UMass Chan Medical School | UMass Memorial Health | Department of Neurology

Neuroimmunology and MS Annual Symposium

Annual Neuroimmunology and Multiple Sclerosis Clinical and Research Hybrid Program Agenda:

Multiple Sclerosis: New Diagnostic Criteria and Biomarkers

Friday, December 20, 2024

12:00 PM – 6:00 PM

In-Person: Beechwood Hotel
363 Plantation St. Worcester, MA.

Via Zoom 1:00 PM – 6:00 PM

(link will be provided 1 day prior to meeting)

Register Now (registration link)

Course Directors:

- Christopher Hemond, MD, Assistant Professor, Associate Research Director, Neuroimmunology and Multiple Sclerosis Center
- Carolina Ionete, MD, PhD, Professor, Director, Neuroimmunology and Multiple Sclerosis Center; Director, Neuro-Inflammatory Chronic Illness (NICI) Initiative

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Program Description: The diagnosis and treatment of Multiple Sclerosis (MS) continues to evolve with the recent announcement of a new iteration of McDonald criteria at the ECTRIMS congress in September 2024. The McDonald committee aimed to increase diagnostic specificity though a focus on the underlying biology of MS and have incorporated new imaging and fluid biomarkers with these goals in mind.

Additionally, there is a clear ongoing need for fluid and imaging biomarkers to identify, prognosticate, and respond to progressive ("smoldering") MS biology. Progressive MS is more akin to a neurodegenerative condition, requiring a multifactorial approach to treatment. Unfortunately, there are no proven treatments to effectively address this problem in MS.

This UMass Chan Medical School Neuroimmunology/MS CME program covers the latest information on clinical and translational research on different clinical entities, treatments, and mechanisms of autoimmune demyelination involving the central nervous system. The program will focus on the integration of data published in the literature and our own research collaborative work over the last year, with a 2024 focus on new biomarkers in MS.

Learning Objectives: Upon completion of this series, attendees should be able to:

- Recognize and incorporate new elements of the 2024 McDonald criteria and MOGAD diagnostic criteria into their clinical practice
- Interpret, summarize, and potentially translate findings from neurofilament light and glial fibrillary acidic protein research into clinical practice
- Describe emerging areas of neuroinflammatory biology through use of imaging, proteomics, and basic research

Highlights: Traditional research | Clinical Care | Collaborative International approaches to managing MS – Networking opportunities | Exhibits with the latest in services and products | Social events

Target Audience: Healthcare professionals-physicians (neurologists, primary care, internists), researchers, post docs, nurses, residents, fellows, medical students, and PhD students.

Continuing Education Credit: The UMass Chan Medical School is accredited by the ACCME to provide continuing medical education for physicians.

The UMass Chan Medical School designates this live activity for a maximum of 4.5 *AMA PRA Category 1 Credit*™. Physicians should claim only credit commensurate with the extent of their participation in the activity.

Nurses: This program meets the requirements for 5.4 contact hours for nurses as specified by the Massachusetts Board of Registration in Nursing (244-CMR 5.04).

Others: Other healthcare professionals will receive a certificate that states this activity was designated for 4.5 *AMA PRA Category 1 Credits*™**.**

Policy on Faculty and Provider Disclosure: It is the policy of UMass Chan Medical School – OCME to ensure fair balance, independence, objectivity, and scientific rigor in all activities. All persons participating in CME activities provided by UMass Chan are required to present evidence-based data, identify any off-label product use, and disclose all relevant financial relationships with those supporting the activity or others whose products or services are discussed. Faculty disclosures will be provided in the activity materials.

Cancellation policy: If you cancel your registration before November 25th, 2024 fee is refundable less a processing charge of $75. After that date, no refund will be given for any reason, including weather and other emergencies, substitutions are always welcome. UMass Chan Office of Continuing Medical Education and the Department of Neurology reserves the right to cancel a program at any time caused by circumstances not under its control. Persons registered in a canceled program will be notified by email, using the email address provided when registering for the program. There may also be changes in the program content caused by circumstances beyond the control of the Office of Continuing Medical Education.

Individual	Role(s)
Carolina Ionete, MD, PhD, Professor, Director, Neuroimmunology and Multiple Sclerosis Center; Director, Neuro-Inflammatory Chronic Illness (NICI) Initiative	Course Director, Presenter
Christopher Hemond, MD, Assistant Professor, Associate Research Director, Neuroimmunology and Multiple Sclerosis Center	Course Director, Presenter
Sathish Dundamadappa, MD, Associate Professor, Radiology	Presenter
Rigel Chan, PhD, Assistant Professor, Neurology	Presenter
Idanis Berrios-Morales, Assistant Professor, Neuroimmunology and Multiple Sclerosis Center	Presenter
Agnes Bacopolous, MD, Clinical Neuroimmunology Fellow, Neuroimmunology and Multiple Sclerosis Center	Presenter
Molly Wilner, MD, Clinical Neuroimmunology Fellow, Neuroimmunology and Multiple Sclerosis Center	Presenter
Roberto Bomprezzi, MD, Associate Professor, Neuroimmunology and Multiple Sclerosis Center	Presenter
Andrada Treaba, PhD, Instructor, Harvard Medical School, Martinos Center	Presenter
Dori Schafer, PhD, Associate Professor, Neurobiology	Presenter
Elisa Bello, BS, UMass Medical Student	Presenter
Jillian Richmond, PhD, Assistant Professor, Dermatology	Presenter
Jason Freedman, BS, UMass Medical Student	Presenter
Bianca Trombetta, BS, UMass Medical Student	Presenter
Shridhar Singh, BS, UMass Medical Student	Presenter
Sharon Velazquez, Web Communications Specialist	UMassChan

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Annual Neuroimmunology and Multiple Sclerosis Clinical & Research Updates Presentations Agenda

	12:00 – 1:00 pm	**Registration Open & Lunch provided**
BIOLOGY OF DIAGNOSIS	**Session 1: Toward a biological definition of MS**	
	1:00 – 1:25 pm	Welcome; 2024 updates to the McDonald Criteria – **Carolina Ionete, MD**
	1:25 – 1:50 pm	The role of microglia and complement in mediating CNS tissue injury – **Dori Schaffer, PhD**
	1:50 – 2:10 pm	Interpreting Bruton Tyrosine Kinase Inhibitor trials in MS biology – **Roberto Bomprezzi, MD**
	2:10 – 2:30 pm	Paramagnetic Rim Lesions and Central Vein Sign as Diagnostics – **Sathish Dundamadappa, MD**
	2:30 – 2:45 pm	**BREAK – Coffee & Refreshments**
PROGNOSIS / RESPONSE	**Session 2: Incorporating biomarkers into the clinic**	
	2:45 – 3:05 pm	Paramagnetic Rim Lesions as prognostic and response biomarkers – **Christopher Hemond, MD**
	3:05 – 3:20 pm	Serum Neurofilament Light Chain in MS management – **Agnes Bacopolus, MD**
	3:20 – 3:35 pm	Glial Fibrillary Acid Protein (GFAP) as a prognostic marker – **Molly Wilner, DO**
	3:35 – 3:55 pm	Updates in RIS and MOGAD criteria – **Idanis Berrios-Morales, MD**
	3:55 – 4:15 pm	Imaging cortical lesions: a window into disease diagnosis and evolution – **Andrade Treaba, PhD, remote presentation via Zoom**
	4:15 – 4:30 pm	**BREAK – Coffee & Refreshments**
EMERGING MECHANISMS	**Session 3: Emerging insights into neuroinflammatory mechanisms**	
	4:30 – 4:50 pm	CSF antibodies to discriminate MS from neurological mimics - **Rigel Chan, PhD**
	4:50 – 5:02 pm	Intrathecal Protein Correlates of Clinical Phenotypes in Treatment-Naïve Multiple Sclerosis – **Elisa Bello, BS**
	5:02 – 5:14 pm	Examining immune cells and antibodies in the CSF of MS patients pre- and post-immunotherapy – **Jillian Richmond, PhD**
	5:14 – 5:26 pm	An emerging role of MS4A in neuroinflammation – **Jason Freedman, BS**
	5:26 – 5:38 pm	Astrocytic impairment from MS cerebrospinal fluid – **Bianca Trombetta, BS**
	5:38 – 5:50 pm	Swin-UNETR deep learning architecture for multimodal MRI segmentation of circumventricular organs in MS – **Shridhar Singh, BS**
	5:50 – 6:00 pm	Closing

2024 Registration fees: In-Person and Hybrid

(In-person – includes lunch, snacks & refreshments)

Active UMass Department of Neurology Employee, Neurology Residents, Fellows & Students	**Free**
All Other Health Professionals	**$300**
Physicians or nurses not affiliated with UMass	**$200**
UMass Alumnus	**$50**

Register Now (registration link)