UCB News

Bimekizumab Showed Sustained Improvements in Both Joint and Skin Outcomes for Psoriatic Arthritis Patients

- In the first presentation of long-term data for UCB's investigational molecule bimekizumab, late-breaking results from the Phase 2b BE ACTIVE study showed promising response rates that increased up to Week 24 and were maintained to Week 48 across disease manifestations in psoriatic arthritis
- Findings continue to underscore the potential value of bimekizumab's unique dual neutralization of IL-17A and IL-17F
- Results presented today as part of late-breaking oral session at the American College of Rheumatology/Association of Rheumatology Health Professionals (ACR/ARHP) Annual Meeting

Brussels, Belgium – 23 October 2018 – UCB, a global biopharmaceutical company, presented long-term data for the first time from BE ACTIVE, showing that response rates across musculoskeletal and skin manifestations with bimekizumab continued to increase in the dose-blind study period after Week 12, through Week 24, and were sustained to Week 48 in psoriatic arthritis (PsA) patients.

"The results observed with bimekizumab are impressive, as they demonstrate the potential long-term maintenance of deep response in rigorous skin and joint outcomes," said Christopher T. Ritchlin, MD, MPH, University of Rochester Medical Center. "The results from BE ACTIVE support the substantial value of neutralizing IL-17F in addition to IL-17A in the treatment of psoriatic arthritis. Psoriatic arthritis is a serious, chronic disease with a broad range of musculoskeletal and skin symptoms that can make it difficult for patients to perform many everyday activities, often negatively impacting overall quality of life. Despite the availability of new treatments, a substantial proportion of patients fail to achieve adequate control of their signs and symptoms and there is therefore an important need for new therapies that can provide meaningful relief across the broad range of disease manifestations."

The study achieved its primary endpoint, with 46% of PsA patients who received bimekizumab experiencing at least 50% improvement in PsA signs and symptoms (ACR50), versus 7% with placebo, at Week 12. These results were generally consistent regardless of prior exposure to an anti-TNF and were maintained to Week 48 across doses.

At Week 48, ACR20/50/70 response rates were 70%/55%/43% for the 160 mg dose, 73%/57%/46% for the 160 mg dose with a loading dose, and 76%/63%/39% for the 320 mg dose. In addition, Psoriasis Area and Severity Index (PASI90) response rates at Week 48 were 70% for the 160mg dose with and without a loading dose, and 85% for the 320mg dose.

"We are highly encouraged by the 48-week results of BE ACTIVE for patients with psoriatic arthritis, the first presentation of long-term data from our comprehensive clinical trial development program for bimekizumab. These data build on the significant potential value demonstrated by bimekizumab for underserved patients with diverse diseases, including psoriatic arthritis, psoriasis and ankylosing spondylitis," said Emmanuel Caeymaex, Head of Immunology and Executive Vice President at UCB. "These data further validate the importance of the neutralization of IL-17F in addition to IL-17A and highlight the potential for this targeted approach to deliver meaningful outcomes for patients with autoimmune diseases. BE ACTIVE serves as a prime example of our drive to discover and deliver innovative science to specific patient populations with unmet need, such as those living with psoriatic disease."

BE ACTIVE, a 48-week, Phase 2b, randomized, double-blind, placebo-controlled, dose-ranging study assessing the dose response, long-term efficacy and safety of bimekizumab in adults with PsA, randomized 206 patients to five dose regimens to receive either placebo or bimekizumab every four weeks by subcutaneous injection for 12 weeks. Patients then transitioned to a dose-blind period where all patients received bimekizumab treatment for 36 weeks. The patient population included both TNF-naïve patients, as well as those who had been previously exposed to an anti-TNF biologic.

The study also evaluated several other endpoints, including the number of patients who achieved minimal disease activity (MDA), which continued to increase from Week 12 (29-46%) to Week 24 (37-60%) across dose ranges (160mg to 320mg). Response rates were then maintained through Week 48 (46-60%) across the same dose ranges.

Serious adverse events were reported in 4.4% of patients at all doses at Week 48. Nasopharyngitis was the most frequently reported adverse event (12.1%). Oral candidiasis was reported by 4.9% of patients and did not lead to discontinuations.

UCB is also studying bimekizumab in other disease areas, including psoriasis and ankylosing spondylitis. The safety and efficacy of bimekizumab have not been established, and it is not approved by any regulatory authority worldwide.

About Bimekizumab

Bimekizumab is an investigational novel humanized monoclonal IgG1 antibody that potently and selectively neutralizes both IL-17A and IL-17F, two key cytokines driving inflammatory processes. IL-17A and IL-17F have similar pro-inflammatory functions and independently cooperate with other inflammatory mediators to drive chronic inflammation and damage across multiple tissues.

Previous early phase clinical studies in psoriasis and psoriatic arthritis have suggested that bimekizumab's unique dual neutralization of both IL-17A and IL-17F may provide a new targeted approach for the treatment of immune-mediated inflammatory diseases.[i,ii,iii] Preclinical results in disease-relevant cells have shown that neutralizing IL-17F in addition to IL-17A reduces skin and joint

inflammation, as well as pathological bone formation to an extent greater than inhibition of IL-17A alone. [ii,iv,v]

About Psoriatic Arthritis (PsA)

Psoriatic arthritis is a serious, highly heterogenous, chronic systemic inflammatory condition affecting both the joints and skin, with a prevalence of 0.05% to 0.25% of the population and 6% to 41% of patients with psoriasis.[vi] Symptoms include joint pain and stiffness, skin plaques, swollen toes and fingers, and persistent inflammation of the sites where tendons or ligaments insert into the bone (enthesitis). Up to 40% of people with PsA can suffer from joint destruction and permanent physical deformity.[vii,viii]

About BE ACTIVE

BE ACTIVE is a multi-center, randomized, double-blind, placebo-controlled, parallel-group, dose-ranging study of bimekizumab compared with placebo in adult patients with PsA. The study included a 12-week double-blind treatment period, after which patients transitioned to a 36-week dose-blind treatment period. The total duration of treatment was 48 weeks.[ix]

The study included 206 patients with PsA, who met classification criteria for psoriatic arthritis (CASPAR) and were having symptoms for at least six months prior to study screening, three or more tender and swollen joint counts ≥ 3 at baseline. Subjects also had to have active psoriatic lesions or a documented history of psoriasis.[ix]

Patients were randomized into five dose regimens to receive either placebo or bimekizumab every four weeks subcutaneously for 12 weeks. After Week 12, patients receiving placebo or bimekizumab 16 mg were re-randomized (1:1) to receive bimekizumab 160 mg or 320 mg; all other patients continued on their previous dose (dose-blind period). Patients were given the option to enter an extension study at Week 48.[ix]

The primary outcome measure evaluated in the Phase 2b BE ACTIVE study in patients with PsA was the percentage of patients who achieved at least 50% improvement in signs and symptoms at Week 12, as measured by the ACR50 response. An ACR50 response is a standard measure of at least a 50% improvement in the number of tender and swollen joints and a 50% improvement in at least three of the following: the patient's global assessment of disease status; the patient's global assessment of pain; the physician's global assessment of disease status; health assessment questionnaire disability index; serum C-reactive protein levels. [ix]

Additional outcome measures assessed at Week 12 in BE ACTIVE include ACR20 and ACR70, a 20% and 70% improvement, respectively, in the ACR criteria; PASI90 and PASI75, a 90% and 75% improvement, respectively, in the Psoriasis Area and Severity Index. Safety variables include incidence of adverse events (AEs), serious adverse events (SAEs), withdrawal due to AEs and change from baseline in clinical laboratory variables. [ix]

For further information, UCB:

Corporate Communications	Investor Relations	Brand Communications
France Nivelle, **Global Communications, UCB**	**Antje Witte,** **Investor Relations, UCB**	**Andrea Levin Christopher,** **Immunology Communications, UCB**
T +32.2.559.9178, **france.nivelle@ucb.com**	**T +32.2.559.94.14,** **antje.witte@ucb.com**	**T +1.404.483.7329** **andrea.christopher@ucb.com**
Laurent Schots, **Media Relations, UCB** **T+32.2.559.92.64,** **laurent.schots@ucb.com**		

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 in immunology or neurology. With more than 7 500 people in approximately 40 countries, the company generated revenue of € 4.5 billion in 2017. UCB is listed on Euronext Brussels (symbol: UCB). Follow us on Twitter: @UCB_news

Forward looking statements – UCB

This press release contains forward-looking statements based on current plans, estimates and beliefs of management. All statements, other than statements of historical fact, are statements that could be deemed forward-looking statements, including estimates of revenues, operating margins, capital expenditures, cash, other financial information, expected legal, political, regulatory or clinical results and other such estimates and results. By their nature, such forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties and assumptions which could cause actual results to differ materially from those that may be 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, 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, product liability claims, challenges to patent protection for products or product candidates, 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. UCB is providing this information as of the date of this press release and

expressly disclaims any duty to update any information contained in this press release, either to confirm the actual results or to report a change in its expectations.

There is no guarantee that new product candidates in the pipeline will progress to product approval or that new indications for existing products will be developed and approved. Products or potential products which are the subject of partnerships, joint ventures or licensing collaborations may be subject to differences between the partners. Also, UCB or others could discover safety, side effects or manufacturing problems with its products after they are marketed. Moreover, sales may be impacted by international and domestic trends toward managed care and health care cost containment and the reimbursement policies imposed by third-party payers as well as legislation affecting biopharmaceutical pricing and reimbursement.

###

[i] Glatt S, Helmer E, Haier B, et al. First-in-human randomized study of bimekizumab, a humanized monoclonal antibody and selective dual inhibitor of IL-17A and IL-17F, in mild psoriasis. Br J Clin Pharmacol. 2017 May;83(5):991-1001. doi: 10.1111/bcp.13185. Epub 2017 Jan 10.

[ii] Papp K, Merola J, Gottlieb A, Griffiths C, Cross N, Peterson L, Cioffi C, Blauvelt A. Dual neutralization of both interleukin 17A and interleukin 17F with bimekizumab in patients with psoriasis: Results from BE ABLE 1, a 12-week randomized, double-blinded, placebo-controlled phase 2b trial. J Am Acad Dermatol. 2018 Aug;79(2):277-286.e10. https://www.ncbi.nlm.nih.gov/pubmed/29609013

[iii] Glatt S, Baeten D, Baker T, et al. Dual IL-17A and IL-17F neutralisation by bimekizumab in psoriatic arthritis: evidence from preclinical experiments and a randomized placebo-controlled clinical trial that IL-17F contributes to human chronic tissue inflammation. Ann Rheum Dis. 2018; 77(4):523–32

[iv] Shah M, Maroof A, Al-Hosni R, Gikas P, Gozzard N, Shaw S, Roberts S. Bimekizumab Blocks T Cell-Mediated Osteogenic Differentiation of Periosteal Stem Cells: Coupling Pathological Bone Formation to IL-17A and IL-17F Signaling [abstract]. Arthritis Rheumatol. 2017; 69 (suppl 10).

[v] Maroof A, Okoye R, Smallie T, et al. Bimekizumab dual inhibition of IL-17A and IL-17F provides evidence of IL-17F contribution to chronic inflammation in disease-relevant cells. Ann Rheum Dis. 201706;76 (suppl.2):213-213.

[vi] Ogdie A, Weiss P. The Epidemiology of Psoriatic Arthritis. Rheum Dis Clin North Am. 2015 November; 41(4): 545–568. doi:10.1016/j.rdc.2015.07.001.

[vii] Mease PJ, Armstrong AW. Managing patients with psoriatic disease: the diagnosis and pharmacologic treatment of psoriatic arthritis in patients with psoriasis. Drugs. 2014; 74:423-441.

[viii] Hammadi A. Psoriatic arthritis: prognosis. Medscape, December 11, 2014. Available at http://emedicine.medscape.com/article/2196539-overview#a6. Last accessed October 26, 2015.

[ix] UCB Clinical Study Protocol. PROTOCOL PA0008 AMENDMENT 1. 16th December 2016.