# UPLIZNA® (INEBILIZUMAB-CDON) SIGNIFICANTLY IMPROVES GENERALIZED MYASTHENIA GRAVIS SYMPTOMS IN ACETYLCHOLINE RECEPTOR AUTOANTIBODY-POSITIVE PATIENTS OVER 52 WEEKS

March 13, 2025

**Patients Reported Improvement in Ability to Conduct Daily Activities with Twice-Yearly Dosing***

**Late-Breaking Data to be Presented at AAN 2025**

THOUSAND OAKS, Calif., March 13, 2025 /PRNewswire/ -- Amgen (NASDAQ:AMGN) today announced new data from the Phase 3, registrational MINT trial evaluating the efficacy and safety of UPLIZNA® (inebilizumab-cdon) in adults living with generalized myasthenia gravis (gMG). The results demonstrated durable and sustained efficacy of UPLIZNA in patients with acetylcholine receptor autoantibody-positive (AChR+) gMG with two doses a year, following an initial loading dose. Findings will be presented as a late-breaking oral presentation during the American Academy of Neurology (AAN) Annual Meeting on April 8, 2025, in San Diego.

The Phase 3 MINT trial, which was a randomized-control trial, evaluated UPLIZNA in muscle-specific kinase autoantibody-positive (MuSK+) and AChR+ gMG patients, with the MuSK+ group followed for 26 weeks and the AChR+ group followed for 52 weeks. The trial demonstrated continued improvement in efficacy of UPLIZNA compared to placebo (adjusted difference, −2.8, 95% CI, −3.9 to −1.7) as measured by the change in baseline of Myasthenia Gravis Activities of Daily Living (MG-ADL) score in the AChR+ subpopulation through week 52. Among the AChR+ patients in the UPLIZNA group, 72.3% had a ≥3 point improvement in the MG-ADL score, compared to 45.2% in placebo.[1]

As previously disclosed at the 2024 American Association of Neuromuscular & Electrodiagnostic Medicine Annual Meeting, the trial met its primary endpoint, with a statistically significant change from baseline in MG-ADL score for UPLIZNA (-4.2) compared with placebo (-2.2) (difference: –1.9, p<0.0001) at Week 26 for the combined study population.

"The 52-week MINT trial results highlight the potential for a new standard of care in gMG, offering durable symptom relief with a simplified treatment regimen," said Jay Bradner, M.D., executive vice president of Research and Development at Amgen. "These findings reinforce UPLIZNA's ability to provide sustained symptom relief with just two doses per year—an important advancement for patients living with generalized myasthenia gravis —while underscoring our commitment to developing transformative therapies for people facing complex autoimmune diseases."

Change from baseline in the Quantitative Myasthenia Gravis (QMG) score was also greater for patients in the UPLIZNA group as compared to placebo at Week 52 (adjusted difference, −4.3, 95% CI, −5.9 to −2.8). Among the AChR+ patients in the UPLIZNA group, 69.2% improved by ≥3 points in the QMG score, compared to 41.8% in the placebo group.[1]

MINT was the first and only Phase 3 trial for a biologic to incorporate a corticosteroid taper into its protocol. Patients who entered the study taking corticosteroids were tapered down starting at Week 4 to prednisone 5 mg per day by Week 24.

"I'm looking forward to further examining the 52-week MINT data with my colleagues in the neurology community at AAN," said Richard J. Nowak, M.D., M.S., global principal study investigator and director of the Myasthenia Gravis Clinic at Yale University. "These results showed that UPLIZNA consistently relieved burdensome symptoms and improved activities of daily living for gMG patients."

No new safety signals were identified. The overall TEAE profile during the study period is consistent with the known safety profile for the approved indication (NMOSD). The most common adverse events included infusion-related reactions, nasopharyngitis and urinary tract infections.

UPLIZNA is currently approved for the treatment of adult patients with anti-aquaporin-4 (AQP4) antibody positive neuromyelitis optica spectrum disorder (NMOSD) and is under priority FDA review for the treatment of Immunoglobulin G4-related disease (IgG4-RD) with a PDUFA date of April 3, 2025. The FDA has granted UPLIZNA Orphan Drug Designation for the treatment of gMG. Regulatory filing activities are underway with submission anticipated to be complete in H1 2025.

*After an initial loading dose.

**About the MINT Trial**
The MINT trial is a randomized, double-blind, placebo-controlled, parallel-group trial (NCT04524273) evaluating the efficacy and safety of UPLIZNA in adults with gMG. The trial enrolled 238 adults with gMG, including 190 patients who are acetylcholine receptor autoantibody-positive (AChR+) and 48 patients who are muscle-specific kinase autoantibody-positive (MuSK+).

Eligibility criteria at screening and randomization included a Myasthenia Gravis Foundation of America (MGFA) classification of II, III, or IV disease, MG-ADL score between 6 and 10 with greater than 50% of this score attributed to non-ocular items, or an MG-ADL score of at least 11, QMG score of at least 11, and use of a corticosteroid and/or non-steroidal immunosuppressant.

The primary endpoint was change from baseline in MG-ADL score at Week 26 in the combined population. Key secondary endpoints included change from baseline in QMG scores in the combined study population; change from baseline in MG-ADL score at Week 26 for the AChR+ cohort and separately the MuSK+ cohort; and change from baseline in QMG score at Week 26 for the AChR+ cohort and separately the MuSK+ cohort. Patients who entered the study taking a corticosteroid were tapered down to prednisone 5 mg a day, starting at Week 4 to Week 24. The MINT trial also includes an optional three-year open-label treatment period.

**About Generalized Myasthenia Gravis (gMG)**
Generalized myasthenia gravis (gMG) is a rare, chronic, B-cell-mediated autoimmune disorder that impairs neuromuscular communication and can cause muscle weakness, trouble breathing, difficulty swallowing and impaired speech and vision.[2-4]

Approximately 85% of patients with myasthenia gravis have the generalized form, or gMG.[5,6]

The prevalence and incidence of gMG are increasing worldwide.[6] There are between 80,000 and 100,000 patients with myasthenia gravis in the U.S.[7,8] Approximately 85% of patients with myasthenia gravis have detectable antibodies against AChR, and approximately 7% have detectable antibodies against MuSK.[9] Global prevalence is estimated at 2-36 cases per 100,000.[10] The disease is more frequently seen in young women (age 20-30) and men aged 50 years and older.[6,10]

B cells are central to the pathogenesis of gMG. The disease is thought to be primarily driven by pathogenic CD19+ plasmablasts and plasma cells that target critical proteins in the neuromuscular junction.[2-4]

**About UPLIZNA® (inebilizumab-cdon)**
UPLIZNA is a humanized monoclonal antibody (mAb) that causes targeted and sustained depletion of key cells that contribute to underlying disease process (autoantibody-producing CD19+ B cells, including plasmablasts and some plasma cells). The precise mechanism by which UPLIZNA exerts its therapeutic effects is unknown. After two initial infusions, patients need one dose of UPLIZNA every six months.

**About UPLIZNA in NMOSD**

**INDICATION AND IMPORTANT SAFETY INFORMATION**

**INDICATION**

UPLIZNA (inebilizumab-cdon) 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.

**About Amgen**
Amgen discovers, develops, manufactures and delivers innovative medicines to help millions of patients in their fight against some of the world's toughest diseases. More than 40 years ago, Amgen helped to establish the biotechnology industry and remains on the cutting-edge of innovation, using technology and human genetic data to push beyond what's known today. Amgen is advancing a broad and deep pipeline that builds on its existing portfolio of medicines to treat cancer, heart disease, osteoporosis, inflammatory diseases and rare diseases.

In 2024, Amgen was named one of the "World's Most Innovative Companies" by Fast Company and one of "America's Best Large Employers" by Forbes, among other external recognitions. Amgen is one of the 30 companies that comprise the Dow Jones Industrial Average®, and it is also part of the Nasdaq-100 Index®, which includes the largest and most innovative non-financial companies listed on the Nasdaq Stock Market based on market

capitalization.

For more information, visit Amgen.com and follow Amgen on X, LinkedIn, Instagram, YouTube and Threads.

**Amgen Forward-Looking Statements**
This news release contains forward-looking statements that are based on the current expectations and beliefs of Amgen. All statements, other than statements of historical fact, are statements that could be deemed forward-looking statements, including any statements on the outcome, benefits and synergies of collaborations, or potential collaborations, with any other company (including BeiGene, Ltd. or Kyowa Kirin Co., Ltd.), the performance of Otezla® (apremilast) (including anticipated Otezla sales growth and the timing of non-GAAP EPS accretion), our acquisitions of Teneobio, Inc., ChemoCentryx, Inc., or Horizon Therapeutics plc (including the prospective performance and outlook of Horizon's business, performance and opportunities, any potential strategic benefits, synergies or opportunities expected as a result of such acquisition, and any projected impacts from the Horizon acquisition on our acquisition-related expenses going forward), as well as estimates of revenues, operating margins, capital expenditures, cash, other financial metrics, expected legal, arbitration, political, regulatory or clinical results or practices, customer and prescriber patterns or practices, reimbursement activities and outcomes, effects of pandemics or other widespread health problems on our business, outcomes, progress, and other such estimates and results. Forward-looking statements involve significant risks and uncertainties, including those discussed below and more fully described in the Securities and Exchange Commission reports filed by Amgen, including our most recent annual report on Form 10-K and any subsequent periodic reports on Form 10-Q and current reports on Form 8-K. Unless otherwise noted, Amgen is providing this information as of the date of this news release and does not undertake any obligation to update any forward-looking statements contained in this document as a result of new information, future events or otherwise.

No forward-looking statement can be guaranteed and actual results may differ materially from those we project. Discovery or identification of new product candidates or development of new indications for existing products cannot be guaranteed and movement from concept to product is uncertain; consequently, there can be no guarantee that any particular product candidate or development of a new indication for an existing product will be successful and become a commercial product. Further, preclinical results do not guarantee safe and effective performance of product candidates in humans. The complexity of the human body cannot be perfectly, or sometimes, even adequately modeled by computer or cell culture systems or animal models. The length of time that it takes for us to complete clinical trials and obtain regulatory approval for product marketing has in the past varied and we expect similar variability in the future.

Even when clinical trials are successful, regulatory authorities may question the sufficiency for approval of the trial endpoints we have selected. We develop product candidates internally and through licensing collaborations, partnerships and joint ventures. Product candidates that are derived from relationships may be subject to disputes between the parties or may prove to be not as effective or as safe as we may have believed at the time of entering into such relationship. Also, we or others could identify safety, side effects or manufacturing problems with our products, including our devices, after they are on the market.

Our results may be affected by our ability to successfully market both new and existing products domestically and internationally, clinical and regulatory developments involving current and future products, sales growth of recently launched products, competition from other products including biosimilars, difficulties or delays in manufacturing our products and global economic conditions. In addition, sales of our products are affected by pricing pressure, political and public scrutiny and reimbursement policies imposed by third-party payers, including governments, private insurance plans and managed care providers and may be affected by regulatory, clinical and guideline developments and domestic and international trends toward managed care and healthcare cost containment. Furthermore, our research, testing, pricing, marketing and other operations are subject to extensive regulation by domestic and foreign government regulatory authorities. Our business may be impacted by government investigations, litigation and product liability claims. In addition, our business may be impacted by the adoption of new tax legislation or exposure to additional tax liabilities. If we fail to meet the compliance obligations in the corporate integrity agreement between us and the U.S. government, we could become subject to significant sanctions. Further, while we routinely obtain patents for our products and technology, the protection offered by our patents and patent applications may be challenged, invalidated or circumvented by our competitors, or we may fail to prevail in present and future intellectual property litigation. We perform a substantial amount of our commercial manufacturing activities at a few key facilities, including in Puerto Rico, and also depend on third parties for a portion of our manufacturing activities, and limits on supply may constrain sales of certain of our current products and product candidate development. An outbreak of disease or similar public health threat, such as COVID-19, and the public and governmental effort to mitigate against the spread of such disease, could have a significant adverse effect on the supply of materials for our manufacturing activities, the distribution of our products, the commercialization of our product candidates, and our clinical trial operations, and any such events may have a material adverse effect on our product development, product sales, business and results of operations. We rely on collaborations with third parties for the development of some of our product candidates and for the commercialization and sales of some of our commercial products. In addition, we compete with other companies with respect to many of our marketed products as well as for the discovery and development of new products. Further, some raw materials, medical devices and component parts for our products are supplied by sole third-party suppliers. Certain of our distributors, customers and payers have substantial purchasing leverage in their dealings with us. The discovery of significant problems with a product similar to one of our products that implicate an entire class of products could have a material adverse effect on sales of the affected products and on our business and results of operations. Our efforts to collaborate with or acquire other companies, products or technology, and to integrate the operations of companies or to support the products or technology we have acquired, may not be successful. There can be no guarantee that we will be able to realize any of the strategic benefits, synergies or opportunities arising from the Horizon acquisition, and such benefits, synergies or opportunities may take longer to realize than expected. We may not be able to successfully integrate Horizon, and such integration may take longer, be more difficult or cost more than expected. A breakdown, cyberattack or information security breach of our information technology systems could compromise the confidentiality, integrity and availability of our systems and our data. Our stock price is volatile and may be affected by a number of events. Our business and operations may be negatively affected by the failure, or perceived failure, of achieving our environmental, social and governance objectives. The effects of global climate change and related natural disasters could negatively affect our business and operations. Global economic conditions may magnify certain risks that affect our business. Our business performance could affect or limit the ability of our Board of Directors to declare a dividend or our ability to pay a dividend or repurchase our common stock. We may not be able to access the capital and credit markets on terms that are favorable to us, or at all.

The scientific information discussed in this news release relating to new indications for our product is preliminary and investigative and is not part of the labeling approved by the U.S. Food and Drug Administration for the product. The product is not approved for the investigational use(s) discussed in this news release, and no conclusions can or should be drawn regarding the safety or effectiveness of the product for these uses.

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