

A Message from the CLSA Research Team

Welcome to the 2019 issue of *Aging Gracefully*, the annual newsletter for participants in the Canadian Longitudinal Study on Aging (CLSA).

In this newsletter, you will learn how researchers are using CLSA data for projects investigating a wide variety of topics from genetics to how vision changes as we age.

To date, more than 250 projects are using CLSA data, and many of the researchers leading those projects have begun to publish their findings.

You will also read about a CLSA participant who is navigating his own aging journey, and about students who are using the CLSA data for research projects across the country.

This year has brought important partnerships for the CLSA. In July, we announced a [research collaboration](#) with the [Canadian](#)



In July, the CLSA Operations Committee met in Hamilton to discuss ongoing and future data collection. Part of the meeting also focused on emerging areas of research in aging.

[Frailty Network](#), the [McMaster Institute for Research on Aging](#) and [Metabolon, Inc.](#) with the goal of discovering biological markers in the blood that may explain why some people become frail as they age and others do not.

We are also grateful for continued support from the Canadian Institutes of Health Research (CIHR). In 2019, CIHR announced [\\$1.2 million in funding](#) to support

17 projects to use the CLSA data in research projects.

Participants continue to be our most important partners. Without your contributions, the CLSA would not be possible. Thanks to your interest and commitment, CLSA research is starting to shed light on the underpinnings of healthy aging and help to create new knowledge of what it means to grow older in Canada today.



Left: CLSA telephone interview coordinators visited Hamilton for annual training in October 2019. **Middle and right:** The CLSA teams in Winnipeg (middle) and Calgary (right) pose for a photo with members of the CLSA operations team.

Findings at a Glance: Vision

Factors associated with vision loss:

*The findings are based on the analyses of approximately 30,000 CLSA participants from Alberta, British Columbia, Manitoba, Newfoundland, Nova Scotia, Ontario and Quebec. This [project](#) was led by Dr. Ellen Freeman of the University of Ottawa and published in the *Canadian Journal of Ophthalmology* in [June 2018](#) and [June 2019](#).



OLDER AGE



LOWER INCOME



SMOKING



MEMORY PROBLEMS



DIABETES

1 in 4

participants with diabetes over the age of 60 had not seen an eyecare provider in the last year



5.7%

of participants have a visual impairment*

57%

of participants visited an eye care provider in the last year

Leading cause of visual impairment:

Refractive Error

(e.g. near-sightedness, far-sightedness and



3 in 10

participants with a visual impairment used formal or informal home care services



Participant Question: What happens to the blood sample I provide to the CLSA?

Participants who visit Data Collection Sites are asked to provide a blood sample, which is then divided into 42 smaller samples, known as aliquots. A Complete Blood Count is performed at the Data Collection Site, which involves counting the different cells in the blood, such as platelets and white blood cells.

After this test is performed, the blood is frozen and shipped to the Biorepository and Bioanalysis Centre in Hamilton, Ontario, for long-term storage.

Frozen blood samples may be selected at random to undergo clinical biochemistry testing as well as genetic, epigenetic and metabolomic analyses. This testing helps researchers to look for biological markers, or molecules,



Salina Dang, research technician in the CLSA Biorepository and Bioanalysis Centre, prepares the robotic workstation for sample analysis.

that may change over time and provide an indication of health. The CLSA team includes a group of scientists that determine which biological markers to analyze. Recently, a new [research partnership](#) was formed to look for markers of frailty in the blood through a process called metabolomics. Approximately 10,000 samples are currently undergoing analysis.

The main purpose of the testing is to discover markers that will predict what diseases may develop as

people grow older. Since the CLSA is only in the early stages of follow-up, we cannot be sure of what those markers are yet.

It will take some time for biomarker research to be completed and published. However, there are many projects underway:

- [Genome Wide Association Study of Osteoporosis](#)
Dr. Brent Richards,
McGill University
- [A national investigation of the roles of genetics, social, emotional, and environmental factors as determinants of nutrition and cardio-metabolic health among elderly adults in Canada](#)
Dr. Daiva Nielsen,
McGill University

For a full list of approved projects, visit:

www.clsa-elcv.ca/approved-projects

For the latest CLSA updates:

www.clsa-elcv.ca



CLSA Participant Spotlight



Larry, 60, is a social worker, marathoner, and disability rights advocate in Winnipeg. He joined the CLSA in 2014.

Q: Could you share with us a little about your journey with aging?

I was in a bad car accident in 1990 where I sustained a brain injury and I made myself some promises after that. One of the promises was (I was 30 years of age at the time) that I'd return back to work one day, and the other one was to run a marathon because I couldn't walk. What I found is that running the marathon was easy, changing people's minds was not.

Q: What is your personal approach to healthy aging?

My take on healthy aging is do what you can. Healthy living really improves your quality of life. Controlling what you do, and I truly believe that something as simple as walking, can make a huge difference. It's amazing what you see going at a slower speed. And some people say, "You know, Larry, I can't run, my knees hurt." And I say, "Do what you can, what you feel comfortable with." After my accident, I gained a lot of weight. The only thing I could control is my life, and I did that. I went back to school and I went back to work. Going back to work was one of the hardest things I had to do. After my accident I could not walk. Most people would think that running a marathon would have been the hardest, but it was returning back to work or school. It was because of perceptions. Perceptions of people with disabilities and with brain injuries as if they can't do the same as others. It's just negative stereotypes and perceptions.

Q: What do you hope the CLSA will accomplish?

I really truly hope that what the CLSA does accomplish is to get an accurate reflection, scientifically and research based, that really paints a clear picture of the aging process from coast to coast. How is aging affected socially, economically, and looking at all the different characteristics that can cause and reduce stress? What I see coming out of this study is a teaching tool to help people age with dignity. I hope this research can get a clear picture of reality and not just perception and will help to inform policies that improve quality of life and ensuring a more cost-efficient health-care system.

Rising Stars: A spotlight on CLSA trainees



"The CLSA seemed like a perfect fit for where I am in my career right now. Being a student, I still have a lot of technical skills to learn, and these skills are being practiced with relevant context, because we are working with data concerning health and social factors affecting people right now. The CLSA is doing the very important function of collecting and distributing data, so that researchers can answer questions that will help create a change for the better."

Lavanya Huria is a part-time research assistant working at the CLSA Statistical Analysis Centre in Montreal. She is pursuing her undergraduate degree in economics at McGill University. [Read more](#) about the opportunities the CLSA is creating for trainees like Lavanya.

CLSA Events

The CLSA hosted two events this year for participants to learn more about the research being conducted using their data. All previous events are available on the CLSA website:

www.clsa-elcv.ca/stay-informed/clsa-videos

[Deciphering Resiliency through the CLSA](#)

Vancouver, BC
June 2019

[Engaging in Aging: A CLSA Q&A](#)

Halifax, NS
April 2019



Site News

Victoria: Bernie Paille has joined the CLSA as the Data Collection Site coordinator at the University of Victoria (UVic). He takes over from Dr. Jo Ann Miller, who has moved a new position with the UVic Institute on Aging & Lifelong Health.

St. John's: Sharmeen Chowdhury will be returning as coordinator of the St. John's Data Collection Site in December 2019. Best wishes to Haley Noseworthy as she begins her maternity leave.

Making Headlines

- Strong criteria for diagnosing sarcopenia | www.bit.ly/clsa_sarcopenia
- Aging with pets isn't just a sentimental concern, but a matter of health and wellness | www.bit.ly/clsa_pets
- Nurturing resilience | www.bit.ly/clsa_resilience
- Physical activity influences migraine risk in men and women | www.bit.ly/clsa_headache

Keep in Touch

Follow-up 2 interviews are now being scheduled and will continue until 2021. As always, it's extremely important to provide us with any changes to your contact information. Have you moved, changed your telephone number or email address since you were last contacted by the CLSA, or have you recently created an email address that you can share with us? Or are you planning to be away for an extended period when we won't be able to reach you? If so, please contact us:

🌐 Web: clsa-elcv.ca/update-your-details

✉ Email: info@clsa-elcv.ca

☎ Phone: 1-866-999-8303

If you are interested in being featured in a future CLSA newsletter, contact us at info@clsa-elcv.ca

Correction: Our last CLSA newsletter incorrectly identified Michel Perron, Canadian Institutes of Health Research Executive Vice-President, Governance and External Relations, in the photo on the cover. The CLSA regrets the error.

For the latest CLSA updates:

www.clsa-elcv.ca

