UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(B) OR 12(G) OF THE SECURITIES EXCHANGE ACT

FibroBiologics, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or other jurisdiction of incorporation or organization) 86-3329066 (IRS Employer Identification No.)

455 E. Medical Center Blvd. Suite 300 Houston, Texas 77598 (Address of principal executive offices)

77598 (Zip Code)

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

Title of each class to be so registered

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

Shares of Common Stock, par value \$0.00001 per share

The Nasdaq 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. \boxtimes

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

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

Securities Act registration statement or Regulation A registration statement file number to which this form relates: 333-275361

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

INFORMATION REQUIRED IN REGISTRATION STATEMENT

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

The securities to be registered hereby are the shares of common stock of FibroBiologics, Inc. The description of the shares contained in the prospectus forming a part of the Registration Statement on Form S-1, as originally filed with the Securities and Exchange Commission on November 7, 2023, as amended from time to time (Registration No. 333-275361) (the "Registration Statement") to which this Form 8-A relates and is incorporated herein by reference. Any form of prospectus supplement to the Registration Statement that includes such descriptions and that are subsequently filed are hereby also incorporated by reference herein.

The shares of common stock to be registered hereunder have been approved for listing on The Nasdaq Stock Market LLC ("Nasdaq") under the symbol "FBLG".

Item 2. Exhibits

Under the Instructions as to Exhibits with respect to Form 8-A, no exhibits are required to be filed herewith or incorporated by reference herein because no other securities of the Registrant are registered on Nasdaq 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.

FibroBiologics, Inc.

Dated: January 24, 2024 By: /s/Pete O'Heeron

Name: Pete O'Heeron
Title: Chief Executive Officer