Jasper Therapeutics Presents Data from Preclinical Briquilimab Study at the 2024 EHA Hybrid Congress

June 14, 2024

REDWOOD CITY, Calif., June 14, 2024 (GLOBE NEWSWIRE) -- Jasper Therapeutics, Inc. (Nasdaq: JSPR) (Jasper), a clinical stage biotechnology company focused on development of briquilimab, a novel antibody therapy targeting c-Kit (CD117) to address mast cell driven diseases such as chronic spontaneous urticaria (CSU), chronic inducible urticaria (CIndU) and asthma, today is presenting preclinical data demonstrating the effect of briquilimab on hematopoietic stem cells (HSCs) at the European Hematology Association (EHA) Hybrid Congress, being held June 13 – 16, 2024 in Madrid, Spain.

The study being presented evaluated the molecular basis of inhibition of the stem cell factor (SCF)/c-Kit signaling pathway via briquilimab and its functional impact on healthy human HSC survival, proliferation, and differentiation. Results from the study demonstrate that blocking of SCF/c-Kit signaling by briquilimab does not cause apoptosis of HSCs, and that HSCs cultured in the presence of briquilimab differentiate directly into CD34- cells with higher c-Kit expression and without increased CD38 expression.

“We are pleased to present preclinical data demonstrating the effect of c-Kit inhibition on the HSC compartment,” said Wendy Pang, M.D., Ph.D., Senior Vice President, Research and Translational Medicine of Jasper. “While blocking of SCF/c-Kit signaling by briquilimab does lead to mast cell apoptosis, it is important that it does not have a similar effect on healthy HSCs, and these data indicate that briquilimab instead skews them towards a distinct alternative HSC differentiation pathway. We believe the results of the study align with those observed to-date in clinical trials of anti-c-Kit agents and support the safety profile of briquilimab in mast cell diseases.”

Details of the presentation are below:

Title: Briquilimab Potently Inhibits SCF/c-Kit Signaling, Which Does Not Induce Healthy HSC Apoptosis, But Skews HSC Differentiation Potential
Abstract Number: P1391
Session Type: Poster Session
Session Title: Hematopoiesis, Stem Cells and Microenvironment
Location: Poster Area (Hall 7)
Date/Time: Friday, June 14, 2024; 6:00-7:00pm CEST

The presentation will be available on the EHA website as well as the events page on the Jasper Therapeutics IR website.

About Briquilimab

Briquilimab (formerly JSP191) is a targeted aglycosylated monoclonal antibody that blocks stem cell factor from binding to the cell-surface receptor c-Kit, also known as CD117, thereby inhibiting signaling through the receptor. This inhibition disrupts the critical survival signal, leading to the depletion of the mast cells via apoptosis which removes the underlying source of the inflammatory response in mast cell driven diseases such as chronic urticaria. Jasper is currently conducting clinical studies of briquilimab as a treatment in patients with CSU or with CIndU, and is planning to initiate a clinical study in patients with asthma. Briquilimab is also currently in clinical studies as a treatment for patients with LR-MDS and as a conditioning agent for cell therapies for rare diseases. To date, briquilimab has a demonstrated efficacy and safety profile in more than 145 dosed participants and healthy volunteers, with clinical outcomes as a conditioning agent in severe combined immunodeficiency (SCID), acute myeloid leukemia (AML), myelodysplastic syndromes (MDS), Fanconi anemia (FA), and sickle cell disease (SCD).

About Jasper

Jasper is a clinical-stage biotechnology company developing briquilimab, a monoclonal antibody targeting c-Kit (CD117) as a therapeutic for chronic mast and stem cell diseases such as chronic urticaria and lower to intermediate risk MDS and as a conditioning agent for stem cell transplants for rare diseases such as SCD, FA and SCID. To date, briquilimab has a demonstrated efficacy and safety profile in more than 145 dosed participants and healthy volunteers, with clinical outcomes as a conditioning agent in SCID, AML, MDS, FA, and SCD. For more information, please visit us at www.jaspertherapeutics.com.

Forward-Looking Statements

Certain statements included in this press release that are not historical facts are forward-looking statements for purposes of the safe harbor provisions under the United States Private Securities Litigation Reform Act of 1995. Forward-looking statements are sometimes accompanied by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “should,” “would,” “plan,” “predict,” “potential,” “seem,” “seek,” “future,” “outlook” and similar expressions that predict or indicate future events or trends or that are not statements of historical matters. These forward-looking statements include, but are not limited to, statements regarding briquilimab’s potential, including with respect to its potential in mast cell driven diseases such as CSU, CIndU, and asthma, its ability to block SCF/c-Kit signaling and not cause apoptosis of HSCs, the potential for HSCs cultured in the presence of briquilimab to differentiate directly into CD34- cells with higher c-Kit expression and without increased CD38 expression, its ability to skew healthy HSCs towards a distinct alternative HSC differentiation pathway, and the safety profile of briquilimab in mast cell diseases. These statements are based on various assumptions, whether or not identified in this press release, and on the current expectations of Jasper and are not predictions of actual performance. These forward-looking statements are provided for illustrative purposes only and are not intended to serve as, and must not be relied on by an investor as, a guarantee, an assurance, a prediction or a definitive statement of fact or probability. Many actual events and circumstances are beyond the control of Jasper. These forward-looking statements are subject to a number of risks and uncertainties, including general economic, political and business conditions; the risk that the potential product candidates that Jasper develops may not progress through

clinical development or receive required regulatory approvals within expected timelines or at all; the risk that clinical trials may not confirm any safety, potency or other product characteristics described or assumed in this press release; the risk that Jasper will be unable to successfully market or gain market acceptance of its product candidates; the risk that prior study results may not be replicated; the risk that Jasper's product candidates may not be beneficial to patients or successfully commercialized; patients' willingness to try new therapies and the willingness of physicians to prescribe these therapies; the effects of competition on Jasper's business; the risk that third parties on which Jasper depends for laboratory, clinical development, manufacturing and other critical services will fail to perform satisfactorily; the risk that Jasper's business, operations, clinical development plans and timelines, and supply chain could be adversely affected by the effects of health epidemics; the risk that Jasper will be unable to obtain and maintain sufficient intellectual property protection for its investigational products or will infringe the intellectual property protection of others; and other risks and uncertainties indicated from time to time in Jasper's filings with the SEC, including its Annual Report on Form 10-K for the year ended December 31, 2023 and subsequent Quarterly Reports on Form 10-Q. If any of these risks materialize or Jasper's assumptions prove incorrect, actual results could differ materially from the results implied by these forward-looking statements. While Jasper may elect to update these forward-looking statements at some point in the future, Jasper specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing Jasper's assessments of any date subsequent to the date of this press release. Accordingly, undue reliance should not be placed upon the forward-looking statements.

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