Preparing a Successful Graduate Student Award Application

Karen Beattie, Ph.D.
Associate Professor
Dept. of Medicine (Rheumatology)
McMaster University
beattik@mcmaster.ca

Sept. 13, 2017
# Master’s & PhD Awards

<table>
<thead>
<tr>
<th>Master’s</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unified CGS</td>
<td>Not unified (CIHR, NSERC, SSHERC)</td>
</tr>
<tr>
<td>Academic Excellence</td>
<td>Achievements &amp; Activities</td>
</tr>
<tr>
<td>Research Potential</td>
<td>Characteristics &amp; Abilities</td>
</tr>
<tr>
<td>Personal Characteristics / IP skills</td>
<td>Research Training Environment</td>
</tr>
<tr>
<td>2 references</td>
<td>3 references</td>
</tr>
</tbody>
</table>

Outline:

- Eligibility
- Lay Abstract or Summary of Proposal
- Division of Time
- Training Expectations
- Research Project Summary or Outline of Proposed Research
- Space, Facilities and Personnel Support
- Sponsors’ Assessments
- Explanations of Ratings
- Common CV & attachments
The Rating Scale!

4.5 – 4.9 outstanding
4.0 - 4.4 excellent
3.5 - 3.9 very good
3.0 - 3.4 good
2.0 - 2.9 average
1.0 - 1.9 below average
0 not acceptable

This is where you need to aim to be!

http://www.cihr-irsc.gc.ca/e/33043.html
Eligibility

- Check the eligibility criteria on the websites!
- Pay particular attention to the number of months/years in the program
- When in doubt, call and ask!
Lay Abstract / Summary (both)

- Keep the audience in mind – who will be reading the application?
- Build the argument for why this work needs to be done, what the work is and what your contribution will be.
- What will your results uniquely contribute?
- Relative importance of the work – context is important.
Division of Time (PhD)

- Spend ≥75% of time in proposed research training (Research + Course work) throughout duration of studies
- Make sure it adds up to 100%!
- Include all student commitments

- ✔ Research (should be the vast majority)
- ✔ Teaching (TA)
- ✔ Clinical Practice?
- ✔ Course work
Training Expectations (PhD)

4.5 - 4.9 outstanding
4.0 - 4.4 excellent
3.5 - 3.9 very good
3.0 - 3.4 good
2.0 - 2.9 average
1.0 - 1.9 below average

“Most candidates will be conducting research outside your research specialty. From a non-specialist's perspective, assess the intellectual challenge and excitement of the research in which the candidate will be involved.”

“Consider the extent to which the training program appears to fit with the candidate's training expectations and the resources available.”
Training Expectations

You have 2 pages – use them wisely!

- How will training contribute to your productivity and research goals?
- Why did you choose to do research at this centre/location?
- What will you learn from the training experience?
Training Expectations

** Put this into context!

Environment

- access to “top” people (reputation), equipment, databases, research programs, techniques, programs

- Learn skills – critical thinking, people, “soft” skills

- Teaching / mentoring (undergrads, jr students)

- Course work

- Journal club
Training Expectations

- Student groups (lab meetings and beyond...)
- Multidisciplinary environment
- Presentations (all levels) – meetings, conferences
- Networking – travel?
- Community work (related to degree)
  ✓ Let’s Talk Science

If/when you get stuck on this section, come back to the objectives!
Research Project Summary (both)

- Only 1 page – use it wisely!
- Provide a detailed description of proposed research
- Be as specific as possible.

  - Provide background info to position your proposed research within the context of the current knowledge in the field.
  - State the objectives and hypothesis, and outline the experimental or theoretical approach to be taken (citing literature pertinent to the proposal), and the methods and procedures to be used. Be specific.
  - State the significance of the proposed research to a field or fields in the health sciences, natural sciences and/or engineering or social sciences and/or humanities, as appropriate.
Complete this with your supervisor

Write in general scientific language (understandable by reviewers who are not content experts)

Specify the hypothesis and your role

An overview of each part of the overall research plan, specific project aims, and methodology

Articulate the significance of the project
Research Project Summary

- is it feasible / achievable? (part of a big project?)
- is it innovative?
- why is it important / relevant?
- Be specific, use sub-headings:
  - Introduction / background / context
  - aims, hypotheses
  - methods / approach / experimental plan
  - student’s role
  - context / clinical significance to CIHR, NSERC
Review the candidate's training expectations and proposed doctoral research program, including project, resources available and planned non-research activities.

- 2000 characters
- Use *these* sub-headings to address all points
- Provide enough information! Don’t assume the reviewer knows or understands your environment
- Put it into context to help the reviewer!
Identify References / Sponsors

- 2 for Master’s, 3 for PhD
- should be someone who the applicant has trained under and/or who can assess their potential for research.

  “…completed by persons capable of making an informed assessment.”

- One from a person very familiar with your research and other abilities, e.g., current academic research supervisor or industrial supervisor (in case of co-op)
- Other from a person sufficiently familiar with your research and other abilities to provide a meaningful commentary.

For PhD, use Master’s supervisor & members of cmte
References’ Assessments

- Comment on each evaluation criterion listed below, and provide a justification of your assessment;

- Rather than providing general comments, assess the applicant's strengths and limitations for each criterion; and

- Include examples of the applicant's accomplishments and contributions to support your assessment.
<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>DESCRIPTION</th>
<th>Rarely exhibits</th>
<th>Sometimes exhibits</th>
<th>Often exhibits</th>
<th>Always exhibits</th>
<th>Unable to judge</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRITICAL THINKING</td>
<td>Judicious evaluation of all information, regardless of its source</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>INDEPENDENCE</td>
<td>Pursuit of knowledge or taking of action on own initiative, seeking guidance only when appropriate</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>PERSEVERANCE</td>
<td>Determined persistence in pursuit of goals despite obstacles or discouragement</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>ORIGINALITY</td>
<td>Imagination or ingenuity in problem solving</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>ORGANIZATIONAL SKILLS</td>
<td>Systematic, careful planning and coordination of activities</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>INTEREST IN DISCOVERY</td>
<td>An inquiring mind and a strong desire to pursue new knowledge</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>RESEARCH ABILITY</td>
<td>A natural talent or acquired proficiency for scientific investigation</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>LEADERSHIP ABILITY</td>
<td>Potential for, or demonstrated, significant contribution to an area of research</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Explanations of Ratings

- Choose your sponsors CAREFULLY
- HELP your sponsors!
  - give them your CV
  - volunteer to give them examples
  - consider offering to write the letter yourself – don’t be too humble, but be honest!
- Give them LOTS of time to write it
- Give them a deadline, perhaps a reminder email
- Be responsible – YOU are in charge!!!
Other Info for Sponsors

- How long has sponsor known you / context?
- USE SUBHEADINGS
- Add additional (personal?) qualities – motivation, mentorship abilities, IP skills, communication, etc.
- Publications – emphasize your role and CONTEXT!! (i.e. journal type)
- Presentations & meetings
- Awards
- Work in progress – papers, research milestones
- Special circumstances? Consider these....
Your Common CV (both)

- This takes a huge amount of time! Do it correctly!
- Publications are important!

✓ Candidates should list all pubs (no page limit).
✓ All candidates must, for each multi-authored publication, *define their role* in the publication and *indicate their percent contribution* to the team effort.
✓ Candidates, with or without publications, are invited to comment on environmental factors that affected their capacity to publish.
Your OWN CV - Pubs

- Publications, list of articles
- “Assess publication activity of candidate relative to your expectations of someone with their academic experience.”
- “Consider breadth of science covered, frequency of publication, scientific impact of the journals” (context is important here too)
- “Candidate's input to the publications, prominence of the candidate's name on the list of authors”
CV – Other Research Activity

- “Review information on presentations, research prizes, other indicators of candidate's research productivity”
- Assess other research activity relative to your expectations of someone with their academic experience.
- Consider breadth of science covered, size and importance of meetings involved, frequency of conference presentations and research honours or awards.
## Weightings of Evaluation Criteria

<table>
<thead>
<tr>
<th>Master’s</th>
<th>As demonstrated by past academic results, transcripts, awards and distinctions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Excellence</td>
<td>Indicators of Academic Excellence:</td>
</tr>
<tr>
<td></td>
<td>• Academic record (first class average)</td>
</tr>
<tr>
<td></td>
<td>• Scholarships and awards held</td>
</tr>
<tr>
<td></td>
<td>• Duration of previous studies</td>
</tr>
<tr>
<td></td>
<td>• Type of program and courses pursued</td>
</tr>
<tr>
<td></td>
<td>• Course load</td>
</tr>
<tr>
<td></td>
<td>• Relative standing (if available)</td>
</tr>
</tbody>
</table>

This comes from your transcripts and your **CV**!
## Weightings of Evaluation Criteria

<table>
<thead>
<tr>
<th>Master's Research Potential</th>
<th>Demonstrated by the applicant's research history, interest in discovery, proposed research, potential contribution to the advancement of knowledge in the field, &amp; anticipated outcomes. Indicators of Research Potential:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Quality and originality of contributions to research and development</td>
</tr>
<tr>
<td></td>
<td>• Relevance of work experience and academic training to field of proposed research</td>
</tr>
<tr>
<td></td>
<td>• Significance/feasibility/merit of proposed research</td>
</tr>
<tr>
<td></td>
<td>• Judgment and ability to think critically</td>
</tr>
<tr>
<td></td>
<td>• Ability to apply skills and knowledge</td>
</tr>
<tr>
<td></td>
<td>• Initiative, autonomy and independence</td>
</tr>
<tr>
<td></td>
<td>• Research experience and achievements relative to expectations of someone with the candidate's academic experience</td>
</tr>
</tbody>
</table>

This comes from your **CV and reference letters**!
### Weightings of Evaluation Criteria

<table>
<thead>
<tr>
<th>Personal Characteristics</th>
<th>Interpersonal Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant's past professional and relevant extracurricular interactions and collaborations.</td>
<td></td>
</tr>
</tbody>
</table>

**Indicators of Personal Characteristics and Interpersonal Skills:**

- Work experience
- Leadership experience
- Project management including organizing conferences and meetings
- The ability or potential to communicate theoretical, technical and/or scientific concepts clearly and logically in written and oral formats
- Involvement in academic life
- Volunteerism/community outreach

**Master's**

20%

This comes from your **CV and reference letters!**
Weightings of Evaluation Criteria

This is your sponsors’ evaluations!

---

**PhD**

<table>
<thead>
<tr>
<th>Achievements and Activities of the Candidate</th>
<th>Raw Score</th>
<th>Max Scores</th>
<th>Multiplier</th>
<th>Weighted Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Publication Activity</td>
<td>4.7</td>
<td>4.9</td>
<td>10%</td>
<td>0.47</td>
</tr>
<tr>
<td>2. Other Research Activity</td>
<td>4.2</td>
<td>4.9</td>
<td>10%</td>
<td>0.42</td>
</tr>
<tr>
<td>3. Academic Performance</td>
<td>3.2</td>
<td>4.9</td>
<td>15%</td>
<td>0.48</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristics and Abilities of the Candidate</th>
<th>Raw Score</th>
<th>Max Scores</th>
<th>Multiplier</th>
<th>Weighted Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Reviewer Score</td>
<td>4.2</td>
<td>4.9</td>
<td>40%</td>
<td>1.68</td>
</tr>
</tbody>
</table>

http://www.cihr-irsc.gc.ca/e/33043.html#k
### Weightings of Evaluation Criteria

This is an evaluation of your supervisor, not you!

http://www.cihr-irsc.gc.ca/e/33043.html#k
Weightings of Evaluation Criteria

PhD

<table>
<thead>
<tr>
<th></th>
<th>Raw Score</th>
<th>Max Scores</th>
<th>Weighted Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>33.80</td>
<td>39.2</td>
<td>4.16</td>
</tr>
</tbody>
</table>

This is your total summary score

http://www.cihr-irsc.gc.ca/e/33043.html#k
Summary

1. Highlight achievements, tread carefully
2. Your CV takes TIME - accurate & complete!
3. Put everything (including sponsors’ letters) into context
4. Give sponsors plenty of time
5. Know your deadlines – the website gets VERY busy at the last minute!
6. PROOF READ over and over and over and OVER again!!! Errors in spelling and grammar are NOT easily forgiven (for you or sponsor)

7. HELP your sponsor – their weightings COUNT!

8. Make the reviewers’ jobs easy!
Links to check out!

- CIHR Reviewers’ Guide for Doctoral Research Awards:
  - http://www.cihr-irsc.gc.ca/e/33043.html
- Appendix A – CIHR Doctoral Research Awards Adjudication criteria
- Appendix B – CIHR Doctoral Research Awards Reviewer Worksheet
Links to check out!

- https://www.mitacs.ca/en
- http://cou.on.ca/about/awards/ontario-womens-health-scholars/
- http://www.grad.uwo.ca/postdoctoral_scholars/prospective/funding.html
- https://www.uottawa.ca/graduate-studies/postdoctoral-fellows/fellowships
- https://www.postdocs.ubc.ca/awards-funding/funding-opportunities
Thank you!

Questions?