MoonLake Immunotherapeutics starts Phase 3 VELA program of the Nanobody® sonelokimab in patients with moderate-to-severe hidradenitis suppurativa

May 16, 2024

MoonLake Immunotherapeutics starts Phase 3 VELA program of the Nanobody® sonelokimab in patients with moderate-to-severe hidradenitis suppurativa

- VELA is the first Phase 3 program in hidradenitis suppurativa to use the higher clinical response level of HiSCR75 as the primary endpoint
- The topline primary endpoint readout at week 16, together with data on other endpoints, is expected as of mid-2025
- Program will evaluate sonelokimab for a total of 52 weeks, across VELA-1 and VELA-2, at sites in the United States and Europe, using a design informed by the landmark Phase 2 MIRA trial

Zug, Switzerland, May 16, 2024 – MoonLake Immunotherapeutics (MoonLake; Nasdaq: MLTX), a clinical-stage biotechnology company focused on creating next-level therapies for inflammatory diseases, today announced that the first patients have been screened at a U.S. trial site in its global Phase 3 clinical program, VELA, evaluating sonelokimab, an investigational Nanobody® designed to treat inflammatory disease, in patients with moderate-to-severe hidradenitis suppurativa (HS).

HS is a severely debilitating chronic skin condition, affecting up to 4.1% of the global population. Over time, uncontrolled and inadequately treated inflammation can result in irreversible tissue destruction and scarring. Sonelokimab is designed to directly target sites of inflammation by inhibiting the IL-17A/A, IL-17A/F, and IL-17F/F dimers and to penetrate difficult-to-reach inflamed tissues.

Following the positive results from the landmark Phase 2 MIRA trial, the Phase 3 VELA program is expected to enroll 800 patients across VELA-1 and VELA-2. Both trials are identical in design comparing a single 120mg dose of sonelokimab to placebo with the higher measure of clinical response, Hidradenitis Suppurativa Clinical Response (HiSCR) 75, as the primary endpoint reading out at week 16. From week 16, all patients will receive the 120mg dose of sonelokimab through to 52 weeks, followed by an open-label extension for up to two years. The Phase 3 program will use a protocol design consistent with the Phase 2 MIRA trial, which identified the optimal dose of sonelokimab for HS. The topline primary endpoint readout (week 16) from the VELA program is expected as of mid-2025.

Kristian Reich, Founder and Chief Scientific Officer at MoonLake commented: *"With real-world data indicating that at least two million Americans have been diagnosed with and treated for HS, the launch of our Phase 3 VELA program with our Nanobody® sonelokimab, using the higher clinical measure of HiSCR75 as the primary endpoint and a straightforward, proven study design is a landmark moment in our efforts to develop novel treatment options for patients suffering with this under-diagnosed and under-treated condition. We are making significant progress in establishing clinical trial sites to enroll 800 patients, and we eagerly anticipate reporting the week 16 primary endpoint readout around mid-2025."*

Hadar Lev-Tov, MD, MAS, **Associate Professor**, **Director Wound Healing Fellowship**, **President Hidradenitis Suppurativa Foundation, Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery**, **University of Miami, Miller School of Medicine, added:** *"HS is a chronic inflammatory skin condition with a range of debilitating symptoms including pain, malodorous drainage, low mood and depression. With only two FDA approved biologics, there is still an urgent need for new treatment options that treat all patient types and lesions, with the opportunity for inflammatory remission. The unique characteristics and mode of action of MoonLake's Nanobody ®, sonelokimab to effectively inhibit IL-17F in addition to IL-17A in deep tissue inflammation has to date shown promising outcomes, highlighting the importance of this Phase 3 program, and placing HS at the forefront of dermatological innovation."*

Seth B Forman, MD, Principal Investigator at CenExel-FCR added: *"It is with great enthusiasm that I am participating as an investigator in the Phase 3 VELA program investigating the Nanobody sonelokimab for HS, signifying a substantial advancement in addressing the critical unmet need for more treatment options for individuals living with HS. As a physician, I witness first-hand the immense demand for novel treatment options for people living with HS, particularly those that can achieve elevated response thresholds (e.g., HiSCR75 and beyond). The findings from the Phase 2 MIRA trial offer valuable insights into what may be possible as we work with our patients to establish more ambitious treatment goals and alleviate the disease burden of this debilitating condition".*

The initiation of this Phase 3 program follows the announcement in February 2024 of the successful outcome of MoonLake's end-of-Phase 2 interactions with the U.S. Food and Drug Administration (FDA), as well as positive feedback from its interactions with the European Medicines Agency (EMA), with both regulatory bodies unanimously supporting MoonLake's proposed approach for advancing its Phase 3 program in HS.

Sonelokimab is not yet approved for use in any indication.

– Ends –

About the VELA program

The Phase 3 VELA program is expected to enroll 800 patients across VELA-1 and VELA-2. Both global, randomized, double-blind, placebo-controlled trials are identical in design evaluating the efficacy and safety of the Nanobody® sonelokimab, administered subcutaneously, in adult patients with active moderate-to-severe hidradenitis suppurativa. Similar to the design of the landmark Phase 2 MIRA trial, the primary endpoint is the percentage of participants achieving Hidradenitis Suppurativa Clinical Response 75 (HiSCR75), defined as a ≥75% reduction in total abscess and inflammatory

nodule (AN) count with no increase in abscess or draining tunnel count relative to baseline. The trials will also evaluate a number of secondary endpoints, including the proportion of patients achieving HiSCR50, the change from baseline in International Hidradenitis Suppurativa Severity Score System (IHS4), the proportion of patients achieving a Dermatology Life Quality Index (DLQI) total reduction of ≥4, the proportion of patients achieving at least 50% reduction from baseline in Numerical Rating Scale (NRS50) in the Patient's Global Assessment of Skin Pain (PGA Skin Pain) and complete resolution of Draining Tunnels (DT100). Further details are available under NCT06411379 and NCT06411899 at ClinicalTrials.gov.

About Sonelokimab

Sonelokimab (M1095) is an investigational ~40 kDa humanized Nanobody® consisting of three VHH domains covalently linked by flexible glycine-serine spacers. With two domains, sonelokimab selectively binds with high affinity to IL-17A and IL-17F, thereby inhibiting the IL-17A/A, IL-17A/F, and IL-17F/F dimers. A third central domain binds to human albumin, facilitating further enrichment of sonelokimab at sites of inflammatory edema.

Sonelokimab is being assessed in two lead indications, HS and psoriatic arthritis (PSA), and the Company is pursuing other indications in dermatology and rheumatology.

For HS, sonelokimab is being assessed in the Phase 3 trials, VELA-1 and VELA-2, following the successful outcome of MoonLake's end-of-Phase 2 interactions with the FDA and as well as positive feedback from its interactions with the EMA announced in February 2024. In June 2023, topline results of the MIRA trial (NCT05322473) at 12 weeks showed that the trial met its primary endpoint, the Hidradenitis Suppurativa Clinical Response (HiSCR)75, which is a higher measure of clinical response versus the HiSCR50 measure used in other clinical trials, setting a landmark milestone. In October 2023, the full dataset from the MIRA trial at 24 weeks showed that maintenance treatment with sonelokimab led to further improvements in HiSCR75 response rates and other high threshold clinical and patient relevant outcomes. The safety profile of sonelokimab in the MIRA trial was consistent with previous trials with no new safety signals detected.

For PsA, Phase 3 initiation is anticipated in Q4 2024 following the announcement in March 2024 of the full dataset from the global Phase 2 ARGO trial (M1095-PSA-201) evaluating the efficacy and safety of the Nanobody® sonelokimab over 24 weeks in patients with active PsA. Significant improvements were observed across all key outcomes, including approximately 60% of patients treated with sonelokimab achieving an American College of Rheumatology (ACR) 50 response and Minimal Disease Activity (MDA) at week 24. This followed the positive top-line results in November 2023, where the trial met its primary endpoint with a statistically significant greater proportion of patients treated with either sonelokimab 60mg or 120mg (with induction) achieving ACR50 response compared to those on placebo at week 12. All key secondary endpoints in the trial were met for the 60mg and 120mg doses with induction. The safety profile of sonelokimab in the ARGO trial was consistent with previous trials with no new safety signals detected.

A Phase 2 trial is expected to be initiated in 2024 for palmo-plantar pustulosis (PPP), a debilitating inflammatory skin condition affecting a significant number of patients. In addition, a Phase 3 trial is expected to initiate in juvenile HS, a condition that typically manifests at this early stage of a patient's life, and the period in which irreversible damage and inflammatory remission is most critical.

Sonelokimab will also be assessed in seronegative spondyloarthritis with Phase 2 trials in radiographic and non-radiographic axial spondyloarthritis (axSpA) and PsA expected to start in 2024. The trials are set to incorporate innovative designs that enhance traditional clinical outcomes with contemporary tissue and cellular imaging techniques.

Sonelokimab has also been assessed in a randomized, placebo-controlled Phase 2b trial (NCT03384745) in 313 patients with moderate-to-severe plaque-type psoriasis. High threshold clinical responses (Investigator's Global Assessment Score 0 or 1, and Psoriasis Area and Severity Index 90/100) were observed in patients with moderate-to-severe plaque-type psoriasis. Sonelokimab was generally well tolerated, with a safety profile similar to the active control, secukinumab (Papp KA, et al. Lancet. 2021; 397:1564-1575).

In an earlier Phase 1 trial in patients with moderate-to-severe plaque-type psoriasis, sonelokimab has been shown to decrease (to normal skin levels) the cutaneous gene expression of pro-inflammatory cytokines and chemokines (Svecova D. J Am Acad Dermatol. 2019;81:196–203).

About Nanobodies®

Nanobodies® represent a new generation of antibody-derived targeted therapies. They consist of one or more domains based on the small antigen-binding variable regions of heavy-chain-only antibodies (VHH). Nanobodies® have a number of potential advantages over traditional antibodies, including their small size, enhanced tissue penetration, resistance to temperature changes, ease of manufacturing, and their ability to be designed into multivalent therapeutic molecules with bespoke target combinations.

The terms Nanobody® and Nanobodies® are trademarks of Ablynx, a Sanofi company.

About Hidradenitis Suppurativa

Hidradenitis suppurativa is a severely debilitating chronic skin condition resulting in irreversible tissue destruction. HS manifests as painful inflammatory skin lesions, typically around the armpits, groin, and buttocks. Over time, uncontrolled and inadequately treated inflammation can result in irreversible tissue destruction and scarring. The disease affects 0.05–4.1% of the global population, with three times more females affected than males. Real-world data in the US indicates that at least 2 million unique patients have been diagnosed with and treated for HS between 2016 and 2023 alone, highlighting a significant unmet need and impact on healthcare systems, and a market opportunity exceeding $10bn by 2035. Onset typically occurs in early adulthood and HS has a profound negative impact on quality of life, with a higher morbidity than other dermatologic conditions. There is increasing scientific evidence to support IL-17A- and IL-17F-mediated inflammation as a key driver of the pathogenesis of HS, with other identified risk factors including genetics, cigarette smoking, and obesity.

About MoonLake Immunotherapeutics

MoonLake Immunotherapeutics is a clinical-stage biopharmaceutical company unlocking the potential of sonelokimab, a novel investigational Nanobody® for the treatment of inflammatory disease, to revolutionize outcomes for patients. Sonelokimab inhibits IL-17A and IL-17F by inhibiting the IL-17A/A, IL-17A/F, and IL-17F/F dimers that drive inflammation. The company's focus is on inflammatory diseases with a major unmet need, including hidradenitis suppurativa and psoriatic arthritis – conditions affecting millions of people worldwide with a large need for improved treatment options. MoonLake was founded in 2021 and is headquartered in Zug, Switzerland. Further information is available at www.moonlaketx.com.

Cautionary Statement Regarding Forward Looking Statements

This press release contains certain "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements include, but are not limited to, statements regarding MoonLake's expectations, hopes, beliefs, intentions or strategies regarding the future including, without limitation, statements regarding: plans for and timing of clinical trials, including the topline primary endpoint readout for the Phase 3 VELA program, the trial design and patient enrollment across the VELA-1 and VELA-2 trials, the initiation of the Phase 3 program in PsA, commencement of clinical trials of sonelokimab in PPP, juvenile HS and seronegative spondyloarthritis, the efficacy and safety of sonelokimab for the treatment of HS and PsA, including in comparison to existing standards or care or other competing therapies, clinical trials and research and development programs and the anticipated timing of the results from those studies and trials. In addition, any statements that refer to projections, forecasts, or other characterizations of future events or circumstances, including any underlying assumptions, are forward- looking statements. The words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," "plan," "possible," "potential," "predict," "project," "should," "would" and similar expressions may identify forward-looking statements, but the absence of these words does not mean that statement is not forward looking.

Forward-looking statements are based on current expectations and assumptions that, while considered reasonable by MoonLake and its management, as the case may be, are inherently uncertain. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Actual results could differ materially from those anticipated in such forward-looking statements as a result of various risks and uncertainties, which include, without limitation, risks and uncertainties associated with MoonLake's business in general and limited operating history, difficulty enrolling patients in clinical trials, state and federal healthcare reform measures that could result in reduced demand for MoonLake's product candidates and reliance on third parties to conduct and support its preclinical studies and clinical trials and the other risks described in or incorporated by reference into MoonLake's Annual Report on Form 10-K for the year ended December 31, 2023 and subsequent filings with the Securities and Exchange Commission.

Nothing in this press release should be regarded as a representation by any person that the forward-looking statements set forth herein will be achieved or that any of the contemplated results of such forward-looking statements will be achieved. You should not place undue reliance on forward-looking statements in this press release, which speak only as of the date they are made and are qualified in their entirety by reference to the cautionary statements herein. MoonLake does not undertake or accept any duty to release publicly any updates or revisions to any forward-looking statements to reflect any change in its expectations or in the events, conditions or circumstances on which any such statement is based.

MoonLake Immunotherapeutics Investors
Matthias Bodenstedt, CFO
info@moonlaketx.com

MoonLake Immunotherapeutics Media
Patricia Sousa
media@moonlaketx.com

ICR Consilium
Mary-Jane Elliott, Namrata Taak, Ashley Tapp
Tel: +44 (0) 20 3709 5700
MoonLake@consilium-comms.com