How to prepare a Discovery Grant (DG) Application

- DG Overview, review process and Tips
- Live Demo on NSERC research portal
- Questions (ask by chat on AdobeConnect)
Life Cycle of a Discovery Grant Application

August
Submission of notification of intent to apply (due Aug. 1)

September
Internal assignment to EG

October
Selection of external reviewers and preliminary joint review discussions

November
Submission of application (due Nov. 1)

December
Members receive applications and begin reviewing

January
Members review applications and external reviewer reports are received

February
Grants competition

March/April
Announcement of results
Discovery Grant Application

Overview

- **Deadline:** November 1st - Check internal deadlines
- **Main components:**
  - Application for a grant
  - Research proposal
  - Samples of research contributions
  - Budget and justification
  - Canadian Common CV (CCV)
- **Submission:**
  - Research Portal
## Grants Competition

### Review Process

#### Step 1: Merit assessment

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Outstanding – Very Strong – Very Strong

#### Step 2: Funding Recommendation

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## Grants Competition

### Review Process

- **Merit Indicators Grid**

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<th>Category</th>
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<tr>
<td><strong>Excellence of the Researc</strong></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 of superior 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>
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<td><strong>Proposal Merit</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 socio-economic or environmental needs. Long-term and short-term objectives are clearly defined. The methodology is clearly defined and appropriate. The application clearly demonstrates how the research activities to be supported are distinct from those funded (or applied for) by other sources.</td>
<td>Proposed research program is clearly presented, is highly 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 socio-economic or environmental needs. Long-term and short-term objectives are clearly defined. The methodology is clearly described and appropriate. The application clearly demonstrates how the research activities to be supported are distinct from those funded (or applied for) by other sources.</td>
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<td>Proposed research program as presented lacks clarity, and/or is of limited originality and innovation. Objectives are not clearly described and/or likely not attainable. Methodology is not clearly described and/or appropriate. The application does not clearly demonstrate how the research activities to be supported are distinct from those funded (or applied for) by other sources.</td>
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<td><strong>Past training</strong></td>
<td>Past training is at the highest level in terms of the research training environment provided and HQP contributions to research. Most HQP move on to highly impactful positions that require skills gained through the training received. Training philosophy and research training plans are at the highest quality: highly appropriate, clearly defined and expected to produce high quality results in terms of the overall approach and specific projects for HQP.</td>
<td>Past training is superior to other applicants in terms of research training environment provided and HQP contributions to research. Most HQP move on to impactful positions that require skills gained through the training received. Training philosophy and research training plans are superior: highly appropriate, clearly defined and expected to produce high quality results in terms of the overall approach and specific projects for HQP.</td>
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1. The Discovery Grants Merit Indicators should be used in conjunction with the Peer Review Manual which outlines how reviewers arrive at a rating.
Discovery Grant Updates
Early Career Researchers (ECR)

- Early career researchers:
  - Applicants who had held an independent academic position for 3 years or less at the time of submitting the NOI
  - ECRs need to self-identify on the Research Portal at the Full Application stage by completing the Applicant Category module
Select Applicant Category

Required for ECRs
DND* / NSERC DG supplement

• Supporting discovery-based research
• 20 supplements at $40,000 per year for 3 years
• Eligibility
  - Researchers applying to current DG competition
  - Proposed research must fit within DND defence and security target areas *(recently revised)*

• Internal DND committee will select recipients
• Contact: dndsuppmdn@nserc-crsng.gc.ca

*DND: Department of National Defence*
NSERC Framework on Diversity & Gender Equity

- Integrate equity, diversity & inclusivity analysis in policies, programs & initiatives
- Statistics are key to well informed decisions
- Applicants therefore encouraged to identify their sex in the CCV

![Bar chart showing number of applicants by sex]

This information is NOT shared with reviewers (removed before CCV is provided to reviewers)
Discovery Grant Application
Evaluation Criteria

- Excellence of Researcher
- Merit of Proposal
- Training of Highly Qualified Personnel (HQP)
Discovery Grant Application

Excellence of the Researcher

Assessment based on achievements demonstrated over the past six years.

- Knowledge, expertise, and experience
- Quality and impact of contributions to natural sciences and engineering (NSE) research
- Importance of contributions to researchers and end-users
Discovery Grant Application

Excellence of the Researcher

Members will assess this using information from:

- **Most significant contributions**
  - Highlighted quality and impact

- **Samples of research contributions**
  - Up to 4 attached with application

- **CCV contributions, recognitions, activities**
  - Additional information on contributions in application
Discovery Grant Application

Excellence of the Researcher

- Describe up to five most significant research contributions and highlight quality & impact
- List all types of research contributions (*from 2011-2017*)
- Explain your role in collaborative research activities
- List all sources of support
- Give other evidence of impact
- Explain delays in research activity (See Peer Review Manual)
Discovery Grant Application

Excellence of the Researcher

- In **CCV**
  - Recognitions (honors, prizes and awards, etc.)
  - Activities (international collaborations, event administration, editorial activities, organizational review, knowledge and technology transfers, etc.)
  - Memberships (service on committees)
  - Contributions (publications, books, patents, etc.)

- In **Application**
  - Most Significant Contributions (discusses most significant contributions)
  - Additional Information on Contributions (discusses choice of venues, order of authors, etc.)
Discovery Grant Application

Merit of the Proposal

Assessment based on the following elements:

- Originality and innovation
- Significance and expected contributions to research
- Clarity, scope of objectives, and appropriateness of methodology
- Feasibility
- Appropriateness and justification for the budget
- Relationship to other research support
Relationship to other research support:

- Budget requested in DG is for different expenses than the ones supported (or to be supported) by other sources.
- The DG proposal is distinct conceptually from research supported (or to be supported) by CIHR and/or SSHRC.
- *NEW* For CIHR Foundation Grant holders or applicants only: convincing evidence that support from DG is essential to carry out the work proposed.
## Module Status

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Select the module

Clear explanation
Discovery Grant Application

Merit of the Proposal

Members will assess this using information from:

- **Research proposal (5 pages)**
  - List of references (2 pages)

- **Proposed expenditures and budget justification**

- **Relationship to other research support**
  - CIHR and/or SSHRC summary and budget pages
  - CCV research funding history
NSERC supports research whose major challenges lie in the natural sciences and engineering (NSE), other than the health sciences.

The intended objective(s) of the research must primarily be to advance knowledge in one or more of the NSE disciplines.

Applicants should refer to:

- *Updated* Selecting the Appropriate Federal Granting Agency
- *New* Addendum to the Guidelines for the Eligibility of Applications Related to Health.

  - The Addendum provides examples that illustrate the eligibility of applications related to human health.
Discovery Grant Application
Merit of the Proposal

- 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
- Integrate HQP into the proposal
- Follow NSERC On-line Presentation Standards
Discovery Grant Application

Merit of the Proposal

- **In Application**
  - Proposal
  - List of References
  - Budget Justification
  - Relationship to Other Sources of Support
    - Explanation
  - Other Support Sources – Supporting Documents (if applicable)

- **In CCV**
  - Research Funding History (to assess possible conceptual or budgetary overlaps)
Assessment is based on both:

- the past contributions to training; and
- the future plans for training

Quality research training at all levels are valued, including:

- Undergraduate students involved in research;
- Graduate students and postdoctoral fellows;
- Technicians and research associates; and
- Other trainees from non-academic sectors, i.e. government or industry.
Past contributions to the training of HQP
Assessment based on training over the past six years

**NEW Instructions**

Include three components:
1. Training environment
2. HQP awards and research contributions
3. Outcomes and skills gained by HQP

Focus on quality and impact of training
Past contributions to the training of HQP

- Describe the nature of HQP studies and their level of involvement in your research
- Explain your role in any co-supervision
- Explain any delays in training (e.g., leaves taken by applicant or HQP)
- Include present position in CCV (career, further studies)
- **Use asterisk (*) to identify HQP co-authors in CCV**
- Do not select “academic advisor” in CCV
- Early Career Researchers should not be rated *Insufficient* solely due to the lack of training record.
Discovery Grant Application
Contributions to the training of HQP

Future plans for training

**NEW Instructions**

Include two components:
1. Training Philosophy
2. Research Training Plan

- Focus on **quality**, **suitability** and **clarity** of plan.
- Define your role in any planned co-supervision.
- Encouraged to promote approaches that increase inclusion and advancement of women and other under-represented groups in NSE.
Discovery Grant Application
Contributions to the training of HQP

Evaluation Group will assess HQP using information from:

- **Application:**
  - Past contributions to HQP training;
  - HQP training plan.

- **CCV**
  - Supervisory activities and contributions;
  - Trained HQP who co-authored should be identified with an *asterisk* (*);
  - Do not use “academic advisor”.
Discovery Grant Application

More Tips

- Read other successful applications
- Ask colleagues and/or your RGO for comments on your application
  - Ask both experts in your field and non-experts to review
- Plan ahead and check institutional deadlines
- Use the resources available
Live Demonstration

NSERC Research Portal
Discovery Grant Application

Available Resources – NSERC WEBSITE

- Discovery Grants Information Centre
- Discovery Grants Program Description
- Discovery Grants Resource Video
- Peer Review Manual
  - Includes information on each of the three criteria and the merit indicators
- HQP FAQ Document
- Webinars on how to apply
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| Discovery Grants Program (including eligibility) | E-mail: resgrant@nserc-crsng.gc.ca  
Tel.: 613-995-5829 |
| On-line Services Helpdesk (IT support)       | E-mail: webapp@nserc-crsng.gc.ca                         |
| Use of Grant Funds                           | E-mail: usegrantfunds@nserc-crsng.gc.ca                  |
| Deadlines, acknowledgement of applications and results | Your university Research Grants Office                  |
| Your account, Grants in Aid of Research Statement of Account (Form 300) | Your university Business Officer (BO)                  |