



Canadian Society for Brain, Behaviour and
Cognitive Science

Société Canadienne des Sciences du Cerveau,
du Comportement et de la Cognition

February 7, 2014

Dear Industry Canada,

I am writing in my capacity as President of the *Canadian Society for Brain, Behaviour, and Cognitive Science* (CSBBCS). We are a society with members throughout Canada, mainly academic researchers in the behavioural and cognitive neurosciences. This letter is in response to the call for comments on a Science and Technology Consultation document “Seizing Canada's Moment Moving Forward in Science, Technology and Innovation” (http://www.ic.gc.ca/eic/site/icgc.nsf/eng/h_07416.html).

What actions could be taken, by the government or others, to enhance the mobilization of knowledge and technology from government laboratories and universities, colleges, and polytechnics to the private sector?

Our members are eager to build on existing as well as establish new industry partnerships. They want their scientific discoveries in brain and cognitive science to be recognized and used by industry and want to know the needs of industry to shape and steer their research programs.

Industry Canada can facilitate those goals by appointing an industry liaison to our community. That liaison would begin real and tangible discussions between our members and industry partners and also help members of industry recognize the value of brain and cognitive science for their R&D goals. If our members can connect with relevant industry, our members will contribute even more strongly to the technological and industrial sectors.

How can Canada continue to develop, attract, and retain the world's top research talent at our businesses, research institutions, colleges and polytechnics, and universities?

Canada's funding agencies (particularly NSERC) support research programs rather than research projects. The distinction is an important one that grants Canadian researchers the opportunity to conduct broad discovery-based research programs that provide the technological innovations that can fuel industry. Equally important, members of the international scientific community identify Canada's dedication to programs of research as a reason they'd consider moving to a Canadian research institution. Our opportunity to recruit and retain top researchers as a result of this policy is a real positive.

We recommend that Canada continue its dedication to the tradition of a programmatic (e.g., typically 5-year) funding model. That model draws researchers to Canada, supports discovery, and allows Canadian scientists to invent the techniques and tools for tomorrow's marketplace.

How might Canada build upon its success as a world leader in discovery-driven research?

One thing Canadian scientists are proud of is their ability to do more with less. In short, our members are as successful as their American counterparts in spite of the fact that their American counterparts receive substantially larger research grants. Maintaining and growing Canada's record of success depends on a continued dedication to building an internationally competitive research infrastructure. *If Canada provides its researchers with the resources to succeed, Canadian researchers will lead on the world stage.*

Canada has done an excellent job of investing in some aspects of its research infrastructure. For example, Compute Canada (<https://computecanada.ca>) offers high performance computing resources to Canadian scientists free of charge, providing them with the tools they need to compete on the world stage in computational neuroscience, formal analysis, and artificial intelligence.

However, Canada's dedication to research has fallen short elsewhere, for example, in the decision to shut the MRI sites in the National Research Council Institute for Biomedical Research (NRC-IBD) in Winnipeg, Calgary, and Halifax. These closures have had a number of negative effects. First, the tools and trained technicians housed in those Institutes are no longer available to our researchers. Second, the research programs of our members who depended on the neuroimaging equipment and technicians in the NRC-IBD have been severely disrupted. Third, these decisions have had a severe impact on science/industry partnerships. For example, the decision to shut down MRI research equipment in NRC-IBD Winnipeg precipitated the relocation of a world-class biotechnology company (i.e., IMRIS, <http://www.imris.com/>) out of the country from Winnipeg to Minneapolis. We also want to note that this problem is not restricted to just these sites but has arisen for a number of research sites in Canada (see <http://www.cbc.ca/fifth/blog/federal-programs-and-research-facilities-that-have-been-shut-down-or-had-th>).

It makes little sense to decommission existing research infrastructure known to foster research innovation and industry partnerships while calling for advice to improve Canadian research capacity and industry partnerships. We encourage Industry Canada to recognize and maintain its existing assets as it works to build new ones.

Is the Government of Canada's suite of programs appropriately designed to best support research excellence?

Canada's new research vision has transformed the National Research Council, doubled its investment in the Industrial Research Assistance Program, supported research

collaborations through the federal granting councils, and established the new Venture Capital Action Plan. Those changes have served to strengthen industry partnerships and incentivize private sector innovation.

Although the new policy fosters partnerships between Canadian industry and Canadian scientists, one must recognize that it is not ideally designed to support research excellence, per se. The reason is that it prioritizes the goals of industry over the goals of discovery-driven research. Whereas the importance of building industry partnership is clear, we encourage Industry Canada to recognize the value of discovery-driven research and the role it plays to establish the techniques and tools that will become the basis for industry/science partnerships down the road.

In summary, we recommend that Industry Canada build towards its mandate by (a) assigning a liaison to help our members forge partnerships with industry, (b) supporting the maintenance of Canada's traditional programmatic funding strategy, and (c) maintaining its existing research partnerships while we are building new ones.

We thank you for the opportunity to provide feedback on the Science and Technology Consultation document and to assist Industry Canada in its goals of fostering partnerships between Canadian industry and Canadian scientists. Please call upon us at any time. Our contact information is below.

Sincerely,



Penny Pexman
President, Canadian Society for Brain, Behaviour, and Cognitive Science

Central Office • Siège Sociale

CSBBCS/SCSCCC

c/o Peter Graf
Department of Psychology
University of British Columbia
Vancouver, BC, V6G 1Z4

Phone: 604.822.6923
Email: secretary@csbbcs.org
Website: <http://www.csbbcs.org/>