



GlycoMimetics, Inc.

FOR IMMEDIATE RELEASE

GlycoMimetics Announces Data Presentations on Lead Compound at American Society of Hematology Annual Meeting

Data Highlights GMI-1070's Use in Sickle Cell and Myeloma

GAITHERSBURG, Md. – December 7, 2010 - GlycoMimetics, Inc., a clinical-stage biotechnology company developing a new class of glycobiology-based therapies for a broad range of indications, today announced that two oral presentations and two abstracts were delivered at the 52nd Annual Meeting of the American Society of Hematology (ASH) in Orlando, Florida. The presentations and abstracts highlighted clinical and preclinical progress with GlycoMimetics's lead compound GMI-1070, now in Phase 2 clinical trials in sickle cell crisis.

One oral presentation was entitled "Effects of GMI-1070, a Pan-Selectin Inhibitor, on Leukocyte Adhesion in Sickle Cell Disease: Results from a Phase 1/2 study." The presentation focused on clinical results showing effects of GMI-1070 on certain key biomarkers. Two related posters described effects of GMI-1070 on the activation state of leukocytes (white blood cells), as well as the safety and pharmacokinetics of the drug.

In addition to the clinical data in sickle cell, preclinical data using GMI-1070 in models of myeloma was also selected for an oral presentation entitled "Selectin Inhibition Disrupts Multiple Myeloma Cells Interaction with the Bone Marrow Microenvironment and Sensitizes Them to Therapy."

"We are very pleased to have the opportunity to present data on our lead compound at the ASH meeting," said Rachel King, the company's Chief Executive Officer. "We have made significant progress this year in the clinic, as well as in pre-clinical testing of GMI-1070. The data supports testing the drug in sickle cell crisis, and the Phase 2 trial is now underway. We are also encouraged by the preclinical results in myeloma, which suggest that the drug may have a novel mechanism of action for treatment of hematologic (blood-related) malignancies."

Copies of the abstracts can be viewed online through the ASH website at www.hematology.org.

About GMI-1070

Glycomimetics' lead compound, GMI-1070, is a rationally-designed glycomimetic inhibitor of E-, P- and L-selectins, and inhibits a key early step in the inflammatory process leading to leukocyte adhesion and recruitment to inflamed tissue. GMI-1070 has been shown to be active in several models of diseases in which leukocyte adhesion and activation play a key role, including vaso-

occlusive crisis of sickle cell disease. By inhibiting selectin interactions, GMI-1070 may be able to decrease the enhanced cell adhesion that results in vaso-occlusive crisis. In preclinical studies, GMI-1070 restored blood flow to affected vessels of sickle cell animals experiencing vaso-occlusive crisis. GMI-1070 is also being evaluated in preclinical studies for the treatment of certain hematologic cancers, where selectin-mediated cell adhesion and migration is known to play a key role in the disease process. A Phase 2 clinical trial of GMI-1070 in sickle cell disease was initiated in 2010.

About Sickle Cell Disease and Vaso-Occlusive Crisis

Vaso-occlusive crisis is the main clinical feature of sickle cell disease, often resulting in significant patient complications, and sometimes death. Currently, there are no mechanism-based therapies for treatment of vaso-occlusive crisis. Treatment consists primarily of supportive therapy in the form of hydration and pain control, typically requiring hospitalization for five to six days. There are more than 75,000 hospitalizations per year associated with vaso-occlusive crisis in the U.S.

About GlycoMimetics, Inc.

GlycoMimetics is a privately held biotechnology company that capitalizes on advances in the field of glycobiology. The company uses rational design of small molecule drugs that mimic the functions of bioactive carbohydrates to develop new drug candidates. The company's initial focus is on therapeutics to treat inflammation, cancer, and infectious diseases. For additional information, please visit the company's web site: <http://www.glycomimetics.com>.