Jasper Therapeutics Announces First Patient Dosed in Phase 1b/2a SPOTLIGHT Clinical Study of Briquilimab in Chronic Inducible Urticaria

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REDWOOD CITY, Calif., March 19, 2024 (GLOBE NEWSWIRE) -- Jasper Therapeutics, Inc. (Nasdaq: JSPR) (Jasper), a biotechnology company focused on development of briquilimab, a novel antibody therapy targeting c-Kit (CD117) in mast cell driven diseases such as chronic spontaneous urticaria (CSU) and chronic inducible urticaria (CIndU), today announced that the first patient has been dosed in Jasper's Phase 1b/2a (SPOTLIGHT) clinical study of subcutaneous briquilimab for the treatment of CIndU. The SPOTLIGHT study is evaluating a single administration, at two different dose levels, of subcutaneous briquilimab in adult patients with cold urticaria (ColdU) or symptomatic dermographism (SD).

"We are excited to announce dosing of the first patient in the SPOTLIGHT study in patients with CIndU, our second clinical program evaluating briquilimab in a mast cell-mediated disease," said Edwin Tucker, Chief Medical Officer of Jasper. "As with our BEACON study in CSU, we expect the SPOTLIGHT study to establish proof of concept for the depletion of mast cells by briquilimab in CIndU and help us to determine doses and dosing regimens for future registrational studies. We plan to provide enrollment updates as we progress through the study and anticipate reporting preliminary data in the second half of 2024."

The SPOTLIGHT study is expected to enroll approximately 15 patients across 2 dose cohorts. The primary endpoints are safety and tolerability of briquilimab with secondary endpoints focused on efficacy measures and pharmacokinetics. The study is being conducted at four sites in the EU. Jasper anticipates reporting preliminary data from the SPOTLIGHT study in the second half of 2024.

"c-Kit inhibitors are a promising class of monoclonal therapeutics with demonstrated efficacy in mast cell driven diseases," said Marcus Maurer, M.D., Professor of Dermatology and Allergy at Charité – Universitätsmedizin in Berlin. "As a potent and differentiated c-Kit inhibitor, I believe briquilimab has the potential to serve as an important treatment option for patients suffering from CIndU, and I look forward to enrolling patients into the SPOTLIGHT study and additionally into the BEACON study for CSU."

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. 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), AML, MDS, 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 and CIndU and its potential to serve as an important treatment option for patients suffering from CIndU; Jasper's expectations regarding its Phase 1b/2a SPOTLIGHT study of subcutaneous briquilimab in CIndU, including the expected enrollment, cohorts and site locations, the expected timing for reporting preliminary data, the expectation that the SPOTLIGHT or BEACON studies will establish proof of concept or help Jasper determine doses and dosing regimens for future registrational studies; and Jasper's expectations regarding its BEACON study in CSU, including the expectation that Jasper will enroll additional patients in the BEACON study for CSU. 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.

Contacts:

Joyce Allaire (investors)
LifeSci Advisors
617-435-6602
jallaire@lifesciadvisors.com

Alex Gray (investors)
Jasper Therapeutics
650-549-1454
agray@jaspertherapeutics.com

Lauren Walker (media)
Real Chemistry
646-564-2156
lbarbiero@realchemistry.com