

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

The Joint EMHSeed and XSeed 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, Medicine by Design (MbD), Translational Biology and Engineering Program (TBEP) Knowledge, Innovation, Talent, Everywhere (KITE)
- 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), as well as other UofT Divisions.

Funding is available for a maximum of seventeen (17) new collaborative projects corresponding to the following breakdown:

Partner Division	No. of Projects (maximum)
Temerty Faculty of Medicine (FoM)	2
Medicine by Design (MbD)	1*
Translational Biology and Engineering Program (TBEP)	2*
Knowledge, Innovation, Talent, Everywhere (KITE) ^ε	2*
Faculty of Arts and Science (FAS)	4 [‡]
University of Toronto Mississauga (UTM)	2
University of Toronto Scarborough (UTSC)/EDCRG [§]	2
Dalla Lana School of Public Health (DLSPH)	1
Other Partner Divisions ^{†,‡}	1

*EMHSeed applications may be considered for funding by CFREF [Medicine by Design](#) , [Translational Biology and Engineering Program \(TBEP\)](#)[‡], or [Knowledge, Innovation, Talent, Everywhere \(KITE\)](#) 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.

^{*}Two of these projects will be earmarked for FAS Humanities and Social Sciences coPIs.

[†]Letter of support from Other Partner Division is required.

[‡]Includes all other UofT Divisions

^εFor KITE/CRANIA projects, a letter of support is required only from FASE department/institute. For 2022 KITE allocation of awards, there is a preference for projects related to the Center for Advancing Neurotechnological Innovation to Application (CRANIA).

[§]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;
 - b. For XSeed, one faculty members should have a tenure track appointment status at FAS, UTM, UTSC, DLSPH, and other UofT divisions.
- 4- For KITE supported projects, at least one PI should be a CRANIA member. Additionally, for administrative processing CRANIA coPIs may be required to have a KITE appointment to allow for fund disbursement.

Application:

Successful proposals must demonstrate the following criteria:

(1) A new opportunity.

Typically, PIs have not previously collaborated – EMHSeed and XSeed seeks to enable new partnerships.

(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); and should show how their expertise will compellingly be united to solve an important, unsolved, interdisciplinary problem.

(4) 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.

(5) Compelling annual milestones.

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

(6) 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 2nd 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.

Budget:

The budget for each Seed project will be \$60,000 CAD/year for two (2) years, starting September 2022 (PIs may request for an early start of May 1, 2022, subject to approval of the partner divisions). In exceptional cases, a no-cost extension for an additional year may be considered. The \$60,000 CAD/year amount for each project is the sum of total cash invested by each of the participating Faculties and departments/institutes.

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- For PIs from a single-department Faculty, one letter of support indicating the cash support of \$30k/year will suffice

5- Ethical 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 vdr@engineering.utoronto.ca by **12:00pm on Monday, March 7, 2022**. Please include the term Joint Seed in the subject line. A list of past EMHSeed and XSeed projects is also available on FASE intra-net that 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 (attached), 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 Partner Divisions will review proposals received by the submission deadline against program criteria. Decisions will be reported by the end of April 2022.

Reporting:

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