

CLAE CONNECTIONS

JUNE 14; VOLUME 5: ISSUE 2



Canadian League Against Epilepsy

MESSAGE FROM THE PRESIDENT



INSIDE THIS ISSUE:

MY VISION-DR JETTE 2

ADVANCES IN NEURO-
PSYCHOLOGY 3

RISING STAR AND
CLAE AWARDS 4

NATIONAL EPILEPSY
REVIEW COURSE 5

UPCOMING EVENTS 5

EDITOR'S PICK 6

Dear members of the CLAE,

Seven months have passed since I began my role as the President of the CLAE. Even though, it seems like time has flown quite fast, it has been a very busy time for the Executive Committee. The organization of our meeting in Vancouver is almost finalized. The draft of the agenda looks fantastic, and it will be a meeting for all disciplines involved in the care of those with epilepsy. The science looks great and it will be a wonderful opportunity to celebrate 40 years of this great organization. What a coincidence that our 40th anniversary occurs at the same time that Canada celebrates its sesquicentennial anniversary as a nation, and what better place than the city of Vancouver. As you all know, Vancouver is a vibrant and multicultural metropolis with so many things to do and see.

The job of the Education Committee led by Dr. Paolo Federico has been essential for the planning of the meeting...kudos to them! Let's support the meeting by submitting abstracts. Let's share our work with the Canadian epilepsy community. The meeting will also be an opportunity to recognize our founders, who have also been invited to participate in this celebration. Furthermore, we have partnered with the Canadian Board of Registered EEG technologists to have a session at the meeting, and as usual, we will have another session with the Canadian Epilepsy Alliance.

The Awards Committee led by Dr. Francois Dubeau has also been quite busy. This year the CLAE will be handling 3 fellowships, awards on publication, and studentships. Congratulations to all the winners whose names are listed in this issue of CLAE connections. All these awards have been financially supported by our

different partners, whose support is invaluable. I would like to recognize their continuous support to our institution and the Canadian epileptology.

The newly-created Global Health Committee has finally been up and running. Soon you will be receiving a survey that will allow us to know of your work abroad. A goal of my mandate is to place the CLAE in the global scenario of epilepsy, and what better start than working with all the networks already established by Canadians around the world! As Canadians, we always tend to care for those in need, and we all know of the great job you do abroad. The work of Laura Jurasek in leading this committee has been magnificent.

Our former president, Dr. Nathalie Jette is the new Chair of the ILAE Commission on North American Affairs. Congratulations to her! A recognition well deserved for all the work Nathalie has been doing not only in Canada, but at the ILAE level.

Finally, I would like to invite you to follow the CLAE on Facebook and Twitter @CLAE_LCCE

Cheers,

Jorge



MY VISION: DR NATHALIE JETTE



Dear Colleagues and Friends,

It is my absolute privilege and honour to have been elected as the incoming Chair of the North American Commission of the International League Against Epilepsy (ILAE). My work on ILAE commissions and task forces, along with my work with ILAE chapters (Canadian League Against Epilepsy and American Epilepsy Society) represent some of the most gratifying and humbling experiences in my academic career. Through these experiences I have seen international colleagues come together in a collaborative fashion to improve the lives of persons living with epilepsy by promoting education, clinical care and research, and advocacy.

Dr. Samuel Wiebe, our ILAE President-Elect, has highlighted key areas of priorities for the ILAE: Improving access to care, knowledge translation and education, financial sustainability and growth, and expanding boundaries. I believe that my experience on the North American Commission (two terms), my ILAE leadership roles (e.g. Immediate Past President of the CLAE, Chair of Guidelines Committee, Chair of Stigma Task Force), my expertise in health services research and knowledge translation and my teaching experience provide me with the necessary skills to work effectively with my CLAE, AES and Caribbean Epilepsy Society colleagues in addressing these important priorities.

I have also been privileged to work with members from various organizations nationally and internationally (e.g. Canadian Epilepsy Alliance, International Bureau for Epilepsy, World Health Organization) to improve the lives of those with epilepsy through advocacy, clinical care tools, education and research. Enhancing collaborations with partner organizations is key to ensure that we fill the knowledge and treatment gap when it comes to epilepsy care globally.

As Chair of the North American Commission (NAC), I will continue to work with our NAC members and chapters to ensure that our commission contributes to the key ILAE priorities. We will continue to support successful NAC

activities such as but not limited to:

- The Leadership Development Course offered at the International Epilepsy Congress
- Our collaborative educational activities with other chapters and commissions globally
- The development of innovative approaches to close the knowledge to action gap and our commitment to ensure that such innovative tools are adapted to the local context to ensure their successful integration into clinical care and practice
- Our interdisciplinary work to improve access to care and reduce the treatment gap not only in North America and in the Caribbean but in other regions of the world also through collaborative education, research and advocacy.
- Our commission's involvement in harmonizing regulatory activities with other regions
- Our work on stigma in epilepsy and related outcomes

I realize that I have big shoes to fill as the incoming Chair of the North American Commission. However, I am committed to continue to work collaboratively with all of my colleagues nationally and internationally, with our incoming President Dr. Samuel Wiebe and with the ILAE Management Committee to improve the lives of persons living with epilepsy, their families and their caregivers.

Nathalie Jetté, MD, MSc, FRCPC
 Chair Elect North American Regional Commission
 International League Against Epilepsy
 Past President Canadian League Against Epilepsy



RECENT ADVANCES IN RESEARCH IN THE NEUROPSYCHOLOGY OF EPILEPSY

At the 2016 Biennial Scientific meeting of the CLAE, a symposium was held to profile recent areas of inquiry into cognition and epilepsy.

Dr. Nicole Taylor (University of Manitoba) and Dr. Antonina Omisade (QEII Health Sciences Center, Halifax) provided an overview of research on neuropsychological function in patients with new onset epilepsy, noting that emerging research shows that subtle cognitive deficits may be present at the time of or prior to the initial seizure. At epilepsy onset, children demonstrate a variety of broad deficits in cognitive and executive functioning. A history of academic problems or behavioral and psychiatric problems is also common, and may predict later cognitive impairment. In adults, mild deficits in processing speed, attention and memory are common at epilepsy onset, but are under-reported. Baseline cognitive screening for both children and adults is recommended as soon as epilepsy is diagnosed, and ideally before initiation of treatment to provide appropriate patient counseling and monitor the cognitive trajectory over time.

Accelerated long-term forgetting (ALF) refers to the finding that despite relatively normal acquisition and initial consolidation of information, some epilepsy patients show a rapid course of forgetting over longer periods (e.g., hours, days, potentially weeks) in comparison with healthy controls. Dr. Mary Lou Smith (Hospital for Sick Children and University of Toronto) reported on findings in children with idiopathic generalized epilepsy and temporal lobe epilepsy who had intact immediate recall but rapid forgetting over a one-week period for verbal material. Dr. Mary Pat Mc Andrews (Krembil Research Institute, University Health Network and University of Toronto) described ongoing work in her lab aimed at better characterizing ALF in adults with medial temporal-lobe epilepsy by examining (1) the type of memory processes and (2) patient characteristics related to rapid forgetting. Her results suggest that patients fail to use novelty to boost memory performance at longer delays and that connectivity between brain regions responsible for coding specific and schematic aspects of memory is poorer in those with ALF. Overall, her findings suggest that the integrity of hippocampal interactions with other brain regions is crucial to

understanding why patients forget new learning rapidly. Dr. Marilyn Jones-Gotman (McGill University and Montreal Neurological Institute) discussed cognitive aging after temporal-lobe resection. She studied patients at least 55 years old and at least 20 years post temporal-lobe (TL) surgery, comparing their intelligence, memory, attention, language and executive function to that of healthy age-matched controls. The left TL patients differed from the control group on several verbal measures including word finding and verbal memory, while the right TL patients differed from the control group on three nonverbal measures including nonverbal memory. Thus, over time the patients' specific deficits remain significant but more general deficits do not develop.

Social cognition refers to the ability to understand and predict the mental state of others (e.g., attribute their beliefs, thoughts, emotions and intentions). Dr. Melanie Cohn (University Health Network and University of Toronto) asked whether these abilities should be assessed as part of standard clinical neuropsychological assessments. In epilepsy, social cognition deficits are shown to have a neurobiological basis, typically involving temporal and frontal regions, and are not solely a by-product of reduced socialization and stigma. In addition, these deficits are shown to be associated with poor social support, self-appraisal, coping and overall quality of life in individuals with epilepsy.

The prevalence of cognitive impairment in epilepsy strongly supports the need for interventions to provide strategies for patients to either cope with their deficits, or to improve their function. Dr. Elizabeth Kerr (Hospital for Sick Children) presented her recent findings on the effects of a computerized working memory intervention (Cogmed) in children with active epilepsy. Preliminary support of immediate effectiveness and short-term sustainability on tasks similar in nature to those in training was demonstrated. The need for large randomized control trials examining cognitive rehabilitation was emphasized.

Mary Lou Smith, PhD
Professor and Chair,
Department of Psychology (Mississauga Campus)
University of Toronto



RISING STAR

Dr. Steve Gibbs is a neurologist who recently joined the Center for Advanced Research in Sleep Medicine at Hôpital du Sacré-Cœur and Université de Montréal as Clinical-Assistant Professor. During his medical training, he completed a MSc in the laboratory of Dr. Lionel Carmant at Ste-Justine Hospital. He then pursued his research formation through the MD/PhD program under the supervision of Drs. Lionel Carmant and Laurent Descarries. His work, supported by a CIHR studentship, demonstrated that the presence of an underlying cortical lesion predisposed to spontaneous recurrent seizures as well as impaired hippocampal development in an animal model of epilepsy.

Dr. Gibbs then completed his neurology training at the Université de Montréal. During this period, he worked closely with the epilepsy group at Hôpital Notre-Dame under the supervision of Dr. Dang Nguyen, studying various non-invasive diagnostic modalities in insular epilepsy. During his residency, he developed an interest in EEG recordings and its use to characterize the effects of brain states on epileptic activity and seizure occurrence. After completing his residency in 2013, Dr. Gibbs moved to Milan, Italy for a clinical research fellowship at the Claudio Munari Centre for Epilepsy Surgery and Centre for Sleep Medicine, under the supervision of Dr. Lino Nobili. Supported by a training grant from the “Fonds de Recherche en Santé du Québec”, he studied the utility of a high-density EEG recording protocol in patients with extra-temporal lobe epilepsy undergoing pre-surgical assessment, validating his results using stereo-EEG recordings and post-surgical outcome. During his

fellowship, he also studied sleep-related epilepsies, in particular drug-resistant sleep-related hypermotor epilepsy (SHE) in order to improve the diagnostic and localization ability in this syndrome.

Dr. Gibbs has published widely in journals such as Annals of Neurology, Epilepsia, Neurobiology of Disease and Sleep Medicine Reviews. He has also co-authored several book chapters on the topic of sleep and epilepsy and presented in numerous international conferences. At Sacré-Coeur hospital, he is currently laying the foundation of a new epilepsy unit to serve the population of the north of the island of Montreal and its surroundings. Together with colleagues at the Center for Advanced Research in Sleep Medicine and in partnership with European collaborators, he aims to focus on the interrelationship between sleep and epilepsy. Using stereo-EEG data as well as high-density EEG recordings, Dr. Gibbs is investigating the relationship between sleep sub-states and the dynamics of epileptic activity during the sleep-wake process. Finally, he is the co-founder and co-organizer of the National Epilepsy Review Course, a 3-day nationwide seminar designed for senior neurology residents.



CLAE AWARDS

First Name	Last Name	Award Won	University	Supervisor	Project Title
Suk-jun	Hung	Fellowship	McGill University	Dr. B. Bernhardt	Dynamic functional network analysis in MRI-negative focal epilepsy
Maryam	Nabavi Nouri	Fellowship	University of British Columbia	Dr. A. Datta	Inflammatory brain disease and its relation to infections
Nicholas	Cothros	Fellowship	Western University	Dr. Jorge Burneo	Long-term ECG recording in patients with refractory epilepsy
Elisha	Krauss	Studentship	Queen's University	Dr. Aylin Reid	Inflammation during post-traumatic Epileptogenesis
Jordan	Farrell	Publication - Graduate/Medical Student	Hotchkiss Brain Institute	Dr. G. Campbell Teskey	Postictal behavioural impairments are due to a severe prolonged hypoperfusion/hypoxia event that is COX-2 dependent
Lauryn	Conway	Publication - Allied Health	Hospital for Sick Children, University of Toronto	Dr. Mary Lou Smith	Correlates of health-related quality of life in children with drug resistant epilepsy
Nicholas	Cothros	Publication - Mary Anne Lee	Adult Neurology, University of Western Ontario	Dr. David Stevenson, Dr. Jorge Bureno	Knowledge and attitudes about epilepsy surgery among family doctors in Ontario
Syed	Rizvi	Publication - Fellow or Post-doc	Department of Medicine, Royal University Hospital	Dr. J. Tellez	Evaluating the single seizure clinic model: Findings from a Canadian Center



NATIONAL EPILEPSY REVIEW COURSE

Canada-trained neurology residents are fortunate to benefit from resident review courses in numerous subspecialties including multiple sclerosis, headache, stroke, and movement disorders. These courses have been in place for many years and neurology residents that attend universally find them extremely interesting and helpful during one's preparation for the Royal College examination in neurology.

Despite the important potential benefits of such courses, one focused on epilepsy was conspicuously absent. To remedy the situation, four colleagues chose to collaborate and develop a new, nationwide review course specializing in epilepsy. The founding members of the organizing committee were Dr. Paolo Federico (University of Calgary), Dr. Steve Gibbs (Université e Montréal), Dr. Mark Keezer (Université de Montréal), and Dr. Elisabeth Simard-Tremblay (McGill University). With the aid of an unrestricted educational grant provided by UCB Canada, the first National Epilepsy Review Course was held in Montreal at the Centre de Recherche du Centre Hospitalier de l'Université de Montréal. This was 3-day course, lasting from November 4-6 2016. More than 50 adult and paediatric PGY5 neurology residents traveled from across Canada and attended. Seventeen lecturers, representing six provinces and twelve epilepsy centres, presented a wonderful and wide-ranging series of lectures and small-group sessions covering fundamental and advanced principles in clinical epilepsy and electroencephalography.

The 1st National Epilepsy Review Course was highly successful and received excellent feedback. The organizing committee is planning for the 2nd annual course, to be held

In Calgary, January 19-21, 2018. The continued hope is that this course will help to prepare senior residents for the Royal College examination. Even more importantly, we wish to encourage excitement and interest in epilepsy, to inspire the next generation of leaders in epilepsy in Canada.

(By Mark Keezer)



The 32nd International Epilepsy Congress will take place in Barcelona, Spain between September 2-6, 2017.

This biennial meeting, which is a joint collaboration of the International Bureau for Epilepsy (IBE) and the International League Against Epilepsy (ILAE), affords delegates a unique opportunity for face to face interaction with the finest minds in the field. It also allows delegates to gain insight into the latest research and to get in touch with the many different nationalities that will be in attendance.

[Registration is now OPEN!](#)



The Canadian League Against Epilepsy is an organization of medical and basic sciences professionals including physicians, basic scientists, nurses, neuropsychologists, neuroradiologists, students and other healthcare professionals.

Board of Directors

President Jorge Burneo	Junior Member Representative Kristin Ikeda
President-Elect Dang Nguyen	CEA Representative Deidre Floyd
Secretary Mary Lou Smith	CERI Representative G. Campbell Teskey
Director of Education Paolo Federico	ILAE Representative Samuel Wiebe
Treasurer David Steven	CPEN Representative Kathy Speechley
Past President Nathalie Jette	

NOTE FROM YOUR EDITOR

The next issue of the CLAE Newsletter (September 21, 2017) will include meaningful and relevant information to CLAE members, including but not limited to the following:

1. CLAE Stars: A member who has received local, national or international recognition for his/her research, teaching, innovation or advocacy.
2. Innovative new programs and services (clinical, research or advocacy). These include, but are not restricted to: new major regional/institutional or provincial clinical programs, new research themes, platforms, consortiums and networks, outreach programs in vulnerable/marginalized communities, innovative educational programs and advocacy initiatives/projects.
3. Major publications by Canadians in the field of epilepsy during the last six months.
4. Information on epilepsy meetings, and epilepsy related social events.
5. Information on recruitment of patients for research studies and opportunities for research, educational and clinical collaboration.
6. Success and success stories in major grant competitions.
7. An 'In Memoriam' section for colleagues we recently lost .

If you are interested in contributing and providing content to the CLAE Newsletter, please contact Rajesh Ramachandran Nair (rnair@mcmaster.ca) before September 5, 2017.

Thank you.

Rajesh Ramachandran Nair, MD, FRCPC
Editor-in-Chief, CLAE Connections

EDITOR'S PICK

NOTABLE PUBLICATIONS FROM CANADA IN 2017

1. Different seizure-onset patterns in mesiotemporal lobe epilepsy have a distinct interictal signature. Frauscher B, von Ellenrieder N, Dubeau F, Gotman J. *Clin Neurophysiol.* 2017 May 9;128(7):1282-1289. doi: 10.1016/j.clinph.2017.04.020
2. Child- and parent-reported quality of life trajectories in children with epilepsy: A prospective cohort study. Ferro MA, Avery L, Fayed N, Streiner DL, Cunningham CE, Boyle MH, Lach L, Glidden G, Rosenbaum PL, Ronen GM; QUALITÉ group.
3. The impact of seizures on epilepsy outcomes: A national, community-based survey. Josephson CB, Patten SB, Bulloch A, Williams JVA, Lavorato D, Fiest KM, Secco M, Jette N. *Epilepsia.* 2017 May;58(5):764-771. doi: 10.1111/epi.13723. Epub 2017 Mar 27.