

Funding by:



ALS CANADA
RESEARCH PROGRAM



Fondation
Brain Canada
Foundation



Financial contribution from
Avec le financement de

Health
Canada
Santé
Canada

Terms of Reference: ALS Canada-Brain Canada Discovery Grant Program 2022

Overview

The purpose of the 2022 Discovery Grant Program is to invest in the best possible projects that are **a)** 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 **b)** research focused on avenues to maximize function, minimize disability and optimize quality of life through symptom management, and support to 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.

Discovery Grants are 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 the ALS Society of Canada

The ALS Society of Canada is working to change what it means to live with amyotrophic lateral sclerosis, an unrelenting and currently terminal disease. Grounded in and informed by the Canadian ALS community, we respond to the urgent unmet need for life-changing treatments by investing in high-quality research that will fuel scientific discovery and by engaging industry, supporting increased clinical capacity and advocating for equitable, affordable and timely access to proven therapies. Responding to the tremendous need for current and credible ALS knowledge, awareness and education, we empower Canadians affected by ALS to navigate the current realities of ALS, be informed consumers of ALS information, and advocate effectively for change. In Ontario, we provide direct community services to help people navigate ALS. Founded in 1977, we are a registered charity that receives no core government funding – our work is powered by generous donors who share our vision of a future without ALS.

www.als.ca

About Brain Canada Foundation

Brain Canada Foundation (Brain Canada) is a national registered charity that enables and supports excellent, innovative, paradigm-changing brain research in Canada. For more than 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.

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The Canada Brain Research Fund (CBRF) is an innovative arrangement between the Government of Canada, through Health Canada, and Brain Canada Foundation, 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. To date, Health Canada has invested over \$130 million through the CBRF which has been matched by Brain Canada Foundation and its donors and partners. www.braincanada.ca

Funding

The program consists of two streams, which both consist of novel or innovative research approaches, supported by sound rationale and a feasible experimental plan, and maintain the high-risk/high-reward mindset:

Stream 1 is aimed at nurturing novel ideas looking to obtain preliminary data or to pursue ideas supported by very early data signals. Preliminary data may enhance competitiveness but is not necessarily required. Up to six awards of up to \$125,000 will be awarded in this cycle. The one-time award is intended to be used for research projects over a 24-month period.

Stream 2 consists of more ambitious projects that are supported with some level of preliminary data to justify the larger investment. Up to two awards of up to \$300,000 will be awarded in this cycle. The one-time award is intended to be used for research projects over a 36-month period.

Consideration will also be given to projects in either stream that are rooted in excellence and seek funds to bridge key projects to multi-year external funding.

For either stream, 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.

Alternative durations for the award can be requested by the Principal Investigator (PI), but an accelerated spend must be well justified.

Eligibility

For both streams, 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

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excellence through equity, and we encourage applicants of diverse backgrounds to apply to our funding opportunities.

For option a) 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 independent academic position at a qualifying Canadian institution, defined according to [CIHR guidelines](#). Such an individual normally holds the rank of assistant or associate professor; can initiate and direct their own independent lines of research as principal investigator; has full responsibility for running their laboratories; 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.

For option b) 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.

Applicants may submit more than one application to the competition, provided that the proposed projects are sufficiently different and there is no overlap in funding. Applications must be entirely independent from each other; results or experiments from one project cannot be used to inform the other.

Applicants must be in a position to initiate the project in January 2023, when funding begins.

Important Dates

- Call announced May 12, 2022
- Application deadline July 5, 2022 (1:00 pm ET)
- Notification of award October 2022
- Funding begins January 2023

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, 2022**. 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

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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

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- 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, if applicable

- 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. Depending on the stream, researchers can request up to a total of \$125,000 or \$300,000 to be spent over a 24-month or 36-month period, respectively.

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A detailed **budget justification**, describing the proposed costs for each of the major categories, should be submitted with the itemized budget. If an alternative duration for the award is requested by the PI, the accelerated spend must be well justified.

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. If multiple applications are being submitted to this Discovery Grant competition, please also include a brief description of how those applications differ from this one.

Evaluation

Applications will be reviewed, scored, and ranked by an International Peer Review Panel comprising basic and clinician scientists with expertise in ALS and/or related neurological diseases. Streams will be evaluated separately rather than pooled so applicants should be mindful of the most suitable stream for their project.

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.

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Post-panel discussion between the ALS Canada and Brain Canada Research Teams, CEOs, and observing Board member(s) will precede the recommendation 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. Funds will be sent in instalments to the lead PI's institution. 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. 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.
3. Funding is contingent upon compliance with the policies of ALS Canada and Brain Canada.
4. Budgetary overlap for the project with other funding provided by ALS Canada, Brain Canada, or another agency must be disclosed.
5. 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. Funded researchers 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.

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6. 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.
7. 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.
8. 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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