

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

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

1. Name and Address of Reporting Person* <u>Casdin Capital, LLC</u> <hr/> (Last) (First) (Middle) 1350 AVENUE OF THE AMERICAS SUITE 2600 <hr/> (Street) NEW YORK NY 10019 <hr/> (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 03/20/2024	3. Issuer Name and Ticker or Trading Symbol <u>2seventy bio, Inc. [TSVT]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person <input checked="" type="checkbox"/> Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock, par value \$0.0001 per share	1,182,623	I	See footnote ⁽¹⁾
Common Stock, par value \$0.0001 per share ⁽²⁾	16,600	D ⁽³⁾	

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

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date				
Stock Options (Right to buy)	(4)	03/20/2034	Common Stock, par value \$0.0001 per share 33,400	4.54	D ⁽³⁾	
Total Return Swap	(5)	(5)	Common Stock, par value \$0.0001 per share 599,935	(5)	I	See footnote ⁽¹⁾

1. Name and Address of Reporting Person* <u>Casdin Capital, LLC</u> <hr/> (Last) (First) (Middle) 1350 AVENUE OF THE AMERICAS SUITE 2600 <hr/> (Street) NEW YORK NY 10019 <hr/> (City) (State) (Zip)

1. Name and Address of Reporting Person* <u>Casdin Partners Master Fund, L.P.</u> <hr/> (Last) (First) (Middle)

1350 AVENUE OF THE AMERICAS
SUITE 2600

(Street)
NEW YORK NY 10019

(City) (State) (Zip)

1. Name and Address of Reporting Person*

Casdin Partners GP, LLC

(Last) (First) (Middle)
1350 AVENUE OF THE AMERICAS
SUITE 2600

(Street)
NEW YORK NY 10019

(City) (State) (Zip)

1. Name and Address of Reporting Person*

Casdin Eli

(Last) (First) (Middle)
1350 AVENUE OF THE AMERICAS
SUITE 2600

(Street)
NEW YORK NY 10019

(City) (State) (Zip)

Explanation of Responses:

1. The securities are owned directly by Casdin Partners Master Fund, LP (the "Master Fund") and may be deemed to be indirectly beneficially owned by (i) Casdin Capital, LLC, the investment adviser to the Master Fund, (ii) Casdin Partners GP, LLC, the general partner of the Master Fund, and (iii) Eli Casdin, the managing member of Casdin Capital, LLC and Casdin Partners GP, LLC.
2. This restricted stock unit award vests ratably over three years in annual installments with the first installment vesting on March 20, 2025, subject to the Reporting Person's continued service through the applicable vesting date.
3. The securities are owned directly by Eli Casdin.
4. This stock option vests ratably over three years in annual installments with the first installment vesting on March 20, 2025, subject to the Reporting Person's continued service through the applicable vesting date.
5. The Master Fund has entered into certain cash-settled total return swap agreements (the "Swap Agreements"), which represent economic exposure to an aggregate of 599,935.15 notional shares of the Issuer's Common Stock, par value \$0.0001 per share. The Swap Agreements provide the Master Fund with economic results that are comparable to the economic results of ownership but do not provide it with the power to vote or direct the voting or dispose of or direct the disposition of the securities that are referenced by the Swap Agreements.

Remarks:

Eli Casdin has been deputized to represent the Reporting Persons on the board of directors of the Issuer. By virtue of Mr. Casdin's representation, for purposes of Section 16 of the Securities Exchange Act of 1934 (the "Exchange Act"), each of the Reporting Persons may be deemed directors by deputization of the Issuer. Each Reporting Person disclaims beneficial ownership in the securities reported on this Form 3 except to the extent of its or his pecuniary interest, if any, therein, and this report shall not be deemed to be an admission that such Reporting Person is the beneficial owner of such securities for purposes of Section 16 or for any other purpose.

Casdin Capital LLC, By:
/s/ Eli Casdin, Managing 03/25/2024
Member

Casdin Partners Master
Fund, LP, By: Casdin
Partners GP, LLC, its 03/25/2024
General Partner, By: /s/ Eli
Casdin, Managing
Member

Casdin Partners GP LLC,
By: /s/ Eli Casdin, 03/25/2024
Managing Member

/s/ Eli Casdin, Eli Casdin 03/25/2024

** 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 5 (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.