Jasper Therapeutics Announces JSP191 Phase 1b MDS/AML Late Breaking Data Presentation at the 2022 Transplantation & Cellular Therapy Tandem Meetings of ASTCT and CIBMTR

February 24, 2022

- **JSP191 is well tolerated with no treatment-related severe adverse events in 17 subjects with myelodysplastic syndrome (MDS) or acute myeloid leukemia (AML) in Ph1b dose expansion study**
- **17 of 17 subjects achieved successful engraftment with neutrophil recovery**
- **12 of 15 subjects with measurable residual disease (MRD) at screening achieved clearance of MRD**

REDWOOD CITY, Calif., Feb. 24, 2022 (GLOBE NEWSWIRE) -- Jasper Therapeutics, Inc. (NASDAQ: JSPR), a biotechnology company focused on hematopoietic stem cell therapies, today announced that the preliminary data from a Phase 1b study of the Company's JSP191 first-in-class anti-CD117 monoclonal antibody will be presented as a late breaking abstract at the 2022 Transplantation & Cellular Therapy Meetings of ASTCT and CIBMTR Tandem Meetings (TCT), to be held in Salt Lake City, UT, from April 23-26, 2022.

The data from 17 patients over the age of 60 with MDS or AML show JSP191, in combination with low dose radiation and fludarabine conditioning, to be well tolerated in an older population with no infusion toxicities observed and no JSP191-related serious adverse events. Furthermore, this regimen achieved engraftment with neutrophil recovery in all 17 of 17 subjects and clearance of MRD in 12 of 15 subjects positive for MRD at screening.

"We are pleased that JSP191 efficacy and safety results continue to demonstrate the potential to expand stem cell therapy cures to a far greater number of patients than is possible today," said William Lis, executive chairman and CEO, Jasper Therapeutics. "Hematopoietic stem cell transplant is considered curative in these patients, yet its use is limited by current, standard-of-care alkylating conditioning agents that are either ineffective or are associated with high treatment-related mortality. As the first MDS/AML transplant study for an antibody-based conditioning regimen, we believe that these preliminary results show that JSP191 can be developed as an important option for patients and are looking forward to discussions with the FDA on the potential for a pivotal study."

Abstract Details:

Title - *Preliminary Data from a Phase 1 Study of JSP191, an Anti-CD117 Monoclonal Antibody, in Combination with Low Dose Irradiation and Fludarabine Conditioning Is Well-Tolerated, Facilitates Chimerism and Clearance of Minimal Residual Disease in Older Adults with MDS/AML Undergoing Allogeneic HCT*
Lead Authors – Lori Muffly, MD, MS; Catherine J. Lee, MD; Andrew Artz, MD
Abstract Number – LBA4
Oral Presentation – Tuesday, April 26, 2022, 4:15-4:30pm
Abstract Highlights:

- Data on 17 subjects with MDS (n=7) or AML in morphologic complete remission (CR) (n = 10); median age was 70 years (range 62 to 79); 15 of the 17 subjects had MRD at screening assessed by cytogenetics, flow cytometry, and/or next-generation sequencing
- No infusion toxicities and no JSP191 related serious adverse events
- All subjects engrafted with neutrophil recovery occurring between TD+19 and TD+26. As of TD+90, each of the 14 evaluable subjects achieved full myeloid donor chimerism (mean 98.4±1.2%)
- MRD clearance was observed in 12 of the 15 subjects with MRD positive disease at screening
- Two MDS subjects came off study: one had secondary graft failure (without relapse) at ~4 months post-allogeneic hematopoietic cell transplantation (AHCT), and the other (MDS/EB1) had disease progression at 8 weeks post-AHCT.
- Two AML subjects were removed from study: one experienced relapse at ~6 months post-HCT and one had refractory late onset Grade 3 acute GI graft-versus-host disease (GVHD); No other grade 2-4 acute GVHD events have been observed

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 a 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 engineered hematopoietic stem cell (eHSC) 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 JSP191 conditioning in the treatment of myelodysplastic syndrome or acute myeloid leukemia and Jasper's ability to potentially deliver a targeted non-genotoxic conditioning agent to patients with MDS or AML and JSP191’s potential generally. 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 prior study results may not be replicated; the risk that final study data may not be consistent with preliminary study data; 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.

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