Nearly Two-Thirds of Patients Respond to Mirikizumab Treatment at 12 Weeks in Lilly's First-in-Class Ulcerative Colitis Phase 3 LUCENT-1 Study

February 18, 2022

At Four Weeks, Patients Treated with Mirikizumab Achieved Rapid and Clinically Meaningful Symptomatic Remission and Bowel Urgency Reduction Compared to Placebo

INDIANAPOLIS, Feb. 18, 2022 /PRNewswire/ -- Patients with moderately-to-severely active ulcerative colitis (UC) who took mirikizumab achieved statistically superior rates of clinical remission at 12 weeks compared to patients taking placebo in Eli Lilly and Company's (NYSE: LLY) pivotal LUCENT-1 Phase 3 study. Patients who took mirikizumab also achieved statistically significant improvements across key secondary endpoints including clinical, symptomatic, endoscopic and histologic (cellular level of tissue) measures, compared to those taking placebo. Results from Lilly's first-in-class induction study are being presented virtually at the 17th Congress of the European Crohn's and Colitis Organisation (ECCO), taking place Feb. 16-19, 2022.

"People with ulcerative colitis have mucosal inflammation in the colon, which causes rectal bleeding, frequent trips to the bathroom and the urgent need to have a bowel movement," said Geert D'Haens, M.D., Ph.D., lead author and Professor of Gastroenterology at Amsterdam University Medical Centers. "Mirikizumab has the potential to significantly reduce inflammation, help people achieve remission and reduce bowel urgency, which is a novel, patient-centric outcome that hasn't been studied before in a Phase 3 trial for ulcerative colitis."

This global study of 1,162 patients included patients who had never tried a biologic treatment (biologic-naïve) and harder-to-treat patients who had previously taken a biologic that failed. One in four patients treated with mirikizumab (24.2%, n=210/868) achieved the primary endpoint of clinical remission at 12 weeks, compared to one in seven on placebo (13.3%, n= 39/294, p=0.00006), indicating improved symptom relief and resolution or near resolution of inflammation. Nearly two-thirds of patients taking mirikizumab (63.5%, n=551/868) achieved clinical response, compared to less than half of patients treated with placebo (42.2%, n=124/294, p<0.00001). For methodology, see the "About the LUCENT-1 Study" section below.

Nearly half of patients taking mirikizumab (45.5%, n=395/868) achieved symptomatic remission at 12 weeks, compared to less than a third of patients taking placebo (27.9%, n=82/294, p<0.001). In as early as four weeks, more than one in five patients who took mirikizumab (21.8%, n=189/868) experienced a rapid improvement in their symptoms, compared to approximately one in eight patients taking placebo (12.9%, n=38/294, p<0.001).

In as early as two weeks and sustained through 12 weeks, patients treated with mirikizumab had a statistically significant reduction on an 11-point bowel urgency severity scale. At 12 weeks, patients had an average reduction of 2.59 (2.32 to 2.85) points, compared to an average reduction of 1.63 (1.18 to 2.09) points for patients on placebo (p<0.00001). The 2-week bowel urgency endpoint was pre-defined but was not multiplicity-controlled.

The overall safety profile was similar to that of previous mirikizumab studies in UC and consistent with that of other anti-IL-23p19 antibodies in other therapeutic areas. Patients taking mirikizumab, compared to those on placebo, reported a lower frequency of serious adverse events (mirikizumab: 2.8%, n=27; placebo: 5.3%, n=17) and were less likely to discontinue the study due to adverse events (mirikizumab: 1.6%, n=15; placebo: 7.2%, n=23).

"We're encouraged that patients with hard-to-treat ulcerative colitis taking mirikizumab experienced clinical remission, reduced inflammation and resolution of their debilitating symptoms, including bowel urgency," said Prentice Stovall, Jr., Global Development Leader, Immunology at Lilly. "This is Lilly's first Phase 3 data disclosure in our emerging inflammatory bowel disease program, setting the stage for our one-year efficacy and safety data from our LUCENT-2 maintenance study."

"We look forward to sharing our LUCENT-2 data in the first half of this year, which will reinforce mirikizumab's potential to be the first anti-IL23p19 treatment for people with ulcerative colitis," Stovall continued.

Lilly plans to submit a Biologics License Application (BLA) to the U.S. Food and Drug Administration (FDA) for approval of mirikizumab in UC, followed by submissions to other regulatory agencies around the world, in the first half of 2022.

About Mirikizumab
Mirikizumab is a humanized IgG4 monoclonal antibody that binds to the p19 subunit of interleukin 23. Mirikizumab is being studied for the treatment of immune-mediated diseases, including ulcerative colitis and Crohn's disease.

About The LUCENT-1 Study
LUCENT-1 (NCT03518086) is a multicenter, randomized, double-blind, placebo-controlled induction study of mirikizumab in 1,162 patients with moderately-to-severely active ulcerative colitis who have previously failed conventional and/or biologic therapies and/or JAK inhibitors. Patients enrolled in the trial had moderately-to-severely active UC and required additional treatment to manage their disease. Two-thirds of patients (66.6%, n=774/1,162) had severe intestinal mucosal inflammation, as measured by a Mayo endoscopic subscore of 3, and 41.2% (n=479/1,162) had previously failed one or more biologic medications or tofacitinib. Patients were on average 42.5 years old and had lived with UC for an average of seven years. Approximately three-fifths (59.8%, n=695/1,162) of patients were male.

Clinical remission, the primary endpoint of the LUCENT-1 clinical trial, is achieved when inflammation of the colon is controlled or resolved, leading to normalization or near-normalization of symptoms such as stool frequency and bleeding, and is defined by a stool frequency (SF) score = 0 or 1, with a ≥1-point decrease from baseline, a rectal bleeding (RB) score = 0, and endoscopy score (ES) = 0 or 1, excluding friability, which is the propensity for tissue that covers the inside of the colon (also known as colonic mucosa) to be damaged or bleed because of contact with an endoscope or biopsy instrument.

Clinical response is measured by the decrease in the modified Mayo score of ≥2 points and ≧30% decrease from baseline (BL) and decrease of ≧1 point in the RB subscore from BL or an RB score of 0 or 1. Additionally, symptomatic remission is measured by an SF score = 0, or SF =1 with a ≥1-point decrease from baseline and rectal bleeding = 0. The bowel urgency numeric rating scale (NRS) is an 11-point scale (0 – 10) to assess change in bowel urgency severity from baseline.

About the LUCENT Clinical Trial Program

The LUCENT Phase 3 clinical development program for mirikizumab began in 2018 and includes LUCENT-1, LUCENT-2 and LUCENT-3. LUCENT-2 is a multicenter, randomized, double-blind, placebo-controlled maintenance study of mirikizumab in patients who have completed the 12-week LUCENT-1 induction study. Patients in LUCENT-2 were re-randomized to receive mirikizumab intravenously or subcutaneously, or placebo for an additional 40 weeks. LUCENT-3 (NCT03519945) is an open label extension study for eligible patients who have participated in mirikizumab UC trials. Additional data from the Phase 3 LUCENT program, the first Phase 3 study of an anti-IL23p19 antibody in UC, including one-year maintenance results from LUCENT-2, will be disclosed at upcoming congresses and in publications in 2022.

About Ulcerative Colitis

Ulcerative colitis is a chronic inflammatory bowel disease that affects the colon.[1] UC occurs when the immune system sends white blood cells into the lining of the intestines, where they produce chronic inflammation and ulcerations.[2] There is an unmet need for additional treatment options for UC that provide meaningful symptom relief, including bowel urgency, and deliver sustained clinical remission. UC can cause significant and debilitating disruptions in daily life. Millions of people live with UC globally.[3]

About Eli Lilly and Company

Lilly is a global health care leader that unites caring with discovery to create medicines that make life better for people around the world. We were founded more than a century ago by a man committed to creating high-quality medicines that meet real needs, and today we remain true to that mission in all our work. Across the globe, Lilly employees work to discover and bring life-changing medicines to those who need them, improve the understanding and management of disease, and give back to communities through philanthropy and volunteerism. To learn more about Lilly, please visit us at lilly.com and lilly.com/newsroom. P-LLY

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 patients with ulcerative colitis and other diseases and reflects Lilly's current beliefs and expectations. As with any pharmaceutical product, there are substantial risks and uncertainties in the process of drug research, development, and commercialization. Among other things, there can be no guarantee that planned or ongoing studies will be completed as planned, that future study results will be consistent with study results to date, that mirikizumab will prove to be a safe and effective treatment or that mirikizumab will receive regulatory approvals or be commercially successful. For further discussion of these and other risks and uncertainties, see Lilly's most recent 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.

[1] Overview of Ulcerative Colitis. Crohn's and Colitis Foundation Website. https://www.crohnscolitisfoundation.org/what-is-ulcerative-colitis/overview. Accessed December 2021.

[2] What is Ulcerative Colitis? Crohn's and Colitis Foundation Website. http://www.crohnscolitisfoundation.org/what-are-crohns-and-colitis/what-is-ulcerative-colitis/. Accessed December 2021.

[3] Adelphi Data 2017.

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