



# Navigating the Tides (of Data): Research and Training Opportunities with the CLSA

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CAG Workshop  
Moncton, NB  
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# Navigating the Tides (of Data): Research and Training Opportunities with the CLSA

## Overview of the CLSA

Susan Kirkland, PhD  
Professor and CLSA Co-Investigator  
Dalhousie University

CAG Symposium  
Moncton, NB  
Oct 26, 2019

# The Canadian Longitudinal Study on Aging (CLSA)

- Strategic initiative of the Canadian Institutes for Health Research (CIHR); on Canadian research agenda since 2001
- Team of 3 principal investigators, more than 160 co-investigators from 26 institutions
- Aim is to provide infrastructure and build capacity for state-of-the-art, interdisciplinary, population based research and evidenced-based decision making
- Largest study of its kind to date in Canada for breadth and depth

# CLSA Research Platform

**50,000 women and men aged 45 - 85 at baseline**

## **TRACKING**

**Target: 20,000**

**Actual: 21,241**

**Randomly selected within  
provinces**

## **COMPREHENSIVE**

**Target: 30,000**

**Actual: 30,097**

**Randomly selected  
within 25-50 km of 11 sites**

### **Questionnaire**

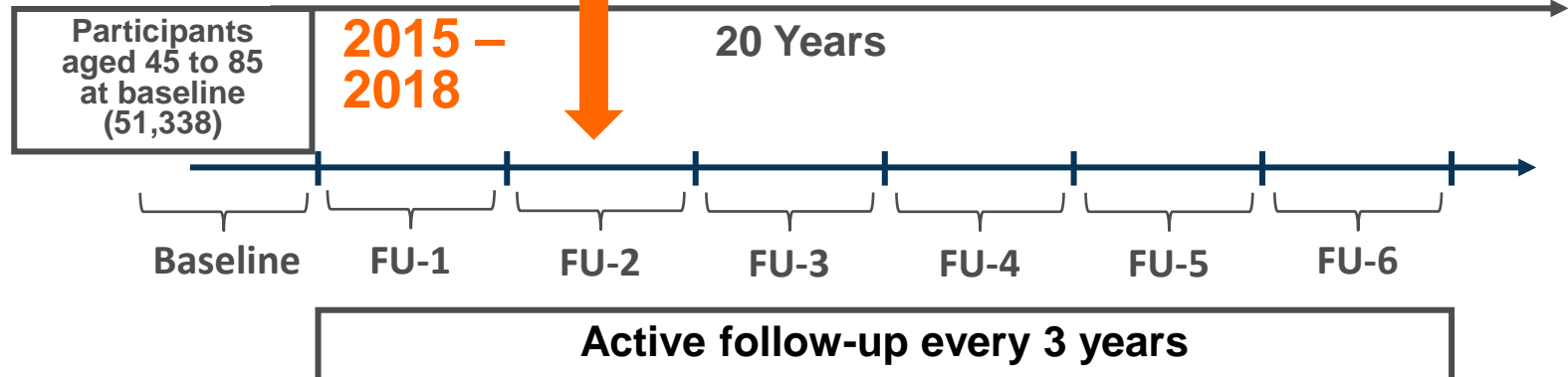
- **By telephone (CATI)**

### **Questionnaire**

- **In person, in home (CAPI)**

**Clinical/physical tests  
Blood, urine  
@ Data Collection Site**

**2010 - 2015**



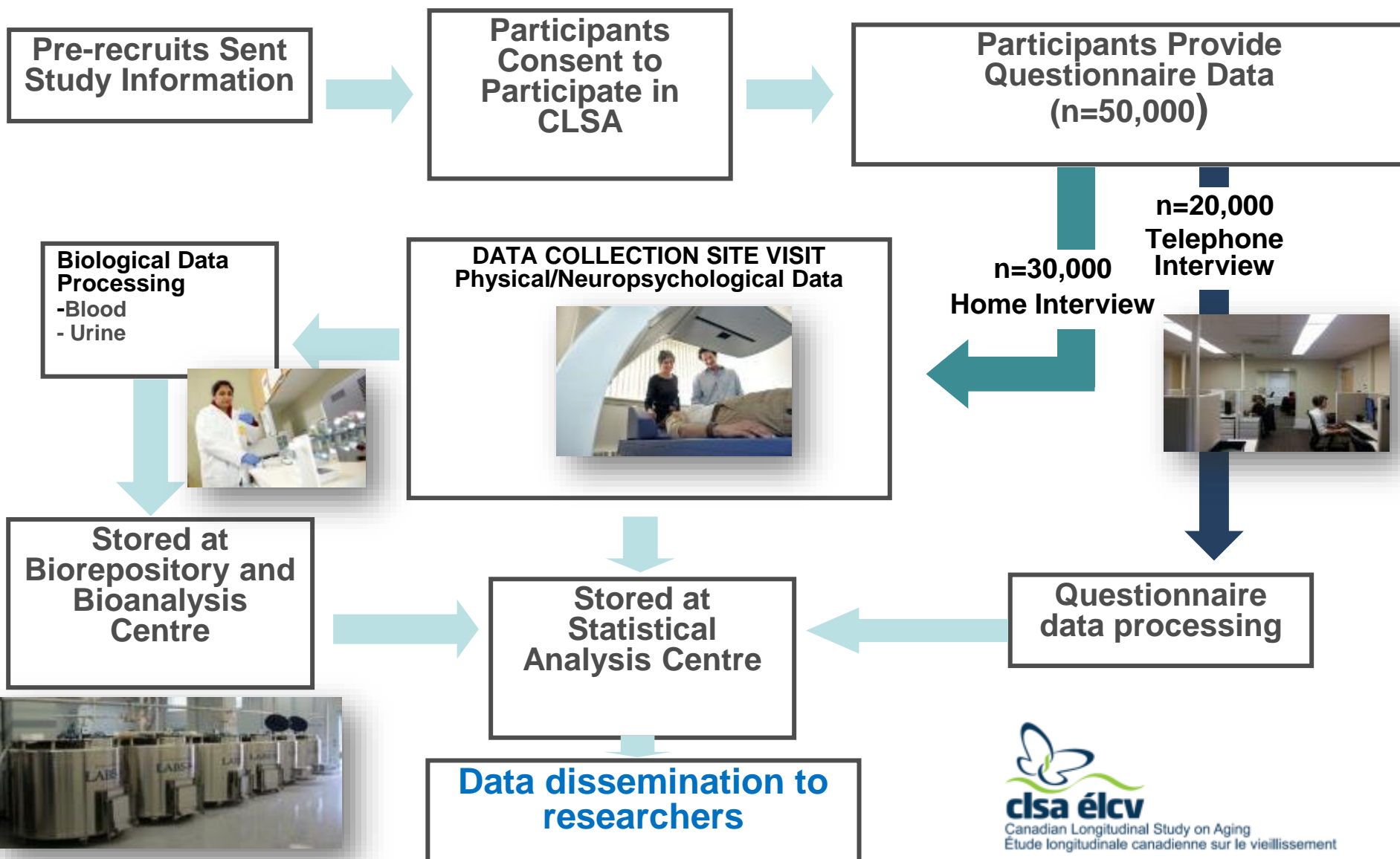
# Inclusion Criteria at Recruitment

- Residing in a Canadian province
- Not living on reserve or federal lands
- Not a full time member of the Canadian Armed Forces
- Able to complete interviews in English or French
- Community dwelling
- Cognitively competent

# CLSA Participants in every province



# Innovative Electronic Data Capture



# CLSA Questionnaire Modules at Baseline

## 51,338 participants

### Demographic/Lifestyle

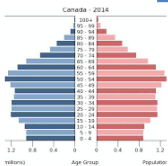
- Age
- Gender
- Education
- Marital status
- Sexual orientation
- Language
- Ethnicity
- Wealth/income
- Veteran Identifier
- Smoking, alcohol
- Nutritional risk
- Physical activity
- Health care utilization
- Medication use
- Supplement use

### Health

- General health
- Women's health
- Chronic conditions
- Disease symptoms
- Sleep
- Oral health
- Injuries, falls
- Mobility
- Pain, discomfort
- Functional status
- ADL, IADL
- Cognition
- Depression
- PTSD
- Life Satisfaction

### Social

- Social
  - networks
  - support
  - participation
  - inequality
- Online communication
- Care receiving
- Care giving
- Retirement status
- Labour force participation
- Retirement planning
- Transportation
- Mobility, Migration
- Built environments
- Home ownership



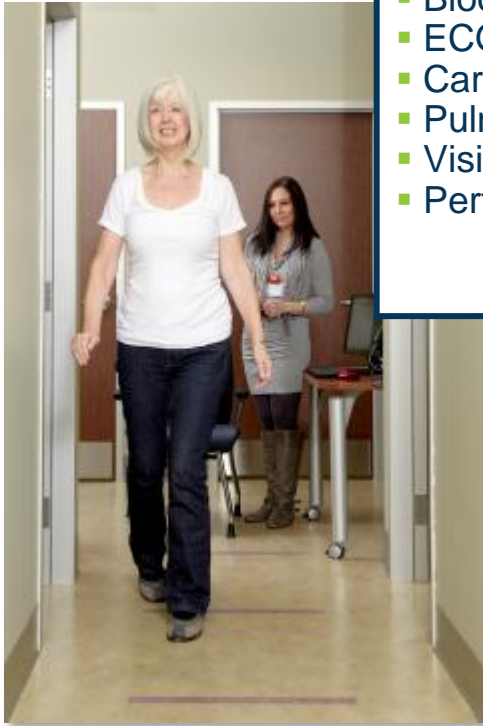


# CLSA Data Collection

## 30,000 visit a Data Collection Site

### Physical Assessments:

- Height, Weight, BMI
- Bone Density, Body Composition, Aortic Calcification
- Blood Pressure
- ECG
- Carotid Intimal-Medial Thickness
- Pulmonary Function
- Vision & Hearing
- Performance testing



### Biospecimen Collection:

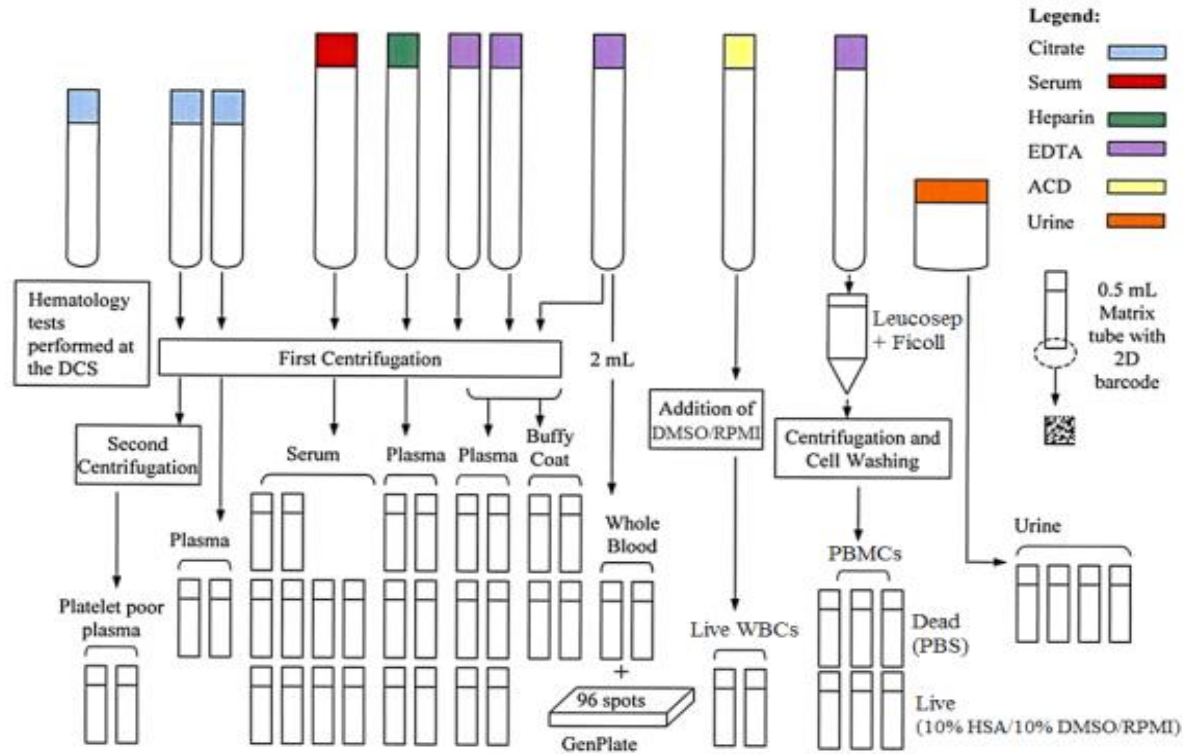
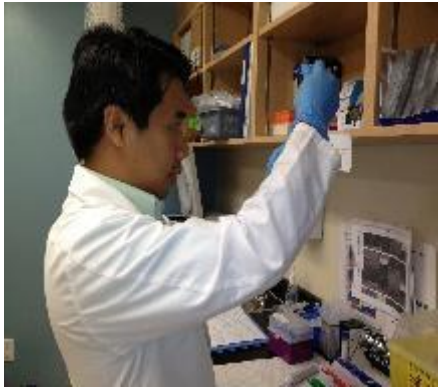
- Blood
- Urine



### Cognitive Assessments:

- Neuropsychological Battery
  - Memory
  - Executive function
  - Reaction time

# 3 Tablespoons of blood = 42 aliquots per participant



# Biorepository and Bioanalysis Centre (BBC), McMaster University



- 31 nitrogen freezers (-190°C)
- Storage for 5 million samples

# Core Biomarkers: Baseline & FUP1

	Category	N*	Biomarkers
Available from Baseline & Follow-up 1	<b>HEMATOLOGY</b> Data Collection Sites (DCS)	25,427	<ul style="list-style-type: none"> <li>Erythrocytes</li> <li>Granulocytes</li> <li>Hematocrit</li> <li>Hemoglobin</li> <li>Lymphocytes</li> <li>Platelets</li> <li>MCV</li> <li>MCH</li> <li>MCHC</li> <li>MPV</li> <li>RBC</li> <li>RDW</li> </ul>
	<b>CHEMISTRY</b> Calgary Laboratory Services (CLS) (Analysis repeated every 3 years)	27,012	<ul style="list-style-type: none"> <li>Albumin</li> <li>Alanine aminotransferase (ALT)</li> <li>C-reactive protein (CRP)</li> <li>Creatinine</li> <li>Cholesterol</li> <li>Ferritin</li> <li>Free T4</li> <li>Hemoglobin A1c (n = 26,961)</li> <li>HDL</li> <li>LDL</li> <li>Non-HDL</li> <li>Thyroid stimulating hormone (TSH)</li> <li>Triglycerides</li> <li>25-Hydroxyvitamin D</li> <li>eGFR</li> </ul>
Baseline only	<b>GENETICS</b> Genetic and Epigenetic Centre (GEC)	26,871	<ul style="list-style-type: none"> <li>Genotypes (Affymetrix Axiom array, 794k SNPs)</li> <li>Imputation (Haplotype Reference Consortium release 1.1, 39.2M SNPs)</li> </ul>
	<b>EPIGENETICS</b> Epigenetic Centre (EC)	1,488	<ul style="list-style-type: none"> <li>DNA methylation</li> <li>DNA extracted from PBMCs</li> <li>850K Infinium MethylationEPIC BeadChip (Illumina)</li> </ul>
	<b>METABOLOMICS</b> Metabolon	10,000	<ul style="list-style-type: none"> <li>LC-MS/MS systems</li> <li>~1,300 metabolites</li> </ul>

\*N represents Baseline only. Biomarkers from Follow-up 1 are forthcoming.



# Linkage with CANUE and Health Canada datasets

Social & Material  
Deprivation Indices



Can-ALE Data



Weather & Climate



Air Quality



Nighttime Light



Greenness



# CLSA as a Platform for Research: Data and Biospecimen Access



## Fundamental tenets:

- The rights, privacy and consent of *participants* must be protected and respected at all times
- The confidentiality and security of *data and biospecimens* must be safeguarded at all times
- Available to researchers and trainees at public institutions
- Must have approval from the CLSA Data Sample and Access Committee, and an accredited Research Ethics Board



# **Navigating the Tides (of Data) Research & Training Opportunities with the CLSA: Data Availability: Data Preview Portal**

**Istvan Molnar-Szakacs, PhD  
CLSA Data Access Officer  
McGill University**



# Navigating the Tides (of Data) Research & Training Opportunities with the CLSA: Data Access: Magnolia

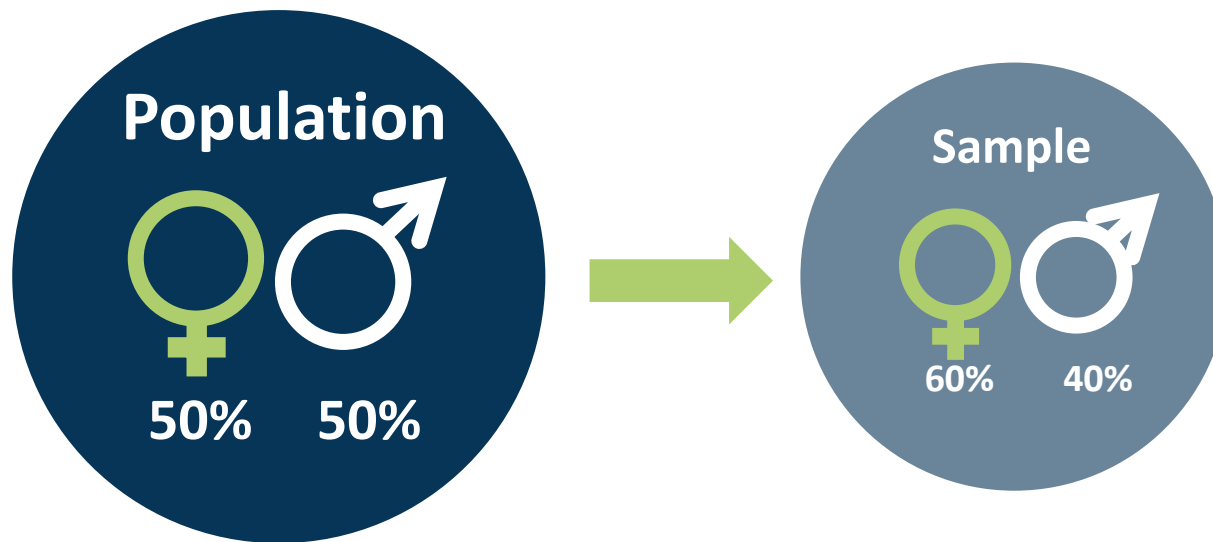
**Lauren Griffith**  
Dept. of Health Research Methods,  
Evidence and Impact, McMaster  
University

*on behalf of the CLSA Research Team*



# Why do we use sampling weights?

We want to generalize from the sample to the population, but the sample is almost never fully representative. Let's assume:

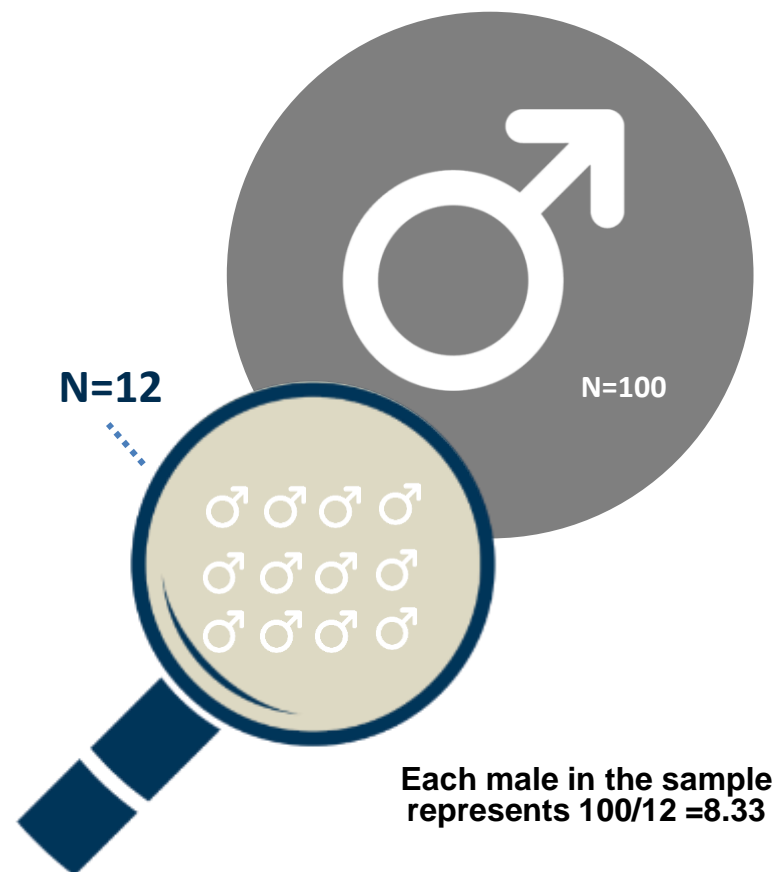
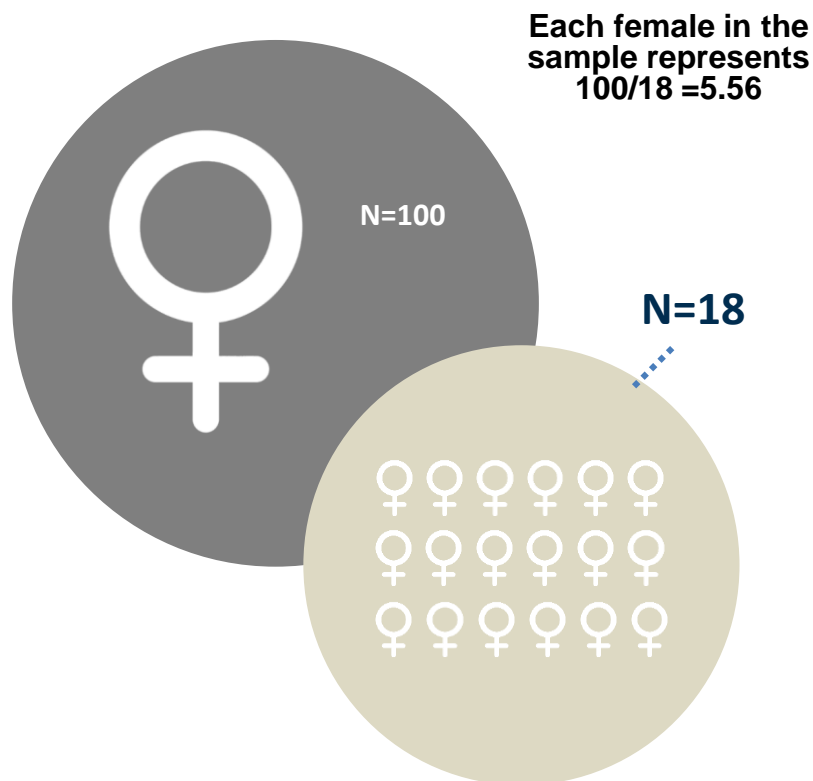


## Sample Weights

- Sample weights are used to make statistics computed from the data more representative of the population.
- It is a standard practice in surveys to use sampling weights.
- Each participant in the study is assigned a sample weight constructed based on the inclusion probability.
- Sample weights are always positive and non-zero.

# SAMPLE WEIGHTS

- Respondent in under-represented group gets higher weight; respondent in over-represented group gets lower weight.



# CLSA Sample

Sample was obtained via four sources:

- Canadian Community Health Survey-Healthy Aging (CCHS-HA): only for Tracking
- Provincial Health Registries (HR)
  - HR1-initial Health Registry mail-outs
  - HR2-Health Registry mail-outs targeting low-education (LowED) areas
- Telephone Sampling (TS)
  - Random Digit Dialing (RDD)-done by Leger
  - Random Telephone Sampling-conducted by CLSA CATI in targeted LowED areas.
- Quebec Longitudinal Study on Nutrition and Aging (NuAge): only for Comprehensive

# Strata

- **10 provinces**
  - 10 provinces in Tracking cohort
  - 7 provinces in Comprehensive cohort
- **Age groups**
  - 45-54
  - 55-64
  - 65-74
  - 75-85
- **Sex**
- **Geographic areas**
  - DCS
  - Non-DCS



**Tracking cohort:  
136 Strata**

**Comprehensive cohort:  
56 (DCS only) Strata**

In QC, ON, and BC, there was more than one DCS, so the DCS area consisted of non-contiguous areas.

In provinces with one or more DCSs there were 16 strata; in NB, PE, SK, there was No DCS and thus there were 8 strata.

## Strata

- Early analyses showed we under-representation of people with lower SES (education, income)
- This under-representation could potentially lead to low statistical power
- Thus, to increase heterogeneity in SES, we chose to over-sample people from dissemination areas with higher a proportion of people with lower levels of education (based on census data)
- This adjustment to the sampling added another stratification variable:
  - Low-Ed
  - Non Low-Ed

## Types of Weights: Inflation Weights

- The CLSA Tracking and Comprehensive Cohort inflation weights were constructed
  - to account for
    - sample misrepresentation resulting from unequal sampling probabilities,
    - frame coverage error,
    - non-response,
  - to improve the precision of estimates through the use of auxiliary information.
- First, basic design weights were computed proportional to the reciprocals of the individual inclusion probabilities; they were then re-calibrated to the sum of the targeted (eligible) Canadian population.

## Types of Weights: Inflation Weights

- Re-calibration requires the use of auxiliary information about the population and may take a number of different variables into account.
- CLSA used the CCHS-HA sample of 20,087. Sampling weights of the 20,087 CCHS-HA participants were grouped by the 136 strata mentioned above. For each sampling frame, the weights were calibrated within stratum (to stratum totals).
- After weights were calibrated for each sample separately, the weights were combined within strata using the general addition rule of probability.
- In some cases the values of weights were extremely large. In a small number of cases, the weights with highest values were trimmed, or set equal to second highest values within their provinces, and calibration was repeated.



## Types of Weights: Analytic Weights

- Analytic weights are proportional to the inflation weights but rescaled to sum to the sample size within each province, so that their mean value is 1 within each province.

# Available Sample Weights in CLSA Data

## Inflation Weights

WGHTS\_TRIMMED\_TRM  
WGHTS\_TRIMMED\_COM  
WGHTS\_TRIMMED\_CLSAM

## Analytic Weights

WGHTS\_ANALYTIC\_TRM  
WGHTS\_ANALYTIC\_COM  
WGHTS\_ANALYTIC\_CLSAM

# Primary Sampling Unit and Sampling Strata Variables

- The use of complex survey software is recommended for analyses, so that the sampling design can be accounted for.
- This will require specification of the appropriate weights variable and characteristics of the sampling design, namely strata and primary sampling units (PSU).

# Primary Sampling Unit and Sampling Strata Variables

- A stratified sampling design involves dividing the population into mutually exclusive strata, and sample is taken from every stratum.
  - Within strata, individuals may be selected directly (single stage sampling)
  - Alternatively, the sampling may be done in multiple stages within geographic strata
- The samples from the HR and TS fram are effectively single stage, and we take the CCHS-HA design to be single stage.

# Primary Sampling Unit and Sampling Strata Variables

- Primary Sampling Unit (PSU) is the first unit that is sampled in the design. In CLSA, PSU is individual, as represented by the unique 'entity\_ID'.
- For the strata variable to be specified in complex survey software, we recommend using the geographic strata variables:
  - WGHTS\_GEOSTRAT\_TRM (10 provinces crossed with DCS/non-DCS with LowED/not LowED) for Tracking Cohort
  - WGHTS\_GEOSTRAT\_COM (7 provinces within DCS crossed with LowED/not LowED) for Comprehensive Cohort
  - WGHTS\_GEOSTRAT\_CLSAM (10 provinces crossed with DCS/non-DCS with LowED/not LowED) Pooled Data

# When and How to Use the Weights

- Inflation weights: For the estimation of a descriptive parameter of the finite study population, the inflation weights should be used.
- Analytic weights:
  - For analyses that examine relationships between variables at the national or provincial level, analytic weights should be used.
  - For analyses of relationships in smaller sub-groups, the analytic weights are likely to be appropriate.
- The weighting variables (sex, age) should be included as covariates in the analyses.

# Example 1. Prevalence of Cancer in Canada, Comprehensive cohort – SAS code

SAS code: Estimates prevalence of cancer with 95% CI

```
proc surveyfreq data=CLSA_comprehensive;
  tables CCC_CANC_COM / cl;
  strata WGHTS_GEOSTRAT_COM;
  weight WGHTS_TRIMMED_COM;
run;
```

CCC_CANC_COM							
CCC_CANC_COM	Frequency	Weighted	Std Err of	Percent	Std Err of	95% Confidence Limits	
		Frequency	Wgt Freq		Percent	for Percent	
1: Yes	4637	466027	8093	12.4699	0.2195	12.0398	12.9001
2: No	25367	3271190	15365	87.5301	0.2195	87.0999	87.9602
Total	30004	3737217	13368	100			
Frequency Missing = 93							

# Example 1. Prevalence of Cancer in Canada, Comprehensive cohort – R code

R code: Estimates prevalence of cancer

```
## Load package
library(survey)
## Define the design: fpc=variable showing the number of participants in each strata
CLSA.dsgn <- svydesign(ids=~1, strata=~WGHTS_GEOSTRAT_COM,
weights=~WGHTS_TRIMMED_COM, data=CLSA_comprehensive, fpc=~strata_total,
nest=TRUE)

## Get the weighted frequencies
svytable(~CCC_CANC_COM,CLSA.dsgn)
```



## Example 2. Odds ratios of having fair/poor health in Canada, Comprehensive cohort – SAS code

SAS code: Adjusted model with 95% CI

```
proc surveylogistic data=CLSA_comprehensive;
class DIA_DIAB_COM (ref=first) CCC_CANC_COM (ref=first) AGE_GRP_COM (ref=first) SEX_ASK_COM (ref=first)/param=ref;
model GEN_HLTH_COM (event='1')=DIA_DIAB_COM CCC_CANC_COM DEP_CESD10_COM
AGE_GRP_COM SEX_ASK_COM/clodds ;
strata WGHTS_GEOSTRAT_COM; weight WGHTS_ANALYTIC_COM; run;
```

Odds Ratio Estimates and t Confidence Intervals				
Effect	Unit	Estimate	95% Confidence Limits	
DIA_DIAB_COM Yes vs No	1	0.381	0.301	0.483
CCC_CANC_COM Yes vs No	1	0.598	0.458	0.781
DEP_CESD10_COM	1	0.839	0.826	0.851
AGE_GRP_COM 55-64 vs 45-54	1	0.898	0.68	1.185
AGE_GRP_COM 65-74 vs 45-54	1	0.872	0.645	1.18
AGE_GRP_COM 75+ vs 45-54	1	1.004	0.708	1.424
SEX_ASK_COM M vs F	1	0.771	0.617	0.965

## Example 2. Odds ratios of having fair/poor health in Canada, Comprehensive cohort – R code

R code: Adjusted model with 95% CI

```
## Load package
```

```
library(survey)
```

```
## Define the design: fpc=variable showing the number of participants in each strata  
CLSA.dsgn <- svydesign(ids=~1, strata=~WGHTS_GEOSTRAT_COM,  
weights=~WGHTS_ANALYTIC_COM, data=CLSA_comprehensive, fpc=~strata_total,  
nest=TRUE)
```

```
## Get the logistic regression results
```

```
svyglm(GEN_HLTH_COM ~
```

```
DIA_DIAB_COM+CCC_CANC_COM+DEP_CESD10_COM+AGE_GRP_COM+SEX_ASK_C  
OM, design=CLSA.dsgn, family=quasibinomial())
```

## Example 3. Weighted mean value of age, Comprehensive cohort – SAS code

SAS code: mean value of age

```
proc surveymeans data=CLSA_comprehensive ;  
var AGE_NMBR_COM;  
weight WGHTS_TRIMMED_COM;  
strata WGHTS_GEOSTRAT_COM ;  
run;
```

Statistics						
Variable	Label	N	Mean	Std Error of Mean	95% CL for Mean	
AGE_NMBR_COM	AGE_NMBR_COM	30097	59.49043	0.069189	59.35481	59.62604

## Example 3. Weighted mean value of age, Comprehensive cohort – R code

R code: mean value of age

```
## Load package  
library(survey)
```

```
## Define the design: fpc=variable showing the number of participants in each strata  
CLSA.dsgn <- svydesign(ids=~1, strata=~WGHTS_GEOSTRAT_COM,  
weights=~WGHTS_TRIMMED_COM, data=CLSA_comprehensive, fpc=~strata_total,  
nest=TRUE)
```

```
## Get the means values of age  
svymean(~AGE_NMBR_COM, CLSA.dsgn )
```

## Example 3. Weighted mean value of age, Comprehensive cohort – SPSS syntax

SPSS syntax: mean value of age

## Prepare for Analyses (if this is the first time with Analyze/Complex Samples tool)

DATASET ACTIVATE CLSA\_Comprehensive.

\* Analysis Preparation Wizard.

CSPLAN ANALYSIS

/PLAN FILE='/LOCATION ON COMPUTER TO SAVE THE COMPLEX SAMPLE PLAN/ComplexSamplePlan.csaplan'

/PLANVARS **ANALYSISWEIGHT**=WGHTS\_TRIMMED\_COM

/SRSESTIMATOR TYPE=WOR /PRINT PLAN

/**DESIGN STRATA**=WGHTS\_GEOSTRAT\_COM

/ESTIMATOR TYPE=WR.

## Get the descriptive statistics

\* Complex Samples Descriptives.

CSDSCRIPTIVES

/PLAN FILE='/LOCATION ON COMPUTER TO WHERE THE COMPLEX SAMPLE PLAN IS  
SAVED/ComplexSamplePlan.csaplan'

/SUMMARY VARIABLES=AGE\_NMBR\_COM /MEAN /STATISTICS SE CIN(95)


/MISSING SCOPE=ANALYSIS CLASSMISSING=EXCLUDE.

## What's Next

- Examining other references (census) to calibrate weights to make them more accurate
- Creating longitudinal weights

# Acknowledgement

- Dr. Mary Thompson, Dr. Changbao Wu, Dr. Harry Shannon (Development of CLSA weights)
- Nazmul Sohel, Urun Erbas Oz, Hon Yiu (Henry) So (CLSA Statisticians)



# **Navigating the Tides (of Data) Research & Training Opportunities with the CLSA: Data Access: Magnolia**

**Istvan Molnar-Szakacs, PhD  
CLSA Data Access Officer  
McGill University**





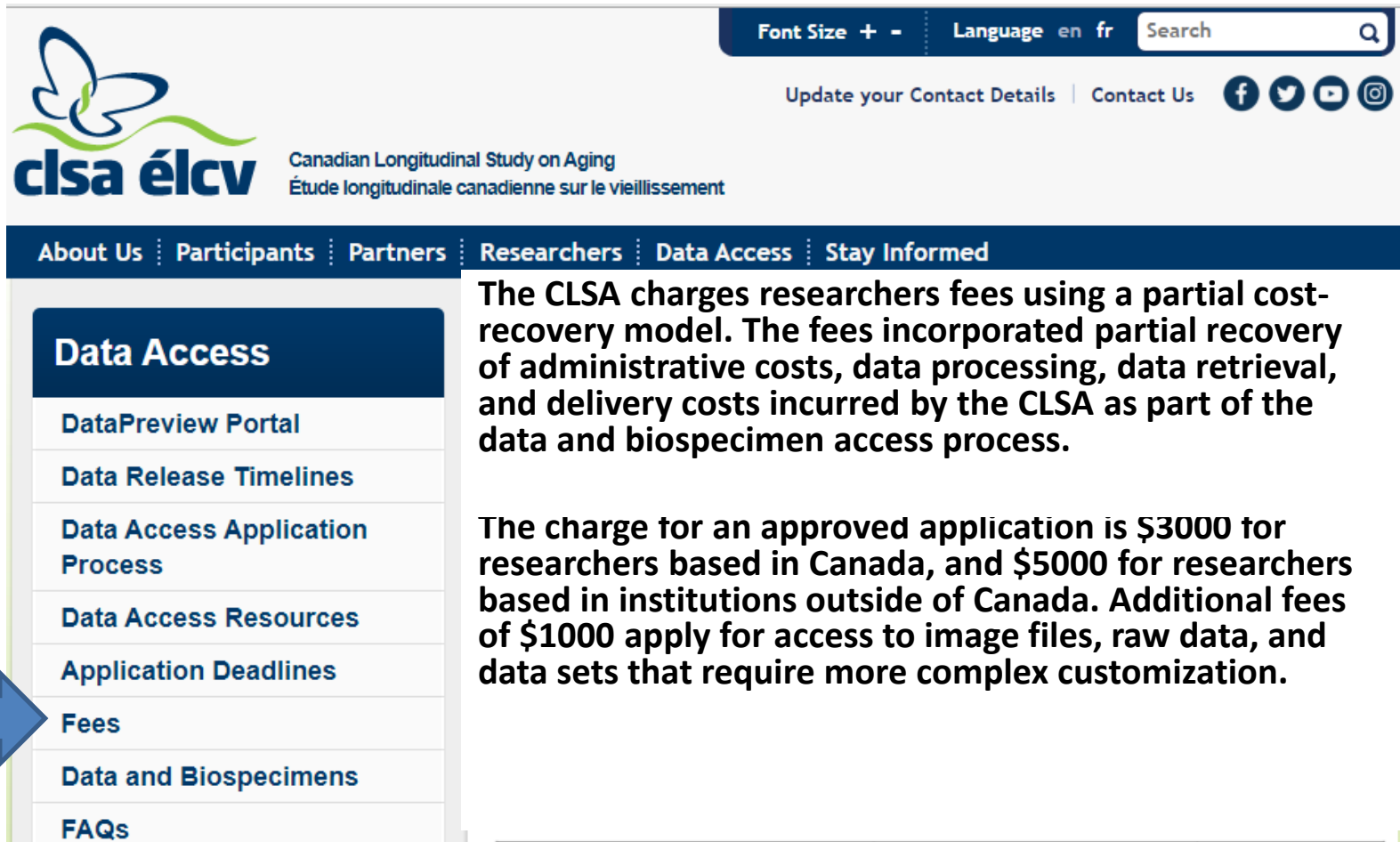
# **Navigating the Tides (of Data) Research & Training Opportunities with the CLSA: Data Access: Magnolia**

**Timothy Krahn  
CLSA Training Co-Ordinator  
Dalhousie Dept. of Community Health  
& Epidemiology**





# Map

1. Research Support: Data Access – Fee Waiver for Trainees
2. Approved Trainee Projects
3. Research Support – Catalyst and Other Grants to Support Research with CLSA Data (2016-2019)
4. Training Opportunity – Summer Program in Aging (2020)
5. Learning Opportunity – Stay Informed: CLSA Webinars
6. Learning Opportunity – Stay Informed: Further Resources for Training and Research Capacity Building
7. Networking Opportunity: Stay Connected: Social Media & the CLSA
8. Discussion

# Data Access | Fees



**Font Size** + - **Language** en fr

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**clsa élc** Canadian Longitudinal Study on Aging  
Étude longitudinale canadienne sur le vieillissement

About Us | Participants | Partners | Researchers | **Data Access** | Stay Informed

**Data Access**

- DataPreview Portal
- Data Release Timelines
- Data Access Application Process
- Data Access Resources
- Application Deadlines
- Fees**
- Data and Biospecimens
- FAQs

The CLSA charges researchers fees using a partial cost-recovery model. The fees incorporated partial recovery of administrative costs, data processing, data retrieval, and delivery costs incurred by the CLSA as part of the data and biospecimen access process.

The charge for an approved application is \$3000 for researchers based in Canada, and \$5000 for researchers based in institutions outside of Canada. Additional fees of \$1000 apply for access to image files, raw data, and data sets that require more complex customization.

This is our current fee schedule, which is under revision. Please check the CLSA website for updates. Any changes would also be communicated via our newsletter, *CLSA Update*.

- Graduate students (M.Sc. or Ph.D.)—those enrolled for their degree at Canadian universities and who wish to obtain the CLSA data for the sole purpose of their thesis—as well as postdoctoral fellows may request a fee waiver. There is a limit of 1 waiver per postdoctoral fellow.
- Canadian trainees working outside Canada but funded through a Canadian source are also eligible.
- CIHR Catalyst Grants for the use of CLSA Data are not eligible for Trainee Fee Waivers.

# Researchers | Approved Project Summaries

As of September 2019, of the projects approved for use of CLSA data, 78 of 228 (34.2%) were for trainees conducting research.

Here are some examples found under the “Researchers” tab, and “Approved Project Summaries” drop-down menu

The screenshot displays the CLSA website's navigation menu and a list of approved project summaries. A blue arrow points to the 'Researchers' tab in the top navigation bar. Another blue arrow points to the 'Approved Project Summaries' option in the dropdown menu. A third blue arrow points to the list of project summaries on the right side of the page.

**Navigation Menu:** About Us | Participants | Partners | **Researchers** | Data Access | Stay Informed

**Researchers Dropdown Menu:**

- Protocols
- Data Collection
- Physical Assessments
- Data Support Documentation
- Approved Project Summaries**
- Research Opportunities
- Data Access

**Approved Project Summaries**

*If you have any questions about an approved project, please contact the applicant directly.*


**2019**

- [Estimating the impact of low back pain and osteoarthritis on functional ability and quality of life in aging Canadians using structural equation modelling](#)  
Dr. Sarah Ahmed, McGill University
- [Clustering of obesity-related characteristics and associations with body mass index, waist circumference, and body fatness](#)  
Dr. Laura Anderson, McMaster University
- [The association between rurality, social capital, and nutritional risk in community-dwelling older adults in Canada: An analysis of baseline data from the Canadian Longitudinal Study on Aging](#)  
Dr. Yukiko Asada, Dalhousie University
- [Genetic Variation, Iron and Later Life Health Outcomes](#)  
Dr. Janice Atkins, University of Exeter
- [Genomic and Environmental Determinants of Age-Related Clonal Hematopoiesis](#)  
Dr. Philip Awadalla, Ontario Institute for Cancer Research
- [Self-reported and physical factors associated with community ambulation in older adults and people with osteoarthritis](#)  
Dr. Ruth Barclay, University of Manitoba
- [Quantifying the Associations of Oral Health and Cardiovascular Health Using Baseline Data of the CLSA](#)  
Dr. Carol Bassim, McMaster University

# Examples of Approved Trainee Projects



## CLSA Approved Project




### **Applicant**

Dr. Yukiko Asada, Dalhousie University

Trainee: Emily Rosta

### **E-mail Address**

yukiko.asada@dal.ca



### **Project Title**

The association between rurality, social capital, and nutritional risk in community-dwelling older adults in Canada: An analysis of baseline data from the Canadian Longitudinal Study on Aging

### **Project Summary**

Addressing malnutrition in the community setting is key to promoting aging in place and reducing potential burdens on the health care system. Identifying factors which are associated with high nutritional risk is key to developing effective nutrition interventions for community-dwelling older adults. This project will determine how the risk of malnutrition varies between rural and urban areas in Canada. It will also consider whether social capital is a feature of rurality that can help protect against nutritional risk. The proposed study aims to expand the discussion of malnutrition beyond the specialized field of nutrition and into broader discussions of health and aging.

### **Keywords**

Social capital, Nutritional risk, Rural, Urban, Community-dwelling



# Canadian Institutes of Health Research



Canada

  
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Funding ▾ Institutes ▾ College of Reviewers ▾ Initiatives Collaboration ▾ Discoveries for life ▾

[Home](#) → [Funding](#) → [Overview](#)

## Funding

### Overview

### ResearchNet

### Funding programs

Training award programs

Vanier Canada Graduate  
Scholarships

Banting Postdoctoral  
Fellowships

Project Grant Program

Foundation Grant Program

## Funding overview

As the Government of Canada's health research investment agency, the Canadian Institutes of Health Research (CIHR) supports excellence across all four pillars of health research: [biomedical](#); [clinical](#); [health systems services](#); and [population health](#).

As stated in the [CIHR Act](#), CIHR's mandate is to "excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system."

## Funding support for researchers

CIHR invests approximately \$1 billion each year to support health research. [Learn about how CIHR's grants and awards \(G&A\) expenditures were disbursed in 2017-18.](#)

## CIHR Institutes

CIHR is comprised of [13 Institutes](#) that set research priorities and support a broad spectrum of research in their respective areas.

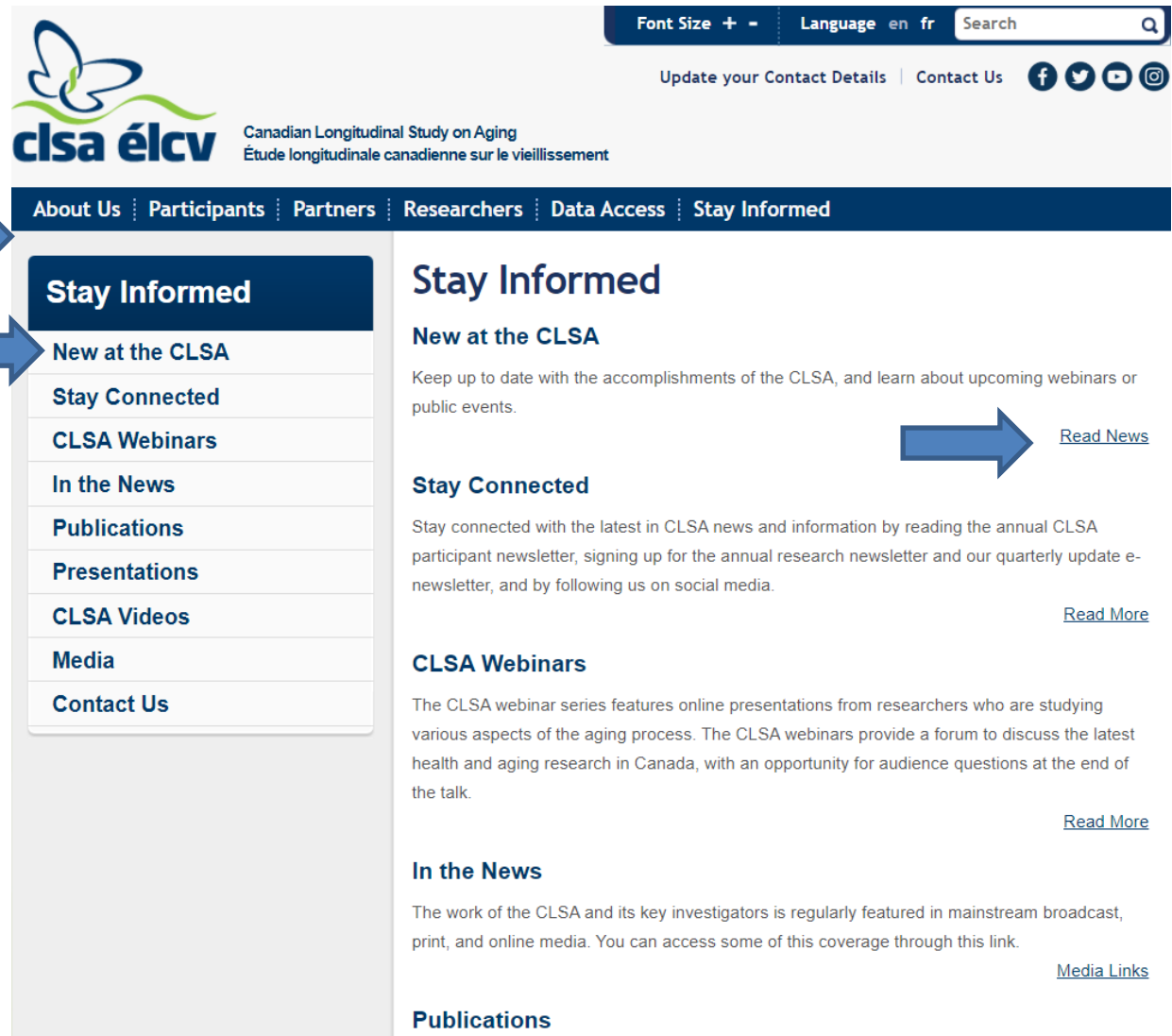
## Resources for researchers

- [Funding policies](#)
- [Official languages](#)
- [Forms and checklists](#)
- [Systems service standards](#)
- [Common CV](#)
- [ResearchNet](#)

Grants are another form in which primarily the federal government, but also some partnering provincial governments, have supported researchers whose projects use CLSA data. The Canadian Institutes of Health Research (CIHR) funds an extremely large proportion of Canada's health research overall. The aim of the CIHR *Catalyst Grant program* is to provide seed money to support research activities which represent a step towards the pursuit of more comprehensive applications to funding opportunities (e.g., Operating Grants).

# Stay Informed | Training Opportunities

Let's look at how the Catalyst program has supported research with CLSA data



The screenshot shows the CLSA website's 'Stay Informed' page. A large blue arrow on the left points to the 'Stay Informed' menu item in the left sidebar. A smaller blue arrow points from this menu item to the 'New at the CLSA' section on the main content area. Another blue arrow points from the 'New at the CLSA' section to the 'Read News' link.

**CLSA élcw** Canadian Longitudinal Study on Aging  
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## Stay Informed

### New at the CLSA

Keep up to date with the accomplishments of the CLSA, and learn about upcoming webinars or public events.

[Read News](#)

### Stay Connected

Stay connected with the latest in CLSA news and information by reading the annual CLSA participant newsletter, signing up for the annual research newsletter and our quarterly update e-newsletter, and by following us on social media.

[Read More](#)

### CLSA Webinars

The CLSA webinar series features online presentations from researchers who are studying various aspects of the aging process. The CLSA webinars provide a forum to discuss the latest health and aging research in Canada, with an opportunity for audience questions at the end of the talk.

[Read More](#)

### In the News

The work of the CLSA and its key investigators is regularly featured in mainstream broadcast, print, and online media. You can access some of this coverage through this link.

[Media Links](#)

### Publications



# Stay Informed | Past Training Opportunities Announcements

The screenshot shows the CLSA website interface. At the top, there is a header with the CLSA logo, the text "Canadian Longitudinal Study on Aging / Étude longitudinale canadienne sur le vieillissement", and navigation links for "Font Size", "Language", and "Search". Below the header is a dark blue navigation bar with links: "About Us", "Participants", "Partners", "Researchers", "Data Access", and "Stay Informed".

On the left side, a vertical menu is displayed under the "Stay Informed" heading. Two blue arrows point to this menu. The menu items are: "New at the CLSA", "Stay Connected", "CLSA Webinars", "In the News", "Publications", "Presentations", "CLSA Videos", "Media", and "Contact Us". A large blue arrow points from the "News of the 2016 granting competition" text to the "New at the CLSA" item in the menu.

The main content area is titled "New at the CLSA". It features three news items, each with a date in a green box and a title in bold:

- 2017 Sep 13<sup>th</sup>**: **CLSA Webinar Series 2017-2018**. The Canadian Longitudinal Study on Aging (CLSA)'s webinar series covering a broad range of topics related to the study of health and aging will resume this fall with a focus on CLSA researchers' findings. [Read More](#)
- 2017 Jun 20<sup>th</sup>**: **Update: Technical issues now resolved**. **Update: All technical issues have been resolved.** The Canadian Longitudinal Study on Aging (CLSA) is currently experiencing technical issues affecting our toll-free helpline and [info@clsa-elcv.ca](mailto:info@clsa-elcv.ca). Please note there may be a delay in responding to your message. We apologize for any inconvenience and thank you for your patience. [Read More](#)
- 2017 May 29<sup>th</sup>**: **Federal Government invests in research on healthy aging**. The Honourable Jane Philpott, Minister of Health, today announced that the Government of Canada is providing a total of \$1.7 million to support 25 projects to be carried out by researchers across the country to use and analyze baseline data from the Canadian Longitudinal Study on Aging (CLSA) to answer important health questions. [Read More](#)

## Training Opportunities: CIHR Catalyst Grants

**42 Projects funded to date**

2016 Competition: Government of Canada provided support in the amount of \$1.7 million [to support 25 projects](#) to be carried out by researchers across the country to use and analyze baseline data from the CLSA.

2018 Competition: Catalyst Grants to support research with CLSA data  
Government of Canada provided support in the amount of \$1.2 million for [17 projects led by researchers across the country](#) that analyze baseline data from the CLSA to answer important health questions.

2019 Competition: CIHR has committed \$715,000 in funding opportunities to support the analysis of Baseline and Follow-up 1 data from the CLSA (to be announced in spring 2020)

## Training Opportunities

### 2019 Grants to support research with cohort data

July 29, 2019: CIHR announced up to \$1,975,000 in funding opportunities to support research that uses existing cohort data, administrative datasets and data platforms that link to or allow access to datasets from multiple sources, including the CLSA.

As such, the [CIHR Data Analysis Using Existing Databases and Cohorts funding opportunity](#) is providing a one-year operating grant for successful applicants within three streams of research:

- [Cancer prevention and control](#) (10 grants up to \$100,000 each)
- [Healthy cities intervention research](#) (7 grants up to \$75,000 each)
- [Reproductive, maternal, child and youth health](#) (6 grants up to \$75,000)

Researchers applied through [ResearchNet](#). Application deadline was Oct 10, 2019, with funding expected to begin March 2020.

# Summer Program in Aging: Interactive Training Opportunity

CIHR in partnership with Dr. Parminder Raina,

CLSA Lead PI: Summer Program in Aging

- 5-day program
- Hockley Valley resort in Mono, ON (1hr North of TO)
- 7-12 June 2020
- focussed on longitudinal studies in aging (generally)
- up to 40 spots
- apply to CIHR through Research.net
- application launch: January 2020
  - travel support grants
  - hospitality supports provided

The CIHR Institute of Aging has partnered with the McMaster Institute for Research on Aging (MIRA) to host an innovative five-day training event:

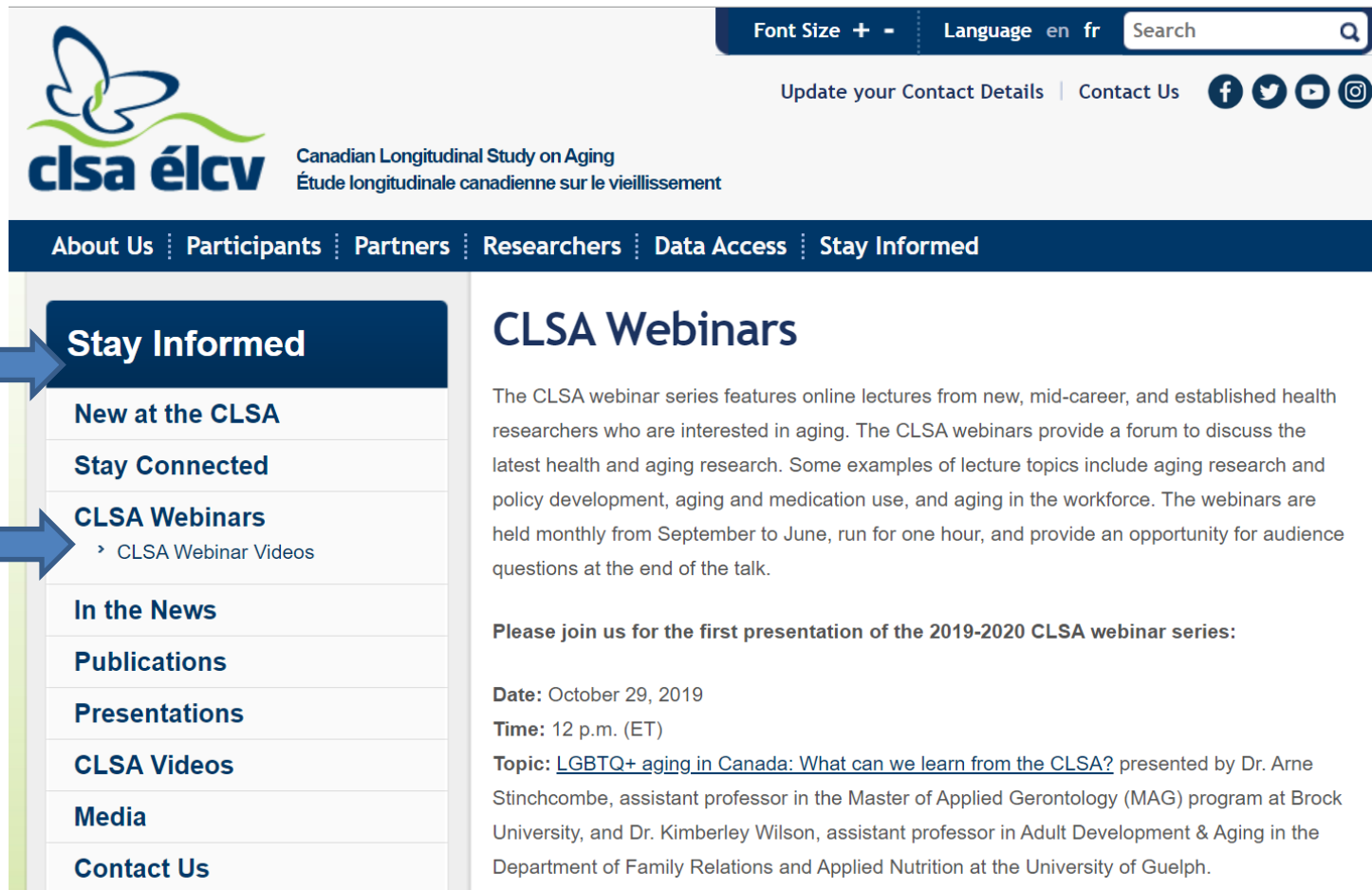


A unique, interactive training program, SPA will run from June 7-12, 2020 at the Hockley Valley Resort, approximately one hour north of Toronto, Ontario.

*“...provid[ing] graduate students and post-doctoral fellows interested in longitudinal studies in aging an advanced training program that crosses disciplines, institutions and geographical boundaries. ...Trainees who are conducting, or who have an interest in learning about research in the area of longitudinal studies on aging are encouraged to apply to this program.”*





# Learning Opportunity for Trainees

The CLSA webinar series features online lectures from new, mid-career, and established health researchers who are interested in aging.



The screenshot shows the CLSA website interface. At the top, there is a header with the CLSA logo (a stylized butterfly) and the text 'clsa élcw Canadian Longitudinal Study on Aging Étude longitudinale canadienne sur le vieillissement'. To the right of the logo, there are links for 'Font Size + -', 'Language en fr', and a search bar. Below the header, there is a navigation bar with links: 'About Us', 'Participants', 'Partners', 'Researchers', 'Data Access', and 'Stay Informed'. The 'Stay Informed' sidebar is highlighted with a blue arrow. It contains links: 'New at the CLSA', 'Stay Connected', 'CLSA Webinars' (with a sub-link 'CLSA Webinar Videos'), 'In the News', 'Publications', 'Presentations', 'CLSA Videos', 'Media', and 'Contact Us'. The main content area is titled 'CLSA Webinars' and contains a paragraph about the webinar series, followed by a section titled 'Please join us for the first presentation of the 2019-2020 CLSA webinar series:'. This section lists the date (October 29, 2019), time (12 p.m. (ET)), and topic ('LGBTQ+ aging in Canada: What can we learn from the CLSA?') presented by Dr. Arne Stinchcombe and Dr. Kimberley Wilson.

**Font Size + -** **Language en fr**

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  - [CLSA Webinar Videos](#)
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## CLSA Webinars

The CLSA webinar series features online lectures from new, mid-career, and established health researchers who are interested in aging. The CLSA webinars provide a forum to discuss the latest health and aging research. Some examples of lecture topics include aging research and policy development, aging and medication use, and aging in the workforce. The webinars are held monthly from September to June, run for one hour, and provide an opportunity for audience questions at the end of the talk.

**Please join us for the first presentation of the 2019-2020 CLSA webinar series:**

**Date:** October 29, 2019  
**Time:** 12 p.m. (ET)  
**Topic:** [LGBTQ+ aging in Canada: What can we learn from the CLSA?](#) presented by Dr. Arne Stinchcombe, assistant professor in the Master of Applied Gerontology (MAG) program at Brock University, and Dr. Kimberley Wilson, assistant professor in Adult Development & Aging in the Department of Family Relations and Applied Nutrition at the University of Guelph.

# Stay Informed | CLSA Webinar Videos

## – Sign up



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## CLSA Webinar Videos



[Seeing, hearing, and thinking: The cross-sectional relationship between sensory status and cognitive function in CLSA participants](#)

Date: September 12, 2019

Speaker: Dr. Natalie Phillips & Dr. Paul Mick

[Presentation slides](#)



[CLSA dietary data: Description and example of use in a study on dairy consumption and cognitive performances](#)

Date: June 12, 2019

Speaker: Dr. Nancy Presse & Anne-Julie Tessier

[Presentation Slides - French](#)

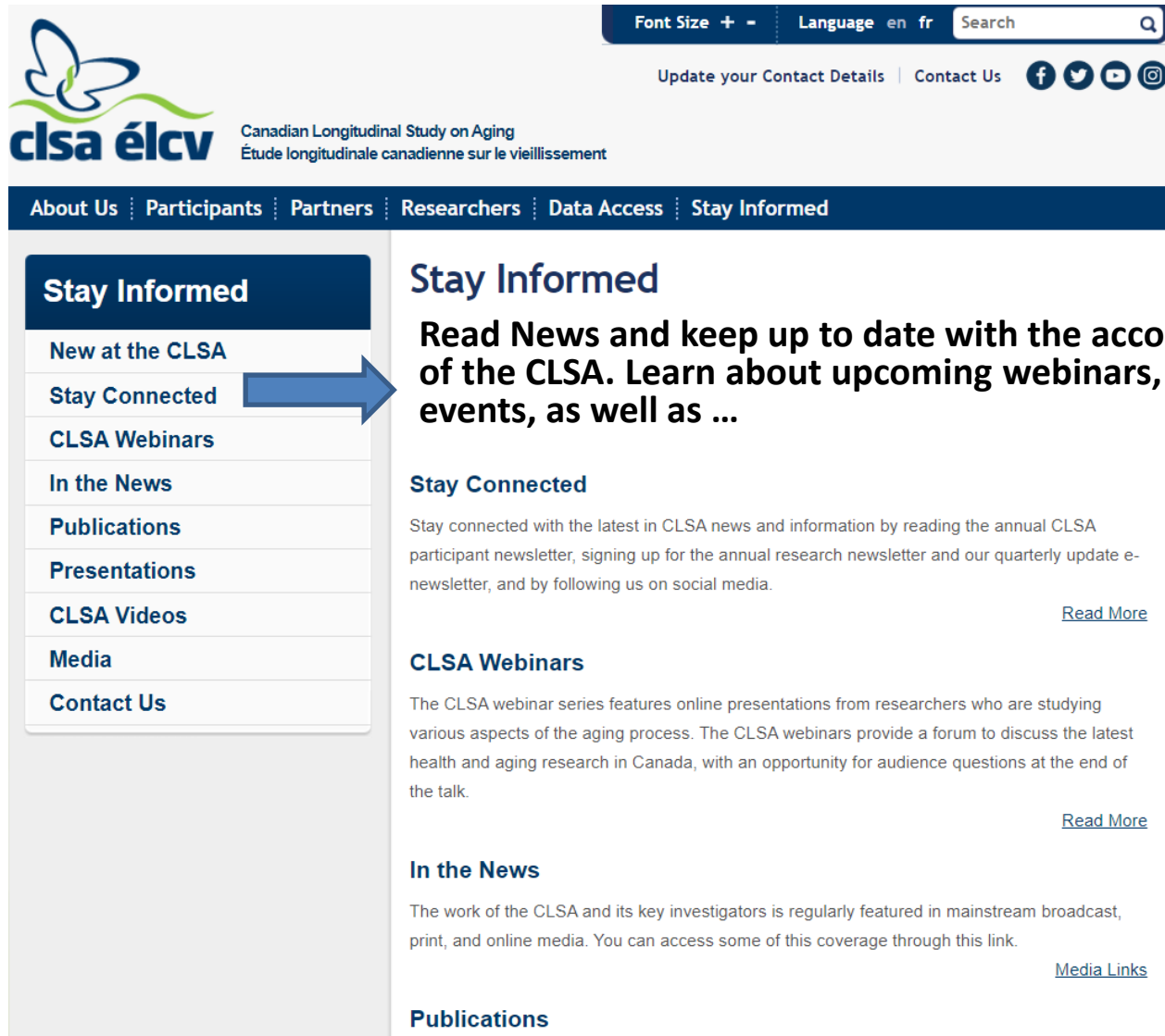


Canadian Longitudinal Study on Aging  
Étude longitudinale canadienne sur le vieillissement

All webinars  
are recorded  
& posted for  
viewing.



# Stay Informed | New at the CLSA



The screenshot shows the CLSA website header and navigation menu. The header includes the CLSA logo, the text 'Canadian Longitudinal Study on Aging / Étude longitudinale canadienne sur le vieillissement', and utility links for 'Font Size', 'Language', 'Search', 'Update your Contact Details', and 'Contact Us'. The main navigation bar contains links for 'About Us', 'Participants', 'Partners', 'Researchers', 'Data Access', and 'Stay Informed'. A blue arrow points to the 'Stay Informed' dropdown menu, which lists 'New at the CLSA', 'Stay Connected', 'CLSA Webinars', 'In the News', 'Publications', 'Presentations', 'CLSA Videos', 'Media', and 'Contact Us'. Another blue arrow points from 'Stay Connected' in the dropdown to its corresponding content section on the right.

**Stay Informed**

**New at the CLSA**

**Stay Connected**

**CLSA Webinars**

**In the News**

**Publications**

**Presentations**

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## Stay Informed

**Read News and keep up to date with the accomplishment of the CLSA. Learn about upcoming webinars, public events, as well as ...**

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[Read More](#)

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[Media Links](#)

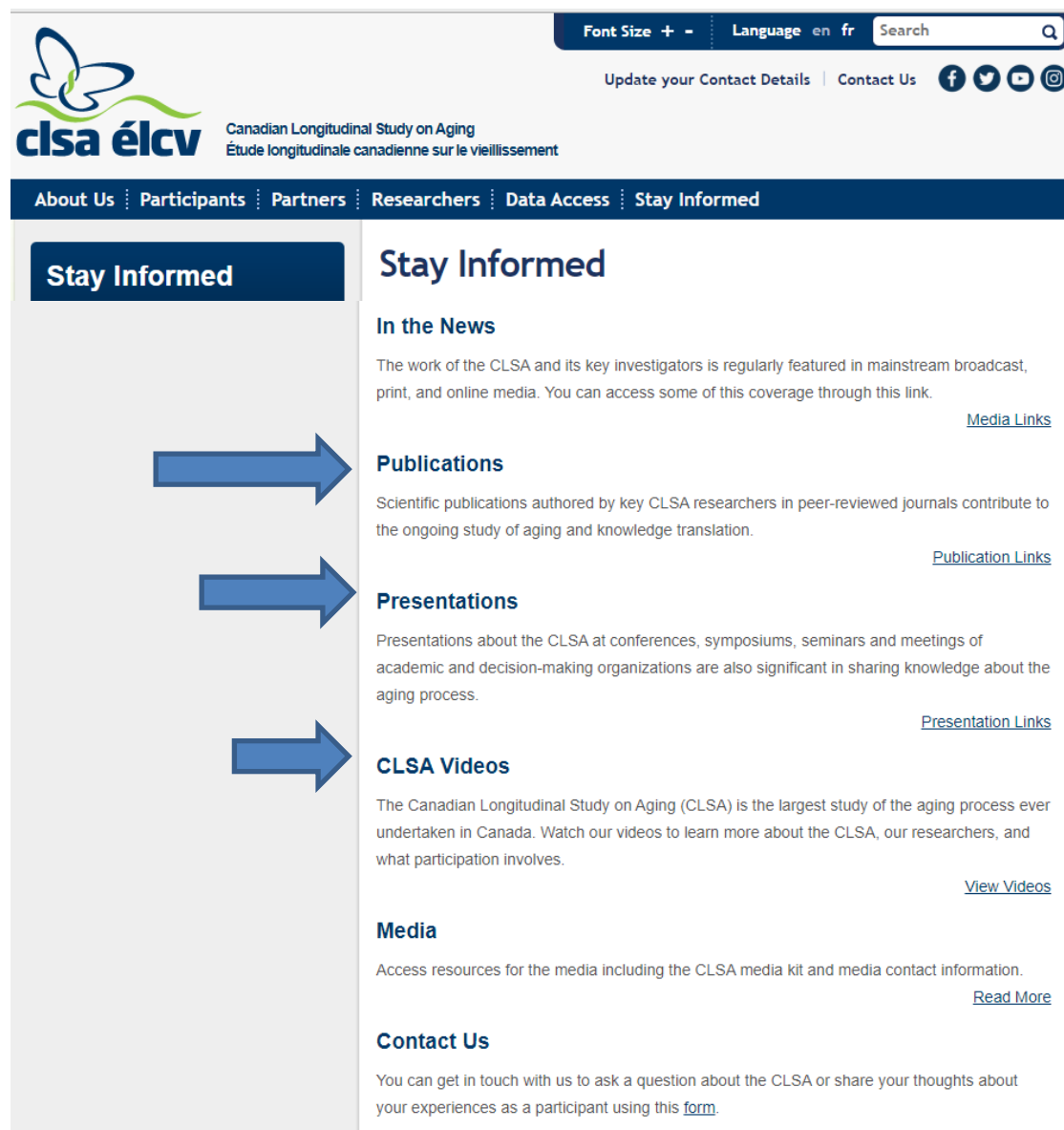
### Publications

# Stay Informed |

## Further resources for training and research

Learn more about the CLSA and the research it's making possible by consulting:

- **Publications**
- **Presentations**
- **Videos**



The screenshot shows the CLSA website's 'Stay Informed' page. The header includes the CLSA logo, language options (en/fr), and a search bar. The navigation menu lists: About Us, Participants, Partners, Researchers, Data Access, and Stay Informed. The 'Stay Informed' sidebar on the left has a button and three blue arrows pointing to the 'Publications', 'Presentations', and 'CLSA Videos' sections. The main content area provides details for each section, including descriptions and links to further resources.

**Stay Informed**

**In the News**  
The work of the CLSA and its key investigators is regularly featured in mainstream broadcast, print, and online media. You can access some of this coverage through this link.  
[Media Links](#)

**Publications**  
Scientific publications authored by key CLSA researchers in peer-reviewed journals contribute to the ongoing study of aging and knowledge translation.  
[Publication Links](#)

**Presentations**  
Presentations about the CLSA at conferences, symposiums, seminars and meetings of academic and decision-making organizations are also significant in sharing knowledge about the aging process.  
[Presentation Links](#)

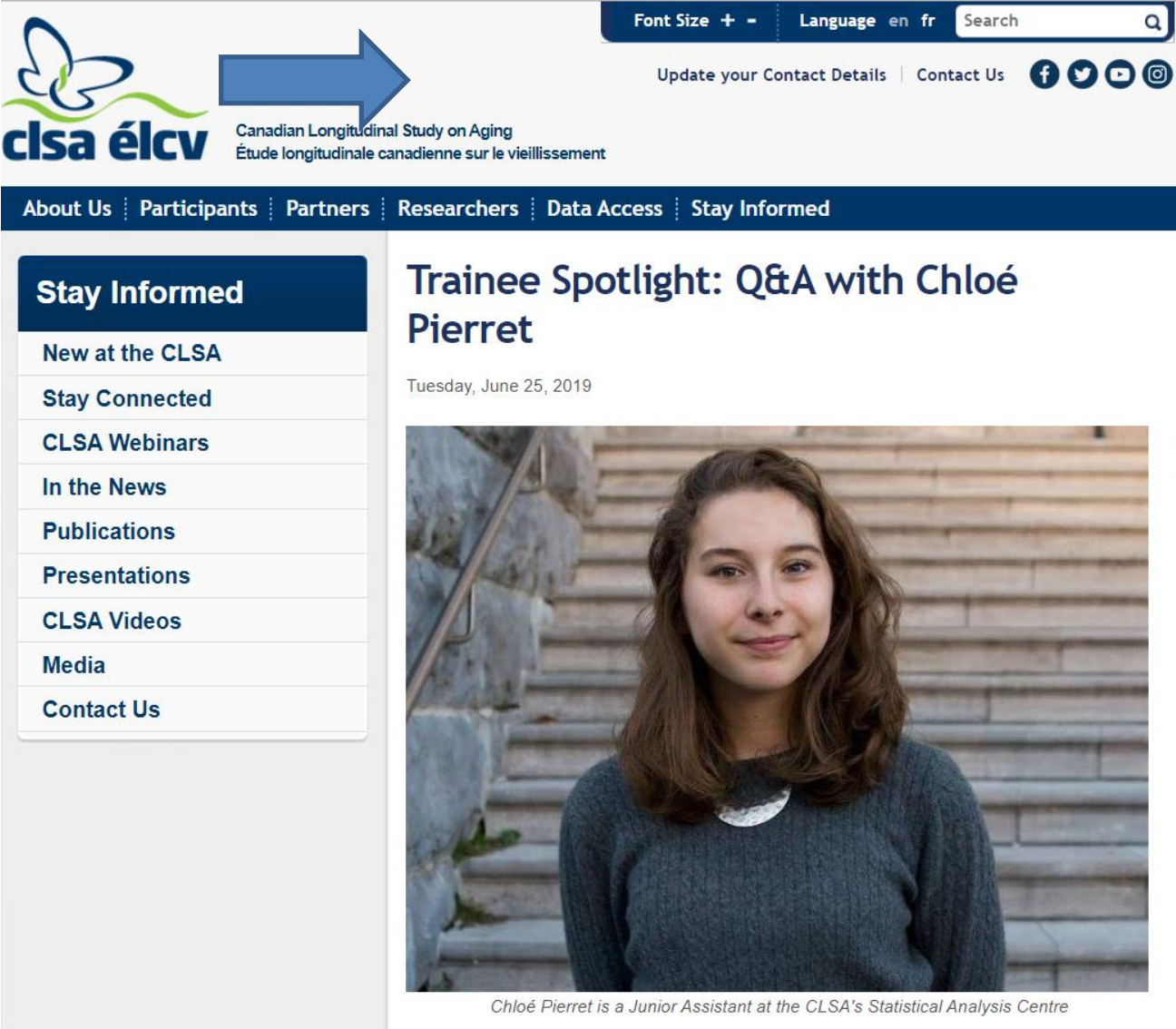
**CLSA Videos**  
The Canadian Longitudinal Study on Aging (CLSA) is the largest study of the aging process ever undertaken in Canada. Watch our videos to learn more about the CLSA, our researchers, and what participation involves.  
[View Videos](#)

**Media**  
Access resources for the media including the CLSA media kit and media contact information.  
[Read More](#)

**Contact Us**  
You can get in touch with us to ask a question about the CLSA or share your thoughts about your experiences as a participant using this [form](#).







# Stay Informed | Trainee Spotlight story



The screenshot displays the CLSA (Canadian Longitudinal Study on Aging) website. At the top, the CLSA logo is accompanied by a large blue arrow pointing right. The header includes a search bar, language options (en/fr), and social media links. A dark blue navigation bar contains links for 'About Us', 'Participants', 'Partners', 'Researchers', 'Data Access', and 'Stay Informed'. On the left, a 'Stay Informed' sidebar lists various resources, with two blue arrows pointing to it. The main content area features an article titled 'Trainee Spotlight: Q&A with Chloé Pierret', dated Tuesday, June 25, 2019. Below the title is a portrait of Chloé Pierret, a young woman with long brown hair, wearing a grey sweater. At the bottom, a caption identifies her as a Junior Assistant at the CLSA's Statistical Analysis Centre, followed by the website's name in French.

**Font Size** + - **Language** en fr

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[About Us](#) | [Participants](#) | [Partners](#) | [Researchers](#) | [Data Access](#) | [Stay Informed](#)

**Stay Informed**

- [New at the CLSA](#)
- [Stay Connected](#)
- [CLSA Webinars](#)
- [In the News](#)
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- [Contact Us](#)

## Trainee Spotlight: Q&A with Chloé Pierret

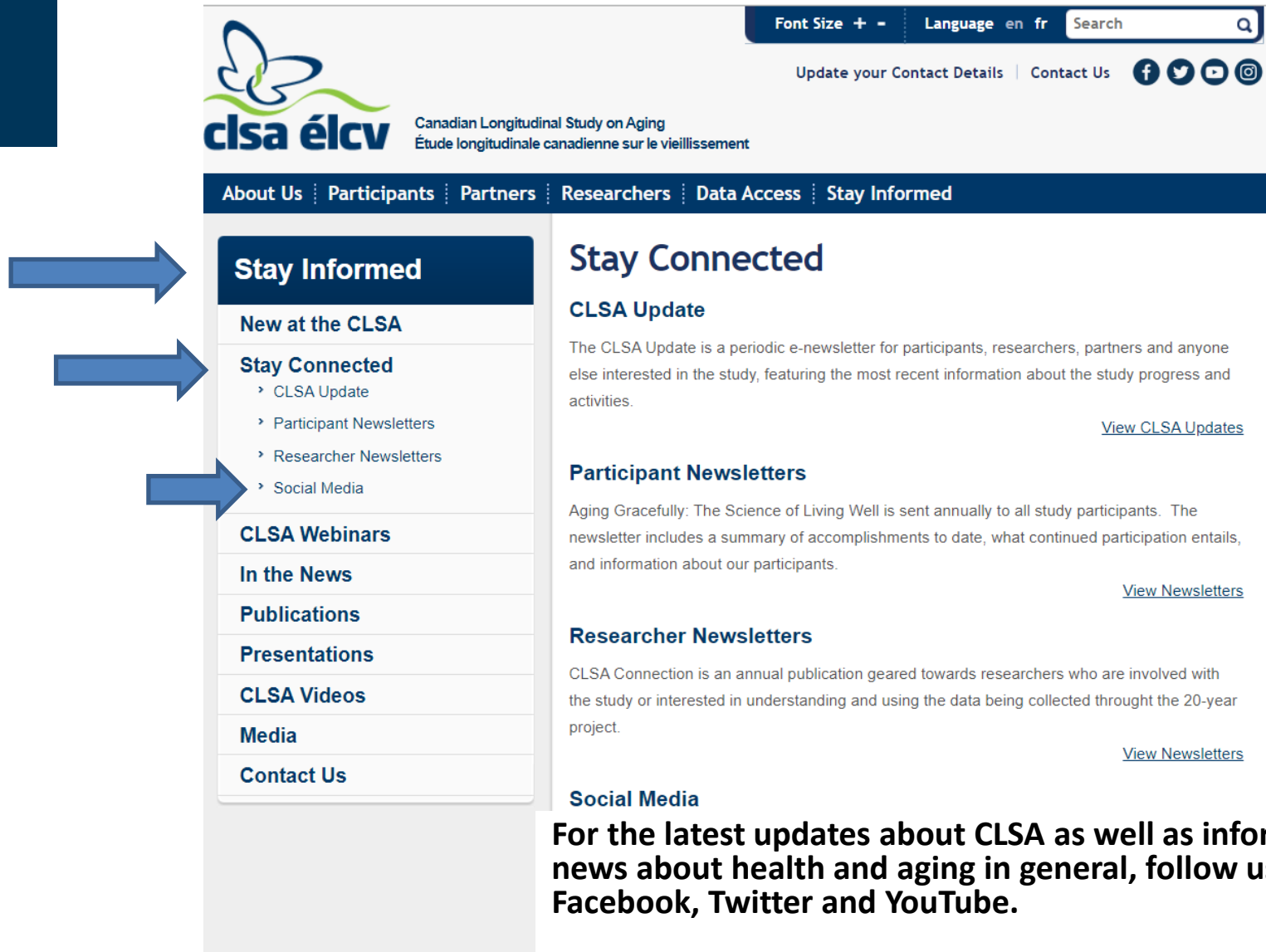
Tuesday, June 25, 2019



*Chloé Pierret is a Junior Assistant at the CLSA's Statistical Analysis Centre*

Étude longitudinale canadienne sur le vieillissement

# Stay Connected | Social Media



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**Stay Informed**

- New at the CLSA
- Stay Connected**
  - CLSA Update
  - Participant Newsletters
  - Researcher Newsletters
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## Stay Connected

### CLSA Update

The CLSA Update is a periodic e-newsletter for participants, researchers, partners and anyone else interested in the study, featuring the most recent information about the study progress and activities.

[View CLSA Updates](#)

### Participant Newsletters

Aging Gracefully: The Science of Living Well is sent annually to all study participants. The newsletter includes a summary of accomplishments to date, what continued participation entails, and information about our participants.

[View Newsletters](#)

### Researcher Newsletters

CLSA Connection is an annual publication geared towards researchers who are involved with the study or interested in understanding and using the data being collected throughout the 20-year project.

[View Newsletters](#)

### Social Media


**For the latest updates about CLSA as well as information and news about health and aging in general, follow us on Facebook, Twitter and YouTube.**

7.1



# Canadian Longitudinal Study on Aging

## Etude Longitudinale Canadienne Sur Le Vieillessement



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*Transforming Everyday Life  
into Extraordinary Ideas*

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en idées extraordinaires*

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Canadian Longitudinal Study on Aging/l'Étude longitudinale canadienne sur le vieillissement. Long-term, national research platform following 50,000 participants

📍 Canada 🔗 [clsa-elcv.ca](http://clsa-elcv.ca) 📅 Joined January 2011

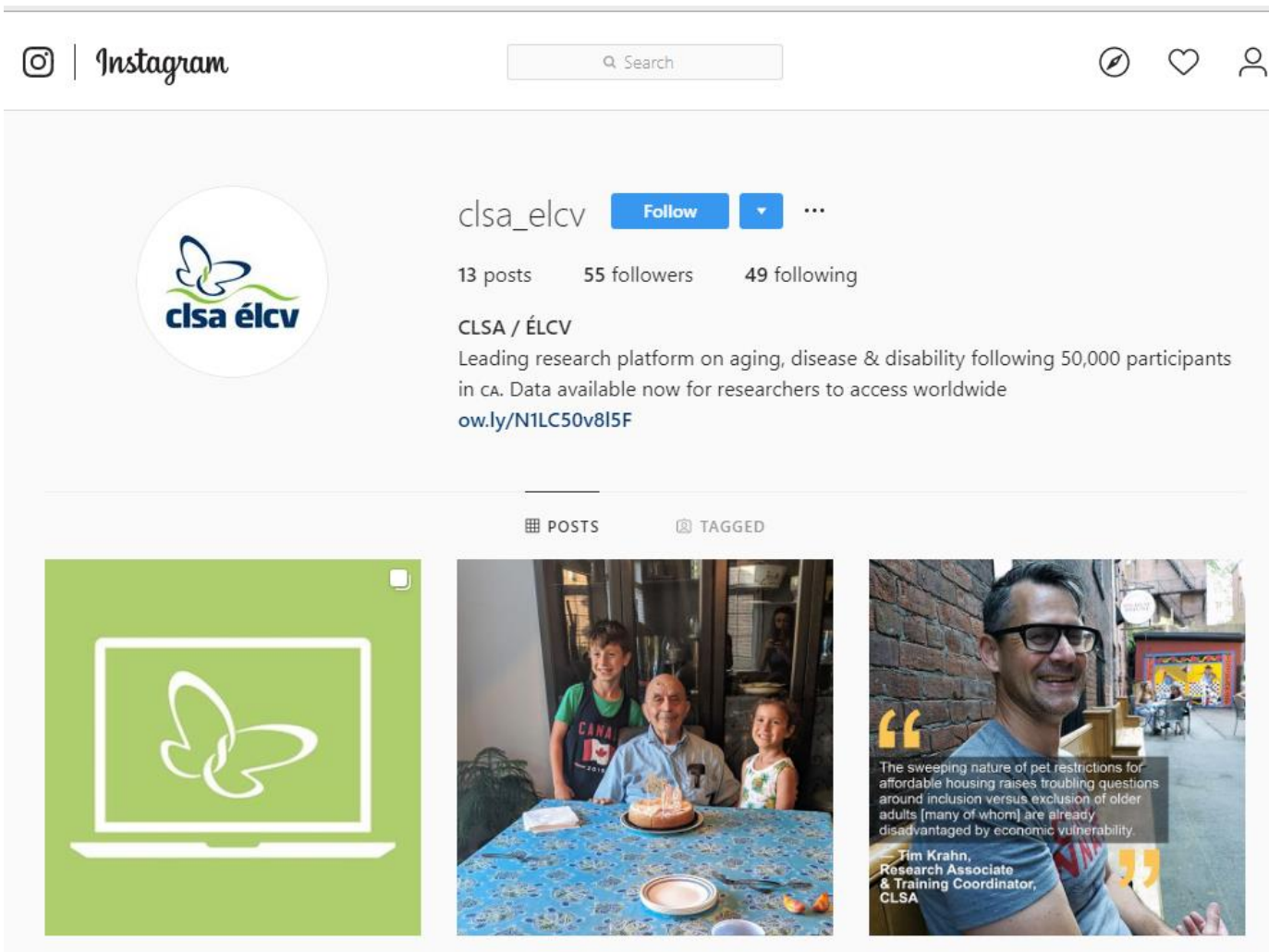
**1,899** Following **2,421** Followers



Canadian Longitudinal Study on Aging  
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# [instagram.com/clsa\\_elcv](https://www.instagram.com/clsa_elcv)





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

**INNOVATION.CA**  
FONDATION CANADIENNE POUR L'INNOVATION | CANADA FOUNDATION FOR INNOVATION

**Contact:**

**Data inquiries: [access@clsa-elcv.ca](mailto:access@clsa-elcv.ca)**

**General inquiries: [info@clsa-elcv.ca](mailto:info@clsa-elcv.ca)**

**CLSA is funded by the Government of Canada through CIHR and CFI, and provincial governments and universities**

**[www.clsa-elcv.ca](http://www.clsa-elcv.ca)**



**clsa élcV**  
Canadian Longitudinal Study on Aging  
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What would you like to see for  
training opportunities in the  
CLSA?



# **CLSA Research Team**

## **Operations Committee and Scientific Leads**





# 120M+ investment 2009-2020 from CLSA Funders and Partners



Veterans Affairs  
Canada



Anciens Combattants  
Canada

Health PEI





## *Transforming Everyday Life into Extraordinary Ideas*



susan.kirkland@dal.ca

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