

Mitacs and Own the Podium Partners for Innovation in High-Performance Sport Research 2018–19 Application Guide

Mitacs is a national, not-for-profit organization that has designed and delivered research and training programs in Canada for 19 years. Working with 60 universities, thousands of companies, and federal and provincial governments, Mitacs builds partnerships that support industrial and social innovation in Canada. One of these partnerships is with Own the Podium (OTP).

OTP's Focus on Innovation:

The purpose of the current partnership between OTP and Mitacs is to build on the momentum gained through OTP's high-performance sport research initiative supporting Olympic and Paralympic podium performances. A contribution to Canada's success in Vancouver, London, Sochi, Rio, and PyeongChang was including talented graduate and postgraduate researchers in order to solve sport performance questions about how we could "Own the Podium." These interns will be the conduit between the Canadian national teams, sport institutes, and universities to bring together a winning equation for future Olympic and Paralympic Games. The results will impact podium performances and will also contribute to healthy and active lifestyles across the country.

Proposal for Graduate and Postgraduate Support:

OTP and Mitacs developed a partnership through Mitacs's Accelerate and Elevate programs, which support the brightest PhD students and postdoctoral fellows conducting research in high-performance sport. These interns share their time between academic, industrial, and high-performance sport environments, tying together the major elements of the Canadian sport-research ecosystem.

All projects must have clear potential for economic impact to Canada and therefore must likely include a Canadian for-profit partner, where the intern will spend at least 25 per cent of his/her time.

Points for consideration:

A) The three major research areas related to OTP-targeted Olympic and Paralympic sports are:

- **Sport performance:** Including, but not limited to, physiological preparation, performance nutrition, sport psychology, biomechanics and motor behaviour, and sport analytics;
- **Sports engineering:** Including, but not limited to, equipment fabrication and customization, aerodynamics, ergonomics, and performance technology; and
- **Proactive sports medicine:** Including, but not limited to, injury prevention, treatment, rehabilitation, and return to podium.

B) Projects must be aligned with both a Canadian Sport Institute (CSI) and a collaborating Canadian university. The CSI may be directly involved in the research and will also be in a position to potentially provide opportunities for subsequent employment in continued high-performance sport research.

C) Graduate programs for consideration must also be aligned with the long-term performance research strategies of OTP's targeted Olympic and/or Paralympic National Sport Organizations (NSO).

D) Projects aligned with NSOs that are categorized as having podium potential for 2020, 2022, and 2024 will be given preference.

Goals:

- To ensure that PhD students and postdoctoral fellows are actively engaged in the research and subsequently employed for the sustainability of high-performance sport research in Canada.
- To contribute to the development of a sustainable, world-leading sport sciences research and innovation (R&I) program that has a direct impact on podium performances at both summer and winter Olympic and Paralympic Games.
- To extend the use of research deliverables from within OTP and specific Canadian Olympic and Paralympic sports to the Canadian sport community at large.
- To strengthen ties between the private sector and innovations in high-performance sport research to ensure long-term sustainability of such programs and maximum impact for all Canadians participating in sport and striving for healthy lifestyles.

Critical Success Factors:

The Mitacs-OTP initiative is designed to address gaps that need to be overcome to perpetuate Canadian podium performances. Factors critical to success are as follows:

- Fully funded R&I program that supports both short- and long-term initiatives through Canada's very best sport scientists, engineers, health care providers, and graduate students;
- Support for targeted university-institute-private-sector research groups that possess the capacity, capability, and passion to drive innovative sport research directly linked to Olympic and Paralympic sport;
- PhD/postdoctoral funded program that supports innovative young researchers to align with OTP's targeted sports in solving performance-based research questions;
- Development of a streamlined business framework, which expedites research contracts, finances, and implementation of project work plans;
- Creation of strategic R&I think tanks in performance-related themes;
- Development of succession plans for world-class sport scientists; and

- Building-in a constant interaction with and translation towards the Canadian sports user communities (e.g., high-performance athletes, coaches, sponsors) during and after the research projects.

Financial Mechanics:

PhDs: Funding for up to three years (part time) can be requested, for a total value of \$80,000 (including \$8,000, which is flexible and can go towards project expenses or a stipend top-up).

Postdoctoral candidates: Funding for up to two years (full time), for a total value of \$60,000 per year (including \$5,000 per year, which is flexible and can go towards project expenses or a stipend top-up).

Application Process

Please send a letter of interest (max. two pages) to Dr. Andy Van Neutegem avanneutegem@ownthepodium.org. Due Date: Monday, September 17, 2018.

The letter of interest must include the following:

- **A high-level description of the proposed research**
 - What performance gap(s) is/are being addressed?
 - What are the anticipated deliverables or research objectives?
 - Projected timeline
 - Potential Impact on OTP targeted Olympic and Paralympic high-performance sport(s)
 - What level candidate is suggested? Are they already identified?
- **Existing or proposed partners**
 - National sport organization
 - Private-sector business
 - Other relevant parties (e.g., CSI, NSO)
- **Potential for economic impact to Canada**
- Two letters of support: One from the Canadian Sport Institute/Centre connected with the project and another from the OTP-targeted Olympic or Paralympic sport benefitting from the outcomes of the project.

OTP appreciates all the parties that may submit an OTP/Mitacs application; however, only those selected for support will be notified.