

**JOINT EMHSEED AND XSEED CALL FOR PROPOSALS**  
**Expanding research impact through inter-disciplinary collaboration**

**The Joint EMHSeed and XSeed program** is an interdivisional research funding program designed to promote multi-disciplinary research and catalyze new innovative partnerships between a coPI from the Faculty of Applied Science and Engineering (FASE) and a coPI from outside Engineering. Partner divisions for these programs are:

- 1- For EMHSeed: Temerty Faculty of Medicine (FoM), UofT Affiliated Hospitals, Translational Biology and Engineering Program (TBEP), TRANSFORM Heart Failure (TRANSFORM HF), KITE (Knowledge, Innovation, Talent, Everywhere).
- 2- For XSeed: Faculty of Arts and Science (FAS), University of Toronto Mississauga (UTM), University of Toronto Scarborough (UTSC)/EaRTH District Collaborative Research Grant (EDCRG), Dalla Lana School of Public Health (DLSPH), TRANSFORM HF, as well as other UofT Divisions.

FASE is committed to supporting projects that are partnered with Indigenous communities. These include projects that focus on the promotion of Indigenous health. FASE will earmark funding for at least one project that proposes inclusive and culturally safe research on the topic. Please note that all community-oriented projects must clearly demonstrate how communities will be meaningfully engaged in the research, with applicants ensuring a sense of accountability and reflexive allyship in their work.

Funding is available for a maximum of eighteen (18) new collaborative projects corresponding to the following breakdown:

<b>Partner Division</b>	<b>No. of Projects (maximum)</b>
Temerty Faculty of Medicine (FoM)	2
TRANSFORM Heart Failure (TRANSFORM HF)	2*
Translational Biology and Engineering Program (TBEP)	2*
KITE (Knowledge, Innovation, Talent, Everywhere)	2*
Faculty of Arts and Science (FAS)	4 <sup>‡</sup>
University of Toronto Mississauga (UTM)	2
University of Toronto Scarborough (UTSC)/EDCRG**	2
Dalla Lana School of Public Health (DLSPH)	1
Other Partner Divisions <sup>†,‡</sup>	1

\*EMHSeed applications may be considered for funding by [Translational Biology and Engineering Program \(TBEP\)](#), [TRANSFORM Heart Failure \(TRANSFORM HF\)](#), or [KITE \(Knowledge, Innovation, Talent, Everywhere\)](#) if they align directly with the criteria and research goals of these programs. For TBEP: Applications related to cardiovascular digital health (including remote monitoring, point-of-care devices, and implantable sensors) and to systems biology approaches to cardiovascular health and disease will receive priority consideration.

<sup>‡</sup>Two of these projects will be earmarked for FAS Humanities and Social Sciences coPIs.

<sup>†</sup>Letter of support from Other Partner Division is required.

<sup>‡</sup>Includes all other UofT Divisions

\*\*Please visit [EaRTH District Collaborative Research Grant \(EDCRG\)](#) for further information and guidelines. For XSeed-EDCRG proposals, the maximum duration of the project is **one** year.

## PI Eligibility

- 1- Each coPI should be eligible to hold, as PI, tri-council agency grants (NSERC, CIHR, or SSHRC).
- 2- A PI can hold a maximum of one EMHSeed and one XSeed funded project at any point in time.
- 3- One PI should have a primary appointment with an Engineering unit, and one PI should have their primary appointment outside Engineering as outlined below:
  - a. For EMHSeed, one faculty member should have an appointment status at FoM or UofT Affiliated Hospitals, or be affiliated with KITE or TRANSFORM HF;
  - b. For XSeed, one faculty member should have a tenure track appointment status at FAS, UTM, UTSC, DLSPH, or another UofT division, or be affiliated with TRANSFORM HF.

## Application

Successful proposals must address the following criteria:

**(1) A new opportunity.**

Typically, PIs have not previously collaborated – EMHSeed and XSeed seeks to enable new partnerships. Priority may be given to research teams that include one coPI in the first 10 years of their academic career.

**(2) A clear overarching goal.**

The project should have a clear end goal, such as a key finding, a compelling prototype, or a persuasive data set that paves the way for larger funded projects.

**(3) Excellence in research.**

The researchers should provide evidence of established or emerging leadership in their area(s).

**(4) Research proposal and plan.**

The application should describe a clear research project and plan, highlighting its novelty and excellence and how the project aims to address a compelling, important, and unsolved problem. The researchers must show how their interdisciplinary expertise will be effectively united on the project.

**(5) Inclusion of equity, diversity, and inclusion (EDI) and accessibility principles.**

The researchers should indicate how principles of EDI and accessibility will be meaningfully integrated into the project. This can apply to research design (if applicable), team composition, training and recruitment practices, inclusive and equitable lab/environment culture and practices, and/or beneficiaries of the research. See [VPRI's website on EDI in Research & Innovation](#) for definitions and resources on the importance of EDI in research and innovation. If applicable to your research, please include a paragraph describing how you will integrate the relevant concepts, principles and protocols for conducting respectful research with Indigenous Peoples and communities into each stage of the research process. Applicants whose work involves Indigenous communities should demonstrate that they have started building the necessary relationships and partnerships by including relevant letters of support in their application. As one possible example of guidelines, see NSERC's [CCSIF guide for research involving Indigenous Peoples and communities](#).

**(6) A clear plan on collaboration.**

Successful applications should demonstrate how graduate students work together, and how goals and milestones for the students will ensure meaningful partnership. The graduate students will be jointly advised by the coPIs and will work together on an interdisciplinary project focusing on an important problem whose solution will unlock a large partnership or innovation opportunity. The proposal should also demonstrate how research planning, use of space, use of infrastructure, and supervision would all be shared and harmonized across the collaborating teams.

**(7) Compelling annual milestones.**

The project will offer compelling milestones that will form the foundation for continued collaborations and joint funding applications.

**(8) A gateway to a major funded partnership.**

Successful proposals should indicate how the anticipated results of the project will provide the basis of joint grant applications, to be submitted before the 2<sup>nd</sup> year anniversary of their Seed project start, to programs such as CIHR Project Scheme, Genome Canada, ORF-Research Excellence, CIHR Team Grant, CIHR POP, SSHRC

Partnership, NSERC-CIHR CHRP (Collaborative Health Research Project), New Frontiers, DARPA, etc. In addition, coPIs should specify the dates of competitions they intend to apply to.

### **Equity, Diversity and Inclusion**

FASE is strongly committed to diversity in research and especially welcomes applications from racialized persons/persons of colour, women, Indigenous/Aboriginal Peoples of North America, persons with disabilities, LGBTQ+ persons, and others who may contribute to research excellence.

Applicants are asked to complete a [short, anonymous demographic survey](#) to ensure that our programs include considerations for equity, diversity, and inclusion. The questions are voluntary and the information collected will not be used to evaluate any individual or application. It will be collected and held by the Office of the Director of EDI within U of T's OVPRI and shared as de-identified, aggregated information to inform the Joint Seed program's reporting and best practices. The FASE Vice-Dean Research Office will share this aggregate report with the Joint Seed adjudication committees to assess the diversity of applicants and establish best practices. We ask that each coPI complete the online survey ahead of submission. Please see link to the survey in this CFP and in the application form.

### **Budget**

The budget for each Seed project will be \$60,000 CAD/year for two (2) years, starting September 2023 (PIs may request for an early start of May 1, 2023, subject to approval of the partner divisions). In exceptional cases, a no-cost extension for an additional year may be considered.

Typically, each PI's department/institute will contribute \$15,000 CAD/year to the project (letter of support required), with FASE and Partner Divisions each contributing a matching \$15,000 CAD/year for a total of \$60,000/year. Letters of support from the specific Partner Divisions outlined in this call are not required, though PIs from a single-department Faculty should provide a letter of support confirming cash support of \$30,000/year.

### Notes:

- 1- The above-mentioned contributions are cash contributions, i.e., the contributors must all explicitly agree to transfer the funds in support of the project into the PI account.
- 2- The above contributions will be conditional on success in the adjudication process.
- 3- Additional in-kind support, on top of and beyond the cash contributions, may also be expressed in the letters of support and will be taken into consideration in the adjudication process.
- 4- Ethics approval and other regulatory approvals, as required, should be in place ahead of the project start date.

### **Use of funds**

This funding will prioritize the use of funds to support the stipend and research expenses of one graduate student earning a degree in an Engineering unit and one graduate student (or in exceptional cases, one PDF) in the Partner Division.

### **Submission process**

Applications including all supporting documents are due by email to [director.research@engineering.utoronto.ca](mailto:director.research@engineering.utoronto.ca) by **12:00pm on Monday, March 6, 2023**. Please include the term Joint Seed in the subject line. A list of past EMHSeed and XSeed projects is also available on the FASE Research Hub which is accessible with your UTORid and password: <https://hub.engineering.utoronto.ca/research-services/fase-call-for-proposals/>

Submissions should include the following: 1) completed application form, 2) letters of support confirming cash contributions from each of the collaborating departments/institutes, 3) Short CVs of co-PIs. **Please limit your CV to 3 pages.**

**Adjudication process:**

An adjudication committee composed of representatives from FASE and Partner Divisions will review proposals received by the submission deadline against program criteria. Decisions will be reported by the end of April 2023.

**Reporting:**

A final report must be completed and will be due upon the completion of the project.