

JDRF Canada – Brain Canada

Addressing Mental Health in Type 1 Diabetes Team Grants

Request for Applications (RFA)

Projected timeline

Milestone	Date
Launch of Request for Applications	July 15 th , 2021
Webinar for applicants	July 28 th , 2021 at 12:00 ET
Registration deadline	September 15th, 2021 at 17:00 ET
Notification of registration outcome	September 22 nd , 2021
Full Application deadline	October 28th, 2021 at 17:00 ET
Earliest notification of decision	February 10 th , 2022
Earliest funding start date	March 1 st , 2022

Background

Type 1 diabetes is an autoimmune disease resulting in absolute insulin deficiency and a lifelong requirement of insulin therapy. While it is most commonly diagnosed in childhood, it can be diagnosed at any age. Self-management of diabetes is a constant balancing act that involves checking blood sugar, counting carbohydrates and dosing insulin. Fear of hypoglycemia (i.e., low blood sugar), which can be life-threatening, is prevalent and is a major barrier to achieving recommended blood sugar targets. Long-term complications, which can include kidney failure, heart disease, blindness, and amputation, are also of concern for many people living with diabetes. Many of those living with diabetes experience discrimination or stigma at school, work, and/or in other social settings.

As a result of the burden of diabetes management and related factors, people with type 1 diabetes are at an increased risk of developing mental health disorders such as depression, anxiety, suicidal ideation, eating disorders, and diabetes distress, a clinically validated term describing the powerlessness, stress, guilt, relentless worry, and denial that comes with living with diabetes and the burden of self-management. Evidence indicates that people with type 1 diabetes who develop mental health disorders, particularly depression and diabetes distress, have a lower quality of life, have worse glycemic control (i.e., higher HbA1c), measure blood glucose less often, suffer more frequent/severe hypoglycemia and diabetic ketoacidosis episodes, and are admitted to the hospital more frequently.

Despite accumulating evidence indicating the link between mental health disorders, lower quality of life and poor diabetes outcomes, mental health is often not a central aspect of day-to-day diabetes management, and concerns often remain unidentified or unaddressed until they become serious and difficult to manage. Although psychological and/or behavioural interventions are known to improve quality of life and outcomes for some people with diabetes, few are regularly implemented in standard care.

Objective & Scope

The JDRF Canada – Brain Canada Addressing Mental Health in Type 1 Diabetes Team Grants aim to support research on the development, validation, or implementation of interventions that address mental health concerns in people with type 1 diabetes. The ultimate goal is to support the development and testing of sustainable, scalable approaches that will enable improved support for Canadians who live with type 1 diabetes and are affected by mental health disorders, and that will translate into better quality of life and diabetes-related health outcomes for these populations.

This Request for Applications (RFA) may support projects with interventions of interest including but not limited to:

- Behavioural health interventions;
- Peer support programs for people with type 1 diabetes;
- Clinical algorithms to improve and/or standardize screening, identification, and referral for mental health disorders in people with type 1 diabetes;
- Interventions that aim to prevent, and thereby substantially reduce the incidence of, mental health disorders in people with type 1 diabetes.

Mental health disorders that are of particular interest include but are not limited to:

- Depression;
- Anxiety;
- Eating disorders;
- Diabetes distress.

Finally, interventions that address the following high-risk groups are of particular interest:

- Children & adolescents (aged 0-18);
- Young adults (aged 19-30);
- Diverse populations;
 - This includes but is not limited to: Indigenous peoples; members of the LGBTQ+ community; racialized communities; those that self-identify as low socioeconomic status; people not in employment, education or training; and individuals in rural and remote areas.

Research not supported by this RFA

- Research into the epidemiology or natural history of mental health disorders in people with type 1 diabetes;
- Research into the efficacy of drug-based interventions for mental health disorders in people with type 1 diabetes;
- Research into mental health disorders in people with type 2 diabetes;
- The COVID-19 pandemic has been uniquely challenging for people living with type 1 diabetes and has magnified mental health concerns in this population. However, as this RFA aims to support research that will provide sustainable solutions for people with type 1 diabetes, research on mental health issues specific to the pandemic context will not be supported;
- Research applications may be related but cannot be identical to any other currently funded projects. It is the responsibility of the Principal Applicant to notify JDRF Canada immediately should substantial overlap arise from new funding awarded during the application and review process of this RFA.

Grant Details

The JDRF Canada – Brain Canada Addressing Mental Health in Type 1 Diabetes Team Grants will support two team grants of up to \$250,000 each over two years.

Equity, Diversity, and Inclusion

Evidence clearly shows that increasing equity, diversity and inclusion (EDI) in research environments enhances excellence, innovation and creativity. In addition, incorporation of principles of EDI in the design and execution of research involving human participants is critically important for broadening the potential impact of the work and the potential for new knowledge to be translated into health benefits.

Type 1 diabetes is heterogeneous in terms of clinical presentation, disease progression, and risk of short- and long-term complications. Importantly, ethnicity and socioeconomic status are known to influence diabetes-related health outcomes, and several studies have highlighted differences in the prevalence of mental health disorders in men versus women. Given this heterogeneity and the diversity of the Canadian population, applicants must consider biological variables (i.e., sex, age, etc.) and social determinants of health (i.e., gender, socioeconomic status, etc.) in the research design, where appropriate. We encourage applicants to refer to CIHR's guidance on [How to integrate sex and gender into research](#) for more information. Applicants are also encouraged to consider how their proposed research addresses EDI consistent with CIHR's position on EDI, available in the [Tri Agency Statement on Equity, Diversity and Inclusion](#).

In addition to EDI consideration in the research design, JDRF Canada and Brain Canada are committed to excellence through equity and encourage applicants of diverse backgrounds to apply to our funding opportunities, which will promote the expression of diverse perspectives, approaches, and experiences, including those of underrepresented groups.

Eligibility

- This RFA is open to research teams of two or more independent investigators from different institutions, or distinct departments within the same institution. Multidisciplinary teams are

encouraged, as applicable to the proposed research. The team should nominate a Principal Applicant.

- Investigators must be affiliated with and conducting research at an eligible Canadian institution, [as defined by CIHR](#), for the entire duration of the grant. Academic appointments must have started by the Full Application submission deadline. Investigators must be considered an independent researcher at their institution. Such an individual normally holds the rank of assistant, associate, or full professor; can initiate and direct their own independent lines of research as principal investigator; has full responsibility for running their research group; has full control of their research funds; and is permitted to supervise trainees (if applicable, as per their institution's policy). Postdoctoral fellows or adjunct faculty are not eligible to apply.
- The Principal Applicant must hold a PhD, MD, or a qualification as a registered social worker, counsellor, clinician, or other allied health professional.
- For clinical interventional studies, at least one investigator must hold an appointment or joint appointment in a subspecialty of clinical medicine and be eligible to conduct human clinical research at their institution.
- All teams should include at least one collaborator representing people with lived experience (PWLE) of type 1 diabetes. Such a collaborator may include one or more of the following:
 - A PWLE of type 1 diabetes, which can include an individual living with type 1 diabetes or an informal caregiver (e.g., parent, guardian, spouse, sibling, etc.). All PWLE involved as collaborators must be aged 18 or over;
 - A patient group that represents PWLE of type 1 diabetes.
- There are no citizenship requirements.
- International investigators and collaborators outside of Canada are eligible to be part of the research team (see Guidelines and Conditions of Funding).

Guidelines and Conditions of Funding

- The funds awarded must contribute towards the direct costs of the research project for which they were awarded and should be directly attributable to the project or activity being performed.
- The maximum amount that can be requested in Year 1 per grant is \$125,000.
- A maximum of 10% of the project budget may be spent outside of Canada, in the event that international co-investigators are included.

Eligible Costs

- Salaries and wages for technical personnel, which may include benefits such as insurance and retirement plans;
- Stipends of trainees;
- Supplies and materials (i.e., general purpose consumable items that are used on a regular basis);
- Purchase of equipment that is currently unavailable but essential for the project (Year 1 only, and restricted to a maximum of 20% of Year 1 budget);
- Other Costs (i.e., items that are not consumable but are needed on a regular basis, such as maintenance charges, special services and user fees, payments to study participants, knowledge translation activities including publication fees, etc.);

- Please note that Brain Canada encourages open access to research outputs. As such, results must be publishable in open and public literature at the earliest opportunity. Applicants are encouraged to include article processing charges in order for their articles to be published open access.
- Travel of Principal Applicant, team members, and trainees for collaboration and presentation of results (up to maximum \$2,000 CAD per year).

Ineligible Costs

- Salaries and consulting fees of any investigator or researcher holding an academic appointment;
- Computers and office telecommunications;
- General office supplies;
- Indirect costs or overhead costs associated with managing the research project;
- Direct research costs spent outside of Canada in excess of 10% of the overall project budget;
- Lobbying;
- Tuition and registration fees;
- Financial Analyst, Accountant cost;
- Rent;
- Advertising costs;
- Patent application fees;
- Indirect cost for fee-for services, consultants, and contractors.

Please note that this list is not exhaustive, and JDRF Canada and Brain Canada must be consulted on expenses that are not listed here to determine the eligibility of other categories of expenditure.

Approval should be sought from JDRF Canada and Brain Canada prior to reallocation of funds within the budget, if the reallocation amount is >20% than a given budget line-item category in the submitted application budget.

Conditions of Funding

- For grants funded through this opportunity, JDRF Canada and Brain Canada require the right to publicly disclose lay summaries included in the applications and in the progress reports for non-commercial dissemination purposes only.
- While not a condition of funding, it is noted that JDRF would like to ensure that research results are commercialized in a timely manner with the greatest possible benefits to the public. Should grantees and JDRF wish to negotiate further IP rights, they are free to pursue such negotiations. However, grantees are not required to accept additional IP requirements from JDRF as a condition of funding. All IP negotiations will be detailed in a grant agreement between JDRF and the Institution Paid and the Principal Applicant.
- JDRF Canada and Brain Canada must receive formal documentation related to ethics approval (as applicable) in order to release their funds.
- Each funded Principal Applicant will be required to enter into separate grant agreements with JDRF Canada and Brain Canada.

- The Principal Applicant must consent to the use and disclosure of Full Application and nominative information for relevance review and funding decisions at the time of application.
- To continue to be eligible for funding instalments, the Principal Applicant must demonstrate that the project remains focused on mental health and type 1 diabetes as described in the application for funding and evaluated through JDRF Canada's peer review process of the original application. Demonstration of eligibility is to be achieved through reports to JDRF Canada, which shall include an indication of any fundamental changes in research direction. Failure to remain aligned with the project as approved by peer review may result in the Principal Applicant/institution not being eligible to receive future instalments of grant funding.

Reporting Requirements

- The Principal Applicant and at least one other team member must participate in progress update meetings (by teleconference, videoconference or in person, as appropriate) every 6 months.
- An annual scientific progress report must be submitted to JDRF Canada no later than 30 days after the anniversary of the grant start date, using a set template, as well as any additional information which may be required by JDRF Canada or Brain Canada from time to time.
- A final scientific progress report must be submitted to JDRF Canada within 60 days of the grant end date, using a set template.
- Expenditure reports accounting for JDRF funds are required within 60 days of the anniversary of the grant start date and within 60 days of the grant end date, using a standard reporting template.
- Consolidated financial statements are required within 60 days of the anniversary of the grant start date and within 60 days of the grant end date.
- In addition, at least one year after the end of the funding period, a post-grant report is required that details the outcomes of the project, including results, impact of the research project and future directions, new collaborations, publications, and other significant achievements.

Evaluation Criteria

JDRF Canada will manage the peer review process and select the peer review panel, in collaboration with Brain Canada. Full Applications will be subjected to confidential external review by experts in the field, including at least one person with lived experience of type 1 diabetes, and evaluated on the following:

Innovation and Originality

Potential of the project to, while solidly based in scientific principles and technically feasible, offer new concepts, change the paradigms of the field, open the field to new experimental directions or address a critical barrier to improving treatments, and contribute to progress in our approach to mental health care in people with type 1 diabetes.

Research Approach

Appropriateness of the conceptual framework, design, methods, and analyses, and how these will be integrated to achieve the aims of the project. Resources and knowledge should be based on prior experience and know-how.

Feasibility

The degree to which the project can be successfully executed using the proposed methodology within the timeframe, budget, and resources available. Appropriate background and justification for the proposed research should be provided through literature citations, data from other sources, and preliminary results if possible. Applications should acknowledge potential problem areas and consider alternative tactics.

Potential for Impact

The degree to which the proposed research has the potential to address mental health challenges in people with type 1 diabetes through improved identification, prevention, and intervention. While accounting for sex as a biological variable is important for transparency and reproducibility, incorporating considerations for sex, gender, and diversity into study design additionally broadens the potential impact of the work to expand knowledge and turn discovery into health.

Environment

The potential of the research environment to contribute to the success of the proposed research, to comply with appropriate rules and regulations for study conduct, and to foster collaborative arrangements that may support the proposed research activities. The research team should be qualified and well-suited to carry out the proposed research.

Plan for engagement of people with lived experience (PWLE) of type 1 diabetes

Quality of the plan to meaningfully engage PWLE throughout the research process – from planning to intervention design to knowledge translation activities – to ensure appropriate design and delivery of interventions, efficient implementation, and maximum impact of research results.

How to Apply

Registration information is to be submitted via email to research@jdrf.ca before **17:00 ET on September 15th, 2021**. **Submission of registration information is a requirement to submit the Full Application.**

Applicants are required to submit the Full Application using JDRF Canada's electronic grant management system – SmartSimple (https://jdrf.smartsimple.us/s_Login.jsp) before **17:00 ET on October 28th, 2021**.

There will be no appeal to late submissions. Receipt of Registration information and the Full Application will be acknowledged by JDRF Canada within 3 working days.

Please note that while this RFA is [available in French](#), Registration information and the Full Application will be accepted in English only, and JDRF Canada's RMS360 interface is available in English only.

Registration Form components

- Click [here](#) to download the Registration Form.
- Please send the completed Registration Form, along with the required attachment(s), as a PDF file to research@jdrf.ca.
- The PDF and accompanying attachment(s) will need to be formatted using 12-point Times New Roman or 10-point Arial font, single-spaced, on a letter-size page with 1" minimum margins. The font size for figures and legends must be a minimum of 10 points. Use of a condensed font and spacing is not permitted. Registration Forms received in any other format, exceeding the word limits, incomplete, or late, will be rejected.
- **It is the sole responsibility of the Principal Applicant to ensure their submission adheres to these requirements and that it is received by 17:00 ET on September 15th, 2021.**

Applicant Information

We encourage researchers of diverse backgrounds to apply and to be involved in all aspects of our funding opportunities. With this partnered funding opportunity, we are thus implementing a demographic survey, led and developed by Brain Canada, to evaluate the progress of our programs in fostering EDI. Please note that the survey will be sent via email to the Principal Applicant, upon confirmation of the applicant's submission of the Registration Form.

The information collected will not be shared in an identifiable form with the public, external stakeholders (e.g. Health Canada), or reviewers, and will have no impact on the evaluation of submitted applications. Survey responses are completely anonymized and aggregated to ensure protection of the identity of any individual. Please see privacy policies from [JDRF Canada](#) and [Brain Canada](#).

Proposed Research Project Summary

Provide a summary description (maximum 1-page) of the proposed research project focused on mental health and type 1 diabetes. This summary should include a brief description on the project's:

- Objectives and aims, including;
 - the intervention to be investigated;
 - the specific mental health disorder(s) addressed; and
 - the subpopulation(s) with type 1 diabetes who will benefit from this work.
- Methodology;
- Plans to engage people with lived experience (PWLE) of type 1 diabetes.

Team Member Details

- List the name, affiliations, and roles of all team members. Team members include, but are not limited to, primary investigator, co-investigator, technician, research assistant, research associate, postdoctoral fellow, student, faculty collaborator, and patient collaborator.

Attachment

- Proposed Research Project Summary, as described above.

Optional Information

- Provide names and contact information for up to three individuals (Canadian and/or International) who are knowledgeable in the research area and would be able to evaluate the application. Individuals should not have a conflict of interest;
- Individuals to whom the application should not be sent for review.

Full Application components

- Full Applications should be submitted to JDRF Canada via RMS360 (<http://jdrf.smartsimple.us>)
- Templates required for preparation of a Full Application can be accessed through RMS360.
- Other components of the Full Application should be formatted using 12-point Times New Roman or 10-point Arial font, single-spaced, on a letter-size page with 1" minimum margins. The font size for figures and legends must be a minimum of 10 points. Use of a condensed font and spacing is not permitted. Applications received in any other format, exceeding the word limits, incomplete, or late, will be rejected.
- The Full Application should be aligned with information provided at the Registration stage.
- **It is the sole responsibility of the Principal Applicant to ensure their submission adheres to these requirements and is received before the deadline.**

The Full Application should include the following, using the templates provided where indicated:

1. **Application Type** (use online form within RMS360).
2. **Project Description**, including lay summaries (use online form within RMS360).
3. **Research Plan** (maximum 8 pages, excluding figures, legends, and references). The Research Plan should be uploaded in the Proposal Research Plan tab in RMS360, and should include:
 - Project title;
 - Rationale. Including a statement about the novelty of the study, scientific background, preliminary evidence supporting the study, and the study hypotheses;
 - Significance & Aims. Including aims of the project and expected impact of the work on people living with type 1 diabetes and their caregivers;
 - Methodology. Including details on research design, description of intervention(s) to be tested, involvement of study participants, observations with details on frequency and methods of measurement, study endpoints, approaches for assessment of efficacy and safety parameters;
 - If diabetes-related outcomes will be measured, please refer to the Outcomes Beyond A1C [fact sheet](#) and [video](#);
 - Methods of data analysis. Including statistical methods and calculations to show that the study will be adequately powered, if applicable;
 - Potential pitfalls or obstacles, and how they will be overcome.
4. **Anticipated Milestones**. A list of anticipated project milestones to indicate key intermediate stages in achieving the final objectives, and the projected timeframe for their completion (use the online form found within RMS360; please indicate a value of \$0.00 for all milestones).

5. **Plan for engagement of people with lived experience (PWLE) of type 1 diabetes** (maximum 500 words).
6. **Sex, gender and diversity considerations** (maximum 500 words). While sex and/or gender are vital components of the research project being proposed for this grant, the consideration of additional relevant determinants of health such as sexual orientation, age, race, culture, socioeconomic status, and/or other factors, and how they interact with other determinants can help ensure that research projects lead to better outcomes and are beneficial for all people living with diabetes in Canada. A brief description should be included for how diverse groups that reflect diversity of culture and conditions will be considered, while taking into account the relevant determinants of health such as sexual orientation, age, race, culture, socioeconomic status, and/or other factors.
7. **Detailed budget with justification.** A yearly budget must be provided (use online form within RMS360), which should include justification describing the proposed costs in each of the major categories.
 - Provide sufficient information to allow reviewers to assess the appropriateness of the cost allocation.
 - Please include a separate line item under “Other Costs” for any knowledge translation activities (excluding travel).
 - The maximum amount that can be requested in Year 1 is \$125,000.
 - **Indirect costs will not be supported by the grant budget.**
 - When working in RMS360, please disregard any references to currency, and assume all values are in CAD.
8. **Biographical Sketches** (4 pages maximum per person, use template provided) of the Principal Applicant and all other faculty-level co-investigators, collaborators, and subcontract investigators must be provided. Bio-sketches are not required for consultants, trainees, technical personnel, or PWLE of type 1 diabetes who are collaborators.
9. **Relevant ethical approval documentation**, or a summary of the status of submissions for ethical approval.
10. **Details of Other Support.** Please use the online form within RMS360 to provide a summary of other sources of support, if any (current and pending).
11. **Protocol Synopsis** (for clinical interventional studies only; use template provided).
12. **Human Subjects Research Plan** (for studies involving human participants; use template provided).
13. **Letters of Support** (optional; maximum four) – can include but not limited to:
 - Collaborator (specify role and what they will bring to the project);
 - Party that stands to benefit from the research (i.e. a knowledge user);
 - Host, collaborating institution or partnering centres.
14. **Other documents** (optional) such as relevant In Press manuscripts (maximum three).
 - Manuscripts already published should be noted but copies should NOT be submitted.
 - Manuscripts in preparation or currently under review should NOT be submitted.

Confidentiality and Ownership

JDRF Canada and Brain Canada will keep all materials submitted for this funding opportunity confidential and only share them with reviewers, Review Panel members, and observers who have signed confidentiality and non-disclosure agreements. Funded applications will be retained for comparison of intended and actual outcomes, as part of the evaluation processes of each funder.

Review Process & Funding Decision

Registration Information

Registration information submitted by the deadline to apply will be verified by JDRF Canada and Brain Canada. Both organizations will perform a relevance review to identify applications that are eligible and in alignment with the objectives of this funding opportunity. All eligible and relevant projects will be invited to submit a Full Application. Applications that are not deemed to be relevant by both funding providers will be withdrawn from the competition. Registration is essential in order to submit a Full Application.

Full Application

Only those invited following a relevance review of Registration information are eligible to submit a Full Application. Applications submitted by the deadline will be reviewed externally by at least two reviewers.

JDRF Canada will manage the peer review process and select the peer review panel, in collaboration with Brain Canada. The peer review panel will be composed of Canadian and international members, with expertise in the field of mental health and diabetes and/or other chronic diseases. JDRF Canada will take into account conflicts of interest and other relevant considerations to ensure a balanced panel. JDRF Canada will not entertain appeals against the assessment of the peer review panel at any stage of the competition.

The peer review panel will discuss and rank applications at a virtual peer review meeting and bring forward a recommendation for grants to be funded by JDRF Canada and Brain Canada. In the situation of equal scientific merit being observed among two or more applications (defined as +/- 0.2 points [within 5%] of JDRF's ranking scale of 1.0-5.0), and only in this case, JDRF Canada and Brain Canada will consider underrepresented applicants, to be in line with the Equity, Diversity and Inclusion initiatives undertaken by both organizations.

Applicants will receive anonymized written comments from the Reviewers, and a notification of whether their application for funding has been successful on or after February 10th, 2022 (earliest possible date).

Communications

Recipients of the JDRF Canada – Brain Canada Addressing Mental Health in Type 1 Diabetes Team Grants must make every effort to attend events organized by JDRF Canada and Brain Canada, and present their projects, if applicable, to demonstrate the implications and importance of their research for moving the field of type 1 diabetes and mental health forward.

Contacts

Scientific Enquiries

Sarah Linklater, PhD
Chief Scientific Officer, JDRF Canada
slinklater@jdrf.ca

Catherine Ferland, PhD
Chief Research and Programs Officer, Brain Canada
catherine.ferland@braincanada.ca

Administrative Enquiries

research@jdrf.ca

Partner Descriptions

JDRF Canada

JDRF is a global leader in the search for an end to type 1 diabetes, through both research funding and advocacy. In addition to curing type 1 diabetes, part of their mission is to help those living with type 1 diabetes today to live healthier, easier, and safer lives. Their mission is realized by supporting research in three areas: Cure, Treat, and Prevent. Breakthrough research, transformative therapies, emerging technologies, translational opportunities, and clinical trials are prioritized.

jdrf.ca

Brain Canada

Brain Canada is a national registered charity that enables and supports excellent, innovative, paradigm-changing brain research in Canada. For two decades, Brain Canada has made the case for the brain as a single, complex system with commonalities across the range of neurological disorders, mental illnesses and addictions, and brain and spinal cord injuries. Looking at the brain as one system has underscored the need for increased collaboration across disciplines and institutions, and to ensure that Canada has a robust pipeline of talent to remain at the forefront in the field of brain research. This will lead to a smarter way to invest in brain research that is focused on outcomes that will benefit patients and families. Brain Canada's vision is to understand the brain, in health and illness, to improve lives, and achieve societal impact.

The Canada Brain Research Fund is an innovative partnership between the Government of Canada, (through Health Canada) and Brain Canada, designed to encourage Canadians to increase their support of brain research, and maximize the impact and efficiency of those investments. The Fund supports the very best Canadian neuroscience, fostering collaborative research and accelerating the pace of discovery, in order to improve the health and quality of life of Canadians who suffer from brain



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disorders. Over the past 20 years, Brain Canada and its donors and partners have invested \$250 million in more than 300 research projects across the country.

www.braincanada.ca