



Horizon Therapeutics plc Announces New UPLIZNA® (inebilizumab-cdon) Data in Neuromyelitis Optica Spectrum Disorder (NMOSD) to be presented at ECTRIMS 2021

October 4, 2021

-- Presentations will feature analyses from the pivotal N-MOMentum study and the role of B-cell depletion in NMOSD disease activity reduction --

DUBLIN--(BUSINESS WIRE)--Oct. 4, 2021-- Horizon Therapeutics plc (Nasdaq: HZNP) today announced that new UPLIZNA and NMOSD data analyses will be presented at the virtual 37th Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) 2021, Oct. 13-15. UPLIZNA is the first and only FDA-approved anti-CD19 B-cell-depleting humanized monoclonal antibody for the treatment of adult patients with anti-aquaporin-4 (AQP4) antibody positive NMOSD.

Presentation Details:

- **P028:** Extent of B-cell depletion is associated with disease activity reduction in neuromyelitis optica spectrum disorder: results from the N-MOMentum study (J. Bennett)
- **P029:** The impact of low affinity immunoglobulin gamma Fc region receptor III-A gene polymorphisms in neuromyelitis optica spectrum disorder and implications for treatment outcomes: results from the N-MOMentum study (J. Bennett)
- **P037:** Safety and efficacy of inebilizumab in NMOSD over a mean treatment duration of 3.2 years: end of study data from the N-MOMentum trial (B. Cree)
- **P044:** Patients with neuromyelitis optica spectrum disorder display hallmarks of systemic autoimmunity: broad serum autoreactivity to nuclear antigens and elevated interferon-inducible gene expression (S. Pittock)

In addition, Horizon will host a symposium Friday, Oct. 15 from 10:45-11:45 a.m. CEST called "Unraveling the Complexities of NMOSD." The symposium will feature two presentations, including "Advanced NMOSD: B Cells and Beyond," with Benjamin M. Greenberg, M.D., M.H.S., professor of neurology, UT Southwestern Medical Center, and "NMOSD in the Therapeutic Era: Revisiting Treatment Rationale and Approaches," presented by Friedemann Paul, M.D., professor of clinical neuroimmunology and head of the neuroimmunology outpatient clinic at the Experimental and Clinical Research Centre, Charite University Medicine Berlin.

About Neuromyelitis Optica Spectrum Disorder (NMOSD)

NMOSD is a unifying term for neuromyelitis optica (NMO) and related syndromes. NMOSD is a rare, severe, relapsing, neuroinflammatory autoimmune disease that attacks the optic nerve, spinal cord, brain and brain stem.^{1,2} Approximately 80 percent of all patients with NMOSD test positive for anti-AQP4 antibodies.³ AQP4-IgG binds primarily to astrocytes in the central nervous system and triggers an escalating immune response that results in lesion formation and astrocyte death.⁴

Anti-AQP4 autoantibodies are produced by plasmablasts and plasma cells. These B-cell populations are central to NMOSD disease pathogenesis, and a large proportion of these cells express CD19.⁵ Depletion of these CD19+ B cells is thought to remove an important contributor to inflammation, lesion formation and astrocyte damage. Clinically, this damage presents as an NMOSD attack, which can involve the optic nerve, spinal cord and brain.^{4,6} Loss of vision, paralysis, loss of sensation, bladder and bowel dysfunction, nerve pain and respiratory failure can all be manifestations of the disease.⁷ Each NMOSD attack can lead to further cumulative damage and disability.^{8,9} NMOSD occurs more commonly in women and may be more common in individuals of African and Asian descent.^{10,11}

About UPLIZNA

INDICATION

UPLIZNA is indicated for the treatment of neuromyelitis optica spectrum disorder (NMOSD) in adult patients who are anti-aquaporin-4 (AQP4) antibody positive.

IMPORTANT SAFETY INFORMATION

UPLIZNA is contraindicated in patients with:

- A history of life-threatening infusion reaction to UPLIZNA
- Active hepatitis B infection
- Active or untreated latent tuberculosis

WARNINGS AND PRECAUTIONS

Infusion Reactions: UPLIZNA can cause infusion reactions, which can include headache, nausea, somnolence, dyspnea, fever, myalgia, rash or other symptoms. Infusion reactions were most common with the first infusion but were also observed during subsequent infusions. Administer pre-medication with a corticosteroid, an antihistamine and an anti-pyretic.

Infections: The most common infections reported by UPLIZNA-treated patients in the randomized and open-label periods included urinary tract infection (20%), nasopharyngitis (13%), upper respiratory tract infection (8%) and influenza (7%). Delay UPLIZNA administration in patients with an active infection until the infection is resolved.

Increased immunosuppressive effects are possible if combining UPLIZNA with another immunosuppressive therapy.

The risk of hepatitis B virus (HBV) reactivation has been observed with other B-cell-depleting antibodies. Perform HBV screening in all patients before initiation of treatment with UPLIZNA. Do not administer to patients with active hepatitis.

Although no confirmed cases of Progressive Multifocal Leukoencephalopathy (PML) were identified in UPLIZNA clinical trials, JC virus infection resulting in PML has been observed in patients treated with other B-cell-depleting antibodies and other therapies that affect immune competence. At the first sign or symptom suggestive of PML, withhold UPLIZNA and perform an appropriate diagnostic evaluation. Patients should be evaluated for tuberculosis risk factors and tested for latent infection prior to initiating UPLIZNA.

Vaccination with live-attenuated or live vaccines is not recommended during treatment and after discontinuation, until B-cell repletion.

Reduction in Immunoglobulins: There may be a progressive and prolonged hypogammaglobulinemia or decline in the levels of total and individual immunoglobulins such as immunoglobulins G and M (IgG and IgM) with continued UPLIZNA treatment. Monitor the level of immunoglobulins at the beginning, during, and after discontinuation of treatment with UPLIZNA until B-cell repletion especially in patients with opportunistic or recurrent infections.

Fetal Risk: May cause fetal harm based on animal data. Advise females of reproductive potential of the potential risk to a fetus and to use an effective method of contraception during treatment and for 6 months after stopping UPLIZNA.

Adverse Reactions: The most common adverse reactions (at least 10% of patients treated with UPLIZNA and greater than placebo) were urinary tract infection and arthralgia.

For additional information on UPLIZNA, please see Prescribing Information at www.UPLIZNA.com.

About Horizon

Horizon is focused on the discovery, development and commercialization of medicines that address critical needs for people impacted by rare, autoimmune and severe inflammatory diseases. Our pipeline is purposeful: we apply scientific expertise and courage to bring clinically meaningful therapies to patients. We believe science and compassion must work together to transform lives. For more information on how we go to incredible lengths to impact lives, please visit www.horizontherapeutics.com and follow us on [Twitter](#), [LinkedIn](#), [Instagram](#) and [Facebook](#).

References

1. Ajmera MR, Boscoe A, Mauskopf J, Candrilli SD, Levy M. Evaluation of comorbidities and health care resource use among patients with highly active neuromyelitis optica. *J Neurol Sci*. 2018;384:96-103.
2. What is NMO? GuthyJacksonFoundation.org. www.guthyjacksonfoundation.org/neuromyelitis-optica-nmo/ Accessed April 15, 2021.
3. Layman's Guide to NMO. SumairaFoundation.org. <https://www.sumairaFoundation.org/laymans-guide-to-nmo/> Accessed April 25, 2021.
4. Liu Y, et al. A tract-based diffusion study of cerebral white matter in neuromyelitis optica reveals widespread pathological alterations. *Mult Scler*. 2011;18(7):1013-1021.
5. Chihara N, et al. Interleukin 6 signaling promotes anti-aquaporin 4 autoantibody production from plasmablasts in neuromyelitis optica. *PNAS*. 2011;108(9):3701-3706.
6. Duan T, Smith AJ, Verkam AS. Complement-independent bystander injury in AQP4-IgG seropositive neuromyelitis optica produced by antibody dependent cellular cytotoxicity. *Acta Neuropathologica Comm*. 2019;7(112).
7. Beekman J, et al. Neuromyelitis optica spectrum disorder: patient experience and quality of life. *Neural Neuroimmunol Neuroinflamm*. 2019;6(4):e580.
8. Kimbrough DJ, et al. Treatment of neuromyelitis optica: review and recommendations. *Mult Scler Relat Disord*. 2012;1(4):180-187.
9. Baranello RJ, Avasarala, JR. Neuromyelitis optica spectrum disorders with and without aquaporin 4 antibody: Characterization, differential diagnosis, and recent advances. *J Neuro Ther*. 2015;1(1):9-14.
10. Wingerchuk DM. Neuromyelitis optica: effect of gender. *J Neurol Sci*. 2009;286(1-2):18-23.
11. Flanagan EP, et al. Epidemiology of aquaporin-4 autoimmunity and neuromyelitis optica spectrum. *Ann Neurol*. 2016;79(5):775-783.

Tina Ventura

Senior Vice President, Investor Relations
Investor-relations@horizontherapeutics.com

Ruth Venning

Executive Director, Investor Relations
Investor-relations@horizontherapeutics.com

U.S. Media Contact:

Rachel Vann

Director, Product Communications
media@horizontherapeutics.com

Ireland Media Contact:

Gordon MRM

Ray Gordon
ray@gordonmrm.ie

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