

Barbara Turnbull Foundation for Spinal Cord Research - Brain Canada Turnbull-Tator Award in Spinal Cord Injury and Concussion Research

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 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. Brain Canada’s vision is to understand the brain, in health and illness, to improve lives and achieve societal impact. 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 raises and leverages funds from a range of donors and partners, including individuals, corporations, foundations, research institutes, health charities, and provincial agencies. To date, Brain Canada and its supporters have invested \$250 million in 300 research projects across the country.

To find out more, visit: www.braincanada.ca

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Rationale

The Turnbull-Tator Award was originally established in 2001 in honour of Barbara Turnbull, and 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 Barbara Turnbull annual 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.

Barbara sustained an extremely severe injury in 1983, 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 the rehabilitation and access 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 this year 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 award sponsors have decided to change the name of the Award to reflect the very close relationship, sense of common purpose and aligned missions of both Barbara Turnbull and her neurosurgeon, Dr. Charles Tator, a dear friend, mentor, and colleague, 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.

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. His clinical research has evolved. In addition to studying the acute management of spinal cord and traumatic brain injuries, he currently focuses on the concussion spectrum of disorders, a subject about 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. He published Concussions and their consequences: current diagnosis, management and prevention. 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. He was named to the Canadian Medical Hall of Fame in 2009. In 2003, he was inducted into the Terry Fox Hall of Fame. In 2017, Tator was inducted into Canada's Sports Hall of Fame for his work on prevention of brain and spinal injuries in sports.

Spinal cord injury occurs when trauma (such as a fall or vehicle accident) or disease (such as a tumour or spina bifida) damages the spinal cord, resulting in partial or complete paralysis. It is estimated that 86,000 Canadians are living with a spinal cord injury, with 4,300 new cases each year. Approximately half of

spinal cord injury cases are the result of trauma, while the other half are linked to diseases. (source: Rick Hansen Foundation).

Traumatic brain injury is a spectrum of injuries ranging from concussion at one end of the spectrum of injuries to major disruption of the brain tissue at the other end, all of which can result in long-term complications or death. The most common causes include motor vehicle crashes, falls in the elderly, injuries at work, domestic violence, and sports and recreation. Symptoms may include headaches, cognitive impairment, nausea, vision problems, sleep disturbance, mood changes and many more. Concussion is a leading cause of disability in Canada, with approximately 200,000 concussions annually.

Both brain and spinal cord injuries have 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 Canadian researcher in the field of spinal cord and brain injury research (including concussion) in the last two years (January 1, 2017 to March 31, 2019) with a \$50,000 prize. The Barbara Turnbull Foundation for Spinal Cord Research and Brain Canada Foundation will each contribute \$25,000. This competition will be launched yearly.

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 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.

Scope

The publication can address any aspect of the two research areas, including (but not limited to):

- Fundamental and clinical research;
- 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;
- Related knowledge translation or dissemination activity.

Eligibility

- Self-nominations (limited to one/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 January 1, 2017 to March 31, 2019 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.
- Publication must be an original research article in an international peer-reviewed journal.
- Research topic and findings must be clearly relevant to spinal cord or brain injury, including concussion.

Use of Funds

The funds must contribute towards the direct costs of research at a Canadian institution. This 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 and indirect costs 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 him/her 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 applications will be reviewed based on the following criteria:

- Novel and ground-breaking results that represent a major advancement for the research area and has the potential to generate new hypotheses;
- Clear impact on the understanding, diagnosis, and treatment of brain and spinal cord injury;
- Article impact metric such as citations;

- 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.

Review Process

Brain Canada will manage the review process. Eligible applications will be reviewed by at least two members of a Review Panel composed of Canadian and International experts with experience in the relevant field(s) of spinal cord or brain injury research. The Chair and expert reviewers for the panel will not adjudicate any applications where they are in a conflict of interest.

Based on the two reviewer scores, the Review Panel will discuss the highest ranked applications and will determine a consensus score for each application. The Review Panel will recommend to Brain Canada and the Barbara Turnbull Foundation for Spinal Cord Research the strongest candidate 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.

How to Apply

Applicants should contact Brain Canada (programs@braincanada.ca) if they have enquiries regarding the application process or eligibility. All applications must be submitted to Brain Canada by email (programs@braincanada.ca) before 16:00 ET on the deadline listed below. Brain Canada will acknowledge receipt of the application within two working days. Please contact programs@braincanada.ca if you do not receive acknowledgement.

Timeline

Launch of Request for Applications	April 1st, 2019
Deadline for receipt of Applications	May 20, 2019 at 16:00 ET
Notification of Award	July 2019
2019 Award date (earliest date)	September 2019

Application Components

The document (parts 1 to 3) 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.

The application consists of the following documents, combined into a single PDF:

Part 1: Application form cover page (click [here](#) to download the application form)

- 1) Information about the nominee (name, contact information and current affiliation)
- 2) In case of a nomination, contact information of the nominator.
- 3) A full citation of the published article (authors, title, name of journal, year, volume, issue, page numbers).

- 4) Certification and Signatures: Signature of nominee (and nominator if applicable) is mandatory for the application to be considered. Signature of the publication's senior author is also required. Because 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.

Part 2: Summary of the research contribution and impact on the field of spinal cord and brain injury (including concussion)

Maximum 2 pages

The following information needs to be included:

- Brief explanation and justification of how the article has significantly impacted the field taking into account the criteria for assessment described above.
- A clear description of the nominee's contribution to the research.

Part 3: Lay summary of the research contribution and impact

Maximum 250 words

The lay summary will be used for award promotion and must be understandable by non-scientists and patients impacted by spinal cord and brain injury.

Part 4: An electronic copy of the published article

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 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 Barbara Turnbull Foundation for Spinal Cord Research do not claim ownership of intellectual property (IP) arising from the research funded by this award, 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

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, 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, 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, with 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, in part, by the Brain Canada Foundation through the Canada Brain Research Fund, with the financial support of Health Canada, and the Barbara Turnbull Foundation for Spinal Cord Research”.

Awardees must inform Brain Canada of any upcoming media and communications opportunities in advance 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 in any publicity activities related to the award.

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 Barbara Turnbull Foundation for Spinal Cord Research. It needs to know the impact of every grant and award. As such, Brain Canada may require a post-award update on significant achievements since the end-of-project report.

For Further Information

For any other information or questions:

- About the Turnbull-Tator Award program and application process, please contact programs@braincanada.ca
- About Brain Canada and the Canada Brain Research Fund, please visit <http://braincanada.ca/>