



CIRTN-R2FIC Training Program

1. Contact

For program questions please contact Chris Peacocke (crpeacoc@ualberta.ca).

Information relating to the CIRTN-R2FIC network can be found at <https://islets.ca>.

2. Summary

With funding from the Natural Sciences and Engineering Research Council – Collaborative Research and Training Experience (NSERC-CREATE) program and JDRF Canada, CIRTN-R2FIC is happy to accept applications into an expanded training program which leverages our national network, industry stakeholders, and international partnerships. Graduate students at both the MSc and PhD levels, and postdoctoral fellows are welcome to apply. MSc applicants planning to transfer to a PhD program are welcome, as are applicants intending to enter an MSc, PhD or postdoctoral program by January 2023.

Successful applicants will receive **up to 50% stipend support for two years** with the expectation of matching funds from other sources. Most CIRTN-R2FIC member institutions have committed to providing some matching funds. Ask your institution, supervisor, or CIRTN-R2FIC program coordinator if matching funds have been committed by your home institution. Successful applicants will also receive **funding for national/international placements or industry internships**, and access to national meetings and networking events. Additional program requirements are outlined below.

3. Dates and Application

Registration for potential applications is **due September 4th, 2022 by 11:59 PM MT**. This will include supervisor and contact information, in order to facilitate the recruitment of an appropriate reviewer pool.

Applications will open Sept 5th, 2022, and are **due September 18, 2022 by 11:59 PM MT**. Expected notice of decision is early November, 2022. Funding and entry into the program will begin in January 2023.

Instructions and application form can be found at <https://islets.ca/create/>.

4. Eligibility

Applicants must currently be training, or plan to train, in a **CIRTN-R2FIC member laboratory** on an islet-related project. Each CIRTN-R2FIC member laboratory may submit a maximum of three (3) applicants, and no more than two (2) applicants per category (MSc, PhD, postdoctoral). A list of research groups can be found at (<https://islets.ca/member-labs/>). Trainees currently at the MSc, PhD and postdoctoral levels, or expecting to enter one of these streams in January 2023, are welcome to apply. It is expected that applicants should have at least 2 years of training remaining, in order to complete the CIRTN-R2FIC-CREATE program objectives.

5. Funding Levels and Duration

Entry into the CIRTN-R2FIC-CREATE trainee program will include **two years** of stipend support, as outlined below:

- \$13,000/yr for two years for MSc students
- \$17,500/yr for two years for PhD students (**some may be funded at 100% upon recommendation of the review committee and approval by the CIRTN Leadership Group*)
- \$22,500/yr for two years for postdoctoral fellows

It is required that the applicant's supervisor, institution, or other source commit to AT LEAST matching these amounts in stipend support to the trainee. As part of the CIRTN-R2FIC-CREATE program, several member institutions have already committed to providing matching support for one or more trainees. ***We suggest applicants contact their supervisor, institution, or the CIRTN-R2FIC program coordinator (see section 1 above) to determine whether such matching has been committed.***

In the case a successful CIRTN-CREATE trainee applicant receives a provincial, national, or international-level studentship or fellowship award they will be expected to accept that award. In these cases, the CIRTN-CREATE program will provide top-up funding of \$2,000/yr and trainees will also retain the research/travel funding outlined below.

It is expected that trainees receiving such external funding will remain part of the CIRTN-CREATE training program, retaining access to (and completing) the training objectives outlined below, including an exchange or internship period.

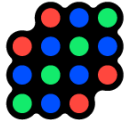
All trainees will receive a financial contribution towards training and placement to cover the costs of travel and housing associated with the CIRTN-R2FIC-CREATE program. These will be:

- \$5,000 total for MSc students
- \$8,000 total for PhD students
- \$8,000 total for postdoctoral fellows

This funding is to be used specifically in support of the research placement or industry internship component of the CIRTN-R2FIC-CREATE program, outlined in section 10.b and may be administered by CIRTN-R2FIC (rather than home institution) on behalf of the applicant, depending on local funding guidelines and procedures (i.e. CIRTN-R2FIC may pay directly for, or provide subsequent reimbursement for, relevant expenses).

6. JDRF Canada Funding Stream

CIRTN-R2FIC has partnered with JDRF Canada to increase the total number of trainees funded as part of the first cohort entering the CIRTN-R2FIC-CREATE program in 2023. As such, some successful applicants will be supported by funding from JDRF Canada, or a combination funding from CREATE/JDRF Canada. Regardless of source, training program objectives and requirements remain the same. Note however, ***trainees funded by JDRF Canada must be working in an area that is relevant to type 1 diabetes.*** We encourage applicants to consider that most islet-related research is relevant to type 1 diabetes.



For those who wish to be considered for support via the JDRF Canada Funding Stream, please be aware that application information (including the proposed project description) may be shared with JDRF Canada for the purposes of determining eligibility. As per their privacy policy, JDRF Canada will not share any confidential information with outside parties (<https://www.jdrf.ca/privacy-policy/>). JDRF Canada may make public the names and project titles and may request additional information for any projects funded in part by JDRF Canada. Please note that JDRF Canada will not retain any ownership of intellectual property as a result of funding through this stream. Trainees funded through the JDRF Canada Funding Stream will have the opportunity to participate in JDRF trainee virtual meetings and seminars, together with international JDRF trainees.

7. Evaluation Procedure and Criteria

Applications will be assessed by a review committee, established in conjunction with the CIRTN-R2FIC Mentorship Working Group (islets.ca/careers/). The size and composition of the review committee will depend on the number and composition of pre-registrations received. Assessment criteria will include the following:

- Research Experience including prior training, awards and accomplishments
- Research Contributions including outputs and other relevant contributions
- Research Project including feasibility, novelty, and potential impact
- Research Potential including impact on career development and training expectations, and letters of reference (if applicable)

Based on review scoring, applications will be ranked within career stage categories (i.e. MSc, PhD, postdoctoral), and final rankings will be determined upon a virtual meeting of the review committee. Upon completion of the competition, applicants will not receive their ranking but will receive written feedback.

Applications indicating a request to be considered for funding via the JDRF Canada Stream will be screened for relevance to type 1 diabetes (T1D) and may be subject to review for relevance-only by JDRF Canada.

Final decisions on funding will be made by the CREATE Academic Committee, based on ranking/recommendation of the review committee and funds available in both the CREATE and JDRF Canada-funded program streams.

8. Reporting

Each trainee, in concert with their external mentor (see section 10.a) will be required to provide an annual progress report to CIRTN-R2FIC outlining participation in and contribution to the CIRTN-R2FIC-CREATE program as well as progress in research project activities. This will be due at the end of the first and second year of the program.

For trainees funded under the JDRF Canada Stream, these reports will be shared with JDRF Canada for information purposes only.

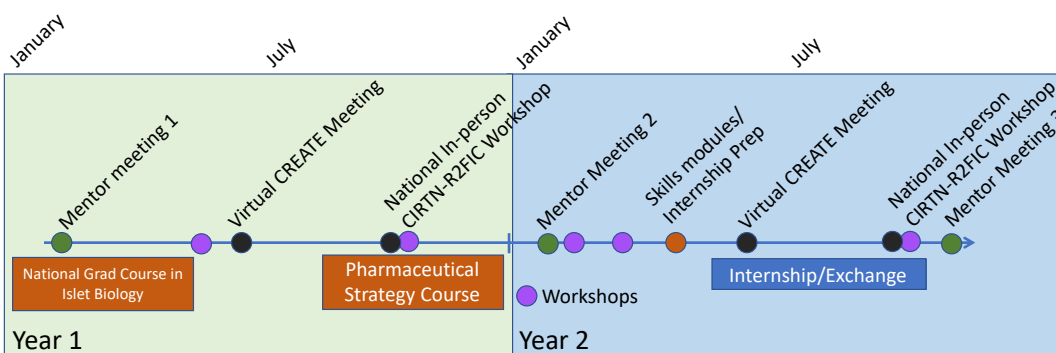
9. Parental and Medical Leave

CREATE stipend holders are eligible for NSERC family and medical leaves. See NSERC's policy on family and medical leaves for more details (https://www.nserc-crsng.gc.ca/NSERC-CRSNG/policies-politiques/Wleave-Fconges_eng.asp).

10. Training Program and Expectations

Both applicants (trainees) and their supervisors must indicate that they are aware of, and agree to, the program expectations outlined below:

The CIRTN-CREATE training program is designed to provide enhanced training opportunities that include mentoring from an external advisor, participation in online and virtual courses, workshops and networking events, a yearly in-person national meeting, and a research exchange (see below). It is expected that all CIRTN-CREATE trainees will participate in the program as outlined in the timeline below (**individualization of the below timeline is possible*).



Participation requirements are outlined in the table below:

Deliverable	List of curriculum elements	Mandatory? (Yes/No/Optional/Choose 1 element)
CREATE Mentor Meeting	Welcome Meeting - Program Development Follow-up and Exit Meetings	BSc (N); MSc (Y); PhD (Y); Postdoc (Y) BSc (N); MSc (Y); PhD (Y); Postdoc (Y)
Courses	National Graduate Course in Islet Biology Pharmaceutical Strategy Course Skills-based Training Modules	BSc (N); MSc (Y); PhD (Y); Postdoc (C) BSc (N); MSc (O); PhD (C); Postdoc (C) BSc (O); MSc (O); PhD (C); Postdoc (C)
Workshops	Advocacy/Policy Regulatory Affairs Communication Equity, Diversity, and Inclusion Business Development Journal Club	BSc (N); MSc (Y); PhD (Y); Postdoc (Y) BSc (N); MSc (Y); PhD (Y); Postdoc (Y) BSc (N); MSc (Y); PhD (Y); Postdoc (Y) BSc (N); MSc (Y); PhD (Y); Postdoc (Y) BSc (N); MSc (Y); PhD (Y); Postdoc (Y) BSc (Y); MSc (Y); PhD (Y); Postdoc (Y)
Meetings	Virtual End of Summer CREATE Meeting In-Person National Islet Workshop	BSc (Y); MSc (Y); PhD (Y); Postdoc (Y) BSc (N); MSc (Y); PhD (Y); Postdoc (Y)
Internship/Exchange	Industry Internship International Exchange (Stanford, Vanderbilt) Canada Research Exchange (CIRTN-R2FIC)	BSc (N); MSc (C); PhD (C); Postdoc (C) BSc (N); MSc (N); PhD (C); Postdoc (C) BSc (N); MSc (C); PhD (C); Postdoc (C)
EDI	Sex and Gender in Research Online Training EDI Workshop	BSc (Y); MSc (Y); PhD (Y); Postdoc (Y) BSc (O); MSc (Y); PhD (Y); Postdoc (Y)

**note: applicants who may have completed some of the above requirements prior to starting in the CIRTN-R2FIC program, are not required to repeat them.*

***note: for requirements listed 'C' applicants will choose 1 amongst the options in that category marked as 'C'.*



10.a. Mentorship

Upon entry into the program, each CIRTN-R2FIC CREATE trainee at the graduate and postdoctoral level will be assigned a mentor from within CIRTN-R2FIC, but external to their direct research group to meet at program start to set individual goals, timelines, expectations and opportunities. At this point, individualization of program will be discussed, and implemented together with input from the CIRTN-R2FIC-CREATE program manager as needed. Subsequent meetings at the end of the first and second years will review training progress, provide constructive feedback, and receive program feedback from the trainee. Meetings will take place virtually or in-person.

10.b. Training

We have initiated two complementary courses in Islet Biology and Pharmaceutical Strategy, and one module-based self-paced skills-training program. Please refer to the table above for specific requirements.

National Graduate Course in Islet Biology: A national for-credit graduate course housed within the Department of Biochemistry at the University of Toronto. CIRTN-R2FIC-CREATE graduate students will participate in this course, and CIRTN-R2FIC-CREATE postdoctoral fellows will have registration fees waived. This one-semester course features classes led by over 20 CIRTN-R2FIC scientists, and includes senior post-doctoral trainees as lecturers, maximizing exposure of trainees to CIRTN-R2FIC scientists and for fellows to gain lecturing experience (whether a CIRTN-R2FIC-CREATE postdoctoral fellow participates as a lecturer or learner in this course will depend upon prior experience).

Pharmaceutical Strategy Course: Through a partnership with the Rotman School of Business at the University of Toronto CIRTN-R2FIC CREATE trainees will enroll in a course offered to students in the Executive MBA in Life Sciences. Taught by W. Mitchell, a Professor of Strategic Management at Rotman and faculty associate of Rotman Centre for Health Sectors Strategy, this one-semester course will provide background about global pharmaceutical firms and the pharmaceutical value chain, and strategic and policy challenges and opportunities that people face along the pharmaceutical global value chain. It will concentrate on factors important to pharmaceutical firms and other stakeholders, including research intensity, marketing investments, ties to the health care system, and the critical role of government regulations and policy. During the course, we will consider the perspective of established firms as well as new entrants and potential entrants to the industry. Course fees for CIRTN-R2FIC-CREATE trainees will be paid by the CREATE program.

Skill-based Module Training and Internship Preparation: A modular online training resource emphasizing information relevant to CIRTN-R2FIC CREATE trainees that will expose them to aspects of biotech research, project management, etc. The goal is to provide some knowledge and preparation to our trainees before they step into their internships and will include islet-focused modules such as: Principles of Translational Islet Research; Intellectual Property,

Technology Transfer; Quality Assurance; Regulatory vs non-regulated research; Introduction to GLP, GCP, GMP; Financing R&D, Attracting Investment.

Workshops: A series of workshops ranging from 1 hr to half-day long will introduce trainees to topics in advocacy, policy, regulatory affairs, business development, and communication. These will be either virtual or in-person at our National In-person CIRTN-R2FIC meeting and postdoctoral CIRTN-R2FIC trainees will participate in all workshops throughout their program. Workshops may include (*subject to change):

Advocacy/Policy: A 1-hr virtual workshop on how to advocate effectively.

Regulatory Affairs: A half-day virtual workshop on regulatory affairs offered with contributions from *Health Canada, industry partners, and the Alberta Diabetes Institute* Topics will include regulatory arm structure of *Health Canada*, regulatory policy-making, clinical trials design, and pharmaceutical and device approval.

Communication: Communication and effective knowledge dissemination across a range of media (writing, podcasts, videos, interviews) to other scientists, industry partners and the public. A half-day virtual workshop will include presentations from communications professionals.

Equity, Diversity and Inclusion: The CIRTN-R2FIC EDI Committee will lead a 2-hour in-person workshop addressing best practices in the inclusion of biological sex as a variable in cell, tissue, or animal research. This will compliment ongoing EDI training.

Business Development and Industry: A half-day workshop to introduce CIRTN-R2FIC trainees to aspects of biotechnology and pharmaceutical business development and strategic approaches.

Meetings and Networking: We will host two annual meetings, one virtual and one in-person, to provide opportunities in presentation, discussion, and match-making for exchanges:

An “*End of Summer Virtual CIRTN-R2FIC-CREATE Meeting*” will be hosted over a 1/2-day in late August each year via Zoom, limited to CREATE-funded trainees and partners to welcome and introduce incoming CREATE trainees; allow CREATE Undergraduates to present their summer work; allow Mid- and end-of-program CREATE trainees to present and Chair sessions; and for industry and academic partners to present opportunities for internship and exchange match-making.

A “*National In-person CIRTN-R2FIC Trainee-focused Meeting*” will be held annually. We will incorporate opportunities for student presentation and networking with industry partners. CIRTN-R2FIC-CREATE trainees will participate in CREATE-specific in-person workshops (above). All industry partners will be invited to send representatives, and host booths. CIRTN-R2FIC CREATE trainees will have the benefit of registration paid by the CREATE award. Currently, this meeting is held in conjunction with the Diabetes Canada national meeting.

EDI Training: Ongoing EDI training will complement the 2-hour workshop described above. All trainees will complete the CIHR “Sex and Gender Considerations” training modules, attend lectures and workshops on this topic led by Dr. E Rideout. All CIRTN-R2FIC-CREATE trainees will complete online modules related to Unconscious bias, as there is a clear need for individuals at all career stages to recognize unconscious bias and how it affects our research endeavors (e.g. peer and grant review). Further, trainees will access a curated list of



resources on the CIRTN-R2FIC website on how to create and maintain an equitable, diverse, and inclusive working environment.

Research Exchange/Placement and Industry Internship: To provide collaborative opportunities amongst CIRTN-R2FIC members, with international academic training programs, and with industry partners, we will provide support for CIRTN-R2FIC CREATE trainee internship/exchange/placement for periods of 4-8 months. These will be available to all MSc (up to 4 months; \$5,000), PhD (up to 8 months; \$8,000), and postdoctoral (up to 8 months; \$8,000) trainees. **As a condition of receiving CIRTN-R2FIC CREATE training support, both trainee and trainee supervisor will commit to an exchange or internship.** The matching of trainees and these opportunities will be facilitated by the involvement of academic and industry partners in Networking events. A range of local/regional and distant (cross-Canada or international) options for mobility/exchange are available to meet the needs of trainees who may be under diverse personal or professional constraints. In consultation with their supervisor, CIRTN-R2FIC-CREATE mentor, and CIRTN-R2FIC-CREATE program coordinator, trainees will choose one of the following:

CIRTN-R2FIC Network Exchanges. CIRTN-R2FIC CREATE Trainees may choose to spend an exchange period learning new skills within a Canadian Laboratory from among the 45+ within the CIRTN-R2FIC network.

International Training Programs. CIRTN-R2FIC has partnered with top international diabetes training programs at the Vanderbilt Diabetes Research and Training Center and Stanford Diabetes Research Center who will host CIRTN-R2FIC-CREATE trainees who will gain international exposure, learn new techniques, and obtain new perspectives on collaborative opportunities.

Industry Internships. Several industry partners have indicated willingness to engage as hosts for 4–8-month internships by CIRTN-R2FIC-CREATE trainees. CIRTN-R2FIC leadership will assist in internship placement as needed and in consultation with relevant industry partners.