



CENTRE FOR AGING
+ BRAIN HEALTH
INNOVATION
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Written Submission for the Pre-Budget Consultations in Advance of the 2020 Budget

**CABHI 2025:
Amplifying Our Impact**

List of Recommendations:

- **Recommendation 1:** The Federal government renew its contribution to CABHI with \$66 million in funding over 5 years to grow and amplify our impact.

CABHI 2025: Amplifying Our Impact

As Canada's aged population increases, so too does the prevalence of age-related brain disorders, such as Alzheimer's disease, the principal cause of dementia in older adults. As a recent Senate report notes, over 700,000 Canadians currently suffer from dementia, and that number is expected to climb to 1.4 million by 2031. Costs for the direct care of Canadian dementia patients has been estimated at \$10 billion; the combined direct and indirect costs already exceed \$30 billion; and, of course, the costs to individuals and their caregivers living with dementia are immeasurable.

Canada has committed to improving the lives of its growing number of older adults by proactively addressing the challenges of dementia, an aging-associated condition that adversely impacts older individuals, their family caregivers, friends, and communities, and our healthcare system. The Federal government's commitment to this cause has been demonstrated through the creation of the first ever National Dementia Strategy, through unprecedented investments toward fundamental research, including support of the Canadian Institutes of Health Research Institute of Aging, which leads a Dementia Research Strategy as one of its key initiatives.

However, traditionally-funded discovery and translational research take us only so far in advancing our Strategy. Innovations stemming from research at Canada's colleges, universities, and hospitals, or developed by industry or seniors' care providers, must be developed sufficiently to establish value, scalability, and the potential for widespread procurement and adoption. This can occur only through rigorous testing, disciplined evaluation, and compelling validation by engaging end-users in real-world seniors' clinical care and residential settings. Once value is established, procurement and adoption must be deliberately facilitated to establish meaningful market entry. Historically, these conditions, which are essential to introduce impactful innovations into the seniors' care sector, have been largely unmet.

Canada Specifically Needs:

- Innovative solutions to diagnose at-risk patients for dementia as early as possible
- New approaches to prevent dementia and enhance brain health in older adults
- Innovative, replicable, scalable technologies and related solutions to enhance the safety, health, and well-being of individuals suffering from dementia and their caregivers
- Increased support for innovators to develop and bring to market the next generation of aging, brain health, and dementia care solutions



The programs and services provided by the Centre for Aging + Brain Health Innovation (CABHI) are critical for Canada to meet these needs.

CABHI is Improving the Aging Experience in Canada

In just its first four years, CABHI has become Canada's premier innovation accelerator in the aging and brain health sector with a focus on dementia, and elevated Canada's reputation as a champion of innovation. Overall, CABHI has directed and committed more than \$85 million to its programs and projects, of which more than \$52 million has been levered from other sources external to Federal government contributions.

Since receiving our initial funding support, CABHI continues to add significant value to existing government investment. **To date, for every \$1 of federal funding invested into a CABHI program or project, an additional \$2.65 is levered from other sources.** The fact that private and public sector organizations have chosen to invest their own funding to support our programs speaks to the value CABHI provides.

CABHI has created a network of more than 100 trial sites through numerous partnerships, and supported the development of hundreds of new products, practices, and services that have enhanced the lives of more than 45,000 Canadian older adults and their families.

CABHI has supported the development of more than 350 promising innovations, of which 245 completed evaluation, and 157 have been introduced into the market or adopted into practice.

CABHI has successfully engaged more than 82,000 members of the public in our activities focused on creating a collaborative community of innovators and stakeholders. An additional 35,000 individuals have participated in our information sharing and knowledge translation activities.

CABHI projects also are stimulating significant economic activity across Canada: more than \$40 million has been directed towards creating new and sustained highly skilled jobs. CABHI projects have engaged more than 2,000 highly qualified personnel across 934 partners and collaborators, including technology and software developers, front-line care workers, and entrepreneurs. We have also built innovation capacity by including students and scientists in validation projects, and by creating programs that grow the numbers of female entrepreneurs.

CABHI's innovators and companies generate significant interest and secure outside investments to scale, spread, and de-risk their innovations beyond the pilot project phase. CABHI innovators and companies have received more than \$42 million in secured investments from private and public sources since engaging with CABHI.

CABHI funds projects coast to coast, and has partnerships in British Columbia, Northwest Territories, Alberta, Saskatchewan, Manitoba, Ontario, Québec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. As a result, additional funding has been secured for regional priorities in aging and brain health innovation, including advancing innovative solutions for Indigenous and rural populations.

Even at this early stage in its development, CABHI's strong results demonstrate its significant impact.

CABHI'S Unique Value Proposition

CABHI was spearheaded in 2015 by Baycrest, a global leader in aging and brain health care and home to the Rotman Research Institute, one of the world's most acclaimed research centres in aging and human brain science. CABHI was built on Baycrest's much sought-after expertise through a 5-year funding commitment from the Public Health Agency of Canada (PHAC, \$42M), which enabled additional matching support from the Ontario Government (\$23.5M), along with commitments from private donors to the Baycrest Foundation (\$25M) and an ever-growing consortium of private and public partners, including IBM Canada, Rogers, National Bank, the Alzheimer Society of Canada, MaRS Innovation, the Seniors Quality Leap Initiative, the Ontario Long Term Care Association, additional Canadian provinces, and the State of Israel.

Such strong and multi-sector support of CABHI reflects the potential and achieved impact that our programs offer: identification and advancement of the most promising innovations to optimize brain health in aging adults, and to improve the lives of individuals living with dementia and their caregivers.

Despite large investments, most innovations developed for seniors' health are not widely adopted because innovators fail to address end-users' priorities. CABHI developed a unique model optimizing the innovation process through co-development – ensuring that end-users' perspectives are integrated into decision-making, priority-setting, user testing, and dissemination. For example, CABHI's Seniors Advisory Panel works closely with selected innovators to refine and optimize their solutions before entering validation testing.

CABHI's programs span the innovation pipeline addressing the unique needs of different groups to meet our primary objectives. To inspire a culture of innovation in seniors' care, CABHI supports the design, development, and testing of new ideas brought forth by front-line care workers. For innovators with a developed product or process in hand, we open doors to real-world seniors' care sites for larger-scale validation testing. We support all of our innovators through a variety of tailored foundational support services: from scientific advising, to training in innovation and health systems, to developing procurement options and marketing plans.

To ensure successfully validated solutions reach maximum users for adoption, CABHI connects companies to external advisors and mentors, provides enhanced access to partner accelerators and incubators, and procures third-party consultation services where needed. It also delivers refined business and market launch plans associated with requests for investment. CABHI's services are not intended to duplicate services companies could access through other means, for example through Regional Innovation Centres. Instead, CABHI provides specialized advising and support targeted specifically at the Canadian seniors' care sector, building on its unique and deep expertise in aging and brain health innovation.

We are substantially raising Canada's profile in the longevity sector by collaborating with international innovation consortia and innovators from around the world, including an increasing number from the Silicon Valley and other innovation hotspots in the United States and beyond. For example, our partnership with the Israel Innovation Authority (IIA) attracted \$1 million in international funding (with a promise of an additional \$5 million should CABHI's funding be renewed), and provided Canadian seniors with access to cutting-edge technologies from one of the world's innovation leaders. These partnerships have led to dozens of innovation projects launching in Canada, have sparked interest for more collaborations with new global partners, have led to foreign investments in Canada, such as the creation of the Canadian headquarters for Norway-based companies, Motitech and Ably Medical, and provide a pathway for export of Canadian innovations.

The Vision for CABHI 2025

CABHI initially was funded as a proof-of-concept. Just four years later, CABHI's value is proven. Our approach makes a meaningful difference for older adults and their caregivers, for seniors' care organizations, for innovators, and for the health system. CABHI helps Canada meet its commitment to older adults.

To date, CABHI has engaged over 45,000 Canadian older adults and caregivers in the testing and validation of innovations critical to addressing the growing challenges and costs associated with dementia. As outlined in *A Dementia Strategy for Canada: Together We Aspire*, "For research on dementia therapies to be effective and culturally appropriate, people living with dementia as well as their families and caregivers must be meaningfully involved as active participants and partners. Their voluntary participation is a vital contribution to our understanding of which therapies are effective, as well as a core tenet of ethical research practice."

CABHI amplifies the federal government's impact through its dual approach in accelerating dementia-relevant research and innovations, and has been identified as a key contributor to the *National Strategy for Alzheimer's Disease and Other Dementias Act*.

With our original funding term ending in 2020, CABHI must secure additional funding to accelerate and amplify our impact. Maintaining the status quo will not keep pace with the health needs of Canada's rapidly aging population, with market-driven demand, or with the accelerating rate of innovation around the globe.

CABHI's plans for the next five years are targeted on achieving the largest societal impact possible. We will:

1. Maintain our focus on the effects of an aging population on brain health and the challenges of dementia
2. Strategically increase the number of Canadian innovators and partners in the aging and brain health space
3. Engage Canada's diverse population more directly in our innovation activities
4. Grow Canada's culture of innovation and support our innovation economy
5. Attract more foreign investment and promote Canadian innovations globally
6. Facilitate implementation, dissemination, and adoption of critically important solutions for aging and brain health
7. Increase the sustainability, efficiency, and effectiveness of Canada's health care systems for our aging population
8. Enhance the health and well-being of older individuals at risk for or living with dementia, and their caregivers

REQUEST: The Federal government commit to a renewal of funding for CABHI of \$66 million over 5 years to grow and amplify our impact to date.

This contribution will be matched by an additional commitment of \$25 million from the Baycrest Foundation and at least \$40 million from other sources (provincial, international, private, and public sector partners), for a total of \$131 million. This investment will enable CABHI to amplify our impact: increasing innovation in seniors' care; enhancing the health and quality of life among older Canadians; cementing Canada's reputation as the leading centre for innovation in aging and brain health; and helping grow Canadian companies, while reducing health system costs.