

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

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Canada



## **SNOLAB User Meeting: NSERC updates**

Sarah Overington Director, Research Grants and Scholarships

June 2024

## Budget 2024



## Investing in research talent

- Increases to annual value of scholarships and fellowships
  - Increased award values take effect as of September 1, 2024
  - Additional details will be communicated to award holders in July 2024

	New value
Master's	\$27,000
Doctoral	\$40,000
Post-doctoral	\$70,000

- Approximately 1720 additional scholarships/fellowships
- Enhanced suite of scholarships and fellowship programs will be streamlined into one talent program

## **Enhancing research support (investments)**

### Increased core funding

 \$1.8 billion over five years, starting in 2024-25, with \$748.3 million per year ongoing to SSHRC, NSERC, and CIHR

### Harmonized grant management system

- \$26.9 million over five years, starting in 2024-25, with \$26.6 million in remaining amortization and \$6.6 million ongoing
- Indigenous participation in research
  - \$30 million over three years, starting in 2024-25, with \$10 million each for First Nation, Métis, and Inuit partners

## Enhancing Research Support (Research Infrastructure)

- \$45.5 million over five years, starting in 2024-25, to support the Arthur B.
   McDonald Canadian Astroparticle Physics Research Institute
- \$399.8 million over five years, starting in 2025-26, to support TRIUMF, Canada's sub-atomic physics research laboratory, located on the University of British Columbia's Vancouver campus.
- \$176 million over five years, starting in 2025-26, to CANARIE, a national notfor-profit organization that manages Canada's ultra high-speed network to connect researchers, educators, and innovators, including through eduroam.

## Enhancing research support (coordination)

- New capstone research funding organization to be created
  - Granting councils will continue to exist
  - New organization and structure will also help to advance internationally collaborative, multi-disciplinary, and mission-driven research
  - Preliminary outline released by Ministers of ISED and Health in a statement and letter to federal research granting council Presidents June 17, 2024 (publicly available)
  - For those who would like to provide feedback, comments can be emailed to: <u>Secretariat.CRCC-CCRC@sshrc-crsh.gc.ca</u> by Wednesday, July 17, 2024.

# NSERC news and updates



## **Training and talent updates**

#### Tri-agency training strategy

• Centred on five themes:

- 1. Equity, Diversity, Inclusion, & Accessibility
  - 2. Evolving Career Paths
  - 3. Harmonization & Streamlining Efforts
  - 4. Indigenous Research & Training
  - 5. International Mobility & Globalization

#### Tri-agency talent evaluation

- Scope: Direct and Indirect funding of graduate student training by the three agencies
- Areas: access to training opportunities, contribution to training environment, student career trajectory
- o Evaluation report and management response available on NSERC website

## **Changes to Alliance grants**

- Alliance Advantage grants: Support partnerdriven projects. They fund projects focused on the partners' goals, with at least one partner sharing in the costs of research.
- Alliance Society grants: Support projects with societal impact as the main driver. They draw on the relevant perspectives and skill sets of active participants that help accelerate the translation and application of research results.
- Alliance International

**grants:** Help researchers establish and grow collaborations with academic research groups that have a high potential for impact in NSE disciplines.

#### Alliance Advantage

Alliance Advantage grants (formerly Alliance cost-sharing option 1) support research projects conducted in collaboration with partner organizations to address their needs and accelerate the application of results.

#### Alliance Society

Alliance Society grants (formerly Alliance cost-sharing option 2) support research projects conducted in collaboration with partner organizations to address challenges at the intersection of natural sciences, engineering and society.

#### Alliance International

Supports partnerships between Canadian and international academic researchers to establish and grow research collaborations of global importance that will generate benefits to Canada.

Special calls and joint funding opportunities

Accepting applications

Accepting applications

Accepting application

## **Recent updates to Alliance grants**

- Interactions between trainees and partner organizations
- Consolidation of Merit Indicators
- > More flexibility for Alliance Advantage applications to be reviewed internally
- Conflict of Interest (COI) guidelines
- National Security Guidelines for Research Partnerships

## Tri-agency research data management policy (2021) requirements



Institutional strategies

- ✓ 88% compliance (as of March 2024)
- Links compiled at <u>science.gc.ca</u>
- Qualitative analysis underway



Data✓Piloted through select funding opportunities (see list posted<br/>on science.gc.ca)Managementon science.gc.caPlans (DMPs)✓Lessons to be compiled to inform ongoing approach



Data deposit

- Engagements ongoing to inform options for implementation
- Key issues : repository capacity; sensitive data; support, education and training; Indigenous RDM; compliance monitoring; international policy alignment

## Data management plan pilot in subatomic physics

Tri-Agency Research Data Management (RDM) policy requirements are being implemented using a gradual, phased-in approach:

- Data Management Plan (DMP) requirement piloted in the Subatomic Physics Discovery Grants – Individual and Project for competition 2024 (launched in summer 2023).
- Applicants were required to submit a 2-page DMP with their applications, which
  was reviewed by committee members but not included in adjudication score.
- Pilot is being evaluated through an applicant survey, review of submitted DMPs, and consultations with committee members.
- Broader implementation of the DMP requirement into other NSERC programs will be informed by pilot evaluation, as well as continued engagement with the research community, CIHR, SSHRC and the Digital Research Alliance of Canada.

## The Policy on Sensitive Technology Research and Affiliations of Concern (STRAC)

### **Overview of the STRAC Policy:**

- On January 16, 2024, the Government of Canada announced the <u>Policy on Sensitive</u> <u>Technology Research and Affiliations of Concern</u> (STRAC Policy).
- The policy operates using two lists that must be used in conjunction a list of <u>Sensitive</u> <u>Technology Research Areas</u> (STRA) and a list of <u>Named Research Organizations</u> (NRO).
- The granting agencies and the CFI are implementing the policy in harmonized manner, starting with funding opportunities launching as of May 1<sup>st</sup>, 2024.
- At the application stage, applicants will be asked to identify if the research supported by their grant will aim to **advance a STRA.** If it will <u>not aim to advance a STRA</u>, no action is required.
- If the grant aims to advance a STRA, researchers with named roles (applicant, co-applicants, collaborators) on the application must complete attestation forms to certify their compliance. In addition, for the duration of the grant, no researchers involved in activities supported by the grant can be affiliated with, or in receipt of funding or in-kind support, from an NRO.

## 2024 Discovery Grants results – overview



## 2024 Discovery research program competition results

- **Discovery Grants** offered \$84.3M in new awards
  - o 3186 applications; 2015 awards
  - The CY2024 cohort is the size of a typical pre-pandemic competition

#### • **Research Tools and Instruments** awarded over \$25M

o 666 applications; 199 awards, with a 30% success rate

- Subatomic Physics Grants invested over \$18.5M in new awards
  - o 52 applications across all categories; 38 awards
  - Success rates ranged from 36% to 88%
- **Discovery Horizons** offered \$5.5M in new awards

o 81 LOIs received, 33 full applications reviewed, and 15 grants awarded

### **Discovery Grants over the last 17 years**



\*Pools of applicants differ from a typical year, due to COVID-19 one-time extensions with funds provided to eligible DG holders

#### Results presented for CY2024 are not official

nserc-crsng.gc.ca

\$41.9K

\$45.0K

#### **Discovery Grants and other research grants**



## **Total Investment in Discovery**



c-crsng.gc.ca

#### 2024 Discovery Grants Results - Overview



## Supporting Early Career Researchers

#### Total Amount Awarded



- Over 90% Early Career Researchers (ECRs) who apply within the 5-year eligibility window are funded
- The window is adjusted for eligible delays (credited as twice the amount of time taken)
- ECRs receive a one-time Discovery Launch Supplement (\$12,500) and the option of a 6th year of funding
- The success rate of applicants who reapply after their first grant is over 70%

Visible Minority

### **Overall DG – Equity, Diversity and Inclusion (EDI)**

Prefer not to

Answer

Application Rate

Award Rate



Not a Visible

Minority







22

## **Overall DG – Equity, Diversity and Inclusion (EDI)**

Gender Ratios of Application Rate and Award Rate by Evaluation Group 100% 90% 80% **Application Rates** 70% **Award Rates** 60% 50% Other Categories 40% Man 30% 20% Woman 10% 0% Biological Systems and Functions Civil, Industrial and Systems Engineering Electrical and Computer Engineering Materials and Chemical Engineering Genes, Cells and Molecules Mathematics and Statistics Ecology and Evolution computer sciences Mechanical Engineering Physics Geosciences Chemistry

## **Overall DG – Equity, Diversity and Inclusion (EDI)**

		Women	Men	Gender-fluid, Binary and/or Two-spirit ,"I prefer not to answer".
Researchers	Number of Awards	201	313	22
	Success Rate	60%	60%	67%
Established N Researchers Returning (ER-R)	Number of Awards	263	797	185
	Success Rate	79%	75%	79%
Established Researchers Not Holding a Grant (ER-NHG)	Number of Awards	60	158	16
	Success Rate	45%	34%	23%

## The Subatomic Physics Evaluation Section

- The Subatomic Physics Evaluation Section (SAPES) is a standing review committee that oversees various programs:
  - Individual and Project Discovery Grants
  - Research Tools and Instruments (RTI Category 1, 2 or 3) Grants
  - Major Resources Support (MRS) Grants
- Funded through a unique independent envelope mechanism at NSERC, since 1991

## **Pre-Competition Details**

- 52 applications
- Total requested: \$11.41M
- Available funds: \$6.03M
- Projected average funding rate: 52%

Compare to past funding rates:

2019	2020	2021	2022	2023
64%	56%	40%	64%	60%

## **Competition Budget - Pre-competition**

SUBATOMIC PHYSICS ENVELOPE MULTI-YEAR COMMITMENTS BY CATEGORY Competition 2024						
	2024	2025	2026	2027	2028	
RTI - COMMITTED	\$157,500					
RTI - 2023 Competition	\$1,739,344	\$200,000	\$0			
RTI - TOTAL	\$1,896,844	\$200,000	\$0	\$0	\$0	
		And in case of the local division of the loc	Constant Statement			
THEORY - COMMITTED	\$3,237,300	\$1,671,200	\$1,174,000	\$738,000		
THEORY - 2024 Competition	\$1,294,210	\$1,337,286	\$1,342,232	\$1,388,440	\$1,371,099	
THEORY - TOTAL	\$4,531,510	\$3,008,486	\$2,516,232	\$2,126,440	\$1,371,099	
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EXP OPS** - COMMITTED	\$20,666,105	\$6,859,830	\$296,005	\$177,000	\$135,000	
EXP OPS - 2024 Competition	\$7,606,415	\$8,285,049	\$8,117,512	\$563,167	\$524,675	
EXP OPS - TOTAL	\$28,272,520	\$15,144,879	\$8,413,517	\$740,167	\$659,675	
MRS - COMMITTED	\$2,703,917	\$427,393	\$434,115	\$449,465	\$110,545	
MRS - 2024 Competition	\$769,646	\$840,096	\$361,653	\$369,356	\$376,103	
MRS - TOTAL	\$3,473,563	\$1,267,489	\$795,768	\$818,821	\$486,648	
	COC 704 000	60.050.400	C1 001 100	64.004.405	0045 545	
TOTAL - COMMITTED	\$26,764,822	\$8,958,423	\$1,904,120	\$1,364,465	\$245,545	
TOTAL - 2024 Competition	\$11,409,615	\$10,662,431	\$9,821,397	\$2,320,963	\$2,271,877	
GRAND TOTAL	\$38,174,437	\$19,620,854	\$11,725,517	\$3,685,428	\$2,517,422	
TOTAL ENVELOPE	\$29,159,960	\$29,159,960	\$29,159,960	\$29,159,960	\$29,159,960	
COMPETITION BUDGET	\$6,026,238					
Unspent from previous FY	\$3,631,100					
AVAILABLE	-\$5,383,377	\$9,539,106	\$17,434,443	\$25,474,532	\$26,642,538	

## **Multiyear Commitments - End of Competition**

	MOLTFILA	Competition 20	8 BY CATEGORY 24		
and the second	2024	2025	2026	2027	2028
RTI - COMMITTED	\$157,500				
RTI - 2024 Competition	\$568,656	\$200,000			
RTI - TOTAL	\$726,156	\$200,000			
THEORY - COMMITTED	\$3,237,300	\$1,671,200	\$1,174,000	\$738,000	
THEORY - 2024 Competition	\$854,150	\$854,150	\$843,500	\$782,500	\$774,500
THEORY - TOTAL	\$4,091,450	\$2,525,350	\$2,017,500	\$1,520,500	\$774,500
EXP OPS** - COMMITTED	\$20,666,105	\$6,859,830	\$296,005	\$177,000	\$135,000
EXP OPS - 2024 Competition	\$4,162,000	\$4,172,000	\$4,030,000	\$210,000	\$210,000
EXP OPS - TOTAL	\$24,828,105	\$11,031,830	\$4,326,005	\$387,000	\$345,000
MRS - COMMITTED	\$2,703,917	\$427,393	\$434,115	\$449,465	\$110,545
MRS - 2024 Competition	\$310,000	\$130,000	\$132,500	\$136,000	\$138,500
MRS - TOTAL	\$3,013,917	\$557,393	\$566,615	\$585,465	\$249,045
TOTAL - COMMITTED	\$26,764,822	\$8,958,423	\$1,904,120	\$1,364,465	\$245,545
TOTAL - 2024 Competition	\$5,894,806	\$5,356,150	\$5,006,000	\$1,128,500	\$1,123,000
GRAND TOTAL	\$32,659,628	\$14,314,573	\$6,910,120	\$2,492,965	\$1,368,545
TOTAL ENVELOPE	\$29,159,960	\$29,159,960	\$29,159,960	\$29,159,960	\$29,159,960
COMPETITION BUDGET	\$6,026,238				
Unspent from previous FY	\$3,631,100	\$131,432			
AVAILABLE	\$131,432	\$18,607,919	\$22,249,840	\$26,666,995	\$27,791,415

\*\*EXP OPS = Experimental Operations – Includes Project grants and experimental Individual grants

All remaining funds will be added to the SAP envelope for CY2024.

## Share of Envelope at End of Competition Comparison to Past Years

## Subatomic Physics Evaluation Section

Evolution of	f Envelope	's Shares
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	2019	2020	2021	2022	2023	2024
Theory	13%	11%	13%	13%	13%	13%
RTI	3%	2%	2%	1%	0%	2%
Total Research Ops	<b>84%</b>	86%	86%	86%	88%	85%
Exp. Ops	74%	76%	76%	77%	77%	76%
MRS	10%	10%	10%	9%	10%	9%

## Research excellence



## Strengthening research excellence through EDI

NSERC is actively working to foster a more equitable, diverse and inclusive research ecosystem in Canada through measures like:

- <u>Unconscious bias training for peer reviewers</u>
- Ensuring a wide range of <u>contributions to research</u>, training and mentoring are considered and valued as part of the merit assessment (DORA principles)
- Development of policy tools to better identify and support Indigenous Research and Indigenous researchers
- <u>Guidance on integrating equity, diversity and inclusion considerations in</u> research
- Use of self-identification information in select funding opportunities
- Development of an <u>accessibility plan</u> and a <u>progress report</u> <u>feedback</u> welcomed

## **NSERC** webpage for equity, diversity and inclusion (EDI)

True to its commitment to supporting research excellence, NSERC developed an <u>Equity</u>, <u>diversity and inclusion</u> webpage in 2023 to help the research community to easily access information on NSERC's EDI-related actions, programs and policies.

The EDI webpage includes information on:

- EDI policies related to the **Review process** and **Career interruptions**;
- Grants and awards that address barriers and biases experienced by underrepresented groups;
- concrete **Actions** NSERC is taking to support EDI;
- Data collected and used by NSERC to support EDI goals; and
- **Resources** to assist NSE researchers with integrating EDI considerations in their work.
- New for summer 2024 Additional information on how NSERC uses GBA Plus to analyze and improve its programs, policies and processes will be added.

## EDI considerations contribute to research excellence

NSERC is continuing to support research excellence by encouraging all applicants and awardees to take EDI considerations into account throughout the research process and for research teams.

## NSERC guide on integrating equity, diversity and inclusion considerations in research

Two primary sections:

- 1) EDI considerations at each stage of the research process
- 2) EDI considerations for research teams

The guide provides:

- information on how EDI considerations in research promote research excellence;
- detailed guidance and examples relevant to the natural sciences and engineering disciplines; and
- links to key resources.



Signatory of

DORA

## Promotion of broader and fairer application assessments

- Surrogate measures of quality and impact (e.g. JIF or h-index) must not be used as they introduce bias in the merit review process
- Changes to program and reviewer documents are being made to reflect the <u>Guidelines on the assessment of</u> <u>contributions to research, training and</u> <u>mentoring</u>

## Video: Broad, balanced and responsible: a practical guide for research evaluators



Hear the 6 practical tips for fostering a more holistic evaluation process!

## Review of Tri-agency open access (OA) policy

### July 4 2023 announcement

- The tri-agency Presidents announced the review of the *Tri-Agency OA Policy on Publications* (2015), with the goal of requiring immediate OA by the end of 2025.
   A survey to gauge initial community thoughts was also launched.
- The agencies are committed to increasing the dissemination of research results and accelerating knowledge mobilization by ensuring peer-reviewed articles resulting from agency-funded research are freely and immediately available.



## **Tri-agency CV pilot**

### **Template sections**

- 1. Personal information
- 2. Personal statement
- 3. Most significant contributions
- 4. Other contributions to knowledge
- 5. Supervisory and mentorship activities
- 6. Other relevant information

Appendix – Current research funding (Optional)

## **Tri-agency pilot programs**



**NSERC** Discovery Horizons



CIHR <u>Health Research Training Platform</u>, <u>Operating Grant : NWHRI: Innovation Fund</u>, <u>Catalyst Grant : Chief Public Health Officer</u> <u>(CPHO) Report</u>



SSHRC Imagining Canada's Future Ideas Lab

## Upcoming Deadlines



### **NSERC and SSHRC data centre move**

- There will be a planned outage of our websites and several of our granting portals and systems from Friday, June 28, at 4 p.m. (ET) until Tuesday, July 2, 8 a.m. (ET).
  - Corporate email and phone lines will remain functional.
  - We anticipate a smooth transition but are preparing for potential scenarios (e.g. extended outages).
  - Should there be issues resuming service, check our social media accounts and dedicated web pages for updates.
  - As a best practice, remember to keep a copy of your documents and grant application information in your personal files.

## **Upcoming program deadlines**

- Discovery Horizons LOI June 14<sup>th</sup>
- NOI Discovery Grants August 1<sup>st</sup>
- NOI Subatomic Physics: Project, Individual, MRS, Category 2&3 RTI August 1st
- Ship Time Program September 3<sup>rd</sup>
- PromoScience September 16<sup>th</sup>
- Subatomic Physics: Large Projects (> \$500,000/yr), RTI Category 2&3, & MRS October 2<sup>nd</sup>
- Research Tools & Instruments (and Subatomic Physics Category 1) October 25<sup>th</sup>
- Northern Research Supplements Program **November 1**<sup>st</sup>
- Full Application Discovery Grants **November 1**<sup>st</sup>
- Full Application Subatomic Physics: Individual and Projects (< \$500k/yr) **November 1st**
- Canada Graduate and Postgraduate Scholarships (Doctoral) October 17<sup>th</sup>
- Canada Graduate Scholarships (Masters) **December 2<sup>nd</sup>**
- NOI Chairs for Inclusion in Science and Engineering (Quebec) **December 2<sup>nd</sup>**
- Full Application Chairs for Inclusion in Science and Engineering (Quebec) March 3<sup>rd</sup>



## **Questions?**

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