

PROSPECTUS



## Ventyx Biosciences, Inc.

### 7,060,100 Shares of Common Stock

This prospectus covers the offer and resale from time to time of up to 7,060,100 shares of our common stock, par value \$0.0001 per share, issuable upon conversion of 70,601 shares of Series A Non-Voting Convertible Preferred Stock ("Series A Preferred Stock"), by the selling stockholder identified in this prospectus, including its transferees, pledgees or donees or its respective successors. The shares of Series A Preferred Stock were sold and issued to the selling stockholder in a private placement on September 23, 2024.

The selling stockholder identified in this prospectus may offer the shares of common stock pursuant to this prospectus from time to time through public or private transactions at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market prices or at privately negotiated prices. The selling stockholder may sell shares to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling stockholder, the purchasers of the shares, or both. For additional information on the methods of sale that may be used by the selling stockholder, see the section entitled "Plan of Distribution" on page 11.

We are not selling any shares of common stock under this prospectus and will not receive any proceeds from the sale by the selling stockholder of such shares. We are paying the cost of registering the shares of common stock covered by this prospectus as well as various related expenses. The selling stockholder is responsible for all selling commissions, transfer taxes and other costs related to the offer and sale of its shares.

You should carefully read this prospectus and any amendments or supplements accompanying this prospectus, together with any documents incorporated by reference herein or therein, before you make your investment decision.

The selling stockholder may sell any, all or none of the securities offered by this prospectus and we do not know when or in what amount the selling stockholder may sell its common shares hereunder following the effective date of the registration statement of which this prospectus forms a part.

Our common stock is currently listed on The Nasdaq Global Select Market under the symbol "VTYX." On November 4, 2024, the last reported sale price of our common stock was \$2.15 per share.

**Investing in our securities involves risks. Please carefully read the information under the headings "[Risk Factors](#)" beginning on page 4 of this prospectus and "Item 1A – Risk Factors" of our most recent report on Form 10-K or 10-Q that is incorporated by reference in this prospectus before you invest in our securities.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus is November 15, 2024.

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## ABOUT THIS PROSPECTUS

We urge you to read carefully this prospectus, together with the information incorporated herein by reference as described under the heading “Where You Can Find More Information,” before buying any of the securities being offered.

You should rely only on the information contained or incorporated by reference in this prospectus. The selling stockholder has not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus may only be used where it is legal to offer and sell shares of our common stock. If it is against the law in any jurisdiction to make an offer to sell these shares, or to solicit an offer from someone to buy these shares, then this prospectus does not apply to any person in that jurisdiction, and no offer or solicitation is made by this prospectus to any such person. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus, regardless of the time of delivery of this prospectus or of any sale of common stock. Our business, financial condition, results of operations and prospects may have changed since such date. Information contained on our website is not a part of this prospectus.

Neither we nor the selling stockholder have authorized any person to provide you any information or to make any representations other than those contained in this prospectus or any applicable prospectus supplement or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. Neither we nor the selling stockholder take responsibility for, and can provide assurance as to the reliability of, any other information that others may give you. Neither we nor the selling stockholder are making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”) using the “shelf” registration process. Under this shelf registration process, the selling stockholder hereunder may, from time to time, issue, offer and sell, as applicable, the common stock described in this prospectus in one or more offerings. The selling stockholder may use this prospectus to sell up to an aggregate of 7,060,100 shares of common stock from time to time through any means described in the section entitled “Plan of Distribution.” We will not receive any proceeds from the sale by such selling stockholder of the securities offered by it described in this prospectus.

We may also provide a prospectus supplement or post-effective amendment to the registration statement to add information to, or update or change information contained in, this prospectus. Before purchasing any securities, you should read both this prospectus and any applicable prospectus supplement or post-effective amendment to the registration statement together with the additional information to which we refer you in the section of this prospectus titled “Where You Can Find More Information.”

Information contained in this prospectus concerning the market and the industry in which we compete, including our market position, general expectations of market opportunity and market size, is based on information from various third-party sources, on assumptions made by us based on such sources and our knowledge of the markets for our services and solutions. Any estimates provided herein involve numerous assumptions and limitations, and you are cautioned not to give undue weight to such information. Third-party sources generally state that the information contained in such source has been obtained from sources believed to be reliable; however, we have not verified the accuracy or completeness of third-party data. The industry in which we operate is subject to a high degree of uncertainty and risk. As a result, the estimates and market and industry information provided in this prospectus are subject to change based on various factors, including those described in the risk factors incorporated herein in the sections entitled “Risk Factors-Risks Related to Our Business” and “Risks Related to Our Common Stock” and elsewhere in this prospectus.

## Prospectus Summary

*This summary highlights selected information that is presented in greater detail elsewhere, or incorporated by reference, in this prospectus. It does not contain all of the information that may be important to you and your investment decision. Before investing in our securities, you should carefully read this entire prospectus, including the matters set forth in the section titled “Risk Factors” and the financial statements and related notes and other information that we incorporate by reference herein, including our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. Unless the context indicates otherwise, references in this prospectus to “Ventyx Biosciences, Inc.,” “we,” “our” and “us” refer, collectively, to Ventyx Biosciences, Inc., a Delaware corporation, and its subsidiaries taken as a whole.*

### Company Overview

We are a clinical-stage biopharmaceutical company developing a pipeline of novel small molecule product candidates to address a range of inflammatory diseases with significant unmet need. We leverage the substantial experience of our team in immunology to identify important new targets and to develop differentiated therapeutics against these targets. Our clinical product candidates address therapeutic indications with substantial commercial opportunity for novel small molecules. We are developing a portfolio of clinical-stage small molecule inhibitors of the NOD-like receptor protein 3 (NLRP3) inflammasome, including VTX3232, our CNS-penetrant NLRP3 inhibitor, and VTX2735, our peripheral NLRP3 inhibitor.

In the first quarter of 2024, we reported positive topline results from a Phase 1 trial of VTX3232 in adult healthy volunteers. In August 2024, we initiated a Phase 2a trial of VTX3232 in participants with early Parkinson’s disease. We expect to initiate a Phase 2 trial of VTX3232 in participants with obesity and certain additional risk factors for cardiovascular disease during the fourth quarter of 2024. During the first quarter of 2024, we also reported positive topline results from a Phase 2 proof of concept trial of VTX2735 in cryopyrin-associated periodic syndromes (CAPS) patients. We plan to evaluate VTX2735 for further development in cardiovascular diseases, with an initial focus on recurrent pericarditis. We expect to initiate a Phase 2 trial of VTX2735 in participants with recurrent pericarditis during the fourth quarter of 2024.

We are also developing VTX002, a sphingosine 1 phosphate receptor (S1P1R) modulator for the treatment of moderately to severely active ulcerative colitis (UC). In the fourth quarter of 2023, we announced positive results from the Phase 2 trial of VTX002 in patients with moderately to severely active ulcerative colitis. We intend to identify a partner or other source of non-dilutive financing to support a pivotal Phase 3 trial of VTX002 in ulcerative colitis.

In the third quarter of 2024, we announced results from a Phase 2 trial of VTX958, an allosteric TYK2 inhibitor, in participants with moderately to severely active Crohn’s disease. The study did not meet its primary endpoint of change from baseline in mean CDAI score in either VTX958 dose group. VTX958 did demonstrate dose-dependent, nominally statistically significant endoscopic response rates at Week 12 as measured by SESCD (an objective endpoint) and showed a greater magnitude of decrease compared to placebo in two key biomarkers of inflammation, C-reactive protein and fecal calprotectin. Based on these results, we are continuing the analysis of the Phase 2 data; however, we do not anticipate committing significant internal resources to further development of VTX958.

### Corporate Information

We were incorporated in Delaware on November 21, 2018. Until February 2021, we focused primarily on developing our product candidate, VTX958, which we acquired from Vimalan Biosciences. In February 2021, we acquired all of the issued and outstanding equity of each of Oppilan Pharma Ltd. (“Oppilan”), including its lead candidate VTX002, and Zomagen Biosciences Ltd. (“Zomagen”), including its lead candidate VTX2735, and

following such acquisitions, each of Oppilan and Zomagen became our wholly owned subsidiaries. Although we acquired these product candidates, each candidate was developed by one or more members of our management team. Our principal executive offices are located at 12790 El Camino Real, Suite 200, San Diego, CA 92130. Our telephone number is (760) 593-4832. Our website address is <http://www.ventyxbio.com>. Information contained on, or that can be accessed through, the website is not incorporated by reference into this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

We use Ventyx, the Ventyx logo and other marks as trademarks in the United States and other countries. This prospectus contains references to our trademarks and service marks and to those belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other entities' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

#### **Private Placement and Securities Purchase Agreement**

On September 23, 2024, we entered into a securities purchase agreement with Aventis Inc. (“Aventis”), the selling stockholder named in this prospectus, pursuant to which we sold to Aventis 70,601 shares of Series A Non-Voting Convertible Preferred Stock, par value \$0.0001 per share (the “Series A Preferred Stock”), which are convertible into shares of common stock, par value \$0.0001 per, at a purchase price of \$3.8243 per share (on an as-converted to common stock basis) for gross proceeds of approximately \$27.0 million, in a private placement. The Series A Preferred Stock is convertible at the option of the holder of such Series A Preferred Stock at any time into 100 shares of common stock for each share of Series A Preferred Stock, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization. The Series A Preferred Stock will not be convertible by a holder to the extent that such holder or any of its affiliates would beneficially own in excess of 4.99% (the “Maximum Percentage”) of the common stock outstanding immediately after giving effect to such conversion. A holder may increase or decrease the Maximum Percentage to any other percentage (not in excess of 19.99% of the issued and outstanding common stock immediately after giving effect to the issuance of the common stock issuable upon conversion of the Series A Preferred Stock) by delivering a written notice to us, provided that (i) any such increase in the Maximum Percentage will not be effective until the 61st day after such notice is delivered to us and (ii) any such increase or decrease does not apply to any other holder of Series A Preferred Stock or the validity of any prior conversion of the Series A Preferred Stock.

In connection with the private placement and pursuant to the securities purchase agreement, we granted Aventis certain registration rights for the resale of the shares of common stock issuable upon conversion of the Series A Preferred Stock. We agreed to file a registration statement registering such shares with the SEC no later than November 7, 2024 (45 days after the closing of the private placement). We agreed to keep the registration statement continuously effective from the date on which the SEC declares the registration statement effective until the earlier of (a) the date as of which the registrable shares (as defined in the securities purchase agreement) have been sold pursuant to the registration statement and (b) the date as of which no registrable shares remain outstanding.

Additionally, pursuant to the securities purchase agreement, we granted Aventis a right of first negotiation for a license, grant or transfer, including by option or sale, of any rights to research, develop, commercialize, or otherwise exploit VTX3232, our CNS-penetrant NLRP3 inhibitor.

## THE OFFERING

Shares offered by selling stockholder	Up to 7,060,100 shares of common stock issuable upon the conversion of 70,601 shares of Series A Preferred Stock.
Offering Price	The selling stockholder may sell all or a portion of the shares of common stock issuable upon the conversion of shares of Series A Preferred Stock through public or private transactions at prevailing market prices or at privately negotiated prices.
Use of proceeds	We will not receive any proceeds from the sale of shares of common stock by the selling stockholder.
Risk factors	See the section titled “Risk Factors” included in, and the risk factors incorporated by reference in this prospectus, for a discussion of factors you should carefully consider before deciding to invest in shares of our common stock.
Nasdaq trading symbol	“VTYX”

The selling stockholder named in this prospectus may offer and sell up to 7,060,100 shares of our common stock. Throughout this prospectus, when we refer to the shares of our common stock being registered on behalf of the selling stockholder for offer and resale, we are referring to the shares of common stock issuable to the selling stockholder upon conversion of the Series A Preferred Stock issued in the private placement as described above. When we refer to the selling stockholder in this prospectus, we are referring to the selling stockholder identified in this prospectus and, as applicable, its permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

## RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, and the risk factors set forth under “Risk Factors” in our Annual Report on Form 10-K and subsequently filed Quarterly Reports on Form 10-Q, which are incorporated by reference in this prospectus, together with all other information included or incorporated by reference in this prospectus, as updated by our subsequent filings under the Securities and Exchange Act of 1934 (the “Exchange Act”), and the risk factors and other information contained in any applicable prospectus supplement, before making an investment decision. The risks and uncertainties described below may not be the only ones we face. If any of the risks actually occur, our business, financial condition, operating results, cash flows and prospects could be materially and adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment.

### **Risks Related to This Offering.**

*The number of shares of common stock being registered for sale upon conversion of the shares of Series A Preferred Stock is significant in relation to the number of outstanding shares of our common stock.*

We have filed a registration statement of which this prospectus is a part to register the shares offered hereunder for sale into the public market by the selling stockholder. Upon effectiveness of the registration statement, 7,060,100 shares of the common stock registered hereunder may be resold in the public market immediately without restriction. These shares represent a large number of shares of our common stock and, if sold in the market all at once or at about the same time, could depress the market price of our common stock during the period the registration statement remains effective and could also affect our ability to raise equity capital.

## FORWARD-LOOKING STATEMENTS

This prospectus, any applicable prospectus supplement or free writing prospectus and our SEC filings that are incorporated by reference into this prospectus and any applicable prospectus supplement or free writing prospectus may contain or incorporate by reference forward-looking statements within the meaning of U.S. federal securities laws, including Section 27A of the Securities Act, Section 21E of the Exchange Act and the Private Securities Litigation Reform Act of 1995, and such statements are subject to the “safe harbor” created by those sections. Such forward-looking statements include, but are not limited to, statements regarding management’s beliefs regarding our current and planned clinical trials and the potential timing and nature of any sales of securities by the selling stockholder pursuant to this registration statement. In some cases, you can identify forward-looking statements by the following words: “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “ongoing,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words.

These forward-looking statements involve risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that these statements are based on a combination of facts and factors currently known by us and our projections of the future, about which we cannot be certain. Forward-looking statements contained or incorporated by reference in this prospectus include, but are not limited to, statements about:

- our expectations regarding our product candidates and their related benefits;
- the timing or likelihood of regulatory filings or other actions and related regulatory authority responses;
- our beliefs regarding the perceived benefits and limitations of competing products, and the future of competing products and our industry;
- details regarding our strategic vision and product candidate pipeline;
- our beliefs regarding the success, cost and timing of our development activities and current and future clinical trials, including study design;
- the anticipated timing of releasing data for any current or future clinical trials;
- the anticipated timing of commencement, enrollment, and completion of any current or future clinical trials for our product candidates;
- disruptions in the supply chain, including raw materials needed for manufacturing, animals used in research, delays in site activations and enrollment of clinical trials;
- any impact of the military conflicts in Ukraine or the Middle East or the imposition of sanctions against certain countries as a result thereof;
- the ability and willingness of third parties to engage in research and development activities on our behalf involving our product candidates, and our ability to leverage those activities;
- our expectations regarding the ease of administration associated with our product candidates;
- our expectations regarding the patient compatibility associated with our product candidates;
- our beliefs regarding the potential markets for our product candidates and our ability to serve those markets;
- the ability to obtain and maintain regulatory approval of any of our product candidates, and any related restrictions, limitations and/or warnings in the label of any approved product candidate;



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- our ability to commercialize any approved products;
- the rate and degree of market acceptance of approved products, if any;
- our ability to attract and retain key personnel;
- the accuracy of our estimates regarding our future revenue, operating expenses, capital requirements and needs for additional financing;
- our ability to obtain funding for our operations, including funding necessary to complete further development and any commercialization of our product candidates;
- our ability to obtain, maintain, protect and enforce intellectual property protection for our product candidates and not infringe, misappropriate or otherwise violate the intellectual property of others; and
- regulatory developments in the United States and foreign countries.

The foregoing list of factors is not exhaustive. You should carefully consider the foregoing factors and the other risks and uncertainties that affect our business described in the “Risk Factors” section, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other documents filed by us from time to time with the SEC. See “Where You Can Find More Information” beginning on page 13 of this prospectus.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and although we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted a thorough inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

## **USE OF PROCEEDS**

All of the shares of common stock offered by the selling stockholder pursuant to this prospectus will be sold by the selling stockholder for its respective account. We will not receive any of the proceeds from these sales.

The selling stockholder will pay any underwriting discounts and commissions and expenses incurred by them for brokerage, accounting, tax or legal services or any other expenses incurred in disposing of the securities. We will bear the costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including all registration and filing fees, Nasdaq listing fees and fees and expenses of our counsel and our independent registered public accounting firm.

## SELLING STOCKHOLDER

This prospectus covers the offer and resale or other disposition of shares of our common stock by the selling stockholder named below, and its donees, pledgees, transferees or other successors-in-interest, or interests in shares of such shares received after the date of this prospectus from the selling stockholder as a gift, pledge, partnership distribution or other transfer. The shares of common stock being offered by the selling stockholder are those shares of common stock issuable upon conversion of the Series A Preferred Stock previously issued to the selling stockholder. See “Prospectus Summary— Private Placement and Stock Purchase Agreement” for additional information regarding the issuance of the Series A Preferred Stock and the shares of common stock issuable upon conversion thereof.

The table below sets forth, to our knowledge, information concerning the beneficial ownership of shares of our common stock by the selling stockholder as of September 23, 2024. The information in the table below with respect to the selling stockholder has been obtained from the selling stockholder. The selling stockholder may sell all, some or none of the shares of common stock subject to this prospectus. See “Plan of Distribution” as may be supplemented and amended from time to time. We do not know how long the selling stockholder will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholder regarding the sale or other disposition of any of the shares.

The number of shares of common stock beneficially owned prior to the offering for the selling stockholder includes (i) all shares of our common stock beneficially held by such selling stockholder as of November 4, 2024, (ii) the number of shares of our common stock that may be offered under this prospectus, and (iii) the number and percentage of our common stock beneficially owned by the selling stockholder assuming all of the shares of our common stock registered hereunder are sold. The table below and footnotes assume that the selling stockholder will sell all of the shares listed. However, because the selling stockholder may sell all or some of the shares of common stock held or issuable to it under this prospectus from time to time, or in another permitted manner, we cannot assure you as to the actual number of shares of common stock that will be sold by the selling stockholder or that will be held by the selling stockholder after completion of any sales. The percentages of shares of common stock owned after the offering are based on 70,710,667 shares of common stock outstanding as of November 4, 2024, which includes the shares of common stock issuable upon conversion of the Series A Preferred Stock previously issued to the selling stockholder.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to our common stock. Generally, a person “beneficially owns” shares of our common stock if the person has or shares with others the right to vote those shares or to dispose of them, or if the person has the right to acquire voting or disposition rights within 60 days. The inclusion of any shares in this table does not constitute an admission of beneficial ownership for any selling stockholder named below.

Information about the selling stockholder may change over time. Any changed information will be set forth in an amendment to the registration statement or supplement to this prospectus, to the extent required by law.

<u>Name of Selling Stockholder</u>	<u>Shares of Common Stock Beneficially Owned Prior to Offering<sup>(1)</sup></u>		<u>Shares of Common Stock Being Offered<sup>(2)</sup></u>	<u>Shares of Common Stock to be Beneficially Owned After Offering<sup>(3)</sup></u>	
	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Number</u>	<u>Percentage</u>
Aventis Inc. (4)	3,713,779	4.99%	7,060,100	—	—

- (1) The selling stockholder and its related entities own 70,601 shares of Series A Preferred Stock convertible into up to 7,060,100 shares of common stock. The shares of Series A Preferred Stock are subject to terms that limit conversion, if, after such conversion, the holder and its affiliates would beneficially own more than 4.99% of the number of shares of common stock then issued and outstanding (which such percentage may be increased or decreased by the holder up, upon 61 days’ written notice, to a maximum of 19.99%). As a

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result of the limitation in the previous sentence, for purposes of the column entitled “Shares of Common Stock Beneficially Owned Prior to Offering” in the table above, only 3,713,779 shares of common stock issuable upon the conversion of shares of Series A Preferred Stock beneficially owned by the selling stockholder are reflected.

- (2) The number of shares of our common stock in the column “Number of Shares of Common Stock Being Offered” represents the shares of our common stock issuable upon conversion of the Series A Preferred Stock, which the selling stockholder may at any time choose to convert into shares of our common stock and thereafter offer and sell from time to time under this prospectus.
- (3) We do not know when or in what amounts the selling stockholder may offer shares for sale. The selling stockholder might not sell any or might sell all of the shares offered by this prospectus. Because the selling stockholder may offer all or some of the shares pursuant to this offering, and because, except as set forth elsewhere in this prospectus, there are currently no agreements, arrangements or understandings with respect to the sale of any of the shares, we cannot estimate the number of the shares that will be held by the selling stockholder after completion of the offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the shares covered by this prospectus will be held by the selling stockholder.
- (4) Consists of 3,713,779 shares of common stock issuable upon conversion of Series A Preferred Stock owned by Aventis Inc., a company organized and existing under the laws of Pennsylvania. Aventis Inc. is a wholly owned subsidiary of Sanofi S.A., a French société anonyme (limited liability company), which may be deemed to have voting and dispositive power over the securities held by Aventis Inc. The address of Aventis Inc. is c/o Sanofi – Global Alliance Management, 450 Water Street, Cambridge, MA 02141.

**DESCRIPTION OF CAPITAL STOCK**

The description of our common stock filed as Exhibit [4.3](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on [February 27, 2024](#) is incorporated herein by reference.

The description of our Series A Preferred Stock set forth in Item 5.03 of our Current Report on Form 8-K filed with the SEC on September 23, 2024 is incorporated herein by reference.

## PLAN OF DISTRIBUTION

The selling stockholder, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder, may, from time to time, sell, transfer, or otherwise dispose of any or all of their any or all of its shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholder may use any one or more of the following methods when disposing of shares of common stock or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

The selling stockholder may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of its secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933, as amended (the "Securities Act"), amending the list of selling stockholder to include the pledgee, transferee or other successors in interest as selling stockholder under this prospectus. The selling stockholder also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors-in-interest will be the selling stockholder for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholder may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholder may also sell shares of our common stock short and deliver these securities to close out its short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholder may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

Broker-dealers engaged by the selling stockholder may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions in the form of discounts, concessions or commissions from the

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selling stockholder or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal. Such commissions will be in amounts to be negotiated, but, except as set forth in a further prospectus supplement or an amendment to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction, a markup or markdown in compliance with FINRA Rule 2121.01

The aggregate proceeds to the selling stockholder from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. The selling stockholder reserves the right to accept and, together with its agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling stockholder also may resell all or a portion of the shares of common stock in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule, or another available exemption from the registration requirements of the Securities Act.

The selling stockholder and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be “underwriters” within the meaning of Section 2(a)(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholder who are “underwriters” within the meaning of Section 2(a)(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholder, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have agreed to indemnify the selling stockholder against certain liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholder to use commercially reasonable efforts to cause the registration statement of which this prospectus constitutes a part to become effective and to remain continuously effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with such registration statement or (2) the date that all the shares covered by this prospectus cease to be “Registrable Shares” as defined in the securities purchase agreement.

## LEGAL MATTERS

The validity of the shares of the common stock offered in this prospectus will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, San Diego, California. Certain members of, and investment partnerships comprised of members of, and person associated with, Wilson Sonsini Goodrich & Rosati, Professional Corporation, directly or indirectly own less than 0.1% of the outstanding shares of our common stock.

## EXPERTS

The consolidated financial statements of Ventyx Biosciences, Inc. appearing in Ventyx Biosciences, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2023, and the effectiveness of Ventyx Biosciences, Inc.'s internal control over financial reporting as of December 31, 2023 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>.

We make available, free of charge, through our investor relations website, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, statements of changes in beneficial ownership of securities and amendments to those reports and statements as soon as reasonably practicable after they are filed with the SEC. The address for our website is <http://www.ventyxbio.com>. The contents on our website are not part of this prospectus, and the reference to our website does not constitute incorporation by reference into this prospectus of the information contained at that site.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and our consolidated subsidiaries and our securities. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements. You can obtain a copy of the registration statement from the SEC's website.

## INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information we file with the SEC. This means that we can disclose important information to you by referring you to those documents. Any statement contained in a document incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein, or in any subsequently filed document, which also is incorporated by reference herein, modifies or supersedes such earlier statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We hereby incorporate by reference into this prospectus the following documents that we have filed with the SEC under the Securities Act and under the Exchange Act (other than current reports on Form 8-K, or portions thereof, furnished under Items 2.02 or 7.01 of Form 8-K):

- our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on [February 27, 2024](#);



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- our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2024, June 30, 2024 and September 30, 2024, filed with the SEC on [May 9, 2024](#), [August 8, 2024](#) and [November 7, 2024](#).
- the sections of our definitive proxy statement on Schedule 14A for the 2024 Annual Meeting of Stockholders, filed with the SEC on [April 25, 2024](#), that are incorporated by reference in our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on [February 27, 2024](#);
- our Current Reports on Form 8-K filed with the SEC on [March 7, 2024](#), [March 11, 2024](#), [April 5, 2024](#), [May 16, 2024](#), [June 5, 2024](#), [June 6, 2024](#), [August 30, 2024](#), and [September 23, 2024](#); and
- the description of our common stock contained in [Exhibit 4.3](#) to our Annual Report on Form 10-K filed with the SEC on March 24, 2022, including any amendment or report updating such description.

All documents that we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than current reports on Form 8-K, or portions thereof, furnished under Items 2.02 or 7.01 of Form 8-K) (i) after the initial filing date of the registration statement of which this prospectus forms a part and prior to the effectiveness of such registration statement and (ii) after the date of this prospectus and prior to the termination of the offering shall be deemed to be incorporated by reference in this prospectus from the date of filing of the documents, unless we specifically provide otherwise. Information that we file with the SEC will automatically update and may replace information previously filed with the SEC. To the extent that any information contained in any current report on Form 8-K or any exhibit thereto, was or is furnished to, rather than filed with the SEC, such information or exhibit is specifically not incorporated by reference.

Upon written or oral request made to us at the address or telephone number below, we will, at no cost to the requester, provide to each person, including any beneficial owner, to whom this prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in this prospectus (other than an exhibit to a filing, unless that exhibit is specifically incorporated by reference into that filing), but not delivered with this prospectus. You may also access this information on our website at <https://www.ventyxbio.com> by viewing the “SEC Filings” subsection of the “Investors & News” menu. No additional information on our website is deemed to be part of or incorporated by reference into this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Ventyx Biosciences, Inc.  
12790 El Camino Real, Suite 200  
San Diego, CA 92130  
Attn: Investor Relations  
(760) 593-4832

**7,060,100 Shares of Common Stock**



**Ventyx Biosciences, Inc.**

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**PROSPECTUS**

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**November 15, 2024**

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