

# ANNUAL REPORT 2023

The Simone & Edouard Schouela RUISSS McGill Centre  
of Excellence for Sustainable Health of Seniors



CENTRE D'EXCELLENCE POUR LA SANTÉ DURABLE DES AÎNÉS  
**SIMONE & EDOUARD SCHOUELA**  
CENTRE OF EXCELLENCE FOR SUSTAINABLE HEALTH OF SENIORS



Hôpital général juif  
Jewish General Hospital



RUISSS  
McGill



McGill

Division of  
Geriatric Medicine

Division de  
gériatrie

Centre intégré  
universitaire de santé  
et de services sociaux  
du Centre-Ouest  
de l'Île-de-Montréal

Québec

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# WELCOME MESSAGE

**Time flies when we are having fun. It is incredible that it has been a whole year since we restructured and renamed our Centre of Excellence following the recommendations received during the focus groups organized by our previous Director, Dr José Morais. We took those suggestions very seriously and are very happy with the results.**

Our Schouela CEDurable Centre of Excellence has a new vision and mission, newly defined objectives, and a new set of strategies to facilitate knowledge mobilization that implements many fantastic research discoveries in policy and practice. We divided our activities into four platforms (virtual care & supportive homes, big data & predictive analyses, community liaison & education, and autonomy, mobility & independence). The number, depth and impact of our activities are exponentially growing thanks to the expertise and dedication of our new team members. This annual report summarizes our major results and accomplishments for 2023, while we are expecting a very busy and productive 2024.

Our journey toward these positive results has been made possible by generous funding from the Simone and Edouard Schouela Family, the Manya Stendel Endowment

Fund and the Jewish General Hospital Foundation. We are deeply grateful for their belief in our project and their unwavering support. This funding has been further bolstered by grants from the Institute of Aging of the CIHR, the Réseau Québécois de Recherche sur le Vieillissement, and several other foundations and organizations. Their contributions have shown that there are abundant resources available to implement knowledge into policy and practice, all for the betterment of our older population.

Looking ahead, the future of Schouela CEDurable is filled with promise. We are proud to be the leading institution for geroscience programs in Canada, hosting the newly formed Canadian Translational Geroscience Network. Our strong ongoing collaboration with the University of Toulouse and the Panamerican Health Organization will see us implementing the ICOPE

Program in Quebec. These initiatives, along with our extensive list of activities and projects, are a testament to our team's dedication to fulfilling the objectives of our Centre. We invite you to join us on this exciting journey.

In summary, the future of Schouela CEDurable is very promising, and we invite you to support our activities. Please feel free to come and visit us at our facilities at the Jewish General Hospital, meet our team, and see why the time flies here while we have fun delivering great programs to our aging Canadian population.

**Dr Gustavo Duque**  
**Scientific Director**



## ABOUT THE CENTER

The Simone and Edouard Schouela Centre of Excellence for Sustainable Health of Seniors (Schouela CEDurable) of the McGill RUISSS, based at the Centre intégré universitaire de santé et de services sociaux (CIUSSS) du Centre-Ouest-de-l'Île-de-Montréal, is a center of excellence focused on implementing multiple validated interventions to improve the health and well-being of our seniors in the regions covered by the Réseau Universitaire Intégré de Santé et Services Sociaux (RUISSS) McGill. The Centre aims to translate research data into policies, support, substantiate, and disseminate effective research programs that help seniors remain mobile and enjoy life.

### OUR MISSION

- Translate evidence-based research into policy and practice;
- Keep seniors mobile and enjoying life in the community;
- Support, underpin, and disseminate programs that work.

### OUR VISION

All seniors in the regions covered by the McGill RUISSS should profit from services that allow them to enjoy positive aging, optimal health, and active life.



## OUR OBJECTIVES

- Promote and facilitate groundbreaking technology (i.e., telehealth, artificial intelligence, machine learning, etc.);
- Facilitate knowledge transfer to RUISSS communities;
- Collect and analyze big data from the community to facilitate QI and policymaking;
- Facilitate early identification of those at high risk of decompensation to establish prompt interventions;
- Conduct knowledge mobilization and learning activities for seniors, caregivers, and health professionals;
- Improve accessibility to health services by seniors along the care continuum from home up to placement;
- Liaise with family physicians in the community to ensure prompt identification and facilitation of treatment of chronic diseases;
- Raise awareness professionals to the diversity of seniors (age cohorts, language, ethnocultural, gender, etc.).

## OUR THEMES

- Healthcare and service delivery;
- Autonomy, mobility, and independence;
- Cognitive health;
- Well-being and healthy lifestyle;
- Safe homes and caring community;
- Technological and digital development.



# OUR PARTNERS

Our foundational, strategic and academic partnerships underpin our core programs and units and support the implementation of multiple well-validated interventions to improve the health and well-being of our seniors.

## Founding partners

Our founding partners include the McGill RUISSS, the Division of Geriatrics at McGill University, the Jewish General Hospital Foundation, and the CIUSSS du Centre-Ouest-de-l'Île-de-Montréal. We also collaborate with the Ministry of Health and Social Services (MSSS), stakeholders from the Quebec Alzheimer Plan and the ministerial plan on major neurocognitive disorders, NGOs, municipalities, and industry.

## Strategic partners



## Academic partners

Department of Medicine, McGill University - Montreal, Canada  
Department of Family Medicine, McGill University - Montreal, Canada  
University of Toulouse - Toulouse, France  
Australian Institute for Musculoskeletal Sciences - Melbourne, Australia  
National Yang Ming Chiao Tung University - Taipei, Taiwan  
GERAS Centre for Aging Research - Hamilton, Canada

## OUR PEOPLE

### **Dr Gustavo Duque** Scientific Director



Professor Gustavo Duque, MD, Ph.D., FRACP, FGSA, is a geriatrician and biomedical scientist with a research focus on mechanisms, potential therapies, and biomarkers of age-related diseases, particularly osteoporosis, sarcopenia, osteosarcopenia, and frailty in older people.

He also studies the effect of vitamin D, exercise, and proteins on bone and muscle mass. His initial training includes internal medicine at Javeriana University, Colombia, and geriatric medicine at McGill University in Montreal, Canada. Subsequently, Dr Duque obtained his Ph.D. at McGill University, with his thesis entitled «Molecular Changes of the Aging Osteoblast» under the supervision of Dr Richard Kremer.

Between 2003 and November 2007, he joined the faculty of McGill University's Faculty of Medicine as a member of the Division of Geriatric Medicine and as a researcher at the Lady Davis Institute for Medical Research.

In November 2007, he moved to Australia to join the faculty as an Associate Professor and Head of the Division of Geriatric Medicine and Director of the Musculoskeletal Aging Research Program at Sydney Medical School Nepean, University of Sydney.

In 2012, he was promoted to Professor of Medicine at the University of Sydney. Between 2015 and 2022, Professor Duque held the Chair of Medicine and was Director of the Australian Institute for Musculoskeletal Science at the University of Melbourne.

In 2022, Professor Duque assumed the roles of Full Professor, holder of the Dr Joseph Kaufmann Chair in Geriatric Medicine, Director of the RUISSS McGill Centre of Excellence for Sustainable Health of Seniors / Simone and Edouard Shouela (CEDurable), and Principal Investigator at the Bone, Muscle, and Geroscience Group of the Research Institute of the McGill University Health Centre (MUHC). He is also the Editor-in-Chief of the Journal of Gerontology: Biological Sciences, one of the official journals of the Gerontological Society of America, and a member of the Quebec Network for Research on Aging.



**Maya Cerda**  
**Coordinator of Education and Knowledge Transfer**

Maya Cerda is responsible for administrative management at CEDurable. She holds a bachelor's degree in human relations, a master's degree in policy and public administration, as well as training in organizational development. With over 10 years of experience in the healthcare field, she has primarily focused on initiatives involving the seniors.

**Andréa Faust**  
**Team Manager**

Andréa Faust holds a bachelor's and master's degree in kinesiology. She has diverse experience with seniors, such as implementing a web-based exercise platform for frail seniors at risk of falls, and several research projects focusing on various ways to improve quality of life among the seniors. Recently, she completed a master's degree in project management, thus combining her expertise in health and administration at CEDurable.



**Noémie Dulac**  
**Clinical Activities Coordinator for the seniors**

Noémie Dulac, a nurse since 2013, has worked for several years with the seniors in long-term care facilities (CHSLD), where she gained valuable experience in managing and supporting the specific needs of seniors with loss of autonomy. Noémie completed a Master's degree in Public Health from the School of Public Health at the University of Montreal in 2022. She now holds the position of Clinical Activities Coordinator for seniors at CEDurable.





# CIUSSS West-Central Montreal

Director of Academic Affairs and  
Research Ethics  
**To Nhu Nguyen**

Scientific Director  
**Dr Gustavo Duque**

Coordinator of Education and  
Knowledge Transfer  
**Maya Cerda**

Team Manager  
**Andréa Faust**

**Unit 1**  
Virtual care  
& supportive  
homes

**Unit 2**  
Big data &  
predictive  
analysis

**Unit 3**  
Community  
liaison &  
education  
**Noémie Dulac**

**Unit 4**  
Autonomy,  
mobility &  
independence

**Advisory Committee**

**International  
Advisory Committee**

## ADVISORY COMMITTEE

Our Advisory Committee regularly convenes to guide the Centre's research priorities and features representatives from the following organizations.

- *JGH Foundation, Bram Freedman*
- *Connected Health Innovation Hub OROT, Danina Kapetanovic*
- *Quebec Alzheimer Plan, Éric Maubert*
- *Division of Geriatric Medicine, Dr Howard Bergman*
- *Department of Family Medicine, Dr Isabelle Vedel*
- *Regional Representative, To Nhu Nguyen*
- *Consumers Representative, Claire Webster*

## INTERNATIONAL ADVISORY COMMITTEE



**Debra Waters, PhD**  
University of Otago – Dunedin, New-Zealand

Debra Waters is a Research Professor at the University of Otago in Dunedin, New Zealand, where she is the Director of Gerontology Research and Co-Director of the Otago Falls Network (Tū Ora). She is also a Research Professor at the University of New Mexico in Albuquerque, where she co-directs the Successful Aging Grand Challenge.

**Bruno Vellas, MD, PhD**  
Toulouse University – Toulouse, France

Dr Bruno Vellas is the Founder of the Institut Hospitalier Universitaire (IHU) HealthAge in the field of healthy aging, prevention, and geroscience in Toulouse, France. He is also the Founder and President of the Gérotopôle and the Département de Médecine Interne Gériatrique at the CHU de Toulouse.





**Liang-Kung Chen, MD, PhD**  
**Nationale Yang Ming Chiao Tung University**  
**– Taipei, Taiwan**

In 2006, Professor Chen became the Director of the Center for Geriatrics and Gerontology at Taipei Veterans General Hospital, where he developed innovative solutions to address the healthcare needs of seniors. In 2014, he was appointed Director of the Center for Aging and Health Research at National Yang Ming University, which was later renamed the Center for Healthy Longevity and Aging Sciences.

**Pazit Levinger, PhD**  
**Monash University – Melbourne, Australia**

Professor Pazit Levinger is a Principal Researcher (allied health researcher) at the National Ageing Research Institute, and an Adjunct Professor in the Rehabilitation, Ageing and Independent Living (RAIL) Research Centre at the School of Primary and Allied Health Care, Monash University, and at the Institute for Health and Sport, Victoria University, in Melbourne, Australia.



**Leocadio Rodríguez-Mañas, MD, PhD**  
**European University of Madrid – Madrid, Spain**

Dr Leocadio Rodríguez-Mañas is the head of the geriatrics department at Getafe University Hospital (Madrid) and the scientific director of the Spanish Biomedical Research Centre in Frailty and Healthy Aging (CIBERFES).



**Alison Beauchamp, PhD**  
**Monash University – Melbourne, Australia**

Alison Beauchamp is Associate Professor at Monash School of Rural Health, Victoria, Australia, and co-chair of the Underserved Populations portfolio at the newly established Victorian Heart Institute.

**Mikel Izquierdo, PhD**  
**Public University of Navarra – Pamplona, Spain**

Mikel Izquierdo is Professor of sport sciences in the Department of Health Sciences at the Public University of Navarra. He is Head of the Research Unit of Physical Exercise, Health and Quality of Life (E-FIT) at the Biomedical Research Center NAVARRABIOMED. He is also Professor of sports biomechanics at the Spanish Olympic Committee's Centre for Studies.



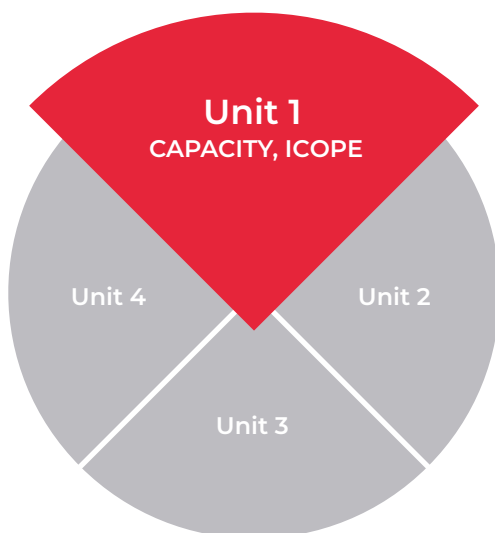
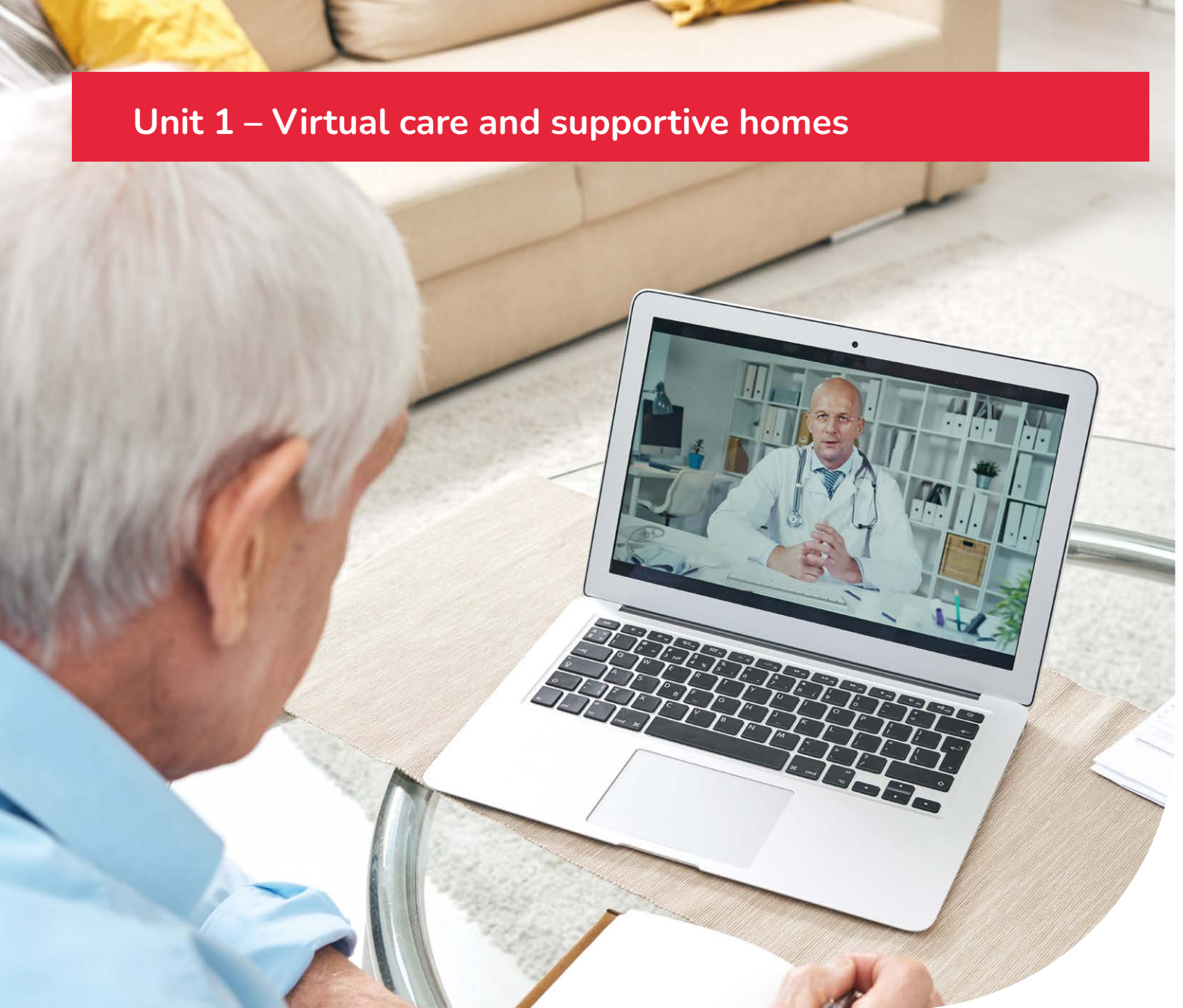




## CENTRE PLATFORMS

Our activities focus on implementing evidence-based supported interventions that have demonstrated their effectiveness from research studies but that require implementation in real life in our communities. We translate great ideas into great strategies. ►

## Unit 1 – Virtual care and supportive homes

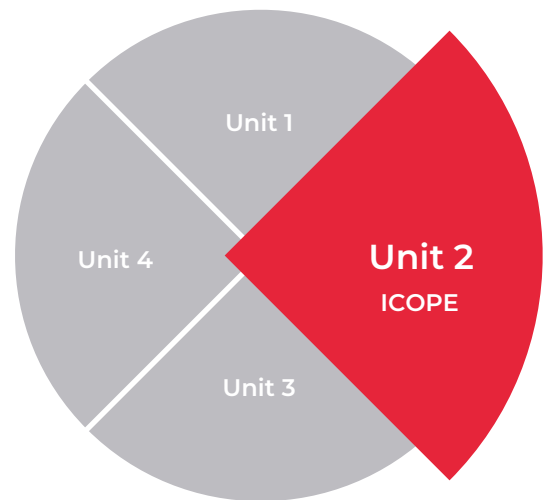


Virtual care and smart homes integrate technological advancements to enhance healthcare delivery and improve the quality of life for older people. They are closely linked to the digital transformation of the healthcare sector and explore new possibilities to provide more accessible, efficient, and personalized care. Here are some examples of virtual care and smart homes: Hospital@Home, Connected Health Record (CHR), the use of artificial intelligence and mobile applications, telemedicine, virtual assistance, and connected devices.

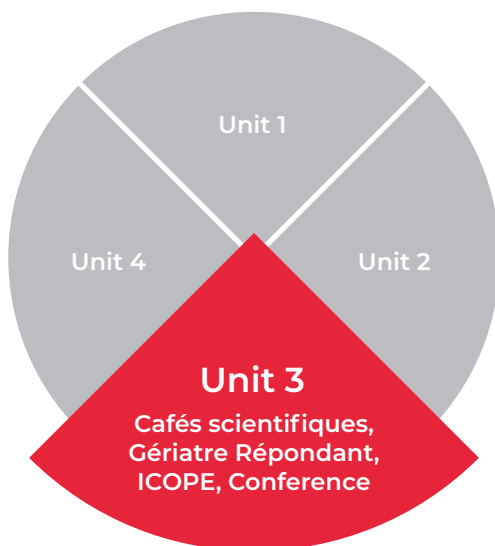


## Unit 2 – Big data and predictive analyses

Big data and predictive analyses refers to a set of complex data generated in the healthcare domain. These data originate from various sources, such as electronic health records, connected medical devices, health tracking applications, and so on. The use of big data in quality indicator analyses, program evaluation, machine learning, diagnostics, and biomarkers helps transform healthcare delivery, optimize clinical outcomes, and foster innovation in the medical field.



## Unit 3 – Community education and liaison

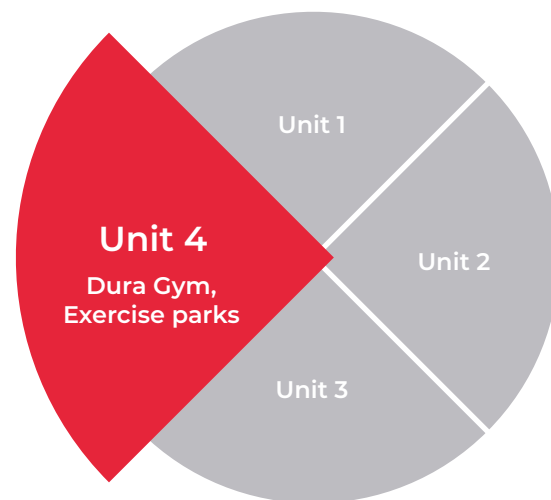


Communities of practice bring together healthcare professionals, researchers, patients, administrators, community members, and all other stakeholders who share a common interest in promoting healthy aging for seniors. These communities facilitate mutual learning, sharing of experiences and knowledge, creativity, innovation, and better targeting of the specific needs of seniors.



## Unit 4 – Autonomy, mobility and independence

Promoting autonomy, mobility, and independence is essential for improving the quality of life and encouraging active aging. Implementing various proven programs and initiatives facilitates the maintenance of these functions. Here are some examples of programs and initiatives: the Dura Gyms initiative, senior exercise parks, online exercise programs, and nutritional guidance.



# ACTIVITIES AND EVENTS



## Cafés scientifiques

CEDurable organized and conducted four cafés scientifiques titled «Let's Talk About Muscle and Bone Health.» Each event lasted approximately one hour and gathered around thirty participants, primarily seniors and caregivers. These events featured numerous experts such as geriatricians Dr Gustavo Duque, Dr José Morais, Dr Tevy Chan, Dr Suzanne Morin, and other healthcare professionals. The café scientifique events provide an informal space to discuss issues related to the muscle and bone health of older adults. Topics covered include identifying osteoporosis and sarcopenia, preventing their complications, and understanding current treatment mechanisms. Discussions focus on identifying participants' concerns, particularly regarding medications, the use of new technologies, and interventions in nutrition and physical activity. To provide more information, participants received documents and a link to online resources.



In line with our values of inclusivity, a café scientifique was specifically dedicated to the Spanish-speaking community. The event «Un Cafecito» was hosted by CEDurable's scientific director, Dr Gustavo Duque, in Spanish.

Additional cafés scientifiques are planned for the year 2024.

Topics covered	Experts	Venue
Muscle health	Dr José Morais Guy Hajj-Boutros	Centre de Ressources Communautaire de Côte-des Neiges
Muscle and bone health	Dr Tevy Chan Guy Hajj-Boutros	Centre communautaire des aînées et aînés de Longueuil
Bone health	Dr Gustavo Duque Andréa Faust	Église Santa Teresa de Avila
Bone health	Dr Suzanne Morin Guy Hajj-Boutros	Centre de Ressources Communautaire de Côte-des Neiges

## First Canadian Conference on Translational Geroscience

On October 6<sup>th</sup> and 7<sup>th</sup>, 2023, the first Canadian Conference on Translational Geroscience took place at the McGill University Health Centre, bringing together over 100 students and healthcare professionals. Esteemed researchers presented their studies at this event, including Susan Howlett from Dalhousie University (Halifax, Canada), Philippe de Souto Barreto from the G rontop le at CHU Toulouse (Toulouse, France), Dr George Kuchel from the University of Connecticut (Connecticut, USA), and Dr Naji Abumrad from Vanderbilt University (Nashville, USA).

The conference facilitated exchanges among academics, industry professionals, and healthcare practitioners, all sharing a common interest in tools and strategies aimed at extending healthy lifespan and understanding the mechanisms of aging biologically, clinically, and socially.

The first day of the conference focused on understanding the biology of aging through the lens of geroscience and its integration into clinical practice and research. The second day centered on translating geroscience knowledge into practices and policies, including the use of technology, machine learning, artificial intelligence, and the importance of collaboration among industry, researchers, and healthcare practitioners in primary healthcare settings.

The conference was a significant event of the year, gathering renowned experts, community members, and key stakeholders from the sector. It provided a platform for exchanging innovative ideas, discussing current challenges, and exploring emerging trends in our field.



The positive outcomes of this event led to the organization of the [first scientific meeting of the Canadian Translational Geroscience Network to take place on September 5<sup>th</sup> and 6<sup>th</sup>, 2024.](#)

Hajj-Boutros, G., Faust, A., Muscedere, J., Kim, P., Abumrad, N., Chevalier, S., ... & Duque, G. (2024). [Navigating the Landscape of Translational Geroscience in Canada: A Comprehensive Evaluation of Current Progress and Future Directions.](#) The Journals of Gerontology, Series A: Biological Sciences and Medical Sciences, glae069.



## ONGOING PROJECTS



### ICOPE

Developed by the World Health Organization, ICOPE is a preventive approach targeting the prevention of intrinsic capacity decline in older adults, aiming to screen for vulnerabilities and implement a personalized program. CEDurable has partnered with the Gerontopole of the Toulouse University Hospital to implement the program in Quebec during the year 2024. The goals will be to promote healthy and active aging and delay frailty among older adults.

### GÉRIATRE RÉPONDANT

Gériatre Répondant aims to enable geriatricians to provide specialized clinical advice, support, and guidance to frontline healthcare workers during critical and complex interventions, with the goal of improving service delivery for older adults in Quebec. Additionally, the project includes an educational component aimed at providing geriatrics training tailored to the needs of frontline workers. Its objective is to make geriatric expertise accessible throughout the province of Quebec and enhance service delivery for older adults. CEDurable has been selected to manage the Gériatre Répondant project as part of the McGill University Health Centre (RUISSS McGill).

### CAPACITY

Schouela CEDurable collaborated with geriatrician Dr Leocadio Rodríguez-Mañas and his team to discuss the potential implementation of a new technology that would facilitate care for older people in Quebec. The CAPACITY ecosystem is a technology developed in Madrid, Spain, and validated across the European Union. The technology adopts a modular approach that allows all stakeholders in the healthcare network to monitor and intervene on frailty factors in older adults. Schouela CEDurable believes that this technology has the potential to have a significant impact on the quality of care for older people in Quebec. Therefore, in 2024, we will assess the interest of geriatricians in integrating CAPACITY into their practice.



## EXERCISE PARKS

Exercise parks are an initiative initially developed in Australia, offering seniors the opportunity to engage in outdoor group physical activity. These standardized exercises have proven effective in boosting seniors' self-confidence, reducing their risk of falls, enhancing their mobility, balance, and several other variables (Levinger, P. et al., 2020).

In 2023, partnerships were established with various local stakeholders to install these exercise parks in strategic locations.

Levinger, P., Panisset, M., Dunn, J., Haines, T., Dow, B., Batchelor, F., ... & Hill, K. D. (2020). Exercise interveNtion outdoor proJect in the cOmmunity for older people—results from the ENJOY Seniors Exercise Park project translation research in the community. *BMC geriatrics*, 20, 1-13.

## DURA GYM

The Dura Gym is an initiative from Australia developed by Dr Gustavo Duque. It is an innovative approach aimed at promoting the health and well-being of older adults. These gyms are specifically designed for seniors and inspired by the OTAGO program. They provide a safe and friendly environment for practicing exercises tailored to their needs and abilities. Dura Gyms offer personalized exercise programs supervised by healthcare professionals and aim to improve participants' strength, balance, flexibility, and mobility. These initiatives contribute to promoting active aging and reducing the risk of falls and chronic diseases in older adults. In 2024, CEDurable aims to develop a few Dura Gyms in Montreal and its surrounding areas.





## SUBVENTIONS

Thank you to our funding agencies



**McGill**

Division of  
Geriatric Medicine

Division de  
gériatrie



**Canadian  
Frailty  
Network**

**Réseau canadien  
des soins aux  
personnes fragilisées**

**HEVOLUTION**



**Réseau Québécois  
de Recherche sur  
le Vieillissement**



**IRSC CIHR**  
Instituts de recherche  
en santé du Canada Canadian Institutes of  
Health Research

## ACKNOWLEDGMENTS

The CEDurable team would like to thank all of its valuable partners, collaborators, donors, contributors, and funding organizations. A special thank you to the Simone and Edouard Schouela Family, the Manya Stendel Endowment Fund, the Division of Geriatric Medicine of the Jewish General Hospital and the Jewish General Hospital Foundation. The contribution of these various stakeholders enables CEDurable to fulfill and continue its mission of contributing to the well-being of seniors.







## CONTACT

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