

## Discovery Grants Program

### Instructions to External Reviewers

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#### How external reviewer reports are used

External reviewers help provide a deeper overall assessment of an application during the peer review process. External reviewers may be familiar with a particular research area or technique and may be able to comment on an applicant's contributions to the field. During deliberations, the Evaluation Group members present and discuss external reviewer reports that were received for an application.

External reviewer reports are considered the applicant's personal information as defined by Section 3 of the *Privacy Act*. As such, NSERC shares them proactively with all applicants, while protecting the names and identifiers of the reviewers and other third parties (e.g., other applicants or researchers). External reviewer reports are not the property of the reviewer and must therefore be destroyed in a secure manner once submitted (e.g., by deleting electronic data files, shredding or burning paper, or arranging for their return to NSERC).

#### How to evaluate an application

Ultimately, the integrity of the peer review process relies on high quality reviews. In the External Reviewer Report template provided to you on the Extranet, provide a high quality review based on the selection criteria below, taking into consideration any [significant delays](#). For more information on delays refer to the **Delays in research and dissemination of research results** section below.

Refer only to the information contained in the review material provided. This consists of the application form, proposal, budget justification, references, the Canadian Common CV (CCV), and, if applicable, samples of research contributions and an attestation on



confidential research contributions.

A high quality review that provides useful comments for the Evaluation Group and the applicant is:

- **Fair:** Respectful, consistent and appropriate.
- **Informative:** Clear, detailed, constructive and well-justified.

### **Selection criteria:**

Comment in detail on each of the three selection criteria. Justify your assessment by referring to the information provided in the application materials.

#### **1. Scientific or engineering excellence of the researcher**

Applicants must present evidence of meaningful research contributions to the natural sciences and engineering (NSE) field in the past six years.

Describe the applicant's strengths and weaknesses related to:

- Knowledge, expertise and experience of the researcher in the natural sciences and engineering, and evidence of their stature in the field.
- Quality and impact of contributions to the proposed research and/or other areas of research in the natural sciences and engineering. Evidence of research accomplishments includes publications, conference presentations and/or proceedings, books or book chapters, patents or technology transfer, technical reports, and/or other methods of dissemination appropriate to the type of research. Impact does not refer to quantitative indicators such as the impact factor of journals or h-index, but to the influence that results have had on other researchers, on the specific field, the discipline as a whole, or on other disciplines.
- Importance of contributions to, and use by, other researchers and end-users.

#### **2. Merit of the proposal**

The proposal must clearly present a program of research in the natural sciences and engineering. The program must not be limited to the development of specific applications of existing knowledge; it must propose an original and innovative



contribution.

Describe the strengths and weaknesses of the proposal related to:

- Originality and innovation; extent to which the proposal suggests and explores novel or potentially transformative concepts and lines of inquiry in the NSE; extent to which the proposal will lead to advances in the NSE.
- Significance and expected contributions to NSE research; potential for policy and/or technology related impact.
- Clarity and scope of objectives (research program with long-term goals rather than a single short-term project or collection of projects).
- Clarity and appropriateness of methodology.
- Feasibility.
- Consideration of sex, gender and diversity in the research design, if applicable.
- Extent to which the scope of the proposal addresses all relevant issues, including the need for varied expertise within or across disciplines.
- Appropriateness of, and justification for, the budget.
- Demonstration that the Discovery Grant proposal is conceptually distinct from research support held or applied for through CIHR and/or SSHRC.

### **3. Contribution to the training of highly qualified personnel (HQP)**

Contributions to quality training at all levels are valued, including undergraduate students involved in research, graduate students, postdoctoral fellows, technicians and research associates. Assessment is based on both the past training of HQP (over the last six years) and the future plans for training.

Describe the applicant's strengths and weaknesses related to:

- Quality and impact of past training of HQP (over the last six years):
  - Training environment provided for HQP
  - Specific actions implemented in support of increased equity, diversity and inclusion in the research and training environment, if applicable
  - HQP awards and research contributions
  - Outcomes and skills gained by HQP



- Quality, suitability and clarity of planned training of HQP in the natural sciences and engineering:
  - Overall training philosophy, including a planned approach to promote participation of a diverse group of HQP
  - Research training plan for individual HQP

### **Delays in research and dissemination of research results:**

Applicants are asked to explain and give start and end dates for any significant eligible delays in the research activity or in the dissemination of research results within the last six years (e.g., parental leave, bereavement, illness or extraordinary administrative duties).

In these cases the applicant's productivity should be assessed over the active period (i.e., excluding the defined period of delay). Reviewers are to recognize delays and assess the quality of research activity during the researcher's active period.

NSERC recognizes that research productivity and contributions to the training of highly qualified personnel (HQP) may be disrupted due to delays incurred either by the applicant or by HQP. HQP delays are taken into account in the assessment of the contributions to HQP training only.

### **What to avoid**

- Information outside the application material. The onus is on the applicant to provide complete and sufficient information.
- Comments that are vague or short, or that could be construed as sarcastic or inappropriate.
- Overly positive or negative comments that are not supported by references to the application material.
- Unconscious bias, which may be based on a school of thought, fundamental versus applied research, certain sub-disciplines, areas of research or approaches, size or reputation of an institution, personal factors, age, sex or gender of the applicant. For more information, see NSERC's [Unconscious bias training module](#).
- Identifying yourself, other applicants or researchers in your comments.

## Additional information

### Contextual information on Discovery Grants

NSERC's Discovery Grants program fosters research excellence, supports the activities of academic researchers working at the forefront of science and engineering nationally and internationally, and is instrumental in providing a stimulating research environment for the training of the next generation of researchers. Although Discovery Grants are "grants in aid" and not meant to cover the full costs of a research program, Discovery Grants represent a key source of funding for research in Canadian universities and constitute the foundation of a large part of Canada's research effort in the natural sciences and engineering. These grants cover the direct costs of research only. The researcher's salary and any indirect costs are provided through other mechanisms.

Unlike project-oriented grants, the Discovery Grants are intended to provide support to university researchers who have submitted an excellent application for a long-term program of research. The duration of a Discovery Grant is normally five years.

### Conflict of interest and confidentiality

It is important that you adhere to the requirements set out in the [Conflict of Interest and Confidentiality Agreement for Review Committee Members, External Reviewers, and Observers \("the Agreement"\)](#). If you are unable to do so, you must decline to participate in the review process.

External reviewers must not be in any conflicts of interest. If you are in a conflict of interest, or for any other reason are unable to act as an external reviewer, contact us as soon as possible. Specify in your email which application you are unable to review.

As stipulated in the [Agreement](#), there may be a real, perceived or potential conflict of interest when the Evaluation Group member, external reviewer or observer:


- would receive professional or personal benefit resulting from the funding opportunity or application being reviewed;
- has a professional or personal relationship with an applicant or the applicant's institution; or
- has a direct or indirect financial interest in a funding opportunity or application being reviewed.

A conflict of interest may be deemed to exist or perceived as such when Evaluation Group members, external reviewers or observers:

- are a relative or close friend, or have a personal relationship with the applicants;
- are in a position to gain or lose financially or materially from the funding of the application;
- have had long-standing scientific or personal differences with the applicants;
- are currently affiliated with the applicants' institutions, organizations or companies—including research hospitals and research institutes;
- are closely professionally affiliated with the applicants, as a result of having in the last six years:
  - frequent and regular interactions with the applicants in the course of their duties at their department, institution, organization or company;
  - been a supervisor or a trainee of the applicants;
  - collaborated, published or shared funding with the applicants, or have plans to do so in the immediate future; or
  - been employed by the institution, when an institution is the applicant;
- feel for any reason unable to provide an impartial review of the application.

In accordance with the [Agreement](#), review documentation must be stored in a secure manner to prevent unauthorized access. When no longer required, review documentation must be destroyed in a secure manner.

### **Allegations of policy breaches**

Allegations of policy breaches, as described in the  [Tri-Agency Framework: Responsible Conduct of Research](#) must be treated separately from the peer review process. Should your review reveal concerns of possible policy breaches, report any allegation separately to NSERC program staff. Your external reviewer report should only address the application and selection criteria and make no mention of the breach concerns.



## Collection and use of personal information

The information you provide is collected under the authority of the *Natural Sciences and Engineering Research Council Act* and stored in a series of NSERC data banks described in NSERC's [Info Source](#). Details on the use and disclosure of this information are described in [Use and Disclosure of Personal Information Provided to NSERC](#). The information is used in accordance with the [Access to Information Act and the Privacy Act](#).

## Reference documents

- [Discovery Grants Information Center](#);
- Program objectives for the [Discovery Grants program](#);
- [Guidelines for the Preparation and Review of Applications in Engineering and the Applied Sciences](#);
- [Guidelines for the Preparation and Review of Applications in Interdisciplinary Research](#);
- [Policy and Guidelines on Contributions to Research and Training](#);
- [Discovery Grants Peer Review Manual](#);
- [NSERC Training Module on Bias in Peer Review](#);
- [Equity, Diversity and Inclusion](#).

## Technical information

NSERC currently provides access to the applications via a secure website, known as the Extranet. Once you agree to provide a review, you will receive an email containing information on how to access the Extranet. Once you have logged in to the site, you will be able to find more detailed instructions on how to navigate the site and submit your report by hovering your mouse over the "External Reviewers" tab, and selecting the "Instructions to External Reviewers" option.

**Note:** The Extranet no longer supports Internet Explorer 8. We recommend upgrading to Internet Explorer 9, Google Chrome, Firefox or Safari.