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GlycoMimetics Announces Publication of Preclinical Data Showing Role of E-selectin Ligands in Multiple Myeloma

- *Research demonstrates that E-selectin ligand in myeloma confers more aggressive disease and greater resistance to bortezomib (standard of care)*
- *GMI-1271 was able to restore sensitivity to bortezomib*

ROCKVILLE, Md.--(BUSINESS WIRE)-- GlycoMimetics, Inc. (NASDAQ: GLYC) today announced the publication of results from a preclinical study that showed its drug candidate GMI-1271, an E-selectin antagonist, was able to restore sensitivity to bortezomib (the frontline standard of care for patients with multiple myeloma) in animal models of disease. The study, entitled "E-selectin Ligands Recognised by HECA452 Induce Drug Resistance in Myeloma, which is Overcome by the E-selectin Antagonist, GMI-1271," was published in an online preview of the journal *Leukemia* on April 25, 2017.[i]

E-selectin ligands are recognized by an antibody known as HECA452. In this manuscript, researchers described that E-selectin ligands expressed on myeloma cell surfaces and recognized by HECA452 induced a more aggressive form of multiple myeloma, which is insensitive to bortezomib. Through use of GMI-1271, sensitivity to the proteasome inhibitor therapy, bortezomib, was able to be restored in this highly resistant myeloma model.

"The results in this preclinical study demonstrate that targeting E-selectin may provide a novel approach to treatment of patients with multiple myeloma and could potentially restore sensitivity to chemotherapy and, in particular, proteasome inhibitor therapy," said John L. Magnani, Ph.D., Vice President and Chief Scientific Officer of GlycoMimetics.

GlycoMimetics is currently sponsoring a Phase 1/2 clinical trial in Europe in which patients whose multiple myeloma disease is resistant to bortezomib or carfilizomib can have GMI-1271 added to their treatment regimen to test whether sensitivity to the proteasome inhibitor can be restored. GMI-1271 is also currently being tested in a Phase 1/2 trial in acute myeloid leukemia (AML). GMI recently announced that updated data from this AML trial will be presented at the 2017 American Society for Clinical Oncology (ASCO) Annual Meeting. As part of this AML trial, researchers are testing patient samples to determine whether levels of E-selectin ligand as measured by HECA452 correlate with response to treatment with GMI-1271.

"We look forward to presenting an update on our AML clinical trial at the ASCO Annual Meeting and to sharing what is known so far about E-selectin ligand expression in the context of that trial," said Helen Thackray, M.D., Chief Medical Officer of GlycoMimetics.

About Multiple Myeloma

Multiple myeloma is an incurable form of blood cancer where the plasma cells in the bone marrow grow uncontrollably and may not function well while other blood forming cells (e.g., white/red blood cells and blood platelets) are suppressed. Normal plasma cells are an important part of the body's immune defense and play a critical role in the production of antibodies. Multiple myeloma can therefore lead to infections, anemia, destruction of bone tissue and kidney problems. While some advances have been made in treatment, there remains a large unmet medical need for patients with multiple myeloma.

About GMI-1271

GMI-1271 is designed to block E-selectin (an adhesion molecule on cells in the bone marrow) from binding with blood cancer cells as a targeted approach to disrupting well-established mechanisms of leukemic cell resistance within the bone marrow microenvironment. Preclinical research points to the drug's potential role in blocking E-selectin-mediated chemo-resistance pathways as well as moving cancerous cells out of the protective environment of the bone marrow where they hide and escape the effects of chemotherapy.

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 and in a Phase 1 clinical trial in multiple myeloma. GlycoMimetics has also recently initiated a clinical trial with a third drug candidate, GMI-1359, a combined CXCR4 and E-selectin antagonist. 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-1271. 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.

[i] E-selectin ligands recognised by HECA452 induce drug resistance in myeloma, which is overcome by the E-selectin antagonist, GMI-1271. Natoni A, Smith TAG, Keane N, McEllistrim C, Connolly C, Jha A, Andrulis M, Ellert E, Raab MS, Glavey SV, Kirkham-McCarthy L, Kumar SK, Locatelli-Hoops SC, Oliva I, Fogler WE, Magnani JL, O'Dwyer ME. *Leukemia*. 2017 Apr 25. doi: 10.1038/leu.2017.123. [Epub ahead of print] PMID: 28439107

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