

# Multiple Sclerosis and Autoimmune Neurology Update Online Course

## Activity Description

This state-of-the-art update on multiple sclerosis and autoimmune neurology is designed to provide evidence-based strategies that focus on practical multidisciplinary clinical care. We welcome a variety of specialists and primary care physicians who have a specific interest in this field.

## Target Audience

The target audience includes allied health professional, nurse, nurse practitioner, physician, physician assistant, resident/fellow, physical and occupational therapists, social workers, and anyone with an interest in multiple sclerosis and autoimmune neurology.

## Learning Objectives

Upon conclusion of this activity, participants should be able to:

- Analyze the range of therapeutic options for aquaporin-4-IgG seropositive neuromyelitis optica spectrum disorders.
- Interpret strategies for selecting first and subsequent disease-modifying therapies for patients with relapsing or progressive MS.
- Summarize how to diagnose autoimmune encephalitis and the risk factors for misdiagnosis
- Differentiate the clinical, laboratory and neuroimaging characteristics of myelin oligodendrocyte glycoprotein-associated disorders.
- Recognize appropriate management of common MS symptoms.
- Attendance at this Mayo Clinic course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course.

## Accreditation Statement



In support of improving patient care, Mayo Clinic College of Medicine and Science is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

## Credit Statement(s)

### AMA

Mayo Clinic College of Medicine and Science designates this enduring material for a maximum of 10.00 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### AAFP

The AAFP has reviewed Multiple Sclerosis and Autoimmune Neurology Update Online Course and deemed it acceptable for up to 10.00 Enduring Materials, Self-Study AAFP Prescribed credits. Term of Approval is from 05/08/2023 to 05/08/2024. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

AAFP Prescribed credit is accepted by the American Medical Association as equivalent to AMA PRA Category 1 credit(s)<sup>™</sup> toward the AMA Physician's Recognition Award. When applying for the AMA PRA, Prescribed credit earned must be reported as Prescribed, not as Category 1.

**Other Healthcare Professionals:**

A record of attendance will be provided to all registrants for requesting credits in accordance with state nursing boards, specialty societies or other professional associations.

**Disclosure Summary**

As a provider accredited by Joint Accreditation for Interprofessional Continuing Education, Mayo Clinic College of Medicine and Science must ensure balance, independence, objectivity and scientific rigor in its educational activities. All who are in a position to control the content are required to disclose all financial relationships with any ineligible company. Faculty will also identify any off-label and/or investigational use of pharmaceuticals or instruments discussed in their content for FDA compliance.

**Listed below are individuals with control of the content of this program who have disclosed...**

**Relevant financial relationship(s) with ineligible companies:**

| <b>Name</b>                        | <b>Nature of Relationship</b>           | <b>Company</b>  |
|------------------------------------|---|---|
| Jonathan L. Carter, M.D.           | Consultant                              | General Dynamics Information Technology; Lundbeck Pharma A/S  |
| Gregg S. Day, M.D.                 | Consultant<br><br>Board of Directors    | Collective Acumen; DynaMed; inThought; Parabon Nanolabs, Inc.; Texas Neurological Society; Trinity Life Sciences<br><br>Anti-NMDA Receptor Encephalitis Foundation  |
| Divyanshu Dubey, M.B.B.S.          | Consultant<br><br>Intellectual Property | Immunovant; UCB; Argenx; Astellas; AAN<br><br>Chan Zuckerberg Biohub, Inc.  |
| Eoin P. Flanagan, MBBCh.           | Consultant<br><br>Research Grant        | Genentech, Inc.; Horizon Therapeutics USA, Inc.<br><br>UCB  |
| Michael Hoven, M.D.                | Consultant                              | Caremark Therapeutics   |
| A. Sebastian Lopez Chiriboga, M.D. | Consultant                              | Genentech, Inc.; Horizon Pharmaceuticals, Inc.; Horizon Therapeutics USA, Inc.  |
| Iris V. Marin Collazo, M.D.        | Consultant                              | Genentech, Inc.; Horizon Therapeutics USA, Inc.   |
| Sean J. Pittock, M.D.              | Consultant                              | Astellas Research Institute of America, LLC; EVOQ Therapeutics; F. Hoffmann-La Roche, Ltd.; FCB Health; Genentech, Inc.; Horizon Therapeutics USA, Inc.; Merck Serono International SA; Prime Therapeutics; Sage Therapeutics; UCB Biopharma SPRL; UCB Pharma GmbH; Venture Capital Firms |

|                                  |   |   |
|----------------------------------|---|---|
|                                  | MIRC Approved Consulting<br>Intellectual Property | Alexion Pharmaceuticals, Inc.<br><br>Euroimmun Medizinische Labordiagnostika AG; Chan Zuckerberg Biohub, Inc.; Euroimmun AG; Ravo Diagnostika GmbH; Alexion Pharmaceuticals, Inc.; RSR Limited  |
| Dean M. Wingerchuk, M.D.         | Consultant  | Alexion Pharmaceuticals, Inc.; Bristol-Myers Squibb Company; EMD Serono, Inc.; Frictionless Solutions, Inc.; Genentech, Inc.; Guthy-Jackson Charitable Foundation; Hoffmann-La Roche, Ltd.; Horizon Therapeutics USA, Inc.; IMCYSE; Medimmune Ltd.; Mitsubishi Tanabe Pharma America, Inc.; Reistone Biopharma (Hong Kong) Limited; Syneos Health; UCB Biopharma SPRL; UCB Biosciences Inc.; Viela Bio; The Neurologist; Wolter Kluwers |
| Anastasia Zekeridou, M.D., Ph.D. | Grant/Research Support                            | Roche/Genentech   |

***All relevant financial relationships listed for these individuals have been mitigated.***

***No relevant financial relationship(s) with ineligible companies:***

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|  |  |

***References to off-label and/or investigational usage(s) of pharmaceuticals or instruments in their presentation:***

| Name                     | Manufacturer/Provider | Product/Device                        |
|--------------------------|-----------------------|---------------------------------------|
| Jonathan L. Carter, M.D. | Multiple              | Cyclophosphamide; rituximab           |
| Eoin P. Flanagan, MBBCh. | None                  | A variety of immunotherapies in MOGAD |

For disclosure information regarding Mayo Clinic School of Continuous Professional Development accreditation review committee member(s) please visit: <https://ce.mayo.edu/content/disclosures>.

## **Disclaimer**

Participation in this Mayo Clinic educational activity does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course. You should be aware

that substantive developments in the medical field covered by this recording may have occurred since the date of original release.

## **Prerequisites for Participation**

There are no prerequisites needed prior to participating in this education activity.

## **Method of Participation**

Participation in this activity consists of reviewing the educational material, completing the learner assessment and evaluation.

## **How to Obtain Credit**

To obtain credit, complete the assessment, evaluation and submit.

## **Release and Expiration Dates**

|                  |                 |
|------------------|-----------------|
| Release Date:    | May 8, 2023     |
| Renewal Date:    | (If applicable) |
| Expiration Date: | May 7, 2026     |

## **Acknowledgement of Commercial Support**

No commercial support was received in the production of this activity.

## **Faculty and Course Director Listing and Credentials**

### **Course Directors**

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## **Bibliographic Resources**

Derfuss T, Mehling M, Papadopoulou A, Bar-Or A, Cohen JA, Kappos L. Advances in oral immunomodulating therapies in relapsing multiple sclerosis. *Lancet Neurol.* 2020 Apr;19(4):336-347. doi: 10.1016/S1474-4422(19)30391-6. Epub 2020 Feb 11. PMID: 32059809

Graus F, Vogrig A, Muñiz-Castrillo S, Antoine JG, Desestret V, Dubey D, Giometto B, Irani SR, Joubert B, Leypoldt F, McKeon A, Prüss H, Psimaras D, Thomas L, Titulaer MJ, Vedeler CA, Verschuuren JJ, Dalmau J, Honnorat J. Updated Diagnostic Criteria for Paraneoplastic Neurologic Syndromes. *Neurol Neuroimmunol Neuroinflamm.* 2021 May 18;8(4):e1014. doi: 10.1212/NXI.0000000000001014. Print 2021 Jul. PMID: 34006622

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