

DAY ONE – THURSDAY, MAY 17

Topic: Basics of MRI acquisition and image evaluation

Name tag at desk / Breakfast (07:45 – 08:45)

AM: Lectures

08:45 – 09:00 | Welcome (**A. Bernasconi**)

09:00 – 10:00 | Principles of MRI and novel quantitative contrasts (**D. Rudko**)

10:00 – 11:00 | MRI protocol and visual evaluation (**A. Bernasconi**)

11:00 – 11:30 | Break

11:30 – 12:30 | Optimizing visual diagnostics (**F. Cendes**)

Lunch Break (12:30–14:00)

PM: Hands-on teaching sessions

14:00 – 15:00 | Structural MRI acquisition (MRI suite; **N. Bernasconi**)

15:00 – 17:00 | Case studies – Visual diagnosis (**A. and N Bernasconi/F. Cendes**)

17:00 – 17:30 | Break

17:30 – 19:00 | Case studies – Group discussion

Welcome reception (Montreal Neurological Institute, 19:00 – 21:00)

DAY TWO – FRIDAY, MAY 18

Topic: Quantitative structural MRI - Methods and applications

Breakfast (08.00-09:00)

AM: Lectures

09:00 – 10:00 | Basic principles of image processing (**L. Collins**)

10:00 – 11:00 | Image analysis - Temporal lobe epilepsy (**N. Bernasconi**)

11:00 – 11:30 | Break

11:30 – 12:30 | Image analysis - Neocortical epilepsy (**A. Bernasconi**)

Lunch Break (12:30–14:00)

PM: Hands-on teaching sessions

14:00 – 15:00 | Statistical analysis of structural MRI (**B. Bernhardt**)

15:00 – 16:30 | Cases studies – Computer-aided diagnosis (**N. and A. Bernasconi**)

16:30 – 18:30 | Case studies – Group discussion

DAY THREE – SATURDAY, MAY 19

Topic: Functional imaging, diffusion MRI and connectivity analysis

Breakfast (08.00-09:00)

AM: Lectures

09:00 – 10:00 | Task-based fMRI – Language and memory (**M. Koepp**)

10:00 – 11:00 | Diffusion MRI – Principles and application (**L. Concha**)

11:00 – 11:30 | Break

11:30 – 12:30 | Connectome analysis – Principles and applications (**B. Bernhardt**)

Lunch Break (12:30–14:00)

PM: Hands-on teaching sessions

14:00 – 15:30 | Resting fMRI and language fMRI acquisition (MRI suite; **D. Klein**)

15:30 – 18:00 | Interactive session – Diffusion MRI and fMRI analyses (**L. Concha/K. Mok**)

Social event - Dinner (19:30 – 23:00)

DAY FOUR – SUNDAY, MAY 20

Topic: Multi-modal imaging

Breakfast (08.00-09:00)

AM: Lectures

09:00 – 09:45 | Multi-modal imaging – Diagnostics (**P. Federico**)

09:45 – 10:30 | Multi-modal imaging – Surgical planning (**G. Winston**)

10:30 – 11:30 | Final group discussion

11:30 – 12:00 | Concluding remarks and feedback

The Venue

MONTREAL NEUROLOGICAL INSTITUTE

<http://www.mcgill.ca/neuro/neuro-brain-research-patient-care-and-training>

McCONNELL BRAIN IMAGING CENTRE

<https://www.mcgill.ca/bic/>

Lectures will be held in the de Grand Pre Communication Centre located in the McConnell Brain Imaging Centre at the Montreal Neurological Institute

