



Written Submission to the House of Commons
Standing Committee on Finance

Pre-Budget Consultations in Advance of the 2025 Budget

**Brain Research: The cornerstone for Canada's
future social-economic wealth**

August 2, 2024

By: Canadian Brain Research Strategy

<https://canadianbrain.ca/>



The Canadian Brain Research Strategy and its broad network of stakeholders recommends the following:

Recommendation 1: That the Government of Canada make research on the brain and mental health a national priority with stable, targeted funding for the creation of a Canadian Brain Research Initiative by investing \$150 million over 3 years.



EXECUTIVE SUMMARY

- Brain conditions, encompassing neurological disorders, brain injuries, mental illnesses, and addictions, affect over 7.5 million Canadians, constituting 1 in 5 of our population¹. With rising prevalence due to aging and worsening conditions from COVID-19, there is an urgent need for a coordinated national effort to address these challenges.
- Addressing brain health requires a comprehensive research approach that spans the lifespan and recognizes the interconnectedness of brain disorders. A coordinated, collaborative, transdisciplinary, open research ecosystem is essential to tackle these complex problems and achieve better brain health outcomes.
- Canada boasts leading experts in multiple fields of neuroscience and mental health research, and possesses the largest proportion of neuroscience specialists among G7 countries². A Canadian Brain Research Initiative will build on this strength, enhancing our global competitiveness and aligning with major international research efforts.
- Investing \$50 million annually over 3 years in a Canadian Brain Research Initiative is a small fraction of the economic burden of brain conditions, as only a deeper understanding of the brain can lead to better prevention, maintenance, and optimization of brain health for the benefit of all Canadians and the world.
- The Canadian Brain Research Strategy (CBRS) unites neuroscience and mental health researchers, Indigenous Knowledge Holders, patients, health charities, private and public science funders, and industry into a unified brain research landscape^{3,4,5,6}. Together, we have created a clear vision for stable, targeted investment in brain research to enhance social, health, and economic outcomes in Canada and beyond.

At the core of CBRS lies the conviction that we must foster better neurological and mental well-being for all Canadians. We value the Government's balanced science investment approach, which supports fundamental research with targeted investments aligned with national priorities and challenges⁷. Targeted investment in a Canadian Brain Research Initiative will serve as a unifying framework to catalyze unparalleled progress in brain health and research across the country.



THE VISION FOR A CANADIAN BRAIN RESEARCH INITIATIVE

CBRS Leadership⁸ spans 40 neuroscience and mental health institutes and major programs across Canada, with institute directors, early- and mid-career researchers, Indigenous Knowledges Holders, and patient representatives and advocates. Our strategy also brings together more than 50 organizations across sectors of the brain research ecosystem, including research funders (federal and provincial granting agencies, non-profits, health charities, and private foundations); knowledge mobilization, health, and community service organizations; industry partners; and professional societies of neuroscientists and clinicians. Through a consensus-building process, CBRS has developed a unifying framework that integrates and coordinates research excellence in brain and mental health across the country.



A National Research Strategy for Brain and Mental Health Brought to You by



The coalition convened by the CBRS believes that the time for a national initiative is now. We have the network, partnerships, vision, and strategic plan in place. There is a need for a coordinated approach on brain research, and the talent and infrastructure to support it. We now need the funding in the amount of \$150 million to catalyze this network into concerted, bold, and concrete action.

WHY IS A CANADIAN BRAIN RESEARCH INITIATIVE SO IMPORTANT NOW TO TRANSFORM THE LIVES OF CANADIANS?

Our brains define who we are, driving our memories, passions, art, commerce, and societies. Every Canadian deserves a healthy brain to reach their full potential. Sadly, nearly every Canadian family has been impacted by a neurological disorder, brain injury, mental illness or addiction.

As of 2019, more than 7.5 million people – 1 in 5 – reported living with a brain disorder¹. COVID-19 has worsened neurological and mental health challenges⁹ and the prevalence of brain conditions is expected to rise with Canada’s aging population¹⁰. At 67.5%, Canada has the largest and youngest working-age population in the G7¹¹, but productivity will suffer as more people care for aging parents with dementia and other disorders^{12,13}.

Research remains our beacon of hope, as the only path to prevention, treatments and cures to brain conditions is to gain new knowledge.

For most brain conditions, including mental illness, treatment options are limited or nonexistent. Brain conditions cost the Canadian economy tens of billions of dollars annually in direct medical healthcare costs, social care expenses, income support, productivity losses, private insurance claims, and public disability payments^{1,12,14,15,16}. Investing \$50 million per year for 3 years towards a Canadian Brain Research Initiative is a small fraction of this economic burden to unite research efforts across the country and optimize brain health for the benefit of all Canadians and the world^{12,17,18,19,20,21,22,23,24,25,26,27,28,29,30}.

WHY IS A CANADIAN BRAIN RESEARCH INITIATIVE CRITICAL FOR BRAIN SCIENCE?

To effectively understand and intervene in brain health, we need a comprehensive approach to brain research and health that extends across the entire lifespan and recognizes the interconnectedness of brain disorders. A recent federal advisory panel report and the Standing Committee on Science and Research’s study on International Moonshot Programs underscore a critical need: tackling ambitious research challenges demands stable, long-term, and flexible funding^{31,32}. Major global players such as the United States³³, European Union³⁴, Japan³⁵, China³⁶, and South Korea³⁷ have invested hundreds of millions to billions of dollars in large-scale brain research initiatives. Canada needs its own initiative to stay competitive and integrate with these global efforts.



In Canada, relatively low funding for research requires a strategic approach to organizing our scientific efforts. Canada’s targeted national research initiatives are fostering innovation and ecosystem-building in fields such as artificial intelligence (\$568 million over 10 years, plus \$2.4 billion in infrastructure), quantum technologies (\$360 million over 7 years), and biomanufacturing (\$2.2 billion over 7 years). A Canadian Brain Research Initiative would capitalize on Canada’s proven ability to coordinate and collaborate on a large scale, positioning us to tackle the complex challenges of brain health with unprecedented impact.

HOW IS A CANADIAN BRAIN RESEARCH INITIATIVE AN OPPORTUNITY FOR CANADA TO LEAD?

Canada is poised to lead a transformative shift in brain research by harnessing the strength of our collaborative, transdisciplinary, and open brain research culture. As Western science recognizes the need for these approaches to advance our understanding of complex systems, we can draw on Indigenous Traditional Knowledges for holistic insights into brain health. For millennia, Indigenous practices have integrated diverse disciplines—such as hunting, tanning, and crafting—reflecting a collaborative ethos that can enrich training for future brain researchers in fields like biology, physics, computer science, social science, and the humanities. This approach offers Canada a unique opportunity to honor and integrate the valuable Traditional Knowledges of Indigenous Peoples³⁸.

Canada’s global excellence in brain and mental health research spans major research hubs and smaller institutions to form a rich and diverse research landscape. Our national research strategy aims to leverage Canada’s unique and exceptional culture of collaboration to foster a coordinated, nationwide, transdisciplinary, and open brain science ecosystem. In making brain research more equitable, accessible, and democratic, we will enable broader contributions to our collective knowledge on the brain, thereby delivering greater impact from existing research investments.

Canada can harness its world-class expertise in brain research to lead a coordinated effort to optimize brain health across the lifespan.

Our strategy highlights the importance of long-term, stable, and flexible investments in talent and infrastructure. By developing highly qualified personnel (HQP), including technical and research personnel, and bolstering shared resources such as national research platforms, we can enhance research capabilities across all centers. This will not only advance discoveries in brain



science but also build a highly skilled nationwide workforce to strengthen the entire innovation ecosystem, leading to significant health, social and economic benefits for the country.

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