



Research
Manitoba

*COVID-19 Innovation
Proof-of-Concept
Grant*

PROGRAM GUIDE

1. Preface

Research Manitoba promotes, supports, and coordinates the funding of research excellence in health, natural and social sciences, engineering and the humanities in Manitoba. Our organization cultivates local talent development by investing in early career researchers and graduate students and fosters strategic partnerships to bolster innovation and commercialization in the province.

2. Purpose

In April 2020 Research Manitoba and the Province of Manitoba announced a \$5,000,000 COVID-19 Research Fund to support Manitoba's response to the 2019 Novel Coronavirus (COVID-19) pandemic.

As part of this response, Research Manitoba has created this opportunity to support activities directly related to process validation and proof-of-concept research regarding COVID-19. The COVID-19 Innovation Proof-of-Concept Grant differs from Research Manitoba's regular innovation grant in that it is open to Manitoba-Based Consortiums, and Independent Industry applications for research items related to supporting the COVID-19 global pandemic.

Manitoba-Based Consortiums support local industry-academic collaborations that are addressing a company specific discovery or innovation. This consortium model allows academics to use their world-class knowledge, facilities, and highly qualified personnel (HQP) to close the knowledge gaps identified during the industry partner's innovation development.

Independent Industry applications support Manitoba-based companies working on COVID-19 research 'in-house' within the company.

3. Objectives

The specific objectives of the COVID-19 Innovation Proof-of-Concept Grant are to:

- Support research to create, enhance, or strengthen technology or product maturity towards usability in healthcare systems
- Advance industrial research, development and technology demonstration through collaboration between academia, non-profit organizations and the private sector
- Support talent development and build capacity for translational research in Manitoba

4. Award Amount and Duration

Award funds are to be used to defray the costs incurred through process validation and proof-of-concept research. Examples of eligible expenses can be found in [Appendix A](#).

The COVID-19 Innovation Proof-of-Concept Grant will provide up to \$100,000 for a one-year term. Projects which are shorter in duration, or have smaller funding needs, are welcome to apply.

A one (1) year automatic extension on the use of funds will be permitted, with no additional funding.

There is a lifetime maximum of one (1) grant towards process validation and proof-of-concept research for a single innovation/discovery.

5. Matching Funds

Research Manitoba will not fund the full cost of any project. Additional support in the form of eligible cash and/or in-kind contributions equivalent to a minimum of \$25,000 must come from the consortium partner(s), or industry applicant.

A number of funding agencies in Canada have also recently announced rapid response research grants for COVID-19. Research Manitoba encourages co-funding with other funding agencies and organizations (i.e., NRC-IRAP, NSERC Alliance Grants, Mitacs, academic institutions). Where such co-funding / partnering is to take place, this should be identified in the proposal.

Research Manitoba encourages industry applicants and partners to consider an application to Mitacs to receive additional funding and training opportunities for trainees involved in this program.

6. Eligibility Requirements

Manitoba-Based Consortium:

To apply, the **applicants** must:

- Be a Manitoba-based consortium comprised of two or more: companies, organizations, and academic researchers. At a minimum, the consortium must contain one Manitoba-based academic member and one Manitoba-based industry partner. The Manitoba-based academic member must be the **primary applicant** and submit the grant via the Research Manitoba GMS on behalf of the consortium. Consortia and industry partner requirements can be found in [Appendix B](#).
- Conduct the majority of the proposed research and commercialization activities in Manitoba

College researchers only: These are institutional grants and must be applied for via the Research Office at your institution

Independent Industry

To apply, the **applicants** must:

- Be a Manitoba-based company. Company requirements can be found in [Appendix B](#). A legal signing authority of the company must be the **primary applicant** and submit the grant via the Research Manitoba GMS.

- Conduct the majority of the proposed research and commercialization activities in Manitoba

7. Application Deadline

Applications can be submitted anytime between **April 1, 2020 – September 30, 2020**.

Applications will be reviewed monthly as they are received. This call will be closed once the entire funding budget has been allocated.

8. Technological Readiness

The COVID-19 Innovation Proof-of-Concept Grant supports promising discoveries or inventions which are in 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 below¹ is used to gauge the maturity level of a discovery or innovation. TRLs are based on a scale from 1 to 9, with 9 being the most technologically mature. As illustrated in the figure below, **the COVID-19 Innovation Proof-of-Concept Grant supports activities with IP development between TRL 3 and 7.**

Technology Readiness Level	Description
TRL 1 – Basic principles of concept are observed and reported	Scientific research begins to be translated into applied research and development. Activities might include paper studies of a technology's basic properties
TRL 2 – Technology concept and/or application formulated	Invention begins. Once basic principles are observed, practical applications can be invented. Activities are limited to analytic studies.
TRL 3 – Analytical and experimental critical function and/or proof of concept	Active research and development is initiated. This includes analytical studies and/or laboratory studies. Activities might include components that are not yet integrated or representative.
TRL 4 – Component and/or validation in a laboratory environment	Basic technological components are integrated to establish that they will work together. Activities include integration of 'ad hoc' hardware in the laboratory
TRL 5 – Component and/or validation in a simulated environment	The basic technological components are integrated for testing in a simulated environment. Activities include laboratory integration of components.
TRL 6 – System/subsystem model or prototype demonstration in a simulated environment	A model or prototype that represents a near desired configuration. Activities include testing in a simulated operational environment or laboratory.

¹ Adapted from Innovation, Science and Economic Development Canada (<https://www.ic.gc.ca/eic/site/080.nsf/eng/00002.html>)

TRL 7 – Prototype ready for demonstration in an appropriate operational environment	Prototype at planned operational level and is ready for demonstration in an operational environment. Activities include prototype field testing.
TRL 8 – Actual technology completed and qualified through tests and demonstrations	Technology has been proven to work in its final form and under expected conditions. Activities include developmental testing and evaluation of whether it will meet operational requirements.
TRL 9 – Actual technology proven through successful deployment in an operational setting	Actual application of the technology in its final form and under real-life conditions, such as those encountered in operational tests and evaluations.

9. Intellectual Property Assessment and Ownership

Research Manitoba does not claim any rights to intellectual property arising from projects funded by the COVID-19 Innovation Proof-of-Concept Grant program.

Research Manitoba recommends that Manitoba-Based Consortiums follow best practices by signing an intellectual property agreement that defines the intellectual-property rights and obligations of all the partner organizations involved in the project. The agreement must be aligned with [NSERC's Policy on Intellectual Property](#). Consortia members are responsible for ensuring IP arrangements are in order and agreed to by all in advance of applying.

As per [NSERC's Policy on Intellectual Property](#), students involved in the funded research must maintain their right to defend their thesis without delays or impediments. It is also strongly encouraged that industry partners allow students to include work on this project, specifying the company name, on their CVs. All participants, including any trainees, should consult this policy to ensure that they are aware of their rights and obligations.

10. Application Requirements

Please note that the application form being used for this grant is the same as Research Manitoba's regular Innovation Proof-of-Concept Grant so there will be varying language in the application form. Please answer the sections in the application form based on the requirements below.

Applications for the COVID-19 Innovation Proof-of-Concept Grant require the following information to be included:

- **Budget Table and Budget Justification (maximum 2 pages):** Examples of eligible expenses can be found in [Appendix A](#).
- **Abstract (maximum 200 words):** Provide a non-technical summary of your proposal written in simple and clear language suitable for a lay audience.

- **Summary of the Proposal (maximum 1500 words):** Provide background, objectives, activities planned, and how the innovation will be implemented to support the Province of Manitoba in its response to the 2019 Novel Coronavirus (COVID-19) pandemic.
- **Research Proposal (maximum 6 pages):**
 - Project Design: Describe in detail how the project will be carried out to reach its objectives. Include the following:
 - Detailed description of work required and deliverables
 - Project timeline
 - Details on the expected impact to the local, national and global response to the COVID-19 pandemic
 - Risks: Identify and discuss potential risks in developing and implementing the proposed innovation/discovery. Specify if there are any regulatory risks or hurdles. Include a table of risks identified, likelihood, severity, and mitigation strategies.
 - Research Capacity: Demonstrate the applicants' capacity to carry out the project, and the research environment/infrastructure the applicant(s) will have access to. Provide a list of personnel, if applicable, who will be involved in the project and brief biographies. Describe the core activity of the partner organization(s) and their experience related to the research project.
- **Supporting letters:** A letter of support is required from each non-academic consortia organization which clearly outlines the cash and/or in-kind contributions to the proposed project.
- **Signature Page:** Signatures are required from the academic researcher's home institution. Once you have received all of the required signatures, please upload the completed form into your GMS application.
- **Research Manitoba Biosketch - Canadian Common CV (CCV):** An updated Research Manitoba Canadian Common CV -Biosketch (no older than six months) is required for the primary applicant, and all academic applicant and co-applicant(s) for submission. Applications cannot be submitted without at least one CCV attached.

For support completing the [Research Manitoba GMS Application](#) and [CCV](#) see the *PI GMS User Guide*.

11. Assessment Criteria

Applications are evaluated in a competitive peer-review process, involving members of the academic and industry communities, which considers the following criteria:

- **Research Excellence**
 - Objectives of the project are focused and coherent, and the proposal communicates a clear direction and strategic focus
 - Appropriateness of the research approach, methodology, and timeline

- The budget provided is appropriate for the research outlined in the proposal
- **Quality of the Applicant(s)**
 - Project leader, and team members, have the capacity and qualifications to ensure the project's overall success
 - Ability of the team to quickly mobilize the necessary resources to complete the research outlined in the proposal
- **Potential Impact**
 - Potential to contribute to the local, national and global response to the COVID-19 pandemic
 - The proposed plan for usability in the healthcare system is detailed, feasible, and timely, and the degree that new products, processes or services can be shared.

12. Reporting, policies and other information

Grant recipients will be asked to provide frequent updates/reports of their funded research project over the course of the grant term to ensure healthcare officials are kept informed of progress on projects. This will allow for decisions to be made around successes to ensure they have immediate impact in Manitoba.

Research Manitoba reserves the right to determine the eligibility of applications, based on the information therein. Research Manitoba also reserves the right to interpret the regulations and policies governing its funding opportunities.

All applicants and grant holders must comply with the regulations set out in the Research Manitoba [Finance and Administration Guide](#).

Research funds are to be spent according to budgets approved during the review and decision process. Occasionally, it may be necessary to reallocate grant funds between approved categories if the needs or circumstances of the research project have changed. Grant holders need Research Manitoba approval for such reallocation only if the change involved is 25% or more of the grant's total.

13. Contact Information

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

Jennifer Cleary

Manager, Programs

jennifer.cleary@researchmb.ca

204.924.7070

For support with GMS, please contact:

Research Manitoba Helpdesk

helpdesk@researchmb.ca

Monday – Friday – 8:30AM – 4:30PM

Appendix A – Examples of Eligible and Ineligible Costs

This is not an exhaustive list. If you are uncertain of the eligibility of an expense, please consult with the [Manager, Programs](#). Applicants are expected to clearly justify expenses in the budget justification attachment.

Eligible Costs	Examples of Eligible Costs
Salaries, wages and benefits	<p>Salaries and benefits, research stipends, or hourly wages of postdoctoral students or research assistants directly involved in the research and commercialization activities</p> <p>Salaries and wages of technicians/research engineers/research scientists directly involved in the research and commercialization activities</p>
Professional Services/Fees	<p>Clinician research release stipend - up to \$9000 (PI only)</p> <p>Course load reduction support - up to \$9000 (College primary researcher only)</p> <p>Project management, legal fees, consultant fees, business development expenses, and administrative support</p>
Materials and Supplies	<p>Items directly related to the research activities (i.e. chemicals, consumables, lab supplies, etc)</p> <p>Small equipment (up to \$10,000, unless special permission from Research Manitoba)</p>
Travel expenses – related to research project activities	<p>Travel and accommodation for commercialization activities and collaborative purposes integral to the advancement of the proposed research and/or commercialization plan. This includes items such as travel to field sites and to host 'real-world' demonstrations of the innovation/discovery for potential users/buyers.</p> <p>Funds cannot be spent for travel to academic conferences, workshops or seminars.</p>

Ineligible Costs	Examples of Ineligible Costs
Salaries, wages and benefits	Payments paid to primary applicant, co-applicant(s) and/or collaborators as consulting fees, honoraria, or salary Release time stipends/course load reduction support (exception to college primary researcher and clinicians)
Professional Association Fees	Professional association fees and/or dues
Materials and Supplies	Equipment over \$10,000 (without permission of Research Manitoba) Home internet costs Standard monthly connection or rental costs of telephones
Capital assets and equipment	Costs of the purchase, construction, renovation or rental of laboratories or supporting facilities
Travel expenses – related to academic seminars, conferences and workshops	
Indirect costs of research (overhead)	

Appendix B – Consortia Requirements

Although private companies are the most obvious means of exploiting research results commercially, other kinds of organizations may also be appropriate partners. At a minimum, any proposed partner, whether an established company, a start-up, or an industry association must have a credible plan for exploiting research results for the benefit of Manitoba.

The following are general guidelines that consortium members must meet:

- Consortia may be formal or informal but must have a clearly defined partnership between the academic and industry partner(s) in advance of applying
- Consortia members are responsible for ensuring IP arrangements are in order and agreed to by all in advance of applying
- If the consortium is pre-existing, there must be active involvement in the research project from two or more members
- The consortium can include members from outside Manitoba (including multinational and foreign member organizations) providing the majority of the team is from Manitoba, that an eligible Manitoba organization maintains the leading role throughout the project, results will be exploited in Manitoba, and the contributions of non-Manitoba members to meet the program objectives are clearly demonstrated.
- A researcher's own consulting company or sole proprietorship is **not** eligible as an industrial partner to collaborate on a project in which the researcher is the applicant or co-applicant.

Industry Member Requirements

- In general, an industry partner is defined as a Manitoba-based business providing products or services that derives the majority of its revenues from the sale of these products and services and not from government aid.
- Multinationals may be eligible if they have commercial activities that take place in Manitoba, such as research and development or manufacturing related to the proposed project
- Foreign firms may be eligible as a partner, provided an eligible Manitoba-based private sector partner plays a major role in the project and will exploit the research results for the economic benefit of Manitoba
- Public utilities in Manitoba
- Start-up companies (companies in the research and development phase) that have sound business plans and secure financial backing may be accepted as industry partners. However, they must demonstrate that they have the financial, managerial, and strategic business capability to exploit the research results. If a start-up company is serving as the primary industry partner, it is highly recommended that an additional industrial partner that is either an end user, first customer, channel partner or capable of market validation also be included in the consortium.