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GlycoMimetics Initiates Dosing in Phase 1 Clinical Trial of GMI-1359

- *First-in-Humans Study of Third GlycoMimetics Drug Candidate*

ROCKVILLE, Md.--(BUSINESS WIRE)-- GlycoMimetics, Inc. (NASDAQ: GLYC) today announced dosing of the first healthy volunteers in a new Phase 1 clinical trial evaluating its novel combined E-selectin and CXCR4 antagonist GMI-1359. In this first-in-humans trial, volunteer participants will receive a single injection of GMI-1359, which will be evaluated for safety, tolerability, pharmacokinetics and pharmacodynamics. GlycoMimetics intends to develop GMI-1359 as a potential treatment for hematologic malignancies.

"Our preclinical data points to the potential of GMI-1359 to inhibit the growth and metastasis of a variety of cancers. We believe this is due to a novel mechanism of action provided by inhibiting both E-selectin and CXCR4 simultaneously," said Helen Thackray, M.D., Chief Medical Officer of GlycoMimetics. "This first clinical trial will position the program for further development in hematologic malignancies and other cancers."

The randomized, double-blind escalating dose study is being conducted at a single site in the United States. Each volunteer will receive a single dose of GMI-1359, and participate for 16 days of evaluation during the trial.

Previous preclinical research has been shared via oral and poster presentations at the annual meetings of both the American Association for Cancer Research Annual and the American Society of Hematology. Data presented have demonstrated activity in models of acute myelogenous leukemia (AML), prostate cancer and pancreatic cancer.

About GlycoMimetics, Inc.

GlycoMimetics is a clinical-stage biotechnology company focused on cancer and sickle cell disease. GlycoMimetics' most advanced drug candidate, rivipansel, a pan-selectin antagonist, is being developed for the treatment of vaso-occlusive crisis in sickle cell disease and is being evaluated in a Phase 3 clinical trial being conducted by its strategic collaborator, Pfizer. GlycoMimetics' wholly-owned drug candidate, GMI-1271, an E-selectin antagonist, is being evaluated in an ongoing Phase 1/2 clinical trial as a potential treatment for AML . GlycoMimetics is located in Rockville, MD in the BioHealth Capital Region. Learn more at www.glycomimetics.com.

Forward-Looking Statements

This press release contains forward-looking statements regarding GlycoMimetics' planned activities with respect to the clinical development of its drug candidate GMI-1359. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including the availability and timing of data from ongoing clinical trials, the uncertainties inherent in the initiation of future clinical trials, whether interim results from a clinical trial will be predictive of the final results of the trial or results of early clinical trials will be indicative of the results of future trials, expectations for regulatory approvals, availability of funding sufficient for GlycoMimetics' foreseeable and unforeseeable operating expenses and capital expenditure requirements, other matters that could affect the availability or commercial potential of GlycoMimetics' drug candidates and other factors discussed in the "Risk Factors" section of GlycoMimetics' Annual Report on Form 10-K that was filed with the U.S. Securities and Exchange Commission on February 29, 2016, and other filings GlycoMimetics makes with the Securities and Exchange Commission from time to time. In addition, the forward-looking statements included in this press release represent GlycoMimetics' views as of the date hereof. GlycoMimetics anticipates that subsequent events and developments may cause its views to change. However, while GlycoMimetics may elect to update these forward-looking statements at some point in the future, GlycoMimetics specifically disclaims any obligation to do so, except as may be required by law. These forward-looking statements should not be relied upon as representing GlycoMimetics' views as of any date subsequent to the date hereof.

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