

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

SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No. 5)***

VENTYX BIOSCIENCES, INC.
(Name of Issuer)

Common stock, par value \$0.0001 per share
(Title of Class of Securities)

92332V107
(CUSIP Number)

**Somasundaram Subramaniam
New Science Ventures
500 West Putnam Avenue, Suite 400
Greenwich, CT 06830
(212) 688-5100**

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

with a copy to:

**Leland S. Benton
Morgan, Lewis & Bockius LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004
(202) 739-3000**

March 17, 2023
(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAME OF REPORTING PERSONS NSV Investments I, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) WC, AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 5,576,174
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 5,576,174
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 5,576,174	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.8%	
14	TYPE OF REPORTING PERSON PN	

1	NAME OF REPORTING PERSONS NSV Partners III, LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 9,340,504
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 9,340,504
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 9,340,504	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 16.5%	
14	TYPE OF REPORTING PERSON PN	

1	NAME OF REPORTING PERSONS NSV Partners III GP, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 9,340,504
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 9,340,504
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 9,340,504	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 16.5%	
14	TYPE OF REPORTING PERSON OO	

1	NAME OF REPORTING PERSONS Somasundaram Subramaniam	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 11,824,143
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 11,824,143
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 11,824,143	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 20.9%	
14	TYPE OF REPORTING PERSON IN	

This Amendment No. 5 (“Amendment No. 5”) amends the Statement of Beneficial Ownership on Schedule 13D jointly filed with the Securities and Exchange Commission (the “Commission”) by NSV Investments I, L.P., a Delaware limited partnership, NSV Partners III, LP, a Delaware limited partnership, NSV Partners III GP, LLC, a Delaware limited liability company, and Somasundaram Subramaniam, a United States citizen (collectively, the “Reporting Persons”), on October 29, 2021, and amended on September 21, 2022, December 16, 2022, December 30, 2022, and March 2, 2023 (as amended, the “Schedule 13D”), with respect to the shares of common stock, par value \$0.0001 per share (“Common Stock”), of Ventyx Biosciences, Inc. (the “Issuer”). Except as specifically provided herein, this Amendment No. 5 does not modify any of the information previously reported in the Schedule 13D, which remains unchanged.

Item 4. Purpose of Transaction

Item 4 of the Schedule 13D is hereby amended and supplemented by adding the following paragraph at the end of Item 4:

On March 3, 2023, Life & Tech, a Belgian société simple, which holds certain shares beneficially owned by the Reporting Persons, transferred 559,367 shares of Common Stock to its members.

On March 17, 2023, NSV Investments II, LP, which holds certain shares beneficially owned by the Reporting Persons, distributed 688,464 shares of Common Stock to its general and limited partners.

Item 5. Interest in Securities of the Issuer.

Item 5 of the Schedule 13D is hereby amended as follows:

(a) As of March 17, 2023, the Reporting Persons may be deemed to beneficially own, in the aggregate, 11,824,143 shares of Common Stock, representing approximately 20.9% of the Issuer’s outstanding shares of Common Stock, based on 56,637,458 shares of Common Stock outstanding as of October 31, 2022, as disclosed in the Issuer’s Quarterly Report on Form 10-Q filed with the Commission on November 4, 2022.

(b) Somasundaram Subramaniam has the sole power to vote or direct the vote of 0 shares; has the shared power to vote or direct the vote of 11,824,143 shares; has the sole power to dispose or direct the disposition of 0 shares; and has the shared power to dispose or direct the disposition of 11,824,143 shares.

Mr. Subramaniam is the majority member and managing member of NSV Partners II, LLC, and may be deemed to share with NSV Partners II, LLC voting and dispositive power over (i) the 186,107 shares owned by NSV Partners II, LLC, and (ii) the shares owned by each entity of which NSV Partners II, LLC is general partner, or an aggregate of 1,201,477 shares, constituting 2.1% of the Issuer’s shares outstanding based upon 56,637,458 shares outstanding. NSV Partners II, LLC, is the general partner of New Science Ventures Fund III, LP, New Science Ventures Fund III (Offshore), LP, NSV 2016 Opportunities Fund, LP, NSV 2016 Opportunities Fund (Offshore), LP, NSV 2017 Opportunities Fund, LP, and NSV Master Limited Partnership II, LP.

Mr. Subramaniam is the majority member and managing member of NSV Partners III GP, LLC, and may be deemed to share with NSV Partners III GP, LLC or NSV Partners III, LP voting and dispositive power over (i) the 516,102 shares owned by NSV Partners III, LP, and (ii) the shares owned by each entity of which NSV Partners III GP, LLC or NSV Partners III, LP is general partner, or an aggregate of 9,340,504 shares, constituting 16.5% of the Issuer’s shares outstanding based on 56,637,458 shares outstanding. NSV Partners III GP, LLC is the general partner of NSV Partners III, LP. NSV Partners III, LP, is the general partner of NSV 2018 New Horizons Fund LP, NSV Investments I, LP, NSV 2018 Opportunities Fund, LP, NSV 2019 Opportunities Fund, LP, NSV Growth Opportunities Fund, LP, NSV Investments III, LP, and NSV Investments II, LP.

Mr. Subramaniam is the majority member and managing member of NSV Management, LLC, and may be deemed to share voting and dispositive power over the shares held by Life & Tech, for which NSV Management, LLC is the investment advisor, or 661,632 shares, constituting 1.2% of the Issuer’s outstanding shares based upon 56,637,458 shares outstanding.

Mr. Subramaniam is the majority member and managing member of New Science Ventures, LLC, and may be deemed to share voting and dispositive power over the shares held by New Science Ventures, LLC, or 434,423 shares, constituting 0.8% of the Issuer’s shares outstanding based upon 56,637,458 shares outstanding.

The shares beneficially owned by the Reporting Persons consist of: (i) 5,576,174 shares held by NSV Investments I, LP, (ii) 1,096,827 shares held by NSV Investments III, LP, (iii) 965,752 shares held by NSV Master Limited Partnership II, LP, (iv) 888,440 shares held by NSV 2019 Opportunities Fund, LP, (v) 768,073 shares held by NSV 2018 New Horizons Fund, LP, (vi) 661,632 shares held by Life & Tech, (vii) 516,102 shares held by NSV Partners III, LP, (viii) 434,423 shares held by New Science Ventures, LLC, (ix) 309,635 shares held by NSV Investments II, LP, (x) 186,107 shares held by NSV Partners II, LLC, (xi) 133,629 shares held by NSV Growth Opportunities Fund, LP, (xii) 84,232 shares held by New Science Ventures Fund III, LP, (xiii) 74,032 shares held by NSV 2017 Opportunities Fund, LP, (xiv) 51,624 shares held by NSV 2018 Opportunities Fund, LP, (xv) 39,926 shares held by NSV 2016 Opportunities Fund, LP, (xvi) 26,555 shares held by New Science Ventures Fund III (Offshore), LP, and (xvii) 10,980 shares held by NSV 2016 Opportunities Fund (Offshore), LP.

(c) Not applicable.

(d) Not applicable.

(e) Not applicable.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: March 22, 2023

NSV Investments I, L.P.

By: /s/ Tom Lavin

Name: Tom Lavin

Title: Partner

NSV Partners III, LP

By: /s/ Tom Lavin

Name: Tom Lavin

Title: Partner

NSV Partners III GP, LLC

By: /s/ Tom Lavin

Name: Tom Lavin

Title: Partner

Somasundaram Subramaniam

By: /s/ Somasundaram Subramaniam*

Name: Somasundaram Subramaniam

* This reporting person disclaims beneficial ownership of these reported securities except to the extent of his pecuniary interest therein, and this report shall not be deemed an admission that he is the beneficial owner of these securities for purposes of Section 16 of the Securities Exchange Act of 1934, as amended, or for any other purpose.

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (see 18 U.S.C. 1001).