

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

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

**2seventy bio, Inc.**  
(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction  
of incorporation or organization)

**86-3658454**  
(I.R.S. Employer  
Identification No.)

**2seventy bio, Inc.**  
**60 Binney Street**  
**Cambridge, MA**  
**(339) 499-9300**  
(Address of Principal Executive Offices)

**02142**  
(Zip Code)

**2021 Stock Option and Incentive Plan**  
**2021 Employee Stock Purchase Plan**  
(Full title of the plan)

**Nick Leschly**  
**President and Chief Executive Officer**  
**2seventy bio, Inc.**  
**60 Binney St.**  
**Cambridge, MA 02142**  
**(339) 499-9300**  
(Name and address of agent for service)

*Copy to:*  
**Michael H. Bison, Esq.**  
**Gregg L. Katz, Esq.**  
**Yasin E. Akbari, Esq.**  
**Goodwin Procter LLP**  
**100 Northern Avenue**  
**Boston, Massachusetts 02210**  
**(617) 570-1000**

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

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 13(a) of the Exchange Act.

## STATEMENT OF INCORPORATION BY REFERENCE

This Registration Statement on Form S-8 relating to the 2021 Stock Option and Incentive Plan (the “2021 Plan”) and the 2021 Employee Stock Purchase Plan (the “2021 ESPP”) of 2seventy bio, Inc. (the “Registrant”) is being filed for the purpose of registering additional securities of the same class as other securities for which a Registration Statement on Form S-8 has previously been filed and is effective. Accordingly, this Registration Statement incorporates by reference the contents of the registration statement on Form S-8, File No.: 333-260669, filed by the Registrant on November 1, 2021, relating to the 2021 Plan and 2021 ESPP pursuant to General Instruction E.

### Part II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 8. Exhibits.

See the Exhibit Index for a list of exhibits filed as part of this registration statement, which Exhibit Index is incorporated herein by reference.

#### EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
<u>4.1</u>	<u><a href="#">Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K filed on November 4, 2021).</a></u>
<u>4.2</u>	<u><a href="#">Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to Current Report on Form 8-K filed on November 4, 2021).</a></u>
<u>4.3</u>	<u><a href="#">Description of Securities (incorporated by reference to Exhibit 4.4 to the Annual Report of Form 10-K filed in March 22, 2022).</a></u>
<u>5.1*</u>	<u><a href="#">Opinion of Goodwin Procter LLP.</a></u>
<u>23.1*</u>	<u><a href="#">Consent of Goodwin Procter LLP (included in Exhibit 5.1).</a></u>
<u>23.2*</u>	<u><a href="#">Consent of Ernst &amp; Young LLP.</a></u>
<u>24.1*</u>	<u><a href="#">Power of attorney (included on signature page).</a></u>
<u>99.1</u>	<u><a href="#">2021 Stock Option and Incentive Plan, and forms of agreements thereunder (incorporated by reference to Exhibit 99.1 to Form S-8 filed on November 1, 2021).</a></u>
<u>99.2</u>	<u><a href="#">2021 Employee Stock Purchase Plan (incorporated by reference to Exhibit 99.2 to Form S-8 filed on November 1, 2021).</a></u>
<u>107*</u>	<u><a href="#">Filing Fee Table.</a></u>

iled herewith.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 City of Cambridge, Commonwealth of Massachusetts, on the 17th day of March, 2023.

### 2seventy bio, Inc.

By: /s/ Nick Leschly  
Nick Leschly  
President and Chief Executive Officer

## POWER OF ATTORNEY

We, the undersigned officers and directors of 2seventy bio, Inc., hereby severally constitute and appoint Nick Leschly and William D. Baird III, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign for us and in our names in the capacities indicated below any and all amendments (including post-effective amendments) to this registration statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities indicated below on the 17<sup>th</sup> day of March, 2023.

<u>Name</u>	<u>Title</u>
<u>/s/ Nick Leschly</u> Nick Leschly	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>
<u>/s/ William D. Baird III</u> William D. Baird III	Chief Financial Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>
<u>/s/ Daniel S. Lynch</u> Daniel S. Lynch	Director
<u>/s/ Sarah Glickman</u> Sarah Glickman	Director
<u>/s/ Ramy Ibrahim</u> Ramy Ibrahim, M.D.	Director
<u>/s/ Denice Torres</u> Denice Torres	Director
<u>/s/ Marcela Maus</u> Marcela Maus, M.D., Ph.D.	Director
<u>/s/ Wei Lin</u> Wei Lin, M.D.	Director

**Calculation of Filing Fee Table**

Form S-8  
(Form Type)

2seventy bio, Inc.  
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered(1)	Proposed Maximum Offering Price Per Share	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	2021 Stock Option and Incentive Plan Common Stock, \$0.0001 par value per share	Rule 457(c) and Rule 457(h)(1)	1,896,419(2)	\$10.47(3)	\$19,855,506.93	\$0.0001102	\$2,188.08
Equity	2021 Employee Stock Purchase Plan Common Stock, \$0.0001 par value per share	Rule 457(c) and Rule 457(h)(1)	233,302(4)	\$8.90(5)	\$2,076,387.80	\$0.0001102	\$228.82
<b>Total Offering Amounts</b>					\$21,931,894.73		\$2,416.90
<b>Total Fee Offsets</b>							-
<b>Net Fee Due</b>							\$2,416.90

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement shall also cover any additional shares of common stock, \$0.0001 par value per share (the “common stock”), of 2seventy bio, Inc. (the “Registrant”) which become issuable under the 2seventy bio, Inc. 2021 Stock Option and Incentive Plan (the “2021 Plan”) or the 2seventy bio, Inc. 2021 Employee Stock Purchase Plan (the “2021 ESPP”) by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without the receipt of consideration which results in an increase in the number of our outstanding shares of common stock. Pursuant to Rule 416(c) under the Securities Act, this Registration Statement shall also cover an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plans described herein.
- (2) Represents an automatic increase of 1,896,419 shares of common stock to the number of shares available for issuance under the 2021 Plan effective as of January 1, 2023. Shares available for issuance under the 2021 Plan were previously registered on Form S-8 filed with the Securities and Exchange Commission on November 1, 2021 (File No. 333-260669).
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and (h)(1) of the Securities Act, and based on \$10.47, the average of the high and low sale prices of the Registrant’s common stock as reported on the Nasdaq Global Market on March 14, 2023.
- (4) Represents an automatic increase of 233,302 shares of common stock to the number of shares available for issuance under the 2021 ESPP effective as of January 1, 2023. Shares available for issuance under the 2021 ESPP were previously registered on Form S-8 filed with the Securities and Exchange Commission on November 1, 2021 (File No. 333-260669).
- (5) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and (h)(1) of the Securities Act, and based on 85% of \$10.47, the average of the high and low sale prices of the Registrant’s common stock as reported on the Nasdaq Global Market on March 14, 2023. Pursuant to the 2021 ESPP, the purchase price of the shares of common stock reserved for issuance thereunder will be at a maximum discount of 15% of the fair market value of a share of common stock on the first trading day of the applicable offering period or on the last trading day of the applicable offering period, whichever is less.

March 17, 2023

2seventy bio, Inc.  
60 Binney Street  
Cambridge, MA 02142

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

We have acted as counsel to you 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 2,129,721 shares (the "Shares") of Common Stock, \$0.0001 par value per share ("Common Stock"), of 2seventy bio, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's 2021 Stock Option and Incentive Plan and 2021 Employee Stock Purchase Plan (collectively, the "Plans").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions 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.

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

For purposes of the opinion set forth below, we have assumed that no event occurs that causes the number of authorized shares of Common Stock available for issuance by the Company to be less than the number of then unissued Shares.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Plans, 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

## **Consent of Independent Registered Public Accounting Firm**

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2021 Stock Option and Incentive Plan and 2021 Employee Stock Purchase Plan of 2seventy bio, Inc. of our report dated March 16, 2023, with respect to the consolidated and combined financial statements of 2seventy bio, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2022, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts  
March 17, 2023