Lilly's Mirikizumab Helped Patients with Crohn's Disease Achieve Long-Term Remission in Phase 3 Trial

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Mirikizumab demonstrated clinical remission and endoscopic response for patients with moderately to severely active Crohn's disease through 52 weeks

The study achieved the coprimary endpoints and all major secondary endpoints versus placebo

This successful Phase 3 trial will be the basis of global regulatory submissions for Crohn's disease

INDIANAPOLIS, Oct. 12, 2023 /PRNewswire/ -- Eli Lilly and Company (NYSE: LLY) announced today that mirikizumab (an investigational interleukin-23p19 antagonist) met the co-primary and all major secondary endpoints compared to placebo in VIVID-1, a Phase 3 study evaluating the safety and efficacy of mirikizumab for the treatment of adults with moderately to severely active Crohn's disease. The double-blind, treat-through trial included mirikizumab, placebo and active control (ustekinumab) arms.

Crohn's disease is a form of inflammatory bowel disease (IBD) that can cause systemic inflammation manifested as abdominal pain, diarrhea, fever and weight loss. It can lead to intestinal obstruction, fibrosis and other complications.

In VIVID-1, all patients in the active treatment arms from the 12-week induction period continued with their original therapy into the maintenance portion of the study up to Week 52. Placebo patients who did not achieve clinical response at Week 12 (nonresponders) were switched to blinded mirikizumab treatment.

The study included co-primary endpoints, which were:

- Proportion of participants achieving clinical response by patient reported outcomes (PRO)* at Week 12 and clinical remission (defined as a Crohn's Disease Activity Index [CDAI] Total Score <150) at Week 52 compared to placebo
    - In the mirikizumab arm, a statistically higher proportion achieved clinical response at Week 12 and clinical remission at Week 52 compared to placebo (45.4% versus 19.6%, p<0.000001)
- Proportion of participants achieving clinical response by PRO at Week 12 and endoscopic response (defined as ≥50% reduction from baseline in Simple Endoscopic Score – Crohn's Disease [SES-CD] Total Score) at Week 52 compared to placebo
    - In the mirikizumab arm, a statistically higher proportion achieved clinical response at Week 12 and endoscopic response at Week 52 compared to placebo (38.0% versus 9.0%, p<0.000001)

In this double-blind placebo and active controlled trial – the first reported for an IL-23p19 antibody – mirikizumab achieved all individual and composite major secondary endpoints at Week 52 compared to placebo (p<0.000001). Notably, of the patients who received mirikizumab, 54.1% achieved clinical remission at Week 52 compared to 19.6% of patients who received placebo (p<0.000001). In addition, for the endpoint of clinical remission (defined as CDAI <150), mirikizumab demonstrated non-inferiority versus ustekinumab (non-inferiority margin of 10%). For the endpoint of endoscopic response (≥50% reduction from baseline in SES-CD Total Score) at Week 52, mirikizumab did not achieve superiority to ustekinumab although results with mirikizumab were numerically higher, particularly in the non-multiplicity controlled bio-failed population.

"I'm excited by these results, which showed more than half of patients on mirikizumab achieved clinical remission as measured by CDAI at one year. Furthermore, mirikizumab demonstrated robust efficacy across subgroups and particularly in patients for whom prior biologic therapy had failed," said Lotus Mallbris, M.D., Ph.D., senior vice president of immunology development at Lilly. "Many people are seeking relief from their uncontrolled Crohn's disease, including those still experiencing symptoms with available therapies such as TNF inhibitors. Helping patients achieve long-term clinical remission is what inspires us to develop innovative treatments for inflammatory bowel diseases, including Crohn's disease and ulcerative colitis."

The overall safety was consistent with the known safety profile of mirikizumab. The frequency of serious adverse events was greater in placebo than mirikizumab. The most common treatment-emergent adverse events reported among patients treated with mirikizumab were COVID-19, anemia, arthralgia, headache and upper respiratory tract infection. Additional adverse events of interest reported among patients treated with mirikizumab included infections, injection-site reactions, hypersensitivity, liver enzyme elevations, depression and suicidal thoughts. No major adverse cardiac events were observed in the mirikizumab arm.

With these data, Lilly plans to submit a marketing application for mirikizumab in Crohn's disease to the Food and Drug Administration (FDA), followed by submissions to other regulatory agencies around the world, in 2024. Full data from the Phase 3 VIVID program will be disclosed in publications and at upcoming congresses.

*Clinical response by PRO is defined as ≥30% decrease in stool frequency and/or abdominal pain, and neither score worse than baseline.

About Mirikizumab

Mirikizumab is an interleukin-23p19 antagonist that is currently indicated for the treatment of moderately to severely active ulcerative colitis (UC) in Japan, Germany, the United Kingdom and Canada. Mirikizumab selectively targets the p19 subunit of IL-23 and inhibits the IL-23 pathway.

Inflammation due to over-activation of the IL-23 pathway plays a critical role in the pathogenesis of UC and Crohn's disease.

About Lilly

Lilly unites caring with discovery to create medicines that make life better for people around the world. We've been pioneering life-changing discoveries for nearly 150 years, and today our medicines help more than 51 million people across the globe. Harnessing the power of biotechnology, chemistry and genetic medicine, our scientists are urgently advancing new discoveries to solve some of the world's most significant health challenges, redefining diabetes care, treating obesity and curtailing its most devastating long-term effects, advancing the fight against Alzheimer's disease, providing solutions to some of the most debilitating immune system disorders, and transforming the most difficult-to-treat cancers into manageable diseases. With each step toward a healthier world, we're motivated by one thing: making life better for millions more people. That includes delivering innovative clinical trials that reflect the diversity of our world and working to ensure our medicines are accessible and affordable. To learn more, visit Lilly.com and Lilly.com/news or follow us on Facebook, Instagram, Twitter and LinkedIn. P-LLY

Cautionary Statement Regarding Forward-Looking Statements

This press release contains forward-looking statements (as that term is defined in the Private Securities Litigation Reform Act of 1995) about mirikizumab as a potential treatment for people with moderately to severely active Crohn's disease and reflects Lilly's current beliefs and expectations. However, as with any pharmaceutical product, there are substantial risks and uncertainties in the process of drug research, development, and commercialization. Among other things, there is no guarantee that planned or ongoing studies will be completed as planned, that future study results will be consistent with study results to date, or that mirikizumab will receive FDA and other additional regulatory approvals, or that it will be commercially successful. For further discussion of these and other risks and uncertainties that could cause actual results to differ from Lilly's expectations, see Lilly's Form 10-K and Form 10-Q filings with the United States Securities and Exchange Commission. Except as required by law, Lilly undertakes no duty to update forward-looking statements to reflect events after the date of this release.

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