

As filed with the Securities and Exchange Commission on October 13, 2026.

Registration No. 333-284077

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

Post-Effective Amendment No. 1
to
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

FibroBiologics, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

2834

(Primary Standard Industrial
Classification Code Number)

86-3329066

(I.R.S. Employer
Identification Number)

**9350 Kirby Drive
Suite 300
Houston, Texas 77054
(281) 671-5150**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Pete O'Heeron
Chief Executive Officer
FibroBiologics, Inc.
9350 Kirby Drive
Suite 300
Houston, Texas 77054
(281) 671-5150**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

**Ruben A. Garcia
General Counsel
FibroBiologics, Inc.
9350 Kirby Drive
Suite 300
Houston, Texas 77054
(281) 671-5150**

Approximate date of commencement of proposed sale to the public: **Not applicable.**

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

DEREGISTRATION OF SECURITIES

On December 30, 2024, FibroBiologics, Inc. (the “Company”) filed with the Securities and Exchange Commission (the “SEC”) a registration statement on Form S-1 (File No. 333-284077), which was originally declared effective by the SEC on January 14, 2025 (the “Registration Statement”). The Registration Statement registered the resale of 41,489,581 shares of common stock of the Company by the selling stockholders identified in the prospectus included in the Registration Statement.

The Company has no further obligation to maintain effectiveness of the Registration Statement. In accordance with an undertaking made by the Company in the Registration Statement, this Post-Effective Amendment No. 1 to the Registration Statement is being filed to terminate the effectiveness of the Registration Statement and to remove from registration all securities registered but not sold under the Registration Statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Houston, State of Texas, on October 13, 2026.

FibroBiologics, Inc.

By: /s/ Pete O’Heeron

Pete O’Heeron

Chief Executive Officer

Pursuant to Rule 478 under the Securities Act of 1933, as amended, no other person is required to sign this Post-Effective Amendment No.1 to the Registration Statement.
