

Securing a Just and Prosperous Future for Canadians

Written Submission to the Pre-Budget Consultations
in Advance of the 2023 Budget



OUR RECOMMENDATIONS

1. **That the Government of Canada double research funding to the Tri-Agency and commit to an annual increase that will keep pace with inflation and global benchmarks.**
 - a. This increase in funding must maintain a balance with investments in infrastructure and people.
2. **That the Government of Canada better support and enable a flourishing and diversified talent base in Canada, with a focus on Indigenous researchers, Black and people of colour researchers, early-career researchers, and other underrepresented and equity-deserving groups.**

INTRODUCTION

Canada's health research and innovation ecosystem depends on two core ingredients to fulfil its potential: secure, sustained and sufficient funding, and a diverse, well-supported and incentivized talent base. Yet we are falling short on both fronts. The current level of federal funding is insufficient to ensure Canada's global competitiveness, with repercussions for growing our innovation potential and performance, and for our ability to generate novel discoveries in pressing areas of science on which Canadians' health depends. This is having a meaningful impact on our ability to attract, develop and retain globally leading talent.¹

In light of the COVID-19 pandemic, the importance of a strong health research and innovation ecosystem has never been more apparent, and Canadians know this.² While the federal government made substantial reinvestments into the research ecosystem in Budget 2018 that helped to address years of decline, since that time Canada has only fallen further behind. Just as in the

The term **health research** captures the four pillars of research (biomedical, health services, clinical, population health), the continuum from basic research to applied and commercialized, and the contributions of diverse disciplines including medicine, engineering, natural sciences, social sciences and humanities.

¹ Whiteside, Catharine et al. [In the global race for science talent is Canada investing enough?](#) Policy Options. May 27, 2021.

² Research Canada. *CanadaSpeaks!* 2022 National Public Opinion Poll. Question 6. October 2022.

lead-up to that budget, and as described in Canada’s Fundamental Science Review, 2017,³ Canada continues to remain well behind our OECD peers in the global innovation competition.⁴

Budget 2023 represents a critical crossroads where we either lose further ground to our global peers and the talent and economic potential that goes with it, or we put our shoulder to the wheel and set up our health research and innovation ecosystem, including the people who make it work, for long-term success. To achieve maximum effectiveness, all federal funding investments must operate through a whole-of-government lens, recognizing that these choices have whole-of-ecosystem impacts.

About Research Canada: Research Canada is a national alliance whose mission is to improve the health and prosperity of all Canadians by championing Canada’s global leadership in health research and innovation.

DETAILED RECOMMENDATIONS

Recommendation 1: That the Government of Canada double research funding to the Tri-Agency and commit to an annual increase that will keep pace with inflation and global benchmarks.

- 1a.** This increase in funding must maintain a balance with investments in infrastructure and people.

It cannot be stressed enough: **Underinvestment in health research is not an option – it undermines Canada’s future.**

Canada is not globally competitive among its global peers, with risks to our economy and Canadians’ health. More recent investments notwithstanding, we are the only nation in the G7 whose R&D spending as a percentage of GDP shrank over the past two decades, and the gap continues to widen as other countries pick up the pace.^{5,6} The contrast is stark when we look to our southern neighbour. The U.S. spends \$160.12 (Canadian dollars) per capita on health research funding via its National Institutes of Health (NIH).⁷ Canada’s per capita spending is

³ Advisory Panel for the Review of Federal Support for Fundamental Science. [Investing in Canada’s Future – Strengthening the Foundations of Canadian Research](#). 2017. P. 30

⁴ Compared to the United States (3.5%), France (2.4%), Germany (3.1%), Belgium (3.4%) China (2.4%) Denmark (2.9%), Japan (3.3%), & the Netherlands (2.3), Canada spent 1.7% in 2020. [OECD, gross domestic spending on R&D](#).

⁵ Ibid.

⁶ Report of the Standing Committee on Science and Research. [Success, Challenges and Opportunities for Science in Canada](#), June 2022. P. 10-11.

⁷ Combining data from Congressional Research Service. [National Institutes of Health Funding: FY1996-FY2023](#), updated May 20, 2022, and United Nations. [World Population Prospects](#).



\$34.38 through the Canadian Institutes of Health Research (CIHR)⁸. Even our Tri-Agency spending, encompassing all research, is eclipsed by the U.S., at \$82.59 per capita.⁹

Reversing this trend through a meaningful investment at scale in health research, using a whole-of-government approach, is key to attracting vital foreign direct investment (FDI), which will benefit Canadian industry, private sector partners and researchers in our universities, colleges and academic health science centres. Significant and sustained investment will inject fresh energy and inspiration and foster a more competitive and innovative environment across the sector through more clinical trials and the attraction of diverse, highly skilled personnel and talent from around the world. These are all essential elements for Canada to retain its own best-in-class talent and to nourish the entire health research ecosystem's talent pipeline into the future. With more sector activity generally and the creation of more knowledge, there will be inevitable knowledge spillovers,¹⁰ facilitating commercialization and the development of additional novel discoveries.

We appreciate and acknowledge that the federal government is trying to grow a vibrant biomanufacturing economy in Canada through important measures such as the Biomanufacturing and Life Sciences Strategy. However, progress on this initiative will be impeded without real investments in the health research ecosystem;¹¹ the talent, creativity, novel discoveries, intellectual property and commercialization that are products of a well-nourished ecosystem and fundamental to a competitive biomanufacturing sector will not be there to support it. Canada can be a "branch plant" biomanufacturing country, or we can become a respected competitive force as an innovation hub and an attractive destination for new companies, FDI and talent.

Our health research ecosystem proved during the COVID-19 pandemic how effective and productive it can be when all parts, including government, work collaboratively towards a common goal. Yet Canada was also caught flat-footed in a host of ways during this time. The research enterprise as a whole suffered, with interruptions and delays to projects and a loss of charitable funding to health charities, working in concert with academic health science centres.¹²

The sector is still recovering. Yet, as the federal reinvestments promised in 2018 come to an end, Research Canada fears that underinvestment in health research will compromise the country's capacity to respond to the next public health crisis. Putting more federal dollars into health research will not only ensure that Canada manages our next public health crisis better, but will

⁸ Combining data from Canadian Institutes of Health Research. [CIHR Grants and Awards Expenditures](#), 2021-22 and Statistics Canada. [The Daily: Canada's Population Estimates](#), Sept. 29, 2021.

⁹ Ibid and data from National Sciences and Engineering Research Council of Canada. [NSERC Investments across Canada in 2019-20](#) and [Social Sciences and Humanities Research Council](#).

¹⁰ Canadian Association for Neuroscience. 2022 [Submission](#) to the Standing Committee on Science and Research. March 2022.

¹¹ As expressed by BioCanRx, [Submission](#) to the Standing Committee on Science and Research, March 2022.

¹² Research Canada [letter](#) to the Prime Minister. April 3, 2020.

also enhance patient outcomes and health system resilience in a more efficient and cost-effective way during a time when our health and social systems have been left so fragile.

We add to our recommendation that, as Tri-Agency funding is increased, attention must also be paid to maintaining a corresponding balance in funding for personnel and facilities provided by the institutions that host research work. Neither of these components, with the exception of partial support for trainees and post-doctoral researchers, is covered by Tri-Agency grants, yet each serves as essential support to Tri-Agency-funded activity.¹³ Despite this, they continue to be underfunded.¹⁴

Recommendation 2: That the Government of Canada better support and enable a flourishing and diversified talent base in Canada, with a focus on Indigenous researchers, Black and people of colour researchers, early-career researchers, and other underrepresented and equity-deserving groups.

A well-supported research workforce that reflects the fullness of humanity and human potential is the foundation of a vibrant, innovative and sustainable research system. If Canada is to correct historical and contemporary injustices, maximize our innovative potential and create a globally competitive environment for research talent, we must better support and enable diverse researchers at all stages of their training and careers.

Diversity is critical to strengthening Canadian society. When it comes to health research, the entire research ecosystem benefits from and recognizes the value of a diversity of peoples, approaches and career stages. Novel discoveries and research programs that deliver impact to a wide range of communities depend on nurturing and developing the broadest and brightest talent pool within the health research ecosystem.

A lack of diversity among researchers has been identified as a factor in certain groups being underrepresented in research and clinical trials, and therefore being underserved by a system which is supposed to serve them equally. It cannot be this way. Supporting researchers who reflect the population can lead to research design and questions that are relevant to the population.

Canada has important work before it on the path toward Truth and Reconciliation, which includes supporting health research that will benefit Indigenous communities. Creating a diverse, inclusive and innovative research ecosystem requires a commitment to decolonizing research institutions and systems and an investment in targeted supports and policies that encourage and uplift Indigenous researchers, research priorities and ways of knowing. Similarly, a diverse research ecosystem, with specific supports, is essential to tackling racism, sexism and other forms of

¹³ Advisory Panel for the Review of Federal Support for Fundamental Science. [Investing in Canada's Future – Strengthening the Foundations of Canadian Research](#). 2017. P. 126

¹⁴ Ibid. P. 147.

discrimination that are barriers to justice and dignity for Black and people of colour researchers, as well as those from other underrepresented and equity-deserving groups.

We live in a globally competitive research environment and other countries are making significant awards available to diverse researchers at all stages of their careers. This is especially true for early-career researchers. A postdoctoral fellow in Canada makes an average of \$51,913 per year compared to the equivalent of \$87,576 Canadian dollars in the U.S. As such, Canada must ensure that researchers of diverse backgrounds receive enhanced and fulsome support that ensures livable and competitive wages across the career spectrum. Moreover, the pandemic has had a particularly harsh impact on early-career and female researchers. Providing effective investments specifically for researchers from such groups will help close the gap made wider by the pandemic.

CONCLUSION

Research Canada adds its voice to the rest of Canada's research community in calling for significant increases to Tri-Agency funding, with corresponding balanced funding for the full costs of research. Failure to do this puts Canada's future at risk. A whole-of-government lens must be used, reflecting the interdependence of the health research and innovation continuum, to ensure that these investments have maximum impact. Nothing moves without people – all people – and so Canada must also make investments that achieve and promote a talent pool over the long term that is as diverse, globally competitive and promising as the country itself. Together, our two recommendations represent an essential plan to secure a just and prosperous future for all Canadians.

