

2019 Future Leaders in Canadian Brain Research Grants Program

General Information

Rationale

The **Future Leaders in Canadian Brain Research Grants Program** aims to support early-career investigators at a critical point in their career, on the path to a stable and sustainable independent research position.

Newly trained researchers in their first independent academic position are in a strong position to formulate innovative and impactful research projects. However, at the early stages of an investigator's career, they often lack the preliminary data and resources that are required to obtain their first large operating grant. This program provides an opportunity for early-career researchers to develop new lines of research and gather preliminary data to apply for larger grants.

Grant Details

The Future Leaders program began with the 2019 competition and will be run on an annual basis for 5 years. Anchored by a generous gift from the Azrieli Foundation, the 2019 Future Leaders competition had an overall funding envelope of \$2,000,000 to support 20 grants of \$100,000 each, over 2 years.

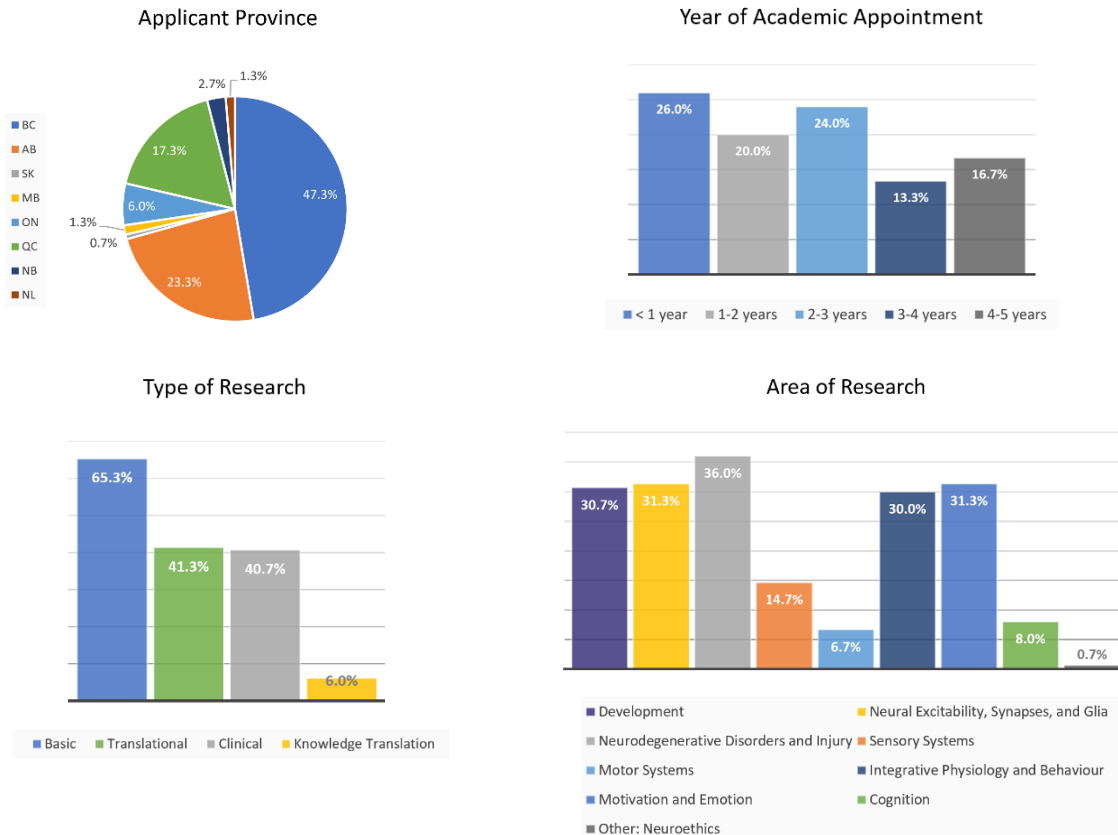
Competition Timeline

2019 FUTURE LEADERS COMPETITION						
Nov. 19, 2019	Dec. 10, 2019	Feb. 19, 2020	Mar. 24, 2020	Apr. 14, 2020	June 2020	Fall 2020
Launch of Future Leaders Competition	Deadline for Letter of Intent Received 150 eligible letters of intent (LOI) across all fields of neuroscience including basic, translational, clinical and knowledge translation approaches	Peer review of LOIs Following peer review of LOIs, 58 applicants invited to submit Full Applications	Deadline for Full Applications (FA)	Deadline for Full Applications extended three weeks due to COVID-19 53 full applications received	Peer review of FAs culminated in two review panels convened over four days via videoconference	Announcement of recipients Funding begins

*Due to the COVID-19 pandemic, the deadline to submit Full Applications was extended by three weeks to April 14, 2020 (16:00 EDT), and Reviewers were also given additional time to evaluate Full Applications.

Letter of Intent Stage

Brain Canada received 150 Letters of Intent (LOI) from 31 institutions across the country, in various fields of neuroscience and spanning the range of basic, translational, clinical, and knowledge translation approaches. [Note: Type of Research and Area of Research, as reported by applicants, do not add up to 100% as categories overlap.]



Peer review at the LOI stage was undertaken by a panel of Canadian neuroscientists from across the country, with expertise in a range of research approaches (basic, translational, and/or clinical), and at different stages of their career. Three Reviewers were assigned 18-21 LOI each by blind assignment, taking into account any conflicts of interest (COI), and evenly distributing the type of research approach (basic, translational, clinical, KT) across each reviewer, while taking in account the ability of Reviewers to evaluate the applications. Reviewers assigned a score to each section corresponding to the three main criteria for assessment – as outlined in the Request for Applications: Innovation and Originality, Feasibility, and Potential for Impact – which was averaged to give an overall score for the application.

Each Reviewer's scores were standardized based on the mean and standard deviation of their reviews in total. The z-score for each of the 3 Reviewers were aggregated and averaged for each LOI, which was then converted to a percentile rank. All LOI Reviewers were provided the full list of LOIs in rank order, indicating the scores of individual reviewers, and delineating the applicants that would be invited to submit a Full Application (FA). Reviewers were given the opportunity to rescue applications that fell below the cut-off,

but which they felt warranted advancing. In all, 58 applicants (60th percentile) were invited to proceed to the FA stage.

Full Application Stage

Due to the impact of COVID-19 shutting down institutions across the country, the deadline for receipt of Full Applications was extended by 3 weeks, and an additional 2 weeks were given for letters of recommendation and institutional signatures. In total, 53 Full Applications were submitted by the revised deadline of April 14, 2020.

Reviewers at the FA stage consisted of both Canadian and international scientists to ensure that Full Applications were evaluated against international standards of excellence and innovation. Full Application Reviewers were at all career stages and possessed broad expertise in the field(s) of brain research relevant to the applications. Some Reviewers were retained from the 2018 Early-Career Capacity Building Grants competition and the 2019 Future Leaders LOI review stage to ensure consistency.

Brain Canada endeavored to create two review panels that were balanced with regards to both the Reviewers and applications. Each panel was chaired by a Reviewer who had participated in the 2018 Early-Career competitions, and included at least one member with expertise in sex- and gender-based analysis. Reviewers were assigned to one of two review panels to be balanced as much as possible with respect to gender, location (Canadian vs. international), basic and/or clinical research background, and to spread overlapping research expertise across the panels.

Each FA was initially randomly assigned to one of the two panels and then moved, if necessary, to ensure that appropriate Primary and Secondary Reviewers could be assigned. Assignments were based on conflicts of interest, congruence of the expertise of the Reviewer with the assigned FA (as self-reported), and equitable distribution of workload. Every effort was made to ensure the applications assigned to each panel had balanced representation in the type of research (basic, translational, clinical, or knowledge translation) and in the quality of the applications; there was no statistical difference in the average z-score of the LOIs assigned to each panel.

Full applications were evaluated by two Reviewers, based on the three equally weighted criteria for assessment, as outlined in the original Request for Applications: Innovation and Originality, Feasibility, and Potential for Impact. All members of the Panel submitted written reviews and scores for each of their assigned applications prior to the Review Panel meeting. Applications were triaged based on the average preliminary scores of the Primary and Secondary Reviewers. Prior to the meeting, all panel members were provided the list of FAs in rank order that delineated those applications to be discussed at each panel, along with the scores of the individual Reviewers and access to all Reviewer comments (minus conflicts of interest). Reviewers were given the opportunity to rescue any application(s) that fell below the cut-off, but which they felt warranted further discussion at panel.

Review Panel Meetings

Ultimately, 34 applications (top 64%) in total were selected for discussion across the two panels. The Review Panel meetings were held virtually via Zoom videoconferencing due to the COVID-19 pandemic. Each panel met over two consecutive days, from 12:00 pm to 4:00 pm (EDT), to accommodate the varying time zones and work situations of the Reviewers.

The top ranked FA were read and discussed by all members of their respective Review Panel who participated in the scoring of the application (i.e., minus those in conflict). The 20 top-ranked applications selected by pooling the two panels' scores did not differ from taking the top-ranked applications by percentile within each panel (with 10 Awardees from each panel), suggesting comparable scoring between panels. Following the conclusion of the final panel meeting on Friday, June 26, both panel Chairs met with Brain Canada Programs staff to review the final rankings and to confirm the 20 applicants recommended for funding for the 2019 Future Leaders in Canadian Brain Research Grants competition. The top 20 applications were selected for funding per the recommendation of the Review Panel with no amendments.

All applicants in the FA stage received the written reviews (anonymized and with scores removed), along with the Scientific Officer notes summarizing the panel discussion, if applicable.

To see the full list of 2019 Azrieli Future Leaders in Canadian Brain Research awardees, please see the official press announcement on our website.