Jasper Therapeutics to Present Data on Briquilimab in Mast Cell Driven Diseases at the EAACI Congress 2024

May 30, 2024

REDWOOD CITY, Calif., May 30, 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 announced presentations of data from its preclinical and healthy volunteer studies of briquilimab, as well as trial-in-progress presentations from its BEACON and SPOTLIGHT clinical studies, at the European Academy of Allergy and Clinical Immunology (EAACI) Congress 2024, taking place May 31 – June 3 in Valencia, Spain.

The two preclinical studies being presented at EAACI showed the potential of briquilimab in asthma and atopic dermatitis (AD), respectively. The asthma study demonstrated that a single dose of briquilimab can deplete mast cells in both inflamed and non-inflamed tissue as well as improve lung function in an allergen-induced asthma model. In the AD study, treatment with briquilimab led to a reduction of dermal mast cells and inflammatory leukocytes, indicating that mast cells play a critical role in the pathogenesis of AD and that briquilimab has the potential to reverse AD pathology by depleting those cells. Both preclinical studies utilized Jasper's proprietary c-Kit Mouse™, which overcomes the limitations of standard models that do not bind antibodies directed at the human c-Kit receptor.

Jasper is also presenting data from the previously disclosed clinical study of briquilimab in healthy volunteers showing that it has a promising safety profile, appears to be well-tolerated, exhibits a favorable pharmacokinetic (PK) profile, and leads to sustained and dose-dependent depletion of mast cells in a cutaneous wound model. The PK and pharmacodynamic (PD) profiles demonstrated in the study support dose selection for Jasper's ongoing BEACON and SPOTLIGHT clinical trials in CSU and CIndU, the designs of which are being separately presented as well.

"Following the announcement our development program in asthma, we are pleased to present promising preclinical results demonstrating that briquilimab depletes peribronchial mast cells in an allergen-induced asthma model," said Wendy Pang, M.D., Ph.D., Senior Vice President, Research and Translational Medicine of Jasper. "While we decided to first pursue development in asthma, we are also excited about briquilimab in AD based in part on the results being presented at EAACI, which provide early evidence of the ability of briquilimab to reverse the disease pathology by depleting mast cells in the skin and reducing inflammatory leukocytes."

"As we execute our Phase 1b/2a BEACON and SPOTLIGHT trials in CSU and CIndU, we continue to explore briquilimab's broader potential in several mast cell diseases," said Edwin Tucker, Chief Medical Officer of Jasper. "We look forward to continuing to advance briquilimab in additional indications beyond urticaria, beginning with the planned commencement of patient enrollment in a Phase 1b/2a challenge study in asthma in the fourth quarter of 2024."

The details of the presentations are below:

Title: The BEACON Study: A Phase 1b/2a, Dose Escalation Study of Safety, Pharmacokinetic/Pharmacodynamic and Preliminary Clinical Activity of the c-Kit Mab Briquilimab in Adults with symptomatic Chronic Spontaneous Urticaria (CSU)
Abstract Number: 000792
Session Type: Oral Abstract Session
Session Title: Advances in Chronic Urticaria treatment
Location: Granada
Date/Time: Saturday, June 1, 2024; 8:30am-10:00am CEST

Title: Briquilimab, an Anti-Human CD117 Antibody, Effectively Treats Cockroach Allergen-Induced Asthma Model Elicited in Mice Expressing Chimeric Human/Mouse CD117
Abstract Number: 100178
Session Type: Flash Talk
Session Title: Flash Talks on Allergic Response Management
Location: Palma
Date/Time: Saturday, June 1, 2024; 12:00pm-1:00pm CEST

Title: Safety, Pharmacokinetics (PK), and Pharmacodynamics (PD) of Briquilimab after Single Subcutaneous (SC) Administration to Healthy Male and Female Participants
Abstract Number: 000789
Session Type: Poster Session
Session Title: Epithelial Cell Biology
Location: Poster Zone
Date/Time: Saturday, June 1, 2024; 12:00pm-1:00pm CEST

Title: SPOTLIGHT: A Phase 1b/2a, Dose Escalation Trial of Safety, Pharmacokinetic/Pharmacodynamic and Preliminary Clinical Activity of Briquilimab in Adult Patients with Chronic Inducible Urticaria (CIndU) Who Remain Symptomatic Despite Treatment with H1-Antihistamines
Abstract Number: 000796
Session Type: Poster Session
Session Title: Mastocytosis and Mast Cells
Location: Poster Zone

Date/Time: Sunday, June 2, 2024; 12:00pm-1:00pm CEST

Title: Briquilimab, an Anti-Human CD117 Antibody, Effectively Treats Epicutaneous Allergen-Induced Atopic Dermatitis in Mouse Model Expressing Chimeric Human/Mouse CD117
Abstract Number: 001032
Session Type: Oral Abstract Session
Session Title: Cutting Edge Mastocytosis: Genetics, Burden, and Therapeutic
Location: Bilbao
Date/Time: Sunday, June 2, 2024; 4:45pm-6:15pm CEST

The presentations will be available on the EAACI website as well as the event 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 the Company's proposed presentations at the European Academy of Allergy and Clinical Immunology (EAACI) Congress 2024, briquilimab's potential, including with respect to its potential in mast cell driven diseases such as CSU, CIndU, asthma and AD, a single dose's ability to deplete mast cells in both inflamed and non-inflamed tissue as well as improve lung function in an allergen-induced asthma model, its potential to lead to a reduction of dermal mast cells and inflammatory leukocytes in AD and its potential to reverse AD pathology by depleting those cells, its potential to lead to sustained and dose-dependent depletion of mast cells in a cutaneous wound model, its ability to deplete peribronchial mast cells in an allergen-induced asthma model, dose selection for Jasper's ongoing BEACON and SPOTLIGHT clinical trials in CSU and CIndU and the expected timing of patient enrollment in a Phase 1b/2a challenge study in asthma. 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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