



**OICR Biostatistics Training Initiative
Studentship/Fellowship Award**

**Applicant Guide
November 2018**

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1. Introduction

Recent technological advances have led to far more complex and much larger datasets in cancer research. Powerful quantitative methods are required to enable the detection of important signals from these data and to gain insight into causal mechanisms of disease. There is a critical need for biostatisticians who can work with these data, ensuring it can be used to develop the next generation of cancer treatments. Moreover, novel statistical considerations and expertise in clinical trial methodologies are required to make the enterprise of clinical trials more effective.

Since 2010, the Ontario Institute for Cancer Research (OICR) Biostatistics Training Initiative (BTI) has placed statistics Master's students from the University of Waterloo in internships with mentors at Ontario cancer research centres. Based on the success of the program in its first five years and feedback from the Ontario research community regarding its continued need for training, expertise and placement, the initiative was expanded in 2016 to enhance the depth and breadth of biostatistics training in Ontario by engaging a broader group of trainees, including doctoral students and postdoctoral fellows.

2. Objectives

The primary objective of the BTI Fellowship Program is to support the training of the next generation of biostatisticians in the province, ensuring they are equipped with the technical knowledge, skillset and capability for the application of rigorous quantitative methods for cancer research. Through the receipt of a BTI Studentship/Fellowship Award, biostatistics or statistics doctoral students and postdoctoral fellows at an Ontario university will engage in interdisciplinary, collaborative cancer research with investigators located at an Ontario Host Institution.

3. Definitions

Host Institution:

A Host Institution is the institution that will administer the Studentship/Fellowship award funds. Eligible Host Institutions include any Ontario university or research institute with a biostatistics program. OICR will establish a formal agreement with the Host Institution detailing the terms and conditions governing the Studentship or Fellowship Award.

Biostatistics supervisor:

OICR BTI doctoral students or postdoctoral fellows will receive supervision from a faculty member in biostatistics or statistics with a strong background in cancer research.

Eligible applicants:

Applicants may apply for a BTI Studentship/Fellowship Award if they meet any of the following criteria:

1. **Doctoral students:** Applicants may apply if they are currently enrolled in the second or higher year of a biostatistics or statistics doctoral program at an Ontario university; or



2. **Postdoctoral fellows:** Applicants may apply if they are a current Postdoctoral Fellow in Ontario or an individual beginning a postdoctoral position in Ontario within six months of the application deadline; fellows must have completed doctoral training in biostatistics or statistics.

4. Amount and duration of awards

Up to four Studentship/Fellowship awards will be available, each for \$15,000 per year for up to two years. Award funds must be used to support a doctoral student or postdoctoral fellow conducting biostatistical or statistical research that has an application to a problem in oncology.

Postdoctoral fellows are strongly encouraged to seek leveraged funds from CANSSI at <http://www.canssi.ca/research-and-training-opportunities/canssi-postdoctoral-fellowships/>

During the term of the award, annual progress reports, developed by the award recipients, must be submitted to OICR. Year two funds will not be disbursed until receipt of progress reports demonstrating satisfactory progress in meeting the research and training objectives.

Doctoral students/postdoctoral fellows supported by the BTI award are expected to attend at least one scientific conference/meeting a year and regularly attend and participate in the BTI seminar series (information available at <https://oicr.on.ca/biostatistics-training-initiative/>), to share experience, foster collaboration among fellows and explore / develop opportunities for working across multiple projects where appropriate. Award recipients will be guests at OICR's Scientific Meeting, which is held every two years. This can be counted toward the conference requirement.

5. Application information

An electronic copy of the application is due by **5 p.m. EST on January 31, 2019** to teresa.petrocelli@oicr.on.ca.

All sections of the application are mandatory. Using Microsoft Word or a similar program, complete all sections using Verdana font, 10 points, single spaced.

The following material must be submitted:

- **Form I:**
 - A.1: Applicant contact information;
 - A.2: Host Institution administrative authority contact information, to be completed and signed by the applicant's Host Institution contact;
 - A.3: Biostatistics or statistics supervisor contact information and letter of support:
 - Letter must commit to providing formal mentorship during the Award term and describe in detail the mentoring and supervisory activities;
 - A.4: Referee contact information and letter of support:
 - Letter must attest to the applicant's academic ability;

- A.5: Applicant’s biosketch (maximum one page) and curriculum vitae (CV):
 - Biosketch should include statement of interest and long-term career plan;
 - CV should outline training, awards, and list of publications;
- A.6: Research objectives and training plan for the duration of the Award term (maximum three pages).

6. Application evaluation

6.1 Steering Committee

A Steering Committee (SC) has been established to i) promote the program and solicit applications, ii) review fellowship applications and make funding decisions, iii) record and promote achievements of this program; and iv) conduct mid-term ‘check-ups’ to ensure research plans are on course and proper mentorship is being received. The committee consists of Co-chairs, with expertise in biostatistics, and additional members with expertise in both oncology and biostatistics.

6.2 Evaluation criteria

SC members will evaluate applications on the following criteria:

- Scientific excellence of the proposed research plan, with a particular emphasis on the potential of the research to impact cancer research in Ontario;
- Potential for proposed research plan to lead towards innovations and/or developments in biostatistical methodology;
- Training and mentorship plan in place and demonstrated commitment of the Host Institution and the biostatistics supervisor to support a training environment for research and professional development;
- Existing infrastructure support for the research objectives;
- Fit with the OICR’s Strategic Plan and translational research priorities, as outlined at <https://oicr.on.ca/reports/>; and
- Academic ability of the identified doctoral student or postdoctoral fellow.

Using the scoring guidelines below, SC members will provide ratings for Ability and Research Proposal. Only applicants with a score of above 3.7 in each of the two categories will be considered for an award. However, scores of above 3.7 do not automatically guarantee an award.

	Ability
4.5-5.0	Outstanding student/fellow with extremely strong potential to be a future leader in the field.
4.0-4.4	Excellent student/fellow with strong potential to be a future leader in the field.
3.5-3.9	Very good student/fellow with a potential to be a strong biostatistician in the future.
3.0-3.4	Good student/fellow with a potential to be a competent biostatistician in the future.
<3.0	Student/fellow needs further development in order to become a competent biostatistician in the future.

Research Plan	
4.5-5.0	Research plan will lead towards cancer research innovations and biostatistical/statistical methodologies; it is in line with OICR's strategic plan or translational research priorities.
4.0-4.4	Research plan is very likely to lead towards cancer research innovations or biostatistical/statistical methodologies; it is in line with OICR's strategic plan or translational research priorities.
3.5-3.9	Has potential to lead towards cancer research innovations or biostatistical/statistical methodologies; is moderately related to OICR's strategic plan or translational research priorities.
3.0-3.4	Research plan has potential to lead towards cancer research innovations or biostatistical/statistical methodologies; although weakly related to OICR's strategic plan or translational research priorities, it is related to development of cancer research.
<3.0	Research plan is unlikely to lead towards cancer research innovations or biostatistical/statistical methodologies; unrelated to OICR strategic plan or translational research priorities.

In addition, SC members will be asked to evaluate the membership plan by providing comments on:

- Training and mentorship plan;
- Level of commitment from host institution and biostatistics supervisor to support a training environment for research and professional development; and
- Strength of existing infrastructure support to support research plan.

7. Contact information

For any questions please contact Teresa.petrocelli@oicr.on.ca