Jasper Therapeutics to Present New Positive Data on Briquilimab Conditioning in Patients with Fanconi Anemia at the 2023 Fanconi Anemia Research Fund Scientific Symposium

September 21, 2023

- *All three Fanconi Anemia patients treated with briquilimab achieved full donor engraftment and full blood count recovery*
- *Briquilimab was well tolerated without any complications*
- *Study expansion to Phase 2a is ongoing*

REDWOOD CITY, Calif., Sept. 21, 2023 (GLOBE NEWSWIRE) -- Jasper Therapeutics, Inc. (Nasdaq: JSPR) ("Jasper"), a biotechnology company focused on developing novel antibody therapies targeting c-Kit (CD117) to address diseases such as chronic spontaneous urticaria and lower to intermediate risk myelodysplastic syndromes (MDS) as well as novel stem cell transplant conditioning regimes, today announced new positive Phase 1b data on briquilimab as a conditioning agent in the treatment of Fanconi Anemia (FA).

The data will be featured in a presentation at the 2023 Fanconi Anemia Research Fund (FARF) Scientific Symposium, taking place on September 28 – October 1, 2023, in Vancouver, Canada.

The ongoing investigator initiated Phase 1/2 clinical trial is evaluating a conditioning regimen that includes briquilimab as a potential treatment for FA patients in bone marrow failure. Utilizing briquilimab, the regimen eliminates the need for busulfan chemotherapy or total body irradiation.

"The updated results from the Phase 1b study, which will be presented at FARF, are very encouraging," said Ronald Martell, President, and Chief Executive Officer of Jasper. "All three FA patients who underwent conditioning with briquilimab achieved full blood count recovery. The treatment was tolerated without any complications, leading to remarkable levels of donor chimerism and no briquilimab-related adverse events or toxicities. These outcomes underscore the potential for briquilimab conditioning regimen to redefine the landscape of FA therapy. We look forward to the expansion of the study to Phase 2a by Stanford."

The details of the presentation are as follows:

Abstract Title: *Radiation and Busulfan-free Transplant Using JSP191 Antibody-Conditioning and TCRαβ+ T-Cell/CD19+ B-Cell Depleted Grafts*

Author: Rajni Agarwal, M.D., Professor of Pediatrics and Stem Cell Transplantation, Stanford Medicine

Jasper thanks its Stanford collaborators, The Center for Definitive and Curative Medicine and investigators Dr. Rajni Agarwal, Dr. Agnieszka Czechowicz and Dr. Alice Bertaina, for testing briquilimab safety and efficacy in the allo-HSCT setting in the vulnerable FA patient population.

About Briquilimab

Briquilimab (formerly JSP191) is a targeted, 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. Jasper intends to start clinical studies of briquilimab as a primary treatment in Chronic Spontaneous Urticaria and Lower to Intermediate Risk myelodysplastic syndromes (MDS). 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), MDS, Fanconi anemia (FA), and sickle cell disease (SCD).

About Fanconi Anemia

Fanconi Anemia (FA) is a rare but serious blood disorder that prevents the bone marrow from making sufficient new red blood cells. The disorder can also cause the bone marrow to make abnormal blood cells. FA typically presents at birth or early in childhood between five and ten years of age. Ultimately, it can lead to serious complications, including bone marrow failure and severe aplastic anemia. Cancers such as acute myeloid leukemia (AML) and myelodysplastic syndromes (MDS) are other possible complications. Treatment may include blood transfusions or medicine to create more red blood cells, but a hematopoietic stem cell transplant (HSCT) is currently the only cure.

About Phase 1/2 clinical trial (NCT04784052)

The Stanford sponsored, investigator initiated Phase 1/2 study is an open-label clinical trial evaluating briquilimab as a potential treatment for FA patients in bone marrow failure (BMF) requiring allogeneic transplant. Utilizing briquilimab, the regimen eliminates the need for busulfan chemotherapy or total body irradiation. Participants with FA with BMF receive allo-HCT with TCRαβ+ T-cell/CD19+ B-cell depleted hematopoietic grafts from 10/10 unrelated, 9/10 unrelated or haploidentical family donors. A 0.6 mg/kg dose of briquilimab is administered in combination with standard FA dosing of anti-thymocyte globulin (ATG), cyclophosphamide, fludarabine, and rituximab as lymphodepletion. The primary outcomes include safety, efficacy, and engraftment success.

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 myelodysplastic syndromes (MDS) and as a conditioning agent for stem cell transplants for rare diseases such as sickle cell disease (SCD), Fanconi anemia (FA) and severe combined immunodeficiency (SCID). To

date, briquilimab has a demonstrated efficacy and safety profile in over 130 dosed subjects and healthy volunteers, with clinical outcomes as a conditioning agent in SCID, acute myeloid leukemia (AML), MDS, FA, and SCD. In addition, briquilimab is being advanced as a transformational non-genotoxic conditioning agent for gene therapy.

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 as a treatment for Fanconi Anemia (FA) and FA patients with bone marrow failure, its potential to eliminate the need for busulfan chemotherapy or total body irradiation, its potential to redefine the landscape of FA therapy and the expected expansion of the study to Phase 2a. 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. Actual events and circumstances are difficult or impossible to predict and will differ from assumptions. 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; risks relating to uncertainty regarding the regulatory pathway for Jasper's product candidates; the risk that prior study results may not be replicated; 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 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, 2022 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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