

## **NSERC-National Science Foundation – Collaboration on quantum science and artificial intelligence**

### **Sponsor**

Natural Sciences and Engineering Research Council (NSERC)

National Science Foundation (NSF)

### **Program**

Collaboration on quantum science and artificial intelligence

### **For More Information**

[NSERC - National Science Foundation - Collaboration on Quantum Science and Artificial Intelligence](#) [1]

Additional important information can be found in the [Dear Colleague Letter](#) [2] (DCL) on the NSF website.

[U of G Guide for Completing the National Security Guidelines for Research Partnerships' Risk Assessment Form](#) [3]

### **Description**

Following the [announcement](#) [4] of the formal partnership between the Natural Sciences and Engineering Research Council of Canada (NSERC) and the [US National Science Foundation \(NSF\)](#) [5], NSERC and NSF are pleased to announce the first joint collaborative research opportunity focusing on discoveries and innovations in the areas of quantum science and artificial intelligence. The work funded through this call is expected to push the boundaries of new knowledge and provide a rich training experience for young researchers. This new NSERC-NSF collaborative research opportunity focuses specifically on discoveries and innovations in the areas of artificial intelligence and quantum science.

Through a lead agency model, US and Canadian research teams will submit a **single** collaborative proposal that will undergo a single review process at the NSF, which will be the lead agency. Canadian academic researchers may receive funding from NSERC, and US researchers may receive funding from the NSF. NSERC funding will be provided as an [Alliance grant](#) [6]. For this collaborative call there is no requirement for partner organizations

or contributions in the Canadian component, and they should not be included in the proposal.

The collaborative opportunity is fully described in the [Dear Colleague Letter](#) [2] (DCL) available on the NSF website. The DCL provides the complete guidelines for the preparation, submission, review and award of NSERC-NSF collaborative research proposals.

## Eligibility

The full requirements are described in the DCL. Proposals must include eligible applicants from both Canada and the US as described below.

### For Canada:

One Canadian university researcher, or a team of Canadian university researchers, who is [eligible](#) [7] to receive NSERC funds can apply.

### For the US:

Please refer to the DCL and to the [NSF website](#) [8].

## Maximum Project Value

Each selected Canada-US project will be jointly funded by NSERC and the NSF, to support the activities of eligible researchers in their respective countries. NSERC's contribution will be awarded to the eligible Canadian applicants in the form of one Alliance grant per successful application, to be administered by the Canadian principal applicant's institution. NSERC's funding is intended to support the activities of the eligible Canadian researchers, and must be used in accordance with the [Tri-agency guide on financial administration](#) [9]. Canadian applicants are only eligible to receive funding from NSERC.

Proposals are expected to adhere to the areas of science, funding limits and grant durations for the NSF-participating programs and NSERC's [Alliance grants](#) [6].

## Project Duration

One to five years

## Special Notes

### COVID-19

Please note that research activities carried out in the context of COVID-19 need to adhere to the University of Guelph COVID-19 research principles, policies, guidelines and processes as they may be updated from time to time and communicated on the [Office of Research web-page](#) [10].

## Deadlines

If College-level review is required, your College will communicate its earlier internal deadlines.

Type

**Internal Deadline**

Notes

Applicant submits a signed OR-5 to [research.services@uoguelph.ca](mailto:research.services@uoguelph.ca) [11]. Canadian Researcher also clicks “submit” in the Research Portal so the LOI appears on the Office of Research server. In order to submit to NSERC eight weeks prior to the planned submission of the full proposal to NSF, **please submit in the NSERC system and submit your OR-5 10 weeks prior to the planned submission, to allow for adequate review time of the LOI and risk assessment form.**

**External Deadline**

Final application will be submitted to NSERC online by the Office of Research Services. Please contact the Office of Research Services if you are invited to submit a full proposal to NSF, with your US Applicant. NSERC will provide an **Invitation to submit** letter to Canadian applicants, which must be appended to the full proposal as a supplementary document submitted to NSF.

## How to Apply

Collaborative research proposals will be accepted to the NSF programs listed in the DCL. Detailed information regarding the NSF programs, application requirements and submission process are described in the [DCL](#) [2] and outlined below.

### Step 1 - Letter of intent

The Canadian researcher or team of researchers must submit a letter of intent (LOI) to NSERC using the [NSERC online system](#) [12] **at least eight weeks prior to the planned submission of the full proposal to the NSF.** The [NSERC eligibility criteria for faculty](#) [13] and the [national security guidelines](#) [14] apply. The LOI must not exceed **three pages**, excluding references, and must respect [NSERC online presentation and attachment standards](#) [15].

- The LOI must outline the research proposed, research teams involved from both

countries and annual estimates of funding to be requested from both the NSF and NSERC (\$CAD).

- The LOI must also include
  - a brief summary of the main objectives and research challenges of the proposed research and the expected outcomes and benefits
  - a plan to foster equity, diversity and inclusion (EDI) within the research and training environment

The LOI and the eligibility of the Canadian researchers will be reviewed internally by NSERC. The plan to foster EDI within the research and training environment is a screening criterion, and only those LOIs that provide a satisfactory EDI training plan will be invited to submit full proposals to the NSF. For guidance, consult the [Equity, diversity and inclusion in the training plan](#) [16] document as well as Alliance grants [Merit indicator 4.2](#) [17].

No changes in the Canadian research team composition are permitted after a LOI is reviewed and approved by NSERC.

- **To start your LOI:**
  - log in to the [online system](#) [12] and choose *Create a new form 101*
  - select *Research partnerships programs*, then *Alliance Grants*
  - for the *Proposal type* field, select *Letter of intent*
  - for the *Type of call* field, select *NSF Quantum Technologies/AI* from the drop-down menu

## **Step 2 - Full proposal (by invitation only)**

Based on the review of your LOI, you may be invited to proceed with a full proposal to the NSF. NSERC will provide an **Invitation to submit** letter to Canadian applicants, which must be appended to the full proposal as a supplementary document. Only proposals that have been invited to submit will be accepted. The [NSERC eligibility criteria for faculty](#) [13] apply. The collaborative proposals must be submitted by US principal investigators to a participating NSF program using the appropriate NSF submission process. **Full applications are not submitted to NSERC.**

If you submit a proposal under this call, you agree that information contained in your proposal will be shared between NSERC and the NSF for purposes consistent with the program objectives. Participants are responsible for ensuring that they are aware of the NSF rules concerning the disclosure of information contained in the proposal. Participants should also ensure they are aware of the policies surrounding NSF programs and [post award policies](#) [18].

The information you provide in your application is collected under the authority of the [Natural Sciences and Engineering Research Council Act](#) [19]. NSERC is subject to the [Access to Information Act](#) [20] and the [Privacy Act](#) [21]. The information you provide is stored in a series of NSERC data banks as described in [Information about programs and information holdings](#) [22]. You must ensure that others listed in the application have agreed to be included.

## **Information For Co-applicants**

If you need to meet a deadline set by the lead institution for this opportunity, please ensure that you provide the Office of Research with at least five days in advance of the lead institution's deadline to review the application, or your proposed component of the project. Please be in touch with the Office of Research (contact information below) ahead of the deadline if it looks like it will be difficult for you to submit all the required documentation on time (i.e. budget, proposal, OR-5 Form).

For Questions, please contact

If you have any questions please contact [RP-Initiatives-PR@nserc-crsng.gc.ca](mailto:RP-Initiatives-PR@nserc-crsng.gc.ca) [23].

## Office of Research

Amy Bossaer, Senior Grants and Contracts Specialist

Research Services Office

[abossaer@uoguelph.ca](mailto:abossaer@uoguelph.ca) [24]

Alert Classifications **Category:**

Funding Opportunities and Sponsor News

## Disciplines:

Health and Life Sciences

Information and Communications Technology

Physical Sciences and Engineering

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## Source

**URL:** <https://www.uoguelph.ca/research/alerts/content/nserc-national-science-foundation-%E2%80%93-collaboration-quantum-science-and-artificial-intelligence>

## Links

[1] [https://www.nserc-crsng.gc.ca/Innovate-Innover/NSERC-NSF-CRSNG\\_eng.asp](https://www.nserc-crsng.gc.ca/Innovate-Innover/NSERC-NSF-CRSNG_eng.asp)

[2] [https://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf22031](https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22031)

[3] <https://www.uoguelph.ca/research/secure/for-researchers/other/university-guelph-guide-completing-national-security-guidelines-research-partnerships-risk>

[4] [https://r20.rs6.net/tn.jsp?f=001gYMUjIGYCAzmulSMBJOXrfbv-t6eqj1KsigDaQxly9-\\_FZ2GSEwCKzPBp3qwn760EV6HFrXWYpdELeHs2szXH9XsoyPWYP7BAw58Y4wJx0K6lUVxvCBwulf\\_cv n2Kz4iDzHkIx2N1ZA9tWI\\_0Wd9oicpe2ROG5PhRXW08rLaE6ATDOGpb37jW7ba2R2MgjMuC79siliz-zZyBD6DPPQUJxr3rrVKJiXsvSe\\_Mhm7zXo=&c=Fd22Pckc3AvI52SXal8Suv8bygtYLWHQw0rT-toPv7HuaoBBA7pHfA==&ch=8DhjN2bRDOt5tOwGOFs\\_5-LWrWOsydvB1pMFvcwHacfRDcpNc8W\\_Cw==](https://r20.rs6.net/tn.jsp?f=001gYMUjIGYCAzmulSMBJOXrfbv-t6eqj1KsigDaQxly9-_FZ2GSEwCKzPBp3qwn760EV6HFrXWYpdELeHs2szXH9XsoyPWYP7BAw58Y4wJx0K6lUVxvCBwulf_cv n2Kz4iDzHkIx2N1ZA9tWI_0Wd9oicpe2ROG5PhRXW08rLaE6ATDOGpb37jW7ba2R2MgjMuC79siliz-zZyBD6DPPQUJxr3rrVKJiXsvSe_Mhm7zXo=&c=Fd22Pckc3AvI52SXal8Suv8bygtYLWHQw0rT-toPv7HuaoBBA7pHfA==&ch=8DhjN2bRDOt5tOwGOFs_5-LWrWOsydvB1pMFvcwHacfRDcpNc8W_Cw==)

[5] [https://r20.rs6.net/tn.jsp?f=001gYMUjIGYCAzmulSMBJOXrfbv-t6eqj1KsigDaQxly9-\\_FZ2GSEwCK0pBwwSYhXhNenW1Gz1a6f\\_v8uPuIU1ISse2r-Q00Ag01i0jHIEYsLbqDPPy2okd-FuMtR-5MFv\\_6X3ZXMciKko=&c=Fd22Pckc3AvI52SXal8Suv8bygtYLWHQw0rT-toPv7HuaoBBA7pHfA==&ch=8DhjN2bRDOt5tOwGOFs\\_5-LWrWOsydvB1pMFvcwHacfRDcpNc8W\\_Cw==](https://r20.rs6.net/tn.jsp?f=001gYMUjIGYCAzmulSMBJOXrfbv-t6eqj1KsigDaQxly9-_FZ2GSEwCK0pBwwSYhXhNenW1Gz1a6f_v8uPuIU1ISse2r-Q00Ag01i0jHIEYsLbqDPPy2okd-FuMtR-5MFv_6X3ZXMciKko=&c=Fd22Pckc3AvI52SXal8Suv8bygtYLWHQw0rT-toPv7HuaoBBA7pHfA==&ch=8DhjN2bRDOt5tOwGOFs_5-LWrWOsydvB1pMFvcwHacfRDcpNc8W_Cw==)

[6] [https://www.nserc-crsng.gc.ca/innovate-innover/alliance-alliance/index\\_eng.asp](https://www.nserc-crsng.gc.ca/innovate-innover/alliance-alliance/index_eng.asp)

[7] [https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Eligibility-Admissibilite/faculty-corpsprof\\_eng.asp](https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Eligibility-Admissibilite/faculty-corpsprof_eng.asp)

[8] [https://www.nsf.gov/pubs/policydocs/pappg19\\_1/pappg\\_1.jsp](https://www.nsf.gov/pubs/policydocs/pappg19_1/pappg_1.jsp)

[9] [https://www.nserc-crsng.gc.ca/InterAgency-Interorganismes/TAFA-AFTO/guide-guide\\_eng.asp](https://www.nserc-crsng.gc.ca/InterAgency-Interorganismes/TAFA-AFTO/guide-guide_eng.asp)

- [10] <https://www.uoguelph.ca/research/>
- [11] <mailto:research.services@uoguelph.ca>
- [12] [https://ebiz.nserc.ca/nserc\\_web/nserc\\_login\\_e.htm](https://ebiz.nserc.ca/nserc_web/nserc_login_e.htm)
- [13] [https://www.nserc-crsng.gc.ca/NSERC-CRSNG/eligibility-admissibilite/faculty-corpsprof\\_eng.asp](https://www.nserc-crsng.gc.ca/NSERC-CRSNG/eligibility-admissibilite/faculty-corpsprof_eng.asp)
- [14] [https://science.gc.ca/eic/site/063.nsf/eng/h\\_98257.html](https://science.gc.ca/eic/site/063.nsf/eng/h_98257.html)
- [15] [https://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/pdfatt2\\_eng.asp](https://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/pdfatt2_eng.asp)
- [16] [https://www.nserc-crsng.gc.ca/\\_doc/alliance/EDI-TrainingPlan\\_e.pdf](https://www.nserc-crsng.gc.ca/_doc/alliance/EDI-TrainingPlan_e.pdf)
- [17] [https://www.nserc-crsng.gc.ca/\\_doc/alliance/Merit\\_Indicators-Alliance\\_Grants\\_e.pdf](https://www.nserc-crsng.gc.ca/_doc/alliance/Merit_Indicators-Alliance_Grants_e.pdf)
- [18] [https://www.nsf.gov/pubs/policydocs/pappg20\\_1/index.jsp](https://www.nsf.gov/pubs/policydocs/pappg20_1/index.jsp)
- [19] [https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Council-Conseil/CouncilAct-LoiSurLeConseil\\_eng.asp](https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Council-Conseil/CouncilAct-LoiSurLeConseil_eng.asp)
- [20] <http://laws-lois.justice.gc.ca/eng/acts/A-1/index.html>
- [21] <http://laws-lois.justice.gc.ca/eng/acts/P-21/index.html>
- [22] <https://www.canada.ca/en/treasury-board-secretariat/services/access-information-privacy/access-information/information-about-programs-information-holdings.html>
- [23] <mailto:RP-Initiatives-PR@nserc-crsng.gc.ca>
- [24] <mailto:abossaer@uoguelph.ca>