New Positive Data Presented on Briquilimab Conditioning in Patients with Fanconi Anemia

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- *Three additional patients with Fanconi Anemia treated with briquilimab prior to stem cell transplant*
- *All six patients with Fanconi Anemia treated with briquilimab achieved full donor engraftment and full blood count recovery and briquilimab was well tolerated*

REDWOOD CITY, Calif., March 15, 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) to address mast cell driven diseases such as chronic spontaneous urticaria (CSU) and chronic inducible urticaria (CIndU), announced additional positive Phase 1b/2a data on briquilimab as a conditioning agent in the treatment of Fanconi Anemia (FA).

The data was presented at the 2024 Stanford Medicine Center for Definitive and Curative Medicine Symposium on March 13, 2024, in Palo Alto, California.

The ongoing investigator initiated Phase 1b/2a clinical trial is evaluating a conditioning regimen that includes intravenous briquilimab as a potential treatment for FA patients in bone marrow failure. Data from the study show that briquilimab infusion has a promising safety profile and appears to be well tolerated in patients with FA, with all six patients treated achieving full donor engraftment and full blood count recovery.

“We continue to be encouraged by the results from Stanford Medicine's Phase 1b/2a study in Fanconi Anemia, which demonstrates the potential of briquilimab to serve as a key component of non-toxic conditioning regimens for stem cell transplant,” said Edwin Tucker, Chief Medical Officer of Jasper. “We’d like thank our collaborators at Stanford Medicine for their work evaluating briquilimab in this vulnerable patient population.”

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 and gene 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), 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 AML and 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 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, acute myeloid leukemia, 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 its potential as a conditioning agent in the treatment of FA and FA patients in bone marrow failure and its safety profile, its potential to serve as a key component of non-toxic conditioning regimens for stem cell transplant and its potential to address mast cell driven diseases such as CSU and CIndU. 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