

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

**SCHEDULE 13D**

**Under the Securities Exchange Act of 1934**  
(Amendment No. 10)\*

**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 11, 2024**  
*(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).

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<b>1</b>	NAME OF REPORTING PERSONS NSV Investments I, L.P.	
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
<b>3</b>	SEC USE ONLY	
<b>4</b>	SOURCE OF FUNDS (See Instructions) WC, AF	
<b>5</b>	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
<b>6</b>	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	<b>7</b>	SOLE VOTING POWER 0
	<b>8</b>	SHARED VOTING POWER 5,004,071
	<b>9</b>	SOLE DISPOSITIVE POWER 0
	<b>10</b>	SHARED DISPOSITIVE POWER 5,004,071
<b>11</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 5,004,071	
<b>12</b>	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
<b>13</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 7.1%	
<b>14</b>	TYPE OF REPORTING PERSON PN	

<b>1</b>	NAME OF REPORTING PERSONS NSV Partners III, L.P.	
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
<b>3</b>	SEC USE ONLY	
<b>4</b>	SOURCE OF FUNDS (See Instructions) AF	
<b>5</b>	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
<b>6</b>	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	<b>7</b>	SOLE VOTING POWER 0
	<b>8</b>	SHARED VOTING POWER 7,596,692
	<b>9</b>	SOLE DISPOSITIVE POWER 0
	<b>10</b>	SHARED DISPOSITIVE POWER 7,596,692
<b>11</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 7,596,692	
<b>12</b>	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
<b>13</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 10.8%	
<b>14</b>	TYPE OF REPORTING PERSON PN	

<b>1</b>	NAME OF REPORTING PERSONS NSV Partners III GP, LLC	
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
<b>3</b>	SEC USE ONLY	
<b>4</b>	SOURCE OF FUNDS (See Instructions) AF	
<b>5</b>	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
<b>6</b>	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	<b>7</b>	SOLE VOTING POWER 0
	<b>8</b>	SHARED VOTING POWER 7,596,692
	<b>9</b>	SOLE DISPOSITIVE POWER 0
	<b>10</b>	SHARED DISPOSITIVE POWER 7,596,692
<b>11</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 7,596,692	
<b>12</b>	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
<b>13</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 10.8%	
<b>14</b>	TYPE OF REPORTING PERSON OO	

<b>1</b>	NAME OF REPORTING PERSONS Somasundaram Subramaniam	
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
<b>3</b>	SEC USE ONLY	
<b>4</b>	SOURCE OF FUNDS (See Instructions) AF	
<b>5</b>	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
<b>6</b>	CITIZENSHIP OR PLACE OF ORGANIZATION USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	<b>7</b>	SOLE VOTING POWER 0
	<b>8</b>	SHARED VOTING POWER 8,439,635
	<b>9</b>	SOLE DISPOSITIVE POWER 0
	<b>10</b>	SHARED DISPOSITIVE POWER 8,439,635
<b>11</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 8,439,635	
<b>12</b>	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
<b>13</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 12.0%	
<b>14</b>	TYPE OF REPORTING PERSON IN	

This Amendment No. 10 (“Amendment No. 10”) 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, L.P., 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, March 22, 2023, April 6, 2023, July 11, 2023, July 19, 2023, and on March 8, 2024 (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. 10 does not modify any of the information previously reported in the Schedule 13D, which remains unchanged.

This Amendment No. 10 is being filed to update the aggregate percentage of the Issuer’s Common Stock owned by the Reporting Persons solely due to dilution caused by the Issuer’s issuance of an additional 11,174,000 shares of Common Stock on March 11, 2024 pursuant to the Issuer’s Stock Purchase Agreement for a private placement (the “Private Placement”) with certain qualified institutional buyers and institutional accredited investors, and not in connection with a purchase or disposition of any Common Stock by the Reporting Persons.

#### **Item 5. Interest in Securities of the Issuer**

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

(a-b) As of March 11, 2024, the Reporting Persons may be deemed to beneficially own, in the aggregate, 8,439,635 shares of Common Stock, representing approximately 12.0% of the Issuer’s outstanding shares of Common Stock, based on 70,426,349 shares of Common Stock outstanding, which is the sum of (i) 59,252,349 shares of Common Stock outstanding as of February 22, 2024, as disclosed in the Issuer’s Annual Report on Form 10-K filed with the Commission on February 27, 2024, and (ii) 11,174,000 shares of Common Stock issued by the Issuer in connection with the Private Placement.

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 8,439,635 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 8,439,635 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 the 408,520 shares owned by NSV Partners II, LLC, constituting 0.6% of the Issuer’s shares outstanding based upon 70,426,349 shares outstanding.

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 and NSV Partners III, L.P. voting and dispositive power over (i) the 1,381,606 shares owned by NSV Partners III, L.P., and (ii) the aggregate of 6,215,086 shares owned by the entities of which NSV Partners III, L.P. is the general partner, or an aggregate of 7,596,692 shares, constituting 10.8% of the Issuer’s shares outstanding based on 70,426,349 shares outstanding. NSV Partners III GP, LLC is the general partner of NSV Partners III, L.P. NSV Partners III, L.P. is the general partner of NSV Investments I, L.P., NSV Investments II, L.P., and NSV Investments III, L.P.

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 owned by New Science Ventures, LLC, or 434,423 shares, constituting 0.6% of the Issuer’s shares outstanding based upon 70,426,349 shares outstanding.

The shares beneficially owned by the Reporting Persons consist of: (i) 5,004,071 shares owned by NSV Investments I, L.P., (ii) 1,381,606 shares owned by NSV Partners, III, L.P., (iii) 978,835 shares owned by NSV Investments III, L.P., (iv) 434,423 shares owned by New Science Ventures, LLC, (v) 408,520 shares owned by NSV Partners II, LLC, and (vi) 232,180 shares owned by NSV Investments II, L.P.

(c-e) Not applicable.

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**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 13, 2024

NSV Investments I, L.P.

By: /s/ Tom Lavin

Name: Tom Lavin

Title: Partner

NSV Partners III, L.P.

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. 10001).