



Conseil de recherches en sciences  
naturelles et en génie du Canada

Canada



# NSERC Update



**Council of Chairs of Canadian Earth Science Departments  
Conférence des Directeurs de Département de Géologie du Canada  
(CCCESD/CDDGC)**

**Ottawa, ON  
October 30, 2018**

**Elizabeth Boston, Director, Mathematical, Environmental & Physical Sciences  
Tiffany Lancaster - Program Officer  
Kenn Rankine – Program Officer**



Natural Sciences and Engineering  
Research Council of Canada

Conseil de recherches en sciences  
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# Overview

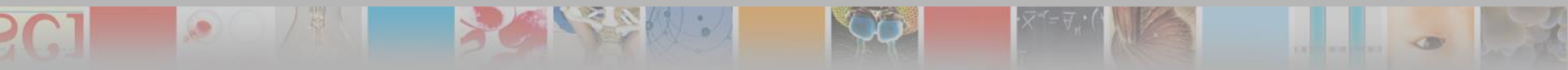
- Federal Science and Innovation Update
- Policy and Funding Opportunity Updates
- 2018 Discovery Program: Competition Results
- Questions



# Federal Budget 2018

## Investing in Canadian Scientists and Researchers

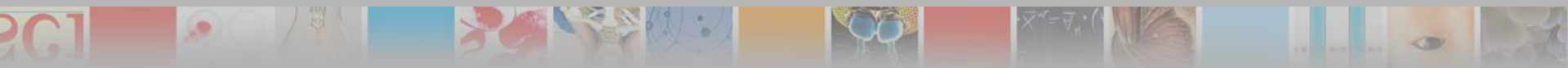
Agency	Programs	Over five years	Ongoing/year
<b>NSERC</b>		\$354.7 million	\$90.1 million
<b>CIHR</b>		\$354.7 million	\$90.1 million
<b>SSHRC</b>		\$215.5 million	\$54.8 million
<b>Tri-councils</b>	New EDI initiatives	\$21 million	--
<b>Tri-councils</b>	New research fund	\$275 million	\$65 million
<b>Tri-councils</b>	Colleges (CCI)	\$140 million	--
<b>Tri-councils</b>	CRC (early career)	\$210 million	\$50 million
<b>Tri-councils</b>	Research support fund	\$231.3 million	\$58.8 million



## Future appointment opportunity

The posting for the position of NSERC President will be published on the website of the Privy Council Office as a Governor-in-Council appointment opportunity.

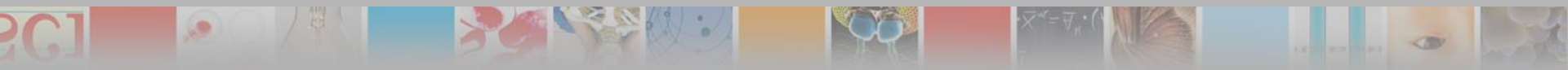
<https://pcogic.njoyn.com/cl3/xweb/Xweb.asp?tbtoken=ZVpZQVUSSht1agEuJS5ALiReRyFJYFBNCIdAVFeb1wkJI0RehdbWUYcUUMTBWd2PApQVhRSTz5l&chk=dFlbQBJf&CLID=52106&page=joblisting&lang=1>



# NSERC: 2018 Federal Budget Increase

	2018-19	2019-20	2020-21	2021-22	2022-23	On-going
2018 Federal Budget Amount	\$44M	\$59M	\$71M	\$90M	\$90M	\$90M

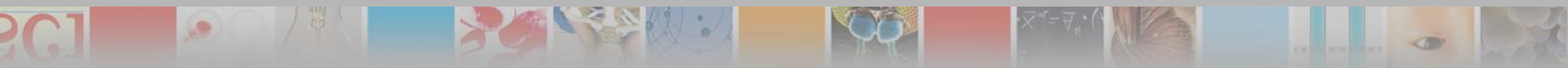
- 25% increase in Discovery budget by 2021-2022
- Tied to “clear objectives and conditions so that Canada’s next generation of researchers – including students, trainees and early-career researchers – is larger, more diverse and better supported”





# Budget 2018 - Discovery Research

- In **2018-19**, additional investments in Discovery Grants, Early Career Researchers, Discovery Development Grants, Research Tools and Instruments and Scholarships and Fellowships
- **\$70M** (over 5 years) in additional funds for Discovery Grants awarded in April 2018
  - Researchers will be notified of increases to their awards
  - Additional funds in first year of the Discovery Grant for **Early Career Researchers**
- New funds will be added annually to Discovery Grants, increasing funds available for annual competitions



# Canada Research Coordinating Committee

- Presidents of the three federal granting councils
- Deputy Ministers of Innovation, Science and Economic Development Canada (ISED) and Health Canada
- Presidents of Canada Foundation for Innovation (CFI) and National Research Council (NRC), and the Chief Science Advisor, are participants

- International, multidisciplinary, high-risk and rapid-response research
- Emerging areas of research
- Equity, diversity and inclusion in research
- Indigenous research and research training model
- Development of talent throughout the research career life cycle

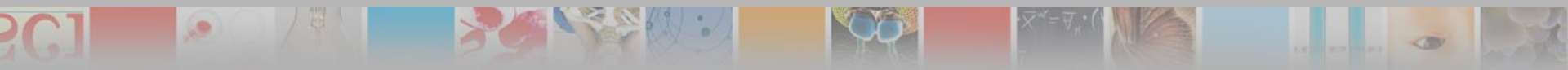




# Canada Research Coordinating Committee

## Consultations focused on three priorities

1. Creating a new tri-agency fund to support international, multidisciplinary, high-risk and rapid-response research that generates new knowledge;
2. Strengthening equity, diversity and inclusion in research;
3. Supporting early career research.



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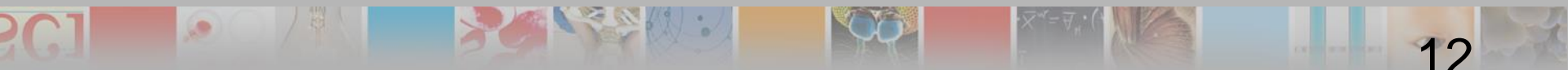
# Equity, Diversity and Inclusion (EDI)

Equity, diversity and inclusion (EDI) strengthen the scientific and engineering communities and the quality, social relevance and impact of research.

**Visit NSERC's EDI website for resources:**

[http://www.nserc-crsng.gc.ca/NSERC-CRSNG/EDI-EDI/index\\_eng.asp](http://www.nserc-crsng.gc.ca/NSERC-CRSNG/EDI-EDI/index_eng.asp)

- NSERC's EDI framework;
- Training modules and tools;
- Related programs and awards; and
- Events, such as Gender Summit.



# Discovery Grants

# Equity, Diversity and Inclusion

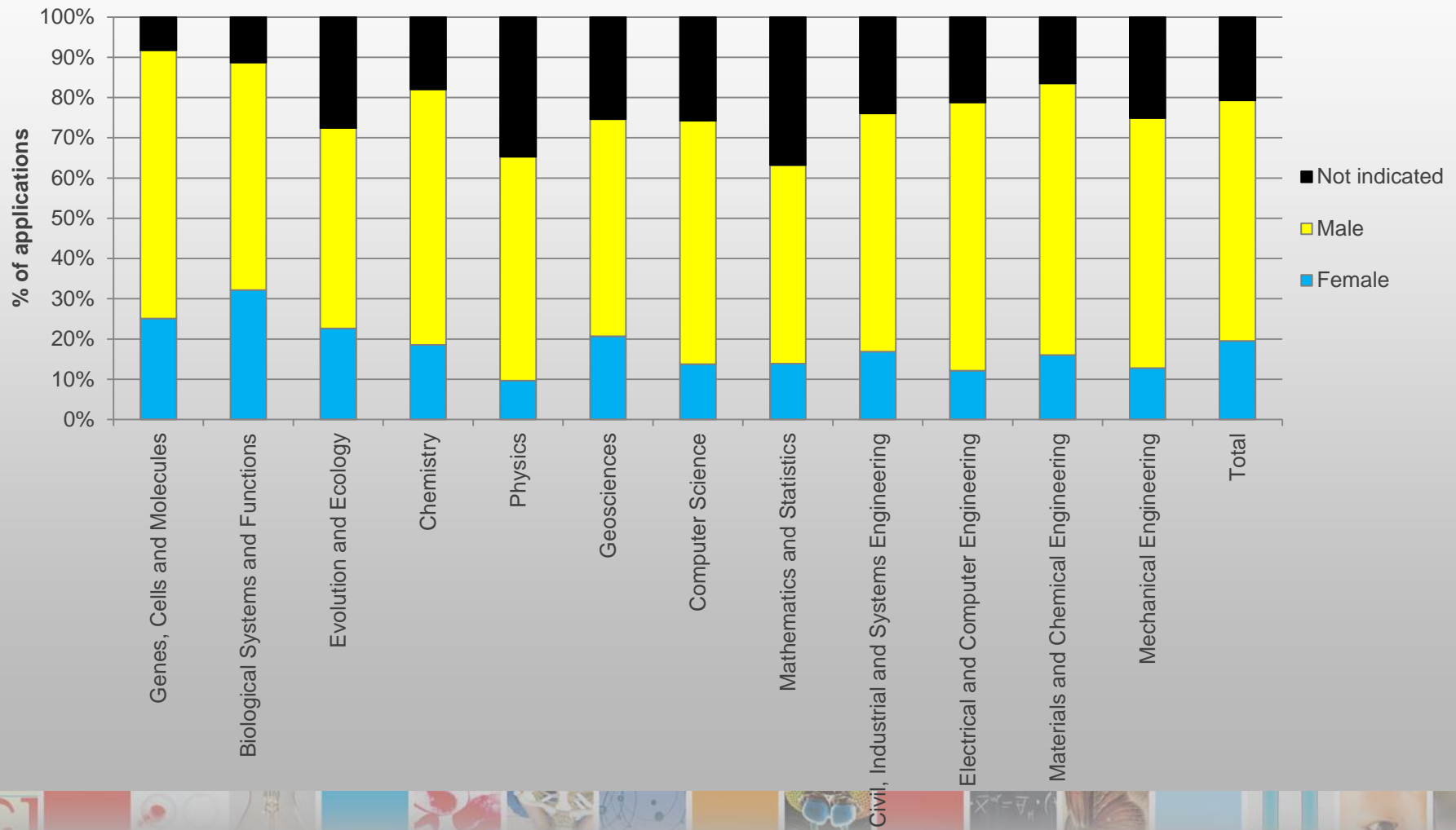
## ***Bias in Peer Review*** training module for peer reviewers

Consideration of a researchers' contributions to Equity, Diversity and Inclusion in the research enterprise:

- ✓ As a contribution that has advanced a field of research  
(*Excellence of the Researcher*)
- ✓ As a contribution to the training of *Highly Qualified Personnel*

# Equity, Diversity and Inclusion (EDI)

% of applicants by sex



\* Results presented are not official

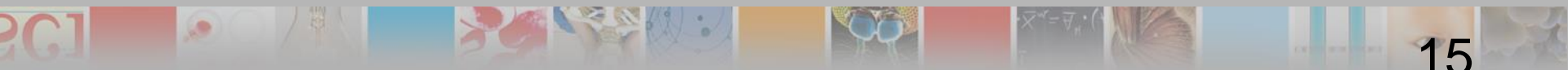
# Discovery Grants

## Equity, Diversity and Inclusion

### Competition Success Rates - 2018

	Female*	Male*	Not indicated
<b>Early Career Researchers (ECR)</b>	60%	63%	69%
<b>Established Researchers (ER)</b>	70%	66%	65%

*\*Data from CCV. NSERC is committed to using more gender inclusive language in the future.*



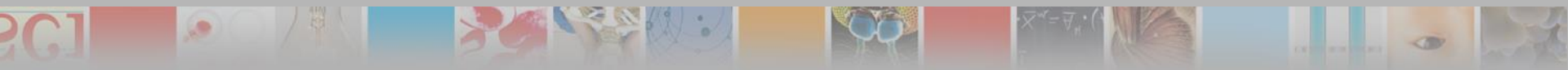


# Athena Swan - A Made-in-Canada Model

- Institutional participation in Canadian Athena SWAN will be voluntary
- The Athena SWAN model will be tailored to the context and realities of Canada
- We expect that the scope of the Canadian initiative will be broader

*Comments/questions:*

[consultations@nserc-crsng.gc.ca](mailto:consultations@nserc-crsng.gc.ca)



# NSERC Leave Policies

## Primary Caregivers (Pilot)

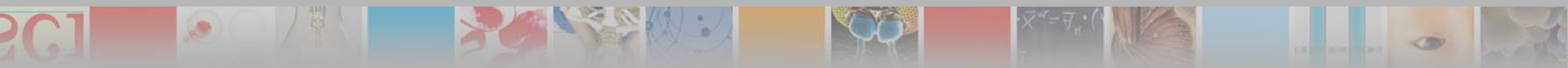
- Researchers who become primary caregivers following the birth or adoption of a child and who are eligible for maternity or parental leave but decline the leave, may be eligible to receive a one-year grant extension with funds

## 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 PDFs paid from Grants

- Students and PDFs who are supported by NSERC grants and are eligible may receive up to 6 months of paid maternity / parental leave.
- The leave supplement will be paid by NSERC.



# Support for Indigenous Students & Fellows

## Postgraduate scholarships programs

Institutions can recommend an unlimited number of self-identified Indigenous applicants above their application quota

# USRA awards

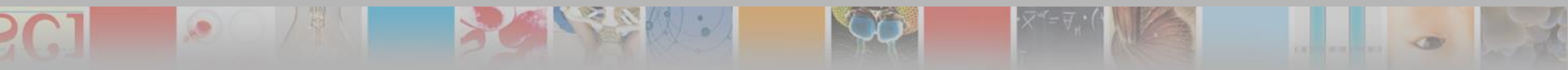
Applications submitted by Indigenous applicants will not be counted as part of the university quota

# Aboriginal Ambassadors in the Natural Sciences and Engineering Award (AANSE)

- Up to \$5,000 towards travel costs
- AANSE holder participates in science promotion events or shares their NSE research & education experience

# Evaluation of Discovery Research Program

- Regular 5-year evaluation cycle required by Government of Canada is planned for 2018-2019
- Focuses on a broader suite of Discovery Research programs, including Discovery Grants, supplements, RTI, institutes and other funding mechanisms
- The launch of data collection phases, which will include a survey to the research community, is currently planned for this winter



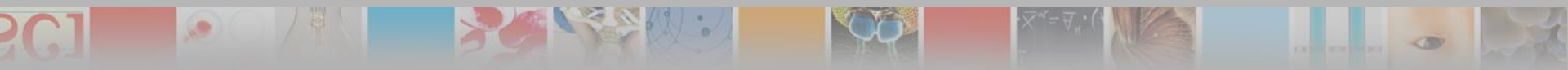
# Research Partnership Program

The proposed structure,  
parameters and features available  
on NSERC's web page:

[http://www.nserc-crsng.gc.ca/rp\\_renewal-regroupement\\_pr\\_eng.asp](http://www.nserc-crsng.gc.ca/rp_renewal-regroupement_pr_eng.asp)

We encourage you to share your  
questions, comments and  
perspectives on the renewal.

[RPR@nserc-crsng.gc.ca](mailto:RPR@nserc-crsng.gc.ca).



# Overview

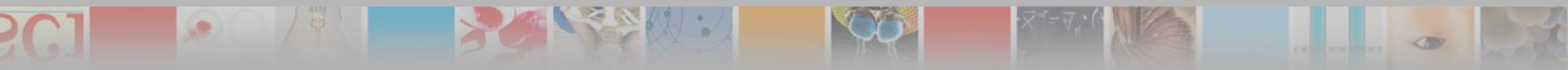
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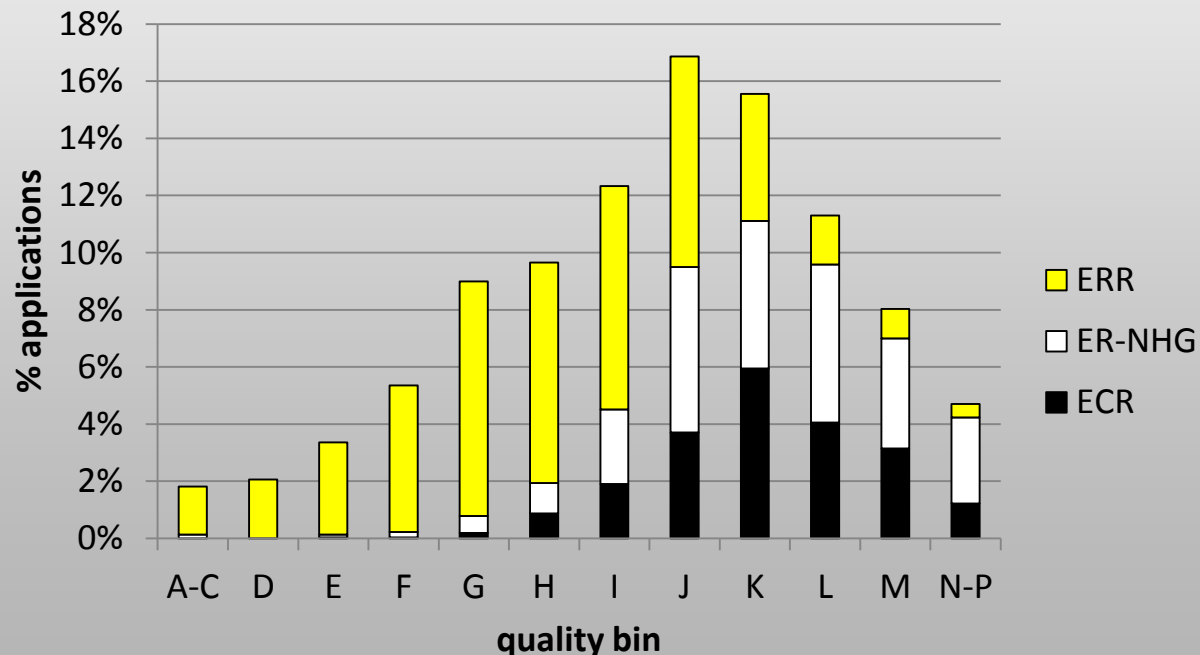
**More than 4,000 students and researchers across the country to share historic Budget 2018 funding for science**

# \$558 million for discovery research



# Overall – Discovery Grants

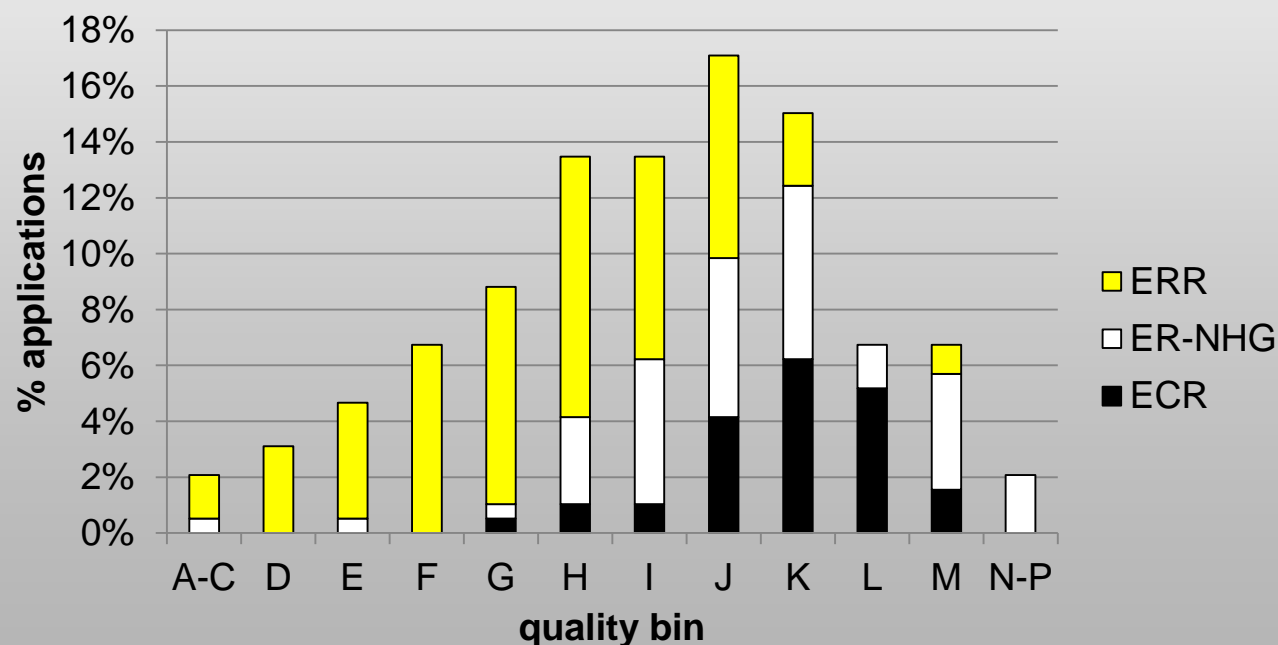
	Early Career Researchers	Established Researchers		Total
		Returning	Not Holding a Grant	
# of applications	677	1635	901	3213
# of awards	433	1366	326	2125
Success Rate	64%	84%	36%	66%



\* Results presented are not official

# Geosciences EG (EG1506)

	Early Career Researchers	Established Researchers		Total
		Returning	Not Holding a Grant	
# of applications	38	98	57	193
# of awards	25	90	30	145
Success Rate	66%	92%	53%	75%

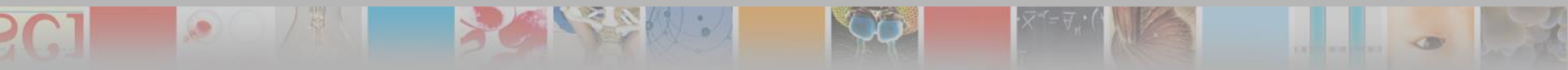


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# RTI Program Update - 2019 competition

## Changes to RTI selection criteria

- Reduction in the number of selection criteria from five (5) to three (3)
  - Applied weighting for each criterion
- 
- The weighted scoring method will better guide Selection Committee members during review
  - Will provide applicants with more detailed scoring on their proposals to help improve subsequent applications



# Research Tools and Instruments (RTI)

	2018	Geosciences
Budget	\$25.1M	\$1.7M
# Appl.	1043	77
# Funded	208	17
Success Rate	20%	22%
Funding Rate	21%	21%

**\* Results presented are not official**



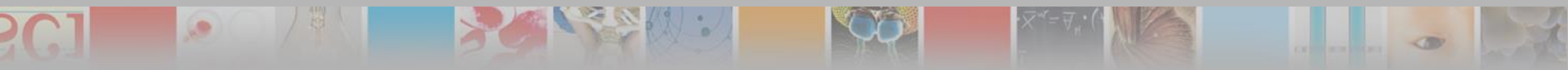
# Early Career Researchers (ECRs)

## Enhanced Support through Discovery Grants

- ECRs typically receive award top-up
- Success rate is always >50%

Competition Year	2013	2014	2015	2016	2017	2018
Success Rate for ECRs	60%	70%	65%	75%	69%	64%

## 432 new Discovery Grants to ECRs in 2018





# Early Career Researchers (ECRs)

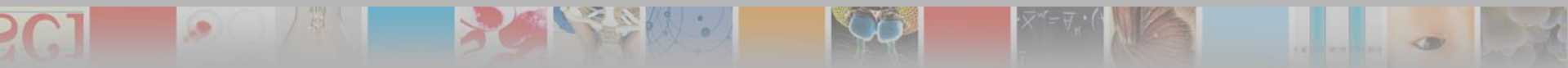
## Enhanced Support through Discovery Grants

### 2017

- ECRs may extend their Discovery Grants for an additional year with funds before re-applying
- ECR definition changed to extend the window from two years to three years of the start date of an NSERC eligible position

### 2018

- ECR definition further expanded: researchers with non-academic research experience may now be considered ECRs
  - Includes all researchers who are within three years of their first independent academic position.
- Applicants may self-identify as ECR



# Discovery Development Grants (DDG)

## A 5 year Pilot

- Promote a diversified base of high-quality research in small universities
- Foster a stimulating environment for research training in small universities
- Facilitate recipients' access to additional funding from other sources
- Award valued at \$10K /year for 2 years
- Was first launched in 2015 competition cycle

## DDG Competition Results

- 2015, 57 awards
- 2016, 43 awards
- 2017, 54 awards
- 2018, 34 awards\*

*\*pending acceptance*

# Discovery Supplements

## DISCOVERY ACCELERATOR SUPPLEMENTS (DAS)

- For researchers who:
  - *Have highly original and innovative research programs*
  - *Show strong potential to become international leaders within their field*
- \$40,000 per year for 3 years; up to 125 supplements per year

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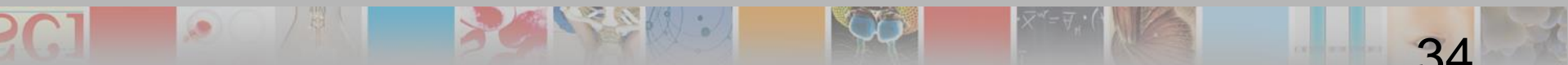
## NORTHERN RESEARCH SUPPLEMENTS

- For research in Canada's North
- \$10-\$25,000 per year for 5 years

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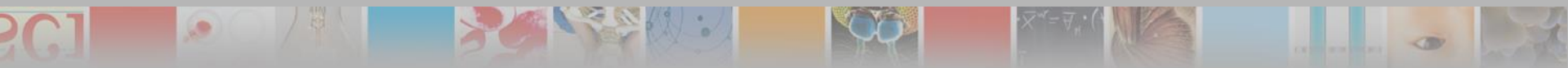
## DND / NSERC DISCOVERY GRANT SUPPLEMENTS

- Support for discovery-based research in the DND target areas
- \$120,000 - over three years; up to 50 supplements per year



# Discovery Accelerator Supplements

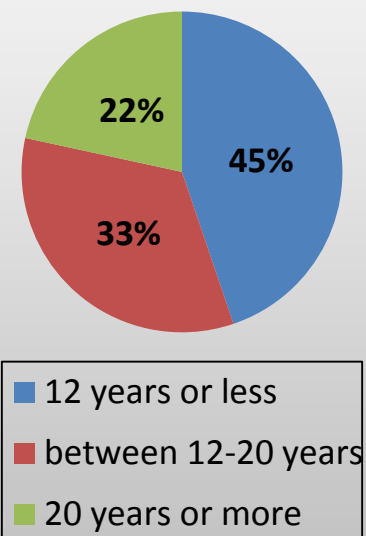
- DAS provides resources to researchers who:
  - *Have highly original and innovative research programs*
  - *Show strong potential to become international leaders within their field*
- \$120,000 - over three years
- Up to 125 Supplements per year
- Each EG will receive a quota of DAS nominations to recommend
- EG members nominate candidates and members vote during competition. Executive Committee makes the final recommendation to NSERC



# Discovery Accelerator Supplements

Evaluation Group	Awards
Genes, Cells and Molecules (1501)	13
Biological Systems and Functions (1502)	17
Evolution and Ecology (1503)	8
Chemistry (1504)	7
Physics (1505)	8
Geosciences (1506)	9
Computer Science (1507)	16
Mathematics and Statistics (1508)	10
Civil, Industrial and Systems Engineering (1509)	10
Electrical and Computer Engineering (1510)	10
Materials and Chemical Engineering (1511)	7
Mechanical Engineering (1512)	9
Subatomic Physics (19)	1
<b>Total</b>	<b>125</b>

2018 DAS recipients  
years from PhD



\* Results presented are not official

# Northern Research Supplements (NRS)

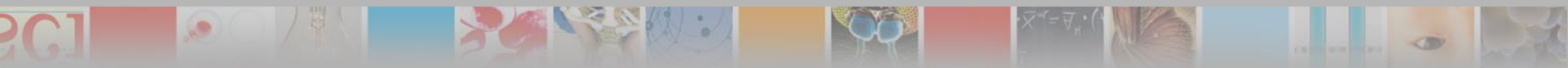
## Objective:

- To augment and promote Canadian university-based northern research, training, and outreach by recognizing the added costs unique to conducting research in the Canadian North

## Description:

- **New Application Process CY2019:** apply as part of DG application within Research Portal - no longer a separate application through On-Line System
- \$10,000 to \$25,000/year for duration of the DG: amount based on combination of logistical costs and recognizing outstanding contributions to outreach and interactions with Northerners

Contact: [EnviroSciences-SciencesEnviro@nserc-crsng.gc.ca](mailto:EnviroSciences-SciencesEnviro@nserc-crsng.gc.ca)





# Northern Research Supplements (NRS)

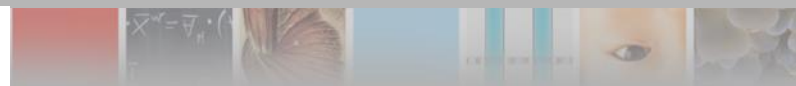
Pre-Competition <sup>A</sup>					Competition <sup>B</sup>					
Comp. Year	# Apps Received Nov 1st	Success Rate (overall)	\$ Requested (overall)	Funding Rate (overall)	# of Apps Reviewed by Cttee	# of Apps funded	Success Rate (Comp)	\$ Requested (Comp)	\$ Awarded (Comp)	Funding Rate (Comp)
2018	49	61.2%	\$1,100,054	41.0%	40	30	75.0%	\$927,807	\$450,940	48.6%
2017	49	63.3%	\$1,166,021	44.4%	44	31	70.5%	\$1,068,747	\$518,230	48.5%
2016	36	50.0%	\$749,221	39.4%	28	18	64.3%	\$584,659	\$295,000	50.5%
2015	41	65.9%	\$877,995	48.6%	34	27	79.4%	\$749,690	\$426,300	56.9%
2014	48	56.3%	\$1,027,478	41.4%	36	27	75.0%	\$767,051	\$425,820	55.5%
2013	55	56.4%	\$1,194,504	45.2%	39	31	79.5%	\$886,815	\$539,500	60.8%
2012	44	63.6%	\$939,935	50.0%	36	28	77.8%	\$785,235	\$469,500	59.8%
6-yr Avg. *	45.5	59.2%	\$992,526	44.8%	36.2	27.0	74.4%	\$807,033	\$445,725	55.3%

\* does not include current year's statistics

A - these data represent information BEFORE the NRS Competition and BEFORE unsuccessful DG applicants were removed from consideration

B - these data represent information DURING the NRS Competition and AFTER the unsuccessful DG applicants were removed

**\* Results presented are not official**



# Ship Time Program

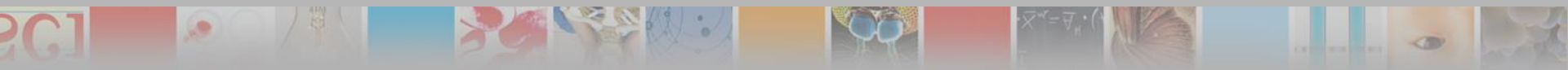
## Objective:

- Assists with high costs associated with chartering research vessels in Canada and abroad
- Funds access to research vessels in support of on-going Discovery research programs

## Description:

- Applicants must hold a Discovery Grant (*or be successful in current competition*)
- Duration usually one year
- Results announced late November each year
- Deadline: September 1<sup>st</sup>

Contact: [EnviroSciences-SciencesEnviro@nserc-crsng.gc.ca](mailto:EnviroSciences-SciencesEnviro@nserc-crsng.gc.ca)



# Ship Time Program

Competition Year	# of apps reviewed	# of apps awarded	Success rate	Funding rate	Total Requested in Competition	Total Amount Awarded
2018	9	7	77.8%	55.0%	\$1,697,547	\$933,172
2017	7	5	71.4%	74.6%	\$1,288,647	\$961,217
2016	11	8	72.7%	72.9%	\$1,359,841	\$991,279
2015	10	6	60.0%	65.4%	\$1,643,194	\$1,075,433
2014	9	8	88.9%	67.7%	\$1,034,292	\$700,378
2013	13	10	76.9%	49.4%	\$2,024,427	\$1,000,000
2012	8	6	75.0%	70.1%	\$738,548	\$517,688
2011	13	11	84.6%	75.0%	\$1,098,163	\$824,169
<b>7-yr Average*</b>	<b>10.1</b>	<b>7.7</b>	<b>75.7%</b>	<b>67.9%</b>	<b>\$1,312,445</b>	<b>\$867,166</b>

**\* does not include current year's statistics**

**\* Results presented are not official**

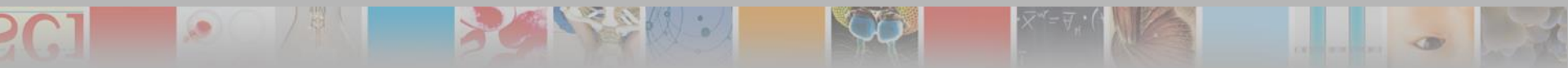
# Evaluation Groups

- 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)



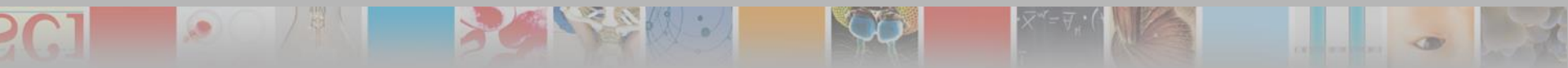
# EG1506 Research Topics

- **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**



# NSERC Contacts

Geosciences EG Program Officer	<a href="mailto:tiffany.lancaster@nserc-crsng.gc.ca">tiffany.lancaster@nserc-crsng.gc.ca</a>
Geosciences EG Program Assistant	<a href="mailto:sue.doyle@nserc-crsng.gc.ca">sue.doyle@nserc-crsng.gc.ca</a>
NSERC Web site	<a href="http://www.nserc-crsng">www.nserc-crsng</a>
Deadlines, acknowledgement of applications and results	Your university RGO
Your account, Grants in Aid of Research Statement of Account (Form 300)	Your university Business Officer (BO)
Discovery Grants Program (including eligibility)	E-mail: <a href="mailto:resgrant@nserc-crsng.gc.ca">resgrant@nserc-crsng.gc.ca</a> Tel.: 613-995-5829
Use of Grant Funds	E-mail: <a href="mailto:awdad@nserc-crsng.gc.ca">awdad@nserc-crsng.gc.ca</a>
On-line Services Helpdesk	E-mail: <a href="mailto:webapp@nserc-crsng.gc.ca">webapp@nserc-crsng.gc.ca</a>



# Over to you...

- Questions?
- Comments?
- Advice?

