GlycoMimetics Announces Publication of Nature Cell Biology Paper Supporting Recently Announced Clinical Trial of GMI-1359

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Data shows that E-selectin is key to tumor growth and metastasis to bone and provides further support for upcoming clinical trial in patients with metastatic breast cancer

ROCKVILLE, Md.--(BUSINESS WIRE)--Apr. 22, 2019-- GlycoMimetics, Inc. (NASDAQ: GLYC) today announced the publication of a paper in *Nature Cell Biology* that describes how tumor cells engage specific stromal components, most notably E-selectin, for propagation and outgrowth.[1] The paper provides further scientific support for the clinical trial in breast cancer patients with bone metastasis that was recently announced by GlycoMimetics.

Specifically, Esposito et. al. identify an E-selectin ligand expressed on tumor cells that is necessary for inducing mesenchymal-epithelial transition (MET) and that drives metastatic progression within the bone marrow microenvironment. Of note, in preclinical animal models of human breast cancer, inhibition of E-selectin with GlycoMimetics' compound uproleselan (GMI-1271) prevented bone metastases progression and significantly attenuated bone metastases-associated bone degradation, resulting in a significant survival advantage in treated tumor-bearing mice. Previously published work also demonstrates a complimentary role for CXCR4. Together these observations support the testing of GMI-1359, GlycoMimetics' dual-function antagonist, which targets both mechanisms.

"The scientific rationale for potential uses of GMI-1359 in oncology indications continues to build," said John L. Magnani, PhD, Chief Scientific Officer of GlycoMimetics. "This most recent paper contributes additional understanding to the critical role of E-selectin and to the potential uses of compounds that target this mechanism in cancer, in particular in cancers that metastasize to bone."

About GMI-1359

GMI-1359 is designed to simultaneously inhibit both E-selectin and CXCR4. E-selectin and CXCR4 are both adhesion molecules involved in tumor trafficking and metastatic spread. 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. GMI-1359 has completed a Phase 1 clinical trial in healthy volunteers.

About GlycoMimetics, Inc.

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 being conducted by its strategic collaborator, Pfizer. GlycoMimetics' wholly owned drug candidate, uproleselan, an E-selectin antagonist, was evaluated in a Phase 1/2 clinical trial as a potential treatment for AML and is being evaluated across a range of patient populations including a company-sponsored Phase 3 trial in relapsed/refractory AML. GlycoMimetics has also completed 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 the company's drug candidates, including the expected timing of completion of clinical trials and the presentation of 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 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.

[1] *Esposito et.al. Nature Cell Biology (April 15) doi.org/10.1038/s41556-019-0309-2*

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