UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

G1 Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) ${ 26\text{-}3648180 \atop \text{(I.R.S. Employer Identification No.)} }$

79 T.W. Alexander Drive 4501 Research Commons, Suite 100 Research Triangle Park, NC 27709 (Address of principal executive offices) (Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class to be so registered

Common Stock, par value \$0.0001 per share

(d) or (e), check the following box. \Box

Name of each exchange on which each class is to be registered

The NASDAO Stock Market LLC

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A. (c) or (e), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.

If this form relates to the registration of a class of securities concurrently with a Regulation A offering, check the following box. \Box

Securities Act registration statement or Regulation A offering statement file number to which this form relates: 333-217285

Securities to be registered pursuant to Section 12(g) of the Act: None

Item 1. Description of Registrant's Securities to be Registered.

For a description of the Registrant's common stock, par value \$0.0001 per share, to be registered hereunder, reference is made to the information set forth under the heading "Description of capital stock" in the Registrant's prospectus that constitutes a part of the Registrant's Registration Statement on Form S-1, as amended (File No. 333-217285) (the "Registration Statement"), filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), which information is hereby incorporated by reference. Any form of prospectus subsequently filed by the Registrant with the Commission pursuant to Rule 424(b) under the Securities Act that constitutes part of the Registration Statement shall be deemed to be incorporated herein by reference.

Item 2. Exhibits.

Under the Instructions as to Exhibits with respect to Form 8-A, no exhibits are required to be filed, because no other securities of the Registrant are registered on The NASDAQ Stock Market LLC and the securities registered hereby are not being registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

Dated: May 15, 2017

G1 THERAPEUTICS, INC.

By: /s/ Mark A. Velleca, M.D., Ph.D.

Mark A. Velleca, M.D., Ph.D.

President and Chief Executive Officer