Jasper Therapeutics Announces Development Prioritization of Briquilimab in Chronic Diseases, Including Urticaria and Lower-Risk MDS, and Stem Cell Transplant for Sickle Cell Disease and Other Rare Diseases

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REDWOOD CITY, Calif., Jan. 10, 2023 (GLOBE NEWSWIRE) -- Jasper Therapeutics, Inc. (Nasdaq: JSPR) ("Jasper" or the "Company"), a biotechnology company developing novel antibody therapies and stem cell transplant conditioning agents targeting c-Kit, today announced, as part of an overall portfolio prioritization, that the Company will focus on the development of its lead product candidate, briquilimab (formerly known as JSP191), in chronic diseases and stem cell transplant for rare diseases. This portfolio includes a new program on chronic urticaria, along with the Company's existing programs for lower-risk myelodysplastic syndrome (MDS), sickle cell disease, Fanconi anemia and severe combined immunodeficiency (SCID).

Based on preclinical and clinical studies showing inhibition of c-Kit signaling, depletion of mast cells in skin and lung and extended pharmacokinetics of subcutaneous dosing, the Company has prioritized rapidly starting a clinical study in severe chronic urticaria. In the meantime, while the Company does not have any near-term plans to initiate a Phase 3 study in AML/MDS, the Company will continue to work with the U.S. Food and Drug Administration, the transplant community and potential partners to explore development pathways and ensure briquilimab remains ready for a pivotal Phase 3 study in AML/MDS stem cell transplant.

"We are ecstatic about the growing body of clinical and scientific evidence that show briquilimab has an attractive tolerability profile in a number of potential indications and may provide clinically meaningful results for a wide range of patients, and are grateful to our team, clinical investigators, patients and external partners for helping us advance this drug into later stage trials so quickly in such a challenging environment over the past two years," said Ronald Martell, President and Chief Executive Officer of Jasper. "We believe focusing on the most well-characterized opportunities with the clearest and potentially fastest pathway to market is in the best interest of patients and our shareholders. As such, our near-term development program will consist of moving rapidly into a clinical trial in chronic severe urticaria and initiating our chronic lower-risk MDS study, while continuing recruitment in the SCID, Fanconi anemia and sickle cell disease transplant studies."

Briquilimab's potential has been consistently validated across five indications: SCID, acute myeloid leukemia, MDS, Fanconi anemia and, most recently, sickle cell disease. The Company expects new supportive data to be presented at the upcoming 2023 Tandem Meetings: Transplantation & Cellular Therapy Meetings of ASTCT and CIBMTR that will further reinforce the broad opportunity for briquilimab.

Clinical studies with briquilimab and investigational agents from other companies suggest that targeting c-Kit has strong therapeutic potential for chronic mast cell diseases such as urticaria and allergic asthma. This therapeutic approach has also shown promise in lower-risk MDS.

"We believe prioritizing these opportunities provides the best path forward to near-term, clinical milestones for patients and value creation for investors," added Mr. Martell. "We want to show as soon as possible how briquilimab's differentiated mechanism and therapeutic profile has the potential to overcome challenges encountered by other therapies in development for these indications. We also remain committed to exploring briquilimab's long-term potential to become a leading antibody targeting c-Kit for use as a standalone therapy and as a conditioning agent to help reduce the toxicity of existing conditioning approaches for cell and gene therapies."

About Briquilimab (formerly known as JSP191)

Briquilimab is a targeted, monoclonal antibody that inhibits the cell-surface receptor c-Kit, also known as CD117. It is currently being evaluated as a primary therapeutic for mast cell diseases such as chronic spontaneous urticaria (CSU), chronic inducible urticaria (CIndU), and allergic asthma, and for lower-risk MDS patients. It is also being studied as a conditioning agent for cell and gene therapies for rare diseases. To date, briquilimab has a demonstrated efficacy and safety profile in 130 dosed subjects 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). In addition, briquilimab is being advanced as a transformational non-genotoxic conditioning agent for gene therapy.

About Jasper

Jasper is a clinical-stage biotechnology company developing novel antibody therapies and stem cell transplant conditioning agents targeting c-Kit (CD117), an important receptor found on stem cells and mast cells. The Company's lead program is briquilimab, a first-in-class monoclonal antibody being developed as a therapeutic for chronic diseases and as a conditioning agent for stem cell transplants for rare diseases. For more information, please visit us at 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, Jasper's expectations regarding a potential pivotal Phase 3 study in AML/MDS stem cell transplant and Jasper's near-term development focus. 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, including the ongoing COVID-19 pandemic; 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, 2021 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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