Canadian Operational Research Society Meeting

“How to prepare an NSERC grant application”

May 27, 2013

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Diane Charles, NSERC
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Presentation Overview

- Overview of Discovery Grants (DG) Program
- DG application process
PART I
DISCOVERY GRANTS PROGRAM
Evaluation Groups

- Genes, Cells and Molecules (1501)
- Biological Systems and Functions (1502)
- Evolution and Ecology (1503)
- Chemistry (1504)
- Physics (1505)
- Geosciences (1506)
- Computer Science (1507)
- Mathematics and Statistics (1508)
- **Civil, Industrial and Systems Engineering (1509)**
- Electrical and Computer Engineering (1510)
- Materials and Chemical Engineering (1511)
- Mechanical Engineering (1512)
Implementation of the Conference Model and the Rating Indicators

Reader

Second Internal

Conflicts?

Excellence
Outstanding
Outstanding

Merit
Outstanding
Very Strong

HQP
Outstanding

COR Factor: N N N N

Reader

First Internal

Program Officer

Chair

Outstanding

Very Strong

Outstanding

Very Strong

Outstanding

Very Strong

Outstanding

Very Strong
APPLYING TO THE DISCOVERY GRANTS PROGRAM
Life Cycle of a Discovery Grant Application

August 1
Submission of Notification of Intent to Apply with CCV

September to October
Initial assignment to EG and contacting of external reviewers

November 1
Submission of grant application with CCV

Mid-November
Applications sent out to external reviewers

Early December
Evaluation Group members receive applications

February
Grants competition

March to April
Announcement of results
Notification of Intent to Apply for a Discovery Grant – Why?

- Used to identify:
  - Most appropriate EG to review the application
  - Need and potential benefits of a joint review between EGs
  - External reviewers for the application
  - Mandate eligibility issues
Notification of Intent to Apply for a Discovery Grant – When and What?

- **Deadline: August 1**
  - Electronic submission only through the Research Portal
  - Mandatory: if not submitted by deadline, full application will not be accepted

- **Includes:**
  - Notification of Intent to Apply, listing up to five research topics in priority order
  - CCV
  - CCV of co-applicants (for team grants)
Submitting a Discovery Grant Application

- Deadline November 1st
  - Check institutional internal deadline
- A full Discovery Grant submission includes:
  - Application for a Grant
  - NSERC Researcher CCV for the applicant and all co-applicants
  - Samples of research contributions (reprints, pre-prints, thesis chapters, manuscripts, patents, technical reports, etc.)
- Note that applications must be submitted electronically using the Research Portal
Submitting a Discovery Grant
NOI and Application

- Changes to the submission process
  - Research Portal
    o Replaces previous online system submission of forms F180 - Notification of Intent to Apply and F101 - Application for a Grant for Discovery Grants Program ONLY
  - CCV
    o Replaces F100 - Personal Data Form
    o Needed for both the NOI and the Full Application
    o Applicants are encouraged to allow ample time to familiarize themselves and enter their data in the NSERC CCV as it can be time consuming the first time to populate the fields
NSERC's Research Portal provides a single point of entry for all of our interactions with applicants, reviewers, committee members, institutions and partners.

NSERC is moving to the Research Portal and the Canadian Common CV (CCV). The Research Portal is used to manage application and peer review processes, acceptance of awards, notification of results and reporting. The transition is being phased in gradually (i.e., program by program). All NSERC funding opportunities are expected to be integrated by late 2015.

Canadian Common CV

The Canadian Common CV and accompanying Instructions are available. For support with the NSERC CCV, please contact the Online Services Helpdesk by e-mail at mshare@canada.gc.ca or by...
You must complete your User Profile before accessing the Research Portal.

**Jser Profile (required)**

- **Salutation** select
- **First Name**
- **Middle Names**
- **Family Name**
- **Initials of All Given Names**
- **Preferred Language** English, French
- **Citizenship** select
- **Date of Birth** (MM/YY)
- **Primary Affiliation**
- **Department/Division**
- **Current Position** select or enter value
- **Phone Number** (e.g., 9999999999)

**Sign In Information**

- Last sign in: 2013-05-22 10:00:55
- Last password change: 2013-05-22 09:51:49

[Buttons: Change Password, Security Question]
### Applicant

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<th>Funding Opportunity</th>
<th>Stage</th>
<th>Start Date</th>
<th>End Date</th>
<th>Action</th>
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How to Complete your CCV

From the old to the new application. You need to make sure that the data was properly migrated by inspecting each section and field. Any missing or wrongly formatted data will have to be corrected. For your convenience the old CCV application will be available until further notice, for you to retrieve any data at www.ccv-cvc-2004.ca.

Please note that "Les Fonds de recherche du Québec (FRQ)" are not yet using the new version of the Common CV and submissions to these organizations must be done using the previous version of the CCV available at www.ccv-cvc-2004.ca.
<table>
<thead>
<tr>
<th>Publishing Status</th>
<th>Journal</th>
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<tbody>
<tr>
<td>* Referred?</td>
<td>Canadian Journal of Chemical Engineering</td>
</tr>
<tr>
<td>* Date Year</td>
<td>2013-04-12</td>
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**Journal Articles**

- Title: Silicon and silicon oxide surface modification using thiamine-catalyzed benzoin condensations
- Journal: Canadian Journal of Chemical Engineering

**Funding Sources**

<table>
<thead>
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<th>Funding Organization</th>
<th>Other Funding Organization</th>
<th>Funding Reference Number</th>
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EVALUATION OF DISCOVERY GRANT APPLICATIONS
Evaluation Criteria

- Scientific or Engineering Excellence of the Researcher(s)
- Merit of the Proposal
- Contribution to the Training of HQP
## Discovery Grants Indicators

### 6.13. DISCOVERY GRANTS MERIT INDICATORS

<table>
<thead>
<tr>
<th>Merit of the Proposal</th>
<th>Exceptional</th>
<th>Outstanding</th>
<th>Very Strong</th>
<th>Strong</th>
<th>Moderate</th>
<th>Insufficient</th>
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</thead>
<tbody>
<tr>
<td>**Excellence of the **</td>
<td>Acknowledged as a leader who has continued to make, over the last six years, influential accomplishments at the highest level of quality, impact and/or importance to a broad community.</td>
<td>The accomplishments presented in the application were deemed to be far superior in quality, impact and/or importance to a broad community.</td>
<td>The accomplishments presented in the application were deemed to be superior in quality, impact and/or importance.</td>
<td>The accomplishments presented in the application were deemed to be solid in their quality, impact and/or importance.</td>
<td>The accomplishments presented in the application were deemed to be of reasonable quality, impact and/or importance.</td>
<td>The accomplishments presented in the application were deemed to be below an acceptable level of quality, impact and/or importance.</td>
</tr>
<tr>
<td><strong>Training of HQP</strong></td>
<td>Proposed research program is clearly presented, is extremely original and innovative and is likely to have impact by leading to groundbreaking advances in the area and/or leading to a technology or policy that addresses socioeconomic or environmental needs. Long-term vision and short-term objectives are clearly defined. The methodology is clearly defined and appropriate. The budget clearly demonstrates how the research activities to be supported are distinct from and complement those funded by other sources.</td>
<td>Training record is at the highest level, with HQP contributing to top quality research. Most HQP move on to positions that require highly desired skills, obtained through training received. Research plans for trainees are appropriate and clearly defined. HQP success highly likely.</td>
<td>Training record is superior to other applicants, with HQP contributing to high-quality research. Most HQP move on to positions that require highly desired skills, obtained through training received. Research plans for trainees are appropriate and clearly defined. HQP success highly likely.</td>
<td>Training record compares favourably with other applicants. HQP generally move on to appointments that require desired skills, obtained through training received. Research plans for trainees are appropriate and clearly described. HQP success is likely.</td>
<td>Training record is acceptable but may be modest relative to other applicants. Some HQP move on to programs or positions that require desired skills, obtained through training received. Plans for trainees are described and should contribute to HQP success.</td>
<td>Training record is below an acceptable level relative to other applicants. HQP do not, in general, move on to appointments that require skills obtained through training received. Plans for trainees are not appropriate or are not described with enough information to predict likelihood of HQP success.</td>
</tr>
</tbody>
</table>

1. The Discovery Grants Merit Indicators should be used in conjunction with the Peer Review Manual (Chapter 6) which outlines how reviewers arrive at a rating.

2. Possible examples include: Cost of training of HQP, Equipment intensive research and/or high users fees, particularly expensive or frequent consumables; Travel (for collaborations, field work, access to facilities, conferences, ...)

<table>
<thead>
<tr>
<th>Cost of Research</th>
<th>High</th>
<th>Normal</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majority of justified expenses represent costs higher than the norm for the research area.</td>
<td>Majority of justified expenses are within the norm for the research area.</td>
<td>Majority of justified expenses are lower than the norm for the research area.</td>
<td></td>
</tr>
</tbody>
</table>
Scientific or Engineering Excellence of the Researcher(s)

- Knowledge, expertise and experience
- Contributions to research in the NSE
- Importance of contributions
- Complementarity of expertise and synergy (for team applications)
Scientific or Engineering Excellence of the Researcher(s): Tips

- Describe up to five most significant research contributions (now in *application*) and highlight quality & impact
- List all types of research contributions
- Explain your role in collaborative research activities
- List all sources of support
- Give other evidence of impact
- Explain delays in research activity or particular circumstances that might have affected productivity (See Peer Review Manual, Section 6, for details)
Merit of the Proposal

- Originality and innovation
- Significance and expected contributions to research, and potential for technological impact
- Clarity and scope of objectives
- Clarity and suitability of methodology
- Feasibility
- Extent to which the proposal addresses all relevant issues
- Appropriateness and justification of the budget
- Relationship to other sources of funding
Merit of the Proposal: Tips

- Write summary in plain language
- Keep in mind that two audiences read your application: expert and non-expert
- Provide a progress report on related research
- Position the research within the field and state-of-the-art
- Clearly articulate short- and long-term objectives
- Provide a detailed methodology and realistic budget
- Consider comments/recommendations you may have received for previous applications
Merit of the Proposal – Tips: Overlap

- Discuss relationships to other research support
  - For each grant currently held or applied for, clearly provide: the main objective, a brief outline of the methodology, budget details, and details on the support of HQP
  - Must include summary and budget pages for CIHR and SSHRC grants currently held or applied for

- Explain any potential conceptual overlap with other programs/projects
  - Complementary research is encouraged, but must be clearly explained

- Saying “there is 0 overlap” is not sufficient
Additional Tips …

- **Do…**
  - Be original and creative, but also show you have the expertise to carry out the program
  - Highlight transformative research
  - Have long term vision and short term plan
  - Integrate HQP into the proposal

- **Don’t…**
  - Propose an unfeasible number of objectives
  - Propose a project or a series of disconnected projects
  - Use a lot of jargon and acronyms
  - Be vague when describing methodology
  - Only reference your own publications
Contributions to the Training of HQP

- Quality and impact of contributions to training during the last six years
- Proposed plan for future training of HQP in the NSE
- Enhancement of training arising from a collaborative or interdisciplinary environment (where applicable)

Read the Policy and Guidelines on the Assessment of Contributions to Research and Training
Contributions to the Training of HQP - Tips

Past contributions to Training:

- **NEW**: Use an asterisk to identify students who are co-authors on the listed contributions
- Explain your role in co-supervision activities
- Explain any delays that might have affected your ability to train HQP
- Describe nature of HQP studies
  - HQP ranges from undergraduate theses and summer projects to postdoctoral levels.
Contributions to the Training of HQP - Tips

Training Plan

- Describe the nature of the training (e.g., length, specific projects) in which HQP will be involved, the HQP’s contributions and pertinence to the research program proposed.
- Discuss the training philosophy and the expected outcomes.
- Clearly define your role in any collaborative research and planned joint HQP training.
Additional Tips …

- **Do…**
  - Describe your involvement and interaction with HQP
  - Describe the nature (PhD, master’s, undergraduate), length of time (summer project vs. thesis) and type of training (course-related or thesis)
  - Fully describe the nature of co-supervision
  - Include present position for past HQP
  - Include all levels of HQP, including undergraduates
  - Make sure projects are appropriate for level of HQP proposed

- **Don’t…**
  - Just list numbers
  - Have name withheld on all entries
  - Have a blanket statement, be specific
Cost of Research

- Determined by the reviewers as Low, Normal or High as compared to the norm for the research areas represented in the applications considered by the EG(s)
Discovery Grant Applications – Reminders

- Consult the *Peer Review Manual*, Section 6 (DG) or Section 7 (RTI)
- Read all instructions carefully and follow presentation standards
- Ensure completeness of application
- Ask colleagues and/or your RGO for comments on your application
- Read other successful proposals
- Plan ahead and check institution deadlines
  - Give yourself time: CCV for DG; F100 for RTI
# NSERC Contacts

<table>
<thead>
<tr>
<th>1509 Program Officer</th>
<th><a href="mailto:Louise.Benoit@nserc-crsng.gc.ca">Louise.Benoit@nserc-crsng.gc.ca</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Deadlines, acknowledgement of applications and results</td>
<td>Your university RGO</td>
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<tr>
<td>Your account, Grants in Aid of Research Statement of Account (Form 300)</td>
<td>Your university Business Officer (BO)</td>
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<tr>
<td>NSERC Web site</td>
<td><a href="http://www.nserc-crsng.gc.ca">www.nserc-crsng.gc.ca</a></td>
</tr>
</tbody>
</table>
| Discovery Grants Program (including eligibility) | E-mail: resgrant@nserc-crsng.gc.ca  
Tel.: 613-995-5829 |
| Use of Grant Funds | E-mail: awdad@nserc-crsng.gc.ca |
| On-line Services Helpdesk | E-mail: webapp@nserc-crsng.gc.ca |
Thank you.

Merci!

Questions?