



Brain Canada
Request for Applications
British Columbia Alzheimer's Research Award
MSFHR/Genome BC/PARF/Brain Canada

About Brain Canada

Brain Canada is a national, charitable organization with the vision to understand the brain, in health and illness, to improve lives and achieve societal impact. Brain Canada is achieving its vision by:

- Increasing the scale and scope of funding to accelerate the pace of Canadian brain research;
- Creating a collective commitment to brain research across the public, private and voluntary sectors;
- Delivering transformative, original and outstanding research programs.

About the Canada Brain Research Fund

The Canada Brain Research Fund is a public-private partnership designed to encourage Canadians to increase their support of brain research, and maximize the impact and efficiency of those investments. Brain Canada has committed to raising \$100 million from private and non-governmental sources, which will be matched by government on a 1:1 basis. The Fund was announced in federal budget 2011, which proposed to “allocate up to \$100 million to establish the Canada Brain Research Fund, which will support 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 disorders.” Learn more at www.braincanada.ca

About Michael Smith Foundation for Health Research

The Michael Smith Foundation for Health Research (MSFHR) harnesses the power of health research to improve the health of British Columbians and their health system. It does this by building BC’s capacity for world-class research by funding the best scientists; coordinating the sharing of health research resources across the province; and bringing people together for health research planning and action. Learn more at www.msfhr.org.

About Genome BC

Genome British Columbia is a catalyst for the life sciences cluster on Canada’s West Coast, and manages a cumulative portfolio of over \$625M in research projects and science and technology platforms. Working with governments, academia and industry across sectors such as forestry, fisheries, agriculture, environment, bioenergy, mining and human health, the goal of the organization is to generate social and economic benefits for British Columbia and Canada. www.genomebc.ca

About Pacific Alzheimer Research Foundation

The mission of the Pacific Alzheimer Research Foundation (PARF) is to eradicate Alzheimer disease and other dementias. PARF is endeavoring to do this as the result of a grant from the Government of British Columbia and donations from private individuals. PARF will support scientists whose aim is to achieve this objective. PARF will assist universities, hospitals and other qualified British Columbia institutions to recruit investigators who will devote their efforts to eradicating Alzheimer disease and related dementias. www.parf.ca

Overview	3
Use of Funds.....	4
Eligibility	4
Criteria for Assessment	5
Review Process.....	5
Timeline	7
LOI Procedure.....	7
Full Application Procedure.....	9
Ownership, Confidentiality, and Intellectual Property.....	9
Reporting, Communications, and Evaluation	9
For further Information	10

Overview

Over 25,000 British Columbians are in the mild to moderate stages of Alzheimer’s disease, and that number will grow as the population ages. With no truly effective therapy to prevent, arrest, or cure this disease, there is an urgent need to increase support for high-quality, multidisciplinary research. Accordingly, Brain Canada, the Michael Smith Foundation for Health Research (MSFHR), the Pacific Alzheimer Research Foundation (PARF) and Genome BC are partnering to create a \$7.5 Million fund for research into Alzheimer’s disease in the province of British Columbia (BC). Through this opportunity, we aim to fund up to 5 new projects, each valued up to \$1.5M, conducted by BC-based principal investigators who meet the specific requirements of the collaborating partners:

- Brain Canada, in collaboration with MSFHR, PARF and Genome BC (the Partners), will receive applications from BC-based investigators for multi-investigator research initiative (MIRI) projects relevant to Alzheimer’s disease and related dementia whose purpose is to accelerate novel and transformative research that will fundamentally change our understanding of nervous system function and dysfunction and their impact on health. Brain Canada’s ultimate goal is to reduce the social and economic burden of neurological and mental health problems by prevention, early diagnosis, and treatment.
- MSFHR will contribute up to \$1.5M, matched by Brain Canada, to fund research focused on biological mechanisms associated with Alzheimer’s disease and/or translation research into therapeutic products.
- Genome BC will contribute up to \$1.0M, matched by Brain Canada, to fund research that builds on earlier genomics research and/or includes a genomics approach. Funded projects should include a translational component and may include clinical research.
- PARF will contribute up to \$1.25M matched by Brain Canada, to fund research focused on biological mechanisms associated with brain changes related to Alzheimer disease and related dementias and/or research into therapeutic agents, and may include clinical research.
- The Partners may add new funding partners that provide significant investments to this collaboration under terms approved by the collaborating partners.

Proposals that can expand the scope and scale of the project by leveraging additional funds from other funding partners or through collaboration with independently-funded non-BC-based researchers will be given priority.

MIRI grants are for three years and usually provide up to \$500,000 a year for a total of \$1.5M, but applications for highly-focused projects requiring more modest amounts are also welcome.

Use of Funds

MIRI grants may be used to support any aspect of the operating costs of the research project, including: supplies and materials; provision of special services and user fees; maintenance of essential equipment; travel of team members and trainees for collaboration and presentation of results; publication costs; salaries for technical personnel; stipends of trainees; and equipment that is currently unavailable but essential for the project. MIRI grants may not be used for salary payments to any team members who are eligible to apply for operating grants from the federal granting agencies. The Partners do not provide institutional overhead. MIRI grants are non-renewable.

By administering this Sponsored funding opportunity, including the review process and subsequent progress reporting, Brain Canada incurs operating and personnel costs. According to the federal Contribution Agreement governing the Canada Brain Research Fund, the only source of operating funds for Brain Canada is an administrative fee charged on funds flowing to grant recipients. Brain Canada's policy is to deduct 7.5% from the total amount awarded through the grant.

Eligibility

This opportunity is open to teams of two or more investigators in any scientific discipline who are eligible to apply for research grants from the Canadian federal granting agencies (CIHR, NSERC, and SSHRC).

- All members of the team who will receive funding from the grant must be located in British Columbia and affiliated with an acceptable institution located in the province.
- One of the team members will be designated Team Leader, and will be the individual responsible for communication with the funders and accountable for the team's research activities and use of funds.
- Teams must be multidisciplinary, and their members may be based in one or several research institutions. The team must include the range of expertise and experience required to carry out the proposed research.
- To build capacity and generate novel perspectives, the funders encourage the formation of teams that include researchers at all stages of their careers, as well as researchers from outside the neurosciences who now wish to extend their expertise to problems of the brain and nervous system.
- Collaborators from government, the private sector, and other provinces or nations are also encouraged in order to strengthen teams and facilitate the uptake of their research results, but The Partner's funds will only support research conducted in BC by BC-based researchers at institutions eligible to receive funding from the federal granting agencies.

- To be eligible for Genome BC's portion of the funding pool (maximum \$1M plus \$1M match from Brain Canada) applications must build on earlier genomics research and/or include a genomics approach, is translational in nature and may include clinical research.
- To be eligible for funding from MSFHR's portion of the funding pool (maximum \$1.5M plus \$1.5M match from Brain Canada) applications must be focused on biological mechanisms associated with Alzheimer's disease and/or identification of therapeutic agents.
- To be eligible for funding from PARF's portion of the funding pool (maximum \$1.25M plus \$1.25M match from Brain Canada) applications must be focused on biological mechanisms associated with brain changes related to Alzheimer disease and related dementias and/or research into therapeutic agents, and may include clinical research.
- Applications relevant to Genome BC, PARF and MSFHR will be funded by all four partners with Genome BC, PARF and MSFHR's contributions being matched 1:1 by Brain Canada.

Criteria for Assessment

To be recommended for funding, proposals must demonstrate:

- *Innovation and originality.* Proposals must be solidly-based in scientific fact and technically feasible; offer new concepts and approaches; have the potential to change paradigms; open the field to new experimental, preventive or treatment directions; or address a critical barrier to progress in understanding or application. Projects should represent a new area of research or a new approach to research from what the team has done before. While they may build on previous work of the applicants, proposals that merely extend current projects will not be considered innovative. Since a track record of innovative research, appropriate for career stage, is a predictor of future performance, quality of the team and novelty of the proposal will both be critical components of the assessment.
- *Multidisciplinarity and teamwork.* Members from different disciplines contribute a specific value to the team, the team contains the necessary expertise, and the team as a whole achieves synergy of effort in order to accelerate progress.
- *Potential for Impact.* The proposed research has the potential to reduce the social and/or economic burden of Alzheimer's disease.
- *Leverage.* Preference will be given to teams that can expand the scope and scale of the research project beyond what would be possible with only the Partner's funding. This may be accomplished by recruiting additional funding partners to support the project (this may itself leverage additional Brain Canada matching funds¹). Collaborations established with researchers outside BC who will add important strengths to the team and whose contribution to the project is funded from other sources are another form of leverage.

Review Process

Letter of Intent

Letters of Intent (LOIs) will be reviewed for both scientific merit and relevance to this specific call for

¹ Applicants who are able to recruit additional funding partners are advised to contact Brain Canada at an early stage of partnership-building to ascertain if the additional partner's contribution would be eligible for additional matching funds.

proposals and the requirements of the Partners.

Peer review for scientific merit will be conducted by Brain Canada's International peer review panel, which is composed of Canadian and International researchers, who are not applicants. The Committee will be recruited by Brain Canada, and Brain Canada will incorporate recommendations from the other Partners about the membership of the committee. At the discretion of the Chair of the Committee, certain LOIs may also be sent to other expert reviewers to obtain an additional opinion.

Subsequent to scientific review, merit review for relevance to this RFA will be conducted by an LOI Selection Committee composed of representatives from Brain Canada, MSFHR, PARF, Genome BC and the chair of the peer review panel. The LOI Selection Committee will determine which applicants should be invited to submit their LOI proposals as full applications. It may also recommend that applicants consider collaborating and consolidating their proposals, or that the application, though scientifically of high quality, is not relevant to this specific RFA. In this case applicants may submit a full application to the 2013 MIRI Sponsored Opportunity (<http://www.braincanada.ca/en/MIRI>), if they can recruit an alternate sponsor.

LOI applicants will receive anonymized reviewers' comments, and some will receive notes taken during the peer review panel discussion. If an LOI is considered uncompetitive, the LOI may not be discussed in detail and therefore the applicants may not receive notes of the panel discussion. The Partners will not entertain appeals against the assessment of the LOI Selection Committee.

Full Application

Only those invited by the Partners following the LOI review will be able to submit full applications.

Review for scientific merit will be done by at least two expert reviewers, and by two members of the Full Application Peer Review Committee composed of Canadian and International members with broad experience and expertise in the brain sciences, who are not applicants. MSFHR, PARF and Genome BC will provide suggestions to Brain Canada for membership of the committee and will observe its deliberations. The peer review committee will provide the Partners with a rating and ranking of proposals submitted to this specific RFA.

The Full Application Selection Committee will be composed of representatives of each of the funders. The Committee will receive the rating and ranking of the proposals from the peer review committee and will approve proposals in descending rank-order, and taking into account the special requirements of each Partner, until the funding pool is depleted.

Applicants will receive anonymized written comments from the expert reviewers and if applicable the notes taken during the discussion of the application by the peer review committee. The Partners will not entertain appeals against the assessment of the Selection Committee.

The membership of all peer review committees involved in the adjudication of this funding opportunity will be posted on the Brain Canada website after the results are published.

Timeline

Call for Applications:	December 18, 2013
Deadline for Receipt of Letters of Intent	16.00 EST, February 10, 2014
Invitations to submit full application issued	April 7, 2014
Deadline for Receipt of Applications	16.00 EST, June 30, 2014
Notification of Award:	August 25, 2014
Funding begins:	Earliest date, October 1, 2014

LOI Procedure

All LOIs must be submitted using Brain Canada's electronic grant management system. The system will be made available on the Brain Canada Website at least three weeks before the deadline date.

The Team Leader must sign on to the Brain Canada electronic grant application submission portal and before **16.00 EDT February 10, 2014** complete an application containing the following components.

LOI Components:**1. Cover:**

- Title of proposal;
- Name and contact details of team leader;
- Total amount requested

2. Project (maximum 3 pages). Include:

- Up to 10 key words;
- A summary of the research project and its goals, emphasizing its innovative and original features. It is also important to explain how the project is feasible within the time and funding available from the requested MIRI grant.
- A description of the anticipated impacts of the project outcomes on reducing the social and/or economic burden of brain and mental health problems through advancing fundamental knowledge and/or improved prevention, diagnosis, and treatment. Describe the projected timeline for realizing the impacts of the project, including a description of the additional resources that will need to be secured to achieve long-term objectives.
- An explanation of how the intended project furthers the research capacity-building, knowledge translation, or other objectives of Genome BC and The Michael Smith Foundation for Health Research, including:
 - Research conducted in the province of British Columbia related to causes, treatments and knowledge translation for Alzheimer's disease.
 - Focus on biological mechanisms associated with Alzheimer's disease and/or identification of therapeutic agents.
 - How MSFHR's share of expenditures might be expended by July 30, 2017.

- How Genome BC's share of expenditures would fund research that builds on earlier genomics research and/or includes a genomics approach, is translational in nature and may include clinical research.

3. Team members.

- Name, institution, position, and disciplinary affiliation of *up to ten* team members, including those from industry, government and other provinces and countries.
- Explain the role that each will play, and conclude with an overview of how the entire team will work together. For those ineligible to receive Partner funding, explain how their contribution to the project will be funded.
- If there are more than ten members, select those most essential to the project and only list the names and affiliations of the other members).
- Full CVs are not required.

4. Publications

For each of the up to ten team members, cite up to five of their publications, of which at least three must have been published in 2009 or later. "Publications" means any type of document or medium, print or electronic, which best illustrates the member's relevant research experience, expertise and achievement. Ideally, these describe paradigm-shifting ideas and findings, or examples of effective application and knowledge translation of research findings, and demonstrate the applicant's ability to contribute to the proposed research project. Each item should be annotated with a brief reason for its selection. Include the DOI, URL or PMID of publications where applicable so that reviewers can access them.

5. Attachments:

- Description of Leverage: If applicable, a description of how the project will expand in scope and scale beyond what would be possible with only the Partner's funding, through anticipated recruitment of additional funding partners to support the project, or through collaborations established with researchers outside BC who will add important strengths to the team and whose contribution to the project is funded from other sources are another form of leverage.
- References (maximum 1 page).
- Letters of support or collaboration from potential additional funding partners or collaborators outside B.C.

6. Signatures and Certification:

- The following statement: "I certify that all members of the team have agreed to their inclusion in this LOI, and allow me to represent them throughout the application process. I also certify that all team members permit Brain Canada to circulate this LOI and subsequent full application to third parties, under a confidentiality agreement, for the purpose of securing matched funding",
- Signature of the team leader

It is the sole responsibility of the applicants to ensure their LOI submission is acceptable and received before the deadline. Those received in any other format, exceeding the page limits, incomplete, or late, will be rejected. Brain Canada will acknowledge receipt of LOIs by email within two working days. Brain Canada does **not** require at the LOI stage: signatures denoting institutional support; regulatory

or ethical approval; copies of publications; evidence of preliminary results; methodological appendices; etc. Extraneous material will be deleted before the LOI is sent to the reviewers.

Full Application Procedure

Full applications are due on or before 16:00 EST on June 30, 2014

Applications must be submitted using Brain Canada's electronic grant management system. The system will be made available on the Brain Canada Website at least three weeks before the deadline date

The details for submitting a full application will be provided to the Team Leaders of the successful LOIs following the LOI review process, but in general additional and more detailed information will be required, relevant to the assessment criteria. Applicants will also provide a response to the reviewer's and Partner's comments on the LOI.

Ownership, Confidentiality, and Intellectual Property

Brain Canada will keep all materials submitted to it for this funding opportunity confidential, and will take reasonable steps to keep these materials confidential, and divulge them only to reviewers, peer review and Selection Committee members and observers, and the Partners, who sign confidentiality agreements. Funded applications will be retained for comparison of intended and actual outcomes, as part of the final evaluation of the Canada Brain Research Fund.

The Partners do not claim ownership of intellectual property (I.P.) arising from research it funds, and expects that its funds will be used to create I.P. that is developed and commercialized according to the policies of the research institutions in which the research is performed. Team members must resolve I.P. ownership issues among themselves and with their institutions before submitting an application. Where the Sponsor is a for-profit entity, Brain Canada must be consulted to determine if the I.P. arrangements are acceptable, and this will be a component of the Sponsorship agreement with Brain Canada.

Reporting, Communications, and Evaluation

As a condition of continued annual funding the Partners require a brief yearly narrative and financial progress report from the team leader, outlining use of funds, project achievements and impacts realized, as well as difficulties encountered and steps taken to overcome them. Continued funding will be based upon a satisfactory review of the progress report by all Partners. If progress is considered questionable, after discussion with the team, the Partners may agree to extend the period over which the funds are available, or cancel further funding. Details of the reporting process will be provided to funded applicants.

In order to demonstrate to Canadians the ongoing value of the the Partner's research investments, funded teams must contact Brain Canada in advance of the publication, release or public presentation of research results obtained with the grant, so that a press release or other publicity can be prepared in collaboration with MSFHR and Genome BC. Embargoes will be strictly respected. Acknowledgment of Partner funding must accompany all publication, release or presentation of such research results.

At the end of the funding period ten percent of the final year's funding will be withheld and released on receipt of a satisfactory end-of-project report that describes the current and estimated future outputs and impacts of the research project.

For further Information

For any other information or questions:

- About the overall MIRI competition and application process, please contact Haifa Staiti, Manager Research Programs, at haifas@braincanada.ca or at 647-428-5279.
- About the requirements of the MSFHR, please contact David Plug, Director of Marketing & Stakeholder Relations at dplug@msfhr.org or at 604-714-2797.
- About the requirements of Genome BC, please contact Alison Dendoff, Coordinator New Programs at adendoff@genomebc.ca or at 604-637-4381.
- About the requirements of PARF, please contact Kathryn Pearson, Executive Director at parf@telus.net or at 604 678-8138.