Terms of Reference: ALS Canada-Brain Canada Discovery Grant Program 2021

Overview

The 2021 Discovery Grant Program encompasses applications previously designated as Project Grants. The purpose of the program is to invest in the best possible projects that are i) novel or innovative research approaches, supported by sound rationale and a feasible experimental plan, but not necessarily preliminary data, ii) focused on identifying causes of, or treatments for ALS and/or related neurological diseases, including primary lateral sclerosis, progressive muscular atrophy, and ALS/FTLD (frontotemporal lobar dementia), or iii) research focused on avenues to maximize function, minimize disability and optimize quality of life through symptom management, and support to families and persons or families living with ALS. Examples include, but are not limited to, management of secretions and cramps, psychological interventions to address mental health issues, nutritional interventions, respiratory care, engineering applications to reduce physical limitations, and programs to address the needs of caregivers.

The Discovery Grant Program is designed to support teams of multiple investigators and especially encourages multidisciplinary teams with individuals from outside the field who can combine their expertise in novel or innovative ways.

About ALS Canada

Founded in 1977, the ALS Society of Canada (ALS Canada) and our provincial partners are dedicated to supporting Canadians living with ALS and investing in research to make ALS a treatable, not terminal, disease. We are a registered charity that receives no government funding – all of our services and research are funded through the generosity of our donors. Through the ALS Canada Research Program, we fund peer-reviewed research grants, foster collaboration and build capacity within Canada’s ALS research community and participate in new areas of research where we are well positioned to have an impact. Within Ontario, ALS Canada has a role similar to that of the provincial ALS societies providing services and support to help meet the needs of people living with ALS. ALS Canada advocates federally, provincially, and locally for better government support and access within the healthcare system for people touched by ALS. [www.als.ca](http://www.als.ca)

About Brain Canada Foundation

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, 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. 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 disorders. www.braincanada.ca

**Funding**

Up to eight awards of up to $125,000 will be awarded in this cycle. The one-time award may be used for research projects over a 24-month period, with the requested duration at the discretion of the Principal Investigator (PI). The funds must contribute towards the direct costs of the research project for which they were awarded and should be directly attributable to the project. Indirect or overhead costs are not eligible. Please note that no more than 50% of the award funds can be allocated to research expenses incurred outside of Canada.

**Eligibility**

A minimum of 2 independent investigators are required, from different institutions or distinct departments within the same institution. A lead investigator must be named who will assume the administrative and financial responsibilities for the team grant. The lead investigator’s institution will be deemed the host institution for the grant and will receive the funding disbursements from Brain Canada.

Evidence clearly shows that increasing equity, diversity, and inclusion (EDI) in research environments enhances excellence, innovation, and creativity. ALS Canada and Brain Canada are committed to excellence through equity, and we encourage applicants of diverse backgrounds to apply to our funding opportunities.

For options i and ii above, each co-investigator must be an independent researcher who has a PhD or equivalent, or a health professional degree (MD). Clinical researchers should have completed residency training which includes research experience, or the individual should have previous research experience. The PI must hold an academic position at a qualifying Canadian institution, defined according to CIHR guidelines.

For option iii above, the Principal Investigator must hold a degree recognized by a professional order with experience treating or working with people living with ALS. The PI must hold an academic position at a qualifying Canadian institution, defined according to CIHR guidelines. In the event that the PI does not hold an academic position, justification must be provided for assessment by an ad hoc sub-committee of the ALS Canada Scientific and Medical Advisory Council.

Please note that academic appointments must be in place and begin by the funding start date of January 1, 2022.
**Important Dates**

- Call announced: May 7, 2021
- Application deadline: July 5, 2021 (1:00 pm ET)
- Notification of award: October 2021
- Earliest funding start date: January 2022

**Application Process**

Complete applications should be submitted via email to the ALS Canada Research Team (research@als.ca), as a **single PDF file** by **1:00 pm ET on July 5, 2021**. Applicants should request delivery and read receipts. An email acknowledging receipt of the application will be sent. Up to two individuals may be excluded as reviewers.

Applications will need to be formatted using standard fonts (Calibri-11, Arial-11, or Times Roman -12), single-spaced, on a letter-size page with minimum margins of 0.5"/1.27 cm on all sides. The font size for figures and legends must be a minimum of 10 points. Use of a condensed font and spacing is not permitted. **It is the sole responsibility of the applicant to ensure their submission adheres to these requirements and is received before the deadline.**

Please submit your applications for review in the following order:

1) Cover page
2) Abstract (scientific) (limit ½ page)
3) Research Plan (limit 6 pages)
4) Figures and Tables (limit 3 pages)
5) Bibliography
6) Proposed Budget and Justification
7) Curriculum Vitae (see below for format) (limit 5 pages per CV)
8) Supporting Documents
9) Other funding currently held or applied for

1) **Cover page**

Please note, this is provided as a fillable form page (Word Doc), downloadable from the ALS Canada website.

2) **Abstract**

The abstract should be scientific and approximately one-half page in length describing the hypothesis, rationale, specific aims and significance with respect to identifying causes and/or treatments for ALS OR of the proposed project to the quality of life management for individuals living with ALS.
3) Research Plan

The research plan should be a maximum of SIX pages, adhering to the format described above. The research plan should be organized under the following headings:

a) Rationale
   - statement of the hypothesis/objective of the proposed research

b) Significance of the proposed project to the identification of causes or development of treatments for ALS
   - describe what is novel and exciting about the research plan

c) Background
   - a comprehensive literature review is not expected. Please supply only the information that is required for reviewers who are specialists in ALS and related neurological diseases to understand the proposal

d) Preliminary results supporting the hypothesis/research objective
   - this information can be provided in the Rationale or Experimental Plan, or here as a separate section

e) Experimental Plan

Due to constraints of space, put emphasis on the description and justification of the general methodology to be used to test the hypothesis or achieve the research objectives.

Understanding sex, gender, sexual orientation, age, ethnic and socioeconomic status, and/or other determinants of health, and how they interact with other determinants can help to ensure that research projects lead to better outcomes and are beneficial for all people living in Canada. Applicants are encouraged to consult the CIHR Online Training Modules for Integrating Sex & Gender in Health Research.

If applicable, please describe how relevant determinants of health will be integrated into the research question, analysis, results, and reporting.

4) Figures and Tables

A maximum of THREE additional pages are allowed for figures and/or tables which accompany the research plan (including preliminary data or information to support feasibility). These pages may not be used for supplementary text. Figures and tables should not be interwoven with the text of the Research Plan.
5) Bibliography

The research plan should be appropriately referenced. Please use a format that includes the title of the reference. The Bibliography is not included in the total page count.

6) Proposed Budget and Justification

Using the template provided, the budget should clearly itemize proposed use of project funds under appropriate categories and consistent with CIHR approved expenditures: personnel, laboratory equipment, consumable supplies, laboratory animals, other (including service contracts, service charges, publication costs, etc.). Indirect or overhead costs are not eligible under these grants. Researchers can request up to a total of $125,000 to be spent over a 12-24-month period.

A detailed budget justification, describing the proposed costs for each of the major categories, should be submitted with the itemized budget.

7) Curriculum Vita(e)

The curriculum vitae of the Principal Investigator and Co-Investigator(s) must be provided. Please do not submit the Canadian Common CV. CVs should take the form of an NIH-style abbreviated biosketch, including the following sections: Education and Training, Positions and Honours, Research Focus (one paragraph), Professional Activities and Awards, Peer-reviewed Publications relevant to the proposal, and Research Funding within the last five years and research outputs stemming from this funding. Maximum of FIVE pages per CV.

8) Supporting Documents

   a) Letters of collaboration or support from colleagues who will provide resources critical to the research project should also be included, if applicable, to demonstrate the feasibility of the proposed research plan.

   b) Applications considered as resubmissions from previous competitions may provide up to ONE page outlining a response to previous reviews. Peer reviewers will be provided previous reviews to gauge responses and assess any necessary improvements.

9) Other funding currently held or applied for

Please submit a list of funding currently held or pending, and indicate any overlap with your proposal.

Evaluation

Applications will be reviewed, scored, and ranked together by an International Peer Review Panel comprising basic and clinician scientists with expertise in ALS and/or related neurological diseases. Panel members and future chairs are selected by the current Panel Chair, the VP Research at ALS Canada, the chair of the Scientific and Medical Advisory Council of ALS Canada, a Brain Canada representative, and
approved by the board of ALS Canada. Grants will be assessed on novelty/innovation, scientific merit, potential impact, and feasibility of the experimental plan.

Additional external reviewers may be solicited according to additional expertise required or workload of the Panel members. These external reviewers will provide ratings and detailed comments to inform the discussions at the meeting of the Panel.

Post-panel discussion between the ALS Canada and Brain Canada Research Teams, CEOs, and observing Board member(s) will determine how the recommendation will be presented to the Board of Directors for funding decisions.

All applicants will receive anonymized reviewers’ comments and a summary of major discussion points from the ALS Canada VP Research, unless not discussed in detail at the meeting.

**Conditions of the Award**

1. Release of funds will be subject to receipt of relevant ethics approvals from the lead PI’s institutional review committees, where necessary (for use of human subjects, research animals, or hazardous materials). Note, the lead PI will be responsible for ensuring that relevant ethics approvals have been obtained at each participating institution. No-cost extensions are possible, pending approval by ALS Canada and Brain Canada. Significant changes in research aims or budget allocation requires a priori permission of ALS Canada and Brain Canada.

2. Funds will be sent in instalments to the lead PI’s institution.

3. **Annual progress reports are required**, which will include a scientific report, due within 30 days of the anniversary of the project start date, and an institutional financial statement, due within 60 days of the anniversary of the project start date. Subsequent instalments will be contingent upon receipt of satisfactory scientific progress and financial reports. Please note that funding may be suspended or terminated following failure to produce such reports within the required timeframe. A final progress report is due within 60 days of end date of the grant. Reporting templates will be provided by ALS Canada upon acceptance of the award. Reports will be evaluated by both ALS Canada and Brain Canada.

4. Funding is contingent upon compliance with the policies of ALS Canada and Brain Canada.

5. Budgetary overlap for the project with other funding provided by ALS Canada, Brain Canada, or another agency must be disclosed.

6. The intent of these grants is to fund research that will be in the open domain. All manuscripts, presentations, abstracts, etc. must acknowledge funding by ALS Canada, the Government of Canada (Health Canada), and Brain Canada. Grantees should make every effort to publish all
findings related to the project and to acknowledge ALS Canada and Brain Canada in media events discussing research funded through this competition. Manuscripts or other presentations in press must be sent to the VP Research of ALS Canada upon acceptance for publication. ALS Canada should also be notified as soon as possible of media events related to the project, and ALS Canada will relay this information to Brain Canada.

7. **Awardees are required to inform the VP Research of ALS Canada of significant difficulties, availability of resources, additional funding sources, or changes to the experimental plan throughout the term of the grant.**

8. **For the purposes of advocating the missions of ALS Canada and Brain Canada, it is expected that funded researchers will actively engage with, or on behalf of, ALS Canada and/or Brain Canada when requested.**

9. **To encourage collaboration and increase the visibility of ALS researchers, ALS Canada is establishing an official national research network. Once established, participation and registration in this network will be required in order to receive new or continuing funding from ALS Canada. Funded researchers will be expected to make every effort to attend the annual ALS Canada Research Forum as a sponsored invitee and will be encouraged to present their project upon request.**

**Questions and Additional Information**

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