



This free writing prospectus should be read together with the issuer's registration statement on Form S-1 (File No. 333-191567) (including the prospectus therein), as amended. The following information supplements and updates the information contained in the registration statement.

November 7, 2013 Press Release

GLYCOMIMETICS TO PRESENT FIVE ABSTRACTS AT 2013 AMERICAN SOCIETY OF HEMATOLOGY ANNUAL MEETING

- Company's research on potential therapies for vaso-occlusive crisis in sickle cell disease and cancer will be highlighted via three oral presentations and two posters at ASH -

GAITHERSBURG, MD, November 7, 2013 – GlycoMimetics, Inc. announced today plans to present at the 2013 American Society of Hematology (ASH) Annual Meeting and Exposition, highlighting study data of the company's lead drug candidate, rivipansel sodium (GMI-1070), as well as GMI-1271, another novel glycomimetic drug candidate in the GlycoMimetics pipeline. Research to be highlighted at the meeting will be featured via two oral presentations on Phase 2 clinical trial findings for rivipansel sodium, a potential therapy for the treatment of vaso-occlusive crisis (VOC) in people with sickle cell disease, as well as one oral presentation for preclinical data related to the company's drug candidate GMI-1271, an E-selectin antagonist. Two additional abstracts on these programs have been accepted for presentation in poster sessions. The ASH meeting will be held December 7-10, 2013, at the Ernest N. Morial Convention Center in New Orleans.

GMI-1070, which has previously received both Orphan Drug and Fast Track status for the treatment of VOC from the U.S. Food & Drug Administration (FDA), and Orphan Product status in the European Union, is being developed in collaboration with Pfizer, Inc.

GMI-1271 is currently in preclinical studies for blood cancers and other cancers that are associated with elevated risk of metastasis and thrombosis. GMI anticipates filing an investigational new drug application for treatment of acute myeloid leukemia (AML) in the first quarter of 2014.

Following are the specifics of the abstracts, including session times and locations:

- "GMI-1070: Reduction in Time to Resolution of Vaso-Occlusive Crisis and Decreased Opioid Use in a Prospective, Randomized, Multi-Center Double Blind, Adaptive Phase 2 Study in Sickle Cell Disease." [Session 111. Hemoglobinopathies, excluding Thalassemia: Sickle Cell Disease: Emerging Therapies], Tuesday, December 10, 2013, 7:45 AM, Ernest N. Morial Convention Center, 343-345
- "Effects of GMI-1070, a Pan-Selectin Inhibitor, On Pain Intensity and Opioid Utilization in Sickle Cell Disease." [Session 111. Hemoglobinopathies, excluding Thalassemia: Sickle Cell Disease: Emerging Therapies], December 10, 2013, 7:30 AM, Ernest N. Morial Convention Center, 343-345

-
- “An Analysis of the Pediatric Sub-Group From the Phase 2 Study of GMI-1070—A Novel Agent For The Vaso-Occlusive Crisis of Sickle Cell Anemia.” [Session 111. Hemoglobinopathies, excluding Thalassemia: Poster II], December 8, 2013, 6:30-8:30 PM, Ernest N. Morial Convention Center, Hall E
 - “Administration of E-Selectin Antagonist GMI-1271 Improves Survival After High-Dose Chemotherapy By Alleviating Mucositis and Accelerating Neutrophil Recovery.” [Session 201. Granulocytes, Monocytes and Macrophages: Poster II], Sunday, December 8, 2013, 6:30 PM - 8:30 PM, Ernest N. Morial Convention Center, Hall E
 - “Adhesion of Acute Myeloid Leukemia Blasts to E-Selectin in the Vascular Niche Enhances Their Survival By Mechanisms Such as Wnt Activation.” [Session 613. Acute Myeloid Leukemia: Pathophysiology & Clinical Studies: Pathogenesis, Prognostic Markers, and Outcome I], Sunday, December 8, 2013, 5:00 PM, Ernest N. Morial Convention Center, 243-245

The meeting abstracts are available via ASH’s website.

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 are molecules that mimic the structure of carbohydrates involved in important biological processes. Using its expertise in carbohydrate chemistry and knowledge of carbohydrate biology, GlycoMimetics is developing a pipeline of glycomimetic drug candidates that inhibit disease-related functions of carbohydrates, such as the roles they play in inflammation, cancer and infection.

This press release contains forward-looking statements regarding GlycoMimetics’ planned activities with respect to the clinical development of GMI-1271. 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 Registration Statement on Form S-1 that was originally filed with the U.S. Securities and Exchange Commission on October 4, 2013, and the amendments thereto, including those factors discussed under the caption “Risk Factors” in such filings. 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.

###

The issuer has filed a registration statement (including a prospectus) with the Securities and Exchange Commission, or SEC, for the offering to which this communication relates. This registration statement can be accessed through the following link: <http://www.sec.gov/Archives/edgar/data/1253689/000119312513412381/d572031dsla.htm>. Before you invest, you should read the prospectus in that registration statement and other documents the issuer has filed with the SEC for more complete information about us and this offering. You may get these documents for free by visiting EDGAR on the SEC Web site at www.sec.gov. Alternatively, the issuer, any underwriter or any dealer participating in the offering will arrange to send you the prospectus if you request it from Jefferies LLC by email at Prospectus_Department@Jefferies.com or by phone at 877-547-6340 or Barclays Capital Inc. by email at Barclaysprospectus@broadridge.com or by phone at 888-603-5847.