2017 Innovation to Commercialization Program

GUIDELINES

DEADLINES

Letter of Intent: March 9, 2017
Full Application: April 21, 2017

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1. Preface

The Michael Smith Foundation for Health Research (MSFHR) empowers British Columbia’s (BC) best and brightest health researchers to pursue world-class innovation and stretch the bounds of what health research can achieve. The Foundation helps BC’s health research community discover solutions to our greatest health challenges; connect knowledge and action on provincial priorities; and engage partners to improve the research enterprise. Learn more at www.msfhr.org.

2. Purpose

The MSFHR Innovation to Commercialization (I2C) Program funds health researchers to advance their discoveries or inventions towards commercialization resulting in products or technologies that improve health outcomes, and enrich BC’s health innovation ecosystem.

The I2C Program supports researchers to conduct research and commercialization activities to determine and improve the commercial viability of their intellectual property (IP)\(^1\). It does so by providing funding to researchers for activities directly related to feasibility research and implementation of a commercialization plan.

3. Objectives

The I2C Program aims to provide researchers with the opportunity to advance their discoveries or inventions towards commercial technologies or products that will ultimately improve health outcomes and enrich the health innovation ecosystem of BC.

The specific objectives of this program are to:

- Support researchers to enhance and strengthen the value of their IP.
- Increase the potential commercial viability of researchers’ discoveries.
- Build capacity for translational research in BC.
- Promote activities that support the acceleration of commercialization.
- Facilitate interaction between partners and researchers that provide opportunities for investment in commercializable IP.

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\(^1\) All materials, concepts, know-how, formulae, inventions, improvements, industrial designs, processes, patterns, machines, manufactures, compositions of matter, compilations of information, patents and patent applications, copyrights, trade secrets, technology, technical information, software, prototypes and specifications, including any rights to apply for protections under statutory proceedings available for those purposes, provided they are capable of protection at law.
4. Eligibility Requirements

To apply, applicants must:

- Hold an appointment at a BC university, health authority or research institute that holds a memorandum of understanding with MSFHR as a host institution. The appointment must allow the applicant to:
  - Apply for and hold peer-reviewed funds as a principal investigator
  - Be a research supervisor for graduate and post-graduate trainees
  - Publish their research results
- Conduct research that demonstrates a clear link to human health.
- Conduct their research in BC.

The IP that provides the basis for the application must:

- Be at or past active research and development for proof-of-principle, but not past the level of a successfully-demonstrated product or technology, i.e. successful prototype, formulation, model, etc. in a relevant environmental context (see section 7).
- Have been subjected to an initial technology assessment by a technology transfer officer, or equivalent from the applicant’s host institution technology transfer office.
  - This requirement will be confirmed in the IP Assessment Form (fillable PDF).

MSFHR claims no rights of ownership to the IP associated with this funding opportunity. However, MSFHR requires any intellectual property created or developed within the project supported by the I2C award be exploited in a way that maximizes benefits to the BC health system and the health of British Columbians.

5. Knowledge Translation (KT)

MSFHR requires applicants from all research disciplines to include KT activities as a component of their research proposal. KT is the broad range of activities meant to improve the use of research evidence in practice, policy, and further research. Commercialization and innovation are KT processes generally associated with end-of-grant activities.

KT related activities must be embedded within the proposed research through, for example, research user engagement with respect to feasibility and validation activities, research dissemination and/or research translation.

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2 Please refer to the list of eligible host institutions: www.msfhr.org/sites/default/files/MOU_List.pdf

3 Research users are the target audience(s) of research evidence. Research users are experts on their needs, environment, and local context. Including research users as members of the research team will ideally result in more relevant research evidence and an increased likelihood of its use for the purpose of making informed decisions about health policies, programs and/or practices. A research user may include, but is not
technology uptake. KT activities should be determined based on their appropriateness given the type of research, the stage of commercial readiness of the discovery/invention, and the target audience. Additional information about KT can be found on our website.

6. Award Amount and Duration

The budget envelope for this funding opportunity is $1,350,000, enough to fund a minimum of three awards over the maximum four-year term of the award. Additional funds contributed by partners (see section 8) may increase the number of awards MSFHR and our partners are able to offer.

The I2C award consists of two phases:

I. Phase I of the award provides an initial two years of funding support at $150,000 per annum.

II. Phase II provides an additional two years of funding support upon successful renewal of the award (see section 11). Only individuals funded in Phase I are eligible for Phase II funding.

7. Technological Readiness

The I2C Program supports health researchers with promising discoveries or inventions who are working within the space between research and development for concept validation (i.e. proof-of-principle) and a successfully-demonstrated product or technology in a relevant environment. The Technology Readiness Level (TRL) scale below is used to gauge the maturity level of an invention/discovery. TRLs are based on a scale from 1 to 9, with 9 being the most technologically mature. As illustrated in the figure below, the I2C Program supports researchers with IP development between TRL 3 and 6. These levels generally represent the research and development, validation and prototyping phases of product/technology readiness with respect to commercialization.

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<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRL 1</td>
<td>Basic principles observed and reported</td>
</tr>
<tr>
<td>TRL 2</td>
<td>Technology concept and/or practical applications invented</td>
</tr>
<tr>
<td>TRL 3</td>
<td>Active research and development for concept validation (proof-of-principle)</td>
</tr>
<tr>
<td>TRL 4</td>
<td>Validation of technology in a laboratory setting</td>
</tr>
<tr>
<td>TRL 5</td>
<td>Validation of technology in a relevant environment</td>
</tr>
<tr>
<td>TRL 6</td>
<td>Demonstration of technology in a relevant environment (prototype)</td>
</tr>
<tr>
<td>TRL 7</td>
<td>Prototype demonstrated in an operational environment</td>
</tr>
<tr>
<td>TRL 8</td>
<td>Technology is proven to work through test and demonstration</td>
</tr>
<tr>
<td>TRL 9</td>
<td>Actual application of technology in its final form ready for commercialization</td>
</tr>
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</table>

Although the TRL scale has its origins in engineering and applied sciences, TRLs are often modified and adapted according to specific research fields. \(^5\) Since any discovery/invention with a clear link to human health is eligible under this funding opportunity, applicants should do their best to assess the technological readiness of their IP as it applies to their field of study prior to application.

**Note:** IP at a TRL between 3 and 6 is only required for entry into Phase I of the I2C Program. There is no restriction on IP development upon receiving the I2C award.

### 8. Partnerships

By partnering on our competitions, MSFHR and our partners are able to increase the total number of applications funded by the I2C Program. Partnered awards have the added benefit of offering researchers the opportunity to develop relationships with partners and their community of stakeholders.

There are two ways for applicants to be considered for partnered awards:

- Applicants interested in partnered awards are encouraged to email **partners@msfhr.org** for instructions on how to register your interest in a partnered award and to indicate how your research aligns with partner areas of interest. Details regarding potential partners will be available on our website in the coming weeks.
- MSFHR uses keywords provided by the partners to identify applications that may be relevant to and aligned with partners’ areas of interest.

Applications that fulfill the funding criteria for both MSFHR and a partner organization may be eligible for a partnered I2C award. However, only those applications that receive an MSFHR peer review rating of 3.8 or above will be considered for such an award. Funding decisions on partnered awards are based

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\(^5\) An example of a generalized scale of respective TRLs for biomedical technologies can be found at [https://ncai.nhlbi.nih.gov/ncai/resources/techreadylevels](https://ncai.nhlbi.nih.gov/ncai/resources/techreadylevels).
on existing MSFHR policies, confirmed partnership support, and available funding. Financial contributions from MSFHR and its partners are subject to availability of funds and the annual budgetary approvals by both MSFHR’s Board of Directors and the partnership organization beyond year one of the award.

Although not a requirement, applicants are additionally invited to secure additional resources when applying for Phase I of the program as a means to strengthen resources and accelerate progress. Any additional cash or in-kind support secured by applicants from these partners need to be listed and confirmed in a signed letter of support as part of the full application (see section 15).

**Match Funding (Phase II)**

Match funding is a mandatory requirement for renewal of the I2C award (Phase II). For Phase II, MSFHR will match funds 1:1 up to a maximum amount of $75,000/annum for two years in award funding with eligible partners. Eligible partners are those who provide support from non-BC government sources. These can include, but are not limited to, private companies, privately-funded endowments, non-profit organizations, and municipal and federal government agencies. Up to 25 percent of partner contributions can be in the form of in-kind support\(^6\) (cash-equivalent); the remaining 75 percent must be in the form of a cash contribution. For the definition of in-kind contributions, see section 9.

**9. In-Kind Contributions**

Match-funding partners secured by the applicant in Phase II are permitted to designate up to 25 percent of their support as in-kind contributions.

In-kind contributions:

- Must be documented in a signed letter of support, the purpose of which is required for reviewers to assess the level and nature of partner involvement and the importance of the contribution to the success of the project.
- Will only be recognized for support that is essential to carry out the work, and has been documented, accurately valued and justified.
- Can be in the form of cash-equivalent goods or services that represent an incremental expense the partner would not normally incur, and which would have to be purchased by award funds if not donated.

\(^6\) Includes the following: access to unique databases, professional, analytical and other services, employee/staff salaries, equipment, materials and technology components, patents and licenses, software, and use of specialized facilities. The value of in-kind services must be confirmed by the partner in a signed letter of support.
Can include a partner’s research and technical staff, if applicable, providing direction and direct participation in the project, or the provision of access to specialized and/or proprietary equipment, products, reagents or technology.

 Contributions to indirect costs, such as secretarial or accounting services, cost of time attributed to research management, general overhead costs at the industrial partner or other indirect costs will not be matched by MSFHR funds.

10. Conflict of Interest

MSFHR recognizes that in the field of translational health research, researchers may be involved in private sector enterprises that work with them to advance discoveries towards commercialization. Thus, a potential conflict of interest may arise in cases where a relationship exists between an applicant and a partner that could unduly influence how the research project is conducted, or how it is assessed with respect to progress. A potential conflict of interest may arise if an applicant:

- Has an ownership position within the partner organization.
- Is employed by the partner organization in any role, whether salaried or not.
- Is a member of a governing board of the partner organization.
- Is related to a person who controls, or who is a member of a governing board that controls, the partner organization.

If the applicant is subject to one or more of the above instances, the applicant must include a conflict of interest management plan as part of the full application in order to specify how the decisions of the partner are sufficiently independent from the influence of the applicant, and vice-versa. Failing to address any potential conflicts of interest may invalidate the application.

11. Commitment from Host Institution

The applicant’s host institution must:

- Provide an appointment that allows the award recipient, at the time of award and for its duration, to apply for and hold peer-reviewed funds as a principal investigator; to be a research supervisor for graduate and post-graduate trainees; and to publish her or his research results.
- Use MSFHR I2C Award funds to support any of the following:
  - Salary and benefits for the award recipient.
  - Buy out time from administrative and teaching responsibilities for the award recipient.
Stipend and salary of trainees, post-doctoral fellows, research assistants, research technicians working directly with the I2C award recipient.

Eligible expenses (see Appendix A) related to feasibility research and implementation of the commercialization plan for the specific IP.

12. Reporting Requirements and Award Renewal

Reporting

I2C award recipients are required to complete annual progress reports and provide an up-to-date Canadian Common CV (CCV) to MSFHR for each year of their award. Annual report templates will be provided to award recipients at least a month before the anniversary of their award.

A final report will be required following the end of award funding, regardless of whether the award recipient chooses to renew the award following Phase I, or terminates the award prior to completing Phase II. Final reports, which include a final financial statement, are due three months following the end date of the award.

MSFHR reserves the right to contact award recipients after the award end date to determine the short and middle-term outcomes and/or impacts of the I2C award.

Additionally, to inform evaluation and continued improvement of our award programs, award recipients will be invited to provide feedback to MSFHR staff to determine areas of improvement for this funding opportunity.

Renewal

Near the end of the second year, award recipients will be invited to apply for award renewal for an additional two years of support. Funding support for these additional two years is contingent upon a successful review of a renewal application. A renewal application form will be made available to award recipients approximately six months prior to the end of the second year of the award.

Requirements for the renewal application will include a commitment for match funding at a ratio of at least 1:1 to MSFHR dollars, a progress report for year two, an updated CCV and research and commercialization plan for years three and four, and updates on research and professional activities and funding history.

Applications for renewal will be evaluated by an external review panel to ensure that award recipients meet their stated research objectives and project milestones, and produce any stated deliverables. Upon approval of the application, the award recipient will be eligible for renewed funding. An unsatisfactory evaluation may result in the denial of further funding.
13. **Award Start Date and Deferral**

Unless otherwise indicated, funding for Phase I of the I2C award begins September 1, 2017. Successful applicants must confirm their acceptance of the award within the stipulated time indicated in the award notification package. The start date may be deferred up to a maximum of 12 months. The start date must be on the first day of any month and be no later than August 1, 2018. **Deferred start dates, once confirmed by MSFHR, cannot be revised.**

14. **Key Competition Dates**

The following refer to Phase I of the 2017 I2C award competition:

<table>
<thead>
<tr>
<th>Action</th>
<th>Target Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition launch</td>
<td>February 1, 2017</td>
</tr>
<tr>
<td>LOI deadline</td>
<td>March 9, 2017</td>
</tr>
<tr>
<td>Full application deadline</td>
<td>April 21, 2017</td>
</tr>
<tr>
<td>Anticipated notice of funding decision</td>
<td>End of July 2017</td>
</tr>
<tr>
<td>Anticipated start of funding</td>
<td>September 1, 2017</td>
</tr>
</tbody>
</table>

15. **How to Apply**

The application process is composed of two mandatory stages: submission of a letter of intent (LOI) to apply and the full application. All applications must be submitted online through MSFHR ApplyNet, MSFHR’s online grants management system.

1. **Letter of Intent (LOI)**

   - **Deadline date: March 9, 2017, 11:59 p.m. PST**
   - MSFHR staff will review LOIs to ensure basic eligibility requirements are met and determine the size and composition of the review panel.
   - Consists of:
     - The LOI Form in MSFHR ApplyNet, which includes:
       - A brief description of the IP and its current stage of development
       - A brief description of the commercialization opportunity
       - A brief description of how this award will help with developing the potential commercial success of the IP
2. Full Application

- **Deadline date:** April 21, 2016, 11:59 p.m. PDT
- **Consists of:**
  - Research and commercialization plans and appendices\(^7\)
  - Budget template
  - Completed [IP Assessment Form](#) (fillable PDF)
  - Canadian Common CV – MSFHR Full Version (last five years only)
  - List of Publications, Patents & Intellectual Property Rights uploaded as an attachment to CCV
  - Letters of collaboration\(^8\) (if applicable)
  - Letters of support\(^9\) (if applicable)

To complete your application, follow the instructions as stated in the **application instructions** (this document will be available on our [website](#) in the coming weeks). Please ensure that applications are complete and submitted by MSFHR’s application deadline. Incomplete or late applications cannot be considered.

**Note:** Host institutions typically have their own internal deadlines that are earlier than MSFHR’s. Please check with the Office of Research Services, or equivalent, at your host institution for more information.

**Submission Requirements**

- All steps of the application must be submitted using MSFHR ApplyNet, MSFHR’s online grants management system.
- All documents uploaded onto MSFHR ApplyNet must be in .pdf format. No other formats will be accepted.
- It is the applicant’s responsibility to review the .pdf copy of the application prior to submission to ensure that all data entered are complete and accurate. Once an application is submitted, it cannot be modified in any way.

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\(^7\) References, charts, figures, tables, photographs, and market surveys, consumer research, product comparisons or other supplementary market data relevant to the commercialization plan.

\(^8\) A collaborator is an individual who participates at some point in the research project and may make a significant contribution to the intellectual direction of the research or research-related activity, and who may play a significant role in the conduct of the research or research-related activities.

\(^9\) A letter of support is required for partners secured by the applicant who provide cash or in-kind support that contributes to research and/or commercial activities stated within the application. Letters of support must include how the partner is involved and detail any cash or in-kind support, identify the relevance of the project to the partner’s research agenda, and describe the potential benefits the partner may derive from participating in the project, and how the results will be applied.
As an applicant, you will be able to access a .pdf copy of the full application to review the information you have entered.

MSFHR reserves the right to declare applications ineligible based on the established criteria.

All applicants and referees applying for the first time to MSFHR need to register on MSFHR ApplyNet and create a system account email and password. Additional information can be found in the MSFHR ApplyNet FAQ document.

16. Review Process

Full applications will be screened for eligibility by MSFHR staff. An external review panel will review and make funding recommendations on eligible applications. The review panel will be composed of both researchers (academic and industry) and relevant business professionals with the necessary scientific/technical and commercialization expertise to assess applications.

Applications will be evaluated via a process that incorporates the three main principles of peer review:

1. **Confidentiality** – All information contained in applications, reports by reviewers, and any discussions by the review panel about applications or applicants are strictly confidential. All MSFHR staff, reviewers, the panel chair and science officer involved in the review of applications will be subject to a non-disclosure agreement ensuring confidentiality of unprotected intellectual property or proprietary information stated within applications.

2. **Integrity** – MSFHR makes every effort to ensure that its decisions are fair and objective, and are seen to be so.

3. **Parity** – Refers to the willingness and ability of all review panel members to be fair and reasonable, to exercise meticulous scientific judgement and, to understand and take into account the particular context of each application.

The information presented in the Evaluation Criteria and Rating Scale sections below will be used for the review process. All applications will be assessed against a defined set of criteria in three categories: 1) track record, 2) research plan, and 3) commercialization plan. The overall score for an application will be sum of the scores for the three categories. To be considered for funding, the application must receive a minimum score of 3.8.

**Evaluation Criteria**

All applications will be assessed against the following criteria:
Criterion | Weighting
--- | ---
Track record | 20%
Research plan | 40%
Commercialization plan | 40%

A full description of the evaluation criteria can be found on our website.

### Rating Scale

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Range</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding</td>
<td>4.5 – 4.9</td>
<td>May be funded (min. score of 3.8)</td>
</tr>
<tr>
<td>Excellent</td>
<td>4.0 – 4.4</td>
<td></td>
</tr>
<tr>
<td>Very good</td>
<td>3.5 – 3.9</td>
<td></td>
</tr>
<tr>
<td>Adequate</td>
<td>3.0 – 3.4</td>
<td>Not fundable</td>
</tr>
<tr>
<td>Less than adequate</td>
<td>0 – 2.9</td>
<td></td>
</tr>
</tbody>
</table>

### Funding Decision

Following application review, the highest rated applications will be identified. Applicants will be notified of the outcome of the review process after the review panel meetings and the subsequent approval of the results. There is no appeal process. Applicants will receive notification of the funding decisions, as well as the reviewers’ comments. A list of successful applicants will be published on MSFHR’s website.

### 17. Contact Information

For questions regarding the application and submission process, please contact:

**Rashmita Salvi**  
Manager, Research Competition  
604.714.2779  
j2C@msfhr.org

**Andrew Biagtan**  
Coordinator, Research Competitions  
604.714.6602  
j2C@msfhr.org

For information about the ApplyNet system or help with login information, please contact:

**MSFHR Help Desk**  
604.714.6609  
helpdesk@msfhr.org
Appendix A – Eligible Expenses

The I2C Award provides funds for salary contributions, inclusive of benefits, to the award recipient or to designated individuals directly related to the conduct of the award recipient’s research and commercialization activities. The award can also be used to defray costs incurred through feasibility research and commercialization-specific activities directly related to the implementation of the commercialization plan as described in the application. All expenses must be listed in the budget template with appropriate justification.

Salary-Related Eligible Expenses

- Salary and/or benefits of the award recipient
- Salary and/or benefits of personnel who provide teaching or clinical duty (patient care and/or treatment) relief to enable the award recipient to maintain protected time
- Stipends of students, post-doctoral fellows, research assistants, and technicians directly involved in the research and commercialization activities of the award recipient as described in the I2C full application

Commercialization-Related Eligible Expenses

- Materials and supplies directly related to the scientific or technical research necessary for advancing the IP towards commercialization (e.g. feasibility testing, scale-up, product refinement, validation studies, etc.)
- Patenting costs
- Market studies to determine market potential
- Communication and networking costs
- Travel for collaborative purposes

Ineligible Expenses

- Travel unrelated to commercialization activities
- Conference presentations, publications, open-access fees
- Secretarial support
- Equipment
- Materials and supplies unrelated to commercialization activities