UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 6)*

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

April 6, 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 $\S\S240.13d-1(e)$, 240.13d-1(f) or 240.13d-1(g), check the following box. \square

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).

	NAME OF REPORTING PERSONS					
	NSV Investments I, L.P.	E DOM I	E A MEMBER OF A CROUP			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) \square (b) \square					
3	SEC USE ONLY					
	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) $\hfill\Box$					
6	CITIZENSHIP OR PLACE O	F ORGA	ANIZATION			
	Delaware					
	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER			
		8	SHARED VOTING POWER			
			5,576,174			
		9	SOLE DISPOSITIVE POWER			
			0			
		10	SHARED DISPOSITIVE POWER			
			5,576,174			
11	AGGREGATE AMOUNT BE	ENEFICI	ALLY OWNED BY EACH REPORTING PERSON			
	5,576,174					
12	CHECK BOX IF THE AGGR	REGATE	AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)			
13	PERCENT OF CLASS REPR	ESENTI	ED BY AMOUNT IN ROW (11)			
	9.6%					
	TYPE OF REPORTING PERSON					
	PN					
	r.·					

1	NAME OF REPORTING PERSONS						
	NSV Partners III, LP						
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) □ (b) □						
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)						
6	CITIZENSHIP OR PLACE OF ORGANIZATION						
	Delaware						
		7	SOLE VOTING POWER				
	NUMBER OF	8	SHARED VOTING POWER				
	SHARES						
	BENEFICIALLY		8,511,984				
	OWNED BY EACH REPORTING	9	SOLE DISPOSITIVE POWER				
	PERSON WITH:		0				
		10	SHARED DISPOSITIVE POWER				
			8,511,984				
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON						
	8,511,984						
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)						
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)						
14	14.6%						
14	TYPE OF REPORTING PERSON						
	PN						

	NAME OF REPORTING PERSONS					
	NSV Partners III GP, LLC					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) □ (b) □					
	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) □					
6	CITIZENSHIP OR PLACE O	F ORGA	NIZATION			
	Delaware					
	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	8 9	SOLE VOTING POWER 0 SHARED VOTING POWER 8,511,984 SOLE DISPOSITIVE POWER 0 SHARED DISPOSITIVE POWER 8,511,984			
	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 8,511,984					
	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) □					
	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 14.6%					
	TYPE OF REPORTING PERSON OO					

·	1					
1	NAME OF REPORTING PERSONS					
	Somasundaram Subramaniam					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) \Box (b) \Box					
3	SEC USE ONLY					
4	SOURCE OF FUNDS (See Instructions)					
	AF					
5	CHECK BOX IF DISCLOSU	RE OF I	LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)			
6	CITIZENSHIP OR PLACE C	OF ORGA	ANIZATION			
	USA					
		7	SOLE VOTING POWER			
			0			
	NUMBER OF	8	SHARED VOTING POWER			
	SHARES					
	BENEFICIALLY		10,077,045			
	OWNED BY EACH	9	SOLE DISPOSITIVE POWER			
	REPORTING					
	PERSON WITH:		0			
		10	SHARED DISPOSITIVE POWER			
			10,077,045			
11	AGGREGATE AMOUNT BE	ENEFICI	ALLY OWNED BY EACH REPORTING PERSON			
	10.055.045					
	10,077,045					
12	CHECK BOX IF THE AGGR	REGATE	AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)			
12	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)					
13	PERCENT OF CLASS REPR	KESEN I	ED BY AMOUNT IN KOW (II)			
	17.3%					
14	TYPE OF REPORTING PERSON					
17	TIL OF KEFORTHOTEKOON					
	IN					
	,					

This Amendment No. 6 ("Amendment No. 6") 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, March 2, 2023, and on March 22, 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. 6 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 April 6, 2023, Life & Tech, a Belgian société simple, which holds certain shares beneficially owned by the Reporting Persons, transferred 330,816 shares of Common Stock to its members and to NSV Partners III, LP ("NSV III") pursuant to that certain Amended and Restated Investment Management Agreement by and between Life & Tech, NSV III, and NSV Management LLC.

Additionally, on April 6, 2023, each of (i) New Science Ventures Fund III (Offshore), LP, (ii) New Science Ventures Fund III, LP, (iii) NSV 2016 Opportunities Fund (Offshore), LP, (iv) NSV 2016 Opportunities Fund, LP, (v) NSV 2017 Opportunities Fund, LP, (vi) NSV 2018 New Horizons Fund, LP, (vii) NSV 2018 Opportunities Fund, LP, (viii) NSV 2019 Opportunities Fund, LP, (ix) NSV Growth Opportunities Fund, LP, and (x) NSV Master Limited Partnership II, LP ((i)-(x) collectively, the "NSV Affiliates"), which hold certain shares beneficially owned by the Reporting Persons, authorized the distribution of shares of Common Stock to their respective general and limited partners as follows (the "NSV Distributions"):

- (i) New Science Ventures Fund III (Offshore), LP distributed 12,056 shares of Common Stock,
- (ii) New Science Ventures Fund III, LP distributed 38,241 shares of Common Stock,
- (iii) NSV 2016 Opportunities Fund (Offshore), LP distributed 4,985 shares of Common Stock,
- (iv) NSV 2016 Opportunities Fund, LP distributed 18,126 shares of Common Stock,
- (v) NSV 2017 Opportunities Fund, LP distributed 33,610 shares of Common Stock,
- (vi) NSV 2018 New Horizons Fund, LP distributed 379,939 shares of Common Stock,
- (vii) NSV 2018 Opportunities Fund, LP distributed 23,438 shares of Common Stock,
- (viii) NSV 2019 Opportunities Fund, LP distributed 441,790 shares of Common Stock,
- (ix) NSV Growth Opportunities Fund, LP distributed 66,563 shares of Common Stock, and
- (x) NSV Master Limited Partnership II, LP distributed 482,877 shares of Common Stock.

The NSV Distributions were made pursuant to those certain NSV-Ventyx Stock Distribution Plans entered into by each of the NSV Affiliates and Jefferies LLC (each, a "Distribution Plan" and, collectively, the "Distribution Plans"), under which each NSV Affiliate agreed to distribute a portion of their Common Stock on a pro rata basis, without consideration, to their respective general and limited partners, with 50% of the Common Stock subject to each respective Distribution Plan being distributed on or as soon as practicable after April 6, 2023, and the remaining 50% to be distributed on or as soon as practicable after July 7, 2023. The foregoing description of the Distribution Plans is qualified in its entirety by reference to the form of Distribution Plan previously filed as Exhibit D to Amendment No. 2 to the Schedule 13D and is incorporated herein by reference.

Item 5. Interest in Securities of the Issuer.

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

- (a) As of April 6, 2023, the Reporting Persons may be deemed to beneficially own, in the aggregate, 10,077,045 shares of Common Stock, representing approximately 17.3% of the Issuer's outstanding shares of Common Stock, based on 58,214,115 shares of Common Stock outstanding as of March 20, 2023, as disclosed in the Issuer's Annual Report on Form 10-K filed with the Commission on March 23, 2023.
- (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 10,077,045 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 10,077,045 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 188,240 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 799,822 shares, constituting 1.4% of the Issuer's shares outstanding based upon 58,214,115 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 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 599,312 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 8,511,984 shares, constituting 14.6% of the Issuer's shares outstanding based on 58,214,115 shares outstanding. NSV Partners III GP, LLC is the general partner of 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 330,816 shares, constituting 0.6% of the Issuer's outstanding shares based upon 58,214,115 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 0.7% of the Issuer's shares outstanding based upon 58,214,115 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) 482,875 shares held by NSV Master Limited Partnership II, LP, (iv) 446,650 shares held by NSV 2019 Opportunities Fund, LP, (v) 388,134 shares held by NSV 2018 New Horizons Fund, LP, (vi) 330,816 shares held by Life & Tech, (vii) 599,312 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) 188,240 shares held by NSV Partners II, LLC, (xi) 67,066 shares held by NSV Growth Opportunities Fund, LP, (xii) 45,991 shares held by New Science Ventures Fund III, LP, (xiii) 40,422 shares held by NSV 2017 Opportunities Fund, LP, (xiv) 28,186 shares held by NSV 2018 Opportunities Fund, LP, (xv) 21,800 shares held by NSV 2016 Opportunities Fund, LP, (xvi) 14,499 shares held by New Science Ventures Fund III (Offshore), LP, and (xvii) 5,995 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: April 7, 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

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (see 18 U.S.C. 10001).

^{*} 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.