



The Mats Sundin Fellowship in Human Developmental Health

Karolinska Institutet and University of Toronto



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About the Mats Sundin Fellowship (MSF)

With a generous gift from Mats Sundin (former captain of the Toronto Maple Leafs), the University of Toronto (U of T) and the Karolinska Institutet (KI), Stockholm, Sweden established a fellowship program designed to provide advanced postdoctoral training and scientific exchange in order to develop future health leaders in both Canada and Sweden. This program is managed by the Department of Physiology at U of T and the International Relations Office at KI.

Doctoral student graduates or junior postdoctoral fellows (a maximum 3 years from graduation when starting the fellowship) from U of T can apply to engage in a research project with a host lab at KI. In addition, KI doctoral student graduate, or junior postdoctoral fellows (a maximum of 3 years from graduation when starting the fellowship) can apply for a fellowship to engage in a research project with a host PI (supervisor) at a host lab at U of T (or The Toronto Academic Health Science Network –affiliated Research Institute).

Area of Research

The field of human developmental health is broadly focused on understanding how conditions and diseases of childhood and adulthood can be traced to conditions/exposures within the first 2,000 days of life (conception onwards). Research in this field seeks to understand the origins of diseases such as obesity and diabetes, cardiovascular disease, neurocognitive disorders, and cancer, and to identify ways to reverse or prevent these diseases/conditions. By its nature, this transdisciplinary field is broad, including but not limited to developmental biology (including maternal–child health), neuroscience, psychology, cardiovascular and metabolic sciences, cancer biology, stem cell biology, and regenerative medicine.

Fellowship Details

Interested trainees from the KI will receive a list of participating Faculty PIs at the U of T and TAHSN affiliated research institutes. Interested trainees from U of T will receive a list of participating Faculty PIs at the KI. Trainee applicants will then contact the Faculty PI in Toronto or at the KI with whom they would like to submit an application. Together, the host PI and the candidate will develop a joint project proposal. Faculty PIs may only submit one proposal.

The goal of this program is to train the brightest minds in human development and health. We are seeking a highly talented and innovative researcher with a PhD (or soon to graduate) in developmental biology (including maternal-child health), neuroscience, psychology, cardiovascular and metabolic sciences, cancer biology, stem cell biology, or regenerative medicine.

In addition to assessing the project proposals, the MSF selection committee will evaluate the fellowship candidates. For example, excellent communication skills will be emphasized, as the MSFs will act as ambassadors for research in the field at the highest level for both KI and the U of T. The MSFs are expected to present their work at the Annual Exchange workshop in Developmental and Perinatal Biology, which takes place annually in Stockholm or Toronto.

Proposals will be assessed by a joint U of T and KI selection Committee, and the fellow candidates from the highest ranked applications will be interviewed.



Photo by Liza Simonsson

Eligibility for MSF

- Currently affiliated or employed as a Doctoral Student or Post-doctoral Fellow (or similar position) at the University of Toronto/affiliated teaching hospitals or at Karolinska Institutet.
- Have completed their Doctoral (PhD) degree within three (3) years before starting the MSF, the latest date to start the fellowship is July 1, 2026.

Duration of Fellowship and Program Assessments

These highly prestigious fellowships will be held for a maximum duration of 2-years with a competitive salary. Applicants will complete a progress report after 1 year, that will be reviewed by the MSF selection committee. It is expected that the MSFs will present their work at the Annual Exchange workshop in Developmental and Perinatal Biology, which alternates annually between Toronto and Stockholm.

Awardees will be expected to abide by the policies of the institution where they are employed.

Applications Guidelines

Fellow candidates must:

- Identify the PI from the faculty list with whom they wish to submit their application and contact them directly. The Toronto Program Director (Professor Stephen Matthews, stephen.matthews@utoronto.ca) must be notified as soon as you have the agreement of your proposed KI supervisor to sponsor your proposal. The KI Program Director (Associate Professor Kristiina Tammimies, kristiina.tammimies@ki.se) must be notified as soon as you have the agreement of your proposed U of T supervisor to sponsor your proposal.
- Submit a completed proposal. It is important that applicants work with their proposed supervisors in development of the proposal. The proposal shall be submitted to the university of the PI.
- The final application must be signed by:
 - Applicant
 - Proposed supervisor/PI
 - Head of Department/Unit at the UofT/KI where research will be undertaken
- Short-listed applicants will be interviewed by the Selection Committee.

Full Application Details:

1. Project outline (max: 2 Pages)
 - a. Must include: 1. Rationale, 2. Objectives, 3. Hypothesis, 4. Specific Aims and Experimental Design, 5. Significance
2. Lay summary of project (max 250 words)
3. Training expectations and career goals: (max 2,000 characters); description of how the applicant will benefit from the program and their specific career goals.
4. Description of research training environment (max 2,000 characters); to be completed by supervisor
5. Current CV of the applicant and of faculty PI supervisor (2 pages each)
6. Full publication record for the potential fellow
7. The ten most important publications for the topic for the host PI
8. Two (2) letters of reference:
 - a. One must be from your PhD supervisor
 - b. If already in a postdoctoral position: a letter is required from your current postdoctoral supervisor. Otherwise, the letter should come from a senior researcher familiar with your recent research progress.

All text must be in 12-point font, with a minimum of 2 cm margins. Text must be single-spaced and there should be no text compression. Applications that are incomplete and do not follow these guidelines will not be considered. The KI applications should be submitted as a single PDF to Lotta Lundqvist, lotta.lundqvist@ki.se, September 2, 2025.

The UofT applications should be submitted as a single PDF to Hafsah Mughis, hmughis@lunenfeld.ca, by September 2, 2025

Criteria for Decision

The following general criteria for evaluating the MSF applications will be used:

- Achievements and activities of the applicant
- Quality and feasibility of the proposal and relevance to the field of developmental health
- Characteristics and abilities of the applicant. Particular emphasis will be placed on excellent communication skills
- Research environment

Program Timeline:

The approximate timeline for fellowship applications, reviewing, and the start date of awards:

Announcement to PIs	May 22, 2025
PI Interest application deadline	June 11, 2025
Announcement of Program to fellowship candidates	June 27, 2025
Full Application submission deadline	September 2, 2025
Notification of successful Awardee	End of October, 2025
Announcement of the granted applications and the new MSFs	October– November, 2025
Fellowship should be started at the latest by	1 July, 2026

For questions regarding labs, PI's or general questions regarding University of Toronto

Contact information

Hafsah Mughis, Research Coordinator

E-mail: hmughis@lunenfeld.ca

Contact information

Lotta Lundqvist, International Coordinator

E-mail: lotta.lundqvist@ki.se

Kristiina Tammimies, Senior Lecturer and Docent

E-mail: kristiina.tammimies@ki.se

Karolinska Institutet is one of the world's leading medical universities. Our vision is to advance knowledge about life and strive towards better health for all. Karolinska Institutet accounts for the single largest share of all academic medical research conducted in Sweden and offers the country's broadest range of education in medicine and health sciences. The Nobel Assembly at Karolinska Institutet selects the Nobel Laureates in Physiology or Medicine.



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