As filed with the United States Securities and Exchange Commission on August 11, 2026

Registration No. 333-

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

FORM S-8
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

TELA BIO, INC.
(Exact name of registrant as specified in its charter)

Delaware	**45-5320061**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1 Great Valley Parkway, Suite 24 **Malvern, Pennsylvania**	**19355**
(Address of Principal Executive Offices)	(Zip Code)

TELA BIO, INC. AMENDED AND RESTATED 2019 EQUITY INCENTIVE PLAN
(Full title of the plan)

Heather Getz
Chief Executive Officer
TELA Bio, Inc.
1 Great Valley Parkway, Suite 24
Malvern, Pennsylvania 19355
(Name and address of agent for service)

(484) 320-2930
(Telephone number, including area code, of agent for service)

Copies to:
Rachael M. Bushey, Esq.
Justin S. Platt, Esq.
Goodwin Procter LLP
3025 John F Kennedy Blvd
Philadelphia, PA 19104
(445) 207-7805

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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. ☐

EXPLANATORY NOTE

On April 8, 2026, the Board of Directors of TELA Bio, Inc. (the "Company") adopted, subject to approval by the stockholders, an amendment to the TELA Bio, Inc. Amended and Restated 2019 Equity Incentive Plan, as amended (the "Equity Plan") (such amendment, the "Amendment" and the Equity Plan, after giving effect to the Amendment, the "Amended Equity Plan"), which the stockholders of the Company approved at the Company's 2026 Annual Meeting of Stockholders held on June 9, 2026. The Amendment increased the number of shares of common stock, par value $0.001 per share, of the Company ("Common Stock"), authorized for issuance thereunder by 3,500,000 shares of Common Stock (the "Additional Shares"). This Registration Statement on Form S-8 (the "Registration Statement") is being filed solely for the purpose of registering the Additional Shares for issuance under the Amended Equity Plan.

Such Additional Shares are of the same class of securities as the shares of Common Stock issuable under the Equity Plan for which the currently effective Registration Statements on Form S-8 (File Nos. 333-235241, 333-245707, and 333-289497) filed with the Securities and Exchange Commission (the "Commission") on November 25, 2019, August 8, 2020 and August 11, 2025, respectively (the "Prior Registration Statements"), were filed. Upon the effectiveness of this Registration Statement, an aggregate of 10,932,620 shares of Common Stock will be registered for issuance from time to time under the Amended Equity Plan, inclusive of the Additional Shares. Pursuant to General Instruction E of Form S-8 regarding registration of Additional Securities, the contents of the Prior Registration Statements are incorporated herein by reference except to the extent supplemented, amended or superseded by the information set forth herein. Only those items of Form S-8 containing new information not contained in the Prior Registration Statement are presented herein.

PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents, which have been filed by the Registrant with the Commission are incorporated by reference in, and shall be deemed to be a part of, this Registration Statement:

(a) The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2025, filed with the Commission on March 25, 2026 (the "2025 10-K");

(b) The Registrant's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2026 and June 30, 2026, filed with the Commission on May 13, 2026 and August 11, 2026;

(b) The Registrant's Definitive Proxy Statement on Schedule 14A filed with the Commission on April 30, 2026, to the extent incorporated by reference into the 2025 10-K.

(c) The Registrant's Current Reports on Form 8-K (other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that are related to such items) filed with the Commission on March 20, 2026, April 30, 2026, June 11, 2026, and August 4, 2026.

(d) The description of the Registrant's Common Stock contained in the Registrant's Registration Statement on Form 8-A filed with the Commission on November 7, 2019 (File No. 001-39130), together with any amendment thereto filed with the Commission for the purpose of updating such description; and

(e) All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended, prior to the filing of a post-effective amendment to this Registration Statement, which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement; provided, however, that documents, reports and definitive proxy or information statements, or portions thereof, which are furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement.

Any statement contained herein or in a document, all or a portion of which is incorporated or deemed to be incorporated by reference herein, shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or amended, to constitute a part of this Registration Statement.

Item 8. Exhibits.

The following documents are filed as exhibits to this Registration Statement:

Exhibit Number	Description of Exhibit
3.1	Fourth Amended and Restated Certificate of Incorporation of TELA Bio, Inc. (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-39130) filed on November 19, 2019).
3.2	Certificate of Amendment to TELA Bio, Inc.'s Fourth Amended and Restated Certificate of Incorporation (incorporated herein by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-39130) filed on August 11, 2025).
3.3	Third Amended and Restated Bylaws of TELA Bio, Inc. (incorporated herein by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-39130) filed on November 13, 2023).
4.1	Form of Certificate of Common Stock (incorporated herein by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 (File No. 333-234217) filed on October 29, 2019).
5.1*	Opinion of Goodwin Procter LLP as to the legality of the securities being registered.
23.1*	Consent of KPMG LLP, independent registered public accounting firm for TELA Bio, Inc.
23.2*	Consent of Goodwin Procter LLP (contained in Exhibit 5.1).
24.1*	Power of Attorney (included on the signature page of the Registration Statement).
99.1#	TELA Bio, Inc. Amended and Restated 2019 Equity Incentive Plan (incorporated by reference to exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 8, 2020).
99.2#	Amendment No. 1 to TELA Bio, Inc. Amended and Restated 2019 Equity Incentive Plan (incorporated by reference to exhibit 99.2 to the Company's Registration Statement on Form S-8 filed on August 11, 2025).
99.3#	Amendment No. 2 to TELA Bio, Inc. Amended and Restated 2019 Equity Incentive Plan (incorporated by reference to exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 11, 2026).
99.4#	Form of TELA Bio, Inc. Amended and Restated 2019 Equity Incentive Plan Stock Option Grant Notice and Stock Option Agreement (incorporated by reference to exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed on May 11, 2022).
99.5#	Form of TELA Bio, Inc. Amended and Restated 2019 Equity Incentive Plan Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement (time-based vesting) (incorporated by reference to exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed on May 11, 2022).
99.6#	Form of TELA Bio, Inc. Amended and Restated 2019 Equity Incentive Plan Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement (performance-based vesting) (incorporated by reference to exhibit 10.13 to the Company's Annual Report on Form 10-K, filed on March 23, 2023).
107*	Filing Fee Table.

* Filed herewith
\# Denotes management contract or compensatory plan or arrangement

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Borough of Malvern, Commonwealth of Pennsylvania, on August 11, 2026.

TELA BIO, INC.

By: /s/ Heather Getz
Heather Getz
Chief Executive Officer and Director

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints each of Heather Getz and Roberto Cuca as his or her true and lawful attorney-in-fact and agent with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Commission, granting unto said attorney-in-fact, proxy, and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact, proxy and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the date indicated.

Signature	Title	Date
/s/ Heather Getz Heather Getz	Chief Executive Officer and Director (Principal Executive Officer)	August 11, 2026
/s/ Roberto Cuca Roberto Cuca	Chief Operating Officer, Chief Financial Officer and Corporate Secretary (Principal Financial Officer)	August 11, 2026
/s/ Megan Smeykal Megan Smeykal	Chief Accounting Officer and Controller (Principal Accounting Officer)	August 11, 2026
/s/ Joseph Capper Joseph Capper	Chairman, Board of Directors	August 11, 2026
/s/ Guy Nohra Guy Nohra	Director	August 11, 2026
/s/ Guido Neels Guido Neels	Director	August 11, 2026
/s/ Paul Thomas Paul Thomas	Director	August 11, 2026
/s/ Betty Jo Rocchio Betty Jo Rocchio	Director	August 11, 2026
William Plovanic	Director	August 11, 2026

Exhibit 5.1

GOODWIN

Goodwin Procter LLP
3025 John F Kennedy Blvd
Philadelphia, PA 19104

goodwinlaw.com
+1 445 207 7800

August 11, 2026

TELA Bio, Inc.
1 Great Valley Parkway, Suite 24
Malvern, PA 19355

Re: Securities Being Registered under Registration Statement on Form S-8

We have acted as your counsel in connection with your filing of a Registration Statement on Form S-8 (the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on or about the date hereof relating to an aggregate of 3,500,000 shares (the "Shares") of Common Stock, par value $0.001 per share ("Common Stock"), of TELA Bio, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the TELA Bio, Inc. Amended and Restated 2019 Equity Incentive Plan, as amended by the Amendment No. 2, dated as of June 9, 2026 (collectively, the "2019 Plan").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinion set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

For purposes of the opinion set forth below, we have assumed that, at the time Shares are issued, the total number of then unissued Shares, when added to the number of shares of Common Stock issued, subscribed for, or otherwise committed to be issued, does not exceed the number of shares of Common Stock authorized by the Company's certificate of incorporation.

The opinion set forth below is limited to the Delaware General Corporation Law.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, when delivered against payment therefor in accordance with the terms of the 2019 Plan, will be validly issued, fully paid and nonassessable.

This opinion letter and the opinion it contains shall be interpreted in accordance with the Core Opinion Principles as published in 74 *Business Lawyer* 815 (Summer 2019).

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/s/ Goodwin Procter llp

GOODWIN PROCTER LLP

Exhibit 23.1

KPMG LLP
Suite 4000
1735 Market Street
Philadelphia, PA 19103-7501

Consent of Independent Registered Public Accounting Firm

We consent to the use of our report dated March 25, 2026, with respect to the consolidated financial statements of TELA Bio, Inc. and subsidiaries, incorporated herein by reference.

/s/ KPMG LLP
Philadelphia, Pennsylvania
August 11, 2026

Calculation of Filing Fee Tables

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TELA Bio, Inc.

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
1	Equity	Common Stock, $0.001 par value per share	Other	3,500,000	$ 0.81	$ 2,835,000.00	0.0001381	$ 391.51
				Total Offering Amounts:		$ 2,835,000.00		$ 391.51
				Total Fee Offsets:				$ 0.00
				Net Fee Due:				$ 391.51

Offering Note

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(1) Pursuant to Rule 416(a) promulgated under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement on Form S-8 also covers an indeterminate number of additional shares of common stock, par value per share $0.001 (the "Common Stock"), of TELA Bio, Inc. (the "Registrant") issuable by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration which results in an increase in the number of the outstanding shares of Common Stock of the Registrant.

(2) Represents shares of Common Stock that are issuable under the Amendment No. 2 to the TELA Bio, Inc. Amended and Restated 2019 Equity Incentive Plan, which was adopted by the Registrant's Board of Directors on April 8, 2026 and approved by the Registrant's stockholders at the 2026 Annual Meeting of Stockholders on June 9, 2026.

(3) Estimated pursuant to Rule 457(c) and Rule 457(h) of the Securities Act solely for the purpose of calculating the registration fee. The proposed maximum offering price per share and proposed maximum offering price are based upon the average of the high and low prices of the Common Stock as reported on The Nasdaq Global Market on August 4, 2026.

Table 2: Fee Offset Claims and Sources ☑Not Applicable

	Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
Rule 457(p)											
Fee Offset Claims											
Fee Offset Sources											