



Regeneron and Teva Provide Update on Fasinumab Clinical Development Programs

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TARRYTOWN, N.Y. and JERUSALEM, Oct. 17, 2016 /PRNewswire/ -- Regeneron Pharmaceuticals, Inc. (NASDAQ: **REGN**) and Teva Pharmaceutical Industries Ltd. (NYSE and TASE: **TEVA**) today provided an update on fasinumab, triggered by a recent development in a Phase 2b fasinumab study in patients with chronic low back pain. Fasinumab is an investigational Nerve Growth Factor (NGF) antibody in clinical development for osteoarthritis pain and chronic low back pain.

Chronic Low Back Pain Program Update

The U.S. Food and Drug Administration (FDA) has placed the Phase 2b study in chronic low back pain on clinical hold and requested an amendment of the study protocol after observing a case of adjudicated arthropathy in a patient receiving high dose fasinumab who had advanced osteoarthritis at study entry. As a result of the FDA decision, Regeneron completed an unplanned interim review of results and has stopped dosing in the study. The unplanned analysis showed clear evidence of efficacy with improvement in pain scores in all fasinumab groups compared to placebo at the 8- and 12-week time points (nominal p less than 0.01). Preliminary safety results are generally consistent with what has been previously reported with the class. The Phase 2b chronic low back pain study enrolled approximately 70 percent of the targeted 800 patients in four dose groups: placebo, 6mg subcutaneously monthly, 9mg subcutaneously monthly and 9mg intravenously every two months. Regeneron has notified health authorities and study investigators about the decision. Patients will continue to be followed for up to 36 weeks.

Based on these results, Regeneron and Teva plan to design a pivotal Phase 3 study in chronic low back pain that excludes patients with advanced osteoarthritis. The companies plan to submit a pivotal program plan for review with the FDA and other health authorities.

Osteoarthritis Pain Program Update

Sixteen week positive results from the fasinumab Phase 2/3 osteoarthritis pain study in 421 patients were [previously reported](#). Patients received their last dose at 12 weeks and a follow-up analysis occurred at 36 weeks. The study incorporated extensive imaging and analyses at baseline and during the study of index and non-index joints, with particular focus on arthropathies including subchondral insufficiency fractures (SIF), osteonecrosis (ON) and rapidly progressive osteoarthritis (RPOA). At the 36-week analysis, the incidence of adjudicated arthropathies was found to be potentially dose-dependent, with a higher rate of patients experiencing arthropathies in the higher dose groups [12 percent (9mg), 7 percent (6mg), 5 percent (3mg), 2 percent (1mg) and 1 percent (placebo)]. Based on these data, the companies are planning to advance only lower doses in the ongoing fasinumab osteoarthritis pivotal Phase 3 program, subject to discussion with the FDA and other health authorities.

Updated data from the osteoarthritis pain Phase 2/3 study and the chronic low back pain Phase 2b study will be presented at upcoming medical congresses.

"We are making data-driven decisions on Phase 3 fasinumab dosing that we believe will maximize potential benefit for patients in need, while minimizing the likelihood of side effects," said George D. Yancopoulos, M.D., Ph.D., Chief Scientific Officer, Regeneron and President, Regeneron Laboratories. "We look forward to working with global health authorities to advance this important investigational therapy for patients with often difficult-to-treat osteoarthritis pain and chronic low back pain."

"We believe fasinumab represents an important potential innovation for patients with osteoarthritis pain and chronic low back pain who currently have clear unmet need and limited treatment options," said Michael Hayden, M.D., Ph.D., President of Global R&D and Chief Scientific Officer at Teva. "We look forward to advancing clinical development for this promising novel therapy."

Regeneron and Teva are collaborating on the global development and commercialization of fasinumab. Under a separate agreement with Regeneron, Mitsubishi Tanabe Pharma has exclusive development and commercial rights to fasinumab in Japan, Korea and nine other Asian countries.

About Regeneron Pharmaceuticals, Inc.

Regeneron (NASDAQ: REGN) is a leading science-based biopharmaceutical company that discovers, invents, develops, manufactures and commercializes medicines for the treatment of serious medical conditions. Regeneron commercializes medicines for eye diseases, high LDL cholesterol and a rare inflammatory condition and has product candidates in development in other areas of high unmet medical need, including rheumatoid arthritis, atopic dermatitis, asthma, pain, cancer and infectious diseases. For additional information about the company, please visit www.regeneron.com or follow @Regeneron on Twitter.

About Teva

Teva Pharmaceutical Industries Ltd. (NYSE and TASE: TEVA) is a leading global pharmaceutical company that delivers high-quality, patient-centric healthcare solutions used by millions of patients every day. Headquartered in Israel, Teva is the world's largest generic medicines producer, leveraging its portfolio of more than 1,800 molecules to produce a wide range of generic products in nearly every therapeutic area. In specialty medicines, Teva has a world-leading position in innovative treatments for disorders of the central nervous system, including pain, as well as a strong portfolio of respiratory products. Teva integrates its generics and specialty capabilities in its global research and development division to create new ways of addressing unmet patient needs by combining drug development capabilities with devices, services and technologies. Teva's net revenues in 2015 amounted to \$19.7 billion. For more information, visit www.tevapharm.com.

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This release contains forward-looking statements, which are based on management's current beliefs and expectations and involve a number of known and unknown risks and uncertainties that could cause our future results, performance or achievements to differ significantly from the results, performance or achievements expressed or implied by such forward-looking statements. Important factors that could cause or contribute to such differences include risks relating to: our ability to develop and commercialize additional pharmaceutical products; competition for our specialty

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