Jasper Therapeutics Announces Positive Clinical Data from Investigator Sponsored Study of JSP191 Conditioning in Fanconi Anemia Patients at IEWP Annual Meeting

September 26, 2022

The first two Fanconi Anemia patients receiving JSP191 achieved 100% donor chimerism JSP191 safe to infuse with no treatment-adverse events or toxicities observed

REDWOOD CITY, Calif., Sept. 26, 2022 (GLOBE NEWSWIRE) -- Jasper Therapeutics, Inc. (NASDAQ: JSPR), a biotechnology company focused on hematopoietic cell transplant therapies, today announced that data from the company's investigator-sponsored study of JSP191 as a conditioning agent in the treatment of Fanconi Anemia were presented at the annual conference of the *Inborn Errors Working* Party (IEWP), a research group of the European Society of Blood and Marrow Transplantation, held on September 23-25, 2022, in Paris, France.

The study is a Phase 1/2 clinical trial (NCT04784052) utilizing JSP191 to treat Fanconi Anemia patients in bone marrow failure requiring allogeneic transplant with non-sibling donors. The objective of the study is to develop cell therapy for Fanconi Anemia which enables enhanced donor hematopoietic and immune reconstitution with decreased toxicity by transplanting TCR ab+ T-cell/CD19+ B-cell depleted stem cells from a donor, after using JSP191 as a part of conditioning. Primary outcome measures include the number of patients without treatment-emergent adverse events following the administration of JSP191.

In the data series presented, 100% complete donor chimerism was achieved through six months for the first patient and at one month for the second patient. Neutrophil engraftment was reached on day 11 for both patients and platelet engraftment was achieved on days 9 and 14. JSP191 was cleared by day 9 after dosing and no treatment-related adverse events or toxicities were observed.

“Patients affected by Fanconi anemia have increased sensitivity to conventional conditioning regimens and radiation due to innate defects in DNA repair,” said Ronald Martell, President, and CEO of Jasper Therapeutics. “JSP191 offers a targeted conditioning strategy that eliminates the need for radiation or alkylating agents like busulfan. Initial data from this study suggest that a conditioning regimen that includes JSP191 has the potential to achieve successful donor transplant with no JSP191-related adverse events or toxicities reported to date. The positive update presented gives us increased confidence in JSP191, which has now shown promise as a conditioning agent in four indications including acute myeloid leukemia, myelodysplastic syndromes, severe combined immunodeficiency, and Fanconi anemia. We look forward to continuing support for Stanford’s investigation of JSP191 and advancing our broader pipeline for JSP191 to the next phase of development.”

The details of the oral presentation are as follows:

Title: “*JSP 191 clinical trial update*”
Session Name: Conditioning for HSCT in IEI
Presenter: Rajni Agarwal-Hashmi, M.D., Professor of Pediatrics and Stem Cell Transplantation, the Stanford University School of Medicine
Date/Time: Saturday, September 24, 2022, 2 pm CEST
Location: The Imagine Institute in Paris, France

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 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 the only cure.

About JSP191

JSP191 is a humanized monoclonal antibody in clinical development as a conditioning agent that blocks stem cell factor receptor signaling leading to clearance of hematopoietic stem cells from bone marrow, creating an empty space for donor or genetically modified transplanted stem cells to engraft. To date, JSP191 has been evaluated in more than 100 healthy volunteers and patients. Four clinical trials for acute myeloid leukemia (AML)/ myelodysplastic syndromes (MDS), severe combined immunodeficiency (SCID), sickle cell disease (SCD) and Fanconi anemia are currently ongoing. The Company plans a new study of JSP191 as a second-line therapeutic in lower-risk MDS patients in 2022 as well as to a pivotal study in AML/MDS transplant in early 2023. Enrollment in additional studies are planned in patients with chronic granulomatous disease and GATA2 MDS who are undergoing hematopoietic cell transplantation as well as a study of JSP191 as a chronic therapeutic for low to intermediate risk MDS patients.

About Jasper Therapeutics

Jasper Therapeutics is a biotechnology company focused on the development of novel curative therapies based on the biology of the hematopoietic stem cell. The company is advancing two potentially groundbreaking programs. JSP191, an anti-CD117 monoclonal antibody, is in clinical development as a conditioning agent that clears hematopoietic stem cells from bone marrow in patients undergoing hematopoietic cell transplantation. It is designed to enable safer and more effective curative allogeneic hematopoietic cell transplants and gene therapies. In parallel, Jasper Therapeutics is advancing its preclinical mRNA Stem Cell Graft Platform which is designed to overcome key limitations of allogeneic and autologous gene-edited stem cell grafts. Both innovative programs have the potential to transform the field and expand hematopoietic stem cell therapy cures to a greater number of patients with life-threatening cancers, genetic diseases, and autoimmune diseases than is possible today. 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 the potential long-term benefits of hematopoietic stem cells (HSC) engraftment following targeted single-agent JSP191 conditioning in the treatment of severe combined immunodeficiency (SCID) and Jasper's ability to potentially deliver a targeted non-genotoxic conditioning agent to patients with SCID. 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 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, 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. 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:
John Mullaly (investors)
LifeSci Advisors
617-429-3548
jmullaly@lifesciadvisors.com

Jeet Mahal (investors)
Jasper Therapeutics
650-549-1403
jmahal@jaspertherapeutics.com

Source: Jasper Therapeutics