

## ERN-RND Winter School 2023 - 'NEUROIMAGING'

Online, 23-25. March 2023, Times in CET



### Day 1: 23. March 2023, 14:00 -17:00h

#### Technological and methodological basics of neuroimaging techniques

Learning objective:

- Know generally about basic principles, techniques, pitfalls and limitations in neuroradiology and nuclear medicine including CT, MRI, SPECT and PET scanning

| Time          | Topic                                                                         | Speaker                                                       |
|---------------|-------------------------------------------------------------------------------|---------------------------------------------------------------|
| 14:00 - 14:45 | Introduction in structural imaging (CT, MRI, including sequences such as DTI) | Eva Bültmann, Medical University Hannover, DE                 |
| 14:45 - 15:30 | Introduction in radiotracer imaging (SPECT, PET)                              | Jan Booij, Amsterdam University Medical Centers, NL           |
| 15:30 - 15:45 | <i>Coffee break</i>                                                           |                                                               |
| 15:45 - 16:30 | Introduction in functional MRI                                                | Federica Agosta, San Raffaele Scientific Institute, Milan, IT |
| 16:30 - 17:00 | Q&A, Discussion                                                               |                                                               |

### Day 2: 24. March 2023, 09 - 16:30h

#### Guideline/Diagnostic flowchart-compliant, case based proceedings in neuroimaging in atypical Parkinsonian syndromes, Huntington's Disease, Leukodystrophies and Hyperkinetic disorders

Learning objectives:

- State the recommended sequences, recognize the MRI patterns, identify common imaging for assessing patients with atypical PD syndromes/Leukodystrophies/HD
- Red flags indications when you need to use neuroimaging

| Time          | Topic                                                                                                               | Speaker                                                                                                                       |
|---------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 09:00 - 10:30 | <b>Atypical Parkinsonian Syndromes:</b> Diagnostic guideline /flowchart → Red flags → Cases → Neuroimaging protocol | Stéphane Lehericy, University Hospital Pitié Salpêtrière, Paris, FR<br><br>Thilo van Eimeren, University Hospital Cologne, DE |

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|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 10:30 - 10:45 | <i>Coffee break</i>                                                                                                                                                                                                                  |                                                                                                                                       |
| 10:45 - 12:15 | <b>Huntington's Disease:</b><br>Diagnostic guideline/flowchart → Red flags →<br>Case → Neuroimaging protocol<br><br><b>Group work, case-based and interactive</b><br>Cases from the workshop participants                            | Bernhard Landwehrmeyer,<br>University Hospital Ulm, DE<br><br>Yury Seliverstov, University<br>Hospital Ulm, DE                        |
| 12:15 - 13:15 | <i>Lunch</i>                                                                                                                                                                                                                         |                                                                                                                                       |
| 13:15 - 14:45 | <b>Leukodystrophies:</b><br>Diagnostic guideline/flowchart → Red flags →<br>Cases → Neuroimaging protocol<br><br><b>Group work, case-based and interactive</b><br>Cases from the workshop participants                               | Marc Engelen, Amsterdam<br>University Medical Center, NL                                                                              |
| 14:45 - 15:00 | <i>Coffee break</i>                                                                                                                                                                                                                  |                                                                                                                                       |
| 15:00 - 16:30 | <b>Hyperkinetic disorders (Dystonia, chorea,<br/>myoclonus):</b><br>Diagnostic guideline → Red flags → Cases →<br>Neuroimaging protocol<br><br><b>Group work, case-based and interactive</b><br>Cases from the workshop participants | Martin Reich, University<br>Hospital Würzburg, DE<br><br>Élica Vázquez Méndez,<br>University Hospital Vall<br>d'Hebron, Barcelona, ES |

### Day 3: 25. March 2023, 09 - 12:30h

#### Guideline/Diagnostic flowchart-compliant, case based proceedings in neuroimaging in FTD and Ataxia and HSP

Learning objectives:

- State the recommended sequences, recognize the MRI patterns, identify common imaging techniques for assessing patients with FTD/cerebellar ataxia or HSP
- Red flags indications when you need to use neuroimaging

| Time          | Topic                                                                                                                                                                                     | Speaker                                                             |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 09:00 - 10:30 | <b>FTD:</b><br>Diagnostic guideline/flowchart → Red flags →<br>Cases → Neuroimaging protocol<br><br><b>Group work, case-based and interactive</b><br>Cases from the workshop participants | Vassilis Constantinides, Eginitio<br>University Hospital Athens, GR |
| 10:30 - 10:45 | <i>Coffee break</i>                                                                                                                                                                       |                                                                     |

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|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| 10:45 - 12:15 | <p><b>Ataxia and HSP:</b><br/>Diagnostic guideline/flowchart → Red flags →<br/>Cases → Neuroimaging protocol</p> <p><b>Group work, case-based and interactive</b><br/>Cases from the workshop participants</p> | Sirio Coccozza, University of<br>Naples Federico II, IT |
| 12:15 - 12:30 | <i>Q&amp;A, Discussion, closing remarks</i>                                                                                                                                                                    |                                                         |

**Programme Committee:**

Bart van de Warrenburg, Radboud University Medical Center, Nijmegen, NL

Belén Perez Dueñas, Vall d’Hebron University Hospital, Barcelona, ES

Holm Graessner, University Hospital Tübingen, DE

Irena Rektorova, St. Anne's University Hospital, Brno, CZ

Leonidas Stefanis, Eginitio University Hospital, Athens, GR