As filed with the Securities and Exchange Commission on December 20, 2022

Registration No. 333-267626

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

POST EFFECTIVE AMENDMENT NO. 1 TO FORM S-1 ON FORM S-3 REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

Ventyx Biosciences, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**88-2996852**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**

662 Encinitas Blvd., Suite 250
Encinitas, California 92024
(760) 593-4832
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Raju Mohan, Ph.D.
Chief Executive Officer
662 Encinitas Blvd., Suite 250
Encinitas, California 92024
(760) 593-4832
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Martin J. Waters **Robert L. Wernli, Jr.** **Wilson Sonsini Goodrich & Rosati, Professional Corporation** **12235 El Camino Real** **San Diego, CA 92130-3002** **(858) 350-2300**	**Christopher Kreuger** **Chief Business Officer** **Ventyx Biosciences, Inc.** **662 Encinitas Blvd., Suite 250** **Encinitas, California 92024** **(760) 593-4832**

From time to time after the effective date of this registration statement.
(Approximate date of commencement of proposed sale to the public)

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act. ☐

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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EXPLANATORY NOTE

On September 27, 2022, the registrant filed a registration statement with the Securities and Exchange Commission, or the SEC, on Form S-1 (File No. 333-267626), which was declared effective by the SEC on October 4, 2022, to register for resale by the selling stockholders named in the prospectus an aggregate of 5,350,000 shares of the registrant's common stock, par value $0.0001 per share.

This Post-Effective Amendment No. 1 to Form S-1 on Form S-3 is being filed by the registrant to convert the registration statement on Form S-1 into a registration statement on Form S-3, and contains a prospectus relating to the offering and sale of the shares of common stock that were registered for resale on the Form S-1.

No additional securities are being registered under this Post-Effective Amendment No. 1. All applicable registration fees payable in connection with the registration of the shares of the common stock covered by the Form S-1 were previously paid by the registrant at the time of the original filing of the registration statement on Form S-1.

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The information in this preliminary prospectus is not complete and may be changed. The securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, dated December 20, 2022
PRELIMINARY PROSPECTUS

5,350,000 Shares of Common Stock

This prospectus covers the offer and resale from time to time of up to 5,350,000 shares of common stock, par value $0.0001 per share, of Ventyx Biosciences, Inc. ("Ventyx"), a Delaware corporation (the "Company"), by the selling stockholders identified in this prospectus, including their transferees, pledgees or donees or their respective successors. The shares of common stock offered by the selling stockholders consist of 5,350,000 shares that were sold and issued to certain of the selling stockholders in a private placement pursuant to a Stock Purchase Agreement, dated September 17, 2022, which closed on September 20, 2022 (the "PIPE Financing").

The selling stockholders 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 stockholders 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 stockholders, the purchasers of the shares, or both. For additional information on the methods of sale that may be used by the selling stockholders, see the section entitled "Plan of Distribution" on page 18. For a list of the selling stockholders, see the section entitled "Selling Stockholders" on page 13.

We are not selling any shares of common stock under this prospectus and will not receive any proceeds from the sale by the selling stockholders 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 stockholders are responsible for all selling commissions, transfer taxes and other costs related to the offer and sale of their 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 stockholders 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 stockholders may sell their common shares hereunder following the effective date of the registration statement of which this prospectus forms a part.

We are both a "smaller reporting company" and an "emerging growth company" as defined under the federal securities laws, and, as such, may elect to comply with certain reduced public company reporting requirements. See "Implications of Being a Smaller Reporting Company and an Emerging Growth Company."

Our common stock is currently listed on The Nasdaq Global Select Market ("Nasdaq") under the symbol "VTYX." On December 19, 2022, the last reported sale price of our common stock was $31.84 per share.

Investing in our securities involves a high degree of risk. Before buying any securities, you should carefully read the discussion of the risks of investing in our securities in "Risk Factors" beginning on page 8 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Prospectus dated December 20, 2022.

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ABOUT THIS PROSPECTUS

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 stockholders hereunder may, from time to time, sell the securities offered by them described in this prospectus. We will not receive any proceeds from the sale by such selling stockholders of the securities offered by them described in this prospectus.

Neither we nor the selling stockholders have authorized anyone to provide you with any information or to make any representations other than those contained in or incorporated by reference into 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 stockholders take responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. Neither we nor the selling stockholders will make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate only as of the date on its respective cover and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates.

For investors outside of the United States: Neither we nor the selling stockholders, have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of our securities and the distribution of this prospectus outside the United States.

To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference filed with the SEC before the date of this prospectus, on the other hand, you should rely on the information in this prospectus, if any statement in a document incorporated by reference is inconsistent with a statement in another document incorporated by reference having a later date, the statement in the document having the later date modifies or supersedes the earlier statement.

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. 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 Additional Information*" and "*Incorporation of Certain Information by Reference*."

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus and is qualified in its entirety by the more detailed information and financial statements included elsewhere in this prospectus. It does not contain all of the information that may be important to you and your investment decision. You should carefully read this entire prospectus and any applicable prospectus supplement, including the information contained under the heading "Risk Factors," and all information included or incorporated by reference into this prospectus and any applicable prospectus supplement in their entirety before investing in these securities. In this prospectus, unless the context requires otherwise, references to "we," "us," "our," "Ventyx" or "the Company" refer to Ventyx Biosciences, Inc. and its subsidiaries taken as a whole.

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. Our lead clinical product candidate, VTX958, is a selective allosteric tyrosine kinase type 2 (TYK2) inhibitor. In August 2022, we announced positive topline data from a Phase 1 single and multiple ascending dose trial of VTX958 in healthy volunteers. We dosed the first patient in a Phase 2 trial with VTX958 for psoriasis in the fourth quarter of 2022. We plan to initiate Phase 2 trials with VTX958 for psoriatic arthritis and Crohn's disease in the fourth quarter of 2022 and continue to evaluate additional indications for clinical development. In addition, we are developing VTX002, a sphingosine 1 phosphate receptor (S1P1R) modulator in Phase 2 development for ulcerative colitis. We initiated a Phase 2 trial with VTX002 in the fourth quarter of 2021 in patients with moderate to severe ulcerative colitis. Our third product candidate, VTX2735, is a peripheral-targeted NOD-like receptor protein 3 (NLRP3) inflammasome inhibitor. In June 2022, we announced positive topline data from a Phase 1 single and multiple ascending dose trial of VTX2735 in healthy volunteers. We plan to initiate a Phase 2 trial for VTX2735 in cryopyrin-associated periodic syndrome (CAPS) patients in the first quarter of 2023 and continue to evaluate additional indications for clinical development. In addition to VTX2735, we nominated VTX3232, our lead CNS-penetrant NLRP3 inhibitor, as a clinical development candidate in the fourth quarter of 2021. We plan to initiate a Phase 1 trial of VTX3232 in healthy volunteers in the first quarter of 2023.

We were incorporated in November 2018. To date, we have focused primarily on organizing and staffing our company, business planning, raising capital and identifying our product candidates and conducting preclinical studies and clinical trials. We have funded our operations primarily through debt and equity financings. We do not have any products approved for sale and have not generated any revenue from product sales.

We do not expect to generate any revenue from product sales unless and until we successfully complete clinical development and obtain regulatory approval for one or more of our product candidates, which we expect will take a number of years. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Accordingly, until such time as we can generate substantial product revenues to support our cost structure, if ever, we expect to finance our cash needs through equity offerings, debt financings or other capital sources, including potentially collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our failure to raise capital or enter into such other arrangements when needed could have a negative impact on our financial condition and on our ability to pursue our business plans and strategies. If we are unable to raise additional capital when needed, we could be forced to delay, limit, reduce or terminate our product candidate development or future commercialization efforts or grant rights to develop and market our product candidates even if we would otherwise prefer to develop and market such product candidates ourselves.

Summary Risk Factors

Our business is subject to numerous risks and uncertainties, including those outside of our control that could cause our actual results to be harmed, including risks regarding the following:

- We have a history of operating losses and have incurred significant losses since our inception. We expect to continue to incur significant losses and we may never be profitable;
- We will need to obtain substantial additional financing for the development and any commercialization of our product candidates, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development efforts or other operations;
- Our limited operating history, and the biotechnology industry in which we operate, make it difficult to evaluate our business plan and our prospects;
- Our business depends entirely on the success of our product candidates and we cannot guarantee that these product candidates will successfully complete development, receive regulatory approval, or be successfully commercialized. If we are unable to develop, receive regulatory approval for, and ultimately successfully commercialize our product candidates, or experience significant delays in doing so, our business will be materially harmed;
- Our clinical trials may fail to demonstrate adequately the safety and efficacy of our product candidates, which would prevent or delay regulatory approval and commercialization;
- Clinical development involves a lengthy and expensive process with an uncertain outcome, and results of early, smaller-scale studies and clinical trials with a single or few clinical trial sites may not be predictive of eventual safety or effectiveness in large-scale pivotal clinical trials across multiple clinical trial sites. We may encounter substantial delays in clinical trials, or may not be able to conduct or complete clinical trials on the expected timelines, if at all;
- We face significant competition from other biotechnology and pharmaceutical companies;
- We may use our limited financial and human resources to pursue a particular type of treatment, or treatment for a particular type of disease, and fail to capitalize on programs or treatments of other types of diseases that may be more profitable or for which there is a greater likelihood of success;
- We may develop product candidates in combination with other therapies, which exposes us to additional risks and could result in our products, even if approved, being removed from the market or being less successful commercially;
- It may take longer and cost more to complete our clinical trials than we project, or we may not be able to complete them at all;
- The FDA regulatory approval process is lengthy, time-consuming and unpredictable, and we may experience significant delays in the clinical development and regulatory approval of our product candidates; and
- If we are unable to obtain and maintain sufficient intellectual property protection for our product candidates, or if the scope of the intellectual property protection is not sufficiently broad, we may not be able to compete effectively or operate profitably.

Recent Developments

Topline Results from the Phase 1 Trial of VTX958

Overview

The Phase 1 single ascending dose (SAD) and multiple ascending dose (MAD) trial of VTX958 was a

two-part,

randomized, double-blind, placebo-controlled dose-escalation study designed to evaluate the safety, tolerability, pharmacokinetics and pharmacodynamics (PD) of single and multiple ascending doses. The study enrolled 96 adult healthy volunteers across SAD cohorts up to 500 mg and MAD cohorts up to 350 mg BID (twice a day) daily for 14 days.

Safety and Tolerability

VTX958 was well tolerated across all seven cohorts in the SAD portion and all five cohorts in the MAD portion of the Phase 1 trial with no discontinuations due to adverse events (AEs). No drug-related serious adverse events (SAEs) were reported. All treatment emergent adverse events (TEAEs) were classified as mild. No dose-limiting toxicities were identified and no dose-dependent trend in the frequency of TEAEs was observed. Additionally, there were no significant effects on hematological parameters, lipids/triglycerides and CPK laboratory values.

Exposure and Target Coverage

In both the SAD and the MAD portions of the trial, a dose-dependent increase in exposure was observed through all cohorts. In the MAD portion of the trial, VTX958 achieved TYK2 IC50 and IC90 coverage up to 24 hours. The exposures achieved by VTX958 demonstrated class-leading coverage of TYK2 IC50 and IC90 and its target cytokines, IL-12, IL-23 and IFNα

Exposure and Target Coverage Across All MAD Cohorts at Day 10

MAD Dose	Target Coverage* (hours)					
	IL-12		IL-23		IFNα	
	IC_{90}	IC_{50}	IC_{90}	IC_{50}	IC_{90}	IC_{50}
50 mg BID	0	5	0	5	0	7
250 mg QD	4	9	4	9	6	10
500 mg QD	6	14	6	14	7	16
175 mg BID	16	24	16	24	17	24
350 mg BID	24	24	24	24	24	24

Pharmacodynamic Effects

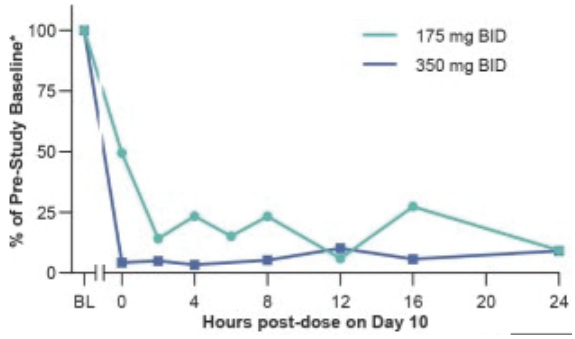
In the MAD portion of the trial, PD activity was measured by the impact on TYK2-mediated target genes following in vivo IFNα challenge, and by IFNg response to ex vivo IL-12/IL-18 stimulation of blood samples derived from all dosing cohorts. In both the in vivo IFNα challenge PD assay, as well as the ex vivo IFNg response assay, VTX958 demonstrated robust dose-dependent PD activity, thereby confirming its impact on TYK2-mediated pathways and providing direct in vivo evidence of target engagement.

***In Vivo* IFNα Challenge**

In Vivo IFNα challenge – Impact on TYK2-mediated genes (% Inhibition* 175 mg BID)						
Time post-challenge	4h	6h	8h	12h	16h	24h
CXCL10	97	82	42	95	95	63
ISG20	80	69	54	79	101	39
IFI27	78	68	62	60	71	84

IFNα administration activates interferon-inducible genes, including CXCL10, ISG20 and IFI27, which display diverse onset, amplitude and resolution kinetics. VTX958 demonstrated potent exposure-PD activity on all three genes. The response was dose-related across all cohorts tested.

***Ex Vivo* IFNg Response (ELISA) to IL-12/IL-18 Dual Stimulation**



VTX958 demonstrated substantial dose-dependent inhibition of IFNg at all time-points in response to IL-12/IL-18 dual stimulation.

Topline Results from the Phase 1 Trial of VTX2735

Overview

The Phase 1 SAD and MAD trial of VTX2735 was a two-part, randomized, double-blind, placebo controlled, dose-escalation study designed to evaluate the safety, tolerability and pharmacokinetics of single and multiple ascending doses. The study enrolled 72 adult healthy volunteers across SAD cohorts up to 200 mg and MAD cohorts up to 200 mg daily for 14 days.

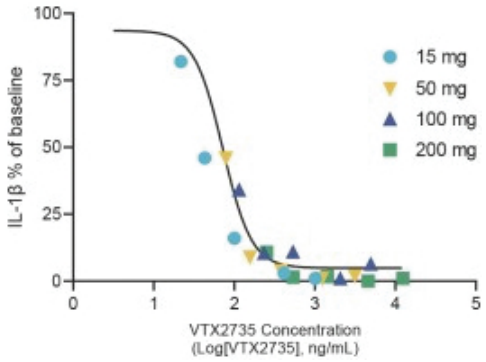
Safety and Tolerability

VTX2735 was well-tolerated across all dose cohorts and all subjects completed the trial. Drug exposures in both SAD and MAD cohorts increased linearly with dose. All drug-related AEs were considered mild, with no liver function test (LFT) abnormalities and no dose-related trend in the frequency of treatment-emergent AEs observed.

Pharmacodynamic Effects

Drug exposures also correlated with markers of target engagement as evidenced by strong PD activity in ex vivo LPS-plus ATP-mediated IL-1ß release assays from subject-derived plasma samples from both the SAD and MAD parts of the trial. VTX2735 demonstrated robust dose-related suppression of the induced pro-inflammatory cytokine IL-1ß release relative to placebo. VTX2735 also demonstrated reduction from baseline in high sensitivity C-reactive protein (hsCRP) concentrations.

Dose and Concentration-Dependent Suppression of IL-1ß Ex Vivo



Corporate Information

We were incorporated in Delaware on November 21, 2018. Until February 2021, we have focused primarily on developing our lead clinical 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 662 Encinitas Blvd, Suite 250, Encinitas, CA 92024. 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.

PIPE Financing and Stock Purchase Agreement

On September 17, 2022, we entered into a Stock Purchase Agreement (the "Purchase Agreement") for a private placement (the "Private Placement") with certain qualified institutional buyers and institutional accredited

investors. Pursuant to the Purchase Agreement, we agreed to sell to the purchasers 5,350,000 shares of our common stock, par value $0.0001 per share (the "Shares"), at an offering price of $33.00 per Share. The gross proceeds of the Private Placement were approximately $176.6 million, before deducting placement agent fees and other expenses. The Private Placement closed on September 20, 2022.

In connection with the Private Placement, we entered into a Registration Rights Agreement with the purchasers, dated September 17, 2022 (the "Registration Rights Agreement"), providing for the registration for resale of the Shares that are not then registered on an effective registration statement, pursuant to a registration statement (the "Registration Statement") to be filed with the Securities and Exchange Commission (the "SEC") on or prior to November 1, 2022. We have agreed to keep the Registration Statement continuously effective from the date on which the SEC declares the Registration Statement to be effective until such date that all Registrable Securities (as such term is defined in the Registration Rights Agreement) covered by the Registration Statement have been sold pursuant to a registration statement under the Securities Act or under Rule 144 as promulgated by the SEC under the Securities Act.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We qualify as an "emerging growth company" as defined in Rule 405 of the Securities Act. An emerging growth company may take advantage of relief from certain reporting requirements and other burdens that are otherwise applicable generally to public companies. These provisions include:

- an exception from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act;
- reduced disclosure about our executive compensation arrangements in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding non-binding advisory votes on executive compensation or golden parachute arrangements.

In addition, an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. In other words, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. Any decision to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable. We have elected to use this extended transition period.

We will cease to be an emerging growth company upon the earliest of (1) the end of the fiscal year following the fifth anniversary of our initial public offering (i.e. December 31, 2026); (2) the last day of the fiscal year during which our annual gross revenues are $1.235 billion or more; (3) the date on which we have, during the previous three-year period, issued more than $1.0 billion in non-convertible debt securities; and (4) the end of any fiscal year in which the market value of our common stock held by non-affiliates exceeded $700.0 million as of the end of the second quarter of that fiscal year. We may choose to take advantage of some or all of these reduced reporting burdens.

In addition, we are also a "smaller reporting company," as defined in Rule 405 under the Securities Act. We may continue to be a smaller reporting company in any given year if either (i) the market value of our stock held by non-affiliates is less than $250 million as of June 30 in the most recently completed fiscal year or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million as of June 30 in the most recently completed fiscal year. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

The Offering

Common stock offered by selling stockholders	5,350,000 shares.
Offering Price	The selling stockholders may sell all or a portion of their shares 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 stockholders.
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 stockholders named in this prospectus may offer and sell up to 5,350,000 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 stockholders for offer and resale, we are referring to the shares of common stock issued to the selling stockholders in the PIPE Financing, respectively, as described above. When we refer to the selling stockholders in this prospectus, we are referring to the selling stockholders identified in this prospectus and, as applicable, their 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 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 being registered for sale 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 stockholders. Upon registration of the shares of common stock offered hereunder, 5,350,000 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.

SPECIAL NOTE REGARDING 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 contain or incorporate by reference forward-looking statements within the meaning of 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. 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 or incorporated by reference into 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 in this prospectus include, but are not limited to, statements about:

- our expectations regarding our product candidates and their related benefits;
- 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;
- the timing or likelihood of regulatory filings or other actions and related regulatory authority responses;
- any impact of the COVID-19 pandemic, or responses to the COVID-19 pandemic, on our business, clinical trials or personnel, including, without limitation, 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 ongoing conflict in Ukraine and the imposition of sanctions against Russia and Belarus;
- 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;
- 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 Additional Information" beginning on page 24 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 stockholders pursuant to this prospectus will be sold by the selling stockholders for their respective accounts. We will not receive any of the proceeds from these sales.

The selling stockholders 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 STOCKHOLDERS

This prospectus covers the resale or other disposition of up to 5,350,000 shares of our common stock by the selling stockholders named below, and their donees, pledgees, transferees or other successor-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 as a gift, pledge, partnership distribution or other transfer. These shares consist of 5,350,000 shares of common stock that were issued to certain selling stockholders in the PIPE Financing. See "Prospectus Summary— PIPE Financing and Stock Purchase Agreement."

The table below sets forth, to our knowledge, information concerning the beneficial ownership of shares of our common stock by the selling stockholders as of September 21, 2022. The information in the table below with respect to the selling stockholders has been obtained from the respective selling stockholders. A selling stockholder may have sold or transferred some or all of the common stock indicated below with respect to such selling stockholder and may in the future sell or transfer some or all of the common stock indicated below in transactions exempt from the registration requirements of the Securities Act rather than under this prospectus. The selling stockholders 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 stockholders will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholders 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 each selling stockholder includes (i) all shares of our common stock beneficially held by such selling stockholder as of September 21, 2022, (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 stockholders assuming all of the shares of our common stock registered hereunder are sold. The table below and footnotes assume that the selling stockholders will sell all of the shares listed. However, because the selling stockholders may sell all or some of their shares under this prospectus from time to time, or in another permitted manner, we cannot assure you as to the actual number of shares that will be sold by the selling stockholders or that will be held by the selling stockholders after completion of any sales. We do not know how long the selling stockholders will hold the shares before selling them. The percentages of shares owned after the offering are based on 56,637,458 shares of common stock outstanding as of September 21, 2022, which includes the outstanding shares of common stock offered by this prospectus.

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 stockholders 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.

NAME OF SELLING STOCKHOLDER	SHARES OF COMMON STOCK BENEFICIALLY OWNED PRIOR TO OFFERING	SHARES OF COMMON STOCK BEING OFFERED(1)	SHARES OF COMMON STOCK TO BE BENEFICIALLY OWNED AFTER OFFERING(2)	
			NUMBER	PERCENTAGE
Entities affiliated with Redmile Group(3)	1,365,000	1,365,000	0	*
Boxer Capital, LLC(4)	850,000	850,000	0	*
Fidelity Select Portfolios: Biotechnology Portfolio(5)	1,892,776	450,000	1,442,776	2.6%
Braidwell Partners Master Fund LP(6)	400,000	400,000	0	*
Entities affiliated with EcoR1 Capital(7)	400,000	400,000	0	*

NAME OF SELLING STOCKHOLDER	SHARES OF COMMON STOCK BENEFICIALLY OWNED PRIOR TO OFFERING	SHARES OF COMMON STOCK BEING OFFERED(1)	SHARES OF COMMON STOCK TO BE BENEFICIALLY OWNED AFTER OFFERING(2)	
			NUMBER	PERCENTAGE
Entities affiliated with T. Rowe Price Associates, Inc(8)	381,529	381,529	0	*
Entities affiliated with OrbiMed(9)	225,000	225,000	0	*
Vivo Opportunity Fund Holdings, L.P.(10)	1,048,951	225,000	823,951	1.5%
Entities affiliated with Great Point Partners(11)	269,967	200,000	69,967	*
Adage Capital Partners LP(12)	200,000	200,000	0	*
Logos Opportunities Fund III, LP(13)	1,310,664	150,000	1,160,664	2.1%
Maven Investment Partners US Limited—New York Branch(14)	150,000	150,000	0	*
Entities affiliated with Driehaus Capital Management LLC(15)	60,000	60,000	0	*
CaaS Capital Master Fund LP(16)	60,000	60,000	0	*
Woodline Master Fund LP(17)	147,594	60,000	87,594	*
Averill Master Fund, Ltd.(18)	344,398	60,000	284,398	*
Entities affiliated with Acuta Capital Partners(19)	132,274	60,000	72,274	*
Entities affiliated with Walleye Capital(20)	53,471	53,471	0	*

* Less than 1%

(1) The number of shares of our common stock in the column "Number of Shares of Common Stock Being Offered" represents all of the shares of our common stock that a selling stockholder may offer and sell from time to time under this prospectus.

(2) We do not know when or in what amounts a selling stockholder may offer shares for sale. The selling stockholders might not sell any or might sell all of the shares offered by this prospectus. Because the selling stockholders 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 stockholders 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 stockholders.

(3) The shares being offered consists of the following shares of Common Stock purchased in the PIPE Financing: (a) 41,601 shares of Common Stock purchased by Map 20 Segregated Portfolio, A Segregated Portfolio of LMA SPC, (b) 74,342 shares of Common Stock purchased by Redmile Capital Offshore Fund (ERISA), Ltd., (c) 336,886 shares of Common Stock purchased by Redmile Capital Fund, LP, (d) 126,872 shares of Common Stock purchased by Redmile Capital Offshore II Master Fund, Ltd. (Strategic Sleeve), (e) 470,026 shares of Common Stock purchased by Redmile Capital Offshore Master Fund, Ltd., (f) 86,577 shares of Common Stock purchased by Redmile Strategic Long Only Trading Sub, Ltd., (g) 228,696 shares of Common Stock purchased by Redmile Strategic Trading Sub, Ltd. Redmile Group, LLC is the investment manager/advisor to such private investment vehicle or separately managed account and, in such capacity, may be deemed to be the beneficial owner of these securities. Jeremy C. Green serves as the managing member of Redmile Group, LLC and also may be deemed to be the beneficial owner of these shares. Redmile Group, LLC and Mr. Green each disclaim beneficial ownership of these shares, except to the extent of its or his pecuniary interest in such shares, if any. The address of the beneficial owner is c/o Redmile Group, LLC, One Letterman Drive, Building D, Suite D3-300, San Francisco, California 94129.

(4) The shares being offered consists of 850,000 shares of Common Stock purchased by Boxer Capital, LLC in the PIPE Financing. Boxer Asset Management Inc. is the managing member and majority owner of Boxer Capital, LLC. Joseph C. Lewis is the sole indirect beneficial owner of Boxer Asset Management Inc. and Joseph C. Lewis may be deemed to have shared voting and investment power of the securities held by Boxer Capital, LLC. Each disclaims beneficial ownership of such securities, except to the extent of their pecuniary interest therein. The address of Boxer Capital, LLC is 12860 El Camino Real, Suite 300, San Diego, CA 92130.

(5) The shares being offered consists of 450,000 shares of Common Stock purchased by Fidelity Select Portfolios: Biotechnology Portfolio ("Fidelity SPBP") in the PIPE Financing. Fidelity SPBP is managed by direct or indirect subsidiaries of FMR LLC. Abigail P. Johnson is a Director, the Chairman, the Chief Executive Officer and the President of FMR LLC. Members of the Johnson family, including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. Neither FMR LLC nor Abigail P. Johnson has the sole power to vote or direct the voting of the shares owned directly by the various investment companies registered under the Investment Company Act ("Fidelity Funds") advised by Fidelity Management & Research Company ("FMR Co"), a wholly owned subsidiary of FMR LLC, which power resides with the Fidelity Funds' Boards of Trustees. The total number of shares of common stock beneficially owned prior to and after the PIPE Financing includes 1,002,290 shares of common stock beneficially owned by other funds or accounts managed by direct or indirect subsidiaries of FMR, LLC, all of which shares are beneficially owned, or may be deemed to be beneficially owned, by FMR LLC. Fidelity Management & Research Company carries out the voting of the shares under written guidelines established by the Fidelity Funds' Boards of Trustees.

(6) The shares being offered consists of 400,000 shares of Common Stock purchased by Braidwell Partners Master Fund LP in the PIPE Financing. The general partner of Braidwell Partners Master Fund LP is Braidwell GP LLC. Braidwell Management LLC is the managing member of Braidwell GP LLC. Alex Karnal and Brian Kreiter are the managing members of Braidwell Management LLC and may be deemed to share voting and investment power with respect to the securities held by the selling shareholder. The address of the selling shareholder is c/o Braidwell GP LLC, One Harbor Point, 2200 Atlantic Street, Stamford, CT 06902.

(7) The shares being offered consists of the following shares of Common Stock purchased in the PIPE Financing: (a) 377,000 shares of Common Stock purchased by EcoR1 Capital Fund Qualified, L.P., (b) 23,000 shares of Common Stock purchased by EcoR1 Capital Fund, L.P. (together with EcoR1 Capital Fund Qualified, L.P., the "EcoR1 Funds"). Oleg Nodelman directly or indirectly controls the EcoR1 Funds and as a result may be deemed to have voting and dispositive power over the securities held directly by the EcoR1 Funds. The address for the EcoR1 Funds is 357 Tehama Street, Suite 3, San Francisco, CA 9410.

(8) The shares being offered consists of the following shares of Common Stock purchased in the PIPE Financing: (a) 229,099 shares of Common Stock purchased by T. Rowe Price New Horizons Fund, Inc., (b) 31,846 shares of Common Stock purchased by T. Rowe Price New Horizons Trust, (c) 1,325 shares of Common Stock purchased by T. Rowe Price U.S. Equities Trust, (d) 6,946 shares of Common Stock purchased by New York City Deferred Compensation Plan, (e) 99,163 shares of Common Stock purchased by T. Rowe Price Health Sciences Fund, Inc., (f) 8,696 shares of Common Stock purchased by TD Mutual Funds—TD Health Sciences Fund, (g) 4,454 shares of Common Stock purchased by T. Rowe Price Health Sciences Portfolio. T. Rowe Price Associates, Inc. ("TRPA") serves as investment adviser or subadviser with power to direct investments and/or sole power to vote the securities owned by the T. Rowe Accounts as well as securities owned by certain other individual and institutional investors. For purposes of reporting requirements of the Securities Exchange Act of 1934, TRPA may be deemed to be the beneficial owner of all of the shares of Common Stock purchased in the PIPE Financing; however, TRPA expressly disclaims

that it is, in fact, the beneficial owner of such securities. T. Rowe Price Investment Services, Inc. ("TRPIS"), a registered broker-dealer (and FINRA member), is a subsidiary of TRPA. TRPIS was formed primarily for the limited purpose of acting as the principal underwriter and distributor of shares of the funds in the T. Rowe Price fund family and complements the other services provided to shareholders of the T. Rowe Price funds. TRPA is the wholly owned subsidiary of T. Rowe Price Group, Inc., which is a publicly traded financial services holding company. The address of each entity is T. Rowe Price Associates, Inc., 100 East Pratt Street, Baltimore, MD 21202.

(9) The shares being offered consists of the following shares of Common Stock purchased in the PIPE Financing: (a) 121,212 shares of Common Stock purchased by OrbiMed Partners Master Fund Limited ("OPM") and (b) 103,788 shares of Common Stock purchased by OrbiMed Genesis Master Fund, L.P. ("Genesis"). OrbiMed Genesis GP LLC ("Genesis GP") is the general partner of Genesis. OrbiMed Advisors LLC ("OrbiMed Advisors") is the managing member of Genesis GP. By virtue of such relationships, Genesis GP and OrbiMed Advisors may be deemed to have voting power and investment power over the securities held by Genesis and as a result, may be deemed to have beneficial ownership over such securities. OrbiMed Capital LLC ("OrbiMed Capital") is the investment advisor to OPM. OrbiMed Capital is a relying advisor of OrbiMed Advisors. OrbiMed Advisors and OrbiMed Capital exercise voting and investment power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild, each of whom disclaims beneficial ownership of the shares held by Genesis and OPM. The address of OPM and Genesis is c/o OrbiMed Advisors LLC, 601 Lexington Avenue, 54th Floor, New York, NY 10022.

(10) The shares being offered consists of 225,000 shares of Common Stock purchased by Vivo Opportunity Fund Holdings, L.P. in the PIPE Financing. Vivo Opportunity, LLC is the general partner of Vivo Opportunity Fund Holdings, L.P. The voting members of Vivo Opportunity, LLC are Gaurav Aggarwal, Hongbo Lu, Kevin Dai, Frank Kung, and Michael Chang, none of whom has individual voting or investment power with respect to these shares and each of whom disclaims beneficial ownership of such shares. The address of the selling shareholder is 192 Lytton Avenue, Palo Alto, CA 94301.

(11) The shares being offered consists of the following shares of Common Stock purchased in the PIPE Financing: (a) 118,600 shares of Common Stock purchased by Biomedical Value Fund, L.P. ("BVF") and (b) 81,400 shares of Common Stock purchased by Biomedical Offshore Value Fund, Ltd. Great Point Partners, LLC ("Great Point") is the investment manager of BVF and BOVF. By virtue of its status as investment manager for BVF and BOVF, Great Point may be deemed to be the beneficial owner with respect to these shares. Each of Dr. Jeffrey R. Jay, M.D. ("Dr. Jay"), as Senior Managing Member of Great Point, and Mr. Ortav Yehudai ("Mr. Yehudai"), as Managing Director of Great Point, has voting and investment power with respect to the shares, and therefore may be deemed to be the beneficial owners of such shares. Great Point, Dr. Jay and Mr. Yehudai disclaim beneficial ownership of such shares, except to the extent of their respective pecuniary interests. The total number of shares of common stock beneficially owned prior to the PIPE Financing includes (i) 41,490 shares beneficially owned by BVF and (ii) 28,477 shares beneficially owned by BVOF. The address of the foregoing entities is 165 Mason Street, 3rd Floor, Geenwich, CT 06830.

(12) The shares being offered consists of 200,000 shares of Common Stock purchased by Adage Capital Partners, L.P. in the PIPE Financing. Bob Atchinson and Phillip Gross are the managing members of Adage Capital Advisors, L.L.C., which is the managing member of Adage Capital Partners GP, L.L.C., which is the general partner of Adage Capital Partners, L.P., and each such person or entity, as the case may be, may be deemed the beneficial owner of such shares. The address of Adage Capital Partners, L.P. is 200 Clarendon Street, 52nd Floor, Boston MA 02116.

(13) The shares being offered consists of 150,000 shares of Common Stock purchased by Logos Opportunities Fund III, LP ("LOF III") in the PIPE Financing. Logos Opportunities II GP, LLC ("Logos Opportunities GP") is the general partner of Logos Opportunities Fund III, LP. Arsani William and Graham Walmsley are the managing members of Logos Opportunities GP and share voting and dispositive power with respect to the shares held of record by Logos Opportunities Fund III, LP. The total number of shares of common stock beneficially owned prior to the PIPE Financing includes 1,160,664 shares held by affiliates of the selling stockholder. The address of the foregoing entities is 1 Letterman Drive, Suite C3-350, San Francisco, CA 94129.

(14) The shares being offered consists of 150,000 shares of Common Stock purchased by Maven Investment Partners US Limited—New York Branch ("XXX") in the PIPE Financing. Ian Toon, Ivan Koedjikov and Benjamin Huda are the natural controlling persons of Maven Investment Partners US Limited—New York Branch and may be deemed the beneficial owners of such shares. The address of Maven Investment Partners US Limited - NY Branch is 675 Third Avenue, 15th Floor, New York, NY 10017.

(15) The shares being offered consists of the following shares of Common Stock purchased in the PIPE Financing: (a) 46,182 shares of Common Stock purchased by Driehaus Life Sciences Master Fund, L.P. ("DLSMF") and (b) 13,818 shares of Common Stock purchased by Driehaus Life Sciences (QP) Fund, L.P. ("DLSQP" and together with DLSMF, the "Driehaus Entities"). Driehaus Capital Management LLC is the investment adviser of the Driehaus Entities. Michael Caldwell is a portfolio manager of the Driehaus Capital Management LLC and Alex Munns is the assistant portfolio manager of Driehaus Capital Management LLC and may be deemed to have investment discretion and voting power over the shares held by the Driehaus Entities. Each of Michael Caldwell and Alex Munns disclaims beneficial ownership of these shares. The address of the foregoing entities is 25 East Erie Street, Chicago, IL 60611.

(16) The shares being offered consists of 60,000 shares of Common Stock purchased by CaaS Capital Master Fund LP ("CCMF") in the PIPE Financing. CCMF is managed by CaaS Capital Management LP ("CaaS Management"). Siufu Frank Fu has voting and investment control over CaaS Management and, accordingly, may be deemed to have beneficial ownership of the shares of our Common Stock held by CCMF. The address of CCMF is 800 3rd Ave., 26th Floor, New York, NY 10022.

(17) The shares being offered consists of 60,000 shares of Common Stock purchased by Woodline Master Fund LP in the PIPE Financing. Woodline Partners LP serves as the investment manager of Woodline Master Fund LP and may be deemed to be the beneficial owner of the shares. The inclusion of Woodline Partners LP in this table should not be construed as an admission that they are the beneficial owner of these shares. The business address of Woodline Master Fund LP is 4 Embarcadero Center, Suite 3450, San Francisco CA 94111.

(18) The shares being offered consists of 60,000 shares of Common Stock purchased by Averill Master Fund, Ltd. in the PIPE Financing. Suvretta Capital Management, LLC, the investment manager of Averill Master Fund, Ltd., may be deemed to beneficially own the shares of common stock held by Averill Master Fund, Ltd. Aaron Cowen may be deemed to control Suvretta Capital Management, LLC, and therefore may be deemed to beneficially own the shares held by Averill Master Fund, Ltd. The business address of Averill Master Fund, Ltd. is 540 Madison Avenue, 7th Floor, New York, NY 10022.

(19) The shares being offered consists of the following shares of Common Stock purchased in the PIPE Financing: (a) 51,000 shares of Common Stock purchased by Acuta Capital Fund, LP and (b) 9,000 shares of Common Stock purchased by Acuta Opportunity Fund, LP. Anupam Dalal is the Chief Investment Officer and Managing Member of Acuta Capital Partners, LLC, the general partner of Acuta Capital Fund, LP and Acuta Opportunity Fund, LP. Mr. Dalal has sole voting and investment authority over all of the shares held by Acuta Capital Fund, LP and Acuta Opportunity Fund, LP, and disclaims beneficial ownership of all such shares except to the extent of their pecuniary interest therein. The total number of shares of common stock beneficially owned prior to the PIPE Financing includes (i) 61,441 shares beneficially owned by Acuta Capital Fund, LP and (ii) 10,833 shares beneficially owned by Acuta Opportunity Fund, LP. The address for the beneficial owners is c/o Acuta Capital Partners, LLC, 1301 Shoreway Road, Suite 350, Belmont, CA, 94002.

(20) The shares being offered consists of the following shares of Common Stock purchased in the PIPE Financing: (a) 35,825 shares of Common Stock purchased by Walleye Opportunities Master Fund Ltd and (b) 17,646 shares of Common Stock purchased by Walleye Manager Opportunities LLC. Walleye Manager Opportunities LLC and Walleye Opportunities Master Fund Ltd (collectively, the "Walleye Entities") are private investment funds managed by Walleye Capital LLC. Andrew Carney is the Chief Executive Officer of Walleye Capital LLC and William England is the Chief Investment Officer of Walleye Capital LLC. As a result, Walleye Capital LLC, Mr. Carney and Mr. England may be deemed to have shared voting and dispositive power with respect to the shares held by the Walleye Entities. Walleye Capital LLC, Mr. Carney and Mr. England disclaim beneficial ownership of such shares except to the extent of each of their pecuniary

interest therein. Based on information provided to us by the selling stockholders, each of the Walleye Entities may be deemed to be an affiliate of a broker-dealer. Based on such information, the selling stockholders acquired the shares in the ordinary course of business, and at the time of the acquisition of the shares, the selling stockholders did not have any agreements or understandings with any person to distribute such shares. The address of the Walleye Entities is 2800 Niagara Lane North, Plymouth, MN 55447.

PLAN OF DISTRIBUTION

The selling stockholders, 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 stockholders as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their 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 stockholders may use any one or more of the following methods when disposing of shares 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 stockholders 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 stockholders 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 their 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, amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders 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 stockholders for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders 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 stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders 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).

The aggregate proceeds to the selling stockholders 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. Each of the selling stockholders reserves the right to accept and, together with their 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 stockholders also may resell all or a portion of the shares 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 stockholders 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 stockholders 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 stockholders, 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 advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, to the extent applicable, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders 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 stockholders 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 such date that all shares registered hereunder have been sold pursuant to a registration statement under the Securities Act or under Rule 144 as promulgated by the SEC under the Securities Act.

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

On February 26, 2021, concurrent with the closing of the Company's Series A financing for gross proceeds of $57.3 million, the Company acquired 100% of the issued and outstanding shares of two affiliated companies, Zomagen and Oppilan (the Acquisitions). The following unaudited pro forma condensed combined financial statements are based on the audited historical consolidated financial statements of Zomagen and Oppilan, which are incorporated by reference into this prospectus, after giving effect to the Acquisitions, and prepared based upon the acquisition method of accounting in accordance with United States generally accepted accounting principles (U.S. GAAP). Ventyx was determined to be the acquirer of Zomagen and Oppilan for accounting purposes. See "*Note 2— Basis of presentation*" below. To determine the accounting for this transaction under U.S. GAAP, the Company assessed whether the integrated sets of assets and activities should be accounted for as an acquisition of a business or an asset acquisition. The guidance requires an initial screen test to determine if substantially all of the fair value of the gross assets acquired is concentrated in a single asset or group of similar assets. If that screen is met, the set is not a business. In connection with the Acquisitions, Zomagen and Oppilan do not have an organized workforce that significantly contributes to their ability to create output, and substantially all of the fair value is concentrated in cash and IPR&D. As such, the Acquisitions have been accounted for as asset acquisitions.

The unaudited pro forma condensed statement of operations for the year ended December 31, 2021 combines the historical audited consolidated operations of Ventyx for the year ended December 31, 2021, with the historical consolidated statement of operations of Zomagen and Oppilan for the period from January 1, 2021 to February 25, 2021. Zomagen's and Oppilan's results for the period from February 26, 2021 to December 31, 2021 are included within the Ventyx's consolidated statement of operations for the year ended December 31, 2021.

An unaudited pro forma condensed combined balance sheet has not been presented as the Acquisitions were reflected in the Company's consolidated balance sheet as of December 31, 2021. The unaudited pro forma condensed combined financial statements include all material pro forma adjustments necessary for this purpose that are directly attributable to the Acquisitions and are factually supportable.

The unaudited pro forma condensed combined financial information was derived from and should be read in conjunction with the audited consolidated financial statements and the related notes for the year ended December 31, 2021, which are included in the Annual Report on Form 10-K filed with the Securities Exchange Commission (SEC) on March 23, 2022 and incorporated by reference in this prospectus.

UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS FOR THE YEAR ENDED DECEMBER 31, 2021
(in thousands, except share and per share amounts)

	VENTYX BIOSCIENCES, INC	ZOMAGEN BIOSCIENCES, LTD	OPPILAN PHARMA, LTD	TRANSACTION ACCOUNTING ADJUSTMENTS	NOTES	PRO FORMA COMBINED
Operating expenses:						
Research and development	$ 58,481	$ 730	$ (15)	$ —		$ 59,196
General and administrative	8,666	152	353	—		9,171
Total operating expenses	67,147	882	338	—		68,367
Loss from operations	(67,147)	(882)	(338)	—		(68,367)
Other (income) expense:						
Other (income) expense	(27)	—	—	—		(27)
Interest expense-related party	99	287	—	(386)	C	—
Change in fair value of notes and derivative-related party	11,051	—	—	(11,051)	A	—
Change in fair value of Series A tranche liability	5,476	—	—	—		5,476
Change in fair value of 2020 bridge loan notes	—	—	(139)	139	B	—
Total other (income) expense	16,599	287	(139)	(11,298)		5,449
Net loss	(83,746)	(1,169)	(199)	11,298		(73,816)
Deemed dividend	(1,552)	—	—	—		(1,552)
Net loss attributable to common shareholders	$ (85,298)	$ (1,169)	$ (199)	$ 11,298		$ (75,368)
Net loss per share attributable to common shareholders, basic and diluted	$ (6.65)					$ (5.82)
Shares used to compute basic and diluted net loss per share attributable to common shareholders	12,825,598			125,624	D	12,951,222

See accompanying notes to the unaudited pro forma condensed combined financial information.

NOTES TO THE UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

1. Description of the Zomagen and Oppilan acquisition

The Company is a clinical-stage biopharmaceutical company developing a pipeline of small molecule product candidates to address a range of inflammatory diseases with significant unmet medical need. The Company leverages the substantial experience of its team in immunology to identify important new targets and to develop differentiated therapeutics against these targets. The Company's clinical product candidates address therapeutic indications with substantial commercial opportunity for novel molecules.

In February 2021, the Company received $57.3 million in cash in connection with a Series A preferred stock financing, and an additional $57 million in June 2021 in connection with a second closing of the same Series A preferred stock financing. Concurrent with the Series A Financing in February 2021, the Company acquired all of the issued and outstanding shares of two affiliated companies, Zomagen and Oppilan.

In connection with the closing of Ventyx's acquisition of Zomagen, on February 26, 2021, the Company issued an aggregate of (i) 2,003,768 shares of our Series A-1 preferred stock for the exchange for Zomagen's then-outstanding convertible promissory notes and convertible simple agreements for future equity ("SAFE") notes, (ii) 457,944 shares of our common stock, and (iii) 30,483 options to purchase shares of our common stock, in exchange for all of the outstanding shares and options of Zomagen.

In connection with the closing of Ventyx's acquisition of Oppilan, on February 26, 2021, the Company issued an aggregate of (i) 4,049,143 shares of our Series A-1 preferred stock for the exchange for Oppilan's then-outstanding equity and convertible promissory notes, (ii) 360,854 shares of our common stock, and (iii) 75,955 options to purchase shares of our common stock, in exchange for all of the outstanding shares and options of Oppilan.

2. Basis of presentation

The accompanying unaudited pro forma condensed combined financial information gives effect to the acquisition of Zomagen and Oppilan by Ventyx. The unaudited pro forma condensed combined financial information is based on the historical consolidated financial statements of Ventyx, Zomagen and Oppilan, and the assumptions and adjustments set forth in these notes. In accordance with the financial statement requirements contained in Article 11 of Regulation S-X, pro forma condensed combined financial information is presented as outlined below:

- The unaudited pro forma condensed statement of operations for the year ended December 31, 2021 combines the historical audited consolidated operations of Ventyx for the year ended December 31, 2021, with the historical consolidated statement of operations of Zomagen and Oppilan for the period from January 1, 2021 to February 25, 2021. Zomagen's and Oppilan's results for the period from February 26, 2021 to December 31, 2021 are included within the Ventyx's consolidated statement of operations for the year ended December 31, 2021.

The unaudited pro forma condensed combined financial information is provided for informational purposes only and is based on available information and reasonable assumptions. It does not purport to represent what the actual consolidated results of operations or the consolidated financial position of Ventyx would have been if the acquisition occurred on the dates indicated, nor is it necessarily indicative of future consolidated results of operations or consolidated financial position. The actual financial position and results of operations will differ, perhaps significantly, from the pro forma amounts reflected herein due to a variety of factors, including access to additional information, changes in value not currently identified and changes in financial position and operating results following the date of the unaudited pro forma condensed combined financial information.

Pro forma transaction accounting adjustments are included only to the extent they are adjustments that reflect the accounting for the transaction in accordance with U.S. GAAP.

The Acquisitions were accounted for using the asset acquisition method of accounting with Ventyx as the accounting acquirer and Zomagen and Oppilan as the accounting acquirees.

The unaudited pro forma condensed combined financial information should be read in conjunction with the historical consolidated financial statements and accompanying notes of Ventyx included within the Prospectus and the Annual Report on Form 10-K.

3. Purchase price

The fair value of the purchase price, as determined on February 26, 2021, in the unaudited pro forma condensed combined financial information below is based on (i) Ventyx's value per share of $3.06 per share of common stock and Series A-1 share; and (ii) the weighted average grant date fair values of options to purchase Ventyx common stock issued in the acquisitions of Zomagen and Oppilan of $2.87 per share and $1.86 per share, respectively.

The following table summarizes the components of the purchase price for Zomagen and Oppilan:

	ZOMAGEN BIOSCIENCES, LTD	OPPILAN PHARMA, LTD
Ventyx common shares issued	457,944	360,854
Ventyx's share value	$ 3.06	$ 3.06
	$ 1,401,309	$ 1,104,213
Ventyx Series A-1 shares issued	2,003,768	4,049,143
Ventyx's Series A-1 share value	$ 3.06	$ 3.06
	$ 6,131,530	$12,390,378
Stock consideration	$ 7,532,839	$13,494,591
Outstanding options to purchase shares of Ventyx common stock	30,483	75,955
Ventyx's option value	$ 2.87	$ 1.86
	$ 87,486	$ 141,276
Transaction fees	$ 206,647	$ 370,195
Total purchase price	$ 7,826,972	$14,006,062

This purchase price has been used to prepare the transaction accounting adjustments in the unaudited pro forma condensed combined financial information.

4. Transaction accounting adjustments

Adjustments included in the column under the headings "Transaction accounting adjustments" in the statement of operations for the year ended December 31, 2021 depicts the accounting for the acquisition required by U.S. GAAP, assuming those adjustments were made as of January 1, 2021. Transaction accounting adjustments reflect the application of required accounting to the transaction applying the effects of the acquisition of Zomagen and Oppilan to Ventyx's historical financial information.

The transaction accounting adjustments included in the unaudited pro forma condensed combined financial information for the year ended December 31, 2021 are as follows:

(A) To reverse the change in fair value of related party notes of $11.1 million for Ventyx. The related party notes were required to be converted and/or exchanged as a part of the transactions which are assumed to have occurred as of January 1, 2021. This fair value adjustment is directly related to the acquisitions and will not be a recurring transaction in the post-acquisition period.

(B) To reverse the change in fair value of 2020 bridge loan notes of $0.1 million for Oppilan. The bridge loan notes were exchanged for Ventyx Series A-1 preferred stock as a part of the transactions which are assumed to have occurred as of January 1, 2021. This gain is directly related to the acquisitions and will not be a recurring transaction in the post-acquisition period.

(C) To reverse the interest expense of $0.1 million and $0.3 million for Ventyx and Zomagen, respectively, related to the SAFE and convertible promissory notes. The SAFE and convertible promissory notes were exchanged for Ventyx Series A-1 preferred stock as a part of the transactions which are assumed to have occurred as of January 1, 2021. This adjustment to interest expense is directly related to the acquisitions and will not be a recurring transaction in the post-acquisition period.

(D) To reflect the issuance of Ventyx common stock for the Stock Consideration to Zomagen and Oppilan stockholders. The issuance of 457,944 and 360,854 shares of Stock Consideration to Zomagen and Oppilan stockholders, respectively, is reflected in the shares used to calculate net loss per share, assuming the transactions occurred as of January 1, 2021.

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, 2021, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of Oppilan Pharma Ltd. at May 31, 2019 and 2020 and for years then ended, included in Ventyx Biosciences, Inc.'s registration statement on Form S-1 (No. 333-259891) have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of Zomagen Biosciences Ltd. at December 31, 2019 and 2020 and for years then ended, included in Ventyx Biosciences, Inc.'s registration statement on Form S-1 (No. 333-259891) been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL 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 OF CERTAIN INFORMATION 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 prospectus dated October 20, 2021, filed with the SEC on October 21, 2021 pursuant to Rule 424(b) under the Securities Act, relating to the registration statement on Form S-1, as amended (File No. 333-259891), which contains the audited consolidated financial statements of Oppilan Pharma Ltd. at May 31, 2019 and 2020, and for the years then ended, and the audited consolidated financial statements of Zomagen Biosciences Ltd. at December 31, 2019 and 2020, and for the years then ended;
- our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, filed with the SEC on March 24, 2022;
- our definitive proxy statement on Schedule 14A, filed with the SEC on April 27, 2022;
- our Current Reports on Form 8-K, filed with the SEC on March 15, 2022, March 23, 2022, May 9, 2022, May 12, 2022, June 9, 2022, June 29, 2022, August 15, 2022, September 19, 2022, November 3, 2022 and November 30, 2022;
- our Quarterly Reports on Form 10-Q, filed with the SEC on May 12, 2022, August 15, 2022 and November 4, 2022; 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.
662 Encinitas Blvd., Suite 250
Encinitas, California 92024 (760) 593-4832

5,350,000 Shares of Common Stock

Ventyx Biosciences, Inc.

PROSPECTUS

December 20, 2022

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth estimated expenses in connection with the issuance and distribution of the securities being registered:

	AMOUNT TO BE PAID
SEC Registration Fee	$ 18,500(1)
Printing and engraving expenses	$ *
Legal fees and expenses	$ *
Accounting fees and expenses	$ *
Miscellaneous expenses	$ *
Total	$ 18,500(1)

(1) Previously paid.
* These fees are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law empowers a corporation to indemnify its directors and officers and to purchase insurance with respect to liability arising out of their capacity or status as directors and officers, provided that the person acted in good faith and in a manner the person reasonably believed to be in the Company's best interests, and, with respect to any criminal action, had no reasonable cause to believe the person's actions were unlawful. The Delaware General Corporation Law further provides that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise. The certificate of incorporation of the registrant provides for the indemnification of the registrant's directors and officers to the fullest extent permitted under the Delaware General Corporation Law. In addition, the bylaws of the registrant require the registrant to fully indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (whether civil, criminal, administrative or investigative) by reason of the fact that such person is or was a director or officer of the registrant, or is or was a director or officer of the registrant serving at the registrant's request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, to the fullest extent permitted by applicable law.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except (1) for any breach of the director's duty of loyalty to the corporation or its stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) for payments of unlawful dividends or unlawful stock repurchases or redemptions or (4) for any transaction from which the director derived an improper personal benefit. The registrant's certificate of incorporation provides that the registrant's directors shall not be personally liable to it or its stockholders for monetary damages for breach of fiduciary duty as a director and that if the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of the registrant's directors shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

Section 174 of the Delaware General Corporation Law provides, among other things, that a director who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption may be held liable for such actions. A director who was either absent when the unlawful actions were approved, or dissented at the time, may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts.

As permitted by the Delaware General Corporation Law, the registrant has entered into, and intends to continue to enter into, separate indemnification agreements with each of the registrant's directors and certain of the registrant's officers which would require the registrant, among other things, to indemnify them against certain liabilities which may arise by reason of their status as directors, officers or certain other employees.

The registrant expects to obtain and maintain insurance policies under which its directors and officers are insured, within the limits and subject to the limitations of those policies, against certain expenses in connection with the defense of, and certain liabilities which might be imposed as a result of, actions, suits or proceedings to which they are parties by reason of being or having been directors or officers. The coverage provided by these policies may apply whether or not the registrant would have the power to indemnify such person against such liability under the provisions of the Delaware General Corporation Law.

These indemnification provisions and the indemnification agreements intended to be entered into between the registrant and the registrant's officers and directors may be sufficiently broad to permit indemnification of the registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act of 1933, as amended.

Item 16. Exhibit and Financial Statement Schedules

The following exhibits are filed as part of this registration statement.

EXHIBIT INDEX

EXHIBIT NUMBER	DESCRIPTION
2.1	Share Purchase Agreement, dated as of February 26, 2021, by and among the Registrant, Zomagen Biosciences Ltd. and certain of its Securityholders (incorporated by reference to Exhibit 2.2 to the Registrant's Registration Statement on Form S-1, File No. 333-259891).
2.2	Share Purchase Agreement, dated as of February 26, 2021, by and among the Registrant, Oppilan Pharma Ltd. and certain of its Securityholders (incorporated by reference to Exhibit 2.3 to the Registrant's Registration Statement on Form S-1, File No. 333-259891).
4.1	Specimen common stock certificate of the Registrant (incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-1, File No. 333-259891).
4.2	Amended and Restated Investors' Rights Agreement, dated as of September 9, 2021, by and among the Registrant and certain of its Stockholders (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1, File No. 333-259891).
4.3	Description of Common Stock (incorporated by reference to Exhibit 4.3 to the Registrant's Annual Report on Form 10-K, filed on March 24, 2022).
4.4	Form of Registration Rights Agreement, dated September 17, 2022, by and among the Company and the Purchasers set forth therein (incorporated by reference to Exhibit 10.2 on the Registrant's Current Report on Form 8-K filed on September 19, 2022).

EXHIBIT NUMBER	DESCRIPTION
5.1**	Opinion of Wilson Sonsini Goodrich & Rosati, P.C. (incorporated by reference to Exhibit 5.1 on the Company's Registration Statement on Form S-1 (File No. 333-267626) filed with the SEC on September 27, 2022).
10.1	Stock Purchase Agreement, dated September 17, 2022, by and among the Company and the Purchasers set forth therein (incorporated by reference to Exhibit 10.1 on the Registrant's Current Report on Form 8-K filed on September 19, 2022).
21.1**	Subsidiaries of the Registrant (incorporated by reference to Exhibit 21.1 on the Company's Registration Statement on Form S-1 (File No. 333-267626) filed with the SEC on September 27, 2022).
23.1*	Consent of Independent Registered Public Accounting Firm.
23.2*	Consent of Independent Auditors of Oppilan Pharma Ltd.
23.3*	Consent of Independent Auditors of Zomagen Biosciences Ltd.
23.4**	Opinion of Wilson Sonsini Goodrich & Rosati, P.C. (included in Exhibit 5.1).
24.1**	Powers of Attorney (included on signature page to the Company's Registration Statement on Form S-1 (File No. 333-267626) filed with the SEC on September 27, 2022).

* Filed herewith.
** Previously filed.

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) to file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC, pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, *however*, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act, that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) that, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) that, for the purpose of determining liability under the Securities Act to any purchaser:

(i) each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) that, for the purpose of determining liability of a registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of such undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(b) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer

or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Post-Effective Amendment No. 1 to this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Encinitas, California on December 20, 2022.

VENTYX BIOSCIENCES, INC.

By: /s/ Raju Mohan
Raju Mohan, Ph.D.
Chief Executive Officer

POWER OF ATTORNEY

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

SIGNATURE	TITLE OF CAPACITIES	DATE
/s/ Raju Mohan Raju Mohan, Ph.D.	Chief Executive Officer and Director *(Principal Executive Officer)*	December 20, 2022
/s/ Martin Auster Martin Auster, M.D.	Chief Financial Officer *(Principal Financial Officer and Principal Accounting Officer)*	December 20, 2022
* Sheila Gujrathi, M.D.	Executive Chairperson	December 20, 2022
* Jigar Choksey, M.B.A.	Director	December 20, 2022
* Richard Gaster, M.D., Ph.D.	Director	December 20, 2022
* Aaron Royston, M.D., M.B.A.	Director	December 20, 2022
* Somasundaram Subramaniam, M.B.A.	Director	December 20, 2022
* William White J.D., M.P.P.	Director	December 20, 2022

*By: /s/ Raju Mohan
Raju Mohan, Ph.D.
As Attorney-in-Fact

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" in the post-effective Amendment No. 1 to Form S-1 on Form S-3 to the Registration Statement (Form S-3) and related Prospectus of Ventyx Biosciences, Inc. for the registration of shares of common stock and to the incorporation by reference therein of our report dated March 24, 2022, with respect to the consolidated financial statements of Ventyx Biosciences, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2021 filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Diego, California
December 20, 2022

Exhibit 23.2

Consent of Independent Auditors

We consent to the reference to our firm under the caption "Experts" in the post-effective Amendment No. 1 to Form S-1 on Form S-3 to the Registration Statement (Form S-3) and related Prospectus of Ventyx Biosciences, Inc. for the registration of shares of common stock and to the incorporation by reference therein of our report dated August 20, 2021 (except for the last paragraph of Note 11, as to which the date is October 14, 2021), with respect to the consolidated financial statements of Oppilan Pharma Ltd. included in the Registration Statement (Form S-1 No. 333-259891) of Ventyx Biosciences, Inc. filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Diego, California
December 20, 2022

Exhibit 23.3

Consent of Independent Auditors

We consent to the reference to our firm under the caption "Experts" in the post-effective Amendment No. 1 to Form S-1 on Form S-3 to the Registration Statement (Form S-3) and related Prospectus of Ventyx Biosciences, Inc. for the registration of shares of common stock and to the incorporation by reference therein of our report dated August 20, 2021 (except for the last paragraph of Note 11, as to which the date is October 14, 2021), with respect to the consolidated financial statements of Zomagen Biosciences Ltd. included in the Registration Statement (Form S-1 No. 333-259891) of Ventyx Biosciences, Inc. filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Diego, California
December 20, 2022