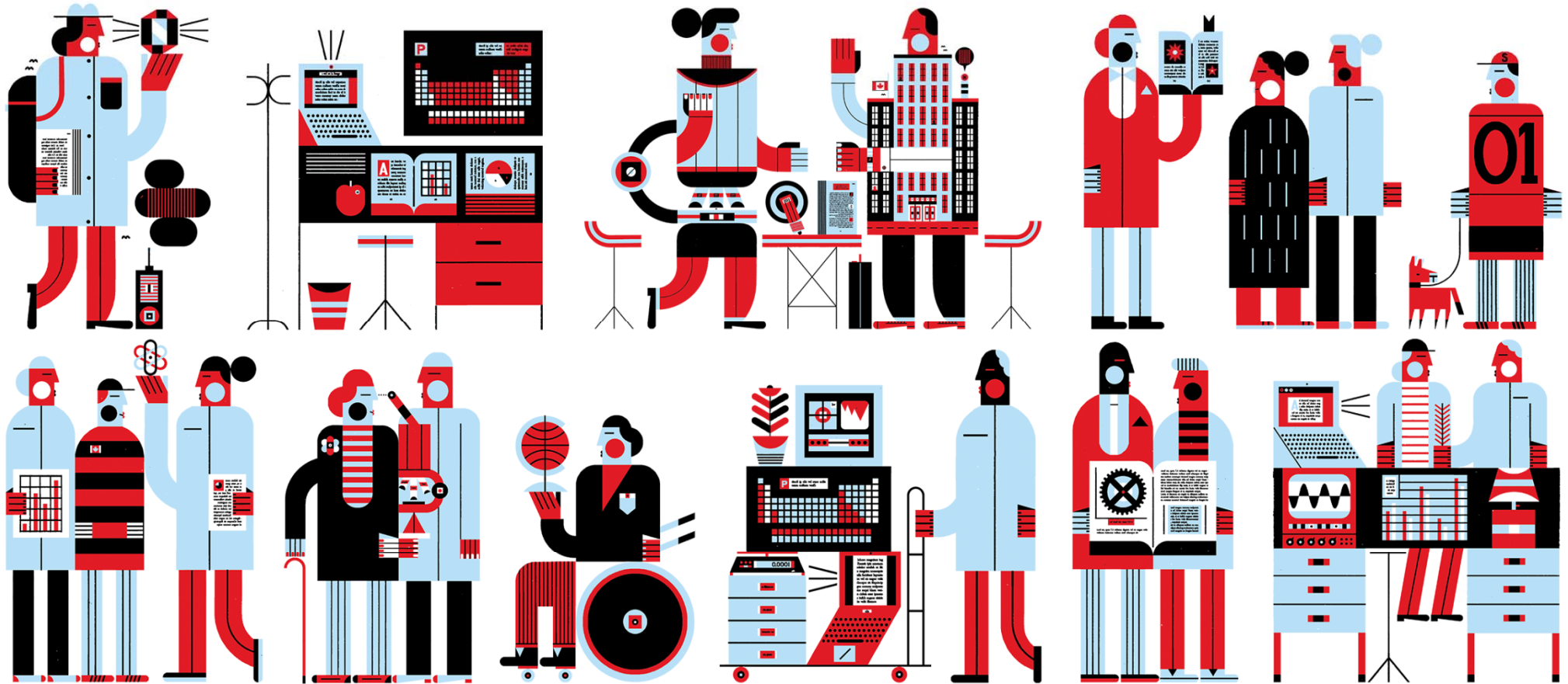




Breakthrough answers
to timeless questions

Des réponses innovantes
à de grandes questions



Natural Sciences and Engineering
Research Council of Canada

Conseil de recherches en sciences
naturelles et en génie du Canada

Canada



NSERC Updates for Council of Chairs of Canadian Earth Sciences Departments

Presented by: Dave Bowen, Interim Team Leader, Environmental Sciences Team

Program Officer: Tiffany Lancaster, Geosciences, DAS

tiffany.lancaster@nserc-crsng.gc.ca

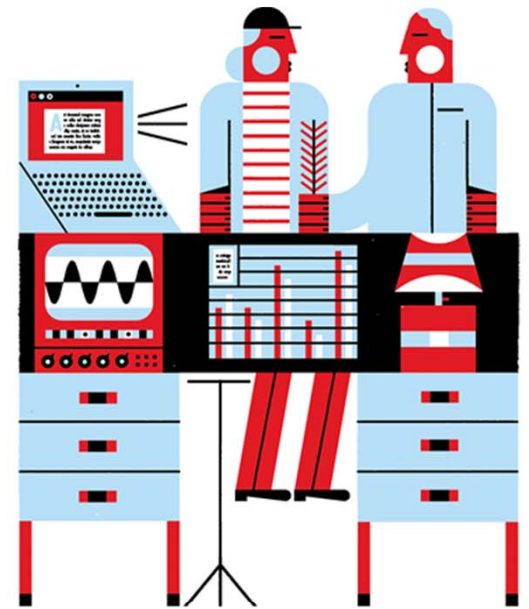
Program Officer: Kenn Rankine, NRS, RTI, Ship Time

kenn.rankine@nserc-crsng.gc.ca

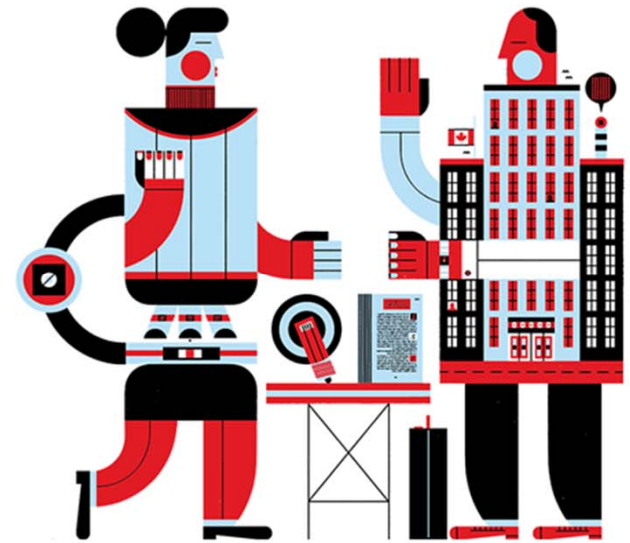
November 20, 2020

Agenda

1. Discovery Grants News
2. Discovery Grant Results
3. COVID-19 Response
4. Equity, Diversity and Inclusion
5. Other Update



Discovery Grants News



Peer review meetings for 2021 Discovery Grants competition will take place by videoconference

- The Peer review meetings for the 2021 Discovery Grants competition will take place by videoconference in February
- Focused on maintaining the same high quality standards of peer review
- Actively seeking out best practices across funding agencies on “virtual peer review”
- NSERC peer review processes owe their success to the dedicated members of the research community who volunteer their time as committee members

https://www.nserc-crsng.gc.ca/Media-Media/NewsDetail-DetailNouvelles_eng.asp?ID=1175

ECR delays: New for CY2021

- The ECR definition was changed for which all eligible delays in research are doubled when calculating candidate status.
- For example, an applicant who took a 7-month parental leave will be credited 14 months and the ECR eligibility window will be adjusted accordingly.
- Eligible delays include delays in research activity related to COVID-19.

“Early career researchers (ECR) are applicants who have held an independent academic position for five years or less. For example, to be classified as an ECR, a researcher submitting an NOI in August 2020 would have been hired on or after July 1, 2015. The five-year window for being considered an ECR is adjusted to take into account instances where a researcher has had an eligible delay in research. All eligible leaves (for example, maternity, paternity, medical, bereavement) are credited as twice the amount of time taken.”

Delays in research: New for CY2021

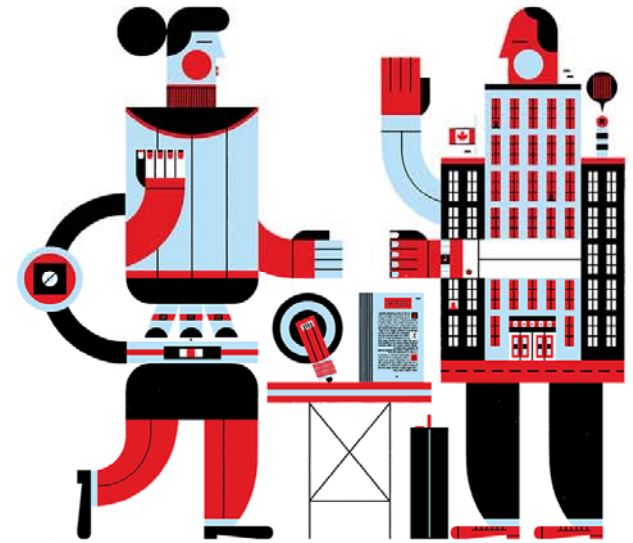
- Applicants who report an eligible leave of absence are entitled to list contributions to research and to training beyond the last six years, for a period equivalent to the duration of the leave
- Contributions prior to the last six years can be found in:
 - A new 2-page attachment
 - Past *contributions to the training of HQP* section
 - *Most significant contributions to research* section
 - *Samples of research contributions* section

Definition of eligible leaves of absence now includes COVID-related delays

Delays in research: New for CY2021

- NSERC recognizes that the COVID-19 pandemic is affecting researchers' and students' capacity to conduct their regular research and training activities.
- NSERC has developed general [guidelines for the consideration of COVID-19-related impacts on research](#) aiming to provide direction on how to describe these impacts in an application and information on how to consider these impacts when reviewing applications.

Discovery Grants Results CY2020



Thank You

3 300+ Discovery Grants (DG) Applications =

430+ Evaluation Group (EG) Members

16 800+ Reviews by EG members

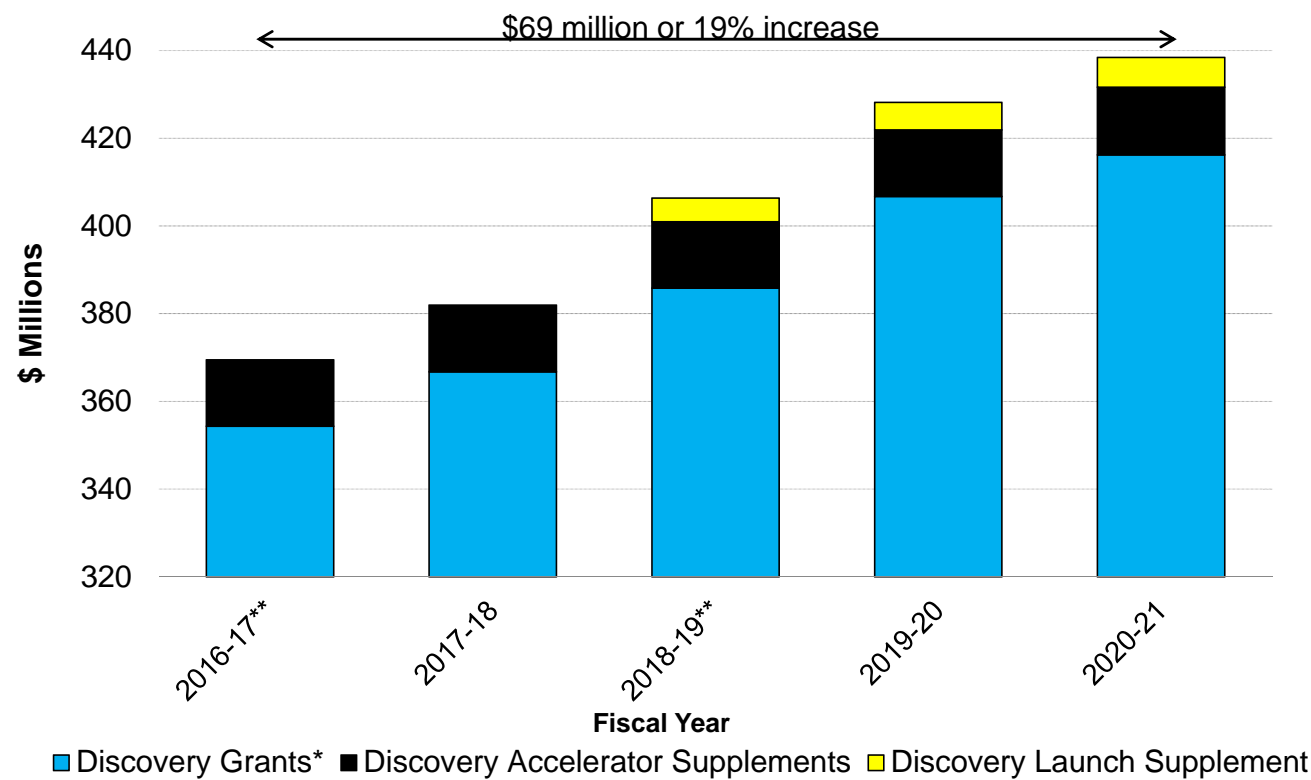
9 300+ External Reviewers Reports

Let me offer my sincere thanks to all external and internal reviewers. Your hard work is key to the success of our Discovery Grants program.

This year, let me also acknowledge the special efforts you are making to keep Canada's research enterprise functioning given the unprecedented challenges we are facing. I hope that you, your families, and your colleagues are safe and healthy, and remain so in the future.

– Alejandro Adem, NSERC President

NSERC DG Funding



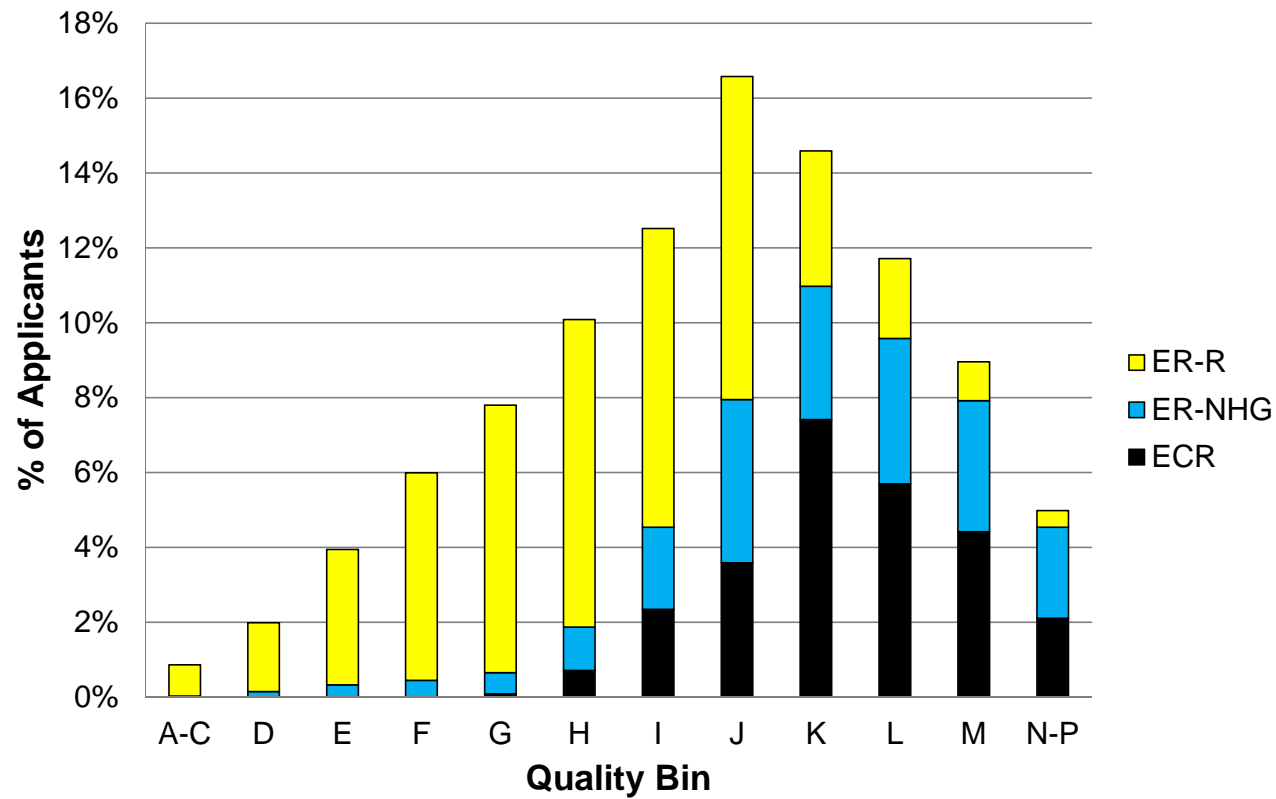
*Includes Discovery Grants (Individual and Team) and Subatomic Physics Discovery Grants (Individual, Team and Project)

**Includes additional funding received resulting from Federal Budget 2016 & 2018

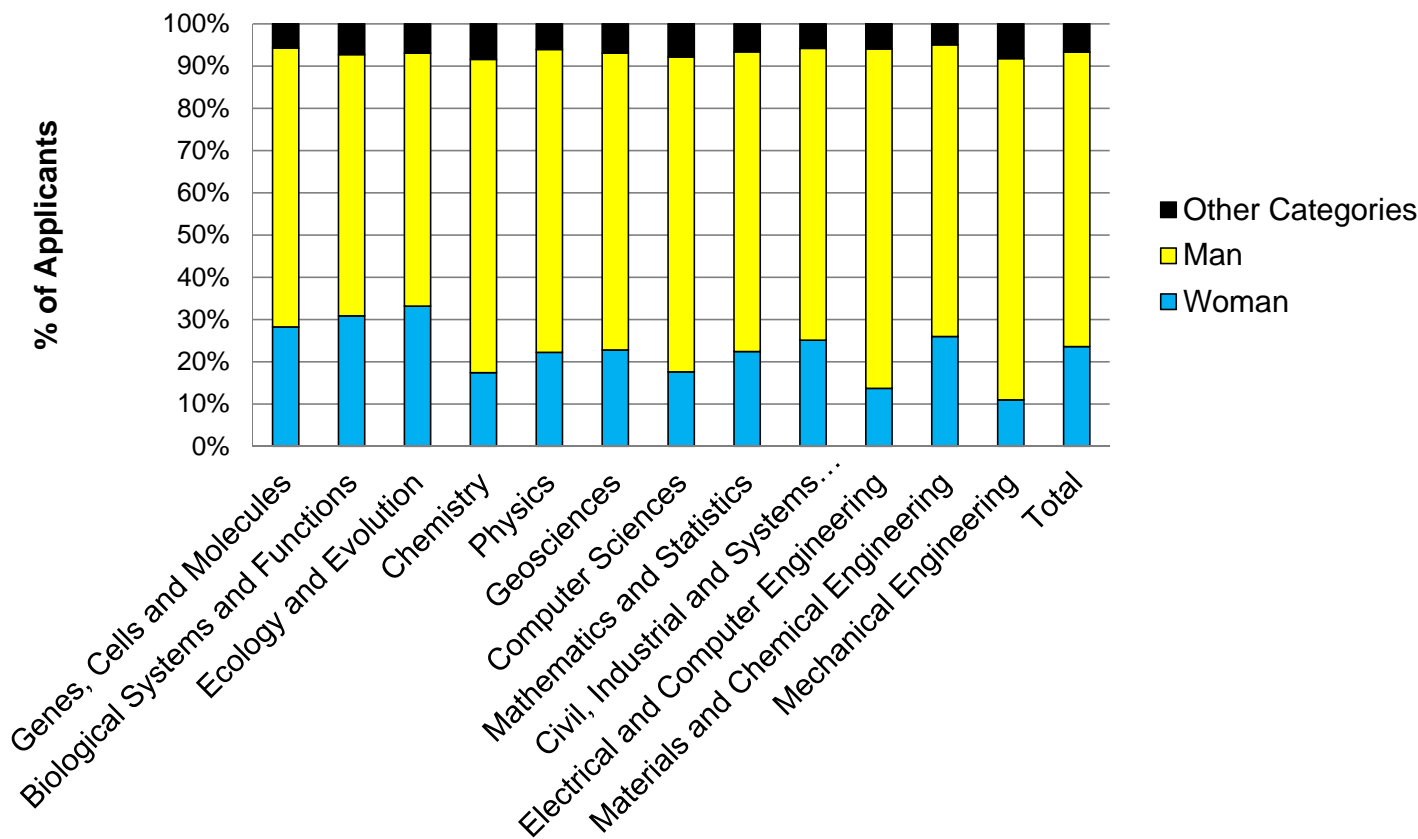
Overall DG – Results by Applicant Category

	Early Career Researcher (ECR)	Established Researchers (ER)			Total
		Not Holding a Grant (ER- NHG)	Returning (ER-R)	All Established Researchers	
# of applications	889	762	1721	2483	3372
# of awards	543	279	1387	1666	2209
Success Rate	61%	37%	81%	67%	66%
Average Grant (yearly)	\$29,007	\$34,640	\$42,317	\$41,032	\$38,076

Overall DG – Results by Applicant Category



Overall DG – Equity, Diversity and Inclusion (EDI)



Overall DG – Equity, Diversity and Inclusion (EDI)

		Women	Men	Other Categories
Early Career Researchers (ECR)	Number of awards	189	339	15
	Success rate	61%	62%	52%
Established Researchers (ER)	Number of awards	339	1185	142
	Success rate	70%	66%	72%

Evaluation Groups

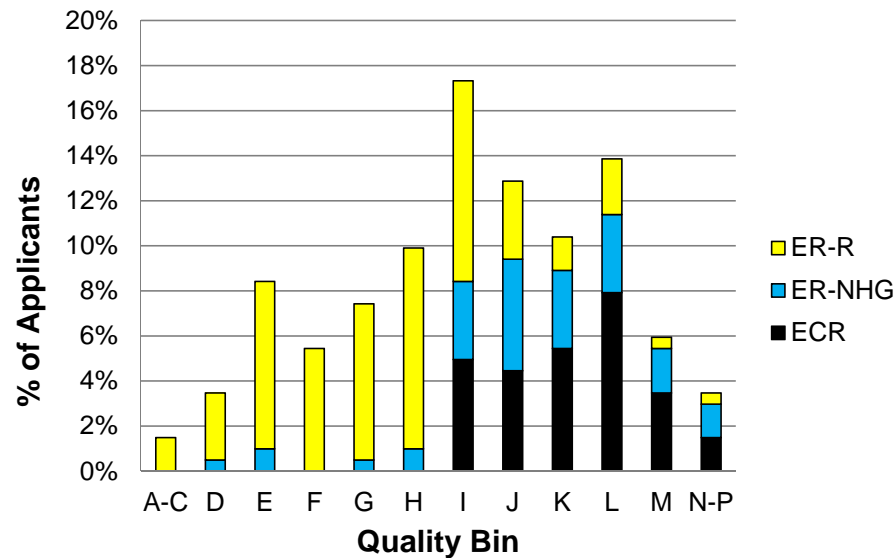
- EG1501 – Genes, Cells and Molecules
- EG1502 – Biological Systems and Functions
- EG1503 – Evolution and Ecology
- EG1504 – Chemistry
- EG1505 – Physics
- **EG1506 – Geosciences**
- EG1507 – Computer Science
- EG1508 – Mathematics and Statistics
- EG1509 – Civil, Industrial and Systems Engineering
- EG1510 – Electrical and Computer Engineering
- EG1511 – Materials and Chemical Engineering
- EG1512 – Mechanical Engineering
- EG19 – Subatomic Physics

EG1506 Research Topics

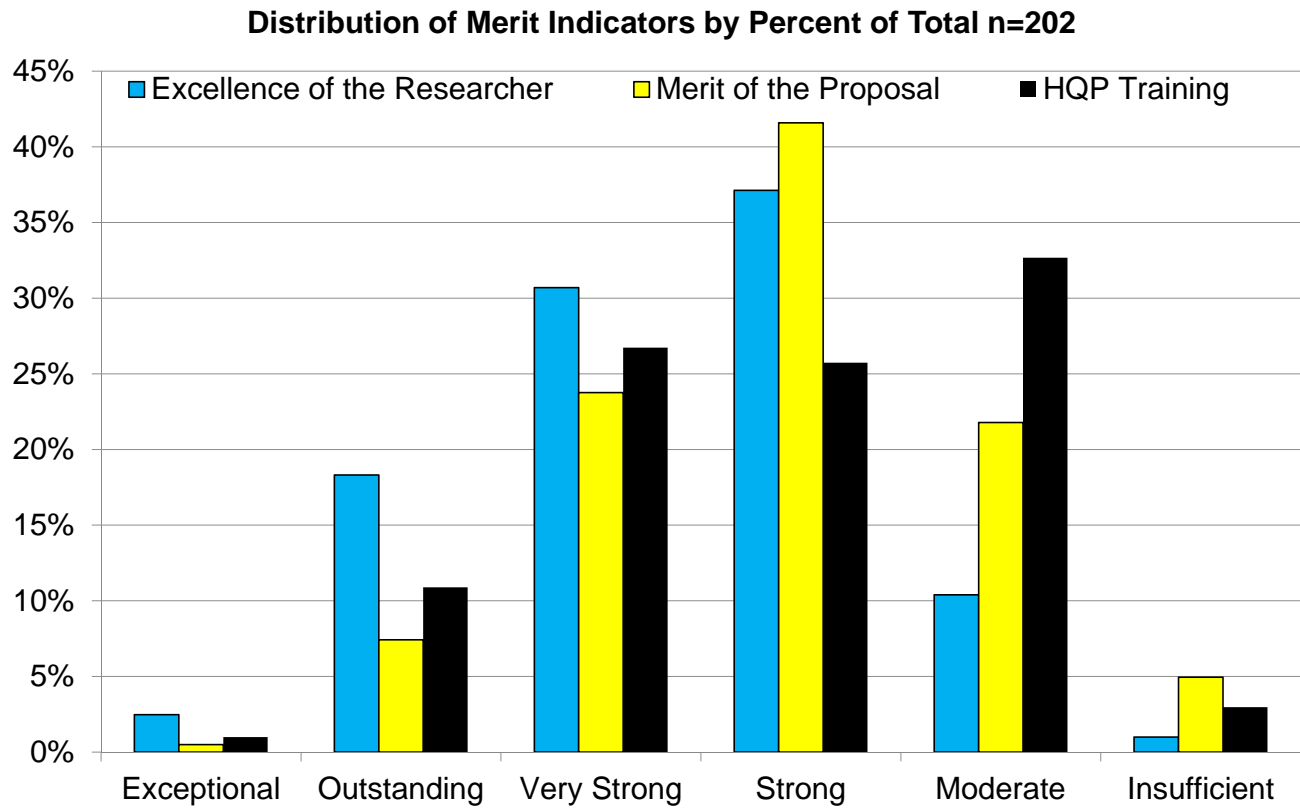
- GS01 - Petrology & Mineralogy
- GS02 - Sedimentology & Stratigraphy
- GS03 - Paleontology & Paleobiology
- GS04 - Geophysics
- GS05 - Economic Geology
- GS06 - Tectonics & Structural Geology
- GS07 - Geochemistry & Geochronology
- GS08 - Volcanology
- GS09 - Planetary Sciences
- GS10 - Surface Processes
- GS11 - Paleo-environmental Sciences
- GS12 - Biogeosciences
- GS13 - Global Geological Processes
- GS14 - Atmospheric Sciences
- GS15 - Hydrology
- GS16 - Oceanography
- GS17 - Soil Sciences
- GS18 - Geomatics & Earth Systems Observations
- GS19 - Cryology

EG1506 – Geosciences

	Early Career Researcher (ECR)	Established Researchers (ER)			Total
		Not Holding a Grant (ER-NHG)	Returning (ER-R)	All Established Researchers	
# of applications	56	44	102	146	202
# of awards	30	19	88	107	137
Success Rate	54%	43%	86%	73%	68%
Average Grant (yearly)	\$27,500	\$34,842	\$46,502	\$44,432	\$41,235



EG1506 – Geosciences



Research Tools and Instruments (RTI)

Program webpage:

https://www.nserc-crsng.gc.ca/professors-professeurs/rtii-oiri/rti-oir_eng.asp

	2016	2017	2018	2019	2020
Budget	\$26M	\$30.5M	\$25.1M	\$25.3M	\$30.7M
# Appl.	657	748	1043	1005	893
# Funded	215	241	208	210	248
Success Rate	33%	32%	20%	21%	28%
Funding Rate	33%	33%	21%	22%	29%

Research Tools and Instruments (RTI)

	2020	Geosciences (Selection Cttee. 1606)
# Application	893	70
# Funded	248	20
Success Rate	27.9%	28.6%
Funding Rate	28.7%	28.1%

Northern Research Supplements (NRS)

Program webpage:

https://www.nserc-crsng.gc.ca/professors-professeurs/grants-subs/DGNRS-SDSRN_eng.asp

Pre-Competition ^A

CY	# Apps Received	Success Rate (overall)	\$ Requested (overall)	Funding Rate (overall)
2020	82	44%	\$1,769,032	30%
2019	69	45%	\$1,569,697	34%
2018	49	61%	\$1,100,054	41%
2017	49	63%	\$1,166,021	44%
2016	36	50%	\$749,221	39%

A - these data are from BEFORE the NRS Competition & BEFORE unsuccessful DG applicants were removed

Competition ^B

# Apps Assessed	# of Apps funded	Success Rate (Comp)	\$ Requested (Comp)	\$ Awarded (Comp)	Funding Rate (Comp)
58	36	62%	\$1,308,436	\$533,900	41%
46	31	67%	\$985,890	\$526,000	53%
40	30	75%	\$927,807	\$450,940	49%
44	31	71%	\$1,068,747	\$518,230	49%
28	18	64%	\$584,659	\$295,000	51%

B - these data represent the results of the NRS Competition - AFTER unsuccessful DG applicants were removed from consideration

Ship Time Program (STP)

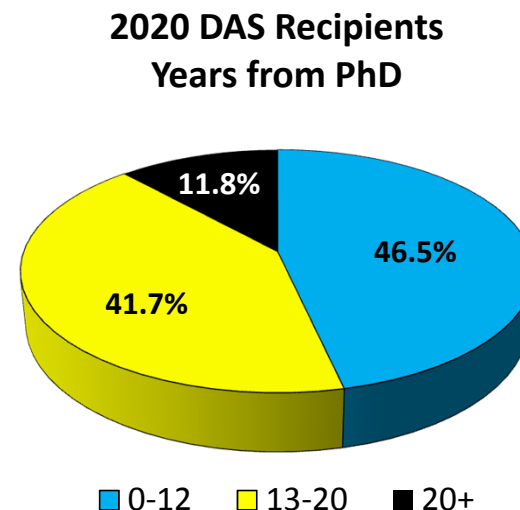
Program webpage:

https://www.nserc-crsng.gc.ca/professors-professeurs/grants-subs/ST-TN_eng.asp

CY	# of Applications Reviewed	# of Applications Awarded	Application Success Rate	Request Funding Rate	Total Amount Requested	Total Amount Awarded
2020	12	6	50%	45%	\$2,270,323	\$1,015,465
2019	11	7	64%	62%	\$1,720,957	\$1,061,899
2018	9	7	78%	55%	\$1,697,547	\$933,172
2017	7	5	71%	76%	\$1,288,647	\$975,137
2016	11	8	73%	73%	\$1,359,841	\$991,279

Discovery Accelerator Supplements (DAS)

Evaluation Group	Awards
EG1501 – Genes, Cells and Molecules	18
EG1502 – Biological Systems and Functions	20
EG1503 – Evolution and Ecology	7
EG1504 – Chemistry	8
EG1505 – Physics	10
EG1506 – Geosciences	7
EG1507 – Computer Science	17
EG1508 – Mathematics and Statistics	9
EG1509 – Civil, Industrial and Systems Engineering	7
EG1510 – Electrical and Computer Engineering	9
EG1511 – Materials and Chemical Engineering	6
EG1512 – Mechanical Engineering	8
EG19 – Subatomic Physics	1
TOTAL:	127



Other Research Grants Results CY2020

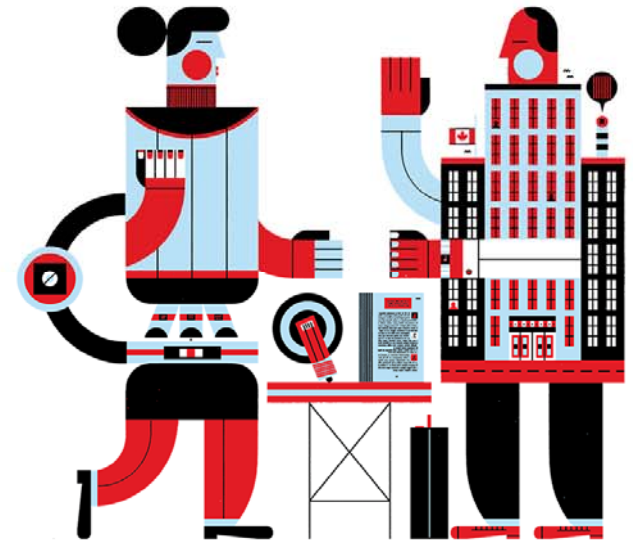
Discovery Development Grants (DDG)

Program webpage:

https://www.nserc-crsng.gc.ca/professors-professeurs/grants-subs/discoverypilot-decouvertepilote_eng.asp

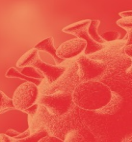
	2016	2017	2018	2019	2020*
Awarded	43	54	34	24	47
Accepted	42	46	28	20	TBD
Declined	1	8	6	4	TBD

COVID-19 Response



Program Updates

- NSERC continues to monitor and make adjustments to program application deadlines and the reporting of due dates as necessary
- See website for regular updates:
 - https://www.nserc-crsng.gc.ca/Media-Media/ProgramNewsDetails-NouvellesDesProgrammesDetails_eng.asp?ID=1139



Support for students and new grads affected by COVID-19

- Extend expiring federal graduate research scholarships and postdoctoral fellowships, and supplement existing federal research grants, to support students and post-doctoral fellows, by providing \$291.6 million to the federal granting councils.
- <https://pm.gc.ca/en/news/news-releases/2020/04/22/support-students-and-new-grads-affected-covid-19>

Covid-19

Direct Support (Announced May 29, 2020)

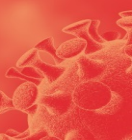
- For eligible students and postdoctoral researchers whose research scholarship or fellowship ended between March and August 2020, support was extended for an additional four (4) months and fully funded.

Indirect Support (Announced June 4, 2020)

- Additional funding was provided to research grant holders to continue supporting trainee and research support personnel.
- The value of the supplement is commensurate with the average level of support provided to trainees and research support personnel over a three-month period.
- Contact: supplements@nserc-crsng.gc.ca

Discovery Grants one-year extension with funds

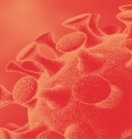
- **All active Discovery Grants** can elect to receive a one-year extension with funds at their current funding level.
- Eligible programs: Discovery Grants, Discovery Grants – Subatomic Physics (Individual, Project and Major Resources), Discovery Grants – Northern Research Supplements and Discovery Development Grants.
- **FAQs:** https://www.nserc-crsng.gc.ca/Professors-Professeurs/FAQ-FAQ/DG-SD_eng.asp
- **Contact:** resgrant@nserc-crsng.gc.ca



Support to Students and Trainees and DG extension

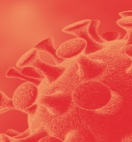
NSERC Initiative	Accepted	
	Number	Value
Direct Support for Students and Trainees	1026	\$8,432,246
Indirect Support for Students and Trainees	10,129	\$105,225,567
Discovery Programs One-Year Funded Extensions	1494	\$62,346,097

Covid-19



NSERC / SSHRC Grants one-year extensions in time

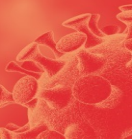
- Academic institutions can immediately approve extensions requests up to 12 months for Agency grants with an end date between February 1, 2020 and March 31, 2021 inclusively
- Applies to all grants, regardless of whether they have received a previous time extension of any length for any reason
- Allows grantees to continue spending grant funds, and institutions to delay the processing of residual grant funds



Funding opportunities

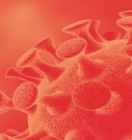
- Emerging Infectious Diseases Modelling (EIDM) Initiative *NEW*
 - https://www.nserc-crsng.gc.ca/Media-Media/NewsDetail-DetailNouvelles_eng.asp?ID=1189
- Canadian 2019 Novel Coronavirus (COVID-19) Rapid Research Funding Opportunity (\$52.6M)
 - <https://cihr-irsc.gc.ca/e/51908.html>
- College and Community Innovation Program – Applied Research Rapid Response to COVID-19 (approx. \$3M)
 - https://www.nserc-crsng.gc.ca/Innovate-Innover/CCI-COVID_eng.asp
- Alliance COVID-19 grants
 - https://www.nserc-crsng.gc.ca/Innovate-Innover/COVID-19/index_eng.asp

Covid-19

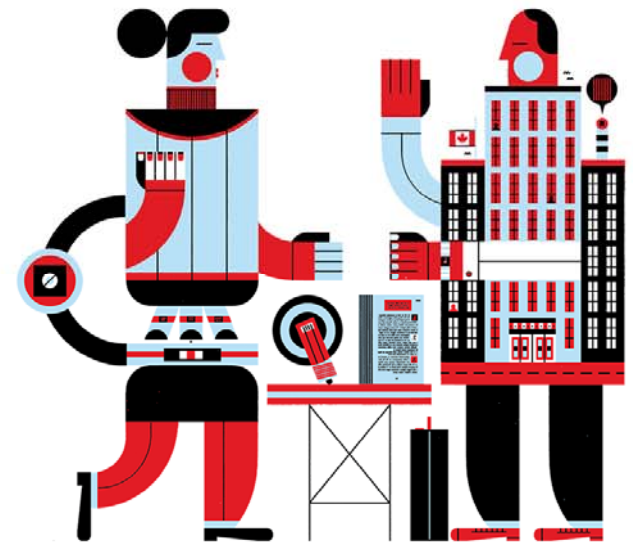


Federal support for research staff: Canada Research Continuity Emergency Fund (CRCEF)

- \$450 million in federal funding to help Canada's academic research community during the pandemic.
 - Provide wage support to universities and health research institutes
 - Maintain essential research-related activities
 - Ramp back up to full research operations once physical distancing measures are lifted
- Universities will receive funding as block grants.
- CRCEF is overseen by the Canada Research Coordinating Committee and administered by the Tri-Agency Institutional Programs Secretariat (TIPS)
- <https://www.sshrc-crsh.gc.ca/funding-financement/crcef-fucrc/index-eng.aspx?wbdisable=true>



Declaration on Research Assessment (DORA)



As of November 2019, the tri-agencies (NSERC, CIHR and SSHRC) as well as CFI and Genome Canada joined over 1900 organizations worldwide by signing on to DORA.



DORA aims to change the culture of research assessment through:

- Raising awareness of the overreliance on journal-based metrics
- Recognizing that scholarly outputs are broader than published journal articles
- Assessing research on its own merits
- Building scholarly communication through technology
- Strengthening the evaluation of the impact of research

Recommendations for Funding Agencies

- Do not use journal-based metrics (Journal Impact Factor) as a surrogate measure of the quality of research
- Be explicit about the criteria used in evaluation of applicants
- Clearly highlight importance of scientific content of a paper vs. publication metrics or journal identity
- Consider the value and impact of all research outputs (including datasets and software) in research assessment

NSERC's commitment

- Promote tri-agency initiatives that already align with DORA recommendations for evaluating research excellence
- Ensure excellence in research funding and assess a wide range of research results and outcomes as part of the review process
- Review and update NSERC policies and processes to incorporate DORA recommendations in a more consistent manner across NSERC
- https://www.nserc-crsng.gc.ca/NSERC-CRSNG/policies-politiques/DORA-DORA_eng.asp

NSERC's next steps

- Increase awareness of DORA recommendations with the NSE research community and NSERC staff
- Update our current policies to better align with DORA recommendations
- Assess and revise our peer review processes to ensure consistent application of DORA principles.

Tri-Agency EDI Action Plan



Tri-Agency Statement on Equity, Diversity and Inclusion (EDI)

Program webpage:

https://www.nserc-crsng.gc.ca/NSERC-CRSNG/EDI-EDI/index_eng.asp

CIHR, NSERC, and SSHRC are committed to excellence in research and research training. Achieving a more equitable, diverse and inclusive Canadian research enterprise is essential to creating the excellent, innovative and impactful research necessary to advance knowledge and understanding, and to respond to local, national and global challenges.

Collection of Self-Identification Data

- **Progress to date:**
 - Summer 2018: [An open letter from Tri-Agency Presidents to the research community](#)
 - CY2019: Collection of self-identification information from **applicants and co-applicants**.
 - NSERC: Over 10,000 forms collected over this period
 - High response rates (over 90%, *all fields combined*)
 - CY2020: Collection of self-identification information from **applicants, co-applicants** and **peer review committee members**
 - Discovery Grants: Over 3,000 forms collected from applicants
 - High response rates (again over 90%, *all fields combined**)
- **Upcoming data collection:**
 - Extending data collection to external reviewers and including governance committee members in data collection;
 - Revision of the self-identification questionnaire.

- **Objective 1: Fair access to tri-agency research support**

- **1.1 Comprehensive data** is available to help identify equity, diversity and inclusion (EDI)-related barriers and inform decision-making in granting agency funding programs
- **1.2** All policies, plans, programs and processes related to allocating **granting agency support** are **equitable and inclusive**, and **mitigate bias** against researchers from underrepresented groups
- **1.3 Diverse participants** are included in peer review/selection committee and advisory/governance board decision making.
- **1.4** Equity, diversity and inclusion (**EDI**) **considerations** are integral to criteria used to assess **excellence of researchers, research design and practices**, and approaches to team-based research and training.

- **Objective 2: Equitable participation in the research system**

- **2.1** Tri-agency helps drive **systemic and research culture change** within Canada's post-secondary system.
- **2.2** The number of **researchers** from underrepresented groups entering, participating and remaining in the research ecosystem is **more representative of the Canadian population**.

EDI in Action at NSERC



Program actions

Program requirements

Integration of EDI into selection criteria across NSERC programs

Program policies

Consideration of delays in research activity, impacts of COVID-19

Training for staff and reviewers

GBA+, Bias in Peer Review

Continuous improvement based on **GBA+**

e.g. Changes to Steacie Fellowship

NSERC Leave Policies

Primary Caregivers (Pilot)

- Researchers who become primary caregivers following the birth or adoption of a child and who are eligible for maternity or parental leave but decline the leave, may be eligible to receive a one-year grant extension with funds

Family and Medical Leave

- Grant holders who plan to take family-related leave or medical leave may be eligible for a grant extension with funds for up to two years.

Paid Maternity / Parental Leave for Students and Postdoctoral Fellows paid from Grants

- Students and Postdoctoral fellows who are supported by NSERC grants and are eligible may receive up to 12 months of paid maternity / parental leave.
- The leave supplement will be paid by NSERC.

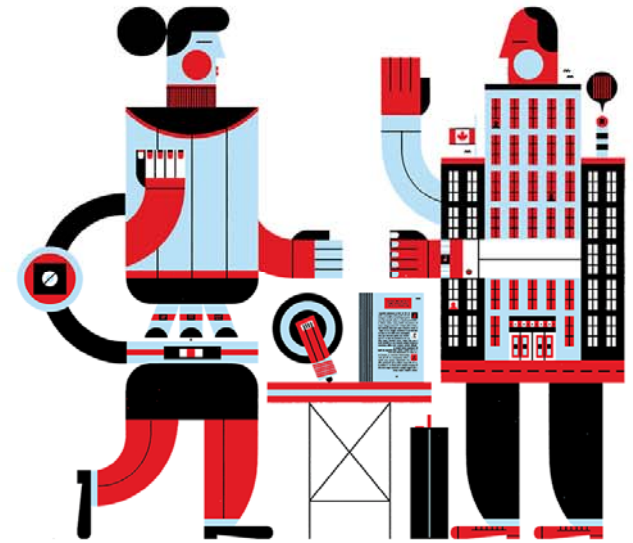
Data and reporting

- Discovery Grants

Designated group	% of applications	% of awards
Women	23.6%	23.9%
Visible Minorities	25.3%	23.3%
People with disabilities	1.8%	1.4%
Indigenous	0.6%	0.5%

Competition / concours de 2020

Other Update



Research Data Management

Postponed until further notice due to Covid-19 Pandemic

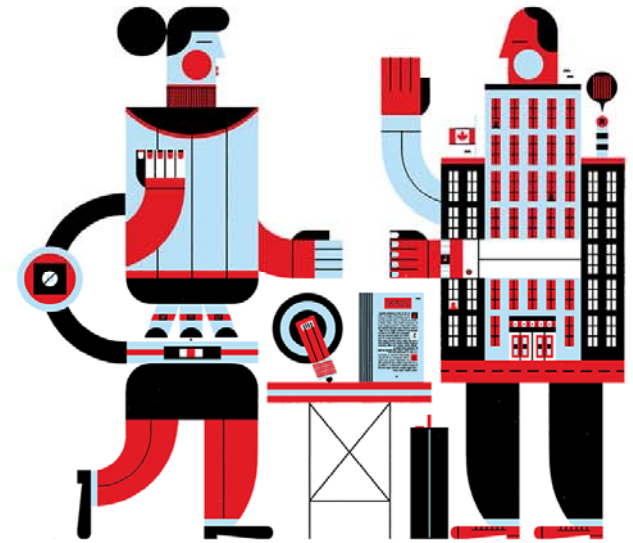
- **Summer 2018:** Online consultation on *Draft* Tri-Agency Research Data Management Policy http://science.gc.ca/eic/site/063.nsf/eng/h_547652FB.html
 1. **Institutional Strategy**
 2. **Data Management Plans (DMPs)**
 3. **Data Deposit**

130 submissions received
- **In the coming months:** Public summary of consultation feedback, visit NSERC's website for news <http://www.nserc-crsng.gc.ca>
- **2019-2020:** Policy launch
- **2019+:** capacity-building initiatives, stakeholder engagement

Frequently Asked Questions: http://science.gc.ca/eic/site/063.nsf/eng/h_97609.html

Contact: ResearchData-Donneesderecherche@nserc-crsng.gc.ca

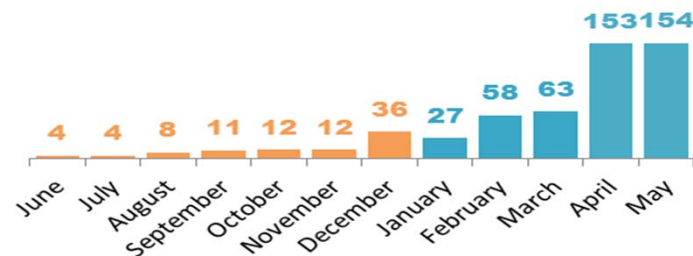
Research Partnerships Update



Alliance

- Fully operational, Options 1 and 2
- ‘Growing pains’, community becoming used to a completely new program
- Significant number of applications involving public sector and not-for-profit organizations and combinations

Applications received since launch



Total Awarded:
\$31,063,191

(Numbers at May '20)

48%
Success Rate
Overall

63%
Success Rate
2020

30%
Success Rate
2019

Alliance option 2

**societal impact
making connections
broad outcomes**

Your proposal must meet all
three specific characteristics to
qualify for option 2

NSERC Alliance COVID-19 Grants

- 769 Applications Received
- 317 Awarded
- \$15,687,680 Funding Awarded



- NSERC provided \$15+ million to stimulate collaborations between academic researchers and the public and not-for-profit sectors, and industry to address pandemic-related research and technical challenges.
 - \$50,000 for one-year projects

RP – COVID-19 Adjustments

- Extensions
- Delays
- Partners
- Alliance Virtual workshops – starting mid-Nov