



CAN-ACN

CANADIAN ASSOCIATION FOR NEUROSCIENCE
ASSOCIATION CANADIENNE DES NEUROSCIENCES

October 13, 2017

Pre-budget Submission for the Standing Committee on Finance
from the Canadian Association for Neuroscience – Association
canadienne des neurosciences (CAN-ACN)

To:

The Honourable Wayne Easter,
Chair of the Standing Committee on Finance,
and

The Honourable William Francis Morneau,
Minister of Finance

From:

The Canadian Association for Neuroscience Board of Directors

Support of fundamental research in Canada is key to
driving innovation in Canada and to improving brain
health of Canadians

The Canadian government has shown it values science by
appointing the first Canadian Minister of Science, the
Honourable Kirsty Duncan, and more recently, the first Canadian
Chief Scientist, Dr. Mona Nemer. The launch of the Canada's
Fundamental Science Review, and publication of the report from

The Canadian Association for
Neuroscience

Lynn Raymond, MD. Ph.D.
President
University of British Columbia

Jaideep Bains, Ph.D.
Vice-President
University of Calgary

Katalin Toth, Ph.D.
Chair of the Advocacy
Committee
Université Laval

Edward Ruthazer, Ph.D.
Secretary
McGill University

Derek Bowie, Ph.D.
Treasurer
McGill University

Board of Directors:

Freda Miller, Ph.D.
Past-President
University of Toronto

Shernaz Bamji, Ph.D.
University of British Columbia

Stephanie Borgland, Ph.D.
University of Calgary

Roger Thompson, Ph.D.
University of Calgary

Alanna Watt, Ph.D.
McGill University

Jean-Claude Béique, Ph.D.
University of Ottawa

Martin Paré, Ph.D.
Queen's University

Alyson Fournier, Ph.D.
McGill University
Secretary-elect



CAN-ACN

CANADIAN ASSOCIATION FOR NEUROSCIENCE
ASSOCIATION CANADIENNE DES NEUROSCIENCES

this review, known as the Naylor Report, has received unanimous support by the scientific community, the media, and the public.

The Board of Directors of the Canadian Association for Neuroscience, which represents over 1000 scientists working to better understand the brain and nervous system, applauds these nominations and initiatives. We now **recommend very strongly that the government act on the main recommendations of the Naylor report to support innovation in Canada and to improve the health and well-being of Canadians.**

As stated by the Chair of the Fundamental Science review:

"This report sets out a multi-year agenda that, if implemented, could transform Canadian research capacity and have enormous long-term impacts across the nation."

and

"The panel's single most important recommendation (R6.1) is that the federal government should rapidly increase its investment in independent investigator-led research to redress the imbalance caused by differential investments favouring priority-driven targeted research over the last decade"

— C. David Naylor, Professor of Medicine, University of Toronto (Chair)

The Canadian government has a great opportunity to invest in an area that will have long lasting positive effects for Canada. The Review of Federal Support for Fundamental Science (Naylor report) is an exceptional document, which gives a very clear assessment of the funding situation in this country. The Advisory Panel of the review, a blue-ribbon group of outstanding reputation, composed of highly respected scientists (including a Nobel laureate), top administrators and industry representatives, has formulated thoughtful recommendations. **It is now time to Support the Report, and implement its recommendations, especially R6.1.**



CAN-ACN

CANADIAN ASSOCIATION FOR NEUROSCIENCE
ASSOCIATION CANADIENNE DES NEUROSCIENCES

The Canadian Association for Neuroscience also supports the initiative of the Neurological Health Charities of Canada, which has developed a **Canadian Action Plan for Brain Health**. Neurological Health Charities Canada (NHCC) is a coalition of organizations that represent people with brain diseases, disorders and injuries in Canada. Increased investment in research also lies at the heart of NHCC's action plan. Over 100 neurological diseases, disorders and injuries (brain conditions) exist, and they are estimated to directly affect almost **4 million Canadians**.

Fundamental research, including brain research, is what drives the innovation economy. New discoveries, made in Canada, are crucial to maintain Canada's competitiveness in today's economy. Today's brain research relies on knowledge acquired from Medicine, but also in areas as diverse as Physics, Chemistry, Biotechnology, Psychology. Fundamental research is a truly multidisciplinary venture which can only thrive through support of a diverse pool of expertise, which complement in sometimes unexpected ways.

Understanding the brain is one of the biggest challenges of the coming years, and can only be achieved through support of fundamental research. Canada can take a leadership role in this endeavour by supporting its researchers today.

The Canadian Association for Neuroscience Board of Directors strongly advises that the Standing Committee on Finance and the Finance Minister support the full implementation of the Naylor report in the next federal budget. All Canadians will benefit from this investment.

for the Canadian Association for Neuroscience,

Lynn A. Raymond, MD, PhD, FRCPC

President, Canadian Association for Neuroscience



CAN-ACN

CANADIAN ASSOCIATION FOR NEUROSCIENCE
ASSOCIATION CANADIENNE DES NEUROSCIENCES

Appendix 1: More information about the Naylor report

Canada's Fundamental Science Review: Investing in Canada's Future – strengthening the Foundations of Canadian Research

We have a great opportunity in front of us. The federal government has commissioned the production of an exceptional document, the Review of Federal Support for Fundamental Science, also known as the Naylor report, which gives a very clear assessment of the funding situation in this country. The Advisory Panel of the review, a blue-ribbon group of outstanding reputation, composed of highly respected scientists (including a Nobel laureate), top administrators and industry representatives, has formulated thoughtful recommendations. **It is now time to Support the Report, and implement its recommendations.**

Talking points – From the report

Fundamental research

- Is among the highest-yield investments in Canada's future that our government can make
- Has an essential role in underpinning innovation and educating innovators
- Needs to inform evidence-based policy making
- Depends on four pillar agencies that support the Canadian Research Ecosystem: three granting agencies, the Natural Sciences and Engineering Research Council (NSERC), the Canadian Institutes of Health Research (CIHR), and the Social Sciences and Humanities Research Council (SSHRC), and the federal infrastructure agency, the Canada Foundation for Innovation (CFI)

Canada

- Canadian gross domestic expenditure on Research and Development relative to gross domestic product (GDP) has been declining slowly over the last 15 years
- In constant dollars, granting council funding per researcher has been in steady decline since 2008-2009
- From 2006-2007 to 2013-2014, the Science review panel estimates that scholars, scientists and trainees wishing to pursue fully independent



CAN-ACN

CANADIAN ASSOCIATION FOR NEUROSCIENCE
ASSOCIATION CANADIENNE DES NEUROSCIENCES

research work saw a decline of available real resources per researcher of about 35 per cent.

- The Panel's overall conclusion is that independent science and scholarly inquiry have been underfunded for much of the last decade, as the federal government has concentrated resources on innovation-facing and priority-driven programs.

Main recommendations of the report:

- **"The panel's single most important recommendation (R6.1) is that the federal government should rapidly increase its investment in independent investigator-led research to redress the imbalance caused by differential investments favouring priority-driven targeted research over the last decade"**
- The highest priority for reinvestment should go to investigator-led research operating grants
- The creation of a new National Advisory Council on Research and Innovation (NACRI), to provide broad oversight of the federal research and innovation ecosystems. The Chief Scientific Advisor for Canada should serve as Vice-Chair of the NACRI

Implementing the report would result in strategic clarity that will lead to

- Implementation of best practices to support researchers at all stages of their careers
- Coordinated policies to achieve better equity and diversity outcomes in the allocation of research funding while sustaining excellence as the key decision-making criterion.
- More stable and reliable funding for infrastructure, including digital research infrastructure.
- Better support for Doctoral Students and Post-Doctoral Fellows
- Better allocation of Research Chairs for excellent scholars and scientists
- More reliable support for facilities and operations

Why all Canadians Support the Report

- Innovations and cures for disease, benefiting our entire society always start with fundamental research.



CAN-ACN

CANADIAN ASSOCIATION FOR NEUROSCIENCE
ASSOCIATION CANADIENNE DES NEUROSCIENCES

- Fundamental research in Canada drives the discoveries that fuel an innovative economy.
- Reinvestment in fundamental science today is critical to maintain Canada's hard-won reputation as a nation of scientific excellence, developed over its 150-year history.
- Science goes hand in hand with training of the highly qualified personnel that contribute to Canada's innovation economy. It is an investment in the next generation of leaders required so that Canada can lead the world in the new knowledge-based economy.
- Research is how we understand the natural world and society, what problems we face, and develop the knowledge and tools to address them.
- Reinvigorating fundamental science would require investing a very small percentage of our GDP in the future of a highly educated workforce and fuel a discovery pipeline which is the bedrock of an innovative society.