

ECTRIMS Summer School 2022
20-22 June 2022
Cognition and behavior in multiple sclerosis

MONDAY, 20 JUNE 2022

- 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 <i>Christian Enzinger (Graz, AT)</i>
13.50	Insights from functional imaging: plasticity versus maladaptation <i>Menno Schoonheim (Amsterdam, NL)</i>
14.20	Discussion / Q&A
14.45 - 15.15	Coffee Break
15.15 - 16.10	Session 4: Cognition and neuropsychiatry Chair: <i>John DeLuca (West Orange, US)</i>
15.15	Cognition and depression in MS <i>Lauren Strober (East Orange, US)</i>
15.35	Cognition and other neuropsychiatric disorders in MS <i>Anthony Feinstein (Toronto, CA)</i>
15.55	Discussion / Q&A
16.10 - 17.00	Session 5: Cognition and behavior in MS Chair: <i>Bruno Brochet (Bordeaux, FR)</i>
16.10	Behavioral problems in MS <i>Lauren Strober (East Orange, US)</i>
16.30	Personality and MS <i>Ralph Benedict (Buffalo, US)</i>
16.50	Discussion / Q&A
17.00	Final comments and adjourn <i>Bruno Brochet (Bordeaux, FR)</i>
19.30	Dinner at the hotel

TUESDAY, 21 JUNE 2022

- 08.30 **Assessing and managing cognitive issues in the real life population of patients: the experience of an expert MS centre**
Iris K. Penner (Bern, CH)
- 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

WEDNESDAY, 22 JUNE 2022

08.00 - 09.30

Working group 1:

Challenges in the diagnosis of cognitive problems in MS

Leader: *Ralph Benedict (Buffalo, US)*

Discussants: *Maria Pia Amato (Florence, IT), Dawn Langdon (London, UK)*

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: *Menno Schoonheim (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 (Bern, CH)*

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: *Bruno Brochet (Bordeaux, FR), 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