FORM 3

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL

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Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person*  HENOS MICHAEL A  | 2. Date of Even<br>Requiring State<br>(Month/Day/Yea<br>01/09/2014 | ement              | 3. Issuer Name and Ticker or Trading Symbol GLYCOMIMETICS INC [ GLYC ] |  |                                   |  |   |  |
|--|--|--------------------|--|--|-----------------------------------|--|---|--|
| (Last) (First) (Middle) C/O GLYCOMIMETICS, INC.  |  |                    | Relationship of Reporting Perso (Check all applicable)     X Director  | on(s) to Issuer<br>10% Owner<br>Other (specify<br>below)   |                                   | If Amendment, Date of Original Filed (Month/Day/Year)      Individual or Joint/Group Filing (Check Applicable Line)     X Form filed by One Reporting Person |   |  |
| 401 PROFESSIONAL DRIVE, SUITE 250  |  |                    | Officer (give title below)   |  |                                   |  |   |  |
| (Street) GAITHERSBURG MD 20879   |  |                    |  |  |                                   |  | More than One   |  |
| (City) (State) (Zip)   |  |                    |  |  |                                   |  |   |  |
|  | Table I - No   | n-Deriva           | tive Securities Beneficiall  | y Owned  |                                   |  |   |  |
| 1. Title of Security (Instr. 4)  |  |                    | 2. Amount of Securities<br>Beneficially Owned (Instr. 4)               | 3. Ownershi<br>Form: Direct<br>or Indirect (<br>(Instr. 5) | t (D)   (II                       | Nature of Indirect<br>nstr. 5)   | Beneficial Ownership  |  |
| Common Stock   |  |                    | 10,732   | I  | By Spouse <sup>(1)</sup>          |  |   |  |
| Common Stock   |  |                    | 116,229  | I By Funds <sup>(2)(3)</sup>                               |                                   |  |   |  |
| Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |  |                    |  |  |                                   |  |   |  |
| 1. Title of Derivative Security (Instr. 4)   | 2. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year)     |                    | 3. Title and Amount of Securit<br>Underlying Derivative Security       | ity (Instr. 4) Con   |                                   | ise Form:  | 6. Nature of Indirect<br>Beneficial Ownership<br>(Instr. 5) |  |
|  | Date<br>Exercisable  | Expiration<br>Date | n<br>Title   | Amount<br>or<br>Number<br>of Shares                        | Price of<br>Derivativ<br>Security |  |   |  |
| Stock Option (right to buy)  | (4)  | 01/04/2021         | Common Stock   | 1,562(5)   | 1.12(5                            | 5) D   |   |  |
| Series A-1 Preferred Stock   | (6)  | (6)                | Common Stock   | 11,936   | (6)                               | I  | By Spouse <sup>(1)</sup>                                    |  |
| Series A-1 Preferred Stock   | (6)  | (6)                | Common Stock   | 337,579  | (6)                               | I  | By Funds <sup>(3)(7)</sup>                                  |  |
| Warrant to Purchase Common Stock (right to buy)  | 12/09/2005   | 12/09/2015         | Common Stock   | 5,133(5)   | 0.33(5                            | 5) I   | By Funds <sup>(3)(8)</sup>                                  |  |
| Warrant to Purchase Common Stock (right to   | 07/03/2008   | 07/03/2018         | Common Stock   | 38,493(5)  | 0.33(5                            | 5) I   | By Funds <sup>(3)(9)</sup>                                  |  |

## **Explanation of Responses:**

- 1. These shares are held by Claudia Henos, Mr. Henos's spouse.
- 2. 114,888 shares are held by Alliance Technology Ventures III, L.P. ("ATV III") and 1,341 shares are held by ATV III Affiliates Fund, L.P. ("ATV Affiliates").
- 3. Mr. Henos is a manager of ATV III Partners, LLC, the general partner of ATV III and ATV Affiliates and shares voting and investment power with respect to the securities held by ATV III and ATV Affiliates. Mr. Henos disclaims beneficial ownership of the securities, except to the extent of his pecuniary interest therein.
- 4. The shares underlying this option are fully vested.
- 5. The number of underlying shares of common stock and the exercise price reported reflect a 1-for-3.302 reverse stock split of the Issuer's common stock effected on October 25, 2013.
- 6. Each share of Series A-1 Preferred Stock is convertible, at any time, at the holder's election, into the Issuer's common stock on a 1-for-3.302 basis. In addition, effective immediately prior to the closing of the Issuer's initial public offering of its common stock, each share of Series A-1 Preferred Stock will automatically convert into approximately 0.3028 shares of the Issuer's common stock. The Series A-1 Preferred Stock has no expiration date.
- $7.\ 334{,}203\ shares\ are\ held\ by\ ATV\ III\ and\ 3{,}376\ shares\ are\ held\ by\ ATV\ Affiliates.$
- 8. 5,098 shares underlying warrants are held by ATV III and 35 shares underlying warrants are held by ATV Affiliates.
- 9. 38,109 shares underlying warrants are held by ATV III and 384 shares underlying warrants are held by ATV Affiliates

## Remarks:

Exhibit 24.1 - Power of Attorney

/s/ Brian F. Leaf, Attorney-infact 01/09/2014

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- $^{\star}$  If the form is filed by more than one reporting person, see Instruction 5 (b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.

(For Executing Form ID and Forms 3, 4 and 5)

Know all by these presents, that the undersigned hereby constitutes and appoints each of Brent B. Siler, Brian F. Leaf, Christian E. Plaza, Katie Kazem and Jennifer Don of Cooley LLP, and Rachel K. King of GlycoMimetics, Inc. (the "Company"), the undersigned's true and lawful attorneys-in-fact and agents to:

- (1) Prepare, execute in the undersigned's name and on the undersigned's behalf, and submit to the Securities and Exchange Commission (the "SEC") a Form ID, Uniform Application for Access Codes to File on EDGAR, including amendments thereto, and any other documents necessary or appropriate to obtain codes and passwords enabling the undersigned to make electronic filings with the SEC of reports required by Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or any rule or regulation thereunder;
- (2) Prepare, execute in the undersigned's name and on the undersigned's behalf, and submit to the SEC Forms 3, 4 and 5 (including amendments thereto and joint filing agreements in connection therewith) in accordance with Section 16(a) of the Exchange Act and the rules thereunder in the undersigned's capacity as an officer, director or beneficial owner of more than 10% of a registered class of securities of the Company;
- (3) Do and perform any and all acts for and on behalf of the undersigned that may be necessary or desirable to prepare and execute any such Form 3, 4 or 5 (including amendments thereto and joint filing agreements in connection therewith) and file such forms with the SEC and any stock exchange, self-regulatory association or any similar authority; and
- (4) Take any other action of any type whatsoever in connection with the foregoing that, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required of the undersigned, it being understood that the documents executed by the attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as the attorney-in-fact may approve in the attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, and their substitutes, in serving in such capacity at the request of the undersigned, are not assuming (nor is the Company assuming) any of the undersigned's responsibilities to comply with Section 16 of the Exchange Act.

This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, (b) revocation by the undersigned in a signed writing delivered to the Company and the foregoing attorneys-in fact or (c) as to any attorney-in-fact individually, until such attorney-in-fact is no longer employed by the Company or Cooley LLP, as applicable.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of the date written below.

Date: 10/17/2013

By: /s/ MICHAEL A. HENOS