AMGEN PRESENTS NEW RESEARCH ON OTEZLA® (APREMILAST) AT AAD 2024

March 9, 2024

SPROUT 52-Week Data Demonstrate Durable Response and Consistent Safety Profile of Oral Otezla in Children with Moderate to Severe Plaque Psoriasis

Late-Breaking Phase 3 Study of Otezla in Palmoplantar Pustulosis Achieves Primary and Secondary Endpoints at 16 Weeks

THOUSAND OAKS, Calif., March 9, 2024 /PRNewswire/ -- Amgen (NASDAQ:AMGN) today announced new, 52-week results from the Phase 3 SPROUT study examining the use of Otezla® (apremilast) in children and adolescents aged 6 to 17 years with moderate to severe plaque psoriasis. These data, along with findings from a Phase 3 late-breaking study on Otezla in palmoplantar pustulosis, will be presented at the 2024 American Academy of Dermatology (AAD) Annual Meeting, March 8-12 in San Diego.

"These data reflect Amgen's commitment to exploring new ways to treat inflammatory skin disease," said Ponda Motsepe-Ditshego, vice president, Global Medical, at Amgen. "A decade after the launch of Otezla, we continue to study how this oral therapy can help improve care and reduce disease burden in underserved patient populations."

SPROUT Phase 3 Study
Results from SPROUT, a multicenter, randomized, placebo-controlled, double-blind study, demonstrated the efficacy and safety of Otezla in pediatric patients aged 6 to 17 years with moderate to severe plaque psoriasis inadequately controlled by or intolerant to topical therapy. Continued Otezla use resulted in sustained improvements in psoriasis severity and skin involvement in patients for up to one year. The safety profile was consistent with previous Otezla studies. These findings add to the published 16-week results.[1]

"For the first time, we have a full year of data on a potential oral treatment for children and adolescents with moderate to severe plaque psoriasis, who currently lack any approved oral treatment options," said Loretta Fiorillo, M.D., FRCPC, clinical professor of pediatrics, University of Alberta. "At 52 weeks, more than half of patients achieved clear or almost clear skin. Otezla showed increased efficacy beyond that seen at the week 16 primary endpoint, with a durable maintenance of response – an important finding for families living with this chronic inflammatory disease."

All patients in the study received Otezla for a 36-week extended active treatment period following the 16-week randomized placebo-controlled treatment period, providing up to 52 weeks of data. There were 186 patients who completed the 36-week extension: 125 who continued to receive Otezla, and 61 patients switched from placebo to Otezla.

Study findings include:[2]

- 56.3% of patients who received Otezla through week 52 achieved static Physician Global Assessment (sPGA) response (score of ≥3), an investigator assessment of overall disease severity of plaque psoriasis, the study's primary endpoint.
- 52.5% of patients who switched from placebo to Otezla achieved sPGA response at week 52.
- 71.4% of patients who received Otezla through week 52 achieved Psoriasis Area and Severity Index (PASI)-75, an investigator assessment of disease severity and skin involvement, a secondary endpoint.
- 75.4% of patients who switched from placebo to Otezla achieved PASI-75 at week 52.
- Treatment-emergent adverse events (AEs) were consistent with the known safety profile of Otezla in adults. The most common AEs (>10%) throughout the study were nausea, diarrhea, abdominal pain, vomiting and headache.

Findings will be presented as an e-poster with an oral presentation on Saturday, March 9 at 4:50 p.m. PST.

Phase 3 Late-Breaking Palmoplantar Pustulosis Findings
Amgen also will present late-breaking findings from a Phase 3 study evaluating the efficacy and safety of Otezla in patients with moderate to severe palmoplantar pustulosis in Japan following inadequate response to topical therapy. Palmoplantar pustulosis is a chronic inflammatory condition characterized by pustules on the palms and soles. The condition can be difficult to treat, with limited available treatment options.[3,4]

"Palmoplantar pustulosis can severely impact daily functioning due to its painful effects on the hands and feet, necessitating new therapeutic options for this impactful inflammatory skin condition," said Melinda Gooderham, M.D., FRCPC, dermatologist and clinical investigator at SKiN Centre for Dermatology and assistant professor, Queen's University, Ontario, Canada. "The study presented at AAD highlighted significant improvement in disease severity, symptoms such as itch, pain, discomfort, and patient-reported quality of life among those treated with Otezla compared to placebo."

The randomized, placebo-controlled, double-blind study included 176 patients who received Otezla (n=88) or placebo (n=88) for 16 weeks. All primary and secondary endpoints were met.

Study findings include:[5]

- 67.8% of patients who received Otezla achieved the primary endpoint of PPPASI 50 (>50% improvement in the Palmoplantar Pustulosis Area and Severity Index); this was a significantly greater response as compared to placebo (35.3%; P<0.0001).
- Statistically significant improvements in all secondary endpoints were observed with Otezla relative to placebo, including changes from baseline to week 16 in PPPASI, PPSI (Palmoplantar Pustulosis Severity Index), Patient Visual Analogue Scale of palmoplantar pruritus and pain/discomfort and DLQI (Dermatology Life Quality Index).

- Treatment-emergent AEs were consistent with the known safety profile of Otezla. The most common AEs (>10%) throughout the study were diarrhea, soft feces, headache and nausea.

Findings will be presented as a late-breaking oral presentation on Saturday, March 9 at 9:20 a.m. PST.

Additional Amgen data to be presented at AAD include:

Otezla Abstracts

- **Long-term Impact of Apremilast on Cardiometabolic Parameters and the Relationship of Cardiometabolic Changes with Psoriasis Efficacy**
  Abstract #50668, E-Poster and Oral Presentation of Poster on Saturday, March 9 at 3:55 p.m. PST
- **Beyond Race-Ethnicity: Fitzpatrick Skin Type Analysis Highlights Unmet Needs and Differing Treatment Patterns in Psoriasis Among the Conventional Systemics Cohort of British Association of Dermatologists Biologic and Immunomodulators Register (BADBIR)**
  Abstract #51067, E-Poster and Oral Presentation of Poster on Saturday, March 9 at 4:15 p.m. PST
- **Apremilast Improves Clinical Outcomes and Pain in Patients with Oligoarticular Psoriatic Arthritis**
  Abstract #51246, E-Poster
- **Efficacy of Apremilast in Adults with Mild-to-Moderate Plaque Psoriasis with Scalp Involvement: Pooled Data from PROMINENT, ADVANCE, and EMBRACE Trials**
  Abstract #51480, E-Poster
- **Proportion of the US Psoriasis Population Impacted by Common Warnings for Moderate-to-Severe Plaque Psoriasis Treatment**
  Abstract #52846, E-Poster

Rocatinlimab (AMG 451/KHK4083) Abstract

- **Rocatinlimab Significantly Improves Clinical Responses in Patients with Moderate-to-Severe Atopic Dermatitis by Week 2 in a Randomized Double-Blind Placebo-Controlled Phase 2b Study**
  Abstract #50233, E-Poster

About Psoriasis

Psoriasis is a chronic disease where skin cells build up quickly, typically causing red or discolored, scaly, and itchy patches on the skin.[6] Approximately 125 million people worldwide have psoriasis, including around 14 million people in Europe and more than 8 million people in the United States.[7,8] About 80% of those patients have plaque psoriasis.[9]

About Otezla® (apremilast)

Otezla® (apremilast) is an oral small-molecule inhibitor of phosphodiesterase 4 (PDE4) specific for cyclic adenosine monophosphate (cAMP). PDE4 inhibition results in increased intracellular cAMP levels, which is thought to indirectly modulate the production of inflammatory mediators. The specific mechanism(s) by which Otezla exerts its therapeutic action in patients is not well defined.

Since its initial FDA approval in 2014, Otezla has been prescribed to more than 920,000 patients worldwide.[10]

Otezla® (apremilast) U.S. INDICATIONS

INDICATIONS

Otezla® (apremilast) is indicated for the treatment of adult patients with plaque psoriasis who are candidates for phototherapy or systemic therapy.

Otezla is indicated for the treatment of adult patients with active psoriatic arthritis.

Otezla is indicated for the treatment of adult patients with oral ulcers associated with Behçet's Disease.

Otezla® (apremilast) U.S. IMPORTANT SAFETY INFORMATION

Contraindications

- Otezla® is contraindicated in patients with a known hypersensitivity to apremilast or to any of the excipients in the formulation

Warnings and Precautions

- Hypersensitivity: Hypersensitivity reactions, including angioedema and anaphylaxis, have been reported during postmarketing surveillance. If signs or symptoms of serious hypersensitivity reactions occur, discontinue Otezla and institute appropriate therapy
- Diarrhea, Nausea, and Vomiting: Cases of severe diarrhea, nausea, and vomiting were associated with the use of Otezla. Most events occurred within the first few weeks of treatment. In some cases, patients were hospitalized. Patients 65 years of age or older and patients taking medications that can lead to volume depletion or hypotension may be at a higher risk of

complications from severe diarrhea, nausea, or vomiting. Monitor patients who are more susceptible to complications of diarrhea or vomiting; advise patients to contact their healthcare provider. Consider Otezla dose reduction or suspension if patients develop severe diarrhea, nausea, or vomiting

- Depression: Carefully weigh the risks and benefits of treatment with Otezla for patients with a history of depression and/or suicidal thoughts/behavior, or in patients who develop such symptoms while on Otezla. Patients, caregivers, and families should be advised of the need to be alert for the emergence or worsening of depression, suicidal thoughts or other mood changes, and they should contact their healthcare provider if such changes occur

    - Plaque Psoriasis: Treatment with Otezla is associated with an increase in depression. During clinical trials in patients with moderate to severe plaque psoriasis, 1.3% (12/920) of patients reported depression compared to 0.4% (2/506) on placebo. Depression was reported as serious in 0.1% (1/1308) of patients exposed to Otezla, compared to none in placebo-treated patients (0/506). Suicidal behavior was observed in 0.1% (1/1308) of patients on Otezla, compared to 0.2% (1/506) on placebo. One patient treated with Otezla attempted suicide; one patient on placebo committed suicide
    - Psoriatic Arthritis: Treatment with Otezla is associated with an increase in depression. During clinical trials, 1.0% (10/998) reported depression or depressed mood compared to 0.8% (4/495) treated with placebo. Suicidal ideation and behavior was observed in 0.2% (3/1441) of patients on Otezla, compared to none in placebo-treated patients. Depression was reported as serious in 0.2% (3/1441) of patients exposed to Otezla, compared to none in placebo-treated patients (0/495). Two patients who received placebo committed suicide compared to none on Otezla
    - Behçet's Disease: Treatment with Otezla is associated with an increase in depression. During the clinical trial, 1% (1/104) reported depression or depressed mood compared to 1% (1/103) treated with placebo. No instances of suicidal ideation or behavior were reported in patients treated with Otezla or treated with placebo

- Weight Decrease: Monitor body weight regularly; evaluate unexplained or clinically significant weight loss, and consider discontinuation of Otezla

    - Plaque Psoriasis: Body weight loss of 5-10% occurred in 12% (96/784) of patients with moderate to severe plaque psoriasis treated with Otezla and in 5% (19/382) of patients treated with placebo. Body weight loss of ≥10% occurred in 2% (16/784) of patients treated with Otezla compared to 1% (3/382) of patients treated with placebo
    - Psoriatic Arthritis: Body weight loss of 5-10% was reported in 10% (49/497) of patients taking Otezla and in 3.3% (16/495) of patients taking placebo
    - Behçet's Disease: Body weight loss of >5% was reported in 4.9% (5/103) of patients taking Otezla and in 3.9% (4/102) of patients taking placebo

- Drug Interactions: Apremilast exposure was decreased when Otezla was co-administered with rifampin, a strong CYP450 enzyme inducer; loss of Otezla efficacy may occur. Concomitant use of Otezla with CYP450 enzyme inducers (e.g., rifampin, phenobarbital, carbamazepine, phenytoin) is not recommended

Adverse Reactions

- Plaque Psoriasis: The most common adverse reactions (≥ 5%) are diarrhea, nausea, upper respiratory tract infection, and headache, including tension headache. Overall, the safety profile of Otezla in patients with mild to moderate plaque psoriasis was consistent with the safety profile previously established in adult patients with moderate to severe plaque psoriasis
- Psoriatic Arthritis: The most common adverse reactions (≥ 5%) are diarrhea, nausea, and headache
- Behçet's Disease: The most common adverse reactions (≥ 10%) are diarrhea, nausea, headache, and upper respiratory tract infection

Use in Specific Populations

- Otezla has not been studied in pregnant women. Advise pregnant women of the potential risk of fetal loss.

Please click here for Otezla® Full Prescribing Information.

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 rocatinlimab
Rocatinlimab (AMG 451/KHK4083), an investigational product, is a potential first-in-class anti-OX40 monoclonal antibody that is being studied for its ability to inhibit and reduce the number of OX40+ pathogenic T cells responsible for driving systemic and local AD inflammatory responses.

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. The initial antibody was discovered in collaboration between Kyowa Kirin US Research and La Jolla Institute for Immunology.

Amgen and Kyowa Kirin Collaboration
On June 1, 2021, Kyowa Kirin and Amgen entered into an agreement to jointly develop and commercialize rocatinlimab. Under the terms of the agreement, Amgen will lead the development, manufacturing, and commercialization for KHK4083/AMG 451 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.

Amgen is one of the 30 companies that comprise the Dow Jones Industrial Average and is also part of the Nasdaq-100 index. In 2023, Amgen was named one of "America's Greatest Workplaces" by Newsweek, one of "America's Climate Leaders" by USA Today and one of the "World's Best Companies" by TIME.

For more information, visit Amgen.com and follow us on X (formerly known as Twitter), LinkedIn, Instagram, TikTok, 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 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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