GlycoMimetics to Present New Preclinical Data for GMI-1271 and GMI-1359 at AACR Annual Meeting 2018

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- *Data supports expanding use of GMI-1271 in patients with AML who are unfit for chemotherapy*
- *GMI-1359 shows potential in treating osteosarcoma and other cancers*

ROCKVILLE, Md.--(BUSINESS WIRE)--Mar. 14, 2018-- GlycoMimetics, Inc. (NASDAQ: GLYC) announced today that preclinical research suggesting the potential of two of its drug candidates, GMI-1271 and GMI-1359, as treatments for acute myeloid leukemia (AML), metastasis in osteosarcoma and other cancers will be shared via poster presentations at the American Association for Cancer Research (AACR) Annual Meeting 2018 in Chicago. The company and its collaborators at the National Cancer Institute will highlight data from preclinical models of selected cancers in which GMI-1271, an antagonist of E-selectin, and GMI-1359, a dual antagonist of E-selectin and CXCR4, exhibited anti-cancer activity.

Key findings from the preclinical research include:

- GMI-1271 could potentially be used with a hypomethylating agent, such as 5-azacitidine, to treat AML patients not healthy enough for intensive chemotherapy.
- In preclinical models, GMI-1359 mobilized tumor-reactive T-cells from bone marrow, which could enhance effectiveness of treatments despite tumor resistance.
- Both tumor growth and metastasis of osteosarcoma to lung tissue are reduced with GMI-1359 treatment.

“We are delighted to be able to share new data on potential expanded uses of our candidates GMI-1271 and GMI-1359 at the 2018 AACR Annual Meeting,” noted John Magnani, Ph.D., GlycoMimetics Senior Vice President and Chief Scientific Officer. “The new preclinical studies indicate a greater range of opportunities to potentially use our drug candidates to treat AML patients unable to withstand intensive chemotherapy, and also potentially to treat other cancers, such as osteosarcoma, that have resisted other therapies. In addition, the mechanism of action of our drug candidates may contribute to their use in immunotherapy. The AACR data is also supportive, in particular, of the clinical trial we expect the Haemato Oncology Foundation for Adults in the Netherlands (HOVON) group to initiate, in which HOVON researchers will evaluate GMI-1271 in adults with newly diagnosed AML who cannot tolerate intensive chemotherapy, as well as in patients with myelodysplastic syndrome (MDS) with a high risk of leukemia.”

Details of the AACR presentations include:

Abstract #3514 —Smith, T.A.G., et al. “Glycomimetic antagonist of E-selectin, GMI-1271, enhances therapeutic activity of the hypomethylating agent 5-azacitidine in the KG1 model of AML.” Monday, April 16, 1:00-5:00 p.m. CT.

Abstract #5435 —Fogler, W.B., et al. "Mobilization of tumor-primed, marrow infiltrating lymphocytes into peripheral blood with inhibitors of E-selectin or E-selectin and CXCR4." Monday, April 16, 8:00 a.m.-12:00 p.m. CT.

Abstract #6334 —Ju, W., et al. “Dual E-selectin and CXCR4 inhibition reduces tumor growth and metastatic progression in an orthotopic model of osteosarcoma.” Wednesday, April 18, 8:00 a.m.-12:00 p.m. CT.

The AACR Annual Meeting 2018 takes place from April 14 to 18, at the McCormick Place North/South, Chicago. Meeting abstracts are available at AACR's website.

About GMI-1271

GMI-1271 is expected to enter Phase 3 clinical development in the third quarter of 2018. The molecule 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. In a completed Phase 1/2 clinical trial, the results of which were presented at the ASH 2017 meeting , both newly diagnosed elderly and relapsed/refractory patients with acute myeloid leukemia (AML) treated with GMI-1271, together with standard chemotherapy, achieved better than expected remission rates and overall survival compared to historical controls, which have been derived from results from third-party clinical trials, as well as lower than expected induction-related mortality rates and incidence of severe mucositis. Treatment in these patient populations was generally well tolerated, with fewer than expected adverse effects.

About GMI-1359

GMI-1359 is currently in Phase 1 testing in healthy volunteers. GMI-1359 is designed to simultaneously inhibit both E-selectin and CXCR4. E-selectin and CXCR4 are both adhesion molecules that keep cancer cells in the bone marrow and affect cancer cell trafficking. Preclinical studies indicate that targeting both E-selectin and CXCR4 with a single compound could improve efficacy in the treatment of cancers that involve the bone marrow such as AML and multiple myeloma or in solid tumors that metastasize to the bone, such as prostate cancer and breast cancer.

About GlycoMimetics

GlycoMimetics is a clinical-stage biotechnology company focused on the discovery and development of novel glycomimetic drugs to address unmet

medical needs resulting from diseases in which carbohydrate biology plays a key role. 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 conducted by GlycoMimetics' strategic collaborator, Pfizer, with preliminary data expected in the second half of 2018. The FDA granted Breakthrough Therapy designation for the company's wholly owned drug candidate, GMI-1271, an E-selectin antagonist, for treatment of adult AML patients with relapsed/refractory disease; a Phase 3 clinical trial is planned to initiate in the third quarter of 2018. GMI-1271 is also being evaluated in an ongoing Phase 1 clinical trial for the treatment of multiple myeloma. GlycoMimetics has also initiated a Phase 1 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.

Cautionary Note Regarding Forward-Looking Statements

This press release contains forward-looking statements regarding the clinical development of GMI-1271 and GMI-1359, including the expected timing of completion of clinical trials and the presentation of pre-clinical data. Actual results may differ materially from those in these forward-looking statements. For a further description of the risks associated with these statements, as well as other risks facing GlycoMimetics, please see the risk factors described in the company's annual report on Form 10-K that was filed with the U.S. Securities and Exchange Commission (SEC) on March 6, 2018, and other filings GlycoMimetics makes with the SEC from time to time. Forward-looking statements speak only as of the date of this release, and GlycoMimetics undertakes no obligation to update or revise these statements, except as may be required by law.

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