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Barbara Turnbull Foundation for Spinal Cord Research - Brain Canada Foundation

Turnbull-Tator Award in Spinal Cord Injury and Concussion Research

2020 Request for Applications (RFA)

About the Barbara Turnbull Foundation for Spinal Cord Research

The initial purpose of this Foundation was to encourage the public to recognize and financially support internationally esteemed research being done in Canada in the field of neuroscience, particularly as it relates to the remediation of spinal cord injuries. More recently, the Foundation has expanded its area of interest to include both spinal cord and brain injuries, including concussions. Great advances have been made in neuroscience, and the driving force that encouraged Barbara Turnbull to write her autobiography “Looking in the Mirror” was the realization that these advances may make the goal of regaining function in the damaged nervous system attainable. Through further research, there is the possibility of new discoveries which may result in repair or regeneration of the spinal cord and brain after injury. Successful remediation will greatly improve the quality of life of those who have been affected by neurotrauma, as well as reduce the ongoing costs of providing related care and support.

Based on a synergistic approach that recognizes excellence in collaborative research in Canada in the field of neuroscience, the mission of this Foundation is to enhance public awareness of the need to financially support this vision, to develop strategic co-operative initiatives with other institutions and foundations with similar interest such as Brain Canada, and to fund the highest quality research in spinal cord and brain injury which is being done in Canada.

About Brain Canada

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, and 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. This will lead to 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. 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. Over the past 20 years, Brain Canada and its donors and partners have invested \$250 million in more than 300 research projects across the country. www.braincanada.ca

Table of Contents

Rationale.....	3
Award Details.....	4
Scope	4
Eligibility	4
Equity, Diversity, and Inclusion	4
Use of Funds	5
Criteria for Assessment.....	5
How to Apply	6
Timeline	6
Application Components.....	6
Review Process	7
Confidentiality and Ownership	7
Reporting, Communications, and Evaluation	7
Award Ceremony	8
Contact Information	8

Rationale

The Turnbull-Tator Award was originally established in 2001 in honour of Barbara Turnbull, known as the Barbara Turnbull Award, in recognition of the work that Barbara had done to raise awareness about spinal cord injuries and her advocacy for excellence in research done in Canada in this field. From 2001 to 2015, the annual Barbara Turnbull Award was supported through a partnership between the Barbara Turnbull Foundation for Spinal Cord Research, Brain Canada, and the Institute of Neurosciences, Mental Health and Addiction (INMHA) of the Canadian Institutes of Health Research (CIHR). This prestigious award was presented to the top-ranked spinal cord researcher identified through CIHR's investigator-initiated grants competition.

In 1983, Barbara sustained an extremely severe injury when she was shot during a robbery, which caused quadriplegia. Undeterred, she pursued a career in journalism while striving to encourage and support research in Canada into the basic science of neurotrauma. In addition, she tried to improve rehabilitation and access to care for people living with the effects of major trauma to the nervous system. In July 2015, Barbara Turnbull was appointed as a Member of the Order of Canada in recognition of her contributions to the betterment of this country.

Moving forward, the Barbara Turnbull Foundation for Spinal Cord Research and Brain Canada have partnered and expanded the scope of the Award to include traumatic brain injury and concussion research, and to reposition the award to recognize a recent publication that significantly impacts those fields. Accordingly, the name of the Award was changed to reflect the very close relationship and sense of common purpose between Barbara Turnbull and her neurosurgeon, Dr. Charles Tator, a dear friend, mentor, and colleague.

Dr. Tator was Chair of the neurosurgery division at the University of Toronto from 1989 to 1999 during which his primary research focus was spinal cord injury and its remediation. He holds the Campeau-Tator Research Chair at the University of Toronto. In addition to studying the acute management of spinal cord and traumatic brain injuries, Dr. Tator currently focuses on the concussion spectrum of disorders, a subject on which he has spoken publicly and extensively. Dr. Tator is the Project Director of the Canadian Concussion Centre at the Krembil Brain Institute, Toronto Western Hospital. Dr. Tator has been a strong advocate for public education about injury prevention, especially in sports and recreation. In 1992, he founded Think First Canada/Penser d'Abord, an injury prevention foundation, and served as its president until 2007. In 2013, he published a paper entitled "Concussions and their consequences: current diagnosis, management and prevention" in the *Canadian Medical Association Journal* (CMAJ 185(11):975-9, 2013). Dr. Tator was appointed as a Member of the Order of Canada in 2000. He was promoted within the order, to Officer of the Order of Canada in 2017. Dr. Tator was named to the Canadian Medical Hall of Fame in 2009. He was inducted into the Terry Fox Hall of Fame in 2003, and Canada's Sports Hall of Fame in 2017 for his work on the prevention of brain and spinal injuries in sports.

Barbara Turnbull and Dr. Charles Tator were aligned in various efforts to promote awareness of the impact of spinal cord injury and its prevention, research into its treatment, and a better understanding of the nature, diagnosis, and treatment of concussion and traumatic brain injury. Both brain and spinal cord injuries have a significant impact on productivity, health, quality of life and well-being of affected individuals. Research is a catalyst for discoveries that can improve the lives of those impacted by neurotrauma.

Award Details

This award aims to recognize an outstanding publication by a researcher at a Canadian institution in the field of spinal cord and/or brain injury research (including concussion) in the last two years (October 1, 2018 to September 30, 2020) with a \$50,000 prize. The Brain Canada Foundation, through the Canada Brain Research Fund, and the Barbara Turnbull Foundation for Spinal Cord Research will each contribute \$25,000.

Scope

The publication can address any aspect of the two research areas, spanning the range of basic-translational-clinical approaches, including, but not limited to:

- Cellular and molecular mechanisms of injury and repair;
- Mechanisms of neural control;
- Discovery and validation of therapies and devices;
- Neural networks and neuroplasticity;
- Embryonic development of related systems;
- Implications on other brain disorders and diseases;
- Rehabilitation strategies;
- Clinical studies on the impact of brain and spinal cord injuries on public policy with respect to aetiology and prevention of brain and/or spinal cord injury;
- Related knowledge translation or dissemination activity.

Eligibility

- Self-nominations (limited to one per person) and nominations by a colleague, mentor, or supervisor will be accepted. Senior authors are encouraged to nominate trainees for this award. Please note that a publication can only be submitted once per award cycle.
- Nominees must be an author on an article published (or accepted for publication) between October 1, 2018 to September 30, 2020 and affiliated with a Canadian institution at the time of publication. Articles with co-first authorship will be considered.
- This award is open to all active investigators in any phase of their careers, as well as to graduate students and postdoctoral fellows. Nominees must be at a Canadian institution for the entire duration of the award – academic or research appointment, postdoctoral fellowships, or enrollment in a graduate program must be in place at the time of application.
- Nominees must still be actively conducting research in the field of spinal cord and/or brain injury.
- Publication must be an original research article in an international peer-reviewed journal.
- Research topic and findings must be clearly relevant to spinal cord and/or brain injury, including concussion.

Equity, Diversity, and Inclusion

Evidence clearly shows that increasing equity, diversity, and inclusion (EDI) in research environments enhances excellence, innovation and creativity. Brain Canada and the Barbara Turnbull Foundation are committed to excellence through equity, and encourage applicants of diverse backgrounds to apply to this funding opportunity.

Use of Funds

The funds must contribute towards the direct costs of research at a Canadian institution. The research conducted with the funds must be in the field of spinal cord and/or brain injury. The award is non-renewable.

Eligible Costs

If the nominee holds an academic or research appointment, the Turnbull-Tator Award can be used for:

- Research and knowledge translation costs;
- 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;
- Equipment.

The following are considered **ineligible costs**

- Salaries or consulting fees of the principal investigator;
- Indirect or overhead costs.

Please note: This list is not exhaustive, and Brain Canada must be consulted on expenses that are not listed here, so that the partners can determine the eligibility of other categories of expenditures. Brain Canada is the designated administrative lead, but all issues of material significance will be discussed with the Barbara Turnbull Foundation for Spinal Cord Research and decisions will be made jointly.

If the nominee is a graduate student or postdoctoral fellow, the funds are intended to support their salary. Graduate student awards will be funded at \$25,000 per year for two years. For postdoctoral fellows, awards will be funded at \$50,000 for one year. Trainees may hold another salary award if the combined annual amount does not exceed \$40,000 (graduate student) or \$60,000 (postdoctoral fellow). A trainee who accepts another salary award that would cause them to exceed the income limits must notify Brain Canada and the Barbara Turnbull Foundation for Spinal Cord Research immediately. The funders may decide that the balance could be applied to costs directly linked to the research project (consumables, travel to conferences, and other reasonable expenses).

Criteria for Assessment

The publications will be reviewed based on the following criteria:

Innovation and Originality

- Novel and groundbreaking results that represent a major advancement for the research area and has the potential to generate new hypotheses.

Impact

- Impact of the research and findings on the understanding, diagnosis and/or treatment of spinal cord and/or brain injury;
- Relevance and importance of the journal for the target audience of the research findings;
- Spin-off projects and new collaborations that stemmed from the publication, if applicable.

Quality of the Research

- Scientifically and methodologically sound.

How to Apply

All applications must be submitted to Brain Canada via email to programs@braincanada.ca before **16:00 EST on December 2, 2020**. Applicants should contact Brain Canada if they have inquiries regarding the competition or application process.

Timeline

Launch of Request for Applications	October 23, 2020
Deadline for Receipt of Applications	December 2, 2020 at 16:00 EST
Notification of Award	March 2021
2020 Award Date (earliest date)	April 1, 2021

Application Components

The application consists of the following components, **combined into a single PDF**, and named **TTA2020 - Nominee Last Name_Application**.

Parts 2 and 3 of the application will need to be formatted using 12-point Arial or Georgia font, single-spaced, on a letter-size page with 1" minimum margins. Use of a condensed font and spacing is not permitted. Applications received in any other format, exceeding the page and word limits, incomplete, or late, will be rejected. It is the sole responsibility of the applicant to ensure the submission adheres to these requirements and is received before the deadline. There will be no appeals to late submissions.

Part 1: Application Form (click [here](#) to download)

- 1) In case of a nomination, information about the nominator.
- 2) Information about the nominee.
- 3) A complete citation of the published article.
- 4) Certification and Signatures: Signature of nominee (and nominator, if applicable) is mandatory for the application to be considered. Signature of the senior author of the publication is also required. As the nominee's institution will administer the award, the signature of the delegated authority at the institution is needed. All signature pages must be submitted before the deadline to apply.

Part 2: Research contribution and impact on the field of spinal cord and/or brain injury (including concussion) - *Maximum 2 pages*

Please describe how the article has significantly impacted the field(s), taking into account the criteria for assessment described above. As well, please provide a clear description of the nominee's contribution to the research and publication.

Part 3: Lay Summary - *Maximum 250 words*

Please provide a lay summary of the publication's findings and impact on the field of spinal cord and/or brain injury. The lay summary will be used for award promotion and must be understandable by non-scientists.

Part 4: Publication

Please provide an electronic copy of the publication. Proof of acceptance must be submitted for articles that have been accepted, but not yet published.

Review Process

Brain Canada will manage the review process. Eligible applications submitted by the deadline to apply will be reviewed by at least two members of a Review Panel composed of Canadian and international members with expertise in the relevant field(s) of spinal cord and brain injury research. Brain Canada will take any conflicts of interest into consideration when assigning the reviewers.

Based on the reviewer scores, the Review Panel will discuss the top applications. The Panel will recommend to Brain Canada and the Barbara Turnbull Foundation for Spinal Cord Research the strongest publication in the pool of applications. Brain Canada and the Barbara Turnbull Foundation for Spinal Cord Research will not entertain appeals against the assessment and recommendation of the Review Panel.

Confidentiality and Ownership

Brain Canada and the Barbara Turnbull Foundation for Spinal Cord Research will keep all materials submitted for this funding opportunity confidential, and only share them with reviewers, Review Panel members, and observers who have signed confidentiality and non-disclosure agreements. Funded applications will be retained for comparison of intended and actual outcomes, as part of the evaluation of the Canada Brain Research Fund.

Brain Canada and the Barbara Turnbull Foundation for Spinal Cord Research do not claim ownership of intellectual property (IP) arising from the research they fund, and expect that any IP arising from this funding is developed and commercialized according to the policies of the research institutions in which the research is performed.

Reporting, Communications, and Evaluation

As a condition of funding, the awardee will need to submit a brief scientific report detailing the use of funds, including publications and other significant achievements, and a financial statement, no later than 60 days after the end of the award. In addition, Brain Canada may require a post-award update on significant achievements since the end-of-project report. The recipient will be expected to participate in at least one knowledge transfer activity in the 12 months following the award.

In order to demonstrate to Canadians the ongoing value of the Canada Brain Research Fund (CBRF), awardees must contact Brain Canada in advance of the publication, release, or public presentation of research results obtained with the Turnbull-Tator Award, 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 Barbara Turnbull Foundation for Spinal Cord Research must be acknowledged in all publications, releases and presentations of research as follows: ***“This project has been made possible with the financial support of Health Canada, through the Canada Brain Research Fund, an innovative partnership between the Government of Canada (through Health Canada) and Brain Canada, and the Barbara Turnbull Foundation for Spinal Cord Research”.***

Awardees must inform Brain Canada in advance of any upcoming media and communications opportunities related to the award, and Brain Canada will in turn inform the Barbara Turnbull Foundation for Spinal Cord Research and Health Canada. Applicants will provide Brain Canada, the Barbara Turnbull Foundation for Spinal Cord Research, and Health Canada with the opportunity to be involved.

Award Ceremony

In order to raise public awareness on the impact of supporting research in spinal cord and brain injury, the recipient must be available to attend and/or participate in an award ceremony to showcase the importance of the research findings for the field and the quality of research being done in Canada. This event may include outreach to the media.

Contact Information

For more information, or if you have any questions regarding the application process, please contact Brain Canada at programs@braincanada.ca.