Joint statement from Dr. Adriana Di Polo, PhD - Canadian Association for Neuroscience Deanna Groetzinger - Neurological Health Charities of Canada Dr. Jennie Young, PhD - Canadian Brain Research Strategy Dr. Viviane Poupon, PhD - Brain Canada Dr. Michael Hill, MD, FRCPC the president of the Canadian Neurological Sciences Federation

BILLIONS FOR BETTER BRAIN HEALTH

Stronger together - building capacity for a Brain Moonshot in Canada

Canada must invest in brains. Brain conditions, which include everything from Autism Spectrum Disorder, to brain injury, depression and degenerative disease such as Alzheimer's disease constitute some of the **biggest challenges Canadians face today**. We must care for individuals living with neurological diseases, mental health disorders, brain injuries and addiction and their families, which are directly affected.

We must also recognize that brain conditions are increasingly **impacting the Canadian economy**. Recent estimates show that the total cost of neurological and mental health disorders - in direct medical health care costs, social care costs of caregivers, income support, loss of productivity, private insurance claims, and public disability payments - is in the tens of billions of dollars per year in Canada and rising.

To address this crisis, we need a **greater understanding of how the brain works**. This knowledge, spanning from fundamental research to clinical research and care, is foundational to the prevention, diagnosis, treatment and cure of disorders of the brain that are critically needed to improve the health outcomes of billions of people in Canada and around the world. Brain research must be a priority for the Canadian government. The time to invest in our collective brain health is now.

The leadership of organizations representing people with neurological conditions, research funders and neuroscience researchers, clinicians and other stakeholders (Neurological Health Charities of Canada, Canadian Brain Research Strategy, Brain Canada, Canadian Association for Neuroscience, and the Canadian Neurological Sciences Federation) have come together to look at ways to address the growing challenges posed by brain health issues. We speak in a unified voice to

urge the government to invest billions of dollars deliberately and sustainably in brain research for the benefit of all Canadians.

Made-in-Canada discoveries are the foundation for the development of innovative treatments and technologies that fuel the **knowledge economy**. The quality of brain research in Canada is undisputed and recognized worldwide, but Canadian researchers need the support of the government to reach their full potential. Canada lags behind in science funding compared to other G7 countries. The consequences of lack of funding is particularly concerning for early career scientists and trainees, who bring the bold ideas we need to make progress. The challenge of brain drain is escalating as the funding perspectives in Canada remain less than ideal, as recently reported in the *Report of the Advisory Panel on the Federal Research Support System*, published in 2023 (https://ised-isde.canada.ca/site/panel-federal-research-support/en/report-advisory-panel-federal-research-support-system).

The **return on investment in brain research** will be multi-faceted: it will contribute to the health of people in Canada and reduce the burden of brain conditions including the strain on our healthcare systems, it will launch and support discoveries that are the foundation of an innovative economy, and it will contribute to the development of a highly skilled workforce and will create thousands of jobs. Brain research, in particular, plays a vital role in training highly qualified personnel who not only advance our understanding of the brain but also contribute their expertise to other fields. This fact is too often forgotten; investing in brain research is also an investment in talent to support and grow the Canadian workforce.

The time to invest in brain research is now. Our scientists are tackling the critical challenges that Canada faces regarding neurological and mental health, which will impact billions of people worldwide in the coming decades. These conditions, which are among the most complex to understand, are also the most critical to address as they are the leading cause of disability and the second leading cause of death worldwide (Feigin et al. Lancet Neurol. 2019;18(5):459-480. doi:10.1016/S1474-4422(18)30499-X). Mental health disorders are the leading cause of days off work. The burden of brain disorders and diseases has substantially increased over the past 25 years and will worsen due to the aging population and post-COVID19-conditions. This worsening scenario will have a detrimental impact on the economy, healthcare systems, and Canadian livelihood.

Canada has the talent and the personnel to conduct the best brain research in the world to identify cures and therapies for the more than **7.5 million Canadians who live with brain conditions and their families**. We need the resources to make

this happen through dedicated, sustainable research funding. Let's commit to billions for better brain health.

Signed by

Adriana Di Polo - Canadian Association for Neuroscience Deanna Groetzinger - Neurological Health Charities of Canada Viviane Poupon - Brain Canada Jennie Young - Canadian Brain Research Strategy Michael Hill – Canadian Neurological Sciences Federation

Neurological Health Charities Canada

Neurological Health Charities Canada is a coalition of organizations that represent millions of Canadians living with neurological diseases, disorders, and injuries. In addition to supporting research, NHCC proposes the development of a National Neurological Strategy for Canada to address the patchwork approach to neurological health that has a profoundly negative impact on quality of life for the millions of Canadians living with neurological conditions. This holistic approach recognizes the importance of research, health policies, and healthcare delivery within an overall ethical framework. NHCC is ready to help lead this unprecedented collaborative approach which would drive knowledge to action and result in the best quality of life for Canadians affected by neurological conditions. https://mybrainmatters.ca/

Brain Canada

Brain Canada envisions a future where scientists across disciplines collaborate to drive innovation. A future where early-career researchers have the resources to explore their boldest ideas. And where people across the country have access to solutions to mysteries like ALS, epilepsy, and brain injury. https://braincanada.ca/

Canadian Brain Research Strategy

The Canadian Brain Research Strategy (CBRS) is a community-led initiative uniting more than 35 neuroscience and mental health institutes across the country, in alliance with Indigenous Knowledges Holders, patients and families impacted by brain disease or injury, health charities, private and public science funders, and industry. Together, we are developing a comprehensive national research strategy to tackle the enormous societal challenge and urgent need to understand the human brain.

https://canadianbrain.ca/

Canadian Association for Neuroscience

The Canadian Association for Neuroscience (CAN) is the largest association of neuroscientists in Canada. Our members are dedicated to advancing brain research. Our association is composed of over one thousand researchers, who work at academic institutions across the country. We share the common goal of ensuring neuroscience remains one of the greatest research and innovation strengths of Canada.

https://can-acn.org/

Canadian Neurological Sciences Federation

The Canadian Neurological Sciences Federation (CNSF) aims to improve the wellbeing of children and adults with diseases, disorders and injuries of the nervous system and the prevention of these conditions.

The CNSF is an umbrella organization representing six National Specialty Societies. These organizations share a common interest in the functions and disorders of the brain and nervous system. The CNSF's mission is to support the neuroscience professions in Canada through education, advocacy, membership services and research promotion.

https://www.cnsf.org/