



February 7, 2014

Dear Minister:

The Canadian Association for Graduate Studies (CAGS) is the national organization that promotes, advances, and fosters excellence in graduate education and university research.

CAGS was formed in 1962 and provides a venue for dialogue and cooperation for its members, 60 Canadian universities, as well as other institutions and organizations having an interest in graduate studies.

We are pleased to take advantage of the opportunity to provide input to the Science and Technology consultation.

The support of science and technology in Canada in the public, private and education spheres is integral to the future success of Canada's economy and society. CAGS would like to point out that it is important to take a broad approach to the concept of supporting 'science and technology'. Increasingly, the research involved in the application of science and technology involves areas of study, implementation and social innovation that extend into non-STEM disciplines.

CAGS reinforces the fact the Government of Canada investment research and scholarships through the granting councils is crucial for Canada's future including the development of productive, creative, highly employable post graduates. The return on investment through the contributions of these individuals to the global economy, society, and Canada's innovation agenda will be both exceptional and vital.

Responses to the questions posed on the consultation web site follow.

- *Building on the advice provided by the Expert Panel on Federal Support for Research and Development, what more can be done to improve business investment in R&D and innovation?*
- *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?*

The demand for workers with graduate education is rising. As the population grows and as day-to-day living becomes ever more technologically complex so do social and economic issues that require the specialized training and advanced skills that graduate education provides. Everything from developing the Canadarm to targeted cancer drugs, negotiating trade deals to developing improved approaches for caring for a growing elderly population and balancing natural resource development against environmental concerns, benefit from the investment that is made in graduate education.

The Economic Action Plan 2013 provided \$70 million over three years for internships- much of this came from Economic Action Plan 2012, i.e. \$35 million over five years to MITACS to support STEM based internships. There are few funds that support internships in other areas, including management, which would attract graduates outside the STEM disciplines. These funds should be increased to provide the opportunity for more internships to be developed for graduate students across the disciplines..The infusion of ideas and talent to address social, economic and cultural issues and challenges associated with advances in science and technology are crucial to their acceptance and success. The opportunity to gain real time experience for students and the opportunity to benefit from the knowledge, and



enthusiasm of student interns for employers would provide a win-win-win situation for those directly involved and for Canadian society and economy more broadly.

- *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?*

The attraction of the top talent throughout the education and business world is circular. Canada must continue to support existing and develop new first class facilities and arenas where those currently hard at work in Canada can make the advances that will attract top talent. In turn, such support will develop, attract and contribute to the retention of the world's top research talent in all disciplines. As is pointed out in the consultation paper, over the decades Canada has been successful in attracting talent and in producing world class work. The Government of Canada must continue to provide the infrastructure and resources to attract top talent through its networks of Centres of Excellence and the support of basic as well as applied research across the disciplines.

The Government of Canada's recently announced international education policy is one potential avenue to attract top students to Canadian universities. To be successful, this policy must be accompanied by an increased investment in facilities, international student scholarships and faculty so that Canada can meet the demand. Moreover, the Government of Canada's policies on student visas and work permits requires review to ensure that Canada is accessible and a desirable destination for foreign talent.

Graduate education has many benefits for Canada, not the least of which is the contribution that graduates make to the economy. The earning capacity of university graduates, in particular those with graduate degrees (Master's and doctoral), is higher than those with a bachelor's and has trended to nearly double that of those with lower levels of education.

- *How might Canada build upon its success as a world leader in discovery-driven research?*
- *Is the Government of Canada's suite of programs appropriately designed to best support research excellence?*

Much of the private sector has little experience in undertaking or partnering in world-class research initiatives. It is important that the Government of Canada ensure that its programs, including and particularly the Tri-Council and Canadian Foundation for Innovation, Genome Canada, and other similar bodies be well funded to attract and retain the best and brightest from Canada and abroad. All of these bodies continue to strive for partnerships outside of government that will help to build stronger public/private arrangements that will underpin a strong world class research ethic.

CAGS appreciates this opportunity to provide input and would be pleased to discuss its views at any time.

Sincerely,

Noreen Golfman, President, CAGS/ACES