



# **Canadian Longitudinal Study on Aging as a Platform for Studying Transitions and Trajectories of Aging and Health**

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# The Canadian Longitudinal Study on Aging (CLSA)

- ▶ A key strategic initiative of CIHR
  - ▶ The Canadian Longitudinal Study on Aging
- ▶ More than 160 researchers - 26 institutions
- ▶ Multidisciplinary - biology, genetics, medicine, psychology, sociology, demography, economics, epidemiology, nursing, nutrition, health services, biostatistics, population health

# **Our Aim**

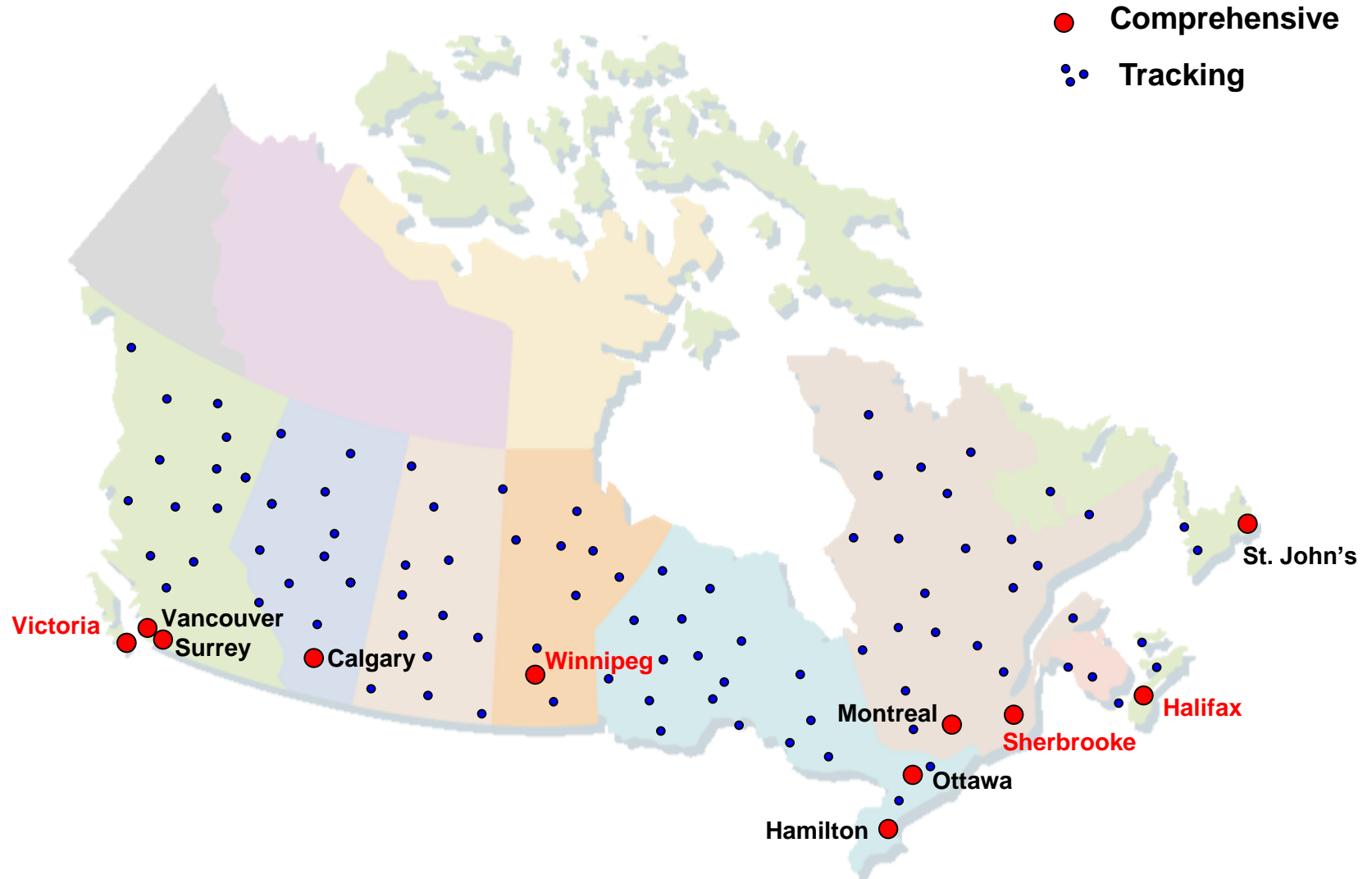
**To study aging as a dynamic process and the inter-relationship among intrinsic and extrinsic factors from mid-life to older age.**



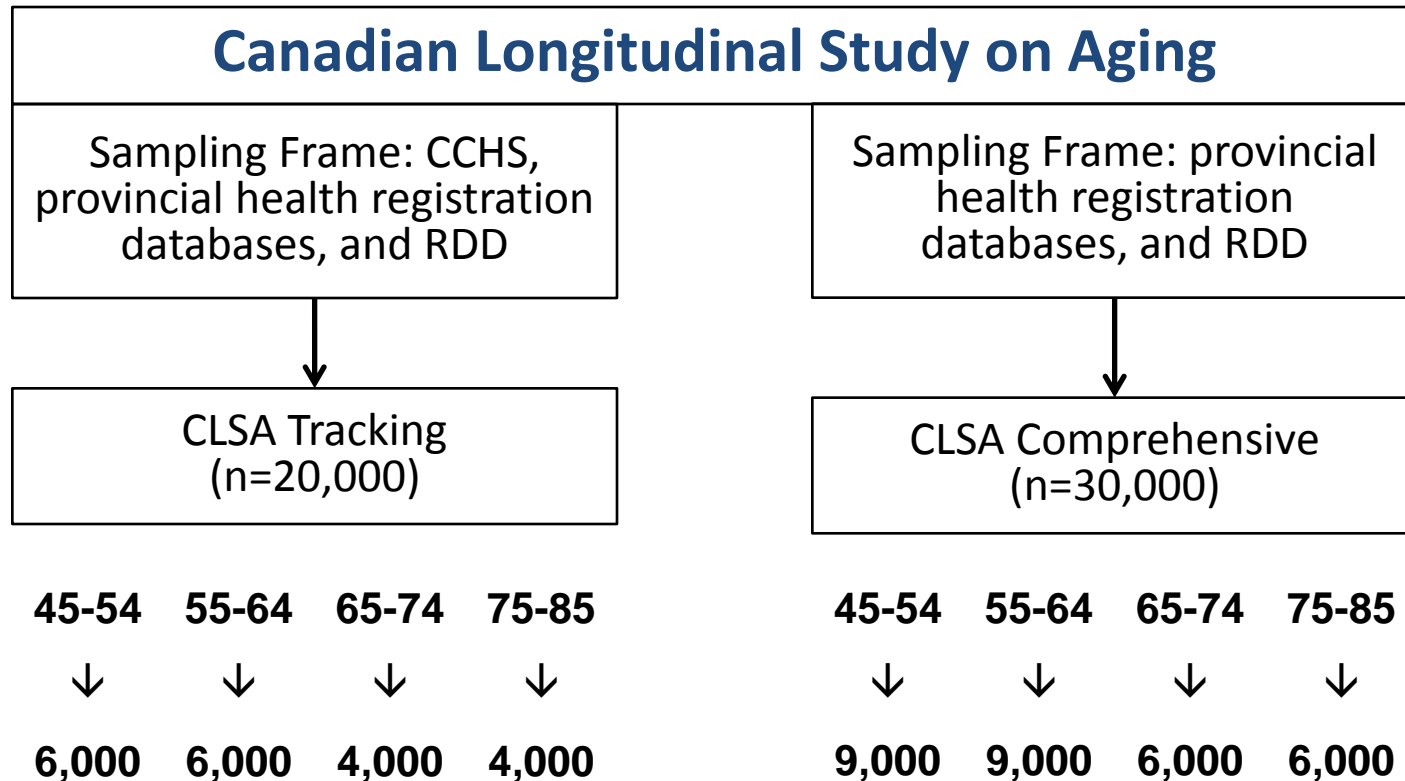
# Overall Aims of the CLSA

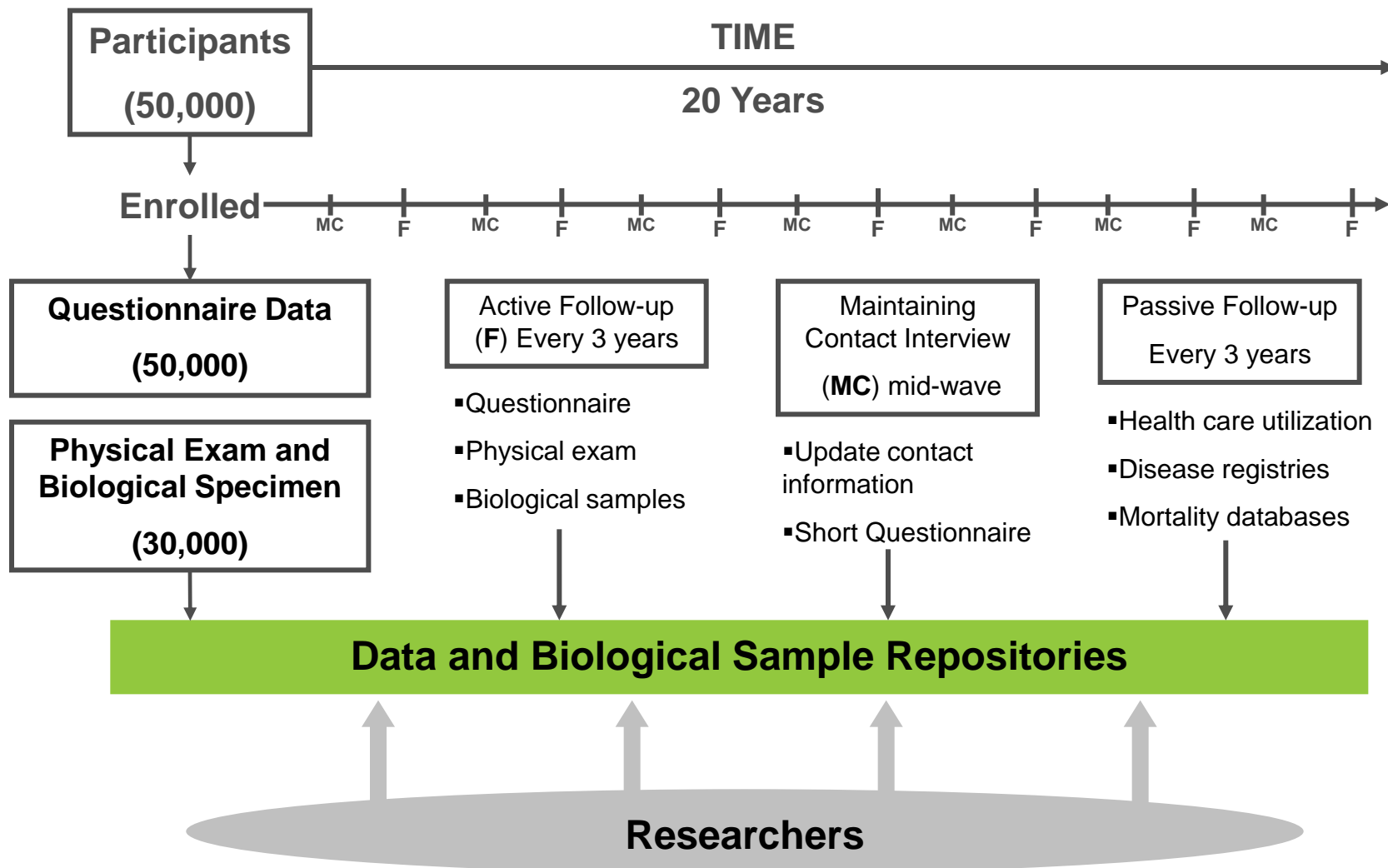
- The progression of **health** from middle-age to early old age to older old age
- The determinants of **well-being and quality of life**
- Risk Factors (including genetics) of **Chronic diseases**
- **Cognitive functioning** and **mental health**
- **Disability** and the compression of morbidity
- The examination of socioeconomic and health **inequalities** in an aging population
- **Social participation, social relationships and care giving** in an aging population
- **Retirement** and **post retirement** labor market activity

# Participant Recruitment



# CLSA Sampling





# Depth and Breadth of CLSA

## PHYSICAL & COGNITIVE MEASUREMENTS

- Height & weight
- Waist and hip measurements
- Blood Pressure
- Grip strength, timed up-and-go, chair raise, 4-m walk  
Standing balance
- Vision (retinal imaging, Tonometer & visual acuity)
- Hearing (audiometer)
- Spirometry
- Body composition (DEXA)
- Bone density (DEXA)
- Aortic calcification (DEXA)
- ECG
- Carotid Plaque sweep (ultrasound)
- Carotid intima-media thickness (ultrasound)
- Depression
- Cognitive assessment (30 min. battery)

## HEALTH INFORMATION

- Chronic disease symptoms (**disease algorithm**)
- Medication and supplements intake
- Women's health
- Self-reported health service use
- Oral health
- Preventative health
- **Administrative data linkage health services & drugs & other administrative databases**

## PSYCHOSOCIAL

- Social participation
- Social networks and support
- Caregiving and care receiving
- Mood, psychological distress
- PTSD
- Coping, adaptation
- Injuries and consumer products
- Work-to-retirement transitions
- Retirement planning
- Social inequalities
- Mobility-lifespace
- Built environments & Contextual Factors
- Income, Wealth and Assets

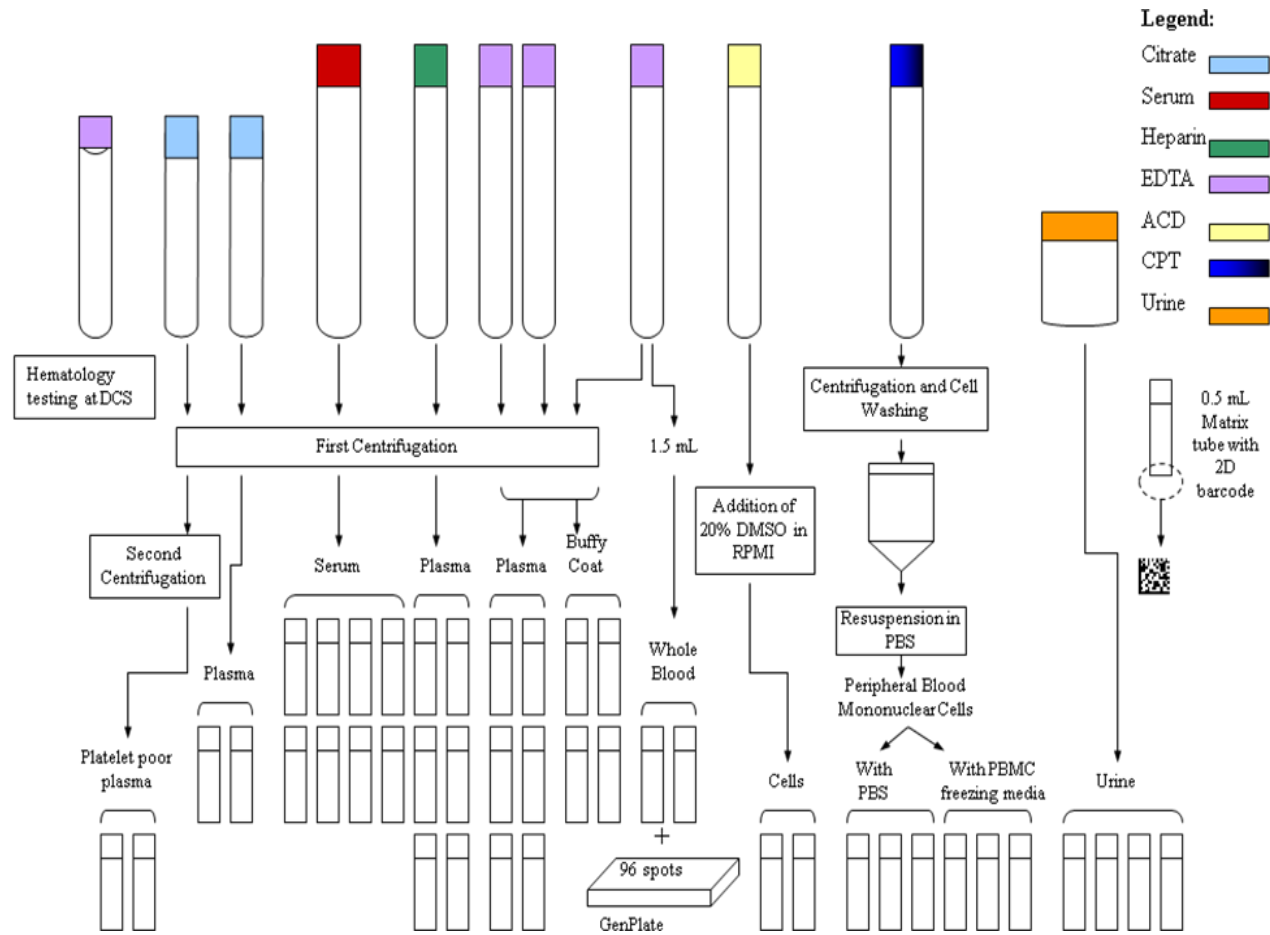
## LIFESTYLE & SOCIODEMOGRAPHIC

- Smoking
- Alcohol consumption
- Physical activity (PASE)
- Nutrition (nutritional risk and food frequency)
- Birth location
- Ethnicity/race/gender
- Marital status
- Education



# Bio specimens

## 42 aliquots per participant





# CLSA Infrastructure

- National Coordinating Centre (McMaster)
- Biorepository and Bioanalysis Centre (McMaster)
- IT Infrastructure (McMaster)
- Statistical Analysis Centre (McGill)
- Genetics and Epigenetics Centre (UBC)
- 4 Computer-Assisted Telephone Interview Sites
  - Victoria, Winnipeg, Sherbrooke and Halifax
- 11 Data Collection Sites
  - Victoria, Vancouver, Surrey, Calgary, Winnipeg, Hamilton/Toronto, Ottawa, Montreal, Sherbrooke, Halifax and St.John's



# Baseline Recruitment and Data Collection

- First selection of 20,000 started in late 2011
  - Completed 60 minute questionnaire by telephone on about 20,000 individuals (***Includes Health care number on over 90% of the respondents***)
  - Plan to release these data in the summer of 2014
- In August 2013 our maintaining contact interviews (30 minute telephone interview)
  - Minimize loss to follow-up
  - Collect additional data

# **Implementation Plan for the Comprehensive Cohort (n=30,000)**

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- ❖ Cohort of 30,000 persons to be recruited within 25 to 50 km radius of 11 data collection sites (DCS)
    - Victoria (3000), Vancouver (1500), Burnaby (1500), Calgary (3000), Winnipeg (3000), Hamilton (3000), Ottawa (3000), Montreal (3000), Sherbrooke (3000), Halifax (3000), St. John's (3000)
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# Comprehensive Cohort Rolling Recruitment

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- ❖ First batch of 10,000 people to be recruited across all sites (Fall-2012 to mid-2013)
    - ❖ Maintaining contact by phone (end of 2013- end 2014)
  - ❖ Second batch of 10,000 (mid-2013 to mid-2014)
    - ❖ Maintaining contact: (end of 2014-end of 2015)
  - ❖ Third batch of 10,000 (mid-2014 to mid 2015)
    - ❖ Maintaining contact: (end of 2015-end of 2016)
  
  - ❖ **Completed almost 22,000 In home (IH) Interviews**
  - ❖ **IH + Physical assessment + Health care number (over 95%) + biosample (98%) over 18,000**
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# Data and Sample Access

- Data and Sample Access is Open
  - All researchers have access to data
    - No special access to the “creators” of the platform
    - Individual level data versus aggregate data
    - Genetic versus Health (Depression) versus Social data
- Ethical and Legal Considerations
  - How the data are used and what purpose?
  - Public sector versus Private sector access to data

# CLSA CORE TEAM

<b>Lead PI</b>	Parminder Raina ( <b>McMaster</b> )
<b>Co-PI</b>	Christina Wolfson ( <b>McGill</b> ) and Susan Kirkland ( <b>Dalhousie</b> )
<b>Key Site Co-Investigators</b>	Gerry Mugford and Patrick Parfrey ( <b>Memorial</b> ), H��l��ne Payette ( <b>Sherbrooke</b> ), Ron Postuma, Brent Richards, Mark Lathrope ( <b>McGill</b> ), Larry Chambers and Vanessa Taler ( <b>Ottawa</b> ), Lauren Griffith, Harry Shannon, Cynthia Balion, Paola Mutti, Mike Veall, Christopher Patterson, ( <b>McMaster</b> ), Mary Thompson and Chang Bo ( <b>Waterloo</b> ), Debra Sheets, Holly Tuokko and Lynne Young ( <b>Victoria</b> ), Verena Menec ( <b>Manitoba</b> ), David Hogan, Eric Smith and Marc Poulin ( <b>Calgary</b> ) , Max Cynader, Teresa-Liu Ambrose and Michael Kobor ( <b>UBC</b> ) and Andrew Wister and Scott Lear ( <b>SFU</b> )
<b>Scientific Working Group</b>	<b>See our website – <a href="http://www.clsa-elcv.ca">www.clsa-elcv.ca</a></b>





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universities**

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

