2023 Vascular Training (VAST) Conference
Program and Proceedings

VAST
Vascular Training Platform | Plateforme de Formation Vasculaire

May 17-18, 2023
In partnership with, and at the Centre de recherche de l'Institut universitaire de gériatrie de Montréal
Montreal, QC

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HEALTH SCIENCES CENTRE

Organizing Committee

Committee Chair:
Dr. AmanPreet Badhwar, VAST Co-Lead, Assistant Professor, Université de Montréal, Centre de recherche de l'Institut universitaire de gériatrie de Montréal

Members:
Dr. Louis Bherer, Professor, Université de Montréal
Dr. Marc Cuesta, Chef de service, Centre de recherche de l'Institut universitaire de gériatrie de Montréal
Dr. Sarah Gagliano Taliun, Assistant Professor, Université de Montréal
Dr. Hélène Girouard, Professor, Université de Montréal
Ikrame Housni, Master's Student, Université de Montréal
Wayne Hykaway, CCNA EPLED Advisory Member
Dr. Benjamin Le Gac, Postdoctoral Researcher, Université de Montréal
Emily Mclellan, CCNA EPLED Advisory Member
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Dr. Jolene Phelps, VAST Program Manager, University of Calgary
Dr. Eric Smith, VAST Co-Lead, Professor, University of Calgary
Ellen Snowball, CCNA EPLED Coordinator

Abstract Reviewers:
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Dr. Aravind Ganesh, Assistant Professor, University of Calgary
Dr. Sridar Narayanan, Assistant Professor, McGill University
Dr. Eric Smith, Professor, University of Calgary

Presentation Judges will be chosen from attending PIs
Award Categories:
- Best oral presentation
- Best poster
- Participants choice
- 'People's voice' knowledge translation award

Partners and Sponsors

We are grateful for the support from our partners and sponsors. Thank you!

Centre de recherche de l'Institut universitaire de gériatrie de Montréal (CRIUGM)

CRIUGM has graciously provided space and technical support for the 2023 VAST Conference, as well as sponsorship for Dr. Ludovica Griffanti to speak.

Canadian Institute of Health Research Institute of Aging

We thank the CIHR Institute of Aging (CIHR-IA) for its support of the VAST Conference, as well as its support for the participation of people with lived experience to attend the program.

Healthy Brains Healthy Lives

We thank Healthy Brains Healthy Lives and McGill University for their contributions as an event partner.

Rogue Research Inc.

Vascular Training (VAST) Conference Program

8:00am – 8:50am	**Breakfast and registration**	CRIUGM Foyer

8:50am - 9:10am	**Welcome**	CRIUGM Auditorium

Oury Monchi, *Scientific Director of CRIUGM*

AmanPreet Badhwar, *VAST Co-Lead, Assistant Professor, Université de Montréal, CRIUGM*

9:10am - 10:00am	**Keynote speaker**	CRIUGM Auditorium

Danica Stanimirovic
Director of the Translational Bioscience Department, Human Health Therapeutics Research Centre, National Research Council of Canada
Ins and Outs of the Blood Brain Barrier: From Molecular Physiology to New Therapies

10:00am - 11:00am	**Podium Presentations**	CRIUGM Auditorium
10:00am - 10:20am	**Invited Speaker:**	

Haz-Edine Assemlal*, Associate Director of Image Processing, NeuroRX*
Leveraging AI for Improved Detection of White Matter Lesions in Neuroimaging

10:20am - 11:00am	**Abstract Presentations:**

Benjamin Le Gac, *Université de Montréal*
Astrocytic nitric oxide in response to cholinergic stimulation in mouse somatosensory cortex

Jessica Youwakim, *Université de Montréal*
IL-17A Contributes to the Angiotensin II-induced Neurovascular Coupling impairment through Oxidative Stress

Ateyeh Soroush, *University of Calgary*
The impact of cortical microvasculature hypoxia on measures of brain function in people with Multiple Sclerosis

Sajeevan Sujanthan, *University of Toronto*
AcT-Cog: Cognitive outcomes in the Alteplase compared to Tenecteplase (AcT) trial

11:00am - 11:30am	**Coffee Break**	CRIUGM Foyer

11:30am - 1:00pm	**Career Panel**	CRIUGM Auditorium

Haz-Edine Assemlal
Associate Director of Image Processing, NeuroRX

Nouha Ben Gaied
Director of Research and Development, Quality of Services, Federation of Quebec Alzheimer Societies

Adrienne Crampton
Business Development Manager, Healthy Brains, Healthy Lives

Marc Cuesta
Chef de service, CRIUGM

Vascular Training (VAST) Conference Program

Wednesday, May 17 2023 – Continued

11:30am - 1:00pm	**Career Panel Speakers, continued:**	CRIUGM Auditorium

Danica Stanimirovic
Director of the Translational Bioscience Department, National Research Council of Canada

11:30am - 1:00pm	**Roundtable discussions for PIs (parallel to career panel)**	Small room? 10-20
1:00pm - 2:00pm	**Lunch**	CRIUGM Foyer

Mentorship group tables

2:00pm - 3:00pm	**Podium Presentations**	CRIUGM Auditorium
2:00pm - 2:20pm	**Invited Speaker:**	

TBD, *NeuroHub, Healthy Brains Healthy Lives*
NeuroHub… A one-stop-shop for data management, analysis and collaboration

2:20pm – 3:00pm	**Abstract Presentations:**

Ahmadreza Attarpour, *University of Toronto*
A deep learning network for 3D segmentation of neurons in tera-voxel light sheet fluorescence microscopy data

Munira Sultana, *Western University*
A Novel Phenotype of Older Adults with Dual Decline in Gait and Cognition at Higher Risk of Dementia. A Metabolomics Analysis

Flavie Detcheverry, *Université de Montréal*
Level variations in brain and blood of the antioxidant glutathione in healthy aging, Alzheimer's disease and vascular dementia: A systematic review

Manpreet Singh, *Université de Montréal*
Heritability enrichment identifies systemic tissue-specific signatures for white matter hyperintensities and other brain-MRI-derived complex phenotypic traits

3:00pm - 5:00pm	**Poster Session and Refreshments**	CRIUGM Foyer
7:00pm - 9:00pm	**Dinner**	Gibby's, Old Montreal

298 Pl. d'Youville, Montréal, QC H2Y 2B6 – 17 min walk from Hotel Bonaventure

Thursday, May 18 2023

8:30am - 9:00am	**Breakfast**	CRIUGM Foyer
9:00am - 9:50am	**Keynote speaker**	CRIUGM Auditorium

Ludovica Griffanti
Research Scientist, Wellcome Centre for Integrative Neuroimaging (WIN), University of Oxford
Harnessing the Power of Advanced Magnetic Resonance Imaging and Big Data to Study Brain Vascular Changes

Vascular Training (VAST) Conference Program

9:50am - 11:00am	**Panel - Engaging People with Lived Experience in Research**	CRIUGM Auditorium
	Nouha Ben Gaied *Federation of Quebec Alzheimer Societies*	
	Wayne Hykaway *Care partner, dementia advocate, and EPLED advisory member*	
	Paul Lea *Person living with vascular dementia, advocate, and EPLED advisory member*	
	JoAnne McLaurin *Director and Senior Scientist, Sunnybrook Research Institute*	
	Emily McLellan *Care partner, dementia advocate, and EPLED advisory member*	
	Christine Thelker *Person living with vascular dementia, advocate, and EPLED advisory member*	
11:00am - 11:30am	**Coffee Break** EPLED	CRIUGM Foyer
11:30am - 12:30pm	**Podium Presentations**	CRIUGM Auditorium
11:30am - 11:50am	**Invited Speaker:** **Patrice Lindsay**, *Heart and Stroke Foundation* The Lived Experience Journey with VCI	
11:50am - 12:30am	**Abstract Presentations:** **Caroline Dallaire-Theroux**, *Université Laval* Clinical predictors of post-mortem cerebral small vessel disease in middle-aged to older adults **George Tadros**, *University of Calgary* The PREVENT VCI Study: Application of Rich-Club Behavior in the Human Brain Connectome as a Potential Novel Early Biomarker of Cognitive Decline **Fariba Sharmin**, *University of Ottawa* The plasma sphingolipid and glycerophosphocholine lipidome identifies metabolic correlates of depression in a clinical population with Coronary Artery Disease **Sandi Azab***, McMaster University* Air Pollution and Cognitive Function in the Canadian Alliance for Healthy Hearts and Minds Study	
12:30pm - 1:30pm	**Lunch**	CRIUGM Foyer
1:30pm - 3:00pm	**Knowledge Translation Workshop** **Inbal Itzhak** *Knowledge Translation Specialist, CCNA*	CRIUGM Foyer?
3:00pm – 3:30pm	**Awards and Goodbyes from the VAST Executive Team**	CRIUGM Auditorium

Keynote Speakers

Dr. Danica Stanimirovic

Danica Stanimirovic, MD, PhD is the Director of the Translational Bioscience Department, Human Health Therapeutics Research Centre, National Research Council of Canada. Her research focuses on brain vascular physiology and pathology and developing innovations and technologies to support clinical and commercial translational research in the field of neuroscience and therapeutic delivery to the central nervous system.

Ins and Outs of the Blood Brain Barrier: From Molecular Physiology to New Therapies

The talk will introduce cellular anatomy, molecular composition and physiology of the blood-brain barrier and its role in neurological diseases. It will then lay out a path for developing blood-brain barrier (BBB) crossing therapies anchored in molecular physiology of brain vessels. The talk will cover development of translational (human) BBB models and tools and drug delivery strategies from pre-clinical to clinical studies.

Dr. Ludovica Griffanti

Dr. Ludovica Griffanti is an Alzheimer's Association Research Fellow at the Wellcome Centre for Integrative Neuroimaging, University of Oxford. Previously she completed a MSc and PhD in Biomedical Engineering at Politecnico di Milano, Italy. Her research focuses on brain MRI analysis in ageing, dementia and neurodegeneration with the ultimate aim to make research translational and applicable in clinical settings. She is involved in the development and support of the FSL analysis software package, used by > 1000 laboratories worldwide as well as in big data projects like the UK Biobank imaging study.

Harnessing the Power of Advanced Magnetic Resonance Imaging and Big Data to Study Brain Vascular Changes

Magnetic Resonance Imaging (MRI) has emerged as an invaluable tool in the diagnostic evaluation of vascular cognitive impairment (VCI), by enabling the detection of structural and microstructural changes in the brain. This talk will give examples of how image analysis tools can help in quantifying and characterising vascular changes and how we can study their impact on cognition in healthy and diseased populations; how big datasets like the UK Biobank represent a powerful resource to study other aspects of vascular changes, for example their link with genetics; and how the Oxford Brain Health Clinic is translating advanced brain MRI into clinical practice for people with memory problems.

Partner Presentations

Haz-Edine Assemlal, PhD
Associate Director of Image Processing, NeuroRX

Leveraging AI for improved detection of White Matter Lesions in NeuroImaging

The talk "Leveraging AI for improved detection of White Matter Lesions in NeuroImaging" will explore the potential applications of artificial intelligence in segmenting white matter lesions, which are considered to be a marker of multiple sclerosis and small vessel diseases in neuroimaging. The talk will discuss how the latest advances in the AI technology can help to improve the detection and quantification of these lesions, which could lead to more accurate diagnoses and better patient outcomes.

TBD
NeuroHub

NeuroHub… A one-stop-shop for data management, analysis and collaboration

This presentation will explain what the NeuroHub platform is and how it could be helpful to researchers in the VAST community. NeuroHub is a platform which solves researchers' data management needs. It allows one to collect, store and share data with colleagues or the community. NeuroHub's services provide turn-key solutions to address data management requirements from funders and high impact journals. NeuroHub also makes data analysis easier, faster and reproducible. Using our platform one can run complex tools and pipelines on high performance computing with a click of a button saving time and resources. Using our sharing systems one can collaborate easily with collaborators around the world by having one platform where one can perform collection, analysis and dissemination.

Partner Presentations Continued

Dr. Patrice Lindsay, RN, PhD, FWSO
Director of Health Systems at the Heart and Stroke Foundation, Canada

Patrice Lindsay RN, PhD is currently the Director of Health Systems at the Heart and Stroke Foundation, Canada. She leads strategic directions for evidence informed systems change in planning and delivering health services across the care continuum for individuals with a range of heart conditions, stroke and vascular cognitive impairment. She is senior editor of the Canadian Stroke Best Practice Recommendations leading clinical guideline development and quality monitoring initiatives. She is a leader and innovator in approaches to the active and meaningful inclusion of people with lived experience in all Heart & Stroke and partnership activities. Dr. Lindsay is a recipient of the Queen Elizabeth II Diamond Jubilee medal for her efforts to improve stroke care and outcomes in Canada and internationally and has recently been recognized as one of the World Stroke organization's leading Women in Stroke. She sits on several national and international advisory committees and research collaborations.

The lived Experience Journey with VCI

Vascular cognitive impairment (VCI) is a devastating condition that is both a risk factor for and a sequelae of stroke. The experiences of people with VCI and their caregivers across the continuum of care are not well defined, is complex and can be overwhelming. In collaboration with People with Lived Experience (PWLE), a VCI journey map was created to capture the lived experiences and critical needs from symptom onset to pre-diagnosis, to diagnosis, to management and living with VCI. Several qualitative approaches were utilized including an environmental scan, structured literature review, review of existing journey maps, focus groups and consultations with PWLE experiencing VCI and caregivers. Qualitative theme analysis and validation with PWLE and health professionals were conducted to create the journey map.

Conference Panel Speakers

An opportunity to hear from and interact with professionals in a variety of career areas.

Dr. Nouha Ben Gaied
Director of Research and Development, Quality of Services, Federation of Quebec Alzheimer Societies

Dr. Nouha Ben Gaied holds a Ph.D. in organic chemistry from the University of Strasbourg, which she completed with a postdoctoral fellowship at the University of Southampton. In 2013, Dr. Ben Gaied joined the Federation of Quebec Alzheimer Societies as Director of Communication before becoming Director of Research and Development, Quality of Services in 2016. Her role is to promote the Alzheimer Society Research Program, develop and manage KT&E activities while supporting the recruitment process for several studies conducted by Quebec researchers working in the field of neurodegenerative diseases. She also leads the implementation of programs and services within Alzheimer Societies in Quebec, including the referrals program and the education program for healthcare professionals. Actively engaged in scientific projects as co-investigator, Dr. Ben Gaied is the author of several scientific articles and sits on several ministerial committees or provincial initiatives dedicated to Alzheimer's disease and other forms of dementia.

Dr. Adrienne Crampton
Business Development Manager, Healthy Brains, Healthy Lives Program

Adrienne Crampton graduated in 2021 from McGill University with a PhD in Rehabilitation Science (focusing on mild traumatic brain injury). Prior to this, she completed her Master's degree in Sports Management from the University of Ottawa ('17) and her BSc in Kinesiology at McGill University ('15) while competing as a varsity athlete for the latter. Adrienne has worked for both non-profit and for-profit organizations spanning various fields, such as kinesiology, human performance, neuroscience and brain health. Throughout her PhD, she developed a passion for innovation and entrepreneurship, as well as for creating conduits between research and industry. At HBHL, Adrienne's efforts are directed towards supporting various innovative projects in their journey towards commercialization and/or sustainability.

Conference Panel Speakers, Continued

Dr. Marc Cuesta
Chef de service, Centre de recherche de l'Institut universitaire en gériatrie de Montréal

Dr. Marc Cuesta holds a Ph.D. in neurosciences from the University of Strasbourg and worked in the field of circadian rhythms for 12 years as a postdoctoral fellow and research associate at the University of Cambridge and McGill University. In 2016, Marc left the academic world to become Manager of Programs and Science at the Brain Canada Foundation and participate in the management and administration of a $240M research funding program. In 2018, Marc decided to come back to the research field. He spent four years as a project manager at the IUGM research center before becoming its administrative director in 2022.

Dr. Danica Stanimirovic
See previous biography on page 7.

Dr. Haz-Edine Assemlal
See previous biography on page 8.

Engaging People with Lived Experience Panel Speakers

Hear from a panel of patient and care partners to better understand their needs and challenges in research. We will be aiming to answer the question, "How can we better engage people with lived experience throughout the research process".

Wayne Hykaway

Wayne Hykaway currently resides in Calgary, Alberta, and has a background as a University and College educator, designing and teaching computer, business and web courses. Wayne's wife was diagnosed with dementia. At that time, Wayne became a full-time care partner and moved into the same long-term care facility as his wife until her passing in 2021. As a passionate advocate, Wayne actively contributes to over 25 projects focusing on dementia, long-term care and seniors' health. He serves on the Health Services Organization Long-Term Care Technical Committee, Dementia Advocacy Canada Advisory Group, PRIUS 4 project (AHS), and the Canadian Consortium on Neurodegeneration in Aging's (CCNA) Engagement of People with Lived Experience of Dementia (EPLED) Advisory Group, Caregivers Alberta, Caregiver Canada, Dementia Network Calgary, Alzheimer's Disease International, various Alzheimer's societies, to name a few. Wayne collaborates on research projects with 6 Canadian universities and has co-authored 4 published papers. Wayne's research interests include, but are not limited to, Dementia, long-term care and caregiving.

Paul Lea

Paul is a person living with vascular dementia, living alone in Etobicoke, which is part of Toronto. He is a dementia advocate and is 70 years young.

Paul suffered a massive stroke in 2008 and was diagnosed with vascular dementia in 2009. In 2015, he found the Alzheimer Society Toronto, which represented the beginning of his advocacy for those living with dementia. In 2016, he joined a group that participated in the Youth Dementia Awareness Symposium, led by Dr. Kristine Newman and her research team. Since then, he has worked with several research organizations, including being a member of the Canadian Consortium on Neurodegeneration in Aging's (CCNA) Engagement of People with Lived Experience of Dementia (EPLED) Advisory Group. Paul is excited to have been exposed me to many opportunities and introduced to so many people who are trying to find cures and trying to make life more bearable.

Engaging People with Lived Experience Panel Speakers, Continued

Dr. JoAnne McLaurin

Dr. McLaurin is a Director and Senior Scientist within Biological Sciences Platform at Sunnybrook Research Institute, CRC Tier 1 in Alzheimer's disease Therapeutics, Lead Theme 1 Preclinical Research in Dementia for the Canadian Consortium on Neurodegeneration and Aging and a Professor in the Department of Laboratory Medicine and Pathobiology at the University of Toronto. She is recognized for a body of work on the detrimental effects of Ab accumulation and benefit of reduction of Ab using small molecules. Dr. McLaurin's present focus is translational research to understand factors impacting risk and progression of age-related cognitive decline. Specifically, the discovery of much-needed treatments for Alzheimer's disease and dementia.

Dr. McLaurin's laboratory identified a family of naturally occurring compounds that inhibit the formation of toxic soluble aggregates in AD, which resulted in 3 worldwide patents, and collaborations with small cap biotechnology (Ellipsis Neurotherapeutics, Transition Therapeutics) and large pharmaceutical industry (Elan Inc, OPKO Health). Preclinical studies in Dr. McLaurin's laboratory demonstrated efficacy, subsequent early clinical trials in AD patients were initiated, and are presently under development by OPKO Health Inc (Miami, USA). This successful research program demonstrates Dr. McLaurin's ability to identify target molecules, to develop lead compounds through preclinical development and to translate this knowledge to appropriate international stakeholders.

To further impact patient experience, Dr. McLaurin has first-hand knowledge of the benefit of engaging with people with lived experience in dementia and how this leads to refined experimental approaches, novel avenues of research and understanding of disease outcomes at multiple levels. The engagement of people with lived experience in early discovery and preclinical phases of research is in its infancy, is dependent on meaningfully and actively collaborations in the governance, priority setting, and conduct of research, as well as in summarizing, distributing, sharing, and applying its resulting knowledge and is important for future advances.

Dr. Nouha Ben Gaied
See previous biography on page 10.

Engaging People with Lived Experience Panel Speakers, Continued

Emily McLellan

Emily McLellan currently resides in Vancouver, British Columbia. She holds a BSc in Psychology and was pursuing an MSc in neuroscience when her father was diagnosed with young-onset Alzheimer's disease in 2017. Emily put her academic research on hold to care for her father during the daytime while she worked evenings as a clerk at a nearby hospital. Although Emily had learned a great deal about the science of dementia in classrooms, she did not find that it equipped her to handle the practical realities of caregiving. She did find that her understanding of the brain made it easier for her to cope with her father's rapid declines. At the time she was disappointed to find that there was not much in the literature about young-onset dementia, nor were there many resources available to assist patients. While her father was still in the community, they participated in the COMPASS-ND study as well as a few other studies. In early May of 2019, her father was hospitalized and he died in late January 2020: he was never a candidate for long term care because of his physical size, agitation, and intrusive behaviour. Emily joined the CCNA's EPLED advisory team in June 2020 and is interested in research that investigates young-onset dementia, the role of sleep disorders in dementia, language and visual deficits in dementia, and the neuropsychiatric symptoms of dementia.

Christine Thelker

Christine is from Vernon, BC, and describes herself as bright, fun, and adventurous. At 63, her sense of humour has grown since her diagnosis of vascular dementia and cerebrovascular disease at 56. Christine believes that having been diagnosed with dementia has given her the ability to truly enjoy and appreciate life in the simplest form, and dislikes hearing that people with dementia are suffering, when in fact many are living well with dementia. Her motto since being diagnosed is "I'm not done yet".

Christine worked for Interior Health Authority for 13 years in various sites. Her most loved work was in dementia care, where she advocated for families, patients, and for better training of workers. Christine is still advocating and using her voice to try to help others and to try to end the stigma around the illness. She loves working with the Dementia Alliance International and believes whole heartedly that is what helps keep her living well with her dementia. Christine has presented at various venues including the Alzheimer's Disease International Conference, and the United Nations Convention of State Parties on Rights of People with Disabilities. She has also been involved with several publications, writes a blog called Chrissy's Journey, and is currently working on her second book.

Knowledge Translation Workshop

Learn to better translate the impact of your research to public and patient audiences. Led by CCNA knowledge translation specialist, Dr. Inbal Itzhak. We will be going through a short exercise to extract the meaning/significance from your research, where you will work in small groups encompassing other trainees, people with lived experience, and facilitators from community and research organizations.

Dr. Inbal Itzhak

Dr. Inbal Itzhak is a certified Knowledge Translation (KT) Specialist with a PhD in Communication Sciences and Disorders from McGill University. Inbal is the Knowledge Translation and Exchange Specialist at the Canadian Consortium on Neurodegeneration in Aging (CCNA). She is experienced in knowledge translation capacity building, project planning, and impact evaluation, as well as stakeholder engagement and partnership development. Her training in both research and knowledge translation reflect her passion for creating meaningful links between science and the world outside of academia. She believes this gap is best bridged by creating boundary-crossing relationships where people with lived experience, scientists, and professionals collaborate and learn together.

Poster Session – May 17th 3:00pm - 5:00pm

P01	**Damilola Adingupu** *University of Calgary* Investigating brain hypoxia and functional connectivity in individuals who have had COVID-19
P02	**Damilola Adingupu** *University of Calgary* Reduced cortical oxygen, hemoglobin, and impaired cognitive function in post COVID-19 sequalae
P03	**L. Angel Albarran-Ponce** *University of Ottawa* Behavioural and biochemical validation of a novel acid ceramidase disorder mouse model for preclinical research
P04	**Qassim Alkassir** *University of Ottawa* Advancing bioinformatic technologies for lipidomic discovery: pathway and network analysis for interpretation of metabolic changes in vascular dementia
P05	**Jasmine Aziz** *Dalhousie University* Using the attention-motor task to measure subtypes of spatial neglect after stroke
P06	**Sara Becker** *University of Calgary* Do vascular risk factors contribute to increased dementia risk in adults with attention-deficit hyperactivity disorder?
P07	**William Betzner** *University of Calgary* A qualitative study of physician approaches to the management of people living with dementia who experience a stroke
P08	**William Betzner** *University of Calgary* Comparison of cortical and subcortical brain atrophy as well as white matter disease and lacune assessments on NCCT and MRI in ischemic stroke
P09	**Marie Biard** *Université de Montréal* Supporting persons living with dementia and their caregiver with knowledge translation: an ongoing umbrella review by the VAST collaborative
P10	**Karl Grewal** *University of Saskatchewan* Do group differences in cardiovascular risk profiles impact the effect of lifestyle interventions on cognition? A project outline

Poster Session – May 17th 3:00pm - 5:00pm Continued

P11	**Quinton Hake-Volling** *University of Ottawa* Age, sex, and lipid metabolism intersect to elicit cognitive decline in two mouse models of GBA1-Parkinson's disease
P12	**Victoria Hamilton** *University of Ottawa* Phenotyping a mouse model of Parkinson's disease with dementia
P13	**Sotaro Hirai** *University of Calgary* The role of ApoER2 signaling in cerebrovascular function
P14	**Ikrame Housni** *Université de Montréal* The distribution of white matter hyperintensity across arterial territories in the age-related dementia
P15	**Remi Lamontagne-Caron** *Université Laval* Synthesis of perfusion maps using U-Net for the retrospective study of the cerebrovascular system
P16	**Osama Mahdi** *University of Ottawa* Impact of Pseudomonas aeruginosa ExoU on host inflammatory response
P17	**Graeme McDowell** *University of Ottawa* Gain of function mutations in ANO6/TMEM16F cause a variant form of Neonatal Progeroid Syndrome
P18	**Hanieh Mohammadi** *Université de Montréal* Cerebral pulsatility and the neurofunctional reorganization allowing for preservation of cognitive abilities in ageing: An MRI and NIRS study
P19	**Thao Nguyen** *University of Ottawa* An analytical and bioinformatic pipeline for profiling glycosphingolipids and phospholipids in plasma of patients with cerebral small vessel diseases (cSVD) subjected to remote ischemic conditioning (RCI)
P20	**Chloe Oleksiuk** *St. Francis Xavier University* Systematically evaluating VCID-related YouTube videos – English version
P21	**Benjamin Peckham** *University of Calgary* Do cardiovascular risk factors mediate the relationship between bipolar disorder and incident dementia?

Poster Session – May 17th 3:00pm - 5:00pm Continued

P22	**Louise Reveret** *Université Laval* Brain levels of ACE2 are associated with a neuropathological diagnosis of Alzheimer's disease, cognitive decline and cerebral amyloid angiopathy
P23	**Tali Romero** *University of British Columbia* Association of neurological blood-based biomarkers with baseline neuroimaging and cognitive assessments in adults with moderate-severe congenital heart disease
P24	**Matthew Rozak** *University of Toronto* Deep-Learning Insights into Cerebrovascular Networks Coordination in Moderate Traumatic Brain Injury
P25	**Anuradha Surendra** *National Research Council of Canada* Comparative analysis of supervised and unsupervised machine learning methods to automate white matter hyperintensities in T2-weighted and fluid-attenuated inversion recovery (FLAIR) Magnetic Resonance Imaging (MRI)
P26	**Stefanie Tremblay** *Concordia University* Differences in cerebellar fiber tract dispersion in coronary artery disease patients are associated with episodic memory and processing speed

Trainee Podium Presentation Abstracts

Ahmadreza Attarpour
University of Toronto
A deep learning network for 3D segmentation of neurons in tera-voxel light sheet fluorescence microscopy data

Sandi Azab
McMaster University
Air pollution and cognitive function in the Canadian Alliance for Healthy Hearts and Minds study

Caroline Dallaire-Theroux
Université Laval
Clinical predictors of post-mortem cerebral small vessel disease in middle-aged to older adults

Flavie Detcheverry
Université de Montréal
Level variations in brain and blood of the antioxidant glutathione in healthy aging, Alzheimer's disease and vascular dementia: A systematic review

Benjamin Le Gac
Université de Montréal
Astrocytic nitric oxide in response to cholinergic stimulation in mouse somatosensory cortex

Fariba Sharmin
University of Ottawa
The plasma sphingolipid and glycerophosphocholine lipidome identifies metabolic correlates of depression in a clinical population with coronary artery disease

Manpreet Singh
Université de Montréal
Heritability enrichment identifies systemic tissue-specific signatures for white matter hyperintensities and other brain-MRI-derived complex phenotypic traits

Ateyeh Soroush
University of Calgary
The impact of cortical microvasculature hypoxia on measures of brain function in people with Multiple Sclerosis

Sajeevan Sujanthan
University of Toronto
AcT-Cog: Cognitive outcomes in the Alteplase compared to Tenecteplase (AcT) trial

Munira Sultana
Western University
A novel phenotype of older adults with dual decline in gait and cognition at higher risk of dementia: A metabolomics analysis

George Tadros
University of Calgary
The PREVENT VCI Study: Application of rich-club behavior in the human brain connectome as a potential novel early biomarker of cognitive decline

Jessica Youwakim
Université de Montréal
IL-17A contributes to the angiotensin II-induced neurovascular coupling impairment through oxidative stress