UCB News

Bimekizumab Demonstrated Long-Term Maintenance of Complete or Almost Complete Skin Disease Resolution for Psoriasis Patients in BE ABLE 2 Extension Study

- 80 to 100% of BE ABLE 1 responders maintained a response of at least 90% disease improvement (PASI90) over 60 weeks with bimekizumab
- These positive results mark the longest-term data to date demonstrating durable PASI90/PASI100 outcomes to 60 weeks with investigational molecule bimekizumab, which potently and selectively neutralizes both IL-17A and IL-17F, two key pro-inflammatory cytokines
- UCB is validating these positive Phase 2b results with ongoing Phase 3 comparative studies of bimekizumab in psoriasis, and is studying it in other disease areas, including psoriatic arthritis and axial spondyloarthritis

Brussels, Belgium – 2 March 2019 – UCB, a global biopharmaceutical company, presented positive data from the Phase 2b BE ABLE extension study of bimekizumab in patients with moderate-to-severe chronic plaque psoriasis, which showed nearly all BE ABLE 1 responders completing 60 weeks of bimekizumab treatment maintained complete or almost complete skin clearance. The results are the longest-term data so far investigating bimekizumab and further highlight the potential value of the molecule's unique dual mechanism of action, which potently and selectively neutralizes IL-17F in addition to IL-17A, two key cytokines driving inflammatory processes. Findings were presented at a late breaker session at the American Academy of Dermatology Annual Meeting (AAD) in Washington, DC.

"The long-term results observed in the BE ABLE 2 Phase 2b study suggest the meaningful difference that IL-17F inhibition, along with IL-17A inhibition, can make for psoriasis patients who need significant, long-term skin clearance," said Andrew Blauvelt, MD, MBA, an investigator in the trial and President of Oregon Medical Research Center in Portland, Oregon. "The results add to a growing body of evidence supporting the molecule's unique dual neutralization of both IL-17A and IL-17F cytokines across multiple inflammatory diseases, suggesting exciting potential."

"Despite recent advances in therapy, psoriasis patients still have profound unmet needs. Many patients do not experience long-term symptom resolution, and they often have limited confidence in long-term treatments. The positive results and rapid development of bimekizumab in psoriasis reflect UCB's dedication to connecting scientific innovation with greater patient value," said Emmanuel Caeymaex, Head of Immunology and Executive Vice President at UCB.

In the BE ABLE 1 study, up to 79% of patients achieved at least 90% skin clearance (PASI90) as soon as week 12, based on a dose range of 64mg, 160mg, 160mg with a 320mg loading dose, 320mg, or 480mg, administered every four weeks. Among these BE ABLE 1 responders, defined as achievement of PASI90 at week 12, 80-100% maintained the rigorous PASI90 measure for up to an additional 48 weeks based on a dose range of 160mg or 320mg, administered every 4 weeks, in the BE ABLE 2 extension study. Further, 70-83% and 78-100% of BE ABLE 1 responders maintained PASI100 and the Investigator's Global Assessment of response, respectively. The safety profile was consistent with previous studies, with no new safety findings observed. The most frequent treatment-emergent adverse events were oral

candidiasis and nasopharyngitis. No cases of suicidal ideation/behavior, major adverse cardiac events, or inflammatory bowel disease were reported.

UCB also presented findings this week from the BE AGILE study of bimekizumab in ankylosing spondylitis and the BE ACTIVE study of bimekizumab in psoriatic arthritis. The safety and efficacy of bimekizumab have not been established, and it is not approved by any regulatory authority worldwide.

About Psoriasis

Psoriasis is a chronic, immune-mediated inflammatory disease associated with prominent skin manifestations that affects approximately 1–3% of the population, or about 125 million people worldwide, although rates appear to vary by ethnicity, and estimates are sensitive to determination method.[i] Psoriatic arthritis occurs in up to 41% of patients with psoriasis,[ii] and is typically characterized by inflammation, pain and swollen joints.[iii]

Unmet needs remain in the treatment of psoriasis. A population-based survey identified that approximately 30% of psoriasis patients reported that their primary goals of therapy, including keeping symptoms at bay, reducing itching, and decreasing flaking were not met with their current treatment. [iv] Failure to achieve or retain complete and lasting disease resolution across the multiple manifestations of psoriatic disease, including joints and other musculoskeletal symptoms, negatively impacts risk of comorbidities, disease progression and quality of life, which is most likely multifactorial.[v, vi, vii,viii]

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.[ix, x,xi] 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. [x, xii, xiii]

About BE ABLE

BE ABLE 1 is a multi-center, randomized, double-blind, placebo-controlled, parallel-group, dose-ranging study of bimekizumab compared with placebo in adult patients with moderate-to-severe chronic plaque psoriasis. In the 12-week BE ABLE 1 study, bimekizumab provided rapid, substantial clinical improvements in patients. After the initial 12-week treatment period, eligible patients enrolled in the Phase 2b extension study (BE ABLE 2), which assessed safety and efficacy of subcutaneous bimekizumab administered every four weeks for an additional 48 weeks. For those not enrolling in the extension study, a safety follow-up visit was conducted 20 weeks after the last dose of study medication.

BE ABLE 1 included 250 patients with chronic plaque psoriasis with an affected body surface area of at least 10% and PASI of at least 12. Patients were randomized into six dosing regimens to receive either

placebo or bimekizumab every four weeks subcutaneously. Randomization was balanced across treatment groups.

BE ABLE 2 included 217 responders and non-responders from BE ABLE 1. Responders receiving placebo or bimekizumab 64mg, 160mg, 160mg (320mg loading dose [LD]) remained on the same dose. Non-responders, defined as <PASI90 at week 12, were reassigned from placebo/bimekizumab 64mg to 160mg, or 160mg/160mg (LD) to 320mg. Patients previously receiving bimekizumab 320mg/480mg received 320mg.

PASI is a score used by health care professionals to express the severity of psoriasis as measured by body surface area affected by the disease and severity of lesions. It is widely used to assess the skin improvement of people receiving treatment for psoriasis, particularly in clinical trials. In BE ABLE, efficacy was measured by the proportion of people who achieved a 90% improvement (PASI90, the primary efficacy variable) at week 12. By comparison, most previous trials in psoriasis have used the proportion of people who achieve a 75% improvement in the skin affected (PASI75), as the primary threshold for evaluating psoriatic skin clearance.

The secondary efficacy variables assessed in BE ABLE were Investigator's Global Assessment of response (IGA) defined as clear or almost clear skin with at least 2 category improvement from baseline at week 8 and at week 12, PASI90 response at week 8, PASI75 response at week 12, and PASI100 response at week 12.

For further information, UCB:

Corporate Communications	Investor Relations	Brand Communications
France Nivelle, **Global Communications, UCB**	**Antje Witte,** **Investor Relations, UCB**	**Andrea 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] Parisi R, Symmons DP, Griffiths CE, et al. Global epidemiology of psoriasis: a systematic review of incidence and prevalence. J Invest Dermatol 2013; 133:377-385.

[ii] Ogdie A, Weiss P. The Epidemiology of Psoriatic Arthritis. Rheum Dis Clin North Am 2015; 41:545-568.

[iii] Ogdie A, Schwartzman S, Eder L, et al. Comprehensive treatment of psoriatic arthritis: managing comorbidities and extraarticular manifestations. J Rheumatol 2014; 41:2315-2322.

[iv] Lebwohl, M. G., Kavanaugh, A., Armstrong, A. W., & Van Voorhees, A. S. (2015). US Perspectives in the Management of Psoriasis and Psoriatic Arthritis: Patient and Physician Results from the Population-Based Multinational Assessment of Psoriasis and Psoriatic Arthritis (MAPP) Survey. American journal of clinical dermatology, 17(1), 87-97.

[v] Zachariae H, Zachariae R, Blomqvist K, et al. Quality of life and prevalence of arthritis reported by 5,795 members of the Nordic Psoriasis Associations. Data from the Nordic Quality of Life Study. Acta Derm Venereol 2002;82:108-113.

[vi] Tezel N, Yilmaz Tasdelen O, Bodur H, et al. Is the health-related quality of life and functional status of patients with psoriatic arthritis worse than that of patients with psoriasis alone? Int J Rheum Dis 2015;18:63-69.

[vii] Husted JA, Gladman DD, Farewell VT, Cook RJ. Health-related quality of life of patients with psoriatic arthritis: a comparison with patients with rheumatoid arthritis. Arthritis Rheum 2001;45:151-158.

[viii] Moon HS, Mizara A, McBride SR. Psoriasis and psycho-dermatology. Dermatol Ther (Heidelb) 2013;3:117-130.

[ix] 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; 83(5):991-1001. doi: 10.1111/bcp.13185. Epub 2017 Jan 10.

[x] 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; 79(2):277-286.e10. https://www.ncbi.nlm.nih.gov/pubmed/29609013

[xi] 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

[xii] 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).

[xiii] 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. 2017; 76 (suppl.2):213-213.