Webinar Information Session
Discovery Grants Program for small universities
2019

How to prepare a
Discovery Grant (DG) Application

- DG overview, review process and tips
- Questions: ask by chat on AdobeConnect
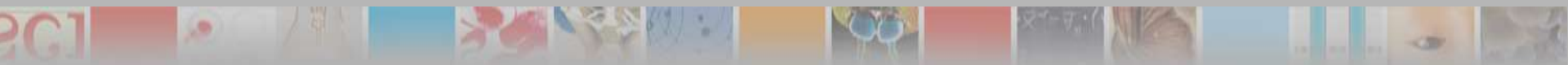
Life Cycle of a Discovery Grant Application

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
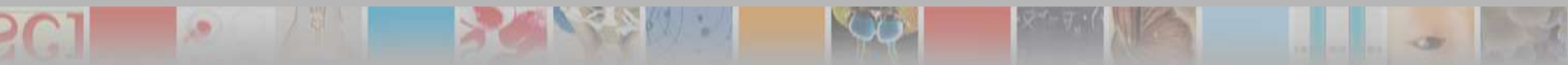
Grants **competition**

April

Announcement of results

Notification of Intent to Apply (NOI)
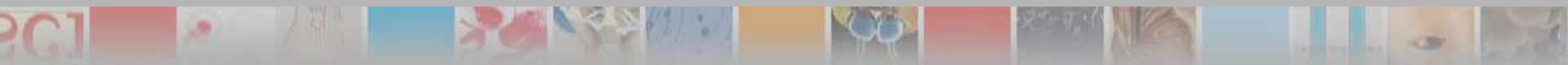## Overview

- **Deadline:** August 1st - Mandatory

- **Main components:**
  - Research topics, keywords, title
  - Summary of proposal
  - Suggested external reviewers
  - Canadian Common CV (CCV)

- **Submission:**
  - Research Portal
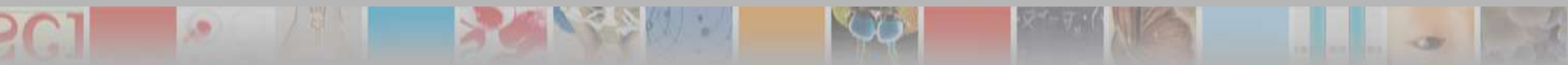
Notification of Intent to Apply Purpose

- **Facilitates preliminary assignments:**
  - to an Evaluation Group;
  - of internal reviewers; and
  - of external reviewers

- **First indication of joint review**
  - Informed by research topics, keywords, title and proposal summary

- **First review of subject matter eligibility**

Notification of Intent to Apply
## Subject Matter Eligibility

- 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 be to advance knowledge in one or more of the NSE disciplines.

- Applicants should refer to:

  - [Selecting the Appropriate Federal Granting Agency](#)

  - *Updated* [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.

Notification of Intent to Apply
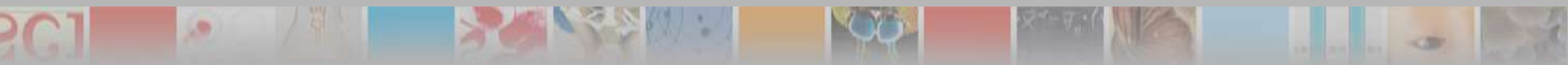## Joint Reviews - Evaluation Groups

- 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)
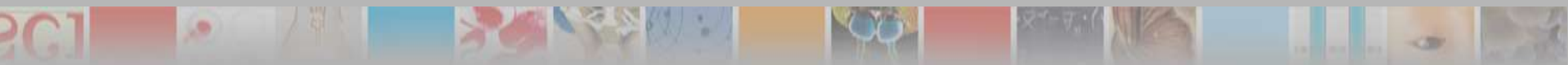
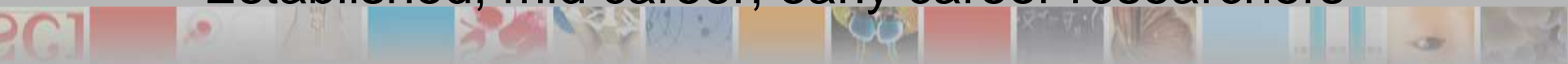# Notification of Intent to Apply
Tips

- **Select appropriate research topics**
  - First selected must be from suggested EG
  - Helps identify potential joint reviews

- **Submit a detailed summary**
  - Helps internal reviewers select appropriate external reviewers
  - Helps identify potential joint reviews

Notification of Intent to Apply
Tips for selecting external reviewers

- **Be mindful of conflicts of interest**
  - Reviewers outside your institution (primary & adjunct)
  - Adhere to [NSERC guidelines](e.g., six-year window)

- **Identify the best expertise**
  - Ability to comment/review with confidence

- **Consider diversity in your selection**
  - National, International
  - Private, government, public sectors
  - Gender
  - Under-represented groups
  - Established, mid career, early career researchers

Notification of Intent to Apply
Collection of Self-Identification Data

What questions are included in the mandatory self-identification form?

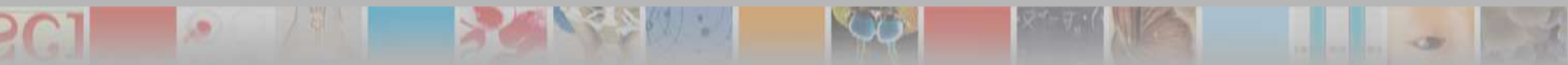The granting agencies ask for the following information:

1. Age - What is your date of birth?

2. Gender – Select the option that you identify with, i.e. Woman; Man; or Gender-fluid, non-binary; and/or Two-Spirit

3. Indigenous Identity – Do you identify as Indigenous - that is First Nations (North American Indian), Métis, or Inuit?

4. Person with a disability – are you person with a disability?

5. Visible Minority - Do you identify as a member of a visible minority in Canada?

Completing the self-identification form is mandatory, but for each category there is an option for "I prefer not to answer."
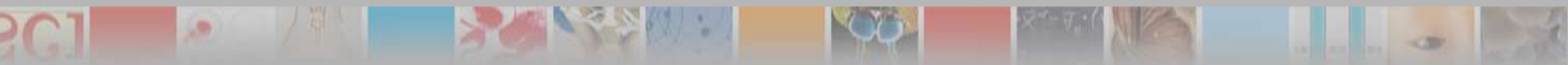
Discovery Grant Application

[Discovery Grants - Peer Review Manual](#)

Discovery Grant Application Overview

- **Deadline:** November 1st - <u>Check internal deadlines</u>

- **Main components:**
  - Application for a grant
  - Research proposal
  - Samples of research contributions
  - Budget and justification
  - Canadian Common CV (CCV)
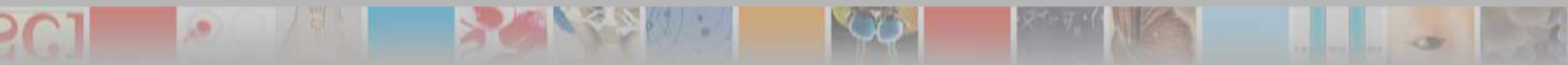
Discovery Grant Application
Evaluation Criteria

- Excellence of Researcher

- Merit of Proposal

- Training of Highly Qualified Personnel (HQP)

Discovery Grant Application
Merit Indicators Grid
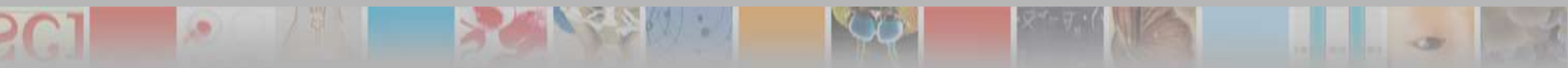
- [Merit Indicators Grid](#)

DISCOVERY GRANTS MERIT INDICATORS

The Merit Indicators should be used in conjunction with the Peer Review Manual, which outlines how reviewers arrive at a rating.

	EXCEPTIONAL	OUTSTANDING	VERY STRONG	STRONG	MODERATE	INSUFFICIENT
Excellence of the Researcher	Acknowledged as a leader in terms of research excellence, accomplishments, and service.	Research excellence, accomplishments and service are far superior to others.	Research excellence, accomplishments, and service are superior to others.	Research excellence, accomplishments, and service are significant.	Research excellence, accomplishments, and service are reasonable.	Research excellence, accomplishment, and service are below an acceptable level.
	Contributions presented in the application are of the highest level of quality.	Contributions presented in the application are of high quality.	Contributions presented in the application are above average in quality.	Contributions presented in the application are of good quality.	Contributions presented in the application are of reasonable quality.	Contributions presented in the application are limited in quality.
	Impact and importance of the work is clearly evident and groundbreaking.	Impact and importance of the work is clearly evident and influential.	Impact and importance of the work is clearly evident.	Impact and importance of the work is evident.	Impact and importance of the work is somewhat evident.	Impact and importance of the work is not clearly evident.
Merit of the Proposal	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.	Proposed research program is clearly presented, is highly original and innovative and is likely to have impact by contributing to groundbreaking advances in the area, and/or leading to a technology or policy that addresses socio-economic or environmental needs.	Proposed research program is clearly presented, is original and innovative and is likely to have impact by leading to advancements and/or addressing socio-economic or environmental needs.	Proposed research program is clearly presented, is original and innovative and is likely to have impact and/or address socio-economic or environmental needs.	Proposed research program is clearly presented, has original and innovative aspects and may have impact and/or address socio-economic or environmental needs.	Proposed research program, as presented lacks clarity, and/or is of limited originality and innovation.
	Long-term vision and short-term objectives are clearly defined.	Long-term goals are clearly defined and short-term objectives are well planned.	Long-term goals are defined and short-term objectives are planned.	Long-term goals and short-term objectives are clearly described.	Long-term and short-term objectives are described.	Objectives are not clearly described and/or likely not attainable.
	The methodology is clearly defined and appropriate.	The methodology is clearly described and appropriate.		The methodology is described and appropriate.	The methodology is partially described and/or appropriate.	The 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.
	The application clearly demonstrates how the research activities to be supported are distinct from those funded (or applied for) by other sources.					
Training of Highly Qualified Personnel	Past training is at the highest level in terms of the research training environment provided and HQP contributions to research.	Past training is far superior to other applicants in terms of research training environment provided and HQP contributions to research.	Past training is superior to other applicants in terms of the research training environment provided and HQP contributions to research.	Past training compares favourably with other applicants in terms of the research training environment provided and HQP contributions to research.	Past training is modest relative to other applicants in terms of the research training environment provided and HQP contributions to research.	Past training is below an acceptable 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.	Most HQP move on to impactful positions that require skills gained through the training received.	HQP generally move on to impactful positions that require skills gained through the training received.	HQP generally move on to positions that require skills gained through the training received.	Some HQP move on to positions that require skills gained through the training received.	HQP rarely move on to positions that require skills gained through the training received.
	Training philosophy and research training plans are of the highest quality:	Training philosophy and research training plans are far superior:	Training philosophy and research training plans are superior:	Training philosophy and research training plans are:	Training philosophy and research training plans are:	Training philosophy and research training plans are:
	highly appropriate, clearly defined and expected to produce top quality results in terms of the overall approach and specific projects for HQP;	highly appropriate, clearly defined and expected to produce high quality results in terms of the overall approach and specific projects for HQP;	highly appropriate, clearly defined and expected to produce quality results in terms of the overall approach and specific projects for HQP;	appropriate and clearly defined in terms of the overall approach and specific projects for HQP;	partially appropriate and partially defined in terms of the overall approach and specific projects for HQP;	not appropriate and not clearly defined in terms of the overall approach and specific projects for HQP;
	challenges related to equity, diversity and inclusion specific to the institution and field of research are clearly described; and	challenges related to equity, diversity and inclusion specific to the institution and field of research are clearly described; and	challenges related to equity, diversity and inclusion specific to the institution and field of research are described; and	described in terms of challenges related to equity, diversity and inclusion specific to the institution and/or field of research; and	partially described in terms of challenges related to equity, diversity and inclusion specific to the institution and/or field of research; and	inaccurate or not described in terms of challenges related to equity, diversity and inclusion specific to the institution and/or field of research; and
	specific actions to support the recruitment of a diverse group of HQP and an inclusive research training environment are clearly defined.	specific actions to support the recruitment of a diverse group of HQP and an inclusive research training environment are clearly defined.	specific actions to support the recruitment of a diverse group of HQP and an inclusive research training environment are defined.	defined in terms of specific actions to support the recruitment of a diverse group of HQP and/or an inclusive research training environment.	partially defined in terms of specific actions to support the recruitment of a diverse group of HQP and/or an inclusive research training environment.	not appropriate or not described in terms of specific actions to support the recruitment of a diverse group of HQP and/or an inclusive research training environment, are not appropriate or not defined.

Discovery Grant Application
Equity, Diversity and Inclusion (EDI)

Summary - EDI with Evaluation Criteria
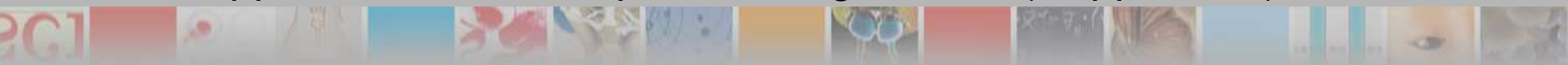
- **Excellence of the Researcher**

  - Applicants are asked to describe (*if applicable*) contributions towards the promotion of equity, diversity and inclusion in the research enterprise

- **Merit of the Proposal**

  - Applicants are asked to describe (*if applicable*) consideration of sex, gender and diversity in the research design

- **Contributions to the Training of HQP**

  - Applicants are **required** to describe EDI considerations in their future approachs to recruitment, training and mentoring

  - Applicants are asked to describe specific actions implemented in support of EDI in their past training of HQP (*if applicable*)
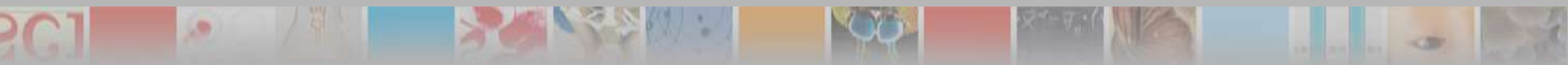
Discovery Grant Application
Excellence of the Researcher

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 *within the last 6 years*

- **CCV contributions, recognitions, activities**
  - Additional information on contributions in application
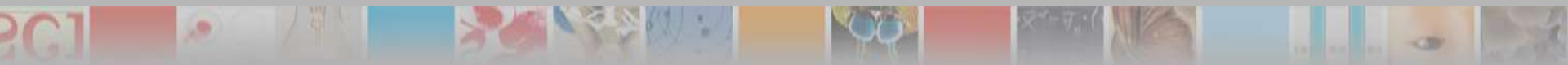
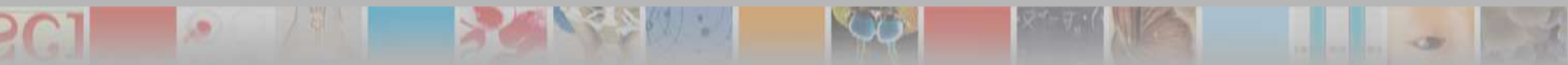# Discovery Grant Application
Excellence of the Researcher

- Describe up to five most significant research contributions and highlight quality & impact

- List all types of research contributions (**from 2013-2019**)

- 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)
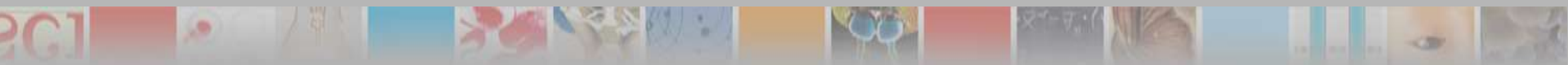
Discovery Grant Application
Excellence of the Researcher

- 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.)
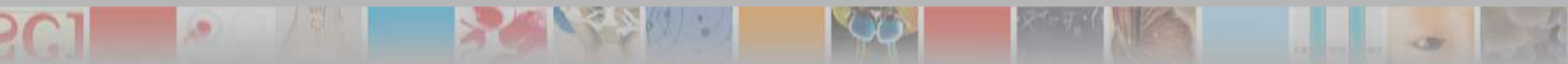
Discovery Grant Application
Merit of the Proposal

Assessment based on the following elements:

- Originality and innovation
- Significance and expected contributions to research
- Clarity, scope of objectives, and appropriateness of methodology
- Feasibility
- Consideration of sex, gender and diversity in the research design (*if applicable*)
- Appropriateness and justification for the budget
- **Relationship to other research support**

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**
  - Portal section (12000 characters)
  - CIHR and/or SSHRC summary and budget pages
  - CCV research funding history (applied & held)

Discovery Grant Application
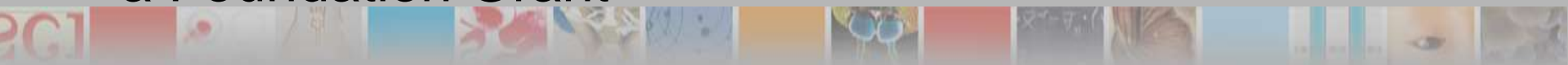## Merit of the Proposal

CIHR and SSHRC research support

- Distinct

  - Ideas & Objectives

  - Expenses

  - Anticipated contributions resulting from the proposed DG

Awarded and Under Review

CIHR Foundation:

- ***New in CY2018*** Convincing evidence that support from DG is essential to carry out the work supported by a Foundation Grant
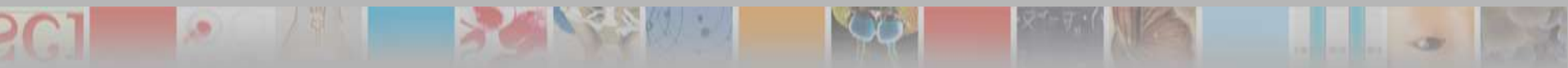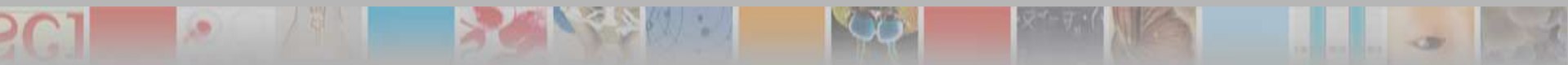
Discovery Grant Application
Merit of the Proposal

Relationship to research support **<u>other than</u>** CIHR and SSHRC

- – Budget requested in DG is for different expenses than the ones supported (or to be supported)
- – ***NEW in CY2020*** No summary and budget page is required

Common mistakes in addressing funds from other sources

- CCV amounts and application information do not match or are missing
- Role in joint funding is not explained
- Funding under review not listed or not explained
- Planned expenses are not explained
- Scanned pages from CIHR and/or SSHRC are missing
- CIHR Foundation grant not addressed in CCV or application

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 research portal presentation and attachment standards
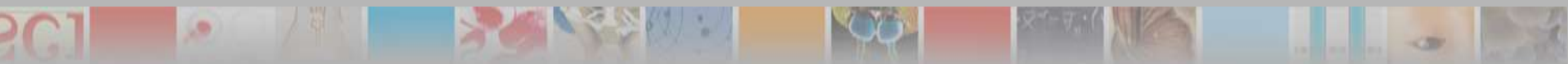
Discovery Grant Application
Merit of the Proposal

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

- In **<u>CCV</u>**
  - Research Funding History

Discovery Grant Application
Contributions to the training of HQP

New Instructions for CY2020

Why is NSERC asking for information about existing challenges or barriers to inclusion?

"Sound equity, diversity and inclusion practices increase access to the largest pool of qualified potential participants, enhance the integrity of a program's application and selection processes, strengthen the research outputs, and increase the overall excellence of research." **NSERC EDI Framework**
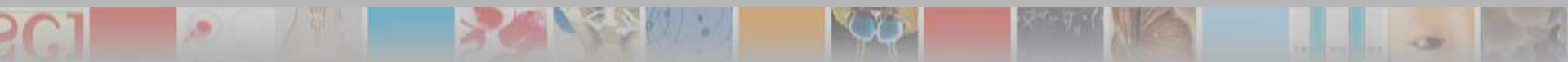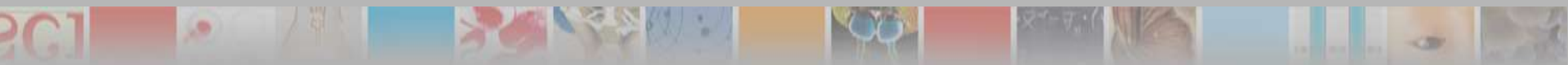
Discovery Grant Application
Contributions to the training of HQP

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.

Discovery Grant Application
Contributions to the training of HQP

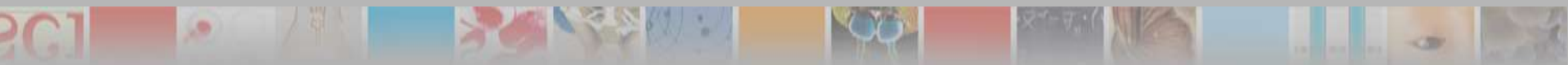**Past contributions to the training of HQP**

Assessment based on training over the past **six** years

**New Instructions since CY2018 **

Include three components:

1. Training environment – ****Updated Instructions CY2020 ****
2. HQP awards and research contributions
3. Outcomes and skills gained by HQP

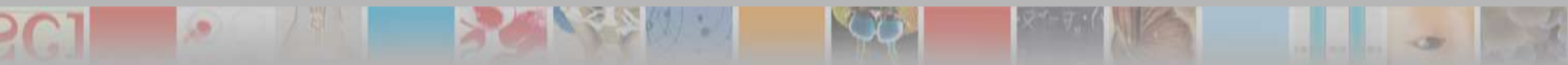Focus on **quality** and **impact** of training

Discovery Grant Application
Contributions to the training of HQP

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 since CY2018 **

Include two components:

1. Training Philosophy – ****Updated Instructions CY2020 ****
2. Research Training Plan

- Focus on **quality**, **suitability** and **clarity** of plan.
- Define your role in any planned co-supervision.
- EDI considerations

Discovery Grant Application
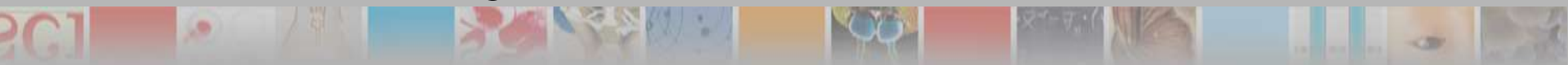## Contributions to the training of HQP

New Instructions for CY2020

EDI considerations within **Training Philosophy**

Describe qualitatively any challenges or barriers encountered in ensuring an inclusive research and training environment.

Describe the planned approach to promoting participation from a diverse group of HQP, taking into account equity and inclusion in recruitment practices, mentorship approaches, and initiatives aimed at ensuring an inclusive research and training environment and trainee growth.

DG applicants are expected to increase the inclusion and advancement of under-represented and disadvantaged groups in the natural sciences and engineering as one way to enhance excellence in research and training.

Discovery Grant Application
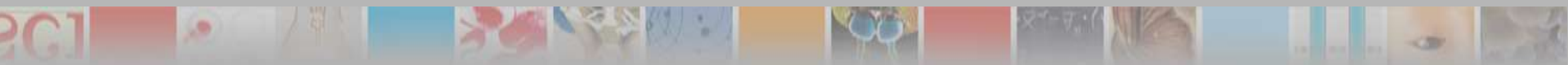## Contributions to the training of HQP

Evaluation Group will assess HQP using information from:

- **Application:**
  - Past contributions to HQP training;
  - HQP training plan (in the NSE).
- **CCV**
 - Supervisory activities
  - Contributions

Discovery Grant Application
Equity, Diversity and Inclusion (EDI)

EDI Resources:

- [NSERC's EDI webpage](#)

- [Guide for Applicants: Considering equity, diversity and inclusion in your application](#)
  - Diversity and equity in the research environment, questions 1-4
  - Sex, gender and diversity in research design, questions 5-7

- [Equity, Diversity and Inclusion: A Best Practices Guide for Recruitment, Hiring and Retention](#)

- [Discovery Grant Peer Review Manual](#)
  - New guidance within Merit of Proposal and Training of HQP Criteria

- [Merit Indicators Grid](#)
  - New text within Excellence of Researcher and Training of HQP Criteria
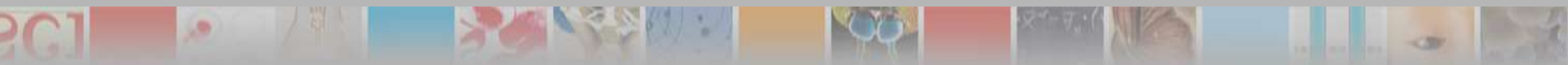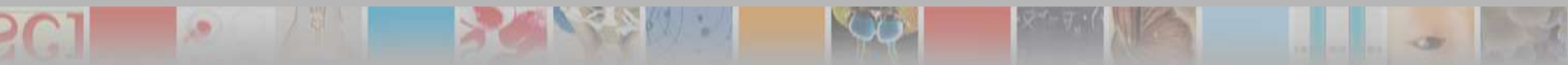
Discovery Grant Application Delays

- Applicant delays are recorded in the CCV, under the Employment section

- HQP delays are recorded in the HQP section of the application

- In both cases, clearly explain
  - the **duration** (i.e., start/end dates)
  - the **impact** on your research (e.g., dissemination of results, ability to recruit HQP)
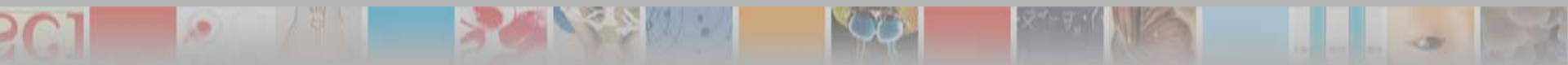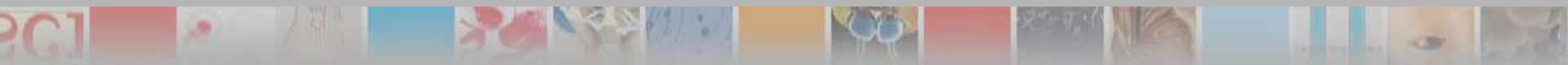
Discovery Grant Application
More Tips

- **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**

Discovery Grant Updates
Early Career Researchers (ECR)

- Early career researchers:

  - Applicants who have an <u>independent academic position</u> for <u>5 years or less</u> 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

Selecting Applicant category

Select Applicant Category

Applicant Category

Suggested Applicant Category (required)   Early Career Researcher (ECR)   ▼   ↻ Clear Selection

Explanation
(required)

In addition to explaining how you meet the ECR definition, you must list all positions, found in your CCV, that meet NSERC's requirements for an independent academic position.
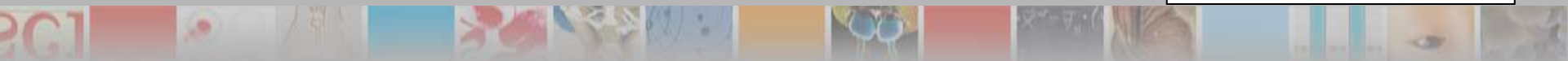
(3000 characters maximum)**3000**

If NSERC offers you a Discovery Grant as an Early Career Researcher, would you accept a Discovery Launch Supplement and would you be able to use all of the supplement funds on your Discovery Grant research program?

○ Yes ○ No

Required for ECRs

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**

Discovery Grant
Application Content

	Text Box (characters)	Attachment
Summary of proposal	3,000 (approx. ½ page)	
Relationship to other source of support - Explanation	12,000 (approx. 2 pages)	
HQP training plan	6,000 (approx.1 page)	
Past contributions to HQP	3,000 (approx. ½ page)	
Most significant contributions	9,000 (approx. 1½ page)	
Additional information on contributions	3,000 (approx. ½ page)	

Discovery Grant
Application Content (cont'd)

	Text Box (characters)	Attachment
Proposal		5 pages
Budget Justification		2 pages
Other Support Sources (Supporting documents)		1 attachment of scanned pages from other applications and grants (file size limit 10 Mb)
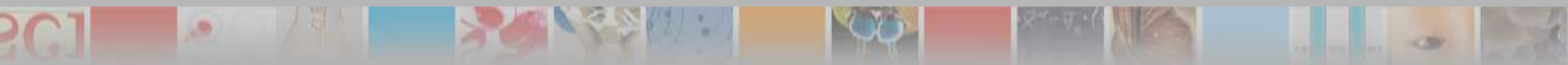
Discovery Grant
Application Content (cont'd)

|	Text Box (characters)	Attachment
List of references		2 pages
Samples of Research Contributions		4 attachments - file size limit of 10Mb each
Attestation on Confidential Research Contributions (if applicable)		File size limit of 10Mb
CCV	Upload with CCV confirmation number	
Letters of Support	Not required (will be removed)	

Discovery Development Grants (DDG)

Description:

- No separate application is required – offered according to DG results

- Provide resources to researchers from small universities whose DG applications were deemed to be of appropriate quality to merit research support, but were not funded in the DG Competition.

- **New Value:** $15K/year for 2 years

- **New Eligibility CY2020:** may hold twice throughout their career

Objective:

- Promote a diversified base of high-quality research in small universities

- Foster a stimulating environment for research training in small universities
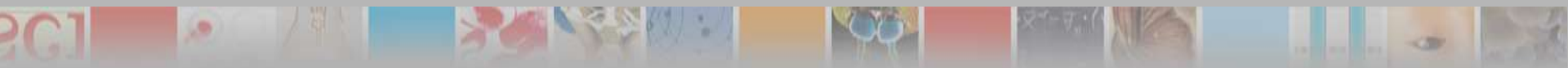
Webinars

- **Sessions for Research Grant Officers**
  - Tuesday, September 17, 2019 from 1 to 2:30 p.m. (ET)
- **Discovery Grant - Submission of an application**
  - Tuesday, August 27, 2019 from 1 to 3 p.m. (ET)
  - Tuesday, September 24, 2019 from 1 to 3 p.m. (ET)
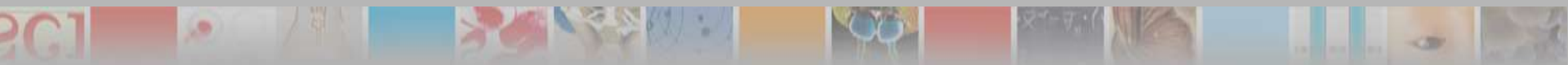
NSERC Contacts

Discovery Grants Program (including eligibility)	E-mail: resgrant@nserc-crsng.gc.ca
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)

Over to you…

- Questions?

- Comments?

- Advice?

Please feel free to ask your questions in the official language of your choice