

☐ Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

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

☐ Check this box to indicate that a transaction was made pursuant to a contract, instruction or written plan for the purchase or sale of equity securities of the issuer that is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). See Instruction 10.

1. Name and Address of Reporting Person * <u>Khoja Hamid</u> (Last) (First) (Middle) <u>C/O FIBROBIOLOGICS, INC.</u> <u>9350 KIRBY DRIVE., SUITE 300</u> (Street) <u>HOUSTON TX 77054</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>FibroBiologics, Inc. [FBLG]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner ☒ Officer (give title below) Other (specify below) <u>Chief Scientific Officer</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>09/15/2026</u>	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) ☒ Form filed by One Reporting Person Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	09/15/2026		A ⁽¹⁾		298,508	A	\$1.675 ⁽²⁾	301,571	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V		Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Warrant (Right to Buy)	\$1.55	09/15/2026		A ⁽¹⁾		298,508	⁽³⁾	09/15/2031	Common Stock	298,508	⁽²⁾	298,508	D	

Explanation of Responses:

1. On September 15, 2026, the reporting person entered into a securities purchase agreement with FibroBiologics, Inc. (the "Company") to purchase 298,508 shares of the Company's common stock, par value \$0.00001 per share (the "Common Stock"), and accompanying warrants to purchase up to 298,508 shares of Common Stock (the "Warrants"), in a private placement (the "Offering").

2. Each share of Common Stock and accompanying Warrant were issued at a combined purchase price of \$1.675.

3. The warrants are exercisable at any time until they expire.

Remarks:

Exhibit 24 Power of Attorney

/s/ Ruben A. Garcia, by Power of Attorney 09/15/2026

** Signature of Reporting Person Date

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

* If the form is filed by more than one reporting person, see Instruction 4 (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.

LIMITED POWER OF ATTORNEY

The undersigned, Hamid Khoja, understands that, from time to time, he is required to prepare, execute and file certain federal and state securities laws filings.

The undersigned hereby appoints and authorizes each of Ruben A. Garcia, General Counsel of FibroBiologics, Inc., Jason D. Davis, Chief Financial Officer of FibroBiologics, Inc., and Pete O’Heeron, Chief Executive Officer of FibroBiologics, Inc., as the undersigned’s true and lawful attorney-in-fact, each with full power of substitution and full power to act alone, to:

- (1) prepare and sign in the name of and on behalf of the undersigned any and all forms and reports required to be filed pursuant to the Exchange Act of 1933 and the Securities Exchange Act of 1934 and the rules and regulations thereunder, including, but without limitation, Forms 3, 4 and 5 and Schedule 13D/G, and any amendment or amendments thereto;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to prepare, complete, execute and file a Form ID or any other application materials to enable the undersigned to gain or maintain access to the Electronic Data Gathering, Analysis and Retrieval system of the SEC;
- (3) perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such forms and filings, and timely file such forms with the United States Securities and Exchange Commission; and
- (4) take any other action of any type in connection with the foregoing which, in the opinion of the attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Limited Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such 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 required, 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 (including appointing substitutes for themselves, for each other and for any successor to any attorney-in-fact hereunder) 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.

This Limited Power of Attorney shall remain in effect until the undersigned is no longer required to file forms with respect to the securities of FibroBiologics, Inc., unless earlier revoked by the undersigned in a signed and dated writing delivered to the foregoing attorney-in-fact.

Executed this 15th day of September, 2026.

/s/ Hamid Khoja
Hamid Khoja
