

Azrieli Foundation - Brain Canada Early-Career Capacity Building Grants Request for Applications (RFA)

About the Azrieli Foundation

For almost 30 years, the Azrieli Foundation has funded institutions as well as operated programs on the ground in Canada and in Israel. The Foundation supports scientific and medical research, higher education, music and the arts, Holocaust education, youth empowerment and school perseverance, architecture, and quality of life initiatives for people with developmental disabilities.

www.azrielifoundation.org

About Brain Canada

Brain Canada is a national registered charity headquartered in Montreal 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 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. Brain Canada is raising up to \$120 million from private donors and non-federal partners—now numbering more than 100—which is being matched by Health Canada on a 1:1 basis. 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

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Rationale

Supported by the Canada Brain Research Fund, the general purpose of the Early-Career Capacity Building Grant program is to accelerate novel and transformative research that will fundamentally change our understanding of nervous system function and dysfunction and their impact on health. The goal is to reduce the social and economic burden of neurological and mental health problems by prevention, early diagnosis, and treatment.

At the early stage of an investigator's career, recently hired faculty are in a strong position to formulate innovative research projects that are "high risk/high reward", but they often lack the preliminary data required to obtain their first large grant. This program provides an opportunity to develop new lines of research on the fundamental properties and mechanisms of the brain and nervous system, and gather such preliminary data.

The Early-Career Capacity Building Grant has the potential to be transformative at a time when it is well recognized that there is a significant funding gap to support and retain our brightest early-career investigators, who are well positioned to make major contributions to Canadian brain research.

Grant Details

This competition has an overall envelope of \$1,000,000 to support 10 projects that last two years each, for a total of \$100,000 per project.

Scope

Projects should represent new lines of research and be distinct from other research projects conducted by the investigator. This competition encourages innovative, unorthodox and speculative proposals. It also encourages early-career investigators to capitalize on existing platforms and data repositories to create innovative and sustainable research programs.

The research topic will focus on the fundamental properties and mechanisms of the brain and nervous system including:

- Basic research into fundamental neuroscience challenges, including functional studies based on the use of genome data.
- Projects related to disease or dysfunction of the nervous system if they will lead to new insights into fundamental biological mechanisms.
- Projects aimed at developing novel methods, or models of neural activity, if these methods allow new neuroscientific questions to be answered.

The following projects will not be considered for funding:

- Projects dealing exclusively with pathophysiology or applied clinical research.
- Projects which involve only genome mapping or sequencing.
- Projects using any "-omics" approaches that will generate large datasets, but provide no convincing conceptual basis for their analysis.
- Systematic screening approaches aimed at identifying biological components or reagents.

Use of Funds

The funds must contribute towards the direct costs of the research for which the funds were awarded, and the benefits should be directly attributable to the capacity building grant.

Capacity building grants are non-renewable.

Eligible costs

Capacity building 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 the principal investigator and trainees for presentation of results;
- Publication costs;
- Salaries for technical personnel;
- Stipends of trainees;
- New equipment that is currently unavailable but essential for the project.

Ineligible costs

- Salaries and consulting fees of the principal investigator applying for the Capacity Building grant
- Indirect costs or overhead costs associated with managing the research project.

Note that this list is not exhaustive, and Brain Canada may rule any other expenditure eligible or ineligible. Please contact Brain Canada about the eligibility of expenditures not listed here.

Eligibility

- This opportunity is open to individual investigators in the early phase of their careers at a Canadian Institution, within three years of obtaining an independent research position by the deadline to apply. Periods of time when individuals were on family or health leave will not be included in calculating the three years.
- Such an individual normally holds the rank of assistant or associate professor; is able to initiate and direct their own independent lines of research; has full responsibility for the running of their laboratories; has full control of their research funds; and is permitted to supervise graduate students. Therefore, postdoctoral fellows or adjunct faculty are not eligible to apply.

Criteria for Assessment

Innovation and originality

Quality of the project which, while solidly based in scientific fact and technically feasible, offers new concepts and approaches, with the potential to change the paradigms of the field, or open the field to new experimental directions, or address a critical barrier to progress in understanding fundamental properties of the nervous system. Projects must be distinct from the investigator's other research funded by other sources.

Feasibility

The degree to which the proposed research can be successfully executed within the timeframe, budget and resources available.

Potential for Impact

The degree to which the proposed research has the potential to fundamentally change our understanding of brain and nervous system function in the long-term.

Excellence of the principal investigator

The investigator's potential to successfully complete the project, based on an assessment of their track record of quality training and innovative research, and a letter of reference from a former supervisor.

Review Process

Please note that the Early-Career Capacity Building Grant Program does not include a Letter of Intent stage.

Full applications will be reviewed by two members of a Review Panel composed of Canadian and International members with broad experience and expertise in the relevant fields of brain research and who are not applicants, to ensure that all funded proposals are assessed against similar standards of excellence. In addition, the application might be reviewed by one or two external reviewers to judge on a specific aspect of the application.

Applicants can provide suggestions for the membership of the Review Panel, and for the selection of the expert reviewers who will provide the Panel with expert advice on specific applications. The Review Panel will provide a merit score for each full application, and recommend to Brain Canada and the Azrieli Foundation those applications that have received a sufficiently high merit score to deserve funding.

Applicants will receive anonymized written comments from the Review Panel and external reviewers but, if considered uncompetitive by all reviewers, certain applications will not be discussed in detail at the Review Panel meeting and will therefore not receive notes. Brain Canada and the Azrieli Foundation will not entertain appeals against the assessment of the Review Panel.

How to Apply

Principal investigators should contact Brain Canada (programs@braincanada.ca) if they have enquiries about the application process. All full applications must be submitted using Brain Canada's electronic grant management system (<https://braincanada.smartsimple.ca/s/Login.jsp>). The principal investigator must complete all required application fields in the Brain Canada's electronic grant application system before 16:00 ET on the deadline dates listed below.

Timeline

Launch of Request for Applications	February 14, 2018
Electronic grant application system open	March 1, 2018
Deadline for receipt of Full Applications	April 17, 2018 at 16:00 ET
Notification of Award	Mid-July, 2018
Funding begins (earliest date)	October, 2018

Full Application Components

The Full Application will need to be formatted using 12-point Arial or Georgia 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. **It is the sole responsibility of the applicant to ensure their submission is acceptable and received before the deadline.** Those received in any other format, exceeding the page limits, incomplete, or late, will be rejected.

Project summary (maximum 1000 words)

- Project title.
- Project start and end dates (note: choose dates within a 24-month window).
- Keywords (including free form): up to 10 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 grant.

Lay summary (maximum 300 words)

Suitable for publication and understandable by non-scientists.

The proposal (maximum 6 pages excluding figures, legends and references)

Proposals should include the following information, structured so as to best address the criteria for assessment (innovation and originality; feasibility; potential for impact; excellence of the principal investigator):

1. The **overall objectives** to be achieved by the end of the funding period
2. The rationale for undertaking the study now, including:
 - A clear statement of the unique and innovative features of the project;
 - An explanation of how this project is different from what the principal investigator has done before.
3. The work plan, including:
 - The approaches, methods and techniques that will be used;
 - **Timeline and Anticipated milestones:** key intermediate stages in achieving the overall objectives, and the projected dates for their achievement;
 - Potential pitfalls or obstacles, and how they will be overcome;
 - Methods of data analysis, including statistical methods and calculations to show that the study will be adequately powered.

4. The expected outputs from the study, and how its findings will be disseminated to those who need to know about them:
- Include plans for making the data from the project available to other qualified researchers;
 - What are the expected impacts of the results you will obtain? Refer to the six main categories of research impacts: advancing knowledge; building capacity; informing; decision-making; health impacts; and broad socioeconomic impacts;
 - How will the outcomes from the study advance knowledge on the fundamental properties and mechanisms of the brain and nervous system through either functional results, based upon use of genome data, results related to disease or dysfunction of the nervous system providing insights into fundamental biological mechanisms or developments of new methods allowing new neuroscientific questions to be answered?

Sex and gender considerations (maximum 2 pages)

Understanding sex and gender as 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 men and women, boys and girls living in Canada. Please provide a brief description to each enquiry below:

- Are sex (biological) considerations taken into account in this study?
- Please describe how sex has been addressed in your research project. If you answered no, please describe why sex is not applicable to your research project.
- Are gender (sociocultural) considerations taken into account in this study?
- Please describe how gender has been addressed in your research project. If you answered no, please describe why gender is not applicable to your research project.

Ethical, social and legal aspects (maximum 1 page)

Please describe any ethical, social, and legal implications of your research project.

Publications of the principal investigator

- Cite up to five publications, of which at least three must have been published in 2013 or later. “Publications” means any type of document or medium, print or electronic, which best illustrates the applicant’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.
- Explain the role of any trainees in the project and the unique learning opportunities they will experience (separate attachment, maximum 1 page).

CV of the principal investigator (maximum 2 pages):

- Note training and employment history, honours and distinctions, experience working in collaborative projects, and major grants held in the past five years;
- State total number of publications;
- Indicate the average hours per week that the principal investigator will devote to this project;

- Provide a URL link to a full CV on an institutional website, or equivalent (e.g. Google Scholar profile, CCV).

Budget

- A yearly budget must be provided.
- Provide costs for major categories only:
 - Salaries for technical personnel;
 - Stipends of trainees. If funding for trainees is requested, an additional page should be provided, explaining the precise role of the trainees in the project, and justifying this as an outstanding training opportunity;
 - Maintenance of essential equipment; equipment that is currently unavailable but essential for the project;
 - Supplies and materials;
 - Provision of special services and user fees, payments to subjects;
 - Travel of principal investigator and trainees for collaboration and presentation of results;
 - Publication costs.
- Each amount for a category as well as the sum of all categories must be rounded to a multiple of \$1,000.

Attachments

- **Letter from former supervisor:** the supervisor, who is familiar with the applicant's achievements as a scholar and researcher, must provide a one-page reference letter on the applicant's behalf. The letter explains the nature of the interaction between the applicant and the former supervisor, and provides specific examples of situations where the applicant demonstrated creativity, initiative, collaboration, and other qualities predictive of a successful researcher.

Optional information

- Provide names and contact information for up to three individuals outside Canada and who do not have a conflict of interest, who would be competent to evaluate the application;
- List individuals to whom the application should not be sent for review.

Reviewers will be selected by Brain Canada, taking these and other suggestions into account.

Certification and Signatures

- Signature of the principal investigator is mandatory for the application to be considered and must be submitted before the deadline;
- Institutional signatures: Signature of the responsible official of the institution where the principal investigator will conduct the research is required and the applicants should ensure to obtain this signature early enough to meet the deadline.

Confidentiality and Ownership

Brain Canada and the Azrieli Foundation will keep all materials submitted for this funding opportunity confidential, and will take reasonable steps to keep these materials confidential, and divulge them only to reviewers, Review Panel members, and observers who have signed

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.

Brain Canada and the Azrieli Foundation do not claim ownership of intellectual property (IP) arising from the research they fund, and expect that the funds will be used to create IP that is developed and commercialized according to the policies of the research institutions in which the research is performed.

Reporting, Communications, and Evaluation

Brain Canada and the Azrieli Foundation will support truly innovative and therefore risky research and need to know that these risks are acceptable. As a condition of continued annual funding of Early-Career Capacity Building Grants, Brain Canada and the Azrieli Foundation require regular communication with the principal investigator and annual scientific progress and financial reports, outlining use of funds, project achievements and impacts realized, as well as difficulties encountered and steps taken to overcome them. Brain Canada will share the progress reports with the Azrieli Foundation.

- **Scientific Progress Report:** The principal investigator is required to submit a completed annual scientific progress report to Brain Canada no later than 30 days after the first anniversary of the project start date, and a final scientific progress report no later than 60 days after the last anniversary date of the project start date.
- **Financial Report:** The principal investigator and the Host Institution are required to provide an annual financial report no later than 60 days after the first and last anniversary of the project start date, including the following:
 - Financial statement: signed by a financial administrator at the Host Institution and including a list of expenditures for the reporting period as per the categories of expense in the approved Project budget;
 - Financial explanation: completed by the principal investigator and providing justification by category of expense for any variance of more than 20% from the approved detailed budget. At the end of the first year of the project, if there is an unspent balance of more than 25% of the funds available for the current year, the principal investigator must provide a forecast of expenditures for the next six (6) months with detailed explanation.

Subsequent instalments will be contingent upon receipt of satisfactory scientific progress and financial reports. Please take note that funding may be **suspended** or **terminated** following failure to produce such reports within the required time limits.

If a progress report lacks details, is questionable or indicates that the project is behind schedule, Brain Canada will communicate with the principal investigator to obtain more information. Brain Canada may offer the possibility for the principal investigator to apply for a no-cost extension up to six months that will need to be approved by Brain Canada and the Azrieli Foundation. Brain Canada and the Azrieli Foundation may also cancel further funding. More details on the reporting process will be provided to successful grantees.

In order to demonstrate to Canadians the ongoing value of the Canada Brain Research Fund, principal investigators must contact Brain Canada in advance of the publication, release or public

presentation of research results obtained with the Early-Career Capacity Building grant, so that a press release or other communication materials can be prepared. Embargoes will be strictly respected.

Brain Canada and the financial support of Health Canada and the Azrieli Foundation must be acknowledged in all publications, releases and presentations of research as follows:

“This Project has been made possible by the Brain Canada Foundation through the Canada Brain Research Fund, with the financial support of the Azrieli Foundation and Health Canada”.

Principal investigators must inform Brain Canada of any upcoming media and communications opportunities in advance and Brain Canada will in turn inform the Azrieli Foundation and Health Canada. Principal investigators will provide Brain Canada, the Azrieli Foundation and Health Canada with the opportunity to be involved in any publicity activities related to the grants.

At the end of the current Canada Brain Research Fund, Brain Canada wants to show that exceptional value was received for the investments of the federal government and the Azrieli Foundation. It needs to know the impact of every grant and award. Ten percent of the final year's funding may be withheld, and will be released on receipt of a satisfactory final progress report that describes the current and estimated future outputs and impacts of the research project. In addition, one year after the end of the funding period, Brain Canada requires a post-grant report detailing what was achieved with the project, including results, impact of the research and its future application, new collaborations, publications, and other significant achievements.

For Further Information

For any other information or questions:

- About the Early-Career Capacity Building Grant program and application process, please contact programs@braincanada.ca
- Brain Canada will acknowledge receipt of the full application within two working days. Please contact programs@braincanada.ca if you do not receive acknowledgement
- About Brain Canada and the Canada Brain Research Fund please go to <http://braincanada.ca/>