Jasper Therapeutics Reports Positive Data from 180mg Cohort in SPOTLIGHT Study of Briquilimab in Chronic Inducible Urticaria

June 14, 2025

11 of 12 participants (92%) enrolled in the 180mg cohort achieved a complete response

12 of 12 participants (100%) in the 180mg cohort achieved a clinical response

Tryptase levels below the lower limit of quantification observed in 10 of 12 participants (83%)

No serious adverse events and no grade 3 or higher adverse events reported in the 180mg cohort

Company to host conference call and webinar on Monday, June 16, at 8:00 a.m. EDT

REDWOOD CITY, Calif., June 14, 2025 (GLOBE NEWSWIRE) -- Jasper Therapeutics, Inc. (Nasdaq: JSPR) (Jasper), a clinical stage biotechnology company focused on development of briquilimab, a novel antibody therapy targeting KIT (CD117) to address mast cell driven diseases such as chronic spontaneous urticaria (CSU), chronic inducible urticaria (CIndU) and asthma, is presenting data from the 180mg cohort of the Company's SPOTLIGHT Phase 1b/2a study of subcutaneous briquilimab in adult participants with CIndU at the European Academy of Allergy and Clinical Immunology (EAACI) Annual Congress. Briquilimab (subcutaneous) administration resulted in deep disease control at 180mg, with 12 of 12 participants (100%) enrolled in the cohort achieving a clinical response within the 8-week preliminary analysis period. The efficacy observed was rapid and durable, with 8 of 12 participants (66%) achieving clinical response by week 2, and 7 of 12 participants (58%) maintaining clinical response through week 8. Briquilimab continued to be well tolerated in the study, with no serious adverse events (SAEs) and no grade 3 or higher adverse events (AEs) reported in the 180mg cohort.

"We are very pleased by the updated results from the SPOTLIGHT study, with briquilimab driving complete responses in over 90% of CIndU participants enrolled in the 180mg cohort," said Ronald Martell, President and Chief Executive Officer of Jasper. "In addition to the responses observed, we are pleased that briquilimab continued to be well tolerated in the study. Taken together with the results observed thus far in the BEACON study in CSU, these data demonstrate the ability of briquilimab to support optimal biologic dosing by rapidly delivering robust and durable control of urticaria symptoms, along with a potentially differentiated safety profile. On behalf of the entire Jasper team, I'd like to thank both the investigators and the patients who participated in SPOTLIGHT, along with their families and caregivers."

SPOTLIGHT Study Design and Data Summary:

The SPOTLIGHT study is a Phase 1b/2a open label clinical trial evaluating a single dose of subcutaneous briquilimab in adult participants with cold urticaria (ColdU) or symptomatic dermographism (SD), the two most prevalent sub types of CIndU, who are refractory to antihistamines. The study enrolled 27 participants across three dose cohorts, 40mg (n=3), 120mg (n=12), and 180mg (n=12). The primary endpoints are safety and tolerability of briquilimab and secondary endpoints are focused on clinical activity and PK/PD, including measurement of serum tryptase.

Among the 12 participants enrolled in the 180mg cohort, 3 were diagnosed with ColdU (25%) and 9 with SD (75%). Participants had high disease burden as assessed by provocation threshold testing. In the 180mg cohort, mean baseline TempTest® threshold was 18.7°C (range: 10-26°C) for ColdU participants, and mean baseline FricTest® threshold was 3.7 of 4 (range: 3-4) for SD participants.

12 of 12 participants (100%) enrolled in the 180mg dose cohort achieved a clinical response to provocation testing within the 8-week preliminary analysis period following treatment. 11 of 12 participants (92%) treated in the cohort achieved a complete response (CR) with either their critical temperature threshold improving to at least 4°C for ColdU participants or their FricTest® score improving to 0 for SD participants, and 1 of 12 participants achieved a partial response (PR) as their best response. Complete responses in TempTest® or FricTest® were observed as early as 1 week following dosing in the 180mg cohort, with 8 of 12 participants (66%) achieving CR or PR by week 2.

Overall, 22 of 27 participants (81%) enrolled in the study achieved a CR and 26 of 27 participants (96%) achieved a CR or PR.

	Briquilimab 40mg (n=3)	**Briquilimab 120mg (n=12)**	**Briquilimab 180mg (n=12)**	**Briquilimab All doses (n=27)**
Complete Response, n (%)	1 (33.3%)	10 (83.3%)	**11 (91.6%)**	22 (81.5%)
ColdU, n	0	3	**3**	6
Symptomatic Dermographism, n	1	7	**8**	16
Partial Response, n (%)	2 (66.7%)	1 (8.3%)	**1 (8.4%)**	4 (14.8%)
ColdU, n	1	0	**0**	1
Symptomatic Dermographism, n	1	1	**1**	3
Complete or Partial Response at any time, n (%)	3 (100%)	11 (91.6%)	**12 (100%)**	26 (96.3%)

At the 8-week timepoint following treatment, 7 of 12 (58%) participants in the 180mg cohort maintained an ongoing clinical response, with 5 participants achieving CR and 2 participants achieving PR.

Mean baseline serum tryptase for participants in the 180mg cohort was 5.1 ng/ml (standard deviation: 2.29 ng/ml). Significant reductions in tryptase were observed as early as the week 1 assessment and were correlated with the onset of clinical responses. Tryptase measurements below the lower limit of quantification were observed in 10 of 12 participants (83%) in the 180mg cohort.

Briquilimab was well tolerated in the study. No SAEs or AEs ≥ grade 3 were reported in the 180mg cohort. Furthermore, there were no reported AEs related to hair or skin color changes. 2 of 12 participants (17%) enrolled in the 180mg cohort experienced taste change/hypogeusia. Mild, transient drops in neutrophil counts were observed, with 6 of 12 participants (50%) experiencing grade 1 or grade 2 neutrophil count decreases which resolved in a median of 16 days. 5 of the 6 participants who experienced neutrophil count decreases were diagnosed with concurrent viral infections that may have contributed to observed decreases.

"It is exciting to see additional clinical data showing that treatment with briquilimab can lead to deep clinical benefit shortly after administration in a difficult-to-treat antihistamine refractory CIndU patient population," said Martin Metz, M.D., Professor of Dermatology and Allergy Charité – Universitätsmedizin Berlin. "Notably, the safety and tolerability results observed in both the SPOTLIGHT and BEACON studies thus far show that the adverse events possibly caused by briquilimab are mostly low frequency, low grade, and resolve quickly. Patients with CIndU currently have very few treatment options, and I look forward to continuing to support the development of novel therapeutics to treat this debilitating disease."

Conference Call / Webinar

Jasper will host a conference call and webinar on Monday, June 16, 2025, at 8:00 a.m. EDT. A live question and answer session with management will follow the formal presentations. A link to the webinar, including presentation slides, can be found here. To access the live conference call via phone, dial 1-844-826-3033 from the US or 1-412-317-5185 from outside the US, or click here. The conference ID is 10200147, and the conference call passcode is 6392607.

The presentation slides and a link to the live and archived webinar will also be available on the Events & News – Events page of Jasper's Investor Relations website.

About Jasper

Jasper is a clinical-stage biotechnology company focused on developing briquilimab as a therapeutic for chronic mast cell diseases. Briquilimab is a targeted aglycosylated monoclonal antibody that blocks stem cell factor from binding to the cell-surface receptor KIT, 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 and asthma. Jasper is currently conducting clinical studies of briquilimab as a treatment in patients with CSU, CIndU or asthma. Briquilimab has a demonstrated efficacy and safety profile in patients and healthy volunteers, with positive clinical outcomes in CSU and CIndU. For more information, please visit us at www.jaspertx.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; briquilimab's ability to support optimal biologic dosing by rapidly delivering robust and durable control of urticaria symptoms along with a potentially differentiated safety profile; and the potential for treatment with briquilimab to lead to deep clinical benefit shortly after administration in a difficult-to-treat antihistamine refractory CIndU patient population. 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 prior test, study and trial results may not be replicated in continuing or future studies and trials; 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, 2024 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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