

Dapirolizumab Pegol Phase 3 Data Presented at the American College of Rheumatology Shows Significant Reduction in Systemic Lupus Erythematosus Disease Activity

November 19, 2024

- Dapirolizumab pegol (DZP) met its primary endpoint, demonstrating statistically and clinically significant improvement across all organ systems as measured by BICLA, an endpoint measuring disease activity
- A greater response was observed across multiple clinical endpoints among participants treated with DZP including 50% less severe disease flares compared to participants on standard of care alone
- Systemic Lupus Erythematosus is a chronic, debilitating autoimmune disease affecting multiple organ systems, primarily in women, for whom there is a significant need for additional treatment options

BRUSSELS, Belgium and CAMBRIDGE, Mass., Nov. 19, 2024 (GLOBE NEWSWIRE) -- <u>UCB</u> (Euronext Brussels: UCB) and <u>Biogen Inc.</u> (NASDAQ: BIIB) today presented detailed results from the Phase 3 PHOENYCS GO study evaluating dapirolizumab pegol (DZP), a novel Fc-free anti-CD40L drug candidate, demonstrating significant clinical improvement in disease activity in people living with moderate-to-severe systemic lupus erythematosus (SLE). The results were shared during an oral, late-breaker presentation at ACR Convergence 2024, the American College of Rheumatology's annual meeting, in Washington, DC.

"There remains a significant unmet need for additional treatment options for people living with systemic lupus erythematosus and the results we observed in PHOENYCS GO suggest dapirolizumab pegol has the potential to be impactful for this chronic and debilitating autoimmune disease. Across clinical endpoints we observed a positive effect and a favorable safety profile," said Megan E.B. Clowse, M.D., principal investigator of the study and Associate Professor of Medicine, Chief of the Division of Rheumatology and Immunology at Duke University School of Medicine. "Participants receiving dapirolizumab pegol experienced reduced lupus activity while also tapering steroids, changes important to people living with the disease."

In the PHOENYCS GO study (n=321), dapirolizumab pegol (DZP) was administered intravenously every four weeks. On the primary endpoint measuring improvement of moderate-to-severe disease activity as assessed by achievement of British Isles Lupus Assessment Group (BILAG)-based Composite Lupus Assessment (BICLA) after 48 weeks, study participants receiving DZP plus SOC had a statistically significant 14.6% (95% confidence interval [CI]: 3.3, 25.8; p=0.0110) higher response rate (49.5%) than those receiving SOC alone (34.6%). A higher BICLA response rate reflects a treatment response across all affected organs at baseline and is associated with meaningful clinical benefit.

On the first secondary endpoint of BICLA response at Week 24, study participants receiving DZP plus SOC had a 7.9% higher response rate (46.6%) than those receiving SOC alone (38.3%). However, the difference did not reach statistical significance (95% CI: -3.6, 19.4; p=0.1776). Given statistical significance was not achieved for the first key secondary endpoint in the hierarchical testing, analyses for all the subsequent secondary endpoints are descriptive and nominal p-values are included.

Subsequent analyses of additional secondary endpoints showed clinical improvements in the DZP group, including SLE Responder Index (SRI)-4 response, corticosteroid tapering, SLE Disease Activity Index-2K (SLEDAI-2K), achievement of Lupus Low Disease Activity State (LLDAS) and prevention of severe BILAG flares:

- 17.1% more participants receiving DZP were able to reduce their corticosteroid dose from >7.5 mg/day prednisone equivalent at baseline to ≤7.5 mg/day at Week 48 (72.4% vs. 52.9%; difference [95% CI]: 17.1% [0.7, 33.4]; nominal p=0.0404).
- 18.8% higher SRI-4 response rate at Week 48 (95% CI: 7.3, 30.3; nominal p=0.0014) among study participants who received DZP plus SOC (60.1%) versus those who received SOC alone (41.1%).
- A 1.8-fold greater decrease from baseline in SLEDAI-2K in study participants receiving DZP plus SOC compared to SOC alone at Week 48 (-6.1 vs -4.2; difference [95% CI]: -1.8 [-2.7, -0.9]; nominal p=0.0001).
- A 20.9% greater proportion of participants in the DZP group achieved LLDAS at Week 48 compared to SOC alone (40.9% vs. 19.6%; difference [95% CI]: 20.9% [10.7,31.2]; nominal p<0.001).
- Participants receiving DZP plus SOC had 50% fewer severe BILAG flares through Week 48 (95% CI: 1.4, 21.6; nominal p=0.0257) compared to SOC alone (11.6% vs. 23.4%).

"Due to the varied symptoms and severity by patient, progress in the treatment of lupus has historically been challenging. With dapirolizumab pegol, we believe that our differentiated approach that targets the CD40L pathway results in clinically meaningful improvements across multiple disease domains and could substantially impact the burden of this disease in particular for women, who are disproportionately affected by lupus," said Fiona du Monceau, Head of Patient Evidence at UCB. "We are highly encouraged by the results we have seen in PHOENYCS GO and are excited to continue the clinical development of dapirolizumab pegol in the second Phase 3 study, PHOENYCS FLY."

The safety profile of dapirolizumab pegol was generally favorable. The safety results were consistent with previous DZP studies and with that in study participants with SLE receiving an immunomodulator. In the PHOENYCS GO study, a higher proportion of patients receiving DZP plus SOC had treatment-emergent adverse events (TEAEs) compared to SOC alone (82.6% vs. 75.0%). The proportion of participants with serious TEAEs was 9.9% in those participants receiving DZP plus SOC compared to 14.8% in those receiving SOC alone. Opportunistic infections were reported in 2.8% of participants receiving DZP plus SOC compared to 0.9% of those receiving SOC alone. Discontinuation of treatment or study participation due to TEAEs occurred in 4.7% (10) of participants receiving DZP plus SOC and 3.7% (4) of participants receiving SOC alone.

"At Biogen, we understand that lupus affects everyone differently and are committed to developing treatments as diverse as the patients we serve,"

said Diana Gallagher, MD, Head of AD, MS and Immunology Development Units at Biogen. "These results reinforce our belief that dapirolizumab pegol has the potential to change the approach to care of SLE and we are dedicated to advancing this program with our partner UCB."

Participants from the PHOENYCS GO study will continue to be followed in a long-term open-label study. In 2024, UCB and Biogen will initiate a second Phase 3 trial of dapirolizumab pegol, PHOENYCS FLY (NCT06617325).

The safety and efficacy of dapirolizumab pegol in systemic lupus erythematosus have not been established, and it is not approved for use in systemic lupus erythematosus by any regulatory authority worldwide.

About Systemic Lupus Erythematosus (SLE)

SLE is a chronic, multifactorial autoimmune disease that is caused by the activation of autoreactive T, B and antigen-presenting cells, resulting in manifestations across multiple organ systems with periods of illness or flares alternating with periods of inactivity. SLE can present itself in several ways including rash, arthritis, anemia, thrombocytopenia, serositis, nephritis, seizures or psychosis. SLE is associated with a greater risk of death from causes such as infection and cardiovascular disease.

An estimated 90% of people living with lupus are women; most begin to see symptoms between the ages of 15-55.^{3,4,5} Individuals from populations of African, Hispanic, Asian and Native American descent are at a greater risk of earlier onset and more aggressive disease.^{6,7} Pregnancy in women with SLE is high risk, with higher maternal and fetal mortality and morbidity than the general population.^{8,9}

About Dapirolizumab Pegol

Dapirolizumab pegol is a novel investigational humanized Fc-free polyethylene glycol (PEG)-conjugated antigen-binding (Fab') fragment. Dapirolizumab pegol inhibits CD40L signaling which has been shown to reduce B cell activation and autoantibody production, mitigate type 1 interferon (IFN) secretion, and attenuate T cell and antigen-presenting cell (APC) activation.¹⁰ Dapirolizumab pegol is presently in Phase 3 clinical development for the treatment of systemic lupus erythematosus (SLE) under a collaboration between UCB and Biogen.¹¹

About UCB

UCB, Brussels, Belgium (www.ucb.com) is a global biopharmaceutical company focused on the discovery and development of innovative medicines and solutions to transform the lives of people living with severe diseases of the immune system or of the central nervous system. UCB is listed on Euronext Brussels (symbol: UCB).

About Biogen

Founded in 1978, Biogen is a leading biotechnology company that pioneers innovative science to deliver new medicines to transform patient's lives and to create value for shareholders and our communities. We apply deep understanding of human biology and leverage different modalities to advance first-in-class treatments or therapies that deliver superior outcomes. Our approach is to take bold risks, balanced with return on investment to deliver long-term growth.

The company routinely posts information that may be important to investors on its website at www.biogen.com. Follow us on social media - Facebook, LinkedIn, X, YouTube.

Forward looking statements UCB

This press release may contain forward-looking statements including, without limitation, statements containing the words "believes", "anticipates", "expects", "intends", "plans", "seeks", "estimates", "may", "will", "continue" and similar expressions. These forward-looking statements are based on current plans, estimates and beliefs of management. All statements, other than statements of historical facts, are statements that could be deemed forward-looking statements, including estimates of revenues, operating margins, capital expenditures, cash, other financial information, expected legal, arbitration, political, regulatory or clinical results or practices and other such estimates and results. By their nature, such forward-looking statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties and assumptions which might cause the actual results, financial condition, performance or achievements of UCB, or industry results, to differ materially from those that may be expressed or implied by such forward-looking statements contained in this press release. Important factors that could result in such differences include: changes in general economic, business and competitive conditions, the inability to obtain necessary regulatory approvals or to obtain them on acceptable terms or within expected timing, costs associated with research and development, changes in the prospects for products in the pipeline or under development by UCB, effects of future judicial decisions or governmental investigations, safety, quality, data integrity or manufacturing issues; potential or actual data security and data privacy breaches, or disruptions of our information technology systems, product liability claims, challenges to patent protection for products or product candidates, competition from other products including biosimilars, changes in laws or regulations, exchange rate fluctuations, changes or uncertainties in tax laws or the administration of such laws, and hiring and retention of its employees. There is no guarantee that new product candidates will be discovered or identified in the pipeline, will progress to product approval or that new indications for existing products will be developed and approved. Movement from concept to commercial product is uncertain; preclinical results do not guarantee safety and efficacy of product candidates in humans. So far, the complexity of the human body cannot be reproduced in computer models, cell culture systems or animal models. The length of the timing to complete clinical trials and to get regulatory approval for product marketing has varied in the past and UCB expects similar unpredictability going forward. Products or potential products, which are the subject of partnerships, joint ventures or licensing collaborations may be subject to differences disputes between the partners or may prove to be not as safe, effective or commercially successful as UCB may have believed at the start of such partnership. UCB's efforts to acquire other products or companies and to integrate the operations of such acquired companies may not be as successful as UCB may have believed at the moment of acquisition. Also, UCB or others could discover safety, side effects or manufacturing problems with its products and/or devices after they are marketed. The discovery of significant problems with a product similar to one of UCB's products that implicate an entire class of products may have a material adverse effect on sales of the entire class of affected products. Moreover, sales may be impacted by international and domestic trends toward managed care and health care cost containment, including pricing pressure, political and public scrutiny, customer and prescriber patterns or practices, and the reimbursement policies imposed by third-party payers as well as legislation affecting biopharmaceutical pricing and reimbursement activities and outcomes. Finally, a breakdown, cyberattack or information security breach could compromise the confidentiality, integrity and availability of UCB's data and systems.

Given these uncertainties, you should not place undue reliance on any of such forward-looking statements. There can be no guarantee that the investigational or approved products described in this press release will be submitted or approved for sale or for any additional indications or labelling in any market, or at any particular time, nor can there be any guarantee that such products will be or will continue to be commercially successful in the future.

UCB is providing this information, including forward-looking statements, only as of the date of this press release. UCB expressly disclaims any duty to update any information contained in this press release, either to confirm the actual results or to report or reflect any change in its forward-looking statements with regard thereto or any change in events, conditions or circumstances on which any such statement is based, unless such statement is required pursuant to applicable laws and regulations.

Additionally, information contained in this document shall not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there

be any offer, solicitation or sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of such jurisdiction.

Biogen Safe Harbor

This news release contains forward-looking statements, including but not limited to those relating to the potential benefits, safety and efficacy of DZP; the timing and status of current and future regulatory filings; risks and uncertainties associated with drug development and commercialization; the potential of Biogen's commercial business and pipeline programs; the anticipated benefits and potential of Biogen's collaboration arrangements with UCB; Biogen's strategy and plans; and potential cost healthcare savings related to biosimilars. These forward-looking statements may be accompanied by words such as "aim," "anticipate," "believe," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "potential," "possible," "will," "would" and other words and terms of similar meaning. Drug development and commercialization involve a high degree of risk, and only a small number of research and development programs result in commercialization of a product. Results in early stage clinical trials may not be indicative of full results or results from later stage or larger scale clinical trials and do not ensure regulatory approval. You should not place undue reliance on these statements.

These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements, including without limitation, actual timing and content of submissions to and decisions made by the regulatory authorities regarding DZP; regulatory submissions may take longer or be more difficult to complete than expected; regulatory authorities may require additional information or further studies, or may fail or refuse to approve or may delay approval of DZP; risks of unexpected costs or delays or other unexpected hurdles; uncertainty of success in the development and potential commercialization of DZP, which may be impacted by, among other things, the level of preparedness of healthcare providers to treat patients, difficulties in obtaining or changes in the availability of reimbursement for DZP and other unexpected difficulties or hurdles; the occurrence of adverse safety events; unexpected concerns that may arise from additional data or analysis; failure to protect and enforce data, intellectual property and other proprietary rights and uncertainties relating to intellectual property claims and challenges; risks of legal actions, regulatory scrutiny or other challenges to biosimilars, results of operations and financial condition; product liability claims; and third party collaboration risks. The foregoing sets forth many, but not all, of the factors that could cause actual results to differ from Biogen's expectations in any forward-looking statement. Investors should consider this cautionary statement as well as the risk factors identified in Biogen's most recent annual or quarterly report and in other reports Biogen has filed with the U.S. Securities and Exchange Commission. These statements are based on Biogen's current beliefs and expectations and speak only as of the date of this news release. Biogen does not undertake any obligation to publicly update any forward-looking statements.

References:

- 1. Tselios K, Gladman DD, Touma Z, et al. Disease course patterns in systemic lupus erythematosus. Lupus. 2019;28(1):114-122.
- 2. Fanouriakis A, Tziolos N, Bertsias G, et al. Update on the diagnosis and management of systemic lupus erythematosus. Ann Rheum Dis. 2021;80(1):14-25. doi:10.1136/annrheumdis-2020-218272
- 3. Petri M. Epidemiology of systemic lupus erythematosus. Best Pract Res Clin Rheumatol. 2002;16(5):847-58. Epub 2002/12/11. doi: 10.1053/berh.2002.0259. PubMed PMID: 12473278.
- 4. Rees F, Doherty M, Grainge M, Davenport G, Lanyon P, Zhang W. The incidence and prevalence of systemic lupus erythematosus in the UK, 1999-2012. Ann Rheum Dis. 2016;75(1):136-41. Epub 2014/10/01. doi: 10.1136/annrheumdis-2014-206334. PubMed PMID: 25265938: PubMed Central PMCID: PMCPMC4717400.
- 5. Pons-Estel GJ, Ugarte-Gil MF, Alarcón GS. Epidemiology of systemic lupus erythematosus. Expert Rev Clin Immunol. 2017;13(8):799-814.
- 6. Carter EE, Barr SG, Clarke AE. The global burden of SLE: prevalence, health disparities and socioeconomic impact. Nat Rev Rheumatol. 2016;12(10):605-20. Epub 2016/08/26. doi: 10.1038/nrrheum.2016.137. PubMed PMID: 27558659.
- 7. Kheir JM, Guthridge CJ, Johnston JR, Adams LJ, Rasmussen A, Gross TF, et al. Unique clinical characteristics, autoantibodies and medication use in Native American patients with systemic lupus erythematosus. Lupus Sci Med. 2018;5(1):e000247. Epub 2018/03/14. doi: 10.1136/lupus-2017-000247. PubMed PMID: 29531773; PubMed Central PMCID: PMCPMC5844376.
- 8. Mehta B, Luo Y, Xu J, Sammaritano L, Salmon J, Lockshin M, et al. Trends in Maternal and Fetal Outcomes Among Pregnant Women With Systemic Lupus Erythematosus in the United States: A Cross-sectional Analysis. Ann Intern Med. 2019;171(3):164-71. Epub 2019/07/10. doi: 10.7326/M19-0120. PubMed PMID: 31284305.
- 9. Bitencourt N, Bermas BL. Pharmacological Approach to Managing Childhood-Onset Systemic Lupus Erythematosus During Conception, Pregnancy and Breastfeeding. Paediatr Drugs.
- 10. Furie RA, Bruce IN, Dörner T, et al. Phase 2 randomized, placebo-controlled trial of dapirolizumab pegol in patients with moderate to severe active systemic lupus erythematosus (SLE). Rheumatology (Oxford).2021;60(11): 5397-407.
- 11. Clinicaltrials.gov (NCT04294667). A Study to Evaluate the Efficacy and Safety of Dapirolizumab Pegol in Study Participants With Moderately to Severely Active Systemic Lupus Erythematosus (PHOENYCS GO) 2023 [cited August 2024] Available at: https://clinicaltrials.gov/ct2/show/NCT04294667. Retrieved July 25, 2024.

MEDIA CONTACTS: UCB +32 497 70 23 46 Adriaan.snauwaert@ucb.com

Biogen Jack Cox +1 781 464 3260 public.affairs@biogen.com +32 2 559 9414 Antje.Witte@ucb.com

Biogen Stephen Amato +1 781 464 2442 IR@biogen.com