As part of our commitment to improving the lives of people living with rare diseases Alexion, AstraZeneca's Rare Disease supports quality, independent Continuing Medical Education (CME) designed to enhance patient care and health outcomes.

This call for grant applications provides public notice of availability of funds in 2025 to address updates to the US NMOSD treatment landscape of adult patients with aquaporin-4-positive (AQP4+) NMOSD.

Deadline for Submission	Friday, October 11, 2024
Decision Notification	Friday, November 1, 2024
Primary Area of Focus	Rare Disease
Therapeutic Area	Neuromyelitis Optica Spectrum Disorder (NMOSD)
Geographic Focus	United States
CGA Code	
Intended Audience	Adult Neuro-immunologists, Neuro-radiologists, Neurologists, Neurohospitalists, Internists, and Ancillary Health Care Providers (Physician Assistants, Nurse Practitioners, Pharmacists, etc.)
Budget	Up to $300,000
2025 Educational Need	Neuromyelitis optica spectrum disorder (NMOSD) is a rare, severe, autoimmune condition that predominantly affects the optic nerves and spinal cord, often leading to blindness and paralysis. Central to the pathogenesis of NMOSD is the complement system, a component of the immune system that enhances the ability of antibodies and phagocytic cells to clear pathogens.[1] In NMOSD, complement activation leads to inflammation and tissue damage, particularly in the optic nerves and spinal cord. Autoantibodies, particularly anti-aquaporin-4 (AQP4-IgG), initiate this complement cascade, resulting in the formation of the membrane attack complex (MAC) in the terminal complement pathway that causes cellular injury.[1-4] Additionally, NMOSD has a distinct epidemiological profile, characterized by a higher prevalence among women and certain racial groups, particularly those of African and Asian descent[2]. Pregnancy, a unique physiological state that significantly alters the immune system, is a key consideration for women of reproductive age with NMOSD. During pregnancy, the immune system undergoes shifts to protect the fetus, which can amplify complement activity and potentially exacerbate NMOSD symptoms[5]. Understanding how pregnancy affects NMOSD and its implications for disease management is crucial for optimizing care for women of reproductive potential. Recent advancements in the treatment of NMOSD have led to the FDA approval of several new therapies, including ravulizumab[6], satralizumab[7], inebilizumab[8], and eculizumab[9]. Ravulizumab and eculizumab inhibit the complement pathway, directly addressing the complement-mediated damage central to NMOSD pathophysiology[6,9]. Inebilizumab (and non-FDA approved rituximab) deplete B cells, reducing the production of pathogenic antibodies[8], while satralizumab

	blocks the interleukin-6 receptor, modulating inflammatory responses[7]. The FDA-approved agents specifically target the underlying immunopathological mechanisms of NMOSD compared to traditional therapies such as rituximab, azathioprine, corticosteroids, and mycophenolate. Therefore, transitions from conventional therapies to these novel agents has the potential to significantly minimize NMOSD attacks and adverse effects.[10] Particularly for women of reproductive potential, the safety and efficacy of these treatments during pregnancy and lactation should also be considered. While some therapies may pose risks to the developing fetus or alter maternal immunity, others might offer safer profiles. Individualized treatment plans that account for reproductive status and potential pregnancy along with efficacy and safety data of available treatments are essential to ensure optimal disease control and maternal-fetal health.[11-12] To uncover NMOSD, all healthcare providers, ranging from primary care physicians to pharmacists, hospitalists, and neurologists, should be aware of the symptoms of this disease and its management. Multidisciplinary care is essential for these patients due to the range of clinical presentations and severity of NMOSD relapses driving disability (e.g., optic neuritis, transverse myelitis, area postrema syndrome, etc.). Coordination among various healthcare providers ensures coordinated and comprehensive care that addresses all aspects of the disease, from accurate diagnosis to acute management of relapses to long-term relapse prevention therapy to monitoring for treatment efficacy and safety[4]. By ensuring that providers are equipped with this knowledge, we can enhance the care and support provided to NMOSD patients, particularly those of reproductive potential, and improve patients' overall prognosis and quality of life. Increasing awareness and understanding of NMOSD among the broader medical community can lead to earlier diagnosis, more coordinated management, and ultimately, better patient outcomes[3]. Alexion, AstraZeneca Rare Disease seeks to support independent medical education designed to develop practitioners' understanding of: • AQP4+ NMOSD pathophysiology and the role of the complement mechanism in the disease state • The importance of AQP4+ NMOSD clinical presentation recognition, early and accurate diagnosis, and regular follow-up to maintain appropriate treatment strategies • Updates to the US NMOSD treatment landscape of adult patients with AQP4+ NMOSD that are FDA-approved • Appropriate diagnostics and pathognomonic clinical findings (e.g., MRI, cell-based assays) that may manifest at various stages of the NMOSD patient journey and disease course • Key considerations and best practices for initiating relapse-preventative therapies to mitigate disability from NMOSD relapse & clinical pearls (e.g., pregnancy considerations) via patient case examples

Educational Design and Focus	Live program at 2025 ACTRIMS Annual Meeting (February 27 – March 1) with a focus on educating healthcare professionals about NMOSD updates in the treatment landscape. Slots should be secured by grant recipient.
Application Requirements	**Proposal must be independently developed and include the following:** • **Needs Assessment/Gaps/Barriers:** Include a comprehensive, well-referenced needs assessment that provides a detailed description of the educational / practice gaps and barriers of the target audiences. The needs assessment must be independently developed and validated by the educational provider. • **Audience Generation:** Describe methods for reaching the target audience(s) and any unique recruitment methods that will be utilized. • **Educational Strategy:** Provide clearly defined and measurable learning objectives that are clearly designed to address the identified gaps and barriers. The proposal should demonstrate an understanding of instructional design issues as they relate to the gaps in the knowledge, competence, or performance of the targeted audience. • **Program Evaluation and Outcomes:** Provide a description of the outcomes methodology that will be employed to measure the impact of the educational program and how these results will be presented, published, or disseminated. Additionally, describe the methods that will be used to determine the extent to which activity has served to close the identified healthcare gap. Programs should include an outcomes plan of at least Moore's level 4. • **Budget:** Include a detailed budget with rationale, including breakdown of costs for content per activity, out-of-pocket cost per activity and management cost per activity. • **Accreditation:** Programs must be accredited and fully compliant with all ACCME Criteria and Standards for Commercial Support℠.

References

1. Sellner J, et al. Eur J Neurol. *2010*;17(8):1019-32.
2. Jarius S, et al. *Nat Rev Dis Primers*. 2020 Oct 22;6(1):85.
3. Trebst C, et al. *J Neurol*. 2014;261(1):1-16.
4. Wingerchuk DM, et al. *Neurology*. 2015;85(2):177-89.
5. Tsai HM, et al. *Tranfus Med Rev*. 2014;28(4):187-197.
6. Pittock SJ, et al. *Ann Neurol*. 2023 Jun;93(6):1053-68.
7. Yamamura T, et al. *N Engl J Med*. 2019 Nov 28;381(22):2114-24.
8. Cree BAC, et al. *Lancet*. 2019 Oct 12;394(10206):1352-63.
9. Pittock SJ, et al. *N Engl J Med*. 2019 Aug 15;381(7):614-625.
10. Giglhuber K, Berthele A. *Int J Mol Sci*. 2022 Apr 9;23(8):4154.
11. Vukusic S, et al. *Mult Scler*. 2023 Jan;29(1):37-51.
12. Kümpfel T, et al. *J Neurol*. 2024;271(1):141-176.

Program Requirements: The Program must be planned and executed as an accredited activity and fully compliant with the criteria and/or standards of commercial support for ACCME, AAFP, AOA, ACPE, ANCC, AANP, or NCCPA. Furthermore, the program will be educational and nonpromotional in nature and will be planned, designed and implemented in accordance with the U.S. Food and Drug Administration's Guidance on Industry-Supported Scientific and Educational Activities ("Policy Statement").

The Policy Statement and the ACCME Standards require, among other things, that (i) Institution conduct the Program independently and without control or influence by AstraZeneca over the Program's planning, content (including the selection of speakers or moderators), or execution; (ii) the Program be free of commercial bias for or against any product; (iii) Institution make meaningful disclosure of AstraZeneca support of the Program and any prior relationship between Institution and AstraZeneca, and the relationship, if any, between AstraZeneca and the speakers selected by Institution; and (iv) AstraZeneca not engage in, and Institution not permit any other sponsor to engage in, promotional activities in or near the Program room or advertise its products in any materials disseminated as part of the Program.

In addition, Institution is required by the Policy Statement and, if applicable, accreditation standards to ensure that any product discussions at the Program be accurate, objective, balanced and scientifically rigorous. This includes a balanced discussion of each product and of treatment alternatives, that limitations on data be disclosed, that unapproved uses be identified as such, and that, for live presentations, there are opportunities for questioning or debate.