

CLAE CONNECTIONS

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Canadian League Against Epilepsy

MESSAGE FROM THE PRESIDENT



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Dear Colleagues,

Spring is just around the corner and a wonderful time to revitalize our organization!

You should have all received the call for nominations for our upcoming elections. Three important positions need to be filled this year: President Elect, Treasurer and Junior (trainee) Representative. The term for these positions will begin in October 2016. Dr. Nizam Ahmed, our past President, is the Chair of the Election Committee. I encourage you to consider joining us as executive board members as we embark on an important period in our history...our 40th anniversary in 2017! Be a part of this exciting time and accomplishment for our organization.

We are also pleased to announce the nomination of our colleague Dr. Samuel Wiebe for President of the International League Against Epilepsy (ILAE). We are fully supportive of this nomination. Best of luck Dr. Wiebe! Make us proud...

We are also excited about our upcoming Biennial meeting in Quebec City on October 14-16, 2016. Dr. Paolo Federico, our Director of Education, and the CLAE Education Committee has been hard at work planning a very exciting meeting for us all. There will also be a new event this year...a Run for Epilepsy to support our activities, especially for activities that benefit our members (awards, educational session, research activity, etc.).

Many of our members have been actively involved in initiatives that will benefit the Canadian epilepsy community. For example, the Education Committee is working on developing updated content for our website, the Medical Therapeutics Committee is developing a statement on the use of medical marijuana, the

Driving Task Force is examining current registry processes across Canada and has offered to provide consultation for future CMA and CCMTA driving standards. Finally, the Nominations Committee is working to ensure our committees have representative membership from different regions of Canada and with varied expertise while the Awards Committee is busy reading in preparation for arriving at decisions at who will be the winners of the trainee Publication awards.

We would also like to announce the summer studentship competition again this year – deadline for application is March 31, 2016. You may get more information about these [here](#).

Congratulations to Dr. Frederick Andermann for being awarded the prestigious 2015 ILAE Lifetime Achievement Award and to Dr. Jean Gotman for being awarded a 2015 ILAE Ambassador award. Well deserved awards to exceptional leaders in our field.

Keep us posted regarding any important news or accomplishments by members of our organizations, and a big thanks to Dr. Rajesh RamachandranNair and his committee for their work on our newsletters!

Finally, please remember Purple Day is just around the corner – Wear Purple on March 26 and join the thousands of Canadians talking about epilepsy!

Sincerely,

Nathalie Jette, MD, FRCPC





CLAE AWARD NIGHT DECEMBER 2015: COMMENTS FROM DR JETTE

CLAE Junior Investigator Award: Dr. Elsa Rossignol

Dr. Rossignol is an Associate Professor in the Department of Neurosciences and Pediatrics at the University de Montreal, joined the team at Sainte Justine after a post-doctorate fellowship in Neurobiology at NYU School of Medicine in New York. Her innovative research has focused on whole exomes in epileptic encephalopathies and some translational work in identifying calcium channels as a therapeutic targets for some of these epileptic encephalopathies. Her work has been published in high impact journals such as Annals for Neurology. She is also training many of our future scientists from the undergraduate to the postdoctoral level. She has already been recognized both regionally and internationally for her work as attested by the CURE Epilepsy Foundation and CIHR grants she received and her ongoing clinician scientists awards from les Fonds de Recherche du Quebec-Sante.



CLAE Clinical Advocacy/Practice Award: Dr Mary Connolly

Dr Connolly has worked tirelessly to improve epilepsy care in British Columbia for 25 years and is widely recognized as one of the leading pediatric epileptologists in Canada. She was nominated her for (and I quote): "her dedication to children with epilepsy and their families, to her trainees, to academia and drug development, and her programmatic leadership to improve epilepsy care in Canada".

Dr. Connolly is the founding Director of the epilepsy surgery program, Director of the epilepsy program at the British Columbia Children's Hospital and Clinical Professor at the University of BC. She has truly build a world-class multidisciplinary quaternary epilepsy center, where >5000 children are assessed annually. The program reaches those even living in rural areas – in fact, she travels every 3 months to staff rural clinics in BC.



CLAE Research Award: Dr. Neda Bernasconi

Dr. Bernasconi is an Associate Professor in the department of neurology and the intergrated program in neuroscience at McGill. She is co-founder of the neuroimaging of epilepsy laboratory of the MNI, where she brings together a team of students and fellows in neuroscience, neurology and biomedical engineering. Her research accomplishments are extensive so I can only highlight a few of them but needless to say, the caliber of her work and her resulting innovations have been remarkable.

For example, over the years, she has developed cutting-edge neuroimaging methods and combined them with statistical learning to predict lesion location and histology in single patients. Importantly her work has defined the in vivo signatures of lesions not detected by conventional radiology, identified pre-operative markers of seizure outcome and pioneered network level analysis.



Wilder Penfield Award: Dr. Richard McLachlan

Dr. McLachlan is Professor of Neurology at Western University. From a clinical standpoint, he has dedicated his entire medical career to care for persons with epilepsy not only living in London and Soutwestern Ontario, but also from different part of Canada and abroad. From a service standpoint, he has served on numerous committees, including as a Board member of the Canadian Society of Clinical Neurophysiologists and the Epilepsy Support Center in London but also as the longest serving president of the CLAE. He has also been on the editorial boards of CJNS and Epilepsia.

He has published more than 150 peer reviewed manuscripts . He has received more than 2.5 million in funding from research throughout his career and had lead many phase I and II clinical trials of new AEDs in Canada. He is one of those few individuals who has published original research in epilepsy in so many domains: clinical epileptology, EEG, imaging, neuropsychology and neuropsychiatry and basic mechanisms of epilepsy



MY PROGRAM: MNI EPILEPSY PROGRAM (BY DR E KOBAYASHI)

Epilepsy was the main motivation behind Dr. Wilder Penfield's enthusiasm to build a place where clinical care and research would grow in synergy. Montreal was honoured by the possibility brought by Dr. Penfield to host such a place and the Montreal Neurological Institute and Hospital has conducted pioneering work in the field since it has been created in 1934. From the beginning, Dr. Penfield wanted to offer surgical options to treat patients with epilepsy that presented with drug-resistant seizures. His clinical research work including intraoperative stimulation has been immortalized in the homunculus that served as basis for clinical and research advances. Dr. Penfield's and Dr. Jasper's Epilepsy and the Functional Anatomy of the Human Brain book is a representation of his contributions to localization of brain function.

Surgical treatment of epilepsy, initiated through what became known as the "Montreal Procedure", and much of the pioneering clinical and research work that took and still takes place at 'the Neuro' stems from this mission. Over the years, prominent clinicians and researchers have trained fellows from all over the world, which led to the Neuro's legacy to spread quickly and influence patients' treatment and epileptology elsewhere. Amongst the epilepsy pioneers at the Neuro, we should pay tribute to Herbert Jasper, Theodore Rasmussen, Pierre Gloor, Brenda Milner, William Feindel, Fred and Eva Andermann and Andre Olivier, some of whom are still active and enthusiastic clinicians and scientists. Needless to say, the legacy left by these experts in the field of memory, surgery, neurophysiology, clinical epileptology and genetics of epilepsy is unique.

The current Epilepsy group team members continue to contribute with a wide range of expertise to clinical and basic research in the field of clinical epileptology and neurophysiology. Other active clinical and research programs include:

- Definition of epilepsy syndromes and identification of genetic basis of different types of epilepsies with Fred and Eva Andermann, who have trained and mentored most currently active epilepsy experts worldwide.
- Basic science research led by Massimo Avoli, with important contributions, amongst others, to the understanding of mecha-

- Electroencephalography (EEG) research including intracranial EEG investigation, led by Jean Gotman and Francois Dubeau, with important contributions to a wide range of neurophysiology topics, including high frequency oscillations and metabolic/hemodynamic changes related to epileptic activity.

- Functional imaging including magnetic source imaging of magnetoencephalography (MEG) signals of epileptic discharges with Eliane Kobayashi and Christophe Grova, pre-surgical mapping with Denise Klein and identification of functional abnormalities with positron emission tomography (PET) with Jean-Paul Soucy and Eliane Kobayashi. Altogether these functional imaging studies have helped targeting of intracranial electrodes and tailoring surgical resections.

- Structural imaging and MRI post-processing with Andrea and Neda Bernasconi, unravelling lesions that could be potentially resected.

- Clinical neurophysiology and clinical epileptology with Martin Veilleux, Benjamin Zifkin, Francois Dubeau, Eliane Kobayashi and Andrea Bernasconi, training residents and fellows and providing state of the art patient care.

- Neuropsychology evaluation of epilepsy patients with Marilyn Jones-Gotman, Viviane Sziklas and Joelle Crane, without whose expert opinion, patients will not proceed to surgical decisions. Of broad clinical application, their research clinical contributions include the validation of the speech and memory test with intracarotid ethomidate injection.

- Finally, advances in surgical treatment of epilepsy patients and particularly of temporal lobe epilepsy, have come through the skilled hands of Andre Olivier and Jeffery Hall, using cutting edge neuronavigation in combined work with Kelvin Mok. Dr. Olivier's and Dr. Hall's reputations have attracted over the years patients from across Canada and also from abroad, seeking a solution for their drug-resistant seizures. Their pioneer work including intracranial depth electrodes EEG monitoring has contributed not only to a very active research program in invasive neurophysiology but also helped to alleviate suffering of patients seeking a surgical solution for their intractable seizures.



ILAE AWARDS SEPTEMBER 2015

Ambassador for Epilepsy Awards

The Ambassador for Epilepsy Award is given to individuals to recognise outstanding personal contributions to activities that advance the cause of epilepsy. The Award is given for the lifetime of the recipient. **Dr. Jean Gotman** was a recipient of the Ambassador for Epilepsy Awards this past year.

Jean Gotman is Professor at the Montreal Neurological Institute and carries out research on advanced EEG and imaging in epilepsy. He is the ILAE Director of Interactive Media, responsible for its web site and e-Newsletters. He chairs the ILAE Communication Task Force, is a member of the Publication Task Force, and the Task Force on Clinical Neurophysiology of the Diagnostic Methods Commission

His work aims to improve both our understanding of epileptogenesis and our diagnostic techniques. Combining functional imaging techniques (fMRI) and EEG in a novel non-invasive approach, his group studies the brain regions in which abnormal activity is taking place when a discharge occurs. He has been involved in organizing several congresses, including the last International Epilepsy Congress, Montreal 2013. *(reference: ILAE and MNI websites)*

Lifetime Achievement Award

The Lifetime Achievement Award is the highest award presented by ILAE and IBE and is presented to an individual to recognise and honour his or her exceptional and outstanding personal contribution over a long period of time to activities that advance the cause of epilepsy. The winner of this prestigious award in 2015 was **Dr. Frederick Andermann**.

Fred Andermann’s scientific activities, dedicated to advance epilepsy knowledge, and his dedication as a clinician to the care of people with epilepsy, span a period of almost 60 years. He has shown an extraordinary ability to identify epilepsy syndromes and to assemble and motivate multidisciplinary teams of researchers to conduct further clinical investigations.

The results of his studies have been published in 6 books and over 400 peer-reviewed articles in top journals. His monographs on alternating hemiplegia, Rasmussen’s Syndrome and migraine-epilepsy syndrome have contributed significantly to the understanding these disorders and have led to further research in these areas. He has inspired and trained dozens of epileptologists from all over the world who became leaders in their own country. He has also been very actively engaged in ILAE activities, including his serving as ILAE Vice-President. *(reference : ILAE website)*

CLAE COMMITTEES

Awards Committee

- Nathalie Jette (Chair)
- Francois Dubeau
- David Steven
- Mary Connolly
- Thomas Snyder
- Aylin Reid

Education Committee

- Paolo Federico (Chair)
- Neda Bernasconi
- Peter Carlen
- Mary Pat McAndrews
- Bernd Pohlmann-Eden
- Gordon Cam Teskey
- Richard Desbiens
- Linda Huh
- Matt Wheatley

Fundraising Committee

- Jose Tellez-Zenteno (Chair)
- Paula Brna
- Ms. Gail Dempsey
- Lionel Carmant

Nomination Committee

- Jorge Burneo (Chair)
- Juan Pablo Appendino
- Danielle Andrade
- Richard Desbiens
- Mark Sadler

Publication Committee

- Rajesh RamachandranNair (Chair)
- Mary Pat McAndrews
- Luis Bello-Espinosa
- Eliane Kobayashi
- Minh Dang Nguyen

Medical Therapeutics Committee

- Carter Snead (Chair)
- Suzanne Nurse (Co-Chair)
- Lionel Carmant
- JP Appendino
- Susan Rahey
- Ms. Laura Wang
- Manouchehr Javidan
- Cyrus Boelman

Driving Task Force

- Jeff Jirsch (Chair)
- Richard McLachlan
- Chantelle Hrazdil
- Lysa Boisse Lomax
- Ms. Karen Legg
- Ms. Pierrette Cloutier
- Martin Veilleux



RISING STAR: Anne Gallagher



Dr Anne Gallagher is a paediatric neuropsychologist, Assistant research Professor at the University of Montreal and the director of the Laboratoire d'Imagerie Optique en Neurodevelopment (LION's Lab) at Sainte-Justine Hospital in Montreal. She received her bachelor and master's degrees in psychology from Laval University in Quebec City, and completed her PhD at the University of Montreal in 2008. During her PhD, she entirely built the first Canadian university near-infrared spectroscopy (NIRS) laboratory at the Sainte-Justine Hospital. She subsequently pursued a postdoctoral research fellowship at Harvard Medical School, where she developed an innovative research program on imaging the Tuberous Sclerosis Complex (TSC) and epileptic brain. During her training, Dr Gallagher focussed on healthy and altered language development as well as the neuropsychological profile in patients with epilepsy. She also worked on the elaboration of noninvasive presurgical neuroimaging techniques in patients with refractory epilepsy to localize language and epileptogenic zones. Her work led to the implementation of these methods in clinical environments in Montreal and Boston, where they are now routinely used in patients.

Over the years, she has acquired significant expertise in multimodal neuroimaging, including NIRS, electroencephalography (EEG), magnetic resonance imaging (MRI), and magnetoencephalography (MEG). Her leadership in imaging and epilepsy led to numerous invitations as a speaker in governmental initiatives and international conferences (50 invited talks) as well as to the publication of over 45 articles in renowned peer-reviewed journals and chapters. Dr Gallagher is also the recipient of many prestigious awards including seven major national scholarships, three salary

awards (CIHR New Investigator Salary Award, FRQS Chercheur Boursier, Sainte-Justine Hospital) and 10 prizes, notably the Best Quebec PhD thesis in Health.

The main goal of Dr Gallagher's epilepsy research is to improve neurodevelopmental outcome and intervention strategies in paediatric epilepsy using multimodal neuroimaging techniques and neuropsychological testing. At the TSC clinic at Sainte-Justine Hospital, she collaborates with Dr Philippe Major in order to identify predictive markers of epileptogenic activity and neurodevelopmental outcome in infants using NIRS-EEG and neuropsychological testing. Supported by the Savoy Foundation, this project could lead to the identification of babies with TSC that would benefit from individualized intervention strategies and anticonvulsivant treatments at an early stage. In close collaboration with Drs Lionel Carmant (Sainte-Justine) and Dang Nguyen (CHUM) and supported by NSERC and SickKids Foundation, Dr Gallagher's work also aims to assess and improve the outcome of neurosurgery in patients with refractory epilepsy. To achieve this goal, she investigates the cognitive impacts of epilepsy surgery and their underlying brain mechanisms. She also develops presurgical neuroimaging techniques using a functional connectivity approach in NIRS and EEG. This cutting-edge approach can be applied in very young patients and in children with severe cognitive and behavioural impairments, allowing more patients to have access to presurgical assessment. In another epilepsy-related project, Dr Gallagher collaborates with Dr Mary Lou Smith, from the University of Toronto, on a CIHR multicentre project studying the quality of life in children candidates for epilepsy surgery.

Dr Gallagher is a passionate young researcher who is fully committed to pursuing her work on paediatric epilepsy. Together with her lab team of undergraduate and graduate students, electrical engineer and NIRS-EEG technician, she has the strong desire and aspiration of improving the neuropsychological outcomes in children with epilepsy and ultimately their quality of life.

Call for Nominations

2016-2018 Board of Directors

On behalf of the CLAE Election Committee, I would like to request nominations for the following positions on the CLAE Board of Directors for the 2016 - 2018 term:

President-Elect

Treasurer

Junior Member Representative

Role/Responsibilities

The President-Elect shall be an active (full) member of CLAE living in Canada. He or she shall, in the absence of the President, perform the duties and exercise the powers of the President and shall perform such other duties as shall from time to time be imposed upon him or her by the Board. The president-elect will commence their term as president in 2018.

The Treasurer shall be an active (full) member of CLAE living in Canada. He or she shall have the custody of the corporate funds and securities. On a monthly basis, the treasurer will provide updates to the board of directors regarding the society's financial status and will review and approve all society expenses.

The Junior Member Representative shall be a Junior Associate (Trainee, Resident or Medical Student) member of CLAE living in Canada. He or she shall represent residents in Canadian neurology or neurosurgery training programs or post-graduate researchers who work in the field of epilepsy.

Please send the following by email to Narma Yogan at clae@secretariatcentral.com:

Nomination Form, Bio-Sketch (2 Pages or less), Headshot

DEADLINE FOR NOMINATIONS: Friday April 15, 2016 at 11:59 PM

Thank you,

Nizam Ahmed, Chair, Election Committee



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

Nathalie Jette

President-Elect

Jorge Burneo

Secretary

Mary Lou Smith

Director of Education

Paolo Federico

Treasurer

Jose Tellez-Zenteno

Past President

Nizam Ahmed

Junior Member Representative

Colin Josephson

CEA Representative

Gail Dempsey

CERI Representative

G. Campbell Teskey

ILAE Representative

Samuel Wiebe

CPEN Representative

Kathy Speechley

NOTE FROM YOUR EDITOR

The next issue of the CLAE Newsletter (June 2016) 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, consortium 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. Colleagues we recently lost /an In Memorium section.

If you are interested in contributing and providing content to the CLAE Newsletter, please contact Rajesh Ramachandran Nair (rnair@mcmaster.ca) before May 15, 2016.

Thank you.

Rajesh Ramachandran Nair, MD, FRCPC

Editor-in-Chief, CLAE Connections

EDITOR'S PICK

NOTABLE PUBLICATIONS FROM CANADA IN 2016

1. Burneo JG, Shariff SZ, Liu K, Leonard S, Saposnik G, Garg AX. Disparities in surgery among patients with intractable epilepsy in a universal health system. *Neurology*. 2016; 86(1):72-8.
2. Puka K, Smith ML. Where are they now? Psychosocial, educational, and vocational outcomes after epilepsy surgery in childhood. *Epilepsia*. 2016 Feb 9. doi: 10.1111/epi.13327.
3. Ramachandran Nair R, Jack SM, Strohm S. SUDEP: To discuss or not? Recommendations from bereaved relatives. *Epilepsy Behav*. 2016 Mar;56:20-5.

UPCOMING PROGRAMS



Canadian League Against Epilepsy Meeting

Quebec City, October 14-16, 2016.

4th Halifax International Epilepsy Conference & Retreat

White Point Beach Resort, Nova Scotia, Canada, September 21st to 24th, 2016

Epilepsy as a Network Disorder: What can we learn from other disorders such as autism, depression, dementia and schizophrenia?