

Cognition and behavior in multiple sclerosis

TUESDAY, 23 JUNE 2020

- 08.30** **Welcome**
Maria Pia Amato (Florence, IT)
- 08.40** **Introduction**
Bruno Brochet (Bordeaux, FR)
- 08.50 - 09.20** **Histopathology of cognitive decline in MS**
Bruce Trapp (Cleveland, US)
- 09.20 - 10.30** **Session 1: Assessment of cognitive impairment in MS**
Chair: Krzysztof Selmaj (Olsztyn, PL)
- 09.20 How is cognitive impairment defined?
Ralph Benedict (Buffalo, US)
- 09.40 How is cognition assessed?
Dawn Langdon (London, UK)
- 10.00 Ecological assessment of cognition
Bruno Brochet (Bordeaux, FR)
- 10.20 Discussion / Q&A
- 10.30 - 11.00** **Coffee Break**
- 11.00 - 12.00** **Session 2: Risk factors for cognitive impairment**
Chair: Maria Pia Amato (Florence, IT)
- 11.00 Cannabis and cognition in MS
Anthony Feinstein (Toronto, CA)
- 11.20 Other factors
Alberto Ascherio (Boston, MA)
- 11.40 Discussion
- 12.00 – 13.30** **Lunch Break**

- 13.30 – 14.45** **Session 3: Cognition and the brain**
Chair: Ralph Benedict (Buffalo, US)
- 13.30 Structural imaging
Christian Enzinger (Graz, AT)
- 13.50 Functional imaging
Menno Schoonheim (Amsterdam, NL)
- 14.10 Neuroplasticity and cerebral re-organisation
Jeroen Geurts (Amsterdam, NL)
- 14.30 Discussion / Q&A
- 14.45 - 15.15** **Coffee Break**
- 15.15 - 16.10** **Session 4: Cognition and neuropsychiatry**
Chair: *John DeLuca (West Orange, US)*
- 15.15 Cognition and depression in MS
Lauren Strober (East Orange, US)
- 15.35 Cognition and other neuropsychiatric disorders in MS
Anthony Feinstein (Toronto, CA)
- 15.55 Discussion / Q&A
- 16.10 - 17.00** **Session 5: Cognition and behavior in MS**
Chair: *Bruno Brochet (Bordeaux, FR)*
- 16.10 Behavioral problems in MS
Lauren Strober (East Orange, US)
- 16.30 Personality and MS
Ralph Benedict (Buffalo, US)
- 16.50 Discussion / Q&A
- 17.00** **Final comments and adjourn**
Bruno Brochet (Bordeaux, FR)
- 19.30** **Dinner at the hotel**

WEDNESDAY, 24 JUNE 2020

- 08.30** **Assessing and managing cognitive issues in the real life population of patients: the experience of an expert MS centre**
Iris K. Penner (Düsseldorf, DE)
- 09.00 - 09.30** **Session 6: Pharmacological treatment of cognition in MS**
Chair: Letizia Leocani (Milan, IT)
- 09.00 Disease modifying and symptomatic treatments for Cognition.
Do they work?
Lauren Krupp (New York, US)
- 09.20 Discussion / Q&A
- 09.30 – 10.45** **Session 7: Behavioral and other treatment of cognition in MS**
Chair: Dawn Langdon (London, UK)
- 09.30 Cognitive rehabilitation
John DeLuca (West Orange, US)
- 09.50 Exercise, physical activity & physical fitness
Brian Sandroff (Birmingham, US)
- 10.10 Rehabilitation and brain plasticity
Christian Enzinger (Graz, AT)
- 10.30 Discussion / Q&A
- 10.45 - 11.15** **Coffee Break**
- 11.15 - 12.00** **Session 7: Behavioral and other treatment of cognition in MS (continued)**
Chair: Dawn Langdon (London, UK)
- 11.15 TMS, TdcS and neuromodulation treatment for cognition
Letizia Leocani (Milan, IT)
- 11.35 Neuroprotection and reserve in MS
Anthony Feinstein (Toronto, CA)
- 11.55 Discussion / Q&A

12.15 – 13.45	Lunch Break
13.45 - 15.15	Session 8: Cognition in pediatric MS Chair: Krzysztof Selmaj (Olsztyn, PL)
13.45	Cognitive impairment, assessment and impact on everyday life in pediatric MS <i>Maria Pia Amato (Florence, IT)</i>
14.05	Cognition and MRI in pediatric MS <i>Christian Enzinger (Graz, AT)</i>
14.25	Treatment of cognitive impairment in pediatric MS <i>L. Krupp (New York, US)</i>
14.45	Discussion / Q&A
15.00 - 15.30	Coffee Break
15.30 - 16.30	Session 9: Impact of cognition on everyday life Chair: Brian Sandroff (Birmingham, US)
15.30	Impact of cognitive impairment on employment <i>Lauren Strober (East Orange, US)</i>
15.50	Impact of cognitive impairment on activities of daily living <i>John DeLuca (West Orange, US)</i>
16.10	Discussion, Q&A
16.30	Final comments and adjourn <i>Krzysztof Selmaj (Olsztyn, PL)</i>
19.30	Summer School Dinner

THURSDAY, 25 JUNE 2020

08.00 - 09.30

Working group 1:

Challenges in the diagnosis of cognitive problems in MS

Leader: *Ralph Benedict (Buffalo, US)*

Discussants: *Dawn Langdon (London, UK), Bruno Brochet (Bordeaux, FR)*

Topics will include: How is cognitive impairment defined; differential diagnosis in age-related decline vs dementia; DSM-5 diagnosis; NEDA and cognition; isolated cognitive relapse, etc.

Working group 2:

Cognition and brain imaging

Leader: *Jeroen Geurts (Amsterdam, NL)*

Discussants: *Christian Enzinger (Graz, AT), Bruce Trapp (Cleveland, US)*

Topics will include: Is gray matter vs white matter change the best predictor of future cognitive decline? What is the meaning of high vs low connectivity with respect to cognition? What is the relationship between functional connectivity and structural integrity with respect to cognition? Clinical examples and challenges will be illustrated and discussed

Working group 3:

Impact of subjective states such as fatigue, depression and anxiety on cognitive performance; What do we really know?

Leader: *Lauren Strober (East Orange, US)*

Discussants: *Anthony Feinstein (Toronto, CA), Iris. K. Penner (Düsseldorf, DE)*

Topics will include: Must fatigue result in cognitive decline? Can treating depression improve cognition? How does anxiety affect cognitive performance? etc

Working group 4:

Interventions to improve cognition

Leader: *J. DeLuca (West Orange, US)*

Discussants: *Maria Pia Amato (Florence, IT), Brian Sandroff (Birmingham, US)*

Topics will include: Does cognitive rehabilitation improve cognition? Is there a role for pharmacological treatment to improve cognition? What is the evidence on exercise and other physical activity on cognition? Do any of these treatments improve everyday life functions? etc

09.30 - 10.00	Coffee Break
10.00 - 11.00	Working Groups (continued)
11.00 - 12.00	Report from the working groups' facilitators
12.00 – 12.20	Conclusions <i>Maria Pia Amato (Florence, IT)</i> <i>Bruno Brochet (Bordeaux, FR)</i>
12.20	Lunch and individual departure