

4th International Training Course on Neuroimaging of Epilepsy

MAY 11-14, 2021

PROGRAM

DAY 1 – TUESDAY, MAY 11

08:00 – 08:30 | Opening remarks (**A. & N. Bernasconi**)

BASICS OF MRI ACQUISITION AND VISUAL DIAGNOSTICS

Meet the expert

08:30 – 09:00 | Questions & Answers

Pre-recorded lectures

- 1) *Principles of MRI and novel quantitative contrasts (D. Rudko)*
- 2) *MRI protocol and visual evaluation (A. Bernasconi)*
- 3) *Optimizing visual diagnostics (F. Cendes)*

09:00 – 09:30 | Break

Hands-on teaching – Case studies

09:30 – 11:30 | Visual diagnostics (small groups, breakout rooms with tutor)

11:30 – 12:30 | Break

12:30 – 14:30 | Case review and discussion (all groups)

14:30 – 14:45 | Concluding remarks (**A. & N. Bernasconi**)

DAY 2 – WEDNESDAY, MAY 12

08:15 – 08:30 | Introduction (**A. & N. Bernasconi**)

COMPUTER-AIDED DIAGNOSTICS USING STRUCTURAL MRI

Meet the expert

08:30 – 09:00 | Questions and Answers

Pre-recorded lectures

- 1) *Basic principles of image processing (L. Collins)*
- 2) *Image analysis - Temporal lobe epilepsy (N. Bernasconi)*
- 3) *Image analysis - Neocortical epilepsy (A. Bernasconi)*

09:00 – 09:30 | Break

Teaching session

09:30 – 10:00 | NOEL texture pipeline (**N. Bernasconi & B. Caldairou**)

Hands-on teaching – Case studies

10:00 – 12:00 | Texture-aided diagnostics (small groups, breakout rooms with tutor)

12:00 – 12:30 | Break

12:30 – 14:30 | Case review and discussion (all groups)

14:30 – 14:45 | Concluding remarks (**A. & N. Bernasconi**)

DAY 3 – THURSDAY, MAY 13

08:15 – 08:30 | Introduction (**A. & N. Bernasconi**)

FUNCTIONAL MRI AND CONNECTIVITY, MULTIMODAL MRI

Meet the expert

08:30 – 09:00 | Questions and Answers

Pre-recorded lectures

- 1) *Task-based fMRI – Language and memory* (**M. Koepp**)
- 2) *Connectivity analysis – Principles and applications* (**B. Bernhardt**)
- 3) *Multimodal imaging of focal benign epilepsies* (**A. Labate**)

09:00 – 09:30 | Break

Teaching Session

09:30 – 11:00 | fMRI processing (Q&A), followed by case presentations (**L. Caciagli**)

14:00 – 14:15 | Concluding remarks (**A. & N. Bernasconi**)

DAY 4 – FRIDAY, MAY 14

08:15 – 08:30 | Introduction (**A. & N. Bernasconi**)

COMPUTER-AIDED DIAGNOSTICS USING STRUCTURAL MRI (CONTINUED)

Hands-on teaching – Case studies

08:30 – 10:00 | Texture-aided diagnostics (case review and discussion, all groups)

COURSE WRAP-UP AND FEEDBACKS

10:00 – 10:30 | Group discussion and concluding remarks