



Amgen And Kyowa Kirin Present Positive Late-Breaking Data From Phase 2 Study Of AMG 451/KHK4083 In Adult Patients With Moderate-to-Severe Atopic Dermatitis At EADV Congress

October 2, 2021

The Study Met its Primary Objective of Demonstrating a Statistically Greater Improvement From Baseline in Eczema Area and Severity Index Score at 16 Weeks Versus Placebo

Patients Receiving AMG 451/KHK4083 Showed Statistically Greater Improvements in Additional Secondary Efficacy Endpoints Versus Placebo

AMG 451/KHK4083 Also Showed Progressive Improvement in Efficacy Beyond 16 Weeks

THOUSAND OAKS, Calif. and TOKYO, Oct. 2, 2021 /PRNewswire/ -- Amgen (NASDAQ: AMGN) and Kyowa Kirin Co., Ltd. (TSE:4151) today announced that positive data from a Phase 2 study of AMG 451/KHK4083 were presented at the European Academy of Dermatology and Venereology 30th Virtual Congress on Oct. 2, 2021. AMG 451/KHK4083 is a potential first-in-class anti-OX40 fully human monoclonal antibody in development for the treatment of moderate-to-severe atopic dermatitis.

The Phase 2, multicenter, randomized, double-blind, placebo-controlled trial investigated the efficacy and safety of AMG 451/KHK4083 in adults with moderate-to-severe atopic dermatitis who were not adequately controlled with topical agents. The study met the primary objective, showing statistically greater improvements from baseline in Eczema Area and Severity Index (EASI) score at 16 weeks with all four subcutaneous doses of AMG 451/KHK4083 compared with placebo (600 mg every two weeks (Q2W) = -57.4%; 600 mg Q4W = -49.7%; 300 mg Q2W = -61.1%; 150 mg Q4W = -48.3% vs. placebo = -15%; $P < 0.001$).

All treatment groups of patients receiving AMG 451/KHK4083 generally achieved improvements compared to placebo at week 16 for key secondary endpoints, such as achieving at least a 75% reduction from baseline in EASI score (EASI-75), an Investigator Global Assessment (IGA) score of 0 (clear) or 1 (almost clear) with at least 2-point reduction from baseline (IGA 0/1) and at least a 4-point reduction from baseline in pruritus Numerical Rating Scale (NRS) score (PNRS-4). Efficacy measures continued to improve after week 16 for all AMG 451/KHK4083 doses.

The most commonly reported adverse events that occurred in at least 5% of patients were pyrexia, nasopharyngitis, worsening of atopic dermatitis and chills. The events of pyrexia and chills were mild to moderate in intensity and did not lead to treatment discontinuations.

"The Phase 2 results are both positive and exciting. They show improvement across all 4 dose groups compared to placebo, and highlight the potential of OX40 antagonism to help patients," said the lead investigator of this study, Dr. Emma Guttman-Yassky, MD./PhD., system chair for the Department of Dermatology and Waldman Professor of Dermatology and Immunology, Icahn School of Medicine at Mount Sinai and Director of the Center for Excellence in Eczema, and the Laboratory of Inflammatory Skin Diseases at Mount Sinai. "I hope that future clinical development data will further elucidate the significance and potential of AMG 451/KHK4083 in the treatment of moderate-to-severe atopic dermatitis."

"We are very pleased to present data from our Phase 2 study assessing the efficacy and safety of AMG 451/KHK4083 in chronic, recurrent, moderate-to-severe atopic dermatitis at the EADV congress," said Yoshifumi Torii, Ph.D., executive officer, vice president, head of R&D Division of Kyowa Kirin. "The results show inhibition and deletion of the OX40-expressing cells may provide an important new approach to treating moderate-to-severe atopic dermatitis, with the potential to help patients maintain responses."

"Atopic dermatitis affects nearly 30 million people a year and is known to have an extremely negative impact on patients' lives," said David M. Reese, M.D., executive vice president of Research and Development at Amgen. "These data provide strong evidence of the potential of AMG 451/KHK4083 for patients, and we look forward to studying this treatment further in Phase 3 clinical trials, which we expect to begin in the first half of 2022."

About the AMG 451/KHK4083 Phase 2 Study

The Phase 2, multicenter, randomized, double-blind, placebo-controlled trial (NCT03703102) investigated the efficacy and safety of AMG 451/KHK4083 in adults with moderate-to-severe atopic dermatitis who were not adequately controlled with topical agents. The study randomized 274 patients in the U.S., Japan, Canada and Germany across four dose-ranging active treatment groups, which received subcutaneous AMG 451/KHK4083 (600mg Q2W, 600mg Q4W, 300mg Q2W, 150mg Q4W), and a comparator placebo arm.

The primary endpoint was percentage change from baseline in EASI score at week 16. Additional endpoints include achievement of $\geq 75\%$ reduction (improvement) from baseline in EASI score, IGA score of 0 (clear) or 1 (almost clear) with ≥ 2 points reduction from baseline, and ≥ 4 points reduction from baseline in the pruritus numeric rating scale (NRS) score. Patients in the study were followed up to week 56.

The presentation slides are available on the EADV website: <https://www.eadvcongress2021.org/>.

Dr. Emma Guttman-Yassky is the lead investigator of the study and a paid consultant for the AMG 451/KHK4083 development by Kyowa Kirin.

About Atopic Dermatitis

Atopic dermatitis is a chronic inflammatory disease that causes excessively dry, itchy skin that can be painful. Repeated scratching can cause the skin to thicken, harden or become vulnerable to infection. Atopic dermatitis is the most common form of eczema – affecting 1-3% of adults worldwide – and the prevalence is increasing. The disease typically manifests in childhood followed by other allergy symptoms.

About AMG 451/KHK4083

AMG 451/KHK4083 is an anti-OX40 fully human monoclonal antibody engineered with Kyowa Kirin's patented POTELLIGENT[®] defucosylation technology to enhance its antibody-dependent cellular cytotoxicity (ADCC) activity. The initial AMG 451/KHK4083 antibody was discovered in collaboration between Kyowa Kirin US Research and La Jolla Institute for Immunology.

AMG 451/KHK4083 targets and inhibits the activity of the OX40 receptor expressed on the surface of activated effector T-cells, and has been shown to

enhance the depletion of activated OX40+ T-cells by ADCC. It has been reported that effector T-cells expressing OX40 are present in the lesions of patients with atopic dermatitis and are critical in the disease pathophysiology.

Amgen and Kyowa Kirin Collaboration

On June 1, 2021, Amgen and Kyowa Kirin entered into an agreement to jointly develop and commercialize AMG 451/KHK4083. Under the terms of the agreement, Amgen will lead the development, manufacturing, and commercialization for AMG 451/KHK4083 for all markets globally, except Japan, where Kyowa Kirin will retain all rights. If approved, the companies will co-promote the asset in the United States and Kyowa Kirin has opt-in rights to co-promote in certain other markets including Europe and Asia.

About Amgen

Amgen is committed to unlocking the potential of biology for patients suffering from serious illnesses by discovering, developing, manufacturing and delivering innovative human therapeutics. This approach begins by using tools like advanced human genetics to unravel the complexities of disease and understand the fundamentals of human biology.

Amgen focuses on areas of high unmet medical need and leverages its expertise to strive for solutions that improve health outcomes and dramatically improve people's lives. A biotechnology pioneer since 1980, Amgen has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.

For more information, visit www.amgen.com and follow us on www.twitter.com/amgen.

About Kyowa Kirin

Kyowa Kirin strives to create and deliver novel medicines with life-changing value. As a Japan-based Global Specialty Pharmaceutical Company with a more than 70-year heritage, we apply cutting-edge science including expertise in antibody research and engineering, to address the needs of patients and society across multiple therapeutic areas including Nephrology, Oncology, Immunology/Allergy and Neurology. Across our four regions – Japan, Asia Pacific, North America and EMEA/International – we focus on our purpose, to make people smile, and are united by our shared values of commitment to life, teamwork/Wa, innovation, and integrity. You can learn more about the business of Kyowa Kirin at: <https://www.kyowakirin.com/>.

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., Kyowa Kirin Co., Ltd., or any collaboration to manufacture therapeutic antibodies against COVID-19), the performance of Otezla[®] (apremilast) (including anticipated Otezla sales growth and the timing of non-GAAP EPS accretion), the Five Prime Therapeutics, Inc. acquisition, 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 such as the ongoing COVID-19 pandemic on our business, outcomes, progress, or effects relating to studies of Otezla as a potential treatment for COVID-19, 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. A breakdown, cyberattack or information security breach 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. 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 related to our product candidates is preliminary and investigative. Such product candidates are not approved by the U.S. Food and Drug Administration, and no conclusions can or should be drawn regarding the safety or effectiveness of the product candidates. Further, any scientific information discussed in this news release relating to new indications for our products is preliminary and investigative and is not part of the labeling approved by the U.S. Food and Drug Administration for the products. The products are 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 products for these uses.

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The logo for Amgen, featuring the word "AMGEN" in a bold, blue, sans-serif font. A small registered trademark symbol (®) is located to the upper right of the letter "N".The logo for Kyowa Kirin, featuring the word "KYOWA KIRIN" in a bold, orange, sans-serif font. The letter "K" is stylized with a white circle around its top and left sides.

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