

CANHEART SPOR Graduate Student Program

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Competition is Closed

Description of the research program:

The CANHEART 'big data' research initiative (www.canheart.ca) is aimed at measuring and improving cardiovascular health and the quality of ambulatory cardiovascular care provided in Ontario, Canada using the population-based CANHEART cohort. The CANHEART cohort is created through the linkage of 17+ routinely collected health administrative, vital statistics, survey and laboratory databases housed at the Institute for Clinical Evaluative Sciences (<https://www.ices.on.ca>). The strength of this cohort lies in the large sample size, containing information on 9.8 million Ontarians age 20-105 years, and diversity of the linked databases.

Building upon the insights gained to date through the CANHEART work, we have also recently launched a new CANHEART SPOR project aimed at leveraging big data to conduct innovative cardiovascular clinical trials. We will aim to: 1) undertake a pragmatic cluster randomized registry-based clinical trial to improve lipid-management amongst intermediate-and high-risk patients residing in high-risk health regions in Ontario, and 2) develop novel algorithms for measuring clinical outcomes in clinical trials using health-related databases and compare whether they are as accurate as traditional event ascertainment methods. These projects will be undertaken by an interdisciplinary team consisting of experts in administrative health databases, implementation science, clinical trials, knowledge translation and patient engagement.

Students will have opportunities to support both the CANHEART and CANHEART SPOR initiative. Potential options for research projects and programs include, but are not limited to:

- Quantitative studies examining the association between patient, community and health system factors, and the incidence of cardiovascular health outcomes.

- Studying lipid management in the province (e.g., lipid screening, cardiovascular risk assessment, statin utilization and adherence to the Canadian Cardiovascular Society's lipid guidelines), including knowledge translation activities and qualitative studies in these areas.
- Working with the study team to develop novel algorithms for identifying clinical outcomes (e.g., myocardial infarction, heart failure) using health administrative data (e.g., hospitalization, emergency department), laboratory data (e.g., Ontario Laboratory Information System), and clinical registries (e.g., CorHealth cardiac procedures).
- Development of novel methods for using 'big data' to conduct clinical trials.

For application details and forms, please visit:

<http://hsrlice.utoronto.ca/canheart-spor-studentship-program/>

Students and their supervisor are encouraged to send a brief summary of their proposed project to the CANHEART office (tara.oneill@ices.on.ca) in advance of the deadline for a review of the relevance of their project to the CANHEART SPOR initiative. Requests for reviews should be submitted to CANHEART by Friday March 30th, 2018.