

**Written Submission to the House of Commons Standing Committee on Science
and Research**

Study on Top Talent, Research and Innovation

As the federal health research funding agency, the [Canadian Institutes of Health Research](#) (CIHR) would like to thank the committee for embarking on this study and drawing attention to an important subject both for our own organization and for the broader research ecosystem in Canada. This is an exciting time for science in Canada. There is a growing momentum toward a transformative change in our approach to innovation and an opportunity for unprecedented investment in Canada's research capacity.

As Canadians, we recognize our inherent strengths but also our potential. We know it is our obligation to nurture this potential into a robust, impactful, and globally competitive research and innovation ecosystem. This begins with developing, attracting, and retaining top talent, and that is why CIHR's core priorities include supporting the brightest scientific minds of today, while developing the leaders and trailblazers of tomorrow.

In their appearance before this committee for the study on Top Talent, Research and Innovation, representatives from the Natural Sciences and Engineering Research Council (NSERC) outlined critical considerations with respect to the viability of current tri-agency trainee stipend levels and the impact for attracting and retaining research talent. As Canada endeavours to establish a modern and globally competitive science and innovation landscape, CIHR wishes to strongly reiterate to the committee the importance and timeliness of these considerations.

Our colleagues from NSERC also spoke of the commitment of Canada's federal research granting agencies – working collaboratively through the [Canadian Research Coordinating Committee](#) (CRCC) – to harmonize and streamline the approach to supporting research talent, including the development of a tri-agency talent strategy. Enhanced tri-agency collaboration through the CRCC continues to yield fruitful results and is contributing to a stronger, more impactful research ecosystem. CIHR is steadfastly committed to advancing this invaluable work.

Complementary to these tri-agency efforts, CIHR is undertaking numerous activities to strengthen the health research enterprise, including initiatives to attract, retain, and develop top talent, while also strategically positioning talent to address Canada's most pressing health challenges, both within and beyond academia. These priorities reflect the central themes and ambitions of [CIHR's 2021-2031 Strategic Plan](#) and speak to the complexities of a research enterprise that is increasingly interdisciplinary and rapidly evolving. In the context of this current study on Top Talent, Research, and Innovation, CIHR would like to submit for the committee's consideration the following, which highlights key priorities, opportunities, and challenges from a health research perspective.

CIHR Strategic Plan Priority: Strengthen Canadian Health Research Capacity

Talent and innovation are central themes of CIHR's 2021-31 Strategic Plan, which envisions a strengthened health research community – one that is diverse, vibrant, stable, and well-positioned to

address current and future health and health system challenges. CIHR recognizes the need to support the development of the research leaders and innovators of tomorrow by equipping trainees and early career researchers (ECRs) with the experiences and skills needed to lead high-impact, interdisciplinary careers in a rapidly evolving health and research landscape.

CIHR's Strategic Plan outlines strategies to achieve these goals, building upon and updating previous achievements, such as [CIHR's Strategic Action Plan on Training](#), which launched in 2015 and aims to “generate scientific, professional, and organizational leaders within and beyond the Health Research Enterprise”. To maximize the impact of public investment in research, CIHR's current Strategic Plan looks to leverage existing opportunities and create new capacity to better align research funding and talent development with Canada's most pressing health priorities. Through the Strategic Plan, CIHR is also exploring ways to address gaps and challenges using a variety of approaches, from funding to policy and beyond.

These strategies include **strengthening investigator-initiated research** (also referred to as fundamental or “open” research) – the cornerstone of Canadian health research and a major source of financial support for highly qualified research personnel, students, and trainees. CIHR will also strengthen the health research community by developing a policy framework (accompanied by action plans) to address gaps in **training and support across all career stages, transitions, and paths**. Through these efforts, we will prepare researchers to respond to a broad range of current and future needs.

Additionally, CIHR will continue to embrace Canada's wealth of diversity by implementing targeted actions focused on funding researchers in accordance with the principles of **equity, diversity, and inclusion**. By removing systemic barriers to accessing research funding and embracing a diversity of perspectives, we can enhance the participation and retention of outstanding researchers from all under-represented groups, to ensure that we are capitalizing on the full extent of Canada's tremendous scientific talent.

Policy Spotlight: Equalization of success rates for Early Career Researchers

Through its flagship Project Grant program, CIHR has committed to equalizing applicant success rates for ECRs, ensuring a dedicated source of support for this critical cohort of young researchers. In other words, CIHR applies a calibration exercise to its funding decisions so that the proportion of ECRs funded through each Project Grant competition is equal to the proportion of ECR applicants.

Program Spotlight: Health Research Training Platform

In 2021, CIHR launched a new pilot initiative tied directly to its strategic plan priorities: the [Health Research Training Platform](#) (H RTP). The H RTP, an investment by CIHR and its partners of \$31.1 million over six years, is comprised of 13 unique training programs that bring together researchers from different research entities, with a view to increase Canada's capacity to address priority disease areas and key health and societal challenges. Through the H RTP, trainees and ECRs are given access to interdisciplinary, inter-jurisdictional, and intersectoral training environments (i.e., “platforms”) where they benefit from high-calibre academic, non-academic and knowledge user mentors from a variety of disciplines, gaining the knowledge and skillset to increase employability and prepare them for independent careers both within and outside of academia.

For instance, one of the inaugural H RTP platforms, based at the Sunnybrook Research Institute, is providing training and mentorship opportunities focused on spanning the boundaries between research and care. Another, based at the University of Calgary, focuses on system and population transformations in Girls' and Women's Health.

Capacity development across the spectrum of health research activities

CIHR's commitment to training and career support is also aligned with other priorities within the current Strategic Plan. For example, equitable, diverse and inclusive capacity development is a central theme of our existing and developing strategies and action plans in the areas of global health; knowledge mobilization; and patient-oriented research.

Guided by a spirit of reconciliation and co-existence, and a commitment to self-determination and promoting optimal health, CIHR is also prioritizing the needs of **First Nations, Inuit and Métis Peoples**, including urban Indigenous populations, to strengthen Indigenous health research and knowledge mobilization. By listening attentively to and working with First Nations, Inuit and Métis communities, CIHR is embracing a distinctions-based and culturally safe approach to this important work, which includes building capacity for community-led research and training that address the priorities of First Nations, Inuit and Métis Peoples.

Program Spotlight: Network Environments for Indigenous Health Research (NEIHR) Program

CIHR's [NEIHR program](#), a \$100.8 million investment over 16 years, has been developed to address those needs in capacity development, research and knowledge translation. The network of centres provides supportive research and training environments for Indigenous health research driven by, and grounded in, Indigenous communities in Canada. The NEIHR Program will take a comprehensive approach to capacity building in Indigenous health research by concentrating on Indigenous communities and structural factors (e.g., educational systems, institutions, research infrastructures, policy apparatus) and by focusing on individual agency (e.g., supporting trainees and researchers). In their first year, cumulatively across all centres they were able to provide funding to over 105 Indigenous students from the undergraduate to the graduate level.

CIHR Strategic Plan Priority: Integrate Evidence in Health Decisions

CIHR's vision for better health includes a future where the gap between discovery and implementation is a thing of the past; where Canadian researchers are at the forefront of knowledge mobilization; and where the uptake, scale, and spread of evidence are engrained in the fabric of Canadian institutions. To achieve this, CIHR will work with its partners, including the provinces and territories, to prioritize knowledge mobilization at all stages of discovery, invest in implementation science, and strengthen the capacity of knowledge users to leverage and use research findings.

One of CIHR's foremost priorities is addressing the challenges facing the Canadian health care system. One way that CIHR is tackling this is by placing renewed emphasis on **Learning Health Systems**. This approach sees scientists embedded in the health system, working with health professionals, patients, and decision-makers, to understand the root of problems and develop solutions. Through the seamless integration of evidence, policy, and practice, we have seen remarkable progress in the capacity to accelerate innovation and achieve more cost-effective health care.

CIHR is also placing a strong, central focus on capacity and talent development in many new initiatives, such as the [Centre for Research on Pandemic Preparedness and Health Emergencies](#), and the new CIHR [Clinical Trials Fund](#) (CTF), which both launched in 2022. These initiatives represent a key foundation for rebuilding Canada's bio-innovation pipeline and ensuring future pandemic preparedness. Through a focus on talent and capacity building, CIHR will implement, via the CTF, recruitment, training, and mentoring strategies to attract high-caliber trainees, researchers, healthcare professionals and clinical research professionals, thereby developing the necessary specialized skills for a resurging bio-manufacturing sector. This will not only increase Canada's resiliency and capacity for innovation, but also drive economic growth and create good high-skilled jobs.

Challenges and Opportunities

There are critical challenges in the field of health research, several of which have already been highlighted by witness testimony, including the financial difficulties faced by students from the undergraduate level to post-doctoral candidates; challenges in clinical trials; support for clinician-scientists; and obstacles facing researchers and their partners in the field patient-oriented research. We have also heard from our community and know that more must be done to help students transition through each stage of academia to a successful independent research career, or from academia to impact-oriented career paths in other sectors where their expertise can contribute to evidence-based decision making within health systems, not-for-profits, private entities and governments alike.

We know that for Canada to remain competitive in research and innovation, we must continue to build bridges across sectors and jurisdictions; to collaborate with federal, provincial and health system partners, learning institutions, non-profits, patient and community groups, and the private sector. It will take significant coordination at all levels, and our collective investment as a country, to ensure we are fully realizing Canada's potential and successfully developing the next generation of innovative leaders, while creating the capacity and resources to help them succeed throughout their career.

Building on its existing networks and strong collaborative relationships, CIHR is well positioned to play a leading role in the modernized science and innovation landscape — one that embraces new concepts of research excellence, with a focus on developing and mobilizing dynamic talent and scientific leaders — to fully maximize the return on investment for Canadians.