CAN-ACN Annual Advocacy report – October 2019

The Canadian Association for Neuroscience has developed an active and efficient advocacy program over the last years thanks to the important support provided by the Society for Neuroscience. This funding has acted as a catalyst, allowing us to leverage this investment to bring about lasting changes to science funding in Canada, through important partnerships with Canadian associations and organizations that pursue common goals.

While important re-investments in fundamental research have been announced in budget 2018 (https://can-acn.org/budget2018), this has not re-occurred in budget 2019. It is important to continue to advocate for increased research funding in future budgets and to newly elected officials, as the next Canadian Federal election will take place October 21, 2019. CAN will continue to build on the advocacy experience we have built, and, thanks to a new Memorandum of Understanding with SfN which has taken effect in July 2019, will expand its efforts in the coming years.

Contents

Accomplishments October 2018 - October 2019

CAN-SfN Advocacy training

SfN and CAN partnered together to offer an afternoon advocacy training workshop to CAN meeting attendees on May 22, 2019. Prior to this event, CAN worked to adapt the content of the very successful advocacy training workshop that SfN has developed for US neuroadvocates. Through this adaptation process, we were able to identify many similarities in advocacy practices that can be shared in both countries, but also important differences that warrant a country-specific approach to neuroscience advocacy.

We were very grateful for the collaboration with Adam Katz (Advocacy Engagement Manager at SfN) who provided CAN with SfN's advocacy workshop material and valuable insight on how to conduct the workshop, and to Michael Heintz (Director of Advocacy & Training at SfN), who, along with the Chair of the CAN advocacy committee (Melanie Woodin) and the CAN advocacy officer (Julie Poupart), presented the workshop, and provided feedback throughout the process of developing a Canadian version of the SfN advocacy workshop.

We have made the advocacy presentation (https://can-acn.org/documents/2019/CAN-SfN-Advocacy-training-2019-05-22-slides.pdf) and participant handouts (https://can-acn.org/documents/2019/CAN-SfN-Advocacy-training-2019-05-22-handout.pdf) available on our website.

Partnership development:

CAN has partnered with organizations and associations to promote government investments in Science.

Research Canada:

Through our membership in Research Canada, CAN has visited the Canadian Parliament and showcased neuroscience and neuroscientists to elected officials on multiple occasions.

In preparation for Election 2019, Research Canada has developed a series of tools and resources to engage with Candidates, on the **Your Candidate, Your Health** website http://yourcandidatesyourhealth.ca/ which we have shared with our members.

#VoteScience coalition

The #votescience movement is a coordinated effort by multiple groups (CAN being one of the early supporters) to advocate for Science in the 2019 Federal election. Group actions included calls to meet with election candidates, a postcard campaign, social media interventions, in-person meetings on science topics. By working together, science support groups were able to amplify their shared message.
More at https://www.votescience.ca/

Partnership with other scientific associations in Canada

CAN has built a working relationship with the Canadian Society for Molecular Biosciences (CSMB) to share advocacy opportunities. Working with the help of the team at Temple Scott Associates, CAN President Katalin Toth has co-authored with CSMB President Tarik Moroy an Op-Ed which was published in the Montreal newspaper Le Devoir on October 9th, 2019: Science is not an election issue, but it should be (original title, in French: La science n'est pas un enjeu électoral, mais elle devrait l'être) available here:
https://www.ledevoir.com/opinion/idees/564375/la-science-n-est-pas-un-enjeu-electoral-mais-elle-devrait-l-etre (a copy of the article and an English translation have been appended to this report)

CAN has developed a list of Canadian science associations (July 2019) to share science advocacy initiatives in the future.

Engaging political parties in advance of the 2019 federal elections

CAN also directly engaged with the four main federal parties in Canada (Liberal Party, Conservative Party, New Democratic Party and Green Party) on issues relating to federal support of science. CAN developed and sent five questions about science funding; the role of government in research; the importance of basic research; equity, diversity and inclusion in science; and support for science trainees. We received responses from the Green Party and the Liberal Party. The New Democratic Party sent an initial response but failed to follow through with an official response. The failure of the Conservative Party to respond to our questions was noted. The response, or lack of response of all parties was published on our website.

Inviting members to vote by anticipation

As the 2019 Canadian election is taking place during the SfN meeting, CAN and SfN have proactively sent reminders to meeting attendees to vote by anticipation and share information about how to do this in the weeks before the election day.

Building relationships with elected officials

CAN has been working with the public affairs firm Temple Scott Associates to organize a day on Parliament Hill in the Spring of 2020. At that time, newly elected Members of Parliament will be established in their offices, and early in their mandates. CAN will use this day to advocate for increased funding for science through increased support for the three main federal funding agencies of Canada, the Canadian Institutes of Health, the Natural Sciences and Engineering Council of Canada, and the Social Sciences and Humanities Research Council of Canada.

CAN has also specifically invited Canadian neuroscientists who have received funding in recent months from the federal government agencies (CIHR and NSERC) to write directly to their local Member of Parliament, the Prime Minister and the Minister of Science to thank them for their support of scientific research in Canada. CAN provided a template including information about impact of research, number of jobs created or maintained by the funding, and local companies that benefit from investment in research, to show elected officials the impact their commitments have in their riding.

CAN 2019 Advocacy & Outreach Awards

CAN awarded two CAN Neuroscience Outreach and Advocacy Awards in 2019.

The Ottawa Chapter of the Society for Neuroscience was awarded a 2019 CAN Neuroscience Outreach & Advocacy Award for their important and very successful knowledge transfer activities within the scientific community and to the public. Activities organized by the Ottawa chapter include a very lively Brain Awareness Week, a Brain Bee, Days at the Museum, On demand presentations, community fundraisers, a Brain and Mental Health Art Show, and many more (https://can-acn.org/the-ottawa-sfn-chapter-wins-a-2019-can-neuroscience-outreach-advocacy-award/) This SfN Chapter also won the 2018 Chapter of the year award from SfN.

The SINAPSE (*Service and Outreach Initiatives for Progressive and Positive Neuroscience*) group at Memorial University was recognized by a 2019 CAN Neuroscience Outreach & Advocacy Award for their use basic neuroscience knowledge to address societal issues which have had an international impact. The mission of the SINAPSE team is to participate in local institutional (such as at Memorial) and international efforts to promote mental health and brain awareness, such as assisting in the organization of neuroscience competitions, science outreach and brain awareness-related activities. SINAPSE organizes out-of-the-country outreach missions, through fundraising efforts, generous donations and personal funds, and travel to developing countries, notably in Asia to deliver rational, science-based but

culturally sensitive conversations about mental health and illness, dispel misconceptions and superstition and eliminate the stigmatization of the mentally ill. SINAPSE increases awareness about the cross-cultural implications of neuroscience-related outreach initiatives and what can be learned from it. The SINAPSE international missions also foster discussion about the role of Canadian neuroscientists in promoting socially relevant, neuroscience-based dialogues with our international counterparts. (https://can-acn.org/sinapse-2019-can-outreach-and-advocacy-award/)

CAN 2019 Public lectures

CAN organizes public lectures yearly, before our annual meeting. The 2019 public lecture featured a presentation by Turing award winner Geoffrey Hinton, a leader in artificial intelligence who designs machine learning algorithms. This was followed by a discussion with Dr. Blake Richards, an early career investigator who won the 2019 CAN Young Investigator award for his ground-breaking work at the intersection of neuroscience and Artificial Intelligence.

This sold out public event served to highlight the how Canadian research is at the forefront of important discoveries that have a profound impact on our understanding of the brain and its functioning.

Canadian Brain Research Strategy website

CAN executives are heavily involved in the development of the Canadian Brain Research Strategy, which has the following aims:

> *The mission of CBRS is to build on Canada's strengths and current investments in cutting-edge collaborative neuroscience to transform neurological and mental health for Canadians. The Strategy is a grass-roots initiative launched by leading Canadian neuroscientists, in partnership with representatives of the Neurological Health Charities of Canada (NHCC) to respond to a growing need for concerted efforts to understand the brain.*

CAN has developed a new website for the CBRS and communicated with heads of neuroscience departments and research centres across Canada to include their endorsements on the website. The leaders of the CBRS have applied for funding for further development of the CBRS. Learn more about the strategy here: https://canadianbrain.ca/about/

Development of guides and resources for Canadian Neuroadvocates

CAN has developed some guides and resources for Canadian neuroadvocates, which include statistics about research funding and support in Canada. These resources are available on our newly redesigned website, which more clearly emphasizes advocacy (https://can-acn.org/advocacy/ is one of four links in the main menu of our website)

Advocacy officer & Advocacy committee

CAN has dedicated funds from SfN to employ an advocacy officer, who assist in coordinating and following up with all CAN advocacy projects. CAN also has a very active advocacy committee (https://can-acn.org/advocacy/)

Promoting Canadian neuroscience success stories on our website & Social media.

CAN regularly publishes neuroscience research discoveries made in Canada on our website and social media platforms. CAN is present on Twitter, Facebook and Instagram, and uses these platforms to disseminate the success stories of Canadian neuroscientists to a wide audience. Press releases for presentations at our annual meeting are also disseminated through eurekalert. These stories and other association news can be found in the CAN news section of our website: https://can-acn.org/category/can-news

Advocacy opportunities 2019-2021

Fundamental research funding in Canada is viewed in a positive light by Canadians, who understand its importance for their health and well-being, and by the current government (Liberal as of September 2019), who labels itself as "pro-science". However, despite the re-investments in the Canadian funding agencies announced in 2018, research funding in Canada remains low when compared to that of other countries.

Specifically, a comparison of funding of the NIH (National Institutes of the Health) by the US government and CIHR (Canadian Institutes of Health Research) by the Canadian government is instructive.

As stated in the report from Canada's Fundamental Science Review,

> *"In 2015 the federal Advisory Panel on Healthcare Innovation compared CIHR's mandate with those of sister organizations abroad, and cautioned that CIHR's mandate was unduly broad relative to its resources. [...] CIHR has a broader mandate than the U.S. National Institutes of Health (NIH). Moreover, the U.S. funds a significant fraction of applied research in healthcare innovation and healthcare quality through two other federal agencies with a combined operating budget of close to US$1.50 billion per year. In 2016-17 the NIH budget was US$30.62 billion, while the CIHR budget was C$1.03 billion, including its share of spending contained in the relevant tri-council programs. **The thirty-fold difference contrasts with a nine-fold difference in population.** Adjustments for GDP per capita or purchasing power have only a minor influence on such large discrepancies."*
> *http://www.sciencereview.ca/eic/site/059.nsf/vwapj/ScienceReview_April2017-rv.pdf/$file/ScienceReview_April2017-rv.pdf (page 81)*

As the NIH budget increases, this difference increases. In 2018, the NIH budget was $37 billion (USD), while the CIHR budget was 1.1 billion (CAD), equivalent to $0.83 billion (USD). This is a 44-fold difference, while the population difference remains close to 9 fold.

According to the latest data from the OECD (Organisation for Economic Co-operation and Development), Canada is the **only country in the G7 whose investment in Research and Development have steadily declined in the last 15 years**

Gross domestic spending on R&D Total, % of GDP, 2000 – 2018
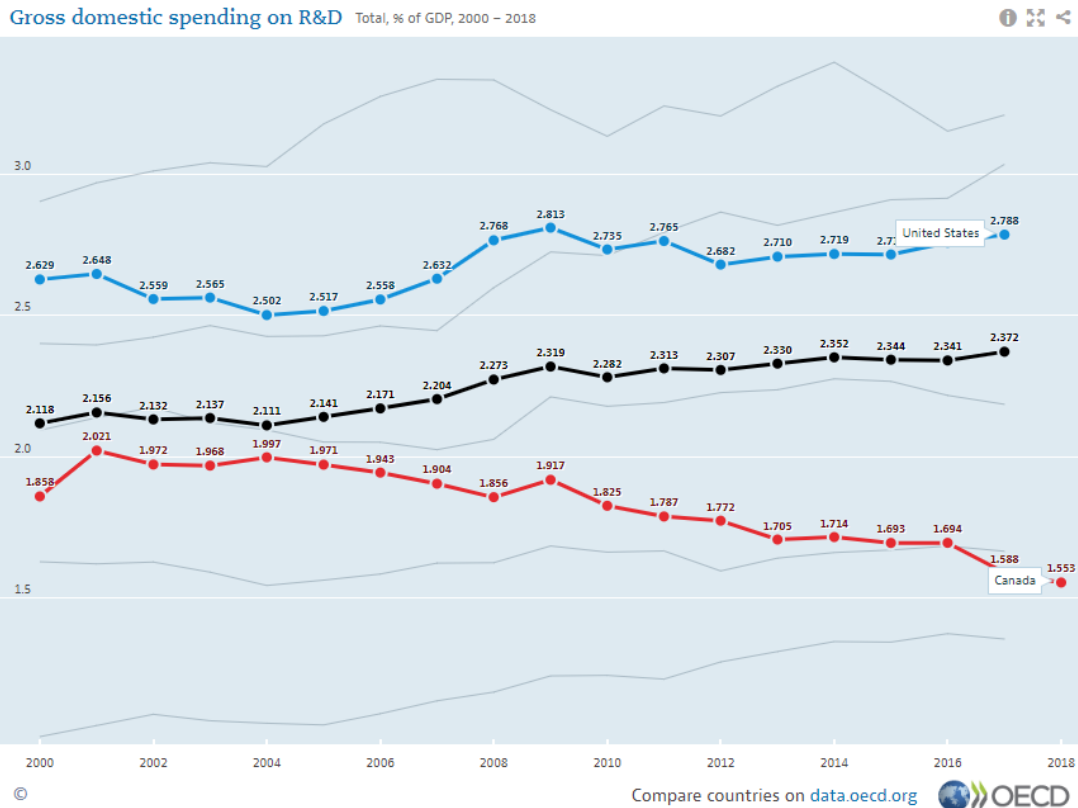
Canada compared to other countries of the G7. Dark black line is OECD average.

OECD (2019), Gross domestic spending on R&D (indicator). doi: 10.1787/d8b068b4-en (Accessed on 11 October 2019) https://data.oecd.org/chart/5HLk

While significant and historical investments were announced in 2018, the investments in this one budget cannot redress the damage done by the lack of investment in R&D in Canada over the last 15 years. Repeated investments and commitments over many budgets are required.

Our approach to address this challenge will rely on four complimentary strategies

1- Member engagement through calls to action

2- Direct engagement with elected officials (Canadian Hill Day, Engaging on social media, Invitation to elected official to participate in our events)

3- Partnership development and leadership in the launch of initiatives that mobilize Canadian scientists and science supporters to highlight the importance of science funding for all Canadians.

4- Promoting engagement with the public to highlight the importance of neuroscience research for all Canadians.