....

@mitchell_lab

I do research and teach about Stem Cells and Gene Regulatory Networks

- > Associate Chair, Research for my Department
- Research funding from CIHR, NSERC and NIH
- CIHR Reviewer for >10 years
- I run Departmental and Faculty Level Internal Review processes

