

# Visual System Evaluation in MS and other demyelinating diseases

## **MONDAY, 2 JUNE 2025**

- 08.45**                      **Welcome & Introduction**  
*O. Ciccarelli (London, UK), A. Yeh (Toronto, CA)*
- 09.00 - 09.45**            **Lecture 1: Visual pathway in MS and other demyelinating diseases: success and pitfalls over the last decades**  
*P. Calabresi (Baltimore, US)*
- 09.45 - 11.05**            **Session 1: Approach to the visual system: functional and structural assessments**  
*Chairs: F. Paul (Berlin, DE), O. Ciccarelli (London, UK)*
- 09.45                      Visual function assessment in clinical practice  
*J. Graves (San Diego, US)*
- 10.00                      OCT and OCT-A: general principles, applications and limitations  
*B. Knier (Munich, DE)*
- 10.15                      VEP: general principles, applications and limitations  
*L. Leocani (Milan, IT)*
- 10.30                      ON – MRI: general principles, applications and limitations  
*O. Outteryck (Lille, FR)*
- 10.45                      Panel Discussion / Q&A  
*Chairs / All Speakers*
- 11.05 - 11.30**            **Coffee Break**

- 11.30 - 13.00**      **Session 2: Optic nerve in the diagnostic process**  
Chairs: TBC, *J. Sastre-Garriga (Barcelona, ES)*
- 11.30                Diagnosing optic neuritis: 2022 diagnostic criteria  
*TBC*
- 11.50                New McDonald criteria for MS: implications for ON evaluation  
*A. Vidal-Jordana (Barcelona, ES)*
- 12.10                New NMOSD criteria: implications for ON evaluation  
*F. Oertel (Berlin, DE)*
- 12.30                Panel Discussion / Q&A  
*Chairs / All Speakers*
- 13.00 - 14.00**      **Network Lunch (Speed dates / Meet the expert sessions /  
round tables with faculty and participants)**  
Chairs / participating faculty: TBC from the chairs and speakers  
Three main topics to be defined
- 14.00 - 15.30**      **Session 3: Use the visual pathway to make the diagnosis**  
Chairs: *G. Bsteh (Vienna, AT), S. Hynes (Galway, IE)*
- 14.00                Clinical and paraclinical manifestation of optic nerve damage in  
MS, MOGAD, and NMOSD  
*TBC*
- 14.20                Special populations: children  
*A. Yeh (Toronto, CA)*
- 14.40                Differential diagnosis beyond demyelinating disease  
*TBC*
- 15.00                Panel Discussion / Q&A  
*Chairs / All Speakers*

**15.30 - 16.30      Session 4: Use the visual pathway to make the diagnosis:  
clinical cases**

Chairs: *F. Zipp (Mainz, DE), TBC*

15.30              Clinical case 1 (MS / MOGAD / NMOSD)

*E. Vasileiou (Baltimore, US)*

15.50              Clinical case 2 (pediatric)

*L. Pandit (Mangalore, IN)*

16.10              Clinical case 3 (broad differential diagnosis)

*M. Cellerino (Genoa, IT)*

Panel Discussion / Q&A within the clinical cases (interactive clinical cases, if possible with voting from the audience)

**16.30 - 17.00      Coffee Break**

**17.00 - 17.45      Lecture 2: Visual metrics to monitor disease evolution in MS**  
*TBC*

**17.45              End of Day 1**

**19.30              Dinner at the hotel**

## **TUESDAY, 3 JUNE 2025**

- 09.00 - 09.30**      **Lecture 3: Multimodal metrics of visual pathway measurements and other biomarkers**  
*S. Schippling (Basel, CH)*
- 09.30 - 11.00**      **Session 5: Advanced visual pathway assessment metrics**  
Chairs: *M. Inglese (Genoa, IT), R. Hoepner (Bern, CH)*
- 09.30              Quantitative MR imaging metrics of the visual pathway  
*S. Collorone (London, UK)*
- 09.50              Advanced functional metrics  
*N. Levin (Jerusalem, IL)*
- 10.10              Newer technologies for evaluating the visual pathway:  
eye tracking  
*TBC*
- 10.30              Panel Discussion / Q&A  
*Chairs / All Speakers*
- 11.00 - 11.20**      **Coffee Break**
- 11.20 - 12.30**      **Session 6: Artificial intelligence for the visual system in neuroinflammation**  
Chairs: *C. Granziera (Basel, CH), TBC*
- 11.20              Nuts and bolts of artificial intelligence  
*C. Tur (Barcelona, ES)*
- 11.40              Clinical application: use of AI in structural visual metrics (OCT)  
*TBC*
- 12.00              Clinical applications 2: Machine learning for diagnosis in MS and other neuroinflammatory conditions, multimodal approaches  
*R. Kenney (New York, US)*

- 12.30 Panel Discussion / Q&A  
*Chairs / All Speakers*
- 12.50 - 13.45 Network Lunch (Speed dates / Meet the expert sessions / round tables with faculty and participants)**  
Chairs / participating faculty: TBC from the chairs and speakers  
Three main topics to be defined
- 13.45 - 18.30 Workshops 1-3 (three groups, participants will rotate workshops)**
- 13.45 - 15.15 **Workshop 1: Statistics, special considerations when evaluating the visual system**
- General considerations
  - Cross-sectional studies
  - Longitudinal models
  - International collaborations
- Facilitators: K. Fitzgerald (Baltimore, US),  
E. Martínez-Lapiscina (Barcelona, ES), F. Oertel (Berlin, DE)*
- Workshop 2: Hands on OCT / OCT-A**
- General considerations for OCT-A
  - Caveats
  - Interpretation
- Facilitators: B. Knier (Munich, DE), TBC,  
S. Collorone (London, UK)*
- Workshop 3: Hands on VEP**
- General considerations for VEP acquisition
  - Caveats
  - Interpretation
- Facilitators: L. Leocani (Milan, IT), A. Yeh (Toronto, CA)  
A. Vidal-Jordana (Barcelona, ES)*
- 15.15 - 16.45 **Workshops 1-3 (three groups, participants will rotate workshops)**

<b>16.45 - 17.00</b>	<b>Coffee Break</b>
<b>17.00 - 18.30</b>	<b>Workshops 1-3 (three groups, participants will rotate workshops)</b>
<b>18.30</b>	<b>End of Day 2</b>
<b>19.30</b>	<b>Summer School Dinner</b>

## **WEDNESDAY, 4 JUNE 2025**

<b>08.45 - 10.30</b>	<p><b>Working Groups A-C</b></p> <p>Participants will work in 3 groups and will prepare projects for clinical practice and / or research that include different visual pathway measures techniques, timing, and measures. Participants will receive feedback from senior investigators</p> <ul style="list-style-type: none"><li>• Working Group A: Clinical trial design using the visual pathway as the primary outcome <i>Facilitators: F. Paul (Berlin, DE), TBC</i></li><li>• Working Group B: Monitoring disease evolution using the visual pathway <i>Facilitators: TBC, TBC</i></li><li>• Working Group C: Exploring the pathogenesis of the disease using visual pathway metrics <i>Facilitators: P. Calabresi (Baltimore, US), J. Bennett (Aurora, US)</i></li></ul>
<b>10.30 - 11.00</b>	<b>Coffee Break</b>
<b>11.00 - 12.30</b>	<p><b>Plenary Session</b></p> <p>Chairs / Facilitators: <i>O. Ciccarelli (London, UK), Ann Yeh (Toronto, CA)</i></p>

- 11.00 Participants' presentations by the coordinator of the working groups (20 minutes presentation each group)
- 12.00 Group discussion led by facilitators
- 12.30 - 12.45** **Closing remarks** *O. Ciccarelli (London, UK), Ann Yeh (Toronto, CA)*
- As of 12.45** **Lunch and individual departure**