



Meeting Learning Objectives

At the end of the meeting, participants will be able to:

- recognize the global burden of epilepsy and identify international and national innovations that can and have made a difference locally and globally;
- describe factors contributing to the success and failures of epilepsy surgery including biomarkers, mapping of the epileptogenic zone, intracranial EEG investigations and margins of resection;
- discuss the impact and emerging insights of biological factors such as genetics and sex on childhood and adult epilepsies using disease models such as tuberous sclerosis and epileptic encephalopathy; and
- explore how network analysis and connectivity as well as neuromodulation can inform epilepsy therapy.

Please note:

A minimum of 25% of each session will be dedicated to participant interaction.

Friday, September 23, 2022	
4:00 p.m.	Conference Check-in
4:00 p.m.	Exhibitor and Delegate Networking Opportunity
5:00 p.m.	CLAE Annual General Meeting Members Only
5:45 p.m.	Welcome and Presidential Lecture
6:00 p.m.	Canadian Epilepsy Alliance / Alliance canadienne de l'épilepsie
6:30 p.m. Keynote Speaker	<i>Wada Keynote Lecture</i> Epilepsy is a Global Health Priority – Where Does Canada Fit In? Dr. Sam Wiebe Learning Objectives: At the end of this session, participants will be able to: • recognize the global burden of epilepsy, leading to its recognition as a public health priority;

	• recognize the main international initiatives underway to address this burden; and • identify ways in which Canadians can make a difference locally and globally.
7:30 p.m.	Wrap-up for the Day

Saturday, September 24, 2022

7:00 a.m.	Conference Check-in
7:00 a.m.	Breakfast and Exhibitor/Delegate Networking
8:00 a.m.	Welcome and Introductions
8:05 a.m. Plenary	The Past and the Future of Intracranial EEG Investigations Chair: Dr. Taufik Valiante, Toronto Western Hospital, University of Toronto Topics and Speakers: Case Presentations: 1. The Intracranial Investigation Was Key to Surgical Success Elisabeth Simard-Tremblay, Montreal Children's Hospital, McGill University Case Presentation: 2. Everything Looked Right, But Surgery Failed Ana SullerMarti, Western University, London Health Science Center Surgical Results after Intracranial EEG: Not Great, When Are They Good, When Are They Bad? Sam Wiebe, University of Calgary The Fundamental Weakness of Relying on Seizures and the Potential for Interictal Markers Birgit Frauscher, Montreal Neurological Institute, McGill University Can a Canadian Consortium Help? Jean Gotman, Montreal Neurological Institute, McGill University Required Steps to Render New Markers Clinically Effective Colin Josephson, University of Calgary Learning Objectives: At the end of the session, participants will be able to: • recognize the current success and failures of surgery following intracranial EEG investigations; • identify the intrinsic limitations of interictal and ictal markers of the epileptogenic zone; and • recognize what is required for new biomarkers of the epileptic tissue can become effective clinically. Target Audience: Neurologists, neurosurgeons, neuropsychologists, radiologists, staff and trainees alike.

9:50 a.m.	Poster Tours
9:50 a.m.	Break and Exhibitor/Delegate Networking
10:50 a.m.	Breakout Sessions
Session 1-A	New Models and the Quest for Novel Therapies for Epileptic Encephalopathies Chairs: Dr. Morris Scantlebury, University of Calgary, and Dr. Elsa Rossignol, Université de Montréal Topics and Speakers: Human Cerebral Organoids for the Pathophysiology and Treatment of Epileptic Encephalopathies Dr. Peter Carlen, Krembil Research Institute and University of Toronto Gene Editing in Rodent Models of Infantile Spasms: Progress and Opportunities Dr. Morris Scantlebury, University of Calgary Modelling and Treating KCNQ2 DEE: Pitfalls and Progress Dr. Ed Cooper, Baylor College of Medicine Molecular and Network Mechanisms of <i>CACNA1A</i>-associated Epileptic Encephalopathies Dr. Elsa Rossignol, Université de Montréal Something to GRIN About: The NMDA Receptor as Both a Site of Pathogenesis and a Therapeutic Target in Epileptic Encephalopathy. Dr. Kenneth Meyers, Montreal Children's Hospital and McGill University Learning Objectives: At the end of the session, participants will be able to: • review the utility of Next Generation Sequencing in harnessing the genetic diversity of developmental epileptic encephalopathies; • describe the usefulness of gene-editing techniques in the development of new disease models; • identify some of the molecular and circuit mechanisms underlying selected genetic forms of epileptic encephalopathies; and • examine how such disease mechanisms can be targeted using novel approaches. Target Audience: Neurology residents/fellows, staff neurologists, epileptologists, geneticists, PI/researchers, graduate students and post-docs.
Session 1-B	Neuromodulation in Epilepsy Chairs: Dr. Ana Suller Marti, Western University, and Dr. Alexander G Weil, University of Montreal Topics and Speakers: Neuromodulation in Epilepsy

	Dr. Alexander G. Weil, University of Montreal Vagus Nerve Stimulation in Epilepsy Dr. Ana Suller Marti, Western University Deep Brain Stimulation in Epilepsy Dr. George Ibrahim, University of Toronto Responsive NeuroStimulation in Epilepsy Dr. Jonathan Lau, Western University Clinical Cases Dr. Alexander G. Weil, University of Montreal, Dr. Ana Suller Marti, Western University, Dr. George Ibrahim, University of Toronto, and Dr. Jonathan Lau, Western University Learning Objectives: At the end of the session, participants will be able to: • differentiate the three devices and the latest publications' results of each device; • distinguish which population should be offered which device; and • recognize the potential complications, side effects and contraindications. Target Audience: Epileptologists, epilepsy surgeons, general neurologists, fellows, residents, medical students, allied health professionals.
12:35 p.m.	Lunch and Exhibitor/Delegate Networking
1:35 p.m.	Top Trainee Abstract Presentations 4 x 15 min presentations Learning Objectives: At the end of the session, participants will be able to: • appraise recent research projects in epilepsy; • develop critical thinking on results of research projects; and • apply the implications of recent research projects on current clinical practice in epilepsy.
2:45 p.m.	Breakout Sessions
Session 2-A	Seizure-Detection Wearables Chairs: Dr. Dang K. Nguyen, University of Montreal Hospital Center, and Dr. Elie Bou Assi, Université de Montréal Topics and Speakers: Patients Views and Perspectives Regarding Wearable Seizure-Detection Devices Dr. Deirdre Floyd, Epilepsy Association of the Maritimes An Overview of Commercially Available Seizure-Detection Wearables

	Dr. Marie-Pierre Gagnon, Université Laval The Technical Framework behind Seizure-Detection Wearables Dr. Elie Bou Assi, Université de Montréal Clinical Practice Recommendations Regarding Seizure-Detection Wearables Dr. Dang K. Nguyen, University of Montreal Hospital Center Future of Wearables in Epilepsy Dr. Laura Gagliano, Polytechnique Montreal Learning Objectives: At the end of the session, participants will be able to: • recognize patients’ perspectives regarding the use of wearables for seizure detection; • identify which seizure-detection wearables are currently available on the market; learn the technical basics of seizure-detection wearables. • recognize clinical practice recommendations regarding seizure-detection wearables; and • describe the future potential of wearables in monitoring, detection, and forecasting. Target Audience: This session is directed to clinical neurophysiologists, neurologists, epileptologists, neurosurgeons, engineers and trainees in these disciplines involved in the care of epileptic patients as well as researchers in the field of epilepsy.
Session 2-B	Sex and Gender Issues in Epilepsy: Caring for Transgender Women and Women of Reproductive Potential with Epilepsy Chairs: Dr. Esther Bui, University of Toronto, and Dr. Tad Fantaneanu, University of Ottawa Topics and Speakers: Considerations for Transgender Patients with Epilepsy Dr. Emily Johnson, Johns Hopkins University Hormonal Contraception and Antiseizure Drugs: Interactions, Challenges and Options Dr. Tejal Patel, University of Waterloo Developing a Women’s Epilepsy Program, One Centre’s Experience Dr. Julien Hebert, Columbia University, and Esther Bui, University of Toronto Developing Guidelines for Women with Epilepsy Dr. Mark Keezer, Centre Hospitalier de l'Université de Montréal Learning Objectives: At the end of the session, participants will be able to: • review important aspects of care for transgender women with epilepsy; • discuss oral contraceptive options for women with epilepsy;

	• discuss the development of an epilepsy and pregnancy program – one center’s experience; and • review the upcoming AAN Pregnancy and Epilepsy Guidelines, a behind-the-scenes look. Target Audience: medical trainees, neurologists, epilepsy specialists, neurosurgeons, nurse practitioners, nurses, social work, pharmacists, patient advocates.
4:30 p.m.	Break and Exhibitor/Delegate Networking
4:45 p.m. (ends at 6:30 p.m.)	Breakout Sessions
Session 3-A	Global Health and Epilepsy Chairs: Dr. Jorge G Burneo, Western University Topics and Speakers: A Center-to-Center Program to Improve Care of Patients with Epilepsy in Trinidad and Vietnam Dr. Dang Nguyen, University of Montreal An International Consortium in Epilepsy Surgery Education Dr. Jorge Burneo, Western University ECHO in Epilepsy (and Genetics of Epilepsy): Provincial, National and Global Dr. Lysa Boisse-Lomax, Queen’s University The Bhutan Epilepsy Project Dr. Farrah Mateen, Harvard University Learning Objectives: At the end of the session, participants will be able to: • describe the challenges and possibilities of developing sustainable projects to improve the care of those affected by epilepsy abroad; • discuss the steps needed to build successful relationships with colleagues abroad; and • describe the challenges and potential solutions for collaborative work with other nations, particularly those in much more need. Target Audience: Medical students, Neurology residents, Epilepsy Fellows, Epileptologists, Neurosurgeons, Allied Health.
Session 3-B	Existing and Emerging Epilepsy Management in Tuberous Sclerosis Complex Chairs: Dr. Maryam N. Nouri, Western University, and Dr. Robyn Whitney, McMaster Children’s Hospital Topics and Speakers: New and Emerging Pharmacologic Therapies

	Dr. Maryam N. Nouri, Western University, and Dr. Robyn Whitney, McMaster Children's Hospital Use of Neurostimulation in TSC from VNS to DBS Dr. George Ibrahim, Hospital for Sick Children Surgical Advances in Treatment of TSC Dr. Aria Fallah, David Geffen School of Medicine, UCLA Screen or Not to Screen—That is a Question! Dr. Philippe Major, CHU Sainte-Justine Challenges in Care Coordination and Network Establishment in TSC Dr. Maria Zak, University of Toronto Learning Objectives: At the end of the session, participants will be able to: • review emerging pharmacological treatments that can be used to treat epilepsy secondary to TSC; • discuss the rationale of serial EEG monitoring in infants with TSC; • recognize the spectrum of non-pharmacological therapies including epilepsy surgery and neurostimulation in the management of epilepsy related to TSC; and • describe the challenges of care coordination in patients with TSC. Target Audience: Child Neurologists, Adult Neurologists, Neurosurgeons, Neuroradiologists, Neurophysiologists, Residents, Fellows, Nurses.
6:45 p.m. 7:30 p.m. - onward	CLAE Reception and Gala Dinner <i>(Tickets must be purchased in advance)</i> Meet in the hotel lobby for the buses CLAE Reception and Gala Dinner at 50th Estate Winery

Sunday, September 25, 2022

6:00 a.m.	CLAE Fun Run/Walk Join us for the 5th CLAE Fun Run/Walk! <i>Meet at 6:00 a.m. sharp in the hotel lobby</i>
7:00 a.m.	Breakfast and Exhibitor/Delegate Networking
7:30 a.m.	Ictal Semiology Session Chairs: Dr. Jorge G Burneo, Western University, and Dr. Juan Pablo Appendino, University of Calgary Topics and Speakers: Adult Case 1

	Dr. Samuel Lapalme-Remis, University of Montreal Pediatric Case Dr. Natarie Liu, University of Alberta Adult Case 2 Dr. Chantelle Hrazdil, University of British Columbia Learning Objectives: At the end of the session, participants will be able to: • demonstrate how semiology may be used to localize seizure onset and propagation; and • demonstrate the clinical elements to reconstruct seizure onset and propagation pattern of ictal discharge. Target Audience: Epileptologists, epilepsy surgeons, general neurologists, fellows, residents, medical students, allied health professionals.
8:30 a.m. Plenary	Understanding Lifespan Changes in People with Epilepsy Through Neuroimaging and Connectomics Chairs: Dr. Boris Bernhardt, Montreal Neurological Institute, and Dr. Paolo Federico, University of Calgary Topics and Speakers: Structural and Network Changes in Childhood Epilepsy Dr. Dewi Schrader, University of British Columbia Network Reorganization in Adult Epilepsy Dr. Sara Lariviere, Montreal Neurological Institute A Network Perspective on Cognitive Decline in Epilepsy Dr. Lorenzo Caciagli, Thomas Jefferson University Learning Objectives: At the end of the session, participants will be able to: • demonstrate knowledge in basic concepts related to connectomics and graph theory; • identify structural and functional anomalies in childhood and adult epilepsy • recognize that cognitive function can be mapped via neuroimaging and network-based approaches; • identify key examples of network abnormalities underlying cognitive impairment and disease progression in common epilepsies; and • recognize that network analyses can inform epilepsy treatment outcomes. Target Audience: Neurologists, epileptologists, fellows, residents, medical students, clinical researchers, and imaging scientists.
10:15 a.m.	Break and Exhibitor/Delegate Networking

10:45 a.m.	Breakout Sessions
Session 4-A	Stereotactic EEG – Lessons from Pediatric and Adult Patients Chairs: Dr. Walter Hader, University of Calgary, and Dr. Kenneth Myers, McGill University Introduction Dr. Walter Hader, University of Calgary, and Dr. Kenneth Myers, McGill University Case #1: An Adult with Drug-Resistant Focal Epilepsy Dr. David Steven, Western University, and Dr Jorge Burneo, Western University Case #2: A Child with Drug-Resistant Focal Epilepsy Dr. Roy Dudley, McGill University, and Dr. Kenneth Myers, McGill University Learning Objectives: At the end of the session, participants will be able to: • describe the indications for an SEEG implantation; • describe the general approach to creating an SEEG implantation plan; • describe the utility of electrode stimulation during an SEEG implantation; and • describe the typical ictal pattern of a focal seizure on SEEG. Target Audience: Epileptologists (pediatric and adult), neurosurgeons (pediatric and adult), epilepsy fellows, epilepsy nurses, neurophysiology technicians.
Session 4-B	Epilepsy Genetics: A Focus on Precision Medicine Chairs: Dr. Lysa Boissé Lomax, Queen’s University Topics and Speakers: First Steps: An Approach to Epilepsy Genetic Testing Dr. Lysa Boissé Lomax, Queen’s University The Developmental Epileptic Encephalopathies Across the Lifespan Dr. Danielle Andrade, University of Toronto Paediatric Genetic Epilepsy: Emerging Therapies Dr. Felipe Borlot, University of Calgary Precision Medicine in Adults with Epilepsy: From Monogenic to Common Epilepsies Dr. Karl Martin Klein, University of Calgary Learning Objectives: At the end of the session, participants will be able to: • describe an approach to epilepsy genetic testing, including patient selection, choice of investigations, tackling variants of uncertain significance (VUS), counselling patients and family members, and when to consult medical genetics; • describe the current state of knowledge surrounding precision or personalised medicine in both paediatric and adult monogenic epilepsy syndromes; and

	• discuss advances on the horizon for the investigation and management of paediatric and adult epilepsy syndromes. Target Audience: Medical students, neurology residents, epilepsy fellows, neurologists, epileptologists, neurosurgeons, nurse practitioners, nurses, genetic counselors.
12:30 p.m.	On-the-Go Lunch

Sponsors & Exhibitors

This program has received an educational grant or in-kind support from the following:

