

1ST INTERNATIONAL TRAINING COURSE ON NEUROIMAGING OF EPILEPSY

DATE

MAY 18 – 21, 2017

LOCATION

MONTREAL

COURSE DIRECTOR

ANDREA BERNASCONI, MD

FACULTY

- A. Bernasconi, MD - Montreal, Canada**
- N. Bernasconi, MD PhD - Montreal, Canada**
- B. Bernhardt, PhD - Montreal, Canada**
- F. Cendes, MD PhD - Campinas, Brazil**
- L. Collins, PhD - Montreal, Canada**
- L. Concha, MD PhD - Queretaro, Mexico**
- P. Federico, MD PhD - Calgary, Canada**
- M. Koepp, MD PhD - London, UK**
- D. Rudko, PhD - Montreal, Canada**

WELCOME

The Neuroimaging Task Force of the International League Against Epilepsy is proud to announce the First International Training Course on Neuroimaging of Epilepsy, held in at the McConnell Brain Imaging Centre of the Montreal Neurological Institute in May 18-21, 2017.

The McConnell Brain Imaging Centre (BIC) is a neuroimaging research facility that brings together a large group of researchers in neurology, neuroscience, biomedical engineering, physics and computer science. The BIC houses the cutting-edge equipment, including 1.5T and 3T MRI, PET, SPECT, MEG and high-performance computational infrastructures. The Montreal Neurological Institute and Hospital, founded by Dr W. Penfield, is a renowned epilepsy surgery center.

The course will provide clinicians and scientists working in epilepsy with an understanding of fundamentals and practical skills related to neuroimaging. The course welcomes both individuals with and those without prior expertise in neuroimaging. In addition to offering important methodological insights, emphasis will be placed on clinical decision-making and translation to local settings.

Morning sessions will consist of lectures given by a faculty of world-class neuroimagers and epileptologists. In the afternoon, participants will benefit from hand-on sessions guided by a team of experienced tutors, including image acquisition in the MRI suite, quality control procedures, visual MRI and functional analysis, together with established and cutting-edge diagnostic techniques.

We look forward to welcoming you in Montreal.

SCHEDULE

DAY ONE: 08:30 – 17:00

INTRODUCTORY SESSIONS

Registration and breakfast (08.00-09:00)

AM: Lectures: Basics of MRI acquisition and image evaluation (9.00-12.30)

09:00 - Lecture: Basic principles of MRI (**D. Rudko**)

10:00 - Lecture: The role of MRI in epilepsy (**F. Cendes**)

11:00 - Tea and biscuits

11:30 - Lecture: Epilepsy MRI protocol and visual evaluation (**A. Bernasconi**)

Lunch Break (12:30–14:00)

PM: Hands-on teaching sessions in small groups (14:00 – 16:00, rotating groups)

1) Acquisition of epilepsy protocols in the MRI suite

2) Visual diagnostics of epileptogenic lesions

Case presentations (**16:00-17:30**)

Meet the Giants: Welcome reception with Frederick Andermann and Alan Evans (18:30 – 21:00)

DAY TWO: 09.00 – 17:00

QUANTITATIVE STRUCTURAL IMAGING

Breakfast (08.00-09:00)

AM: Lectures on quantitative structural MRI methods and applications (9.00-12.30)

09:00 - Lecture: Basic principles of image processing (**L. Collins**)

10:00 - Lecture: Image analysis in temporal lobe epilepsy (**N. Bernasconi**)

11:00 - Tea and biscuits

11:30 - Lecture: MRI detection of neocortical lesions (**A. Bernasconi**)

Lunch Break (12:30–14:00)

PM: Hands-on teaching sessions in small groups (14:00-16:00, rotating groups)

1) Training on mesiotemporal anatomy and segmentation

2) Training in statistical analysis of brain imaging data

Case presentations (**16:00-17:30**)

SCHEDULE

DAY THREE: 09:00 – 17:00

FUNCTIONAL IMAGING, DIFFUSION MRI AND CONNECTIVITY ANALYSIS

Breakfast (08.00-09:00)

AM: Lectures

- 09:00 - Lecture: Task-based fMRI of memory/language and resting-state fMRI (**M. Koepp**)
- 10:00 - Lecture: Diffusion MRI: Principles and application (**L. Concha**)
- 11:00 - Tea and biscuits
- 11:30 - Lecture: Connectome analysis in epilepsy: Principles and application (**B. Bernhardt**)

Lunch Break (12:30–14:00)

PM: Hands-on teaching sessions in small groups (14:00-16:30, rotating groups)

- 1) Acquisition of memory, language, resting-state fMRI and diffusion MRI in the scanner
- 2) Task-based fMRI and diffusion tractography analysis using open-source softwares

Social event (19:00–23:00)

DAY FOUR: 09:00 – 12:00

MULTI-MODAL IMAGING

AM: Lectures

- 09:00 - Lecture: Multi-modal imaging in epilepsy (**P. Federico**)
- 10:00 - Group discussion: Translation to local settings - anticipated barriers and solutions
- 12:00 - Concluding remarks and feedback

REGISTRATION

Please register in advance as room will be limited to 30 participants. No on-site registration.

Applications must be received by **December 15th, 2017**.

Applications should include a brief description of your current clinical practice and/or research experience in the field of neuroimaging and epilepsy (max. 200 words) and a short CV. Please also indicate your level of experience in imaging (experienced, beginner, non-experienced).

Please send your application via email to: andrea@bic.mni.mcgill.ca

Selected participants will be informed no later than **January 6th, 2017** and will receive all further instructions regarding payment for registration.

Prior to the course, participants will receive a booklet with a list of relevant publications and instructions for the various hands-on training courses.

Registration Fee: \$800 CAD

This fee covers CME accreditation, breakfast, lunch and beverages during the 4-days course, a welcome reception and social event. Registration fees exclude accommodation, airfares, and other travel.

Travel bursaries are available to participants of low or middle-income countries. Please contact the Secretariat for an application form.