



## Jasper Therapeutics Announces Upcoming Data Presentation on Lead Program, JSP191, at 61st American Society of Hematology (ASH) Annual Meeting & Exposition

December 9, 2019

*Initial data from Phase 1 clinical trial of JSP191, a humanized antibody targeting CD117, to be presented today at 3:00 p.m. ET in oral session at ASH 2019*

*Company advancing clinical development of first-in-class antibody-based conditioning agent for patients undergoing potentially curative hematopoietic cell transplant*

ORLANDO, Fla.--([BUSINESS WIRE](#))--Jasper Therapeutics, Inc., a new biotechnology company focused on enabling safer conditioning and therapeutic agents that expand the application of curative hematopoietic stem cell transplants and gene therapies, today announced that initial results from an ongoing Phase 1 dose-escalation study of its lead product candidate, JSP191 (formerly AMG191), will be presented today in an oral session at the American Society of Hematology (ASH) Annual Meeting & Exposition.

JSP191, a humanized antibody targeting CD117, is designed to replace or reduce the toxicity of chemotherapy and radiation therapy as a conditioning regimen to prepare patients for hematopoietic cell transplantation. The Phase 1 clinical trial is evaluating JSP191 as a conditioning agent to enable stem cell transplantation in patients with severe combined immunodeficiency (SCID) who received a prior stem cell transplant that had poor outcomes.

"Life-threatening disorders such as SCID, and other conditions including autoimmune diseases and hematologic cancers, can be cured by hematopoietic cell transplantation, and those with certain genetic diseases can be cured with stem cell-directed gene therapies. However, the number of patients who can benefit from these approaches is limited because of the severe toxicity of the chemotherapy used for pre-transplant conditioning that is needed to allow room in the bone marrow for the stem cells to engraft," said Judith Shizuru, M.D., Ph.D., co-founder and member of the Board of Directors of Jasper Therapeutics. "We are encouraged by the initial Phase 1 study results of JSP191 in these fragile patients with SCID and plan to expand clinical development of this antibody beyond patients with SCID. We expect to initiate clinical trials of JSP191 in 2020 to evaluate it as a conditioning agent in patients undergoing hematopoietic cell therapy for acute myeloid leukemia, myelodysplastic syndrome and Fanconi anemia, and IND-enabling studies for sickle cell disease and autoimmune indications."

Details of the oral presentation follow:

**Abstract Title:** [Non-Genotoxic Anti-CD117 Antibody Conditioning Results in Successful Hematopoietic Stem Cell Engraftment in Patients with Severe Combined Immunodeficiency \(abstract #800\)](#)

**Session Name:** 721. Clinical Allogeneic Transplantation: Conditioning Regimens, Engraftment, and Acute Transplant Toxicities: Innovative Approaches in Allogeneic Transplantation for Pediatric or Nonmalignant Disorders

**Presenter:** Rajni Agarwal, M.D., Associate Professor of Pediatrics and Stem Cell Transplantation, the Stanford University School of Medicine

**Time:** 3:00 p.m. ET

**Location:** W311EFGH, Level 3, Orange County Convention Center

### About Stem Cell Transplantation

Blood-forming, or hematopoietic, stem cells are cells that reside in the bone marrow and are responsible for the generation and maintenance of all blood and immune cells. These stem cells can harbor inherited or acquired abnormalities that lead to a variety of disease states, including immune deficiencies, blood disorders or hematologic cancers. Successful transplantation of hematopoietic stem cells is the only cure for most of these life-threatening conditions. Replacement of the defective or malignant hematopoietic stem cells in the patient's bone marrow is currently achieved by subjecting patients to toxic treatment with radiation and/or chemotherapy that cause DNA damage and lead to short- and long-term toxicities, including immune suppression and prolonged hospitalization. As a result, many patients who could benefit from a stem cell transplant are not eligible. New approaches that are effective but have minimal to no toxicity are urgently needed so more patients who could benefit from a curative stem cell transplant could receive the procedure.

Safer and more effective hematopoietic cell transplantation regimens could overcome these limitations and enable the broader application of hematopoietic cell transplants in the cure of many disorders. These disorders include hematologic cancers (e.g., myelodysplastic syndrome [MDS] and acute myeloid leukemia [AML]), autoimmune diseases (e.g., lupus, rheumatoid arthritis, multiple sclerosis and Type 1 diabetes), and genetic diseases that could be cured with genetically-corrected autologous stem cells (e.g., severe combined immunodeficiency syndrome [SCID], sickle cell disease, beta thalassemia, Fanconi anemia and other monogenic diseases).

### About JSP191

JSP191 (formerly AMG191) is a first-in-class humanized monoclonal antibody in clinical development as a conditioning agent that clears hematopoietic stem cells from bone marrow. JSP191 binds to human CD117, a receptor for stem cell factor (SCF) that is expressed on the surface of hematopoietic stem and progenitor cells. The interaction of SCF and CD117 is required for stem cells to survive. JSP191 blocks SCF from binding to CD117 and disrupts critical survival signals, causing the stem cells to undergo cell death and creating an empty space in the bone marrow for donor or gene-corrected transplanted cells to engraft.

Preclinical studies have shown that JSP191 as a single agent safely depletes normal and diseased hematopoietic stem cells, including in an animal

model of MDS. This creates the space needed for transplanted normal donor or gene-corrected hematopoietic stem cells to successfully engraft in the host bone marrow. To date, JSP191 has been evaluated in more than 80 healthy volunteers and patients. It is currently being evaluated as a sole conditioning agent in a Phase 1 dose-escalation trial to achieve donor stem cell engraftment in patients undergoing hematopoietic cell transplant for SCID, which is curable only by this type of treatment. For more information about the design of the clinical trial, visit [www.clinicaltrials.gov](http://www.clinicaltrials.gov) ([NCT02963064](https://clinicaltrials.gov/ct2/show/study/NCT02963064)). Clinical development of JSP191 will be expanded to also study patients with AML or MDS who are receiving hematopoietic cell transplant.

### **About Jasper Therapeutics**

Jasper Therapeutics is a biotechnology company focused on enabling safer conditioning and therapeutic agents that expand the application of curative hematopoietic stem cell transplants and gene therapies. Jasper Therapeutics' lead compound, JSP191, is in clinical development as a conditioning antibody that clears hematopoietic stem cells from bone marrow in patients undergoing a stem cell transplant. For more information, please visit us at [www.jaspertherapeutics.com](http://www.jaspertherapeutics.com).



### **Contacts**

Julie Normart  
W2O pure  
415-946-1087  
[jnormart@w2ogroup.com](mailto:jnormart@w2ogroup.com)

Jeet Mahal  
Jasper Therapeutics, Inc.  
650-254-6687  
[jmahal@jaspertherapeutics.com](mailto:jmahal@jaspertherapeutics.com)