



Centre de recherche
sur le vieillissement

Encrâge

NEWSLETTER
on current research projects



May
2023



TABLE OF CONTENTS

DRAW ME A SHEEP	3
RESPIRE AT HOME ON REQUEST	4
OMEGA-3, OH-MEGA BENEFITS AGAINST ALZHEIMER'S!	5
HOW CAN HOME SERVICE MANAGEMENT FOR SENIORS BE IMPROVED?	6
EMILIA : EXPLORING YOUR FUTURE SENIOR LIVING ENVIRONMENT TODAY	7
LET'S AGREE!: A KEY PROJECT FOR "AGING AT HOME"	8
AN EFFECTIVE TOOL TO CHOOSE YOUR LIVING ENVIRONMENT.....	9
NUAGE: 20 YEARS IN THE CLOUD.....	10
FUEL FOR THE BRAIN.....	11
GOING TO MARS FOR HEALTHIER AGING	12
MOBILAINÉS, FACILITATING TRAVEL PLANNING FOR SENIORS.....	13
PARTICIPATE IN OUR PROJECTS!.....	14

“Draw me a sheep.”

Who has not, as a child, read *The Little Prince* by Antoine de Saint-Exupéry? This tale eloquently illustrates the importance of popularizing knowledge to help others understand the world. However, scientific popularization is far from easy: Simplifying knowledge derived from research is a complex task.

This issue features five students and five research professionals who have taken this challenge head on. These authors worked to keep their sentences concise and to strip away any acronyms in order to democratize knowledge. Indeed, simply adding visual or even metaphorical explanation can make accessible scientific results that seemed, at first glance, well beyond reach. Once hermetic, science now strives to be open: It goes without saying that any knowledge generated only makes a real impact when it is utilized. However, for this to happen, it must first be understood.

This edition of the *Encrêpe* covers a wide array of topics, reflecting the Research Centre on Aging's (CdRV) diversity in the scientific fields. They provide solutions to support aging at home or in the environment of your choice, including ways to travel or to have access to respite “when you need it.” These articles also outline strategies to keep the brain healthy and active. Lastly, the secret to longevity may perhaps lie on Mars... a visit to this planet would do the Little Prince a lot of good!

The Research Centre on Aging's management would like to sincerely thank the authors of this edition of the *Encrêpe* for their contribution to knowledge transfer. By helping everyone better understand their results, they are promoting “healthy aging.” Thank you for such inspiring devotion that is helping us dream of a society that puts the elderly at the centre of its concerns.

“Let your dream devour your life, not your life devour your dream.”

(A. St-Exupéry)

VÉRONIQUE PROVENCHER,
SCIENTIFIC DIRECTOR OF THE CDRV

RESPIRE AT HOME ON REQUEST

Maude Viens, PhD Candidate, CdRV and UdeS; **Jean Sabin**, Former Caregiver;
Annie Carrier, Researcher, CdRV and UdeS; **Véronique Provencher**, Researcher, CdRV and UdeS

Denise, 69 years old, provides care for her husband, Roger, 75, who has had Alzheimer's disease for 5 years. She is one of approximately 2 million caregivers for seniors in Quebec. Recently, Roger has started waking every night, repeating that he needs to go to work. Denise is afraid that the lack of sleep will drive her to exhaustion. She has barely been getting a wink of sleep for some time now. Denise is in desperate need of some rest. She would like to find a night-time service that would offer her respite from time to time so she can have a good night's sleep. Denise contacts Sylvie, who coordinates a home respite service organization in her area, to ask if there is help available. Unfortunately, Sylvie explains that there are no on-demand respite services that could occasionally help



Denise at night. Like many caregivers in Quebec, Denise would like to find a service that meets her needs, a service that goes beyond the conventional framework of those offered during the day in a single 4-hour block per week from Monday to Friday. Sylvie would like to be able to respond to her client's specific requests, because she is concerned that this gap in services is contributing to caregiver exhaustion.

This situation reflects the urgency of developing a home respite structure that is both flexible and modular according to the evolving needs of the caregiver and patient dynamic. Faced with this problem, a research team from the Research Centre on Aging and the Université de Sherbrooke launched the AMORA project. It aims to develop and implement a platform that offers "on-demand" services, called ANAAÏS. This platform was created by a Quebec tech company (Siaana Tech) and has been tested in Guadeloupe. Through a website, it allows caregivers to reserve in real time a time slot for respite by putting them in contact with a trusted caregiver.

After agreeing to participate in the research project, Denise has a visit from Claudie, the coordinator of ANAAÏS. Claudie asks Denise and Roger questions about their needs and expectations. Claudie also explains ANAAÏS's rules and how it operates. Claudie registers Denise on the ANAAÏS website, and they then have a few trials together to ensure that everything works. If Denise has any questions, all she has to do is call Claudie. Now that Denise is registered on the site and knows how to navigate it, she can simply request respite services whenever she needs it. The following Wednesday, Denise requests respite for the night of Friday to Saturday, so she can be well-rested for a family brunch the next day. A few hours later, Nathalie (patient care attendant) accepts the invitation and Denise is notified. After getting a good night's sleep, and after Nathalie has left Denise and Roger's home on Saturday morning, Denise posts a comment on the site:

"Thank you, Nathalie, for your prompt, discreet service! I was reassured knowing my husband was in good hands. See you soon!"

PRINCIPAL INVESTIGATORS

Véronique Provencher and Annie Carrier, CdRV and UdeS.

INFORMATION

819 780-2220, ext. 45649 or Maude.Viens@USherbrooke.ca

OMEGA-3, OH-MEGA BENEFITS AGAINST ALZHEIMER'S!

Insaf Loukil, PhD Student, CdRV and UdeS

Mrs. Manon, a 65-year-old retiree, woke up early as usual and is listening to the radio. Things have not been good at all lately, but today's news isn't talking about COVID-19 or Russia's invasion of Ukraine. Today's news is more focused on Canada, the labour shortage, Quebec's aging population, as well as the increasing occurrence of Alzheimer's disease and its costs to the government. Manon's mother died two years ago as a result of complications related to this condition.

On the radio, a physician, a nutritionist, and a research group are discussing the importance of preventing this disease through several small actions such as physical activity, socialization, and healthy eating, given the lack of effective treatment. A researcher also explains the importance of a gene, APOE4, which increases the probability of developing Alzheimer's disease by eight to twelve times. 20% of Quebecers carry this gene. She stated that her research group is currently investigating whether people with APOE4 could benefit from omega-3 fat supplementation as a protective factor, just like non-carriers of the gene. She also stated that her team discovered omega-3 fats from fatty fish seem to improve memory, even in people experiencing a mild cognitive decline. However, her research team believes that some omega-3 fats do not reach the brain, making supplementation less effective. Unfortunately, according to the nutritionist, only 10% of the population in Quebec consumes enough omega-3 fats daily. She specified that it is important to eat chia seeds, nuts, and flax seeds, but that fatty fish such as salmon, sardines, anchovies, and mackerel seem the most beneficial for the brain. Since



Quebecers do not consume enough, supplementation is a potential solution to meet their needs.

The researcher concluded the discussion by referring to her research on two forms of omega-3 supplements that are derived from krill, a small shrimp, or fish while specifying her hypothesis that one may be more beneficial to the brain. The research piqued Manon's interest as the disease affected her and she remembered how difficult it was for her mother and herself. Manon therefore contacts the research team to participate in the study proposed by the researcher. Manon wants her participation to advance research and recommendations to prevent Alzheimer's disease, and who knows, maybe even find a solution for future generations! And you, would you be interested in participating?

PRINCIPAL INVESTIGATOR

Mélanie Plourde, CdRV and UdeS

INFORMATION

819 780-2220, ext. 45390 or Insaf.Loukil@USherbrooke.ca

HOW CAN HOME SERVICE MANAGEMENT FOR SENIORS BE IMPROVED?

Participatory research with health professionals and managers

Virginie Savaria, PhD Student; **Annie Carrier**, Researcher, CdRV and UdeS;
Johanne Queenton, Researcher, CdRV and UdeS

In 2020-2021 in Quebec, there were over 41 000 people waiting to receive home services. The effectiveness of the response for these services is certainly a major challenge. The last two reforms of the health care system, the Couillard (2003) and the Barrette (2015) reforms, implemented changes in the management of services offered to seniors. Significantly driven by a reduction in costs, these reforms reflect a defined trend toward the centralized management of our services. This type of management tends to centralize decision-making authority, responsibilities, and control of services within the Ministère de la Santé et des Services sociaux. It has an influence on the conditions for the practice of health professionals and managers in the field as well as on the quality of services offered to seniors.

Specifically, these administrative reforms and the current centralized management have the effect of reducing the autonomy of health professionals and managers, which increases the workload of administrative tasks and the steps leading to decision-making.

A potential avenue: Decentralization

To address these time management challenges, decentralizing home service management could be a particularly promising avenue. Decentralized management would involve more autonomy in decision-making for health staff and managers, as well as a strong relationship of trust with senior management. Using this management approach, which has had positive results elsewhere in the world, professionals and managers in the field can make

decisions based on their knowledge and experience. Such decentralization would give seniors a voice and enable services focused on their needs. However, despite their potential, there have been few studies on decentralized management strategies in our Quebec context.

Participatory research with health professionals and managers

Health care workers and home service managers play important roles in the health care system of a society in which the majority of seniors want to live and grow older at home. To identify decentralized management strategies, it is thus essential to include in our research all of the people involved. Our research project will focus on reassessing home service management strategies in order to integrate collaborative and decentralized practices into the daily lives of health staff and managers. To co-construct these strategies, we will establish a committee made up of professionals and managers.

Practical benefits

This research project will provide innovative solutions to the challenges faced by health staff and managers. As they will be identified in collaboration with the latter, the decentralized management strategies will reflect their reality and they should improve the management of home services to better meet seniors' needs!

EMiLiA: EXPLORING YOUR FUTURE SENIOR LIVING ENVIRONMENT TODAY

Catherine Girard, Research Professional, UdeS and CdRV; **Nathalie Delli Colli**, Researcher, UdeS and CdRV;
Dany Baillargeon, Researcher, UdeS and CdRV; **Claudia Joyal**, Master's Student, UdeS and CdRV

The living environment of seniors is a very sensitive issue. Although many seniors have positive experiences with decisions related to the living environment, a significant number consider this stage of life as a source of uncertainty and stress.

The vast majority of seniors are able to live at home in relative independence. That said, relocating as we get older is common. Whether they decide to stay at home or to move, people seeking information to support a carefully informed choice currently face scattered and sometimes incomplete information.

Organizations that provide services to seniors and caregivers answer many questions related to the living environment. These organizations can respond according to their expertise, but they do not provide all the practical, logistical, legal, economic, psychological, social, and health information and advice, among others.

There is currently no tool in Quebec that brings together, under one roof, all the information that can be used for autonomous decision-making on the living environment while aging. There is now a research project to respond to this need.

The EMiLiA tool is a website that was created to encourage seniors to embark on their exploration and decision-making process with regard to their living environment. Easily printable sections allow for accessible and user-friendly viewing. Seniors and relatives are invited to consult it in their own time, according to the subjects relevant to them.

EMiLiA offers:

- 15 themes such as finance, change, home resources, housing options, etc.;
- More than 75 references to reliable external sources;
- 30 “tips and tricks” type documents with popularized content based on science and several local initiatives;
- More than 15 audio accounts provided by seniors;
- 45 discussion tracks so that seniors and their loved ones can freely share their thoughts, doubts, needs, and preferences.

This research project is being conducted using a “by and for” approach. Thus, the steps of understanding needs, co-creation, and evaluation of the solution are carried out with the participation of the population targeted by the initiative. EMiLiA was therefore developed thanks to the contribution of more than 60 seniors and the support of the four project partners: FADOQ — Région Estrie, Réseau FADOQ, APPUI pour les proches aidants, and the Fédération des centres d'aide et d'accompagnement aux plaintes (FCAAP).

The tool will be tested and evaluated with 250 participants in 2023. The user experience, level of user-friendliness, and content quality will be addressed among other topics. The project foresees the deployment of EMiLiA in 2024 with the hope of supporting the reflections, discussions, and choices of living environments for a large number of seniors and relatives across Quebec.

PRINCIPAL INVESTIGATORS

Annie Carrier and Johanne Queenton, CdRV and UdeS

INFORMATION

Virginie.Savaria@USherbrooke.ca



PRINCIPAL INVESTIGATORS

Nathalie Delli-Colli and Dany Baillargeon, CdRV and UdeS

INFORMATION

819 780-2220, ext. 45118 or Catherine.Girard3@USherbrooke.ca

LET'S AGREE!: A KEY PROJECT FOR "AGING AT HOME"

François Racicot-Lanoue, PhD student in gerontology, CdRV and UdeS; **Hélène Pigot**, researcher, CdRV and UdeS; **Véronique Provencher**, researcher, CdRV and UdeS; **Sébastien Carrier**, UdeS

Most seniors want to age at home. However, many experience a gradual loss in functional autonomy as they age, which can prevent them from staying at home. Through the support it provides, the personal social network is a key resource of "aging at home." However, this network weakens as it ages, notably through a reduction in its size and the significance of the support offered. To strengthen it, we are interested in the possibilities offered by a local exchange system (LETS) supported by digital technologies. A LETS is a time-based service exchange tool between individuals. For example, in the current pandemic context, a senior could have their groceries delivered weekly by a young person who is a member of a LETS. In exchange, they could offer other members a helping hand in making protective masks. Various research has shown that LETSs are models of community development that promote the social inclusion of the entire population, including seniors. To facilitate exchanges, some LETSs structure their activities through digital technologies. In Quebec, this applies to the Réseau Accorderies network which provides a web platform to exchange services: Espace membre

The *Accordons-nous!* research project

Our research team has established a project to document how a senior's participation in a support program for using a service exchange on a digital platform strengthens their socio-technological network. This network includes the main means, derived from social and technological resources, that are likely to facilitate "aging at home." The socio-technological network thus encompasses the

members of the senior's network (relatives, friends, health professionals) and the communication technologies they employ (telephone, computer, mail, etc.). The analysis of this network is based on three dimensions: structural (number of members), functional (support offered: tangible, emotional, and informational), and quality (positive, neutral, and negative).

Accordons-nous! took place at the Accorderie de Sherbrooke from October 2021 to June 2022, i.e. during the COVID-19 pandemic. A total of 11 participants aged 65 and over took part in the training to get familiar with the "Espace membre." They were then paired with members from the organization who provided them with support in using the "Espace membre" and the exchange services. To document changes in the socio-technological network of seniors, we conducted interviews with each participant before and after the *Accordons-nous!* program. Early results of the data analysis have demonstrated that, despite the pandemic context, the socio-technological network has not deteriorated. Thus, neither the size of the networks (structural dimension) nor the quality of the relationships changed significantly for the majority of the participants. Interestingly, however, the support provided by the network (functional dimension) has greatly improved for each of the types of support provided. These promising results suggest there is an avenue for facilitating "aging at home," thanks to service exchange systems such as Accorderies.

PRINCIPAL INVESTIGATORS

Hélène Pigot and Véronique Provencher, CdRV and UdeS

INFORMATION

819 780-2220, ext. 45424 or Francois.Racicot-Lanoue@USherbrooke.ca

AN EFFECTIVE TOOL TO CHOOSE YOUR LIVING ENVIRONMENT

Solange Nkulikiyinka, Research Professional at CdRV

Decision-making related to choosing a living environment following discharge from the hospital is difficult and stressful for many seniors and caregivers. Indeed, this often exposes the people involved to complex situations: Most seniors want to return home despite the risks, which often leads to diverging views with their loved ones, especially in cases of major neurocognitive disorders. This is a difficult decision-making process, because the senior is struggling with the following options: returning home (with or without assistance) or being directed to another living environment.



Facilitating collaborative decision-making

Scientific studies have shown the positive effects of an interprofessional approach to shared decision-making accompanied by a decision support tool in home care. This approach allows for collaboration between the senior, their caregiver, and a team of professionals to determine the senior's preferences and identify the best options. Thus, it would help involve seniors and their caregivers in choosing the seniors' living environment. There have been recent adaptations to this document for use with seniors and caregivers during hospital discharge and in situations where there may be diverging views. A research project

was set up to validate this decision support strategy, in particular by documenting the perception of potential users.

Beneficial effects

The research project assessed seniors' and caregivers' perceptions of the relevance, content, and format of the adapted decision support tool. Interviews were conducted with five non-hospitalized seniors and three caregivers. The interviews revealed that the adapted version of the decision support is useful. It allows users to be well informed, to discuss more easily, to know their options for living environments, to have access to professional support, in addition to facilitating joint decision-making. These individuals highlighted that the information provided was complete and clearly presented. Study participants made the following recommendations to meet the needs of seniors and their caregivers:

- Providing a wider choice of living environments;
- Adding references to psychological support services for caregivers;
- Clearly specifying from the first stage that the decision support will be jointly completed by the senior and their caregiver.

The research team hopes the improved version of the decision support tool with the incorporated feedback from seniors and caregivers will help seniors find a living environment based on their values and preferences, thus promoting their satisfaction and well-being as well as that of their loved ones.

PRINCIPAL INVESTIGATORS

Véronique Provencher and Nathalie Delli-Colli, CdRV and UdeS

INFORMATION

819 780-2220, ext. 45155 or solange.nkulikiyinka@USherbrooke.ca

NuAge: 20 YEARS IN THE CLOUD

Valérie Turcot, Research Officer, CdRV

The Quebec Longitudinal Study on Nutrition and Successful Aging also known as the “NuAge Study,” was conducted between 2003 and 2008 with 1793 women and men aged between 64 to 84.¹ Its goal was to understand why some people age healthier than others in order to take preventive action on these causes and to age healthier at home. The results of this study are still held in high regards by researchers and the media. Why? Here are 4 good reasons.

The wealth of information

Participants in the NuAge Study provided blood, urine, and saliva samples, along with answering several questionnaires over the course of a day at the research centre. More than 1000 pieces of information were collected from each participant regarding their life situations, social activities, health status, lifestyle, autonomy, nutrition, medication, etc. This collection was repeated every year for the following 3 years. The very detailed information on daily dietary habits makes this study truly unique in the field of aging research.

Easy access to anonymous information for research teams

A way to analyze the data collected over several years had to be determined. A management document was therefore developed to describe how to securely store information and samples and to allow anonymous use by university researchers. This goal was achieved in 2019 with the creation of the “NuAge Database and Biobank” as a research bank. Each study that intends to use cloud data or samples must be approved by an ethics committee and the NuAge Database and Biobank team.

PRINCIPAL INVESTIGATOR AND NUAGE DATABASE AND BIOBANK ADMINISTRATOR

Nancy Presse, CdRV and UdeS

INFORMATION

819 780-2220, ext. 45613 or NuAge-cdrv@USherbrooke.ca

Concrete results for the population

Since 2003, the NuAge Study has led to the completion of 65 studies and over 130 scientific and media articles on several discoveries. Some findings have led to concrete applications, such as a guide to ensuring adequate protein intake and fitness, and evidence that consuming one to two servings of dairy products every day can help lower the risk of vitamin B12 deficiency, an important vitamin for the proper functioning of the nervous system and the memory.

Newly added information

Thanks to funding from partners,² several activities have enhanced the NuAge Database and Biobank with new data while respecting the consent of the participants. For example, over the next year, some participants who are still living at home may be contacted for a follow-up on their health status 20 years after their recruitment. What a truly unique follow-up!

If you think about it, participating in a research project can generate major benefits for everyone’s future for many years to come!

We would like to dedicate this article to the memory of Professor Hélène Payette, who passed away on January 3, 2023. Her passion for research on seniors led her to create and oversee the Nuage Study with humanity and generosity in the company of her colleagues and collaborators.

¹ Longitudinal: long-term follow-up.

² Financing from the Fonds de recherche sur Québec, the Quebec Network for Research on Aging, and the Université de Sherbrooke Foundation.

FUEL FOR THE BRAIN

Mélanie Fortier, Camille Vandenberghe, Valérie St-Pierre, Marie-Christine Morin and Karine Groulx, Research Professionals, CdRV; Stephen C. Cunnane, Researcher, CdRV and UdeS

As people age, the brain has increasing difficulty getting all the energy it needs. Sugar is the main fuel of the brain. However, even if there is enough in the diet (often even a little too much!), sugar cannot travel as well to the brain as it used to, similar to a clogged engine fuel filter.

Fortunately, the brain works a bit like a hybrid vehicle and can use an alternative fuel to sugar which is natural and derived from fats: ketones. Our team has demonstrated that an outside source of ketones, as medium chain triglyceride (MCT) oil, for 2 months provides up to 2 times more energy to the brain in people with Alzheimer’s disease. It had long been believed that as the disease progresses, many brain cells would die as they were no longer active. However, some of these cells have simply “shut down” and if they are provided with alternative fuel such as ketones, the cells reactivate and the engine “restarts.”

The BENEFIC study showed that such supplementation for 6 months allowed participants with slight cognitive changes to improve their memory. Kind of like an engine that can still run for miles if properly maintained and fueled!

However, such approaches can only compensate for half of the brain’s energy deficit. Imagine if we could provide the aging brain with 100% of its energy needs. This is not so easy to achieve, as increasing the amount of ketogenic supplements would cause too many side effects. We are currently exploring alternatives to get there.

By consuming less sugar, our body would be in a better predisposition to make ketones itself. For the KETOHOME study, a dozen participants living in a residence for autonomous seniors followed a sugar-reduced menu for 5 days. Their blood sugar levels reduced by 8.5% and, as an added bonus, all of the participants were delighted to discover new appetizing and tasty menus. A larger study will be conducted to prove the effect of this dietary change

on ketones and memory. Using “premium” fuel for our hybrid engine can only be a good idea!

The PARKA study is assessing whether combining physical activity with a ketone supplement could help fill the brain’s fuel deficit. This project is targeting people with Alzheimer’s or Parkinson’s disease, since the energy deficit is increasingly acute in such cases. By activating circulation, stimulating the use of fat reserves, and controlling blood sugar, physical activity is most definitely a valuable ally to better fuel the brain. While owning a hybrid engine is good news, leaving the car at home and going for a good walk is probably a better idea!

These studies are currently ongoing, but they will provide more knowledge soon. In the meantime, eating healthy and being active are certainly ways to ensure that you keep your engine in A1 condition for longer!



PRINCIPAL INVESTIGATOR

Stephen Cunnane, CdRV and UdeS

INFORMATION

819 821-5206 or recherche.cerveau@USherbrooke.ca



GOING TO MARS FOR HEALTHIER AGING

Philippe St-Martin, Master's Student, CdRV and UdeS; **Jean-Christophe Lagacé**, PhD student, CdRV and UdeS; **Mathil Ruel**, Master's Student, CdRV and UdeS; **Isabelle J. Dionne**, Researcher, CdRV and UdeS

The human body continually adapts throughout life to meet the varying needs of our environment. While these adaptations allow us to function on a daily basis, they can also harm astronauts when they return to Earth. In fact, astronauts returning from a long mission in space report problems comparable to accelerated aging. If astronauts are aging too fast, what fate would be reserved for those soon travelling for long periods to settle on the planet Mars?

Muscling your way to Mars

A trip to Mars, which would take about 3 years, is characterized by a lack of muscle stimulation. Unfortunately, flying like Superman does not mean superhuman strength too, quite the contrary! The body, which has now adapted to its new weightless environment, will shed any unused muscle.

Despite many hours of physical exercises to stimulate muscle growth, it remains difficult to counterbalance the effect of the lack of gravity. The last few decades of space flights have allowed for establishing a profile on muscle atrophy for a journey to the red planet. Muscle atrophy is much more than simply aesthetic, it affects function! Muscle loss is accompanied by an excessive loss in strength, which researchers have been studying. Healthier aging in space would likely contribute to healthier aging on Earth.

When the body makes a false note

A significant portion of the loss in strength observed with aging and space travel is due to a loss in muscle mass. However, this alone does not fully explain everything, suggesting that there are other factors at play. Researchers

from the Université de Sherbrooke and the Research Centre on Aging recently studied the neuromuscular system—the connection between our nervous system and muscles—in middle-aged adults during a space simulation.

Muscle is composed of several components that work together to induce muscle contraction. The different components produce varying levels of contraction. To understand how muscle works, imagine each component as a section of an orchestra, e.g. trombones and triangles. To avoid a cacophony, the nervous system controls these components as a conductor points their baton toward the various sections of the orchestra. During a contraction, the nervous system sends an electrical command to each component dictating the frequency and strength of the contraction. As such, when all of the musicians play in unison following the conductor's instructions, a false note can go unnoticed. The same applies to muscle: To understand what is happening, you must "listen" to and thoroughly assess the orchestra composing the music as a whole.

To achieve this, the research teams measured the electrical activity produced by the nervous system in parallel with the force produced by the muscle to determine the elements most affected during space flight. Despite the considerable loss in force, the orchestra behind the nervous system appears to maintain its rhythm. Indeed, the muscle components do not seem to suffer any repercussions (or consequences) from the accelerated aging caused by space simulation.

Best of luck to future researchers attempting to break new ground on the connection between a disproportionate loss in strength and space flight!

PRINCIPAL INVESTIGATOR

Isabelle Dionne, CdRV and UdeS

INFORMATION

Philippe.St-Martin@USherbrooke.ca

MOBILAINÉS, FACILITATING TRAVEL PLANNING FOR SENIORS

Catherine Girard, Research Professional, CdRV and UdeS; **Véronique Provencher**, Researcher, CdRV and UdeS; **Dany Baillargeon**, Researcher, CdRV and UdeS

Independent travel is very important to seniors. Shopping at your favourite stores, meeting friends at the local café, or doing activities at the community centre are all ways to maintain independence and quality of life.

However, as seniors advance in age, adjustments may be required in terms of mobility, e.g. driving in the evening or outside walks in the winter may need to be avoided for safety reasons. Physical and cognitive abilities, financial resources, and support from the social circle are factors that influence seniors' ability to travel.

The one-stop shop for transportation

During a workshop in 2018, some 40 members from the Sherbrooke community discussed the need to centralize the various transportation services, to better understand them and to determine when and how to use them. The need to talk to a "real" person to ensure accessibility for people who are less familiar with computers or who have no Internet connection was also raised.

This is how the *Mobilainés* research project was born. The latter aims to develop a "one-stop shop" through a web application and telephone access. Adapted to the reality of Sherbrooke seniors, *Mobilainés* is working to centralize all transportation options and practical information to help identify modes of transportation and the best suited path for their needs and preferences.

In collaboration with seniors!

Thanks to the "by and for" co-creation approach, seniors take part in each stage of the development of *Mobilainés*. The participants first shared their experiences in order to determine their travel needs and preferences. Then, during the design of the one-stop shop, the seniors were invited to workshops to co-create the interfaces and features, such as avoiding slopes on routes or locating toilets at the destination. The user interface includes photos, menus, and images of the web application. Meetings held with several partners—who ensure the mobility, health, and well-being of Sherbrooke residents—have also contributed to the project's consistency and feasibility. Accessibility and ease of use are major factors in this one-stop shop, as are its perception of usefulness and the motivation for frequent use. This will be the focus of the assessment until the end of 2023.

Mobilainés differs from other current travel planning tools by offering a complete, easy-to-use solution adapted to seniors who want to travel "where, when, and how they want to." While promoting autonomy and freedom in decision-making regarding their transportation, *Mobilainés* wishes to offer seniors travel experiences that are enjoyable, safe, and adapted to their preferences.

PRINCIPAL INVESTIGATORS

Véronique Provencher and Dany Baillargeon, CdRV and UdeS

INFORMATION

819 780-2220, ext. 45118 or Catherine.Girard3@USherbrooke.ca





PARTICIPATE IN OUR PROJECTS!

RESEARCH ON AGING FOR YOUNG AND OLD ALIKE

We need your help to advance knowledge on aging. All our research projects are governed by strict ethical protocols that guarantee patient consent and safety. Men and women of all ages are contributing to the development of programs to be used across many spheres of society to improve seniors' health, care, and living conditions.

How can you participate in a research project?

- You can get involved with a research team at the Laboratoire d'innovation par et pour les aînés. For more information on the living laboratory, visit lippa.recherche.usherbrooke.ca.
- You can also register with the Research Centre on Aging's participant recruitment centre.

Provide your consent for a representative of the Research Centre on Aging to contact you if there is a research project that matches your profile. Register by the following:

Tel: 1 819 780-1832

Toll free: 1 888 780-1832

Website: cdrv.ca

THIS EDITION'S REVIEW COMMITTEE:

- Méli^sa Audet, Scientific Development Advisor
- Pauline Dumoulin, member of the public
- Lucie Duquette, Administrative Officer
- Méli^ssa Letendre Lapointe, Communications Advisor

If you prefer to receive the Enchrâge in electronic format (PDF), please send us your e-mail address. For any change of address or if you no longer wish to receive the Enchrâge, please contact Lucie Duquette:

819 829-7131

Lucie.Duquette@USherbrooke.ca





**Centre intégré
universitaire de santé
et de services sociaux
de l'Estrie – Centre
hospitalier universitaire
de Sherbrooke**

Québec 

© All rights reserved - We encourage you to distribute the Encrêge to your partners and collaborators. For any specific use or reproduction of the texts, please contact the Research Centre on Aging.