

NSERC DISCOVERY GRANT Roundtable Discussion with Evaluators 2019 Competition

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Contributors/Reviewers/Sources: Dr. Charles Lucy, Dr. Sophie Debrus, Dr. Hongbo Zeng, Dr. Iwona Pawlina, Dr. Alan Wilman, Dr. Ralf Schirrmacher and the following resources:

- "NSERC Discovery Grant Roundtable Presentation EG 1504", July 25, 2017 (Dr. Chuck Lucy)
- "NSERC presentation to UofA", May 29, 2018 (Dr. Sophie Debrus)
- NSERC website: LINK

	Discovery Grant Process and Timelines 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				

http://www.nserc-crsng.gc.ca/_doc/NOI_DG_Webinar_2017.pdf

The content of Notification of Intent (NOI)

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

Submission:

Research Portal

The Purpose of NOI

- Facilitates preliminary assignments:
 - to an <u>Evaluation Group</u>;
 - of internal reviewers; and
 - of external reviewers
- First indication of joint review
 - Informed by <u>research topics</u>, keywords, and proposal summary
- First review of subject matter eligibility

See also: <u>"The purpose of NSERC Discovery Grant NOI and what is</u> <u>needed in the NOI Summary"</u>, 2016 (Dr. Chuck Lucy)



Notification of Intent (NOI)

- Needs to provide an accurate "sense" of proposal
- Needs to be understood by "knowledgeable colleague"
 ... not just by an expert

CCV (at NOI stage)

- Publications help flesh out "sense" of proposal
- Identifies conflicts of interest (publications, grants)
- <u>NOT</u> scored
- Presentations, HQP, other details not needed

... but recommended

Note: Complete CCV recommended at NOI stage because it is a HUGE time sink. Leaving completion of CCV to later will result in insufficient time for other components of DG application.

Suggested External Reviewers

- Done in Notice of Intent (NOI, August 1st)
- Must suggest people who <u>will</u> provide reviews

can't be in conflict

can't be a current applicant

ask at national conference

"<u>NSERC Awards Database</u>" (installment 4/5)

must be willing to invest significant time

Suggested External Reviewers (cont.)

- Ex-committee members
- People funded by NSERC Discovery grant
- Knowledgeable & willing international experts friends (not collaborators) editorial board members ex-pats or intl speakers at nat'l conference
- Committee selected reviewers wildcard guidance from CCV and NOI Summary

Good Reviews

- Contain enough detail to be clear package was carefully read
- Provides an opinion
- Addresses elements of Merit Indicators
- Careful with Merit Indicator terms (e.g., 'strong')
- Not cheerleading
- critical measured

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 primarily be to advance knowledge in one or more of the NSE disciplines.
- Applicants should refer to:
 - *Updated* <u>Selecting the Appropriate Federal</u> <u>Granting Agency</u>
 - *New* <u>Addendum to the Guidelines for the</u>
 <u>Eligibility of Applications Related to Health.</u>

Discovery Grant Format and Process

- Notice of Intent (August 1st)
- Selection of your committee (~Sept)
- Selection of your external reviewers (~Oct)
- Submit CCV and DG package (Nov 1)
- Evaluation of Grant (mid Dec mid Feb)

Excellence of Researcher

Merit of Proposal

Contributions to Training of Highly Qualified Personal (HQP)

• External reviews available (mid Jan – mid Feb)

e.g. Discovery Grant Evaluation Group 1511, 2018-19

(Note: Members listed with End Date 2018, completed their service. Additional members will replace them. Their names will be announced in ca. September)

Conference Model

			End
Role	Name	Organization	Date
Group Chair	Christopher Yip	University of Toronto	2018
Co-chairs	Marie-Claude Heuzey	Polytechnique de Montréal	2018
	Diego Mantovani	Université Laval	2018
	Prashant Mhaskar	McMaster University	2019
	Christine Moresoli	University of Waterloo	2019

Members	D. Paul Bishop	Dalhousie University	2019
	Jinwen Chen	CanmetENERGY	2019
	X. Grant Chen	Université du Québec à Chicoutimi	2019
	Thomas Coyle	University of Toronto	2019
	Animesh Dutta	University of Guelph	2018
	Micheal Gharghouri	National Research Council of Canada	2018
	Charles Haynes	The University of British Columbia	2018
	Raphael Idem	University of Regina	2020
	Kunal Karan	University of Calgary	2020
	Harm-Anton Klok	École Polytechnique Fédérale de Lausanne	2019
	Jean-Michel Lavoie	Université de Sherbrooke	2020
	Rafik Naccache	Concordia University	2020
	Ryosuke Okuno	University of Texas at Austin	2018
	Juliana Ramsay	Queen's University	2020
	Nathan Stubina	McEwen Mining Inc.	2019
	Evren Unsal	Shell Global Solutions International	2018
	Malcolm Xing	University of Manitoba	2020
	Ning Yan	University of Toronto	2020
	Shang-Tian Yang	The Ohio State University	2019
	Hongbo Zeng	University of Alberta	2020
Program Officer	Nathalie Presseau	NSERC	
onicer	Nuthane Presseau	NJENC	

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Your grant will be evaluated by the 5 of these members closest to your work. Google '<u>NSERC Evaluation Groups</u>'. Click on your discipline. Not sure which EG you should apply to? Click at EGs and Topics: <u>LINK</u>

DG Evaluation Merit Indicators

- **mid Nov**: train new EG members with ca. 4-6 old applications
- mid Dec mid Feb: each EG reviewer ~50 applications
 3-6 hours per application (as 1st or 2nd reviewer)
- First Day of Competition Week: calibration

all EG score 2-8 old applications, and discuss

• Rest of Competition Week: 2-5 competition rooms

15 minutes per application

EG moving between rooms

DG Evaluation Merit Indicators

	Exceptional	Outstanding	Very Strong	Strong	Moderate	Insufficient
Excellence of the Researcher	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 .	The accomplishments presented in the application were deemed to be far superior in quality, impact and/or importance to a broad community.	The accomplishments presented in the application were deemed to be of superior quality, impact and/or importance.	The accomplishments presented in the application were deemed to be solid in their quality, impact and/or importance.	The accomplishments presented in the application were deemed to be of reasonable quality, impact and/or importance.	The accomplishments presented in the application were deemed to be below an acceptable level of quality, impact and/or importance.
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Training of HQP	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 top quality results in terms of the overall approach and specific projects for HQP.	Past training is far 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 far superior: highly appropriate, clearly defined and expected to produce high quality results in terms of the overall approach and specific projects for HQP.	Past training is superior to other applicants in terms of the research training environment provided and HQP contributions to research. HQP generally 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 quality results in terms of the overall approach and specific projects for HQP.	Past training compares favourably with other applicants in terms of the research training environment provided and HQP contributions to research. HQP generally move on to positions that require skills gained through the training received. Training philosophy and research training plans are appropriate and clearly defined in terms of the overall approach and specific projects for HQP.	Past training is modest relative to other applicants in terms of the research training environment provided and HQP contributions to research. Some HQP move on to positions that require skills gained through the training received. Training philosophy and research training plans are partially appropriate and partially defined in terms of the overall approach and specific projects for HQP.	Past training is below an acceptable level in terms of the research training environment provided and HQP contributions to research. HQP rarely move on to positions that require skills gained through the training received. Training philosophy and research training plans are not appropriate and not clearly defined in terms of the overall approach and specific projects for HQP.

LINK to DG Merit Indicators (Evaluation Criteria)

DG Evaluation Merit Indicators (15 min/application)

- Reviewers strive to apply the merit indicators to the content presented in the Proposal and CCV
- Tentative scores are declared to begin review
- Reviewer 1: 4-6 min
- Reviewer 2: 3-4 min
- 3 Readers: 1-2 min each
- Co-Chair and Program Officer guide timing (and direction of discussion if necessary)
- Recording of final votes done electronically and independently – a consensus is not necessary



Source: NSERC Presentation to UofA, May 29, 2018 See also: "All possible combinations of ratings indicators translated to 16 funding bins"

15 minute review

	Excellence of Researcher	Merit of Proposal	Training of HQP
1 st Reviewer	Е	0	0
2 nd Reviewer	E	0	0
3 rd Reader	0	VS	VS
4 th Reader	0	VS	VS
5 th Reader	VS	VS	S

15 minute review

	Excellence of Researcher	Merit of Proposal	Training of HQP
1 st Reviewer	E	0	0
2 nd Reviewer	E	0	0
3 rd Reader	0	VS	VS
4 th Reader	0	VS	VS
5 th Reader	VS	VS	S
Median	0	VS	VS

e.g. Success Rate, Average Grant and Total Amount Awarded by Category of Applicant for Evaluation Group 1511. See results for other EGs here 2017 Competition

1511 - Materials and Chemical	Early Career	Established Researchers	
Engineering	Researchers	Returning	Not Holding a Grant
Success Rate	81%	85%	34%
Average Grant	\$23,720	\$34,215	\$27,870
Total Amount Awarded	\$593,000	\$3,182,000	\$641,000

Distribution of the Percentage of Applications by Quality Bin for EG 1511 2017 Competition



Materials and Chemical Engineering

X-axis: D=Excellent x 3 G=Very Strong x 3 J= Strong x 3 M=Moderate x3

Grant Evaluation

• Based only on Nov materials and external reviews

DG Evaluation Merit Indicators

	Exceptional	Outstanding	Very Strong	Strong	Moderate	Insufficient
Excellence of	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.	The accomplishments presented in the application were deemed to be far superior in quality, impact and/or importance to a broad community.	The accomplishments presented in the application were deemed to be of superior quality, impact and/or importance.	The accomplishments presented in the application were deemed to be solid in their quality, impact and/or importance.	The accomplishments presented in the application were deemed to be of reasonable quality, impact and/or importance.	The accomplishments presented in the application were deemed to be below an acceptable level of quality, impact and/or importance.
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Excellence of Researcher

Outstanding: accomplishments **far superior** in quality, impact and/or importance to a **broad community**.

Very strong: accomplishments far superior in quality, impact and/or importance to a broad community.

Strong: accomplishments were deemed to be **solid** in quality, impact and/or importance.

Moderate: accomplishments were deemed to be of reasonable quality, impact and/or importance.

Insufficient: accomplishments were deemed to be **below an acceptable level** in quality, impact and/or importance.

Note: **Exceptional** rank is so rare that is not discussed here



Grant Evaluation

(Re: Excellence of Researcher)

- Based only on Nov materials and external reviews
- Excellence of Researcher (EoR):CCV and free form pages
 - **CCV:** publications NSERC emphasizes to the evaluators:

- the number of publications should not be the main determinant of the rating

- look into the impact and significance of the publications and the quality of Journals

Note: EoR score also depends on quality of journals, evidence of impact (Most Significant Contributions, Additional Contributions), and other factors such as research awards. Each score is broad. So 1 more paper is unlikely to change EoR score. Better to put time into the rest of DG application.

Grant Evaluation

(Re: Excellence of Researcher)

- Based only on Nov materials and external reviews
- Excellence of Researcher: CCV <u>and</u> free form pages
- **CCV**: publications

submitted noted, but discounted quality of venue (impact factor, society, context) role in publications awards (may need context) Natl award common for O patent \approx publication > book chapter provisional > submitted pub editorial boards, <u>science</u> service grants (shows active, but outcomes more nb) Most significant 23

Free Form Pages of November Proposal

Application Modules	Text Box
	(characters)
Summary of Proposal	2,500
Relationship to Other Support	10,000
HQP Training Plan	5,000
Past Contributions to HQP	2,500
Training	
5 Most Significant Contributions	7,500
to Research	
Additional Info on Contributions	2,500



Most Significant Contributions

(Re: Excellence of Researcher)

- Are not obvious
- Don't just state the science
- Provide "evidence"

citations, invites, commercialization, usage, etc.

- Doesn't need to be single papers, often themes
- Include 5
- Don't assume committee knows

Don't exaggerate (committee are not idiots)

25

Note: Don't just state the science: because internal reviewers are not experts in your field.

Example by Dr. C. Lucy (EG1504): I could state that a column I made yielded 100,000 plates, but that would not mean anything to non-experts.

If I said "my column yielded double the performance of the best existing column", that is a context that all could understand

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Additional information on Contributions

(Re: Excellence of Researcher)

- Under-utilized
- Publication summary (committee/reviewers appreciate)
- Quality of publication venue (e.g., impact factor, rank)
- Publication metrics

career citations, H-index (if you wish, but not discussed).

Don't recommend H₆

• Publication/Conference context

e.g. leading titles in field, special issues, etc.

• Authorship rules ...don't assume



Grant Evaluation

- Based only on Nov materials and external reviews
- Excellence of Researcher CCV and free form pages
- **CCV**: publications

submitted noted, but discounted quality of venue (impact factor, society, context) awards (may need context) patent ≈ publication provisional > submitted pub, book chapters editorial boards, science service grants (shows active, but outcomes more important) Most significant

External Reviewers - validated

DG Evaluation Merit Indicators

	Exceptional	Outstanding	Very Strong	Strong	Moderate	Insufficient
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Merit of the Proposal

- Based only on Nov materials and external reviews
- Merit of Proposal: 5 EG members' scores

1-3 external reviewers' comments

free form pages and CCV

Note: Application likely read <u>before</u> external reviews

Merit of the Proposal

- Proposal must be written for committee members
- Proposal must also work for external reviewers
- Original/innovative/impact
- Note from NSERC: Integrate HQP into the proposal (what will they do?)
- Long term goals / short term objectives

Program vs. project

- Methodology (don't assume expert)
- Budget (modestly over-ambitious)

Don't expect to get what you ask for No credit for being cheap Relation to other research



Free Form Pages of November Proposal

Application Modules	Text Box (characters)
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Relationship to Other Support	10,000 Use don't abuse
HQP Training Plan	5,000
Past Contributions to HQP Training	2,500
5 Most Significant Contributions	7,500
to Research	
Additional Info on Contributions	2,500

www.nserc.ca

Search: 2017 NSERC Discovery Grant and RTI Competition Statistics 2016 NSERC Discovery Grant and RTI Competition Statistics

Note: Once in a while applicants would use space in "Relationship to Other Support" to extend discussion on their proposal, or other aspects of the application. NSERC and the EG work hard to maintain a level playing field. Such misuse leaves a bad impression. While it would not automatically result in a lower bin, it is ³² far far more likely to lower the score than raise it.

Relationship to Other Support

(RE: Merit of the Proposal)

- 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.

Note to CIHR and/or SSHRC funding holders/applicants: include CIHR and/or SSHRC summary and budget pages in your package. List grants in CCV research funding history.

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Excellence of the Researcher	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.	The accomplishments presented in the application were deemed to be far superior in quality, impact and/or importance to a broad community.	The accomplishments presented in the application were deemed to be of superior quality, impact and/or importance.	The accomplishments presented in the application were deemed to be solid in their quality, impact and/or importance.	The accomplishments presented in the application were deemed to be of reasonable quality, impact and/or importance.	The accomplishments presented in the application were deemed to be below an acceptable level of quality, impact and/or importance.
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. Long-term vision 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.	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. Long-term goals are clearly defined and short- term objectives are well planned. 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.	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. Long- term goals are defined and short-term objectives are planned. 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.	Proposed research program is clearly presented, is original and innovative and is likely to have impact and/or address socio- economic or environmental needs. Long-term goals and short-term objectives are clearly described. The methodology is 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.	Proposed research program is clearly presented, has original and innovative aspects and may have impact and/or address socio-economic or environmental needs. Long- term and short- term objectives are described. The methodology is partially described and/or appropriate. The application clearly demonstrates how the research activities to be supported are distinct from those funded (or applied for) by other sources.	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.
Training of HQP	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 top quality results in terms of the overall approach and specific projects for HQP.	Past training is far 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 far superior: highly appropriate, clearly defined and expected to produce high quality results in terms of the overall approach and specific projects for HQP.	Past training is superior to other applicants in terms of the research training environment provided and HQP contributions to research. HQP generally 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 quality results in terms of the overall approach and specific projects for HQP.	Past training compares favourably with other applicants in terms of the research training environment provided and HQP contributions to research. HQP generally move on to positions that require skills gained through the training received. Training philosophy and research training plans are appropriate and clearly defined in terms of the overall approach and specific projects for HQP.	Past training is modest relative to other applicants in terms of the research training environment provided and HQP contributions to research. Some HQP move on to positions that require skills gained through the training received. Training philosophy and research training plans are partially appropriate and partially defined in terms of the overall approach and specific projects for HQP.	Past training is below an acceptable level in terms of the research training environment provided and HQP contributions to research. HQP rarely move on to positions that require skills gained through the training received. Training philosophy and research training plans are not appropriate and not clearly defined in terms of the overall approach and specific projects for HQP.

Training of HQP

RE: Past Contributions to HQP Training

Outstanding: Training record is **far superior** to others, with HQP contributing to **high-quality research**.

Very strong: Training record is **far-superior** to others, with HQP contributing to **high-quality, original research**.

Strong: Training record compares **favorably** to others. with HQP contributing to **quality, original research**.

Moderate: Training record is **acceptable** but may be modest relative to other applicants.

Insufficient: Training record is **below an acceptable** relative to other applicants.

Training of HQP

RE: Past contributions

Outstanding: **Most** HQP move on to positions that require **highly desired skills** obtained through training received

Very strong: Many HQP move on to appropriate positions that require highly desired skills obtained through training.

Strong: Many HQP **generally** move on to appropriate positions that require **desired skills**...

Moderate: Some HQP generally move on to positions that require **desired skills**...

Insufficient: Some HQP, do not in general, move on to positions that require desired skills...


Training of HQP

Application Modules	Text Box (characters)
Summary of Proposal	2,500
Relationship to Other Support	10,000
HQP Training Plan	5,000
Past Contributions to HQP	2,500
Training	
5 Most Signification	7,500
Contributions to Research	
Additional Info on Contributions	2,500

Note: Past contributions is the SHORTEST section. Tip: over-write this section, and then bring it DOWN to 2,500 words. (Not a bad practice for all sections.)



CCV: Student/Postdoctoral Supervision

- number and type of HQP
- duration and benefit
- list student in each new role

e.g., summer/honors/summer/MSc

- Present Position: outcomes "requiring desired skills"
 - box holds ~ 90 characters

e.g., immediate position and current position

parental leave, illness, fellowships

Note from Dr. C. Lucy. Present position: heavily under-utilized. Usually too vague to clearly demonstrate the position resulted from the skills developed under applicant's supervision.

Other EG members suggest putting details in the "Thesis/Project Title". Examples of the type of info: NSERC scholarships, 5 conference presentations, 2 conference presentation awards, 3 papers (2 first author), 6 month exchange to BIG NAME IN FIELD's lab [clarify for non experts].



CCV Conference Publications

- last item in CCV
- for conference posters by applicant
- asterisk * to indicate HQP

e.g., Lucy CA, Student A*, Student B*,

• Cannot include student conference posters

(different than in recent years)

Note by C. Lucy: Since you can no longer show student presentations, it is critical that these be summarized elsewhere in package. Could go in Thesis/Project title (last slide), but I would recommend stating the summary in Additional Information AND in Past Contributions to HQP.

Conference awards are a particularly persuasive 'evidence' of training excellence, and should be stated (often).



CCV Presentations

- for orals
- Asterisk * to indicate HQP

e.g., Lucy CA, Student A*, Postdoc B*

 Cannot include student conference orals (include in Past Contributions to HQP Training in the application)

CCV Publications

- Back to January 2012
- Asterisk * to indicate HQP

e.g., Lucy CA, Student A*, Student D*

Note: If you do not * your HQP, the EG members will not be able to cross reference the HQP listed in your CCV with your publication list. They have 3-4 hours available to judge your application. Use their time efficiently by making sure all information is readily available.



Past Contributions to the Training of HQP

Include three components:

- 1.Training environment
- 2.HQP awards and research contributions
- 3. Outcomes and skills gained by HQP

Other items to consider:

- Explain the level, context, and role in supervision and co-supervision;
- Note impact of delays in training (those taken by the applicant or HQP)
- Focus on quality and impact of training

Past Contributions to HQP Training (2500 char.)

Three sections: (new since 2018)

- 1) Training Environment
- 2) Skills gained
- 3) Awards and research contributions

Past Contributions to HQP Training (2500 char.)

• Summary of numbers and outcomes

e.g. 75% undergrad went to grad school

- Highlight great outcomes (e.g., faculty member at _____
- Summary of student contributions, including conf.
- Note non-table training:

e.g. hosted visitors, taught workshop, GS committees

- Student scholarships, invites, conference awards
- must be within last 6 years (2012-present)
 can include older, but expect to be ignored

Training of HQP

Application Modules	Text Box (characters)
Summary of Proposal	2,500
Relationship to Other Support	10,000
HQP Training Plan	5,000
Past Contributions to HQP	2,500
Training	
5 Most Signification	7,500
Contributions to Research	
Additional Info on Contributions	2,500

HQP Training Plan (7500 char.)

Outstanding: plans for trainees are **appropriate** and **clearly defined**. HQP success is **highly likely**.

Very strong: plans for trainees are appropriate and clearly defined. HQP success is highly likely.

Strong: plans for trainees are **appropriate** and clearly **defined**. HQP success is highly likely.

Moderate: plans for trainees are **described** and should contribute to HQP success.

Congruent with past. Was it successful in past?

Concrete, not vague. Independence vs. hands-off Thoughtful, sincere, and personal



HQP Training Plan (7500 char.)

Include two components (new since 2018):

• Training philosophy

(mentoring, R&D opportunities provided, interdisciplinarity, collaborations etc.)

• Research training plan

Tip: Make sure committee members can quickly find these headings e.g. use bold font.

Note: Request samples of DG applications from GAP NSE to see examples of HQP Plans: <u>LINK</u>

See Also: FAQ on the Evaluation of the HQP Criterion

- Each should say what you plan to do
- Use anecdote from past to illustrate

J

HQP Research Training Plan (cont.)

- Applicants are encouraged to promote the participation of a diverse group of HQP, taking into account equity in recruitment practices, mentorship and initiatives aimed at ensuring an inclusive research and work environment
- Not mandatory to include in the application, but will be recognized by the committee

Reference: <u>"Guide for Applicants: Considering equity,</u> <u>diversity and inclusion in your application</u>"



HQP Research Training Plan (cont.)

- Focus on quality, suitability and clarity of plan
- Must be planned training in the NSE
- Define your role in any planned co-supervision
- Anticipated outcomes and development of new skills or knowledge

Tip by C. Lucy: Consider using Revisionist History. If your past HQP all went to government labs, your future Training Plan focuses on training HQP for careers in government by...

If your HQP go to industry, your HQP Training Plan emphasizes skills important to industry such as patent law...

HQP Research Training Plan (cont.)

Additional Recommendations

- Describe your involvement and interaction with HQP
- Describe the nature, length of time, and type of training
- Fully describe the nature of co-supervision
- Clearly describe your role in any collaborative research and planned joint HQP training
- Include present position for past HQP



HQP Training Plan (cont.)

- Use institutional advantages
 - Graduate Teaching and Learning Program (GTL)
 - FGSR Professional Development Weeks
 - Professional Development Requirement
 - My Grad Skills
 - Career Centre (formerly CAPS)
 - Undergraduate Research Initiative
 - Research Opportunity Program, Research Certificates, and Research Courses
 - WISEST/HYRS (recruitment starts at high school level)
 - Academic Success Centre

Note: remember to include facilities and equipment as part of the training environment description.

Note: Most other applicants come from schools with far less infrastructure and research support. Use the UofA resources to enhance your HQP Training Plan.



Final Comments

- Write **package** for committee
- All parts of package impact each score
- Committee looks for **pattern**
- Maximize information, minimize data.
- Multiple drafts, some read by colleagues

Be willing to review DG DG is for a research program, not for a project!

Notes:

Remember your audience. The Evaluation Group members are NOT experts in your research field, and some are probably not from your sub-discipline.

Be willing to review DGs: best way to learn to write good papers is to read many good papers. The best way to learn to write a good DG is to read many DG and note what is good and what is bad.

Note that a research program should have a long-term vision that expands beyond the five years of the Discovery Grant. A single, short-term project or collection of projects does not constitute a research program. 51

Other useful Links

From NSERC:

- <u>NSERC Common CV instructions</u>
- NSERC Webinars
 Peer Review Manual
- From GAP NSE:
- <u>Request Samples of Successful DG Applications from GAP NSE</u>
- <u>"The Purpose of NSERC DG NOI and what is needed in the Summary"</u>
- Join NSERC Discovery Grant online discussion group (e-class) to post questions
- Visit our <u>website</u> for more resources

Questions?

Eligibility

Early Career Researchers (ECR) are applicants who have held an independent academic position for **three years or less** and who meet the NSERC - Eligibility Criteria for Faculty at the time of submitting the Notification of Intent to Apply for a Discovery Grant (NOI).

e.g. a researcher submitting an NOI in August 2018 would have been hired on or after July 2015