

INNOVATION TO IMPACT



CENTRE FOR AGING  
+ BRAIN HEALTH  
INNOVATION  
Powered by Baycrest

# Innovating for Aging and Brain Health



2017-18 ANNUAL REPORT



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*On the Cover: Project participant demos ArtOnTheBrain, funded by the RCP<sup>2</sup>.*

*Project Leads Dr. Kelly Murphy and Aviva Altschuler, Baycrest Health Sciences*

# ADVANCING INNOVATIONS IN AGING AND BRAIN HEALTH



*Crosswater Digital Media, The Albert Project  
Primacare Living Solutions, Ontario  
Jill Knowlton, Project Lead*

# EXECUTIVE SUMMARY



## As Canada's premier solution accelerator targeting innovations in the aging and brain health sector, CABHI has established itself as a global leader within the innovation ecosystem.

In its first three years CABHI has invested in 129 innovation projects, built an innovation infrastructure, and established an industry presence through partnerships, thought leadership, and supporting the development of a culture of innovation.

During its 2017-18 operating year, CABHI made significant impact by:

- Investing across a catalog of open funding programs
- Establishing a robust network of partnerships and innovation trial sites
- Inspiring a culture of innovation throughout the aging and brain health sector
- Streamlining internal organization and resources
- Expanding value-add acceleration offerings to projects within CABHI's innovation pipeline

As a leader in the aging and brain health ecosystem, CABHI brings together partners from a vast array of sectors: public and private, healthcare and industry, as well as regulators and innovators. It is through considered action that CABHI has been able to address the significant challenges presented to the aging and brain health sector, and turn these challenges into opportunities for innovators from around the world. Through the efforts of CABHI's team, four key innovation gaps have been targeted:

- 1 Lack of resources for innovation at the point of care
- 2 Sparse evidence of commercial product effectiveness
- 3 Slow diffusion of scientific innovations to the marketplace and End users
- 4 Significant challenges mobilizing knowledge and driving adoption of proven innovations

Working with partners, CABHI is inspiring a shift in the culture of the aging and brain health sector in Ontario and Canada. The sector is now embracing the challenges of an aging population, seeing these as opportunities to innovate, adopt new solutions, and create new job opportunities.

### What makes the CABHI approach different?

- Growing and evolving the innovation ecosystem with a focus on aging and brain health
- Connecting the public and private sectors, and providing incentives for those sectors to collectively innovate to solve problems
- Supporting all components of the innovation process: development, validation, adoption, and commercialization
- Inspiring a culture of innovation to create sustainability for CABHI-funded innovations
- Building capacity in knowledge mobilization and adoption
- Engaging and supporting companies to validate and accelerate their innovations in the senior's care marketplace

CABHI is a flexible, dynamic, and purposefully differentiated organization that will continue to innovate and evolve to ensure the organization is well-positioned to advance innovations that can improve the lives of those living with dementia and other aging-related cognitive impairments. With measured regard to its mandate, CABHI remains vigilant in actively pursuing and responding to the most promising, high-impact global opportunities.

As CABHI looks forward towards its fourth year, there is a commitment to double-down on efforts to target and accelerate activities that will scale, spread, and commercialize solutions with promise to provide wide-spread health system impact, thereby charting a path for sustainable aging in Canada.

“CABHI HAS BEEN INSTRUMENTAL IN PROVIDING FUNDING, COLLABORATIONS AND OPPORTUNITIES TO ENGAGE WITH INNOVATIONS THAT IMPACT ELDER CARE THAT WOULD OTHERWISE NOT BE POSSIBLE.”

- Healthcare Provider



**InteraXon, MUSE**  
*Baycrest Health Sciences*  
*Dr. Morris Freedman*



## Message from William Reichman, MD

Baycrest President & CEO

Population aging is one of the most significant demographic trends of the 21st century and it is poised to have a significant impact on all sectors of society. Most countries around the world are experiencing growth in the number and proportion of older people. The most recent data from the United Nations estimates that the number of people over the age of 60 will more than double by 2050, increasing from 962 million in 2017 to 2.1 billion in 2050, and more than triple to 3.1 billion by 2100.

As more people are living longer, the number of individuals experiencing cognitive decline and other age-related diseases is rising. We must continue to work hard to find innovative ways to help older adults age well, optimizing their cognitive, emotional and physical well-being and providing them with solutions to help them maintain independence in the setting of their choice for as long as possible.

Every day there is growing evidence that Canada and Ontario are leaders at the cutting-edge of aging and brain health innovation. We are honoured to be at the leading edge, building a culture of innovation in the sector, building capacity and receptivity for innovative thinking and the testing and adoption of new solutions.

After passing the halfway point in our five-year mandate, we are pleased to report that robust results are emerging. Looking back at some of our recent accomplishments helps us understand the impact we are having on the growth and evolution of new products and services that can help improve the quality of life for the world's aging population. To date, CABHI has levered more than \$35 million to support innovation acceleration activities. Our projects have partnered with more than 450 innovators and collaborators and engaged them in the innovation process. Within the CABHI innovation pipeline, there are currently more than 129 projects undergoing validation testing. Of the more than 560 projects assessed and reviewed to date, 173 new healthcare innovations were developed and 63 of them were introduced in the market. Older adults are benefitting from these solutions through access to innovative education tools, social platforms and health information transfer technologies that impact quality of life and quality of health service delivery.

From the beginning, CABHI has been powered by Baycrest, an academic health sciences centre that has a 100-year history of providing exemplary care for older adults in Toronto. Baycrest's Rotman Research Institute (RRI) has been studying human cognition for nearly 30 years. The scientists at RRI provide CABHI with knowledge, expertise and evidence on how the brain ages in healthy older adults and in those with dementia, informing our innovation activities.

We are grateful for the continued trust and support of our funders—the Government of Canada through the Public Health Agency of Canada (PHAC) and the Government of Ontario through the Ministry of Research, Innovation and Science (MRIS). Their financial support is amplified by funding from the Baycrest Foundation as well as commercial and not-for-profit partners across the aging and brain health sector.

We are very proud of the significant accomplishments we have achieved in the three years since CABHI was first established. We look forward to building on this strong foundation, increasing the economic impacts of our investments in the aging and brain health marketplace and realizing even stronger results in years four and five of our mandate as the full impact of our funding and support take hold. We are committed to accelerating the highest quality innovations to improve the quality of life of older adults in Canada and around the world.

A handwritten signature in black ink, appearing to read 'William Reichman'.

**WILLIAM E. REICHMAN, MD**

*President and Chief Executive Officer  
Baycrest*



## Message from Allison Sekuler, PhD

Vice-President, Research and  
Sandra A. Rotman Chair in  
Cognitive Neuroscience, Baycrest;  
and, Managing Director, CABHI

I am pleased to report on the last year of operations at CABHI after stepping into my new role as Managing Director in February 2018. I'm incredibly grateful to founding Managing Director Ron Riesenbach, Baycrest's Vice-President Innovation and Chief Technology Officer, for providing CABHI with such a strong foundation on which to build.

Over the last year, CABHI delivered on many strategic objectives, including positioning the organization as a thought leader in the aging and brain health sector. For example, we forged new partnerships with organizations like the International Federation on Ageing and Aging2.0 and hosted a dementia innovation roundtable to help advise the Public Health Agency of Canada as they develop a National Dementia Strategy in the coming year.

The team also has been busy expanding our program offerings. On-boarding 75 projects in a fiscal year is a truly outstanding achievement, particularly after starting operations only three short years ago. CABHI's dedicated team launched several open funding programs that provide resources for innovators to move their solution forward along the innovation pipeline. The team also hosted the inaugural Innovation Showcase event to highlight numerous CABHI-

funded solutions, build awareness and disseminate knowledge. We look forward to advancing trials in many of our programs, including those funded through rounds two and three of the Industry Innovation Partnership Program (I<sup>2</sup>P<sup>2</sup>). Many of these innovations have the potential to make a positive impact on the lives of older adults in Canada and beyond, particularly those living with dementia—reinforcing our commitment to accelerate the most innovative solutions for those with the most need.

As CABHI's name is increasingly associated with excellence in brain health innovation, our reach has grown. Our 129 funded projects connect us to 71 institutions and companies, across seven provinces and five countries. We are never satisfied with the status quo and are continually learning from our innovators to refine our programs and offerings, providing increased value to innovators. This year CABHI held the first live pitch competition for the I<sup>2</sup>P<sup>2</sup> program and launched the Brain Health Innovation Platform (BHIP)—a novel framework for economic and social innovation developed in response to the needs of care providers and innovators. The first phases of the Platform were: 1) the Scientific Officer Program pilot,

capitalizing on our shared location with Baycrest's world-renowned Rotman Research Institute to connect leading scientists in aging and brain health with Spark and I<sup>2</sup>P<sup>2</sup> projects; and, 2) increased service offerings from our Innovation Office to help innovators maximize the scientific and business development potential of their solutions. We look forward to working with our partners to evolve the BHIP further and facilitating its adoption by the broader community to help build a sustainable culture of innovation in the aging and brain health sector.

2017–18 was also a terrific year for new partnerships, including an exciting new joint program with the New Brunswick Health Research Foundation called the Seniors' Care Strategic Innovation Fund (SCSIF). The goal of the program is to accelerate the translation of research conducted in New Brunswick for products, services and practices that have the potential to make a system-wide impact. This unique provincial partnership opened the door for other regional connections, with several more to follow in 2018–19. CABHI's partnership with the Israel Innovation Authority was expanded to fund two projects rather than one as originally planned. Other nations are increasingly approaching us to partner and seek our advice on aging and brain health innovation.





We are committed to continuing to nurture and grow our networks and strengthening our national and international partnerships with an eye toward increasing our impact in diverse communities including Indigenous and rural communities and individuals from other under-represented groups. Since inception, the number of individuals engaged in new practices, products or services with CABHI is 12,120, including 7,568 in the last year alone. Knowledge mobilization is leading to increased awareness and providing tangible skills in dementia care. New apps will provide healthcare providers with clinical decision trees to help them develop more effective medication plans for patients. New technologies and services will keep more seniors connected, enabling them to age in the setting of their choice for as long as possible.

Of course, none of our successes would be possible without the generous support of our funders—the Public Health Agency of Canada (PHAC), the Ontario Ministry of Research, Innovation and Science (MRIS), the Baycrest Foundation, and our public and private sector health system partners. We also are grateful for the tireless efforts of the

innovators, companies, older adults, front-line caregivers, individuals with lived experiences, researchers and clinicians with whom we collaborate.

Finally, we have benefited tremendously from the generous advice from our governing board, our global Innovation Advisory Council, our incredibly dedicated Seniors' Advisory Panel and our dedicated CABHI staff. We thank them all for their unwavering support and we look forward to working together to reach even greater heights in 2018–19.

**ALLISON SEKULER, PHD**  
*Vice-President, Research and  
 Sandra A. Rotman Chair in  
 Cognitive Neuroscience*  
 Baycrest

*Managing Director*  
 Centre for Aging + Brain Health Innovation

**“CABHI FILLS A PARTICULAR NICHE IN THE RESEARCH FUNDING AND COLLABORATION INFRASTRUCTURE FOR BRAIN HEALTH. THERE IS NOTHING ELSE LIKE IT.”**

- Anonymous researcher from third-party survey

*With Dr. Allison Sekuler above, from left to right: John Haydock, Dr. Rosanne Aleong, Calen Freeman, Dr. Eugenie Roudaia (SafelyYou team)*

A blue-tinted microscopic image of brain tissue, showing various cell structures and neural pathways. The image is used as a background for the text.

**CABHI** is a solution accelerator, helping to drive innovation in the aging and brain health sector.

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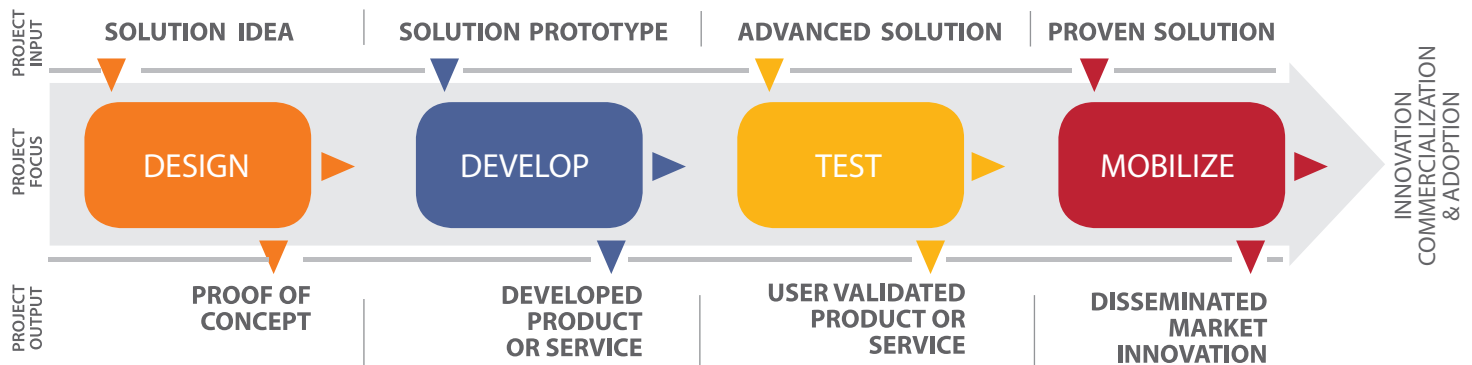
### **MISSION**

To accelerate the development, validation, commercialization, dissemination and adoption of innovative products, services and best practices to support brain health and aging.

### **VISION**

A world in which people can age in the setting of their choice, maintaining their cognitive, emotional, and physical well-being as well as their independence as long as possible.

# INNOVATION PIPELINE



**Challenge:** Innovation programs tend to focus on research or management-led initiatives, reinforcing divisions between the day-to-day delivery of care and care innovation. Such divisions contribute to top-down decision making, poor alignment between on-the-ground problems and proposed solutions, and slow adoption.

**Opportunity:** Spark supports the development of early-stage, innovative solutions led by point-of-care staff from the seniors' care sector. By targeting point-of-care staff, Spark strengthens grass roots support and capacity for creative, disruptive solution evaluation and adoption.

These innovations are grounded in the experience of working with seniors and their caregivers. Spark fosters innovation within the sector, impacting its ability to support the development, evaluation and adoption of innovative solutions. Spark helps our seniors care partners incorporate innovation into their daily practice of seniors' care.



**Challenge:** Researchers and clinicians too often work in different environments, making it difficult to share knowledge that could advance health and wellbeing. This separation can make it difficult for researchers to translate their discoveries into applied solutions that solve pressing issues for the healthcare system.

**Opportunity:** RCP<sup>2</sup> incentivizes partnerships between researchers and clinical practitioners to support innovative solutions based on original translational research tackling concrete problems faced by patients, caregivers, and clinicians. The program funds projects co-led by researchers and clinicians and provides support to evaluate innovative solutions in real-world settings: long term care, the community, primary care, hospitals.

The program assists funded projects to plan beyond their pilot, and key next steps to move innovations towards sustainability, scalability, spread and adoption.



**Challenge:** Commercial innovators face numerous barriers to entering the healthcare marketplace. Healthcare organizations face frequent difficulties in procuring disruptive products and services regardless of their potential to improve outcomes.

**Opportunity:** I<sup>2</sup>P<sup>2</sup> bridges the chasm between commercial innovation and healthcare adoption by supporting the evaluation of products and services in real-world care settings. The program identifies promising solutions, connects vendors with trial partners, and supports them to pilot and adopt these solutions.

The program competitively identifies and screens prospective vendors on behalf of healthcare organizations that otherwise do not have the resources to scan the marketplace. In addition to supporting out of pocket costs, CABHI also provides 'honest broker' third-party assistance with contracting, pilot design, and adoption planning. Projects benefit more than just vendor and trial partners, disseminating evidence of the innovation's benefits to the sector as a whole.



**Challenge:** CABHI's core programs are intended to identify and support promising innovations via time-limited projects targeted at barriers that slow the evaluation and adoption of disruptive solutions. Over its short span, CABHI has supported many dozens of exciting products, services and practices via these programs. Some of these innovations now have significant potential to increase their impact through scale and spread, but it can be difficult for them to take that next, big step.

**Opportunity:** The MC<sup>2</sup> program focuses on mentorship, capital, and continuity, and is designed to provide CABHI with a formal mechanism to identify promising projects, and provide continued collaboration beyond their initial CABHI-funded project. The goal of the MC<sup>2</sup> program is to sustain, spread, and scale our most promising projects beyond their initial CABHI-funded pilot, so that they can have the greatest opportunity for commercial and social impact in Ontario, across Canada, and around the world.

# CABHI'S TANGIBLE IMPACT\*

**\$35 M** and growing!



FUNDING LEVERED TOWARDS HEALTHCARE INNOVATION



**129**

PROJECTS APPROVED  
& LAUNCHED



AWARDS EARNED  
BY CABHI PROJECTS

**560**

Projects  
assessed

**12,120**

Members of the  
Public Engaged



**463**

Partners and  
Collaborators Engaged



**1,140**

Highly Qualified  
Personnel Engaged



**63**

NEW PRODUCTS,  
PROCESSES, PRACTICES,  
OR SERVICES  
INTRODUCED

**139**

LEARNING  
MODULES  
DEVELOPED

**173**

NEW PRODUCTS,  
PROCESSES, PRACTICES,  
OR SERVICES  
DEVELOPED



## MILESTONES



# GerimedRisk

reduces strain  
on healthcare  
system





"I SUBMITTED PREVIOUS PROPOSALS BEFORE CABHI WAS INVOLVED, AND COMPARED TO THIS ONE, IT'S JUST NIGHT AND DAY. CABHI IS A HUGE PART OF THE SUCCESS THAT WE'VE HAD."

- Dr. Joanne Ho,  
Founder, GeriMedRisk

**We live in a world where taking multiple medications is common, especially for older adults. But with that reality comes an increased risk of adverse drug reactions. For clinicians prescribing medication to seniors, wait times to consult with a specialist can take weeks or even months.**

Dr. Joanne Ho wants to change that – with the help of CABHI.

Dr. Ho is the founder of GeriMedRisk, a network of specialists that support clinicians involved in the primary care of older adults. When clinicians have a question about their patient's medications, they can access GeriMedRisk's team of specialized pharmacists and physicians by telephone or e-consult. The service optimizes patients' medication plans, leading to improved cognition, mobility, and mental health – while decreasing drug-related cognitive impairment, falls, and hospital visits.

"It's a practical service for clinicians, especially those who may not be embedded within academic health sciences or who have limited time or tools to research drug interactions and safety on their own," says Dr. Ho. "We want to be helpful to all clinicians, especially those who devote most of their time to seeing patients."

Through CABHI's Spark program, which supports early-stage innovations informed by the experience of point-of-care staff, the GeriMedRisk team received \$50,000 to test and evaluate their service over 12 months in four long term care facilities across the Waterloo-Wellington region in Ontario.

The trial was a success. Instead of waiting weeks or months to receive a specialist's answer via the traditional route, clinicians contacting GeriMedRisk received a response or follow-up within five business days – drastically cutting wait times. In urgent cases, GeriMedRisk provided same-day consults.

"GeriMedRisk is an excellent example of collaborative care," says one Waterloo-based physician who used the service. "GeriMedRisk is extremely valuable in my eyes - totally helpful! Families were happy with the care and outcome."

The success of the CABHI-funded trial meant GeriMedRisk was now well-positioned for widespread adoption. As part of the acceleration services CABHI offers its projects to

support business development and commercialization activities, CABHI's Innovation Office team worked closely with Dr. Ho to prepare a proposal and budget to Ontario's Ministry of Health and Long-Term Care (MOHLTC).

In March 2018, the MOHLTC approved \$1.5 million in annual base funding for GeriMedRisk to begin to engage clinicians from additional rural regions across Ontario as a provincially funded program.

"I submitted previous proposals before CABHI was involved, and compared to this one, it's just night and day," says Dr. Ho. "CABHI is a huge part of the success that we've had."

CABHI played an instrumental role in helping GeriMedRisk grow from a feasibility trial to a permanent fixture in clinical practice across the region in just over a year – an incredible achievement that will have a growing impact on seniors' healthcare at both individual and systematic levels. Adoption of the service across the region means clinicians can better care for their patients, older adults can lead healthier lives, and the healthcare system as a whole can benefit from increased efficiency. The newly expanded GeriMedRisk aims to reduce the load on healthcare providers, decrease unnecessary emergency room visits and hospitalizations for older adults, and could save the province of Ontario tens of thousands of dollars. The province's support of GeriMedRisk is a prime example of an innovation succeeding from within the healthcare system, and through a unique by-clinicians, for-clinicians model.

"CABHI supported us from many angles – some from which we didn't even know we needed support – and they've done so with efficiency," Dr. Ho says. "CABHI provided our project the chance to take flight without the bureaucracy and red tape. They don't want to waste time, because they know our time is better spent in patient care."

Ultimately, GeriMedRisk's implementation means that clinicians across the province will be better equipped to provide faster, more specialized care for its older adults – and that those older adults will lead healthier, safer lives as a result.

"Without the [GeriMedRisk] recommendation I would still be on too many medications," said one long-term care patient from Waterloo. "It's a great service and I would recommend it highly to anybody."





# HEALTH SYSTEM CHANGE & ADOPTION

**95%**

of healthcare providers surveyed reported that CABHI had a positive impact on their ability to form new collaborations or partnerships

**89%**

of healthcare providers surveyed reported that CABHI provided a positive impact in their ability to engage in new clinical research methodologies

**68%**

of healthcare providers reported a positive impact on their ability to engage in new clinical practices as a result of CABHI funding


**61%** OF HEALTHCARE PROVIDERS SURVEYED DEVELOPED NEW TOOLS OR TECH SINCE ENGAGING WITH CABHI



# Road to Connection

supports couples navigating dementia journey





"THE JOURNEY  
OF DEMENTIA IS  
DIFFICULT... THE  
GROUP CAN'T  
CHANGE MY  
JOURNEY, BUT  
THEY'RE WITH ME  
AS A PARTNER TO  
HELP ME THROUGH  
IT. I'M NOT ALONE  
IN THIS."

- *Road to Connection*  
participant Ruby



*From left to right: Yuliya Goloida, Anna Berall, Dr. Adriana Schnall, Renee Climans, Road to Connection team participants, Michael and Ruby, Melissa Tafler, Arlene Consky, Dr. Kelly Murphy, Dr. Gillian Rowe*

## Does a diagnosis of dementia mean the end of personal creativity and growth? As Ruby and Michael have discovered, it doesn't have to.

Ruby and Michael had been married for eleven years before Michael was diagnosed with dementia. Until then, they had enjoyed travelling together and volunteering with their church community. Since the diagnosis, the couple has been navigating a new kind of life.

"I'm glad there was a diagnosis, but it was incredibly hard," says Ruby. "It hurts to watch him change in front of my eyes."

Last year, Ruby and Michael were introduced to a CABHI-funded dementia support group at Baycrest called The Road to Connection.

Facilitated by a group of social workers and artists, the ten-week Road to Connection program catered to both caregivers as well as their spouses experiencing dementia. Two separate groups ran simultaneously for an hour: a support group for the caregiver spouses and a cognitive intervention session involving visual art, music, and mindfulness exercises for the spouses living with dementia. Afterward, the two groups came back together for discussion.

It was important for the facilitators of the program to support caregivers by providing a safe environment to share their experiences caring for their spouses. Ruby explains that taking part in the group made her feel less isolated.

"It was a place where I could hear, I could listen, I could learn, and I could share," Ruby says of her experience in the support group. "It was a place where you could speak from your heart without feeling you were being judged."

Along with the emotional support, the spouses were also provided educational information from the social workers to support their caregiving activities.

The ultimate goal of the program was to decrease the burden and isolation some spousal caregivers feel, while increasing the quality of life for both the caregiver and the partner with dementia. By increasing overall quality of life, the program hoped to assist older adults age optimally at home.

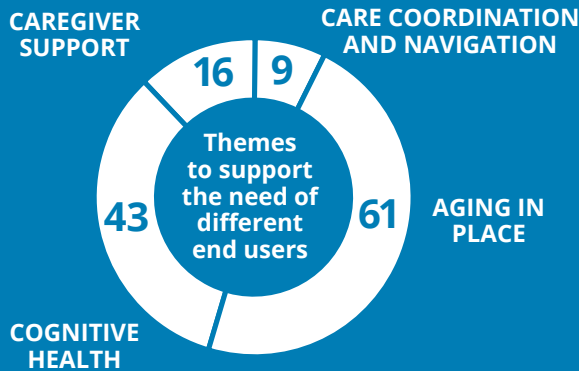
Tellingly, post-program the caregivers reported having more compassion and more positive interactions with their spouses. Half of them reported feeling that through the arts group they "saw their partner in a new light." Caregivers also responded that they were making improvements to their health, including managing stress, and that their self-esteem had improved. One hundred percent of caregivers reported that they would attend follow-up sessions if they were offered.

The Road to Connection was supported by CABHI's Spark Program, which provides up to \$50,000 to test and develop innovative products, practices and services conceptualized by point-of-care staff. CABHI's funding supported the implementation of four additional support groups, increasing the number of participants and thereby the quality of post-program analysis. The support also



# CABHI'S END-USER IMPACT

## CABHI PROJECTS BY INNOVATION THEME



**21** NEW PRACTICES INTRODUCED IN 2017-18

**12,120**

members of the public engaged with delivery of CABHI's innovative products, practices or solutions

**95%**

of healthcare respondents report CABHI has positively impacted their ability to conduct evaluation and validation directly with end-users.

2017-18  
**7,568**

2016-17  
**4,552**

**5,473**

attendees at workshops, lectures, or training events to learn about CABHI innovations

2017-18  
**4,733**

2016-17  
**740**

**11** PROJECTS WITH GREATER THAN 100 MEMBERS OF THE PUBLIC ENGAGED

allowed the Road to Connection team to partner with Baycrest's Kunin-Lunenfeld Centre for Applied Research & Evaluation (KL-CARE) to provide expert evaluation and refinement of the project.

Moreover, CABHI is currently working with the project team to establish a business plan and explore how this unique caregiver support model can be disseminated and scaled to other sites within the Baycrest community and

other care organizations in Ontario. The team also intends to develop an e-learning curriculum to offer a version of the program to caregivers and older adults remotely.

Through innovative programs like Road to Connection, CABHI is making a concrete impact on the lives of couples like Ruby and Michael – providing them with the educational tools and emotional support needed to navigate the journey of dementia that lies ahead.

# Inspiring a **culture of innovation** in New Brunswick

“FROM THE BEGINNING,  
CABHI HAS BEEN AN  
INVALUABLE PARTNER  
IN SUPPORTING OUR  
RESEARCHERS AND  
FOSTERING A NEW  
EXCITEMENT AROUND  
INNOVATION.”

- Kevin Harter, President and CEO  
of York Care Centre



## PROJECT SPOTLIGHT





York Care Centre

**New Brunswick is home to Canada's fastest-growing aging population. It's projected that within a generation, the number of citizens over 65 will grow from 19% to 31% of the province's population. This demographic makeup presents distinct challenges for the province, but also offers the unique opportunity to spark powerful innovations in the field of seniors' care.**

The Government of New Brunswick's Aging Strategy, published in 2017, identifies the importance of strengthening research and innovation in healthy aging over the next decade. In support of this, CABHI and the New Brunswick Health Research Foundation (NBHRF), the province's health research and innovation funding agency, have developed a strong and focused partnership that has helped grow the province's rising culture of innovation – driving ideation, dissemination, and adoption of the most promising new products and services in aging and brain health.

CABHI's relationship with New Brunswick began in late 2016, when it received a project application from Fredericton long-term care home York Care Centre. The project, led by nurse and researcher Jennifer Donovan, focused on developing a strategy to reduce unnecessary polypharmacy—a patient's concurrent use of five or more medications—in long-term care settings. Donovan's promising project became one of CABHI's earliest Spark Program innovations, receiving nearly \$50,000 to test and evaluate the early-stage solution.

York Care Centre showed great enthusiasm and interest in leveraging CABHI's programs to support and enable its staff to engage in innovative thinking.

"From the beginning, CABHI has been an invaluable partner in supporting our researchers and fostering a new excitement around innovation," says Kevin Harter, President and CEO of York Care Centre. "We're grateful to CABHI for the opportunity it provides to our front-line staff to develop their innovative ideas into products and services that will improve the quality of life and care for seniors in New Brunswick."

With such a positive reception to fostering a culture of innovation at York Care Centre, CABHI was eager to leverage this sentiment across the province. In September 2017 – just a year after CABHI's initial engagement with York Care Centre – CABHI partnered with the NBHRF to establish the Seniors' Care-Strategic Innovation Fund (SCSIF), a program aimed at driving New Brunswick-based innovations in seniors' care by providing up to \$200,000 in matching funds per project. A total of about \$800,000 was allocated in the first round of the SCSIF program to four recipients. York Care Centre's promising polypharmacy project received additional funding to expand its scope, while two other projects from the University of New Brunswick and one from the University of Moncton rounded out the cohort.

In January 2018 the NBHRF matched additional funds awarded for up to two New Brunswick-based Spark projects, providing further support for two York Care Centre CABHI projects.

"Our active collaboration with CABHI is an instrumental partnership established to enable novel technological and social innovation that will improve seniors' health and overall healthy aging in the province of New Brunswick," says Dr. Bruno Battistini, President, CEO & Scientific Director of the NBHRF. "It's a real strategic and visionary partnership that develops and tests the proof-of-concept of novel innovations and addresses up-scaling, feasibility, and sustainability."

In the two years since CABHI began collaborating with New Brunswick innovators, the province has experienced a significant boost in seniors' care support. In mid-2017 the NBHRF partnered with national technology and aging network AGE-WELL to open the National Innovation Hub in Advancing Policies and Practices in Technology and Aging, an initiative to advance policies, practices and services in healthy aging. And in early 2018, the Public Health Agency of Canada





# CABHI'S CULTURE OF INNOVATION

**CABHI INSPIRES A CULTURE OF INNOVATION ACROSS THE WORLD, HAVING RECEIVED APPLICATIONS FROM 12 DIFFERENT COUNTRIES, SPANNING 4 CONTINENTS**

**77%** of researchers/developers looking to promote research results found CABHI had positive impact on their ability to do so

**CABHI projects have benefited from over 370 collaborations between innovators and supporting stakeholders**

**92%**

of researcher and developer respondents reported that it would have been at least somewhat difficult to acquire CABHI-style support from another provider



**72%** of strategic partners feel CABHI has already had positive impact on the capacity of Canadian Innovation, while the remaining 28% anticipated it

**1,140**

highly-qualified personnel engaged in CABHI projects

2017-18

**845**

2016-17

**295**

announced an allocation of \$75 million toward the Healthy Seniors Pilot Project in New Brunswick, which will support research initiatives to help governments across the country better care for their aging populations.

In under two years, what began as a single CABHI project in New Brunswick has blossomed into an energized cross-province community of innovation: seven major projects across three organizations and a total portfolio funding value of nearly \$1.25 million. New Brunswick is now a self-sustaining, nationally recognized centre for seniors' care innovation.

Through its relationship with the province's research community and its strong partnership with the NBHRF, CABHI continues to play an essential part in accelerating and championing the innovative work that will support the province's Aging Strategy – and, most importantly, will ensure older adults in New Brunswick benefit from the best aging experience possible.

# Validation study accelerates **Karie** to market

“WE’RE ECSTATIC THAT THIS PROGRAM IS GOING TO ALLOW US TO GENERATE THE SCIENTIFIC EVIDENCE TO SHOW THAT KARIE WILL IMPROVE THE QUALITY OF LIFE FOR SENIORS.

LAUNCHING IN TWO DIFFERENT PROVINCES HAS ALLOWED US TO BE CANADA-WIDE OUT OF THE GATE.”

- Spencer Waugh, CEO, AceAge





Even the most promising innovations face the challenge of commercialization: taking research results from the lab and turning them into a new product or service in the marketplace. In order for a new innovation to make its way from a concept to a financially sustainable product generating sales, it must be rigorously tested and evaluated in a real-world setting.



Guelph, Ontario-based company AceAge knows this struggle well. AceAge is the creator of Karie, an automated medication-dispensing device that simplifies drug intake for older adults. Karie is pre-loaded with a user's daily medication and automatically programmed to dispense the correct dosage at pre-set time(s) of day. It also alerts the user to take their medication with visual and auditory cues. The device can be set to notify a family member or caregiver if the older adult forgets to take a dose, ensuring the user receives encouragement when needed most.

With over 20 percent of patients being admitted to long-term care because they cannot take their medication properly, Karie is an innovative solution that will allow

seniors to age at home longer – and provide both the older adults and their caregivers peace of mind. It can also help to mitigate the cost of medication non-adherence to the healthcare system by preventing adverse drug events which can ultimately lead to re-admission to the emergency department and admission to long-term care.

Even with such a promising innovation, AceAge faced challenges navigating a complex healthcare system. The company had successfully completed a small-scale study with Karie, but the evidence wasn't enough on its own to support expansion to market.

Enter CABHI. AceAge successfully applied to CABHI's Industry Innovation Partnership Program (I<sup>2</sup>P<sup>2</sup>): an opportunity that enables companies from around the world to trial their mature solutions with leading seniors' care organizations from across North America, and to receive up to \$500,000 in matching funds towards testing their innovations in a real-world setting. Through CABHI's I<sup>2</sup>P<sup>2</sup> program, companies like AceAge are able to derive crucial scientific evidence and to refine their products or services based on user feedback.

CABHI's expertise in brokering relationships with seniors' care organizations was highly valuable to AceAge. CABHI matched the company with two well-known trial sites: West Park Healthcare Centre in Toronto and CapitalCare Group in Edmonton. Together the sites will be recruiting an impressive 300 older adult participants.

"We are very lucky to be in the I<sup>2</sup>P<sup>2</sup> program," says Spencer Waugh, CEO of AceAge. "We're ecstatic that this program is going to allow us to generate the scientific evidence to show that Karie will improve the quality of life for seniors. Launching in two different provinces has allowed us to be Canada-wide out of the gate."

"The I<sup>2</sup>P<sup>2</sup> study results will be able to show how adherence improves when people take their medication using Karie," Waugh adds. "From that, there are a number of indicators we're going to measure to show equity and value being brought to the healthcare system as a whole in a cost-effectiveness analysis."

"CABHI's support in brokering our relationship with AceAge has been instrumental in our ability to undertake the clinical testing of this promising technology at West Park," says Tim Pauley, Manager, Research and Evaluation at West Park Healthcare Centre. "As part of our commitment to helping our patients get their lives back, we are looking forward to launching the trial study and seeing how our patients benefit from using Karie."



# COMMERCIALIZATION

**100%**

of company respondents have received at least

**\$100K**

new private investment

**50%**

of company respondents have received at least

**\$1M**

new private investment

**25%**

of company respondents have received at least

**\$5M**

new private investment

**100%**

of company respondents have grown their staff

**25%**

of company respondents have doubled their staff

**88** NEW FULL-TIME JOBS CREATED

**27** NEW PRODUCTS, PROCESSES, SERVICES, INTRODUCED INTO MARKET

**5** COUNTRIES WITH COMPANIES ENGAGED IN CABHI TESTING

**50%**

of company respondents have doubled their company's market valuation

**100%**

of company respondents have engaged in new collaborations

In March 2018, AceAge announced a manufacturing agreement with Burlington, Ontario-based electronics manufacturer Urtech. The company initiated the process for the production of the first batch of Karie devices, to be brought to market—and to the I<sup>2</sup>P<sup>2</sup> trial sites—in Fall 2018.

CABHI's ability to help implement and commercialize innovations means that technologies like Karie can be accelerated to market with the strong foundation needed to

have a positive effect on the seniors' care sector in a lasting, sustainable way. With the validation from the multi-site I<sup>2</sup>P<sup>2</sup> trial study brokered by CABHI, AceAge will be poised for commercial success to enter the Canadian market.

Most importantly, CABHI is helping to take innovative solutions like Karie out of the lab and into the hands of those who need them faster – so older adults can benefit from the best aging and brain health products available.



“CABHI REPRESENTS A GREAT OPPORTUNITY TO PUT CANADA ON THE MAP WHEN IT COMES TO INNOVATION IN BRAIN HEALTH AND AGING AND STANDS TO BE THE ‘GO TO’ ORGANIZATION FOR DETERMINING VALUE OF NEW INITIATIVES.”

– Anonymous partner organization from third-party survey

*“I’m not sure that without CABHI’s support we would have gotten to the stage of having an actual business model and go-to-market strategy. CABHI brings a lot of expertise to the table in helping healthcare providers navigate this very different space and connecting us with the right resources. We’re incredibly grateful.”*

– Dr. Raquel Meyer, innovator, SOS Educational App for Healthcare (Spark)



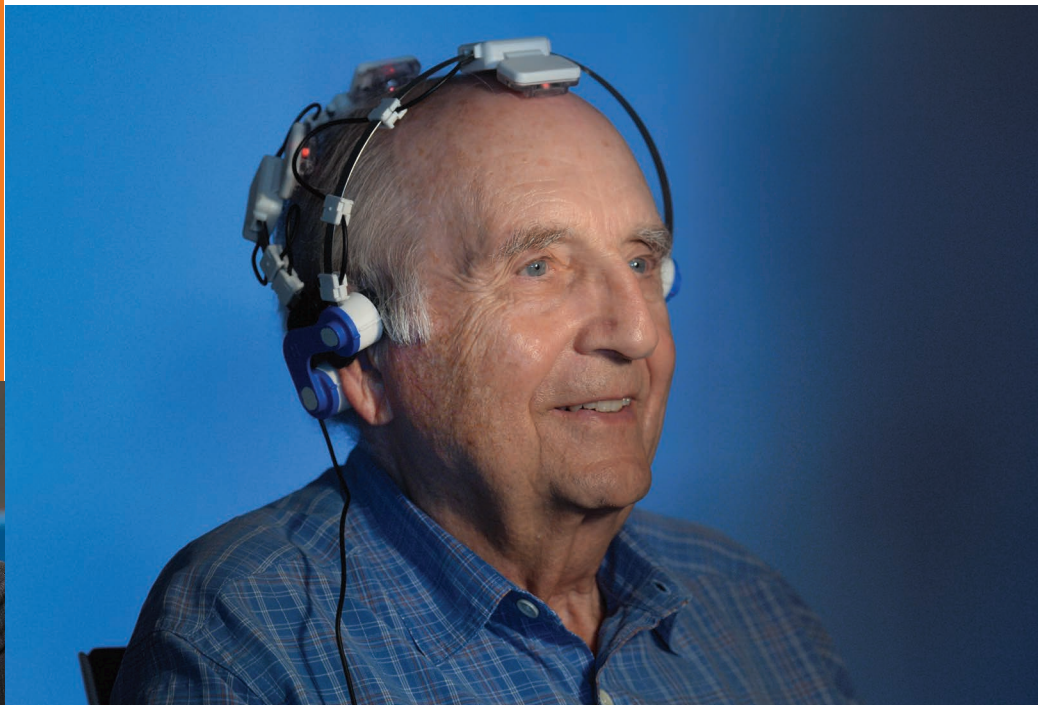


*“The rapidity at which the CABHI process went should become the gold standard for how procurement is done. I’ve never seen organizations come together to reach an agreement this quickly. That was really impressive.”*

– Dr. Alexandra Greenhill,  
CEO & Chief Medical  
Officer of Careteam (I<sup>2</sup>P<sup>2</sup>)

*“CABHI’s monthly support and quick responses to questions have made this process a seamless one. We are eager to continue working with CABHI into the future.”*

– Anonymous industry partner from  
third-party survey



# PROGRAM ACHIEVEMENTS



*Aviva Altschuler and Dr. Kelly Murphy, Project Leads, demo ArtOnTheBrain, funded by the RCP2 Program, to a project participant*

**The Centre for Aging + Brain Health Innovation (CABHI)** was established in 2015 leveraging \$124 million<sup>1</sup> contributed by public and private sector partners—A historic investment in aging and brain health innovation, recognizing CABHI as a global leader in the longevity sector.

In three short years since inception, CABHI has firmly established itself as Canada's premier innovation accelerator in the aging and brain health sector. CABHI provides funding and support to innovators for the development, testing and dissemination of new ideas and technologies that address unmet needs of older adults facing challenges associated with the aging brain, including dementia and other neurodegenerative diseases.

CABHI is committed to the development, validation, commercialization and adoption of innovations that have the potential to make a significant, positive impact on the quality of life or access to health and social care. At the same time, CABHI is dedicated to reducing healthcare costs and driving economic growth by helping innovators commercialize and mobilize their solutions across Ontario and Canada and export them to other countries.

<sup>1</sup> All currency is CAD and represents cash & in-kind contributions.

CABHI achieves its objectives primarily through a portfolio of funding programs designed to capture innovation at different stages of the development pipeline. CABHI funds innovative solutions that align with these current strategic themes:

**Aging in place:** Solutions that enable older adults with dementia and other neurodegenerative diseases to maximize their independence, quality of life and choice for where they live

**Caregiver support:** Solutions that support formal or informal caregivers who care for older adults with dementia

**Care coordination and navigation:** Solutions that help older adults, caregivers and healthcare providers coordinate care and transitions for older adults with dementia

**Cognitive health:** Solutions focused on health promotion, prevention, early diagnosis and slowing the progression of cognitive impairment in aging adults



# Continuous Improvement for Greater Impact

In 2017–18, we were excited to see the size and impact of our funding programs grow dramatically over the previous fiscal year. This year, we launched calls for innovation in six programs and awarded a total of \$13.5 million to fund 75 projects, a significant increase compared to launching calls for innovation in three programs and awarding a total of \$3.28 million to fund 44 projects in 2016–17.

In 2017–18, in keeping with our long-term goal of building a robust and agile innovation ecosystem, we made several improvements to our existing programs in response to stakeholder feedback. These adjustments led to an increase in the quality and quantity of submissions, improvements in the evaluation process, and faster on-boarding for successful award recipients

- Program efficiencies included refining project submission support, marketing opportunities earlier, accelerating the shortlist process with support from external subject matter experts
- Introducing a live pitch day as part of the final selection process for applicants in one of our core open programs
- Introduction of a suite of acceleration services to help innovators achieve sustainable and widespread adoption for their solutions within the healthcare system. Examples include offering access to experts in strategic foresight, business development and commercialization, adoption and knowledge mobilization, the neuroscience of aging, and trial design and research ethics.
- Opportunities to engage with CABHI's Seniors' Advisory Panel, a group of older adults and caregivers who provide innovators with valuable insights from the lived experiences of older adults; experiences that inform the refinement of products, services and vehicles for education and communication

# Open Competitive Programs



## Spark Program

The best ideas for improving health outcomes for seniors often come from individuals working at the point-of-care, but their ideas can be lost without a process to move them forward. CABHI launched the Spark program—our first open program—in September 2016 to address this unmet need. Spark is designed to capture, nurture and develop early-stage, grassroots ideas created by point-of-care and service delivery staff. The program provides funding up to \$50,000 per project to support planning, proof-of-concept testing, commercialization and knowledge mobilization within CABHI's associated network of healthcare and service provider organizations.

Since Spark began, interest has spread well beyond the Greater Toronto Area, with submissions now coming from a variety of locations throughout Ontario, British Columbia, Alberta, New Brunswick, and the United States. Response to our second call in September 2017 was excellent. We are thrilled to see the next round Spark projects get underway. The third Spark call for innovation began in April 2018 and we look forward to notifying successful recipients in July 2018.

## Industry Innovation Partnership Program (I<sup>2</sup>P<sup>2</sup>)

Launched in October 2016, I<sup>2</sup>P<sup>2</sup> bridges the gap between commercial innovation and healthcare adoption by identifying promising solutions, connecting vendors with trial partners and supporting them through validation and market uptake. Innovators obtain robust trial evidence in real-world care settings to inform commercialization decisions. At the same time, seniors benefit from early opportunities to test new products and services. For investors, this credible, systematic approach to the collection of generalizable data provides a robust validation platform that purposefully lowers the risk of investment. I<sup>2</sup>P<sup>2</sup> provides funding to support trial partner costs up to \$500,000 in matching funds. CABHI also helps with contracting, pilot design and adoption planning as a third-party "honest broker."

Since its initial launch awareness of I<sup>2</sup>P<sup>2</sup> has spread across the globe, leading to an increase in the overall response and quality of submissions. As a testament to our marketing and outreach activities, the geographic spread of submissions has grown to include innovators from across Canada, the United States, Portugal, Italy, Australia, Norway, Sweden, Great Britain, Ireland, Hong Kong, Singapore and Israel. Revisions were made to the selection process through the introduction of a live pitch day prior to brokering, a change that provides innovators the opportunity to receive real-time feedback from experts and decision makers working in healthcare and innovation.

CALL 1

**31 Projects**

**\$1.46M**

FUNDING AWARDED

CALL2

**36 Projects**

**\$1.73M**

FUNDING AWARDED

CALL 1

**7 Projects**

**\$2.13M**

FUNDING AWARDED

CALL2

**10 Projects**

**\$3.29M**

FUNDING AWARDED



## Researcher-Clinician Partnership Program (RCP<sup>2</sup>)

The Researcher-Clinician Partnership Program (RCP<sup>2</sup>) is uniquely designed to connect practicing clinicians in the aging and brain health sector with researchers in universities, hospitals, academic institutes and government settings. Funding helps partners refine, test, validate and disseminate innovative products, services or practices in real-world settings, translating their research discoveries to clinical impact. RCP<sup>2</sup> promotes collaboration from a broad range of perspectives during development, testing and validation stages to help accelerate innovations to market and ensure uptake after they are launched. CABHI provides up to \$500,000 in funding per project directly to the host institution employing the principal investigator to support project costs.

CABHI has received significant interest in the RCP<sup>2</sup> program, with applications distributed geographically coast-to-coast from across Canada. Notably, several projects that were initially funded in the first round of Spark applied to RCP<sup>2</sup> and were successfully admitted to this later stage innovation program. The progression of projects from one CABHI program to another highlights how our funding programs target different stages of the innovation pipeline, and can shepherd grassroots ideas from concept development to prototype testing and validation.

## Knowledge Mobilization Partnership Program (KMP<sup>2</sup>)

We launched the Knowledge Mobilization Partnership Program (KMP<sup>2</sup>) program in March 2017. The goal of the program was to help Canadian clinicians, managers, researchers and academics drive the adoption of solutions that were successfully validated within their environments and were likely to improve health outcomes, quality of life, and behaviour change for seniors and caregivers.

Although KMP<sup>2</sup> launched successfully in 2017–18, stakeholder feedback indicated that future funds would be better directed to embedding knowledge mobilization into all CABHI projects at earlier stages of innovation within CABHI’s pipeline. Informed by this feedback, we decided to discontinue KMP<sup>2</sup> and instead developed a knowledge mobilization roadmap that would build capacity in knowledge mobilization implementation, embed a knowledge mobilization lens into CABHI project selection and development, and provide accessible, public tools and resources to support project and trial sites. Further, in the fourth quarter of our fiscal year, we launched an early adoption initiative in partnership with SQLI member organizations to implement and evaluate the challenges and enablers of early adoption, setting the stage for procurement and sustainable adoption. CABHI projects of sufficient maturity and readiness arising from other SQLI organizations have been chosen as the first tier ‘catalogue’ of projects for early adopters. Together with our SQLI partners, CABHI we are committed to improving adoption tangibly and pragmatically.

CALL 1

**9 Projects**

**\$4.07M**

FUNDING AWARDED

CALL2

**7 Projects**

**\$2.59M**

FUNDING AWARDED

CALL 1

**10 Projects**

**\$2.10M**

FUNDING AWARDED

# Regional Impact Programs

## Canada-Israel Collaboration Program (CICP)

The Canada-Israel Collaboration Program (CICP) is co-funded and cooperatively operated by CABHI and the Israel Innovation Authority (IIA) under a multi-year partnership agreement that began in May 2016. Companies from Israel with innovative aging and brain health solutions compete for the opportunity to refine and validate their products, services or practices with Canadian healthcare organizations. CABHI matches companies with up to two organizations in Canada interested in evaluating the solution. Trial sites are drawn from a database of leading healthcare organizations from across Canada, including long-term care, community care, hospitals and other healthcare service organizations. Innovators are required to provide a matching fund contribution.

The program provides innovators with robust scientific evidence to inform decisions on long-term successful commercialization of products and services. Canadian partners benefit from the opportunity to evaluate selected products and services that may improve the quality of life or care for older adults and adopt them earlier if successful.

## Seniors' Care Strategic Innovation Fund (SCSIF)

New this year, CABHI signed a partnership agreement with the New Brunswick Health Research Foundation (NBHRF) and launched the Seniors' Care Strategic Innovation Fund (SCSIF). The program will invest up to \$1.8 million to fund innovations created by New Brunswick-based researchers and clinicians. The program awards up to \$200,000 in matching funds for 12 to 18 months to support innovators who need to refine and test their promising solutions in real-world settings.

Driving innovation through partnerships with organizations in New Brunswick will accelerate the development and adoption of promising solutions based on the applied research of New Brunswick scientists and clinicians. At the same time, this partnership will boost the New Brunswick and Canadian economy in the growing aging and brain health sectors.

SCSIF is an excellent example of CABHI's leadership in the innovation ecosphere to forge partnerships and collaborations outside of Ontario. Spreading our impact to other regions connects more innovators to potential partners for commercialization and mobilization. As a result, more older adults facing challenges associated with dementia and other neurodegenerative diseases will benefit from access to new products, services and care practices that can improve their quality of life.

CALL 1

**1 Project**

**\$250K**

FUNDING AWARDED  
(matched by IIA)

CALL2

**2 Projects**

**\$475K**

FUNDING AWARDED  
(matched by IIA)

CALL 1

**4 Projects**

**\$400K**

FUNDING AWARDED  
(matched by NBHRF)

# Strategic Programs

## Mentorship, Capital, Continuity Program (MC<sup>2</sup>)

MC<sup>2</sup> is only open to projects that have already successfully applied to one of CABHI's competitive funding programs. It runs in two phases, the first of which runs parallel with their existing CABHI-funded project. In the first phase, qualifying projects are matched with advisory services and mentors drawn from relevant fields of business, research and clinical practice. These resources are intended to improve project outcomes and help focus the team on how to sustain their innovation beyond the close of their CABHI project. The second phase is at CABHI's discretion, and provides an opportunity to invest in a follow-on project intended to help the innovation meet a key milestone, such as a securing a first sale, sustaining funding or private investment.

In 2017–18, we established the scope of the program and built a registry of prospective mentors and advisors. We are offering these services to select companies ready to scale up through the coming year.

## Strategic Opportunity Fund (SOF)

The Strategic Opportunity Fund supports large, strategic initiatives, projects and partnerships that are aligned with CABHI's mission to improve health outcomes and quality of life for older adults and drive economic growth and investment in the aging and brain health sectors on a large scale.

The SOF is used to capture opportunities not currently met by CABHI's competitive programs, projects for this program are chosen based upon their alignment with key challenges in the seniors' sector. Applications are by invitation only as eligible projects must have a strong value proposition, a focus on financial sustainability or commercial success, and plans for clinical adoption.

During the 2017–18 operating year no new strategic projects were launched, as annual funding was fully encumbered and committed to supporting projects through CABHI's competitive calls, but we began discussions to build on exciting opportunities in 2018–19.

## Brain Health Foundations Program (BHFP)

Funding alone cannot stimulate effective innovation. Many innovators face barriers to implementing innovation activities and projects in healthcare settings, requiring a higher level of consultation, facilitation, and implementation support. During the 2017–18 operating year, CABHI levered the expertise of clinicians, researchers, and residents from Baycrest and the Rotman Research Institute to help form a unique ecosystem of specialists to support our validation testing activities.

As we enter its fourth year, CABHI intends to further develop and refine an integrated model of innovation implementation stemming from the BHFP that will accelerate innovation in seniors' healthcare organizations. This platform is intended to provide tactics and strategies to streamline and accelerate innovation implementation in seniors' healthcare, create increased partnerships in the seniors' care sector, and promote innovation leveraged through Baycrest expertise.

Once a defined model of innovation implementation is established and validated at Baycrest, CABHI will mobilize this model to create sustainable innovation hubs supporting activities across the Canadian and global healthcare sector.



*CABHI's Innovation Advisory Council*

# LOOKING AHEAD



## Accelerating Our Programming

During 2017-18, CABHI established internal program goals and target metrics for each of our programs, collecting and reviewing outcomes at the close of each competitive round. Surveys and external reviews were conducted with applicants to improve the operations of the programs. Armed with this information, we will refine these programs in the year ahead.

In 2018-19, we expect these changes will encourage more applications to our programs, including more first-time applicants, and applicants from outside Ontario. This will bring in a geographic distribution of projects aligned with our funders' mandates. These refinements also will result in a greater breadth and depth of applications, a more nimble selection process, additional effective trials, and ultimately, better ideas reaching the market and improving quality of life for older adults and caregivers alike.

By the end of next year, we anticipate CABHI will be supporting over 160 projects in our innovation pipeline, with approximately \$57M of funding levered towards healthcare innovation.

## Further Addressing the Challenges of Dementia

Looking ahead to 2018-19 and beyond, we will continue to focus our efforts on supporting solutions that best meet the challenges related to individuals living with dementia and their caregivers. This includes projects targeting prevention, diagnosis, and treatment of dementia-related symptoms and effects. We will continue supporting those projects that have potential to have significant clinical and societal impact, including those that can evolve into scalable, sustainable businesses.

Moreover, we are playing a key role in development of the National Dementia Strategy, providing input and ensuring that CABHI and its partners are positioned to support the implementation of the overall strategy.

### "A TRUE PARTNERSHIP"

- Anonymous partner organization from third-party survey



## Continue to Forge Provincial Partnerships

Strategic partnerships to support innovation, commercialization, and knowledge mobilization are essential to CABHI's long-term success. Our initial partnership with New Brunswick is an excellent example of CABHI's desire to forge relationships and collaborations outside of Ontario. We believe spreading our impact to other regions connects more innovators to potential partners for commercialization and mobilization, and can enhance our overall impact.

As a result of our efforts, 3 additional provinces have subsequently partnered with CABHI to adopt and replicate this model -- Nova Scotia, Saskatchewan and Quebec. Our goal is to have projects funded nationally. We look to establish even more regionally focused projects to tackle aging and brain health issues in rural and Indigenous populations.

## Creating New and Refining Existing Aging and Brain Health Partnerships

During 2018-19, we will continue to engage with our many partners among aging and brain health organizations, complementing each others' strength and focus for maximum impact, while maintaining differentiation of missions. Our robust network has resulted in an increase to both the quantity and quality of submissions received through our open funding programs. Throughout the coming year we intend to leverage our strong partnership network to support the intake of high-impact projects and provide greater opportunities for CABHI-funded innovations to scale and spread across the sector.

## Develop the Brain Health Innovation Platform (BHIP)

Stemming from the Brain Health Foundations Program, BHIP brings together the expertise, assets, and resources to create an integrated model of innovation implementation that can be replicated and scaled to other seniors' care partners. CABHI will pilot this platform at Baycrest. As a first step, the CABHI Scientific Officers Program (SOP) is being launched in 2018-19. The program will involve Rotman Research Institute scientists and post-doctoral fellows serving as Scientific Officers and working on a part-time basis with CABHI. The officers will be integrated seamlessly into existing CABHI activities to facilitate new initiatives, serve as scientific reviewers and mentors, broker partnerships, and help disseminate knowledge about brain health, aging, and innovation.

The SOP will provide innovators across Canada and around the world with ready access to the rich resources of Baycrest, ensuring a scientific perspective and strong methodological rigour are introduced into the development and execution of their knowledge mobilization activities. It will also serve as the first component upon which to build the next module of BHIP. Future modules will incorporate the expertise and assets of other portfolios found in full-service seniors' healthcare settings such as Baycrest, including clinical and medical services and education, and additional regional SOPs will be added supporting innovators across Canada. BHIP also will be piloting the creation of an Innovation Centre within Baycrest, sharing lessons learned and providing developmental aids to other organizations as we go. BHIP aims to meet the needs of diverse types of seniors' care organizations, recognizing that they exist in a variety of scales and scopes. The ultimate goal is to develop a nationwide or global hub and spoke systems leading to a sustainable approach for innovation in aging and brain health.

# BUILDING LASTING PARTNERSHIPS

As Canada continues to strengthen its innovation ecosystem, partnerships are critical to our ability to inspire a culture of innovation, build a robust network and leverage existing resources to support innovation commercialization and adoption efforts.

## INTERNATIONAL / NATIONAL PARTNERS

AGE-WELL NCE  
Aging2.0  
Alzheimer's Society Canada  
AMDA:TheSocietyForPost-Acute&LongTermCareMedecine  
Canadian Consortium on Neurodegeneration in Aging  
Canadian Foundation for Healthcare Improvement  
CIHR Institute for Aging  
Direct Supply  
Health Innovation Hub Ireland  
Innovation Norway  
Ireland Smart Ageing Exchange  
Israeli Innovation Authority  
LeadingAge  
Mary Furlong & Associates  
Research Canada  
Revera  
Saint Elizabeth Health Care  
Seniors Quality Leap Initiative  
The International Federation on Ageing

## PROVINCIAL PARTNERS

Alberta Health Services  
Alberta Seniors Health Strategic Clinical Network  
Alzheimer Society London and Middlesex  
Centre for Excellence on Longevity (CEEXLO)  
CommuniTech  
Institute for Knowledge Mobilization (Ottawa)  
JLabs  
Li Ka Shing Knowledge Institute, St. Michael's Hospital  
MaRS Excite  
MaRS  
MaRS Ventures  
New Brunswick Health Research Foundation  
Nova Scotia Health Authority  
Nova Scotia Health Research Foundation  
Nurse Practitioners' Association of Ontario  
OCAD U  
Ontario Brain Institute  
Ontario Centers of Excellence  
Ontario Chief Health Innovation Scientist  
Ontario Long Term Care Association  
Ontario Network of Entrepreneurs  
Ontario Telemedicine Network  
Regional Innovation Centres  
Research & Innovation Services, York University  
Saskatchewan Health Research Foundation  
Support for Memory Loss Foundation  
The Dementia Society of Ottawa and Renfrew County  
Think Fresh  
Toronto Central LHIN  
Venture Lab  
Winnipeg Fire Paramedic Service



We are grateful to collaborate with a diverse network based in Canada and beyond Canada's borders. Our partners, their dedicated resources, infrastructure, and expertise help us develop and identify new solutions, test them in real-world settings, and disseminate knowledge and best practices for maximum impact.

## INDUSTRY PARTNERS

Ably Medical AS  
AceAge Inc.  
Brainsway  
Cogniciti Inc.  
eChart Healthcare  
Greybox Solutions  
Heartbeat Technologies  
Hip Hope Technologies  
IBM  
InteraXon Inc.  
LifeAssist Technologies Inc.  
Linked Senior  
Motitech AS  
Quanta Computing  
Telus Health  
uCaret Technologies Inc  
Vielight Inc.

## RESEARCH & CARE PROVIDER PARTNERS

Apotex JHA  
Assistive Technology Clinic  
Baycrest  
Bruyere Continuing Care  
CapitalCare Group Inc.  
Centre for Addiction and Mental Health  
Centre for Family Medicine Family Health Team  
Fraser Health Authority  
Glenrose Rehabilitation Hospital  
Grand River Hospital  
Hamilton Health Sciences  
Hebrew Rehabilitation Center  
Island Health  
Juravinski Hospital; operated by Hamilton Health Sciences  
Kawartha Regional Memory Clinic  
Kingston Health Sciences Centre  
Ontario Shores Centre for Mental Health Services  
OpenLab, UHN, Toronto General Hospital  
Providence Health Care  
Responsive Health Management Inc.  
Saint Elizabeth Healthcare  
Schlegel Villages  
Seneca College  
Sinai Health System  
Southlake Regional Health Sciences  
St. Peter's Hospital, Hamilton Health Sciences  
Stonebridge Community Services  
Sunnybrook Research/Academic Institute  
The Centre for Family Medicine Family Health Team  
The Perley and Rideau Veterans' Health Centre  
Toronto General Hospital  
Toronto Rehab Institute, UHN  
Trillium Health Partners  
University of Alberta  
University of Moncton  
University of New Brunswick  
University of Toronto  
VHA Home HealthCare  
West Park Healthcare Centre  
Western University  
William Osler Health System  
Women's College Hospital  
Yee Hong Centre for Geriatric Care  
York Care Centre  
York University

# CABHI GOVERNANCE AND LEADERSHIP

We wish to thank our board and committee members for their commitment and dedication to advancing CABHI's mandate. Their experience and expertise guide our strategic direction and support the achievement of our mission and vision.

## Steering Committee

**William Reichman**

*President and Chief Executive Officer*

**Allison Sekuler**

*Vice-President, Research and Sandra A. Rotman Chair in Cognitive Neuroscience, Baycrest; Managing Director, Rotman Research Institute; and, Managing Director, CABHI*

**Joni Kent**

*Executive Vice-President, Corporate Services & Chief Human Resources Officer*

**Brian Mackie**

*Vice-President, Finance & Chief Financial Officer*

**Ron Riesenbach**

*Vice-President, Innovation & Chief Technology Officer*

**Mel Barsky**

*Director, Business Development*

**Ryan Webster**

*Director, Finance, Programs and Operations*

**Bianca Stern**

*Executive Director, Health Innovations*

**Rosanne Aleong**

*Director, Research Innovation & Translation*

# CABHI Committee of the Baycrest Board

CABHI's Board of Directors is comprised of presidents, CEOs, senior managing partners, founders and other senior executives from industries and organizations in the aging and brain health ecosystem. They provide oversight on CABHI's activities and provide support and mentorship to CABHI's venture capital, healthcare, merchant banking and government partners.

**Jeff Blidner (Chair)**

*Senior Managing Partner and Director, Brookfield Asset Management Inc.*

**John Albright**

*Co-Founder and Managing Partner, Relay Ventures*

**Sara Diamond**

*President, OCAD University*

**Ken Dryden**

*Member of the Baycrest Centre Board of Directors*

**William Reichman**

*President and Chief Executive Officer, Baycrest*

**Shirlee Sharkey**

*President and CEO, Saint Elizabeth Health Care*

**Katie Smith Sloan**

*President and CEO, LeadingAge*

**Andrew Szende**

*Founding CEO, Electronic Child Health Network*

**John Marshall (Observer)**

*Assistant Deputy Minister, Ministry of Research, Innovation and Science (MRIS)*

# Innovation Advisory Council

The Innovation Advisory Council comprises business leaders from leading international organizations with expertise in the innovation space. Eager to share their valuable experiences in overcoming failures and achieving great successes, they provide CABHI and CABHI's network with valuable insight and guidance that helps to fine tune CABHI's innovation goals and tactics and advance the scale-up and commercialization of innovative solutions.

## **Jordan Banks (Co-Chair)**

*Co-Founder, Thunder Road Capital*

## **Murali Doraiswamy (Co-Chair)**

*Professor of Psychiatry and Behavioral Sciences, Duke Institute for Brain Sciences*

## **Gretchen Addi**

*Design Consultant, Aging 2.0*

## **Ed Brown**

*Founder and CEO, Ontario Telemedicine Network (OTN)*

## **Ted Chang**

*Chief Technology Officer and Vice President, Quanta Computer Inc.*

## **Candace Chartier**

*CEO, Ontario Long Term Care Association*

## **Howard Chertkow**

*Scientific Director, Canadian Consortium on Neurodegeneration in Aging*

## **Lucien Engelen**

*Director, Reshape Centre for Health(care) Innovation, Radboud University*

## **Candice Faktor**

*Partner, Faktory Ventures*

## **Howard Feldman**

*Director, Alzheimer's Disease Cooperative Study, University of California*

## **Mary Furlong**

*Dean's Executive Professor of Entrepreneurship, Santa Clara University*

## **Ariel Garten**

*Founder, Interaxon*

## **Steve Irvine**

*Founder & CEO, Intergrate.AI*

## **Maureen O'Neil**

*CEO, Canadian Foundation for Healthcare Improvement*

## **Samir Sinha, MD**

*Director of Geriatrics, Mount Sinai and UHN Hospitals*

## **Gary Small**

*Professor of Psychiatry and Biobehavioural Sciences and Parlow-Solomon Professor on Aging, David Geffen School of Medicine, UCLA*

## **Glenn Smith**

*Elizabeth Faulk Endowed Professor and Chair, Department of Clinical and Health Psychology, University of Florida Health*

## **Jason Tafler**

*Former Executive Vice President, Customer Experience, Rogers Communications*

## **Shauna Turner**

*Chief Innovation Officer and EVP Research, Providence Health Care and Independent Director, Coast Capital Savings*

## **Peter Whitehouse**

*Professor of Neurology, Case Western Reserve University*

## **Lou Woolf**

*President & CEO, Hebrew Senior Life*

## **Bill Charnetski (Observer)**

*Chief Health Innovation Strategist, Ontario Ministry of Health and Long-Term Care*

## **Anna Romano (Observer)**

*Director General, Public Health Agency of Canada*

# Seniors' Advisory Panel

A strong culture of innovation includes the “voice of the market,” which entails an understanding of the end-users lived experience and partnering with them in problem-solving, planning, focus groups, advisory panels, and design discussions to ensure that innovations and solutions align with real world ‘problems’. The Seniors' Advisory Council is a consumer panel comprising older adults with professional backgrounds in engineering, law, education, caregiving, accounting and healthcare who provide advice on strategic and operational activities from the perspective of their lived experience. These incredibly dedicated members meet every two weeks, sit on project selection committees and judging panels, offer user feedback on specific projects, provide advice to ensure communications and training materials are accessible to a lay audience and give input to CABHI staff on the issues they view as most critical.

**Ian Goldman**

**Eva Ticktin**

**Ruth Cymerman**

**Toby Belkin**

**Walter Seaton**

**Rene Pardo**

**Deborah Bernstein**

**Anne Kerr**

**Sue Drohan**

**Marilyn Fine**

**Ron Beleno**

**Evelyn Weinrib**

**Ann Laski**

**Rachel Schlesinger**

**Bev Shukyn**

**Linda Somers**



*CABHI Team*

# FINANCIAL REPORT

SOURCE OF FUNDS	2017-2018	YEAR-TO-DATE
<b>Cash Contributions</b>		
Public Health Agency of Canada	\$10,000,000	\$20,000,000
Ministry of Research, Innovation & Science	\$4,700,000	\$14,100,000
Industry Partners	\$100,000	\$100,000
Other Funding	\$72,703	\$76,033
<b>Total</b>	<b>\$14,872,703</b>	<b>\$34,276,033</b>
<b>Matching &amp; In-Kind Contributions</b>		
Baycrest	\$1,200,000	\$3,600,000
Industry Contributions	\$2,695,690	\$4,764,304
Other Partner Contributions	\$3,368,710	\$3,472,034
Baycrest Foundation	\$2,500,000	\$6,900,000
<b>Total</b>	<b>\$9,764,400</b>	<b>\$18,736,338</b>
<b>TOTAL CABHI SOURCE OF FUNDS</b>	<b>\$24,637,103</b>	<b>\$53,012,371</b>

<b>USE OF FUNDS</b>		
<b>Programs</b>		
Spark Program	\$1,735,805	\$3,195,240
Industry Innovation Partnership Program (I <sup>2</sup> P <sup>2</sup> )	\$1,220,067	\$2,435,876
Researcher-Clinician Partnership Program (RCP <sup>2</sup> )	\$2,649,348	\$2,649,348
Knowledge Mobilization Partnership Program (KMP <sup>2</sup> )	\$1,892,768	\$2,675,808
Regional Impact Programs	\$353,804	\$353,804
Strategic Programs	\$1,833,507	\$6,690,487
<b>Total</b>	<b>\$9,685,299</b>	<b>\$18,000,562</b>
<b>Operations</b>		
Project Support	\$2,433,105	\$5,782,121
Program Administration	\$2,653,522	\$8,811,925
Equipment	\$100,777	\$1,681,425
<b>Total</b>	<b>\$14,872,703</b>	<b>\$34,276,033</b>
<b>Indirect Support &amp; In-Kind Contributions</b>		
Rent & Facilities	\$1,200,000	\$3,600,000
Industry Contributions	\$2,695,690	\$4,764,304
Other Partner Contributions	\$3,368,710	\$3,472,034
Brain Health Foundations Program	\$2,500,000	\$6,900,000
<b>Total</b>	<b>\$9,764,400</b>	<b>\$18,736,338</b>
<b>TOTAL CABHI USE OF FUNDS</b>	<b>\$24,637,103</b>	<b>\$53,012,371</b>



Toronto HEARS: Community-based hearing program for at-risk seniors, Baycrest, Toronto, Marilyn Reed, Project Lead



Public Health Agency of Canada Agence de la santé publique du Canada



The views expressed herein do not necessarily represent the views of the Public Health Agency of Canada.

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**CENTRE FOR AGING  
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INNOVATION**  
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