

Mitacs and Own The Podium Partners for Innovation in High-Performance Sport Research 2015–16 Application Guide

Mitacs is a national, not-for-profit organization that has designed and delivered research and training programs in Canada for 15 years. Working with 60 universities, thousands of companies, and both federal and provincial governments, we build 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, and Sochi was including talented graduate and post-graduate 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 Post Graduate Support:

OTP and Mitacs developed a partnership through Mitacs' Accelerate and Elevate programs, which support the brightest PhD and postdoctoral candidates conducting research in high-performance sport. These interns share their time between academic, industrial, and sports facilities 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 percent of his/her time.

The current call for projects follows an initial pilot between OTP and Mitacs in 2014-15 that saw the funding of four projects, with a combined value of \$200,000+ and each spanned two to three years. Up to 10 projects will be selected for funding in the current round.

Points for consideration:

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

- **Human performance:** Including, but not limited to, training methodologies, recovery protocols, performance nutrition, sport psychology, biomechanics, and sport analytics.
- **Sports engineering:** Including, but not limited to, equipment fabrication and customization, aerodynamics, ergonomics, and performance technology.
- **Proactive sports medicine:** Including, but not limited to, injury prevention, rehabilitation, and return to podium.

B) Projects must be aligned with both Canadian universities and the Canadian Sport Institute Network (CSIs), where the CSIs may be directly involved in the research and will be in a position to potentially provide opportunities for subsequent employment.

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.

D) Projects aligned with national sport organizations that are categorized as having podium potential for 2016, 2018, and 2020 will be given preference.

Goals:

- To ensure that PhDs and postdoctoral fellows are actively engaged in the research, and subsequently employed for the sustainability of high-performance sport research in Canada.
- To establish a sustainable, world-leading sport sciences research and innovation program that has a direct impact on multiple 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 our greater society through partnerships with external groups.
- To strengthen ties between the private sector and innovations in high-performance sport research in order to ensure long-term sustainability of such programs and maximum impact to Canadian society.

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 research and innovation (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 universities–institutes–private sector research groups, which possess the capacity, capability, and passion to drive innovative sport research directly linked to Olympic and Paralympic Sport;
- PhD/postdoctoral-funded program that supports critical 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 tank groups (sport engineering, physiology/psychology, performance analysis);

- Development of succession plans for world-class sport scientists, and world-class health care providers focused on proactive injury prevention; and
- Building-in a constant interaction with and translation towards the Canadian sports user communities (e.g., high-performance athletes, coaches, sponsors, etc.) both 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 \$30,000 per year (which includes \$5,000 per year, which is flexible and can go towards project expenses or an intern stipend)

Post-doctoral candidates: Funding for up to two years full time, for a total value of \$55,000 per year, including \$5,000 per year, which is flexible and can go towards project expenses or a fellow's salary.

Please send a letter of interest (max. two pages) to: Dr. Jon Kolb Jon.Kolb@ownthepodium.org. It must include the following:

- A high-level description of the proposed research
 - What gaps is it addressing/What are the anticipated deliverables?
 - Projected timeline
 - 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., a national sport institute)
- Potential for economic impact to Canada
- The letter must include signatures of support from the Canadian Sport Institutes/Centre(s), and from the OTP targeted Olympic or Paralympic sport(s).