

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

**FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Dianthus Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

81-00724163
(I.R.S. Employer
Identification No.)

7 Times Square,
43rd Floor,
New York, NY 10036
(929) 999-4055

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Ryan Savitz
Chief Financial Officer and Chief Business Officer
Dianthus Therapeutics, Inc.
7 Times Square,
43rd Floor,
New York, NY 10036
(929) 999-4055

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Ryan A. Murr
Branden C. Berns
Gibson, Dunn & Crutcher LLP
One Embarcadero Center, Suite 2600
San Francisco, CA 94111
(415) 393-8200

Adam M. Veness, Esq.
SVP, General Counsel and Secretary
Dianthus Therapeutics, Inc.
7 Times Square, 43rd Floor
New York, NY 10036
(929) 999-4055

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

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, 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 the 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 that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

[Table of Contents](#)

The information in this prospectus is not complete and may be changed. The selling stockholders named in this prospectus may not sell these securities until the registration statement filed with the U.S. Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and it is not soliciting an offer to buy these securities, in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED OCTOBER 1, 2024

PRELIMINARY PROSPECTUS



Dianthus Therapeutics, Inc.

23,655,372 Shares

Common Stock

Offered by the Selling Stockholders

Pursuant to this prospectus, the selling stockholders identified herein (the "Selling Stockholders") are offering (the "Offering") on a resale basis an aggregate of up to 23,655,372 shares of common stock, par value \$0.001 per share ("Common Stock" and, such shares of Common Stock that are being registered by this prospectus and offered on a resale basis, the "Resale Shares"), of Dianthus Therapeutics, Inc. (formerly Magenta Therapeutics, Inc.), a Delaware corporation ("Dianthus," "we," "us," "our" or the "Company"). The Resale Shares consist of:

- (i) shares of Common Stock issued to certain former stockholders of Dianthus Therapeutics OpCo, Inc. (formerly Dianthus Therapeutics, Inc.), a Delaware corporation ("Former Dianthus"), in exchange for such stockholders' Former Dianthus common stock (x) in connection with the consummation of the merger of Dio Merger Sub, Inc., a Delaware corporation ("Merger Sub"), with and into Former Dianthus, with Former Dianthus surviving as a wholly owned subsidiary of the Company, which closed on September 11, 2023 (the "Merger"), pursuant to that certain Agreement and Plan of Merger, dated as of May 2, 2023 (the "Merger Agreement"), by and among us, Former Dianthus and Merger Sub, and (y) purchased in the Former Dianthus pre-closing financing (as defined below) pursuant to the Subscription Agreement (as defined below) in connection with the consummation of the Merger pursuant to the Merger Agreement;
- (ii) shares of Common Stock issuable upon the exercise of pre-funded warrants (the "2023 Pre-Funded Warrants") that were converted from Former Dianthus pre-funded warrants purchased by certain former stockholders of Former Dianthus in the Former Dianthus pre-closing financing pursuant to the Subscription Agreement in connection with the consummation of the Merger pursuant to the Merger Agreement;
- (iii) shares of Common Stock issued to certain institutional and accredited investors in the 2024 Private Placement (as defined below) pursuant to the Securities Purchase Agreement (as defined below); and
- (iv) shares of Common Stock issuable upon the exercise of pre-funded warrants (the "2024 Pre-Funded Warrants" and, together with the 2023 Pre-Funded Warrants, the "Pre-Funded Warrants") issued to certain institutional and accredited investors in the 2024 Private Placement pursuant to the Securities Purchase Agreement.

We are not offering or selling any Resale Shares under this prospectus, and we will not receive any of the proceeds from the sale of the Resale Shares by the Selling Stockholders pursuant to this prospectus. Upon any exercise of the Pre-Funded Warrants by payment of cash, however, we will receive the nominal cash exercise price paid by the holders of the Pre-Funded Warrants. We intend to use those proceeds, if any, for general corporate purposes.

Our registration of the securities covered by this prospectus does not mean that the Selling Stockholders will offer or sell any of the Resale Shares. The Selling Stockholders may sell the Resale Shares covered by this prospectus in a number of different ways and at varying prices. We provide more information about how the Selling Stockholders may sell the Resale Shares in the section entitled "Plan of Distribution." Discounts, concessions, commissions and similar selling expenses attributable to the sale of the Resale Shares will be borne by the Selling Stockholder. We will pay certain fees and expenses (other than discounts, concessions, commissions and similar selling expenses) incident to the registration of the Resale Shares with the U.S. Securities and Exchange Commission ("SEC").

You should carefully read this prospectus and any applicable prospectus supplement, as well as any documents incorporated by reference herein or therein, before you invest in any of the securities being offered.

Our Common Stock is traded on The Nasdaq Capital Market under the symbol "DNTH." On September 26, 2024, the last reported sales price for our Common Stock was \$27.02 per share.

An investment in our securities involves a high degree of risk. You should carefully consider the information under the heading "[Risk Factors](#)" beginning on page 10 of this prospectus and any applicable prospectus supplement and under similar headings in the other documents that are incorporated by reference into this prospectus.

We are a "smaller reporting company" as defined by Rule 12b-2 of the Exchange Act and are subject to reduced public company reporting requirements.

Neither the SEC 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. The securities are not being offered in any jurisdiction where the offer is not permitted.

The date of this prospectus is _____, 2024

TABLE OF CONTENTS

	<u>PAGE</u>
ABOUT THIS PROSPECTUS	1
CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS	2
PROSPECTUS SUMMARY	5
RISK FACTORS	10
INCORPORATION OF INFORMATION BY REFERENCE	11
USE OF PROCEEDS	12
SELLING STOCKHOLDERS	13
PLAN OF DISTRIBUTION	19
DESCRIPTION OF CAPITAL STOCK	21
LEGAL MATTERS	27
EXPERTS	27
WHERE YOU CAN FIND MORE INFORMATION	27

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC using a “shelf” registration process. Under this shelf registration process, the Selling Stockholders may, from time to time, offer and sell the securities described in this prospectus in one or more offerings. Information about the Selling Stockholders may change over time.

This prospectus provides you with a general description of the shares the Selling Stockholders may offer. Each time the Selling Stockholders sell our shares of Common Stock using this prospectus, to the extent necessary and required by law, we will provide a prospectus supplement that will contain specific information about the terms of that offering, including the number of shares of Common Stock being offered, the manner of distribution, the identity of any underwriters or other counterparties and other specific terms related to the offering. The prospectus supplement may also add, update or change information contained in this prospectus. To the extent that any statement made in a prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the prospectus supplement. You should read this prospectus, any applicable prospectus supplement and the information incorporated by reference in this prospectus before making an investment in shares of our Common Stock. See “*Where You Can Find More Information*” for more information.

This prospectus contains and incorporates by reference information that you should consider when making your investment decision. Neither we nor the Selling Stockholders have authorized anyone to give any information or to make any representation other than those contained or incorporated by reference in this prospectus. The Selling Stockholders are offering to sell, and seeking offers to buy, our securities only in jurisdictions where it is lawful to do so. We have not authorized anyone to provide you with different information. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in any accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

For investors outside of the United States, neither we nor the Selling Stockholders have done anything that would permit the offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to the offering and the distribution of this prospectus outside of the United States.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), which statements are subject to substantial risks and uncertainties and are based on estimates and assumptions. All statements, other than statements of historical fact, included in this prospectus are forward-looking statements, including, without limitation, statements concerning our plans, objectives, goals, expectations, hopes, beliefs, intentions, assumptions, projections, estimates or strategies and any underlying assumptions regarding the future, our future results of operations and financial position, including the sufficiency of our existing cash resources to fund our operations for as long as anticipated, our liquidity, capital resources, costs and expenses, capital requirements, commitments and contingencies, the development or commercial potential of DNTH103 or any other product candidate, our anticipated preclinical and clinical drug development activities, in particular with respect to DNTH103, and any timelines, developments or results in connection therewith, including the timing of data, the efficacy, safety profile, dosing amount or frequency, method of delivery or other potential therapeutic benefits of DNTH103, the receipt or timing of potential regulatory designations, approvals and commercialization of any product candidates, market size or addressable patient population and other statements, including those included under the section titled “*Risk Factors*” and elsewhere in this prospectus. In some cases, you can identify forward-looking statements by terms such as “aim,” “may,” “might,” “will,” “would,” “shall,” “objective,” “intend,” “target,” “should,” “could,” “can,” “expect,” “anticipate,” “believe,” “design,” “estimate,” “forecast,” “predict,” “project,” “potential,” “possible,” “plan,” “seek,” “contemplate,” “goal,” “likely” or “continue” or the negative of these terms and similar expressions intended to identify forward-looking statements, but the absence of these terms does not mean that a statement is not forward-looking. Forward-looking statements are not historical facts and are based on our current expectations and beliefs with respect to future events and their potential effects and impacts. There can be no assurance that future events affecting us will be those that have been anticipated. Given the significant risks and uncertainties, you should not place undue reliance on these forward-looking statements.

There are a number of risks, uncertainties and other factors that could cause our actual results or outcomes, or the timing of our results or outcomes, to differ materially from the forward-looking statements expressed or implied in this prospectus. Such risks, uncertainties and other factors include, among others, the following risks, uncertainties and factors:

- expectations regarding the strategies, prospects, plans, expectations and objectives of our management for future operations of the Company;
- risks associated with our ability to manage expenses and unanticipated spending and costs that could reduce our cash resources;
- risks related to our ability to correctly estimate our operating expenses and other events;
- changes in capital resource requirements;
- our ability to obtain, maintain and protect our intellectual property rights, in particular those related to our product candidates;
- our ability to advance the development of our product candidates or preclinical activities under the timelines we anticipate in planned and future clinical trials;
- our ability to replicate in later clinical trials positive results found in preclinical studies and early-stage clinical trials of our product candidates;
- our ability to realize the anticipated benefits of our research and development programs, strategic partnerships, licensing programs or other collaborations;
- regulatory requirements or developments, and our ability to obtain necessary approvals from the U.S. Food and Drug Administration (the “FDA”) or other regulatory authorities;

Table of Contents

- our ability to manufacture product candidates in conformity with the FDA or other regulatory authorities' requirements and to scale up manufacturing of our product candidates to commercial scale, if approved;
- changes to clinical trial designs and regulatory pathways;
- developments and projections relating to our expected or existing competitors or industry;
- unexpected costs, charges or expenses resulting from the Merger;
- legislative, regulatory, political, geopolitical and macroeconomic developments beyond our control, including inflationary pressures, general economic slowdown or a recession, high interest rates, changes in monetary policy or foreign currency exchange rates, instability in financial institutions, the prospect of a shutdown of the U.S. federal government, the ongoing conflict in Ukraine, conflict in the Middle East, rising tensions between China and Taiwan, the attacks on marine vessels traversing the Red Sea and the responses thereto, pandemics or other public health crises and supply chain disruptions;
- success in retaining, recruiting or changes required in, our officers, key employees or directors;
- the liquidity and trading of our securities;
- regulatory actions with respect to our product candidates or our competitors' products and product candidates;
- our ability to successfully develop and commercialize any technology that we may in-license or products we may acquire;
- our ability to successfully operate in non-U.S. jurisdictions in which we may choose to do business, including compliance with applicable regulatory requirements and laws;
- our reliance on third-party contract development and manufacturer organizations to manufacture and supply product candidates;
- our ability to establish satisfactory pricing and obtain adequate reimbursement from government and third-party payors of products and product candidates that receive regulatory approvals, if any;
- our ability to successfully commercialize product candidates, if approved, and the rate and degree of market acceptance of such product candidates;
- risks related to our ability to obtain additional financing and raise capital as necessary to fund operations or pursue business opportunities;
- the direct and indirect effects of widespread health emergencies on our workforce, operations, financial results and cash flows;
- severe weather and seasonal factors;
- our inability to continue to grow and manage our growth effectively;
- our inability to comply with, and the effect on our business of, evolving legal standards and regulations, including those concerning data protection, consumer privacy and sustainability and evolving labor standards; and
- our ability to remediate material weaknesses or other deficiencies in our internal control over financial reporting or to maintain effective disclosure controls and procedures and internal control over financial reporting.

There may be other factors that may cause our actual results or outcomes, or the timing of those results or outcomes, to differ materially from the forward-looking statements expressed or implied in this prospectus, including factors identified in this prospectus under the heading "*Risk Factors*" and in the applicable prospectus

[Table of Contents](#)

supplement and under similar headings in the other documents incorporated by reference into this prospectus. You should evaluate all forward-looking statements made in this prospectus and any prospectus supplement and in the other documents incorporated by reference into this prospectus in the context of these risks and uncertainties.

We caution you that the risks, uncertainties and other factors referred to above and elsewhere in this prospectus may not contain all of the risks, uncertainties and other factors that may affect our future results, operations and outcomes. Moreover, new risks emerge from time to time. It is not possible for us to predict all risks. In addition, we cannot assure you that we will realize the results, benefits or developments that we expect or anticipate or, even if substantially realized, that they will result in the consequences or affect us or our business in the way expected. Past performance is not indicative of future performance.

Any forward-looking statements contained in this prospectus apply only as of the date made and are expressly qualified in their entirety by the cautionary statements included in this prospectus. Except as required by law, we disclaim any intent to publicly update or revise any forward-looking statements, whether as a result of new information, future events, changes in assumptions or otherwise.

PROSPECTUS SUMMARY

The following summary highlights certain information contained elsewhere in this prospectus and the documents incorporated by reference herein. This summary provides an overview of selected information and does not contain all of the information you should consider in making your investment decision. Therefore, you should carefully read the entire prospectus and the documents incorporated by reference herein before investing in our securities. You should carefully consider the information set forth under the sections titled “Risk Factors,” “Cautionary Statement Concerning Forward-Looking Statements,” and the documents and other information we have incorporated by reference in this prospectus, including the financial statements and the related notes incorporated by reference in this prospectus.

ABOUT THE COMPANY

We are a clinical-stage biotechnology company focused on developing next-generation complement therapeutics for patients living with severe autoimmune and inflammatory diseases. We believe our lead novel and proprietary monoclonal antibody product candidate, DNTH103, has the potential to address a broad array of complement-dependent diseases as currently available therapies or those in development leave room for improvements in efficacy, safety, and/or dosing convenience. We have purposefully engineered DNTH103 to selectively bind to only the active form of the C1s complement protein (“C1s”) and to exhibit improved potency and an extended half-life. By selectively targeting only the active form of C1s, which drives disease pathology and constitutes only a small fraction of the total protein present in circulation, we aim to reduce the amount of drug required for a therapeutic effect. We intend to deliver our product candidate through a lower dose, less frequent, self-administered, convenient subcutaneous injection suitable for an auto-injector.

Our executive offices are located at 7 Times Square, 43rd Floor, New York, New York 10036, and our telephone number is (929) 999-4055. Our website address is www.dianthustx.com. Information contained on, or accessible through, our website is not incorporated by reference in this prospectus. We have included our website in this prospectus solely as an inactive textual reference. We make our periodic and current reports available on our website, free of charge, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. We file our annual, quarterly and special reports, proxy statements and other information with the SEC. Our filings with the SEC are also available to the public on the SEC’s website at <http://www.sec.gov>. Our Common Stock is traded on The Nasdaq Capital Market under the symbol “DNTH.”

BUSINESS COMBINATION OF DIANTHUS AND FORMER DIANTHUS

On September 11, 2023, we completed our business combination with Former Dianthus in accordance with the terms of the Merger Agreement, pursuant to which, among other matters, Merger Sub merged with and into Former Dianthus, with Former Dianthus surviving as a wholly owned subsidiary of the Company. In connection with the completion of the Merger, we changed our name from “Magenta Therapeutics, Inc.” to “Dianthus Therapeutics, Inc.”, and the business conducted by the Company became primarily the business conducted by Former Dianthus.

Pursuant to the terms of the Merger Agreement, immediately prior to the effective time of the Merger, each share of Former Dianthus preferred stock was converted into a share of Former Dianthus common stock. At the effective time of the Merger, the Company issued an aggregate of 11,021,248 shares of Common Stock to Former Dianthus stockholders, based on an exchange ratio of approximately 0.2181 shares of Common Stock for each share of Former Dianthus capital stock, including those shares of Former Dianthus common stock issued upon the conversion of Former Dianthus preferred stock and those shares of Former Dianthus common stock issued in the Former Dianthus pre-closing financing, but excluding shares to be canceled pursuant to the Merger Agreement and dissenting shares, resulting in 14,817,696 shares of Common Stock being issued and outstanding immediately following the effective time of the Merger. The exchange ratio was determined in accordance with the Merger Agreement.

In addition, (i) the Company assumed Former Dianthus’ Dianthus Therapeutics, Inc. 2019 Stock Plan, (ii) each outstanding and unexercised option to purchase shares of Former Dianthus common stock immediately prior to the effective time of the Merger was assumed by the Company and converted into an option to purchase shares of Common Stock, with necessary adjustments to the number of shares and exercise price to reflect the exchange ratio, and (iii) each outstanding and unexercised warrant to purchase shares of Former Dianthus common stock immediately prior to the effective time of the Merger (including the Former Dianthus pre-funded warrants sold in the Former Dianthus pre-closing financing) was converted into a warrant to purchase shares of Common Stock, with necessary adjustments to the number of shares and exercise price to reflect the exchange ratio.

The foregoing description of the Merger Agreement contained herein does not purport to be complete and is qualified in its entirety by reference to the Merger Agreement, a copy of which is filed as Exhibit 2.1 to the Registration Statement.

PRIVATE PLACEMENTS OF SHARES OF COMMON STOCK AND PRE-FUNDED WARRANTS

Former Dianthus Pre-Closing Financing

On September 11, 2023, Former Dianthus completed a private placement of shares of Former Dianthus common stock and Former Dianthus pre-funded warrants pursuant to the subscription agreement, by and among Former Dianthus and the Selling Stockholders named therein, dated as of May 2, 2023, as amended (the “Subscription Agreement”). Pursuant to and subject to the terms and conditions of the Subscription Agreement, Former Dianthus issued and sold, and such Selling Stockholders purchased, immediately prior to the consummation of the Merger, 2,873,988 shares of Former Dianthus common stock and 210,320 Former Dianthus pre-funded warrants, exercisable for 210,320 shares of Former Dianthus common stock, at a purchase price of approximately \$23.34 per share or \$23.34 per warrant, for an aggregate purchase price of approximately \$72.0 million (the “Former Dianthus pre-closing financing”).

As described above, each outstanding and unexercised Former Dianthus pre-funded warrant to purchase shares of Former Dianthus common stock immediately prior to the effective time of the Merger was converted into a 2023 Pre-Funded Warrant, with necessary adjustments to the number of shares and exercise price to reflect the exchange ratio. The 2023 Pre-Funded Warrants have an exercise price per share equal to \$0.001 per share, subject to proportional adjustments in the event of stock splits, stock dividends and certain fundamental

transactions. The aggregate exercise price of the 2023 Pre-Funded Warrants, except for a nominal exercise price of \$0.001 per warrant per share, was pre-funded to Former Dianthus and, consequently, no additional consideration (other than the nominal exercise price) is required to be paid by the holder of the 2023 Pre-Funded Warrants to exercise the warrants. The 2023 Pre-Funded Warrants will not expire until exercised in full.

The sale of the shares of Former Dianthus common stock and the Former Dianthus pre-funded warrants, and the shares of Former Dianthus common stock issuable upon exercise of the Former Dianthus pre-funded warrants, was not registered under the Securities Act, and the Former Dianthus pre-closing financing was intended to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act as a transaction by an issuer not involving a public offering. The Selling Stockholders named in the Subscription Agreement had the intent to acquire the shares of Former Dianthus common stock and Former Dianthus pre-funded warrants for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were affixed to the shares of Former Dianthus common stock and Former Dianthus pre-funded warrants issued in the Former Dianthus pre-closing financing.

The foregoing description of the 2023 Pre-Funded Warrants contained herein does not purport to be complete and is qualified in its entirety by the full text of the form of 2023 Pre-Funded Warrant, a copy of which is filed as Exhibit 4.1 to this Registration Statement.

On September 11, 2023, pursuant to the Subscription Agreement, the Company, Former Dianthus and the Selling Stockholders named therein entered into a registration rights agreement (the “2023 Registration Rights Agreement”), pursuant to which, among other things, the Company agreed to provide for the registration and resale of certain shares of Common Stock that are held by such Selling Stockholders from time to time, including the shares of Common Stock issued in exchange for shares of common stock of Former Dianthus sold in the Former Dianthus pre-closing financing and the shares of Common Stock issuable upon exercise of the 2023 Pre-Funded Warrants assumed upon conversion of the pre-funded warrants of Former Dianthus sold in the Former Dianthus pre-closing financing. See the section titled “*Description of Capital Stock—Registration Rights Agreements*” located elsewhere in this prospectus for further information on the 2023 Registration Rights Agreement.

2024 Private Placement

On January 24, 2024, Dianthus completed a private placement of shares of Common Stock and the 2024 Pre-Funded Warrants pursuant to the securities purchase agreement, by and among the Dianthus and the Selling Stockholders named therein, dated as of January 22, 2024 (the “Securities Purchase Agreement”). Pursuant to and subject to the terms and conditions of the Securities Purchase Agreement, Dianthus issued and sold, and such Selling Stockholders purchased, 14,500,500 shares of Common Stock and 4,666,332 2024 Pre-Funded Warrants, exercisable for 4,666,332 shares of Common Stock, at a purchase price of \$12.00 per share or \$11.999 per 2024 Pre-Funded Warrant, which represents the per share purchase price of the Common Stock less the \$0.001 per share exercise price for each 2024 Pre-Funded Warrant, for an aggregate purchase price of approximately \$230.0 million (the “2024 Private Placement”).

The 2024 Pre-Funded Warrants have an exercise price per share equal to \$0.001 per share. The aggregate exercise price of the 2024 Pre-Funded Warrants, except for a nominal exercise price of \$0.001 per warrant per share, was pre-funded to Dianthus and, consequently, no additional consideration (other than the nominal exercise price) is required to be paid by a holder of the 2024 Pre-Funded Warrants to exercise the warrants. The 2024 Pre-Funded Warrants are exercisable at any time after the date of issuance. A holder of 2024 Pre-Funded Warrants may not exercise the warrant if the holder, together with its affiliates, would beneficially own more than 9.99% of the number of shares of common stock outstanding immediately after giving effect to such exercise. A holder of Pre-Funded Warrants may increase or decrease this percentage to a percentage not in excess of 19.99% by providing at least 61 days’ prior notice to Dianthus. The 2024 Pre-Funded Warrants will not expire until exercised in full.

[Table of Contents](#)

The sale of the shares of Common Stock and the 2024 Pre-Funded Warrants, and the shares of Common Stock issuable upon exercise of the 2024 Pre-Funded Warrants, was not registered under the Securities Act in reliance on the exemption from registration pursuant to Section 4(a)(2) of the Securities Act and/or Rule 506 of Regulation D promulgated thereunder, or under any state securities laws. Dianthus relied on this exemption from registration based in part on representations made by the Selling Stockholders named in the Securities Purchase Agreement. Appropriate legends were affixed to the shares of Common Stock and the 2024 Pre-Funded Warrants issued in the 2024 Private Placement.

The foregoing description of the 2024 Pre-Funded Warrants contained herein does not purport to be complete and is qualified in its entirety by the full text of the form of 2024 Pre-Funded Warrant, a copy of which is filed as Exhibit 4.3 to this Registration Statement.

On January 22, 2024, pursuant to the Securities Purchase Agreement, Dianthus and the Selling Stockholders named therein entered into a registration rights agreement (the “2024 Registration Rights Agreement”), pursuant to which, among other things, the Company agreed to provide for the registration and resale of certain shares of Common Stock that are held by such Selling Stockholders from time to time, including the shares of Common Stock issuable upon exercise of the 2024 Pre-Funded Warrants. See the section titled “*Description of Capital Stock—Registration Rights Agreements*” located elsewhere in this prospectus for further information on the 2024 Registration Rights Agreement.

THE OFFERING

Shares of Common Stock to be offered by the Selling Stockholders:	Up to 18,778,720 shares of Common Stock and 4,876,652 shares of Common Stock issuable upon the exercise of Pre-Funded Warrants.
Terms of the Offering:	The Selling Stockholders will determine when and how they will dispose of the shares of Common Stock registered under this prospectus for resale.
Shares of Common Stock outstanding:	As of September 24, 2024, there were 29,366,352 shares of Common Stock outstanding.
Use of Proceeds	We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale by the Selling Stockholders of the Common Stock. Upon any exercise of the Pre-Funded Warrants by payment of cash, however, we will receive the nominal cash exercise price paid by the holders of the Pre-Funded Warrants. See the section titled “Use of Proceeds” located elsewhere in this prospectus.
Risk Factors	You should read the section titled “ <i>Risk Factors</i> ” located elsewhere in this prospectus for a discussion of the risks, uncertainties and other factors to consider carefully before deciding to invest in shares of our Common Stock.
Nasdaq Capital Market symbol:	Our Common Stock is listed on The Nasdaq Capital Market under the symbol “DNTH.” We do not intend to apply for listing of the Pre-Funded Warrants on any securities exchange or nationally recognized trading system.

For additional information concerning the offering, see the section titled “*Plan of Distribution*.”

RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of securities will contain a discussion of the risks applicable to an investment in our securities. Prior to making a decision about investing in our securities, you should carefully consider the risks, uncertainties and other factors contained in our risk factors incorporated by reference to our [Annual Report on Form 10-K for the fiscal year ended December 31, 2023](#), as updated by our subsequent filings, and discussed under the heading “Risk Factors” in the applicable prospectus supplement, together with all other information contained or incorporated by reference in this prospectus or the applicable prospectus supplement. Our business, financial condition, results of operations and future growth prospects could be materially and adversely affected by any of these risks. In these circumstances, the market price of our Common Stock could decline, and you may lose all or part of your investment. In addition, the risks, uncertainties and other factors we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business, financial condition, results of operations and future growth prospects.

INCORPORATION OF INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information that we file with the SEC, which means that we can disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and information we file later with the SEC will automatically update and supersede this information. A Current Report (or portion thereof) furnished, but not filed, on Form 8-K shall not be incorporated by reference into this prospectus. We incorporate by reference the documents listed below and any future filings we make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, including all filings made after the date of the filing of this registration statement and prior to the effectiveness of this registration statement, except, in each case, as to any portion of any future report or document that is not deemed filed under such provisions, prior to the termination of any offering of securities made by this prospectus:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 filed with the SEC on [March 21, 2024](#), including the information specifically incorporated by reference therein from our Definitive Proxy Statement on Schedule 14A filed with the SEC on [April 11, 2024](#);
- our Quarterly Reports on Form 10-Q for the fiscal quarter ended March 31, 2024 filed with the SEC on [May 9, 2024](#) and for the fiscal quarter ended June 30, 2024 filed on [August 8, 2024](#);
- our Current Reports on Form 8-K filed with the SEC on [January 22, 2024](#) and [May 28, 2024](#); and
- The description of our Common Stock contained in [Exhibit 4.5](#) to our Annual Report on Form 10-K for the year ended December 31, 2023, as filed with the SEC on March 21, 2024, including any amendments or reports filed for the purposes of updating this description.

We will furnish without charge to you, on written or oral request, a copy of any or all of such documents incorporated herein by reference (other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates). Written or oral requests for copies should be directed to Dianthus Therapeutics, Inc., Attn: Investor Relations, 7 Times Square, 43rd Floor New York, NY 10036, telephone number (929) 999-4055. See the section of this prospectus entitled “*Where You Can Find More Information*” for information concerning how to read and obtain copies of materials that we file with the SEC.

Any statement contained in this prospectus, or in a document all or a portion of which is incorporated by reference, shall be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement or any document incorporated by reference modifies or supersedes such statement. Any such statement so modified or superseded shall not, except as so modified or superseded, constitute a part of this prospectus.

USE OF PROCEEDS

We are not selling any securities under this prospectus and will not receive any proceeds from the sale of the Resale Shares covered hereby. Some of the shares of Common Stock offered hereby are issuable upon the exercise of the Pre-Funded Warrants. Upon exercise of such Pre-Funded Warrants for cash, we will receive the nominal cash exercise price paid by the holders of the Pre-Funded Warrants. We intend to use those proceeds, if any, for general corporate purposes.

SELLING STOCKHOLDERS

For additional information regarding the issuances of those shares of Common Stock being registered for resale in this registration statement, see “*Business Combination of Dianthus and Former Dianthus*” and “*Private Placements of Shares of Common Stock and Pre-Funded Warrants*” above. We are registering the shares of Common Stock in order to permit the Selling Stockholders to offer the shares for resale from time to time.

The table below lists the Selling Stockholders and other information regarding the beneficial ownership of the shares of Common Stock by each of the Selling Stockholders. The second column lists the number of shares of Common Stock beneficially owned by each Selling Stockholder, based on its ownership of the shares of Common Stock, as of September 24, 2024. Beneficial ownership is determined in accordance with the rules of the SEC and thus represents voting or investment power with respect to our securities. Under such rules, beneficial ownership includes any shares over which the individual has sole or shared voting power or investment power as well as any shares that the individual has the right to acquire within 60 days of September 24, 2024. To our knowledge and subject to applicable community property rules, and except as otherwise indicated below, the persons and entities named in the table have sole voting and sole investment power with respect to all shares beneficially owned.

The third column lists the shares of Common Stock being offered by this prospectus by the Selling Stockholders.

The fourth column reflects the number and percentage of shares of Common Stock beneficially owned by each Selling Stockholder, assuming the sale of all of the shares offered by the Selling Stockholders pursuant to this prospectus.

The Selling Stockholders may sell all, some or none of their shares in this Offering. See “*Plan of Distribution*.”

Name of Selling Stockholders	Common Stock Beneficially Owned Before Offering	Common Stock that May Be Offered Pursuant to Prospectus	Common Stock Beneficially Owned After Offering ⁽¹⁾	
			Number	Percentage (%)
Entities affiliated with Avidity Partners ⁽²⁾	2,935,526	4,550,887	199,677	*
Fidelity Advisor Series VII: Fidelity Advisor Biotechnology Fund ⁽³⁾	500,662	302,966	197,696	*
Fidelity Capital Trust: Fidelity Stock Selector Small Cap Fund ⁽³⁾	341,018	222,097	118,921	*
Fidelity Growth Company Commingled Pool ⁽³⁾	1,192,631	751,744	440,887	1.50
Fidelity Mt. Vernon Street Trust: Fidelity Series Growth Company Fund ⁽³⁾	253,763	152,986	100,777	*
Fidelity Securities Fund: Fidelity Series Small Cap Opportunities Fund ⁽³⁾	558,654	449,528	109,126	*
Fidelity Select Portfolios: Biotechnology Portfolio ⁽³⁾	153,693	153,693	—	—
Fidelity Mt. Vernon Street Trust: Fidelity Growth Company K6 Fund ⁽³⁾	273,613	181,889	91,724	*
Fidelity Mt. Vernon Street Trust: Fidelity Growth Company Fund ⁽³⁾	891,032	555,946	335,086	1.14
Entities affiliated with Fairmount Funds Management LLC ⁽⁴⁾	2,952,662	3,486,246	108,924	*
BCLS Fund III Investments, L.P. ⁽⁵⁾	3,015,392	3,197,971	—	—

Table of Contents

Name of Selling Stockholders	Common Stock Beneficially Owned Before Offering	Common Stock that May Be Offered Pursuant to Prospectus	Common Stock Beneficially Owned After Offering ⁽¹⁾	
			Number	Percentage (%)
RA Capital Healthcare Fund, L.P. ⁽⁶⁾	3,000,368	3,333,333	—	—
Entities affiliated with 5AM Ventures ⁽⁷⁾	428,376	428,376	—	—
Tellus BioVentures, LLC ⁽⁸⁾	1,436,745	1,436,745	—	—
Entities affiliated with Venrock Healthcare Capital Partners ⁽⁹⁾	1,744,373	1,744,373	—	—
Entities affiliated with Catalio ⁽¹⁰⁾	696,239	696,239	—	—
Entities affiliated with Wedbush Securities Inc. ⁽¹¹⁾	150,634	64,256	86,378	*
Entities affiliated with RTW Investments, LP ⁽¹²⁾	666,667	666,667	—	—
Entities affiliated with Great Point Partners, LLC ⁽¹³⁾	362,764	362,764	—	—
Janus Henderson Biotech Innovation Master Fund Limited ⁽¹⁴⁾	800,606	375,000	425,606	1.45
Entities affiliated with Vestal Point Capital, LP ⁽¹⁵⁾	390,773	333,333	57,440	*
Woodline Master Fund LP ⁽¹⁶⁾	244,697	208,333	36,364	*

* Less than 1%.

- (1) Assumes that all the shares of Common Stock of the Selling Stockholders covered by this prospectus are sold and that the Selling Stockholders do not acquire any additional shares of Common Stock before the completion of this Offering. However, as each Selling Stockholder can offer all, some or none of its Common Stock, no definitive estimate can be given as to the number of shares of Common Stock that any Selling Stockholder will ultimately offer or sell under this prospectus.
- (2) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of (i) 1,573,625 shares of Common Stock and 10,765 shares of Common Stock issuable upon the exercise of 2024 Pre-Funded Warrants held by Avidity Private Master Fund I LP (“APMF”), (ii) 1,282,202 shares of Common Stock and 7,530 shares of Common Stock issuable upon the exercise of 2024 Pre-Funded Warrants held by Avidity Master Fund LP (“AMF”) and (iii) 61,404 shares of Common Stock held by Avidity Capital Fund II LP (“ACF,” and, together with APMF and AMF, the “Avidity Funds”). The general partner of each of the Avidity Funds is Avidity Capital Partners Fund (GP) LP, whose general partner is Avidity Capital Partners (GP) LLC. Avidity Partners Management LP is the investment manager of each of the Avidity Funds. Avidity Partners Management (GP) LLC is the general partner of Avidity Partners Management LP. David Witzke and Michael Gregory are the managing members of Avidity Capital Partners (GP) LLC and Avidity Partners Management (GP) LLC. Mr. Witzke and Mr. Gregory may be deemed to have shared voting and investment power over the shares held by each of the Avidity Funds. Each of Mr. Witzke and Mr. Gregory disclaim beneficial ownership of such shares, except to the extent of his respective pecuniary interest therein. Pursuant to the terms of the 2024 Pre-Funded Warrants, each of APMF and AMF may not exercise any portion of any 2024 Pre-Funded Warrant, which, upon giving effect to such exercise, would cause it (together with its affiliates) to own more than 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to such exercise, as such percentage ownership is determined in accordance with the terms of the 2024 Pre-Funded Warrants. However, each of APMF and AMF may increase or decrease such percentage to any other percentage not in excess of 19.99%, provided that (i) any increase in such percentage shall not be effective until 61 days after such notice is delivered to us and (ii) any such increase or decrease will apply only to the holder of each specific 2024 Pre-Funded Warrant and not to any other holder of 2024 Pre-Funded Warrants. The principal business address of each of the foregoing persons is 2828 N. Harwood Street, Suite 1220, Dallas, TX 75201.
- (3) These funds and accounts are managed by direct or indirect subsidiaries of FMR LLC. Abigail P. Johnson is a Director, the Chairman and the Chief Executive Officer 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

Table of Contents

- 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. The address of these funds and accounts is 245 Summer Street, Boston, MA 02210.
- (4) Shares listed under "Common Stock Beneficially Owned Before Offering" consist of (i) 62,146 shares of our Common Stock held by Fairmount SPV III, LLC ("Fairmount SPV") and (ii) 2,700,691 shares of our Common Stock and 189,825 shares of our Common Stock issuable upon the exercise of 2024 Pre-Funded Warrants held by Fairmount Healthcare Fund II L.P. ("Fairmount HF II," together with Fairmount SPV, the "Fairmount Funds"). Fairmount Funds Management LLC ("Fairmount") is the Class A Member of Fairmount SPV. Fairmount has voting and dispositive power over the shares held by Fairmount Funds. Fairmount is the investment manager for Fairmount HF II and is the Class A Member for Fairmount SPV. The general partner of Fairmount is Fairmount Funds Management GP LLC ("Fairmount GP"), of which Peter Harwin and Tomas Kiselak are the managing members. Fairmount, Fairmount GP, Mr. Harwin, and Mr. Kiselak disclaim beneficial ownership of any of the reported securities, except to the extent of their pecuniary interest therein. Pursuant to the terms of the 2024 Pre-Funded Warrants, Fairmount HF II may not exercise any portion of any 2024 Pre-Funded Warrant, which, upon giving effect to such exercise, would cause it (together with its affiliates) to own more than 9.99% of the number of shares of our Common Stock outstanding immediately after giving effect to such exercise, as such percentage ownership is determined in accordance with the terms of the 2024 Pre-Funded Warrants. However, Fairmount HF II may increase or decrease such percentage to any other percentage not in excess of 19.99%, provided that (i) any increase in such percentage shall not be effective until 61 days after such notice is delivered to us and (ii) any such increase or decrease will apply only to the holder of each specific 2024 Pre-Funded Warrant and not to any other holder of 2024 Pre-Funded Warrants. The principal business address of each of the foregoing entities or persons is 200 Barr Harbor Drive, Suite 400, West Conshohocken, Pennsylvania 19428.
- (5) Shares listed under "Common Stock Beneficially Owned Before Offering" consist of 2,197,638 shares of Common Stock and 817,754 shares of Common Stock issuable upon the exercise of 2024 Pre-Funded Warrants held by BCLS Fund III Investments, LP ("BCLS Fund III Investments"), which reflects the BCLS Beneficial Ownership Blocker (as defined below). Bain Capital Life Sciences Investors, LLC ("BCLSI") is the manager of Bain Capital Life Sciences III General Partner, LLC, which is the general partner of Bain Capital Life Sciences Fund III, L.P., which is the managing member of BCLS Fund III Investments GP, LLC, which is the general partner of BCLS Fund III Investments. As a result, BCLSI may be deemed to share voting and dispositive power with respect to the securities held by BCLS Fund III Investments. Pursuant to the terms of the 2024 Pre-Funded Warrants, BCLS Fund III Investments may not exercise any portion of any 2024 Pre-Funded Warrant, which, upon giving effect to such exercise, would cause it (together with its affiliates) to own more than 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to such exercise, as such percentage ownership is determined in accordance with the terms of the 2024 Pre-Funded Warrants (the "BCLS Beneficial Ownership Blocker"). However, BCLS Fund III Investments may increase or decrease such percentage to any other percentage not in excess of 19.99%, provided that (i) any increase in such percentage shall not be effective until 61 days after such notice is delivered to us and (ii) any such increase or decrease will apply only to the holder of each specific 2024 Pre-Funded Warrant and not to any other holder of 2024 Pre-Funded Warrants. The principal business address of BCLS Fund III Investments is c/o Bain Capital Life Sciences, LP, 200 Clarendon Street, Boston, MA 02116.
- (6) Shares listed under "Common Stock Beneficially Owned Before Offering" consist of 2,333,000 shares of Common Stock and 667,368 shares of Common Stock issuable upon the exercise of 2024 Pre-Funded Warrants held by RA Capital Healthcare Fund, L.P. ("RACHF"). RA Capital Management, L.P. is the investment manager for RACHF. The general partner of RA Capital Management, L.P. is RA Capital Management GP, LLC, of which Peter Kolchinsky, Ph.D. and Rajeev Shah are the managing members. Each of RA Capital Management, L.P., RA Capital Management GP, LLC, Mr. Kolchinsky and Mr. Shah may be deemed to have voting and investment power over the securities held by RACHF. RA Capital

Table of Contents

Management, L.P., RA Capital Management GP, LLC, Mr. Kolchinsky and Mr. Shah disclaim beneficial ownership of such securities, except to the extent of any pecuniary interest therein. Pursuant to the terms of the 2024 Pre-Funded Warrants, RACHF may not exercise any portion of any 2024 Pre-Funded Warrant, which, upon giving effect to such exercise, would cause it (together with its affiliates) to own more than 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to such exercise, as such percentage ownership is determined in accordance with the terms of the 2024 Pre-Funded Warrants. However, RACHF may increase or decrease such percentage to any other percentage not in excess of 19.99%, provided that (i) any increase in such percentage shall not be effective until 61 days after such notice is delivered to us and (ii) any such increase or decrease will apply only to the holder of each specific 2024 Pre-Funded Warrant and not to any other holder of 2024 Pre-Funded Warrants. The principal business address of the persons and entities listed above is 200 Berkeley Street, 18th Floor, Boston, MA 02116.

- (7) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of (i) 54,514 shares of Common Stock and 52,580 shares of Common Stock issuable upon the exercise of 2023 Pre-Funded Warrants held by 5AM Opportunities II, L.P. (“5AM Opportunities”) and (ii) 163,542 shares of Common Stock and 157,740 shares of Common Stock issuable upon the exercise of 2023 Pre-Funded Warrants held by 5AM Ventures VII, L.P. (“5AM Ventures VII” and, together with 5AM Opportunities, the “5AM Selling Stockholders”). 5AM Partners VII, LLC (“Ventures GP”) is the sole general partner of 5AM Ventures VII and may be deemed to have sole investment and voting power over the shares held by 5AM Ventures VII. 5AM Opportunities II (GP), LLC (“Opportunities GP”) is the sole general partner of 5AM Opportunities and may be deemed to have sole investment and voting power over the shares held by 5AM Opportunities. Andrew Schwab and Kush Parmar are the managing members of each of Ventures GP and Opportunities GP and may be deemed to share voting and dispositive power over the shares held by 5AM Ventures VII and 5AM Opportunities. Each of Ventures GP, Opportunities GP, Kush Parmar and Andrew Schwab disclaims beneficial ownership of such shares, except to the extent its or of his respective pecuniary interest therein. Pursuant to the terms of the 2023 Pre-Funded Warrants, each of the 5AM Selling Stockholders may not exercise any portion of any 2023 Pre-Funded Warrant, which, upon giving effect to such exercise, would cause it (together with its affiliates) to own more than 9.9999% of the number of shares of Common Stock outstanding immediately after giving effect to such exercise, as such percentage ownership is determined in accordance with the terms of the 2023 Pre-Funded Warrants. However, each of the 5AM Selling Stockholders may increase or decrease such percentage to any other percentage not in excess of 9.9999%, provided that (i) any increase in such percentage shall not be effective until 61 days after such notice is delivered to us and (ii) any such increase or decrease will apply only to the holder of each specific 2023 Pre-Funded Warrant and not to any other holder of 2023 Pre-Funded Warrants. The principal business address of each of the foregoing persons is c/o 5AM Ventures, 4 Embarcadero Center, Suite 3110, San Francisco, CA 94111.
- (8) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of 1,436,745 shares of Common Stock held by Tellus BioVentures, LLC (“Tellus BioVentures”). Leon O. Moulder, Jr. may be deemed to have sole voting and dispositive power over the shares held by Tellus BioVentures. Mr. Moulder disclaims beneficial ownership of such shares, except to the extent of his pecuniary interest therein. The principal business address of Tellus BioVentures and Mr. Moulder is 10520 Trevi Isle Way, Miromar Lakes, FL 33913.
- (9) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of (i) 1,598,660 shares of Common Stock held by Venrock Healthcare Capital Partners EG, L.P. (“VHCP EG”), (ii) 132,469 shares of Common Stock held by Venrock Healthcare Capital Partners III, L.P. (“VHCP III”) and (iii) 13,244 shares of Common Stock held by VHCP Co-Investment Holdings III, LLC (“VHCP Co-III” and, together with VHCP EG and VHCP III, the “Venrock Funds”). VHCP Management EG, LLC (“VHCPM EG”) is the sole general partner of VHCP EG. VHCP Management III, LLC (“VHCPM III”) is the sole general partner of VHCP III and the sole manager of VHCP Co-III. Dr. Bong Koh and Nimish Shah are the voting members of VHCPM III and VHCPM EG. The principal business address of each of the foregoing persons is 7 Bryant Park, 23rd Floor, New York, New York 10018.
- (10) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of (i) 542,239 shares of Common Stock held by Catalio Nexus Fund III, LP (“Catalio Nexus Fund”), (ii) 92,270 shares of Common

Table of Contents

Stock held by Catalio Public Equities Master Fund, LP (“Catalio Master Fund”) and (iii) 61,730 shares of Common Stock held by certain managed accounts advised by Catalio Capital Management, LP (the “Managed Accounts” and, together with Catalio Nexus Fund and Catalio Master Fund, the “Catalio Funds”). Catalio Capital Management, LP is the investment advisor to each of the Catalio Funds. R. Jacob Vogelstein disclaims beneficial ownership of the securities, except to the extent of his respective pecuniary interest therein. Mr. Vogelstein holds the power to vote and dispose of the securities held by the Catalio Funds. The principal business address of this person and these entities is 512 West 22nd Street, 5th Floor, New York, NY 10011.

- (11) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of (i) 64,256 shares of Common Stock held by Wedbush Healthcare Partners 2023 Fund, LLC (the “Wedbush 2023 Fund”) and (ii) 86,378 shares of Common Stock held by Wedbush Healthcare Partners 2022 Fund, LLC (the “Wedbush 2022 Fund”), which entity, while not a Selling Stockholder, is an affiliate of Wedbush 2023 Fund. The managing member of each of the funds is Wedbush Securities Inc., which may be deemed to beneficially own the shares held by Wedbush 2022 Fund and Wedbush 2023 Fund. The principal business address for these entities is Wedbush Center, 1000 Wilshire Blvd., Los Angeles, CA 90017.
- (12) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of 666,667 shares of Common Stock held in the aggregate by RTW Master Fund, Ltd. and RTW Innovation Master Fund, Ltd. (collectively, the “RTW Funds”). RTW Investments, LP (“RTW”), in its capacity as the investment manager of the RTW Funds, has the power to vote and the power to direct the disposition of the shares held by the RTW Funds. Accordingly, RTW may be deemed to be the beneficial owner of such shares held by the RTW Funds. Roderick Wong, M.D., as the Managing Partner of RTW, has the power to direct the vote and disposition of the shares held by RTW. Dr. Wong disclaims beneficial ownership of the shares held by the RTW Funds, except to the extent of his pecuniary interest therein. The principal business address of RTW is 40 10th Avenue, Floor 7, New York, New York, 10014, and the address of Dr. Wong and each of the RTW Funds is c/o RTW Investments, LP, 40 10th Avenue, Floor 7, New York, NY 10014.
- (13) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of (i) 203,199 shares of our Common Stock held by Biomedical Value Fund, L.P. (“BVF”), (ii) 139,884 shares of Common Stock held by Biomedical Offshore Value Fund, LTD. (“BOVF”) and (iii) 19,681 shares of Common Stock held by Cheyne Select Master Fund ICAV – Cheyne Global Equity Fund (“CGEF” and, together with BVF and BOVF, the “GPP Entities”). Great Point Partners, LLC (“GPP LLC”) is the investment manager of BVF and BOVF and the sub-advisor to CGEF, and by virtue of such status may be deemed to be the beneficial owner of the shares held by the GPP Entities. Each of Dr. Jeffrey R. Jay, M.D., as Senior Managing Member of GPP LLC, and Ms. Lillian Nordahl, as Managing Director of GPP LLC, has voting and investment power with respect to shares held by the GPP Entities, and therefore may be deemed to be the beneficial owner of the shares held by the GPP Entities. Notwithstanding the above, GPP LLC, Dr. Jay and Ms. Nordahl disclaim beneficial ownership of the shares held by the GPP Entities except to the extent of their respective pecuniary interests. The principal business address of the GPP Entities is 165 Mason Street, 3rd Floor, Greenwich, CT 06830.
- (14) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of 800,606 shares of Common Stock held by Janus Henderson Biotech Innovation Master Fund Limited (the “Fund”). Such shares owned by the Fund may be deemed to be beneficially owned by Janus Henderson Investors US LLC (“Janus”), an investment adviser registered under the Investment Advisers Act of 1940, who acts as investment adviser for the Fund set forth above and has the ability to make decisions with respect to the voting and disposition of the shares subject to the oversight of the board of trustees (or similar entity) of the Fund. Under the terms of its management contract, Janus has overall responsibility for directing the investments of the Fund in accordance with the Fund’s investment objective, policies and limitations. The Fund has one or more portfolio managers appointed by and serving at the pleasure of Janus who makes decisions with respect to the disposition of the shares. The address for Janus is 151 Detroit Street, Denver, CO 80206. The portfolio managers for the Fund are Andrew Acker, Daniel S. Lyons and Agustin Mohedas.
- (15) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of (i) 195,559 shares held by Vestal Point Master Fund, LP and (ii) 195,214 shares held by an account separately managed by Vestal Point Capital, LP. The sole general partner of Vestal Point Master Fund, LP is Vestal Point Partners GP, LLC. The managing member of Vestal Point Partners GP, LLC is Ryan Wilder. The sole general partner of Vestal Point Capital, LP is Vestal Point Capital, LLC. The managing member of Vestal Point Capital, LLC

[Table of Contents](#)

is Mr. Wilder. As a result, Mr. Wilder may be deemed to have voting and investment power over the securities held by Vestal Point Master Fund, LP and the account separately managed by Vestal Point Capital, LP. Mr. Wilder disclaims beneficial ownership of such securities, except to the extent of his pecuniary interest therein. The address of these entities and Mr. Wilder is c/o Vestal Point Capital, LP, 632 Broadway, Suite 602, New York, NY 10012.

- (16) Shares listed under “Common Stock Beneficially Owned Before Offering” consist of 244,697 shares of Common Stock held by Woodline Master Fund LP (“Woodline Fund”). Woodline Partners LP serves as the investment manager of Woodline Fund and may be deemed to be the beneficial owner of the shares. Woodline Partners LP disclaims any beneficial ownership of these shares. The principal business address of this fund and account is 4 Embarcadero Center, Suite 3450, San Francisco, CA 94111.

PLAN OF DISTRIBUTION

We are registering the Resale Shares issued to the Selling Stockholders to permit the sale, transfer or other disposition of these shares by the Selling Stockholders or their donees, pledgees, transferees or other successors-in-interest from time to time after the date of this prospectus. We are not selling any Resale Shares under this prospectus and will not receive any of the proceeds from the sale by the Selling Stockholders of the Resale Shares. We will, or will procure to, bear all fees and expenses incident to our obligation to register the Resale Shares.

Each Selling Stockholder of the securities and any of their pledgees, assignees, donees, transferees or other successors-in-interest may, from time to time, sell, transfer or otherwise dispose of any or all of their securities covered hereby on the principal trading market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities 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;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

In connection with the sale of the securities 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 securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities 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 create one or more derivative securities that require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The Selling Stockholders also may transfer the securities

Table of Contents

in other circumstances, in which case the transferees, pledgees, donees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

We are required to pay certain fees and expenses incurred by us incident to the registration of the securities. We have agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the earlier of the date that the securities (i) have been sold, pursuant to this prospectus or pursuant to Rule 144, or (ii) the date on which the securities may be resold by the Selling Stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, and without the requirement for us to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the Common Stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the Common Stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

DESCRIPTION OF CAPITAL STOCK

The following is a description of our capital stock and does not purport to be complete and is subject to, and qualified in its entirety by, our fifth amended and restated certificate of incorporation (“charter”) and our second amended and restated bylaws (“bylaws”), each of which is incorporated herein by reference. You should refer to our charter and our bylaws for the actual terms of our capital stock. Copies of our charter and bylaws are incorporated by reference as exhibits to our most recent Annual Report on Form 10-K filed with the SEC and may be obtained as described under the heading “Where You Can Find More Information” in this prospectus.

Authorized Capital Stock

Our authorized capital stock consists of 150,000,000 shares of Common Stock and 10,000,000 shares of undesignated preferred stock, par value \$0.001 per share (“Preferred Stock”).

Common Stock

Dividends

Holders of Common Stock are entitled to receive dividends ratably, if any, as may be declared by our board of directors out of legally available funds, subject to any preferential dividend rights of any Preferred Stock then outstanding.

Voting

Holders of Common Stock are entitled to one vote for each share of Common Stock held of record for the election of directors of Dianthus and on all matters submitted to a vote of the stockholders. The holders of Common Stock do not have any cumulative voting rights.

Distributions on Liquidation

In the event of our dissolution, liquidation or winding up, holders of Common Stock are entitled to share ratably in our net assets legally available after the payment of all our debts and other liabilities, subject to the preferential rights of any Preferred Stock then outstanding. The rights, preferences and privileges of holders of Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of Preferred Stock that we may designate and issue in the future.

Other Rights

Holders of Common Stock are not entitled to preemptive, subscription, redemption or conversion rights, and no sinking fund provisions are applicable to Common Stock.

Preferred Stock

Under our charter, our board of directors is authorized, without further action by the stockholders, to designate and issue up to an aggregate of 10,000,000 shares of Preferred Stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of Common Stock. Our board of directors may authorize the issuance of Preferred Stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of Common Stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation.

The purpose of authorizing our board of directors to issue Preferred Stock in one or more series and determine the number of shares in the series and its rights, preferences, privileges and restrictions is to eliminate

delays associated with a stockholder vote on specific issuances. The issuance of Preferred Stock, while providing flexibility in connection with possible future financings and acquisitions and other corporate purposes could, under certain circumstances, have the effect of delaying, deferring or preventing a change in control of the company. As of the date of this prospectus, there are no shares of Preferred Stock outstanding, and we have no present plans to issue any shares of Preferred Stock.

Anti-Takeover Effects of Delaware Law and Provisions of Our Charter and Bylaws

Certain provisions of the General Corporation Law of Delaware (the “DGCL”) and of our charter and bylaws could have the effect of delaying, deferring or discouraging another party from acquiring control of Dianthus. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and, as a consequence, they might also inhibit temporary fluctuations in the market price of our Common Stock that often result from actual or rumored hostile takeover attempts. These provisions are also designed in part to encourage anyone seeking to acquire control of Dianthus to first negotiate with our board of directors. These provisions might also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests. However, we hold that the advantages gained by protecting our ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our Common Stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a three-year period following the date that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or
- at or after the time the stockholder became interested, the business combination was approved by the board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation or any direct or indirect majority-owned subsidiary of the corporation and the interested stockholder;
- any sale, transfer, lease, pledge or other disposition (in one or more transactions) involving the interested stockholder of 10% or more of either the aggregate market value of all (i) the assets of the corporation or (ii) the outstanding capital stock of the corporation, involving the interested stockholder;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation or by any direct or indirect majority-owned subsidiary of the corporation of any stock of the corporation or any subsidiary to the interested stockholder;

Table of Contents

- subject to exceptions, any transaction involving the corporation or any direct or indirect majority-owned subsidiary of the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation or of any subsidiary beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation or any direct or indirect majority-owned subsidiary.

In general, Section 203 defines an “interested stockholder” as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person that is an affiliate or associate of the corporation and who beneficially owned 15% or more of the outstanding voting stock of the corporation at any time within the three year period immediately prior to the date of determining whether such entity or person is an interested stockholder, and any affiliate or associate of that entity or person.

Choice of Forum

Our bylaws provide that, unless we consent in writing to an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for state law claims for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of or based on a breach of a fiduciary duty owed by any of our current or former directors, officers, or other employees to us or our stockholders, (iii) any action asserting a claim against us or any of our current or former directors, officers, employees or stockholders arising pursuant to any provision of the DGCL, our charter or our bylaws, or (iv) any action asserting a claim that is governed by the internal affairs doctrine, in each case subject to the Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein, which we refer to herein as the “Delaware Forum Provision.” The Delaware Forum Provision will not apply to any causes of action arising under the Securities Act or the Exchange Act. Our bylaws further provide that, unless we consent in writing to an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act, which we refer to herein as the “Federal Forum Provision.” In addition, our bylaws provide that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to the foregoing Delaware Forum Provision and Federal Forum Provision.

We recognize that the Delaware Forum Provision and the Federal Forum Provision may impose additional litigation costs on stockholders in pursuing any such claims, particularly if the stockholders do not reside in or near the State of Delaware. Additionally, the forum selection clauses in our bylaws may limit our stockholders’ ability to bring a claim in a judicial forum that they find favorable for disputes with us or our directors, officers or employees, which may discourage the filing of lawsuits against us and our directors, officers and employees even though an action, if successful, might benefit our stockholders. Alternatively, if the Federal Forum Provision is found inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could have an adverse effect on our business, financial condition or results of operations. The Court of Chancery of the State of Delaware or the federal district courts of the United States may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments may be more or less favorable to us than our stockholders.

Board Composition and Filling Vacancies

In accordance with our charter, our board is divided into three classes serving staggered three-year terms, with one class being elected each year. Our charter also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of two-thirds or more of the shares then entitled to vote at an

Table of Contents

election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of the remaining directors then in office, even if less than a quorum. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for stockholders to change the composition of our board of directors.

No Written Consent of Stockholders

Our charter provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This requirement may lengthen the amount of time required to take stockholder actions and would prevent the amendment of our bylaws or removal of directors by our stockholders without holding a meeting of stockholders.

Meetings of Stockholders

Our charter and our bylaws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements

Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

Amendment to Our Charter and Our Bylaws

As required by the DGCL, any amendment of our charter must first be approved by a majority of our board of directors, and, if required by law or our charter, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, board composition, limitation of liability, the amendment of our bylaws and the amendment of our charter must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote thereon as a class.

Our bylaws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the bylaws, and may also be amended by the affirmative vote of at least two-thirds of the outstanding shares entitled to vote on the amendment, or, if our board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Undesignated Preferred Stock

Our charter provides for 10,000,000 authorized shares of Preferred Stock. The existence of authorized but unissued shares of Preferred Stock may enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in

[Table of Contents](#)

the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our stockholders, our board of directors could cause shares of Preferred Stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. The issuance of shares of Preferred Stock could decrease the amount of earnings and assets available for distribution to holders of shares of Common Stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Nasdaq Capital Market Listing

Our Common Stock is listed on The Nasdaq Capital Market under the symbol “DNTH.”

Transfer Agent and Registrar

The transfer agent and registrar for our Common Stock is Computershare Trust Company, N.A. The transfer agent and registrar’s address is 150 Royall Street, Canton, Massachusetts 02021, and its telephone number is (800) 962-4284.

Registration Rights Agreements

2023 Registration Rights Agreement

Pursuant to the Subscription Agreement, the Company, Former Dianthus and the Selling Stockholders entered into the 2023 Registration Rights Agreement, pursuant to which, among other things, the Company agreed to provide for the registration and resale of certain shares of Common Stock that are held by the Selling Stockholders from time to time, including the shares of Common Stock issued in exchange for shares of common stock of Former Dianthus sold in the Former Dianthus pre-closing financing and the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants assumed upon conversion of the pre-funded warrants of Former Dianthus sold in the Former Dianthus pre-closing financing.

Pursuant to the 2023 Registration Rights Agreement, the Company agreed to prepare and file a shelf registration statement covering the resale of the Common Stock within 45 days of the closing of the Merger pursuant to Rule 415 of the Securities Act, and to use its reasonable best efforts to keep such registration statement continuously effective under the Securities Act until the earlier of (a) the date that all registrable securities covered by such registration statement (i) have been sold, thereunder or pursuant to Rule 144, or (ii) may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 and without the requirement for the Company to be in compliance with the current public information requirement under Rule 144, and (b) five years after the date of the 2023 Registration Rights Agreement. The 2023 Registration Rights Agreement also provides that the Company pay certain expenses of the securityholders and indemnify the applicable securityholders against certain liabilities.

The foregoing description of the 2023 Registration Rights Agreement does not purport to be complete and is qualified in its entirety by the full text of the 2023 Registration Rights Agreement, a copy of which is filed as Exhibit 4.4 to this Registration Statement.

2024 Registration Rights Agreement

On January 22, 2024, in connection with the 2024 Private Placement, the Company entered into the 2024 Registration Rights Agreement with the Selling Stockholders named therein, pursuant to which, among other things, the Company agreed to provide for the registration and resale of certain shares of Common Stock that are held by such Selling Stockholders from time to time, including the shares of Common Stock issuable upon exercise of the 2024 Pre-Funded Warrants.

[Table of Contents](#)

Pursuant to the 2024 Registration Rights Agreement, the Company agreed to prepare and file a registration statement with the SEC no later than the second business day following the later of (i) the filing date of the Company's Annual Report on Form 10-K for its fiscal year ending December 31, 2023 and (ii) the effectiveness date of this Registration Statement, and to use its commercially reasonable efforts to have the registration statement declared effective within 30 days thereafter, subject to certain exceptions and specified penalties if timely effectiveness is not achieved.

The Company has also agreed to, among other things, indemnify the Selling Stockholders named in the 2024 Registration Rights Agreement, their officers, directors, agents, partners, members, managers, stockholders, affiliates, investment advisers and employees under the registration statement from certain liabilities and pay all fees and expenses (excluding any legal fees of the selling holder(s), and any underwriting discounts and selling commissions) incident to the Company's obligations under the 2024 Registration Rights Agreement.

The foregoing description of the 2024 Registration Rights Agreement does not purport to be complete and is qualified in its entirety by the full text of the 2024 Registration Rights Agreement, a copy of which is filed as Exhibit 4.6 to this Registration Statement.

LEGAL MATTERS

Certain legal matters, including the legality of the securities offered, has been passed upon for us by Gibson, Dunn & Crutcher LLP, San Francisco, California. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The financial statements of Dianthus Therapeutics, Inc. as of December 31, 2023 and 2022, and for each of the two years in the period ended December 31, 2023, incorporated by reference in this Prospectus, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act and are required to file annual, quarterly and other reports, proxy statements and other information with the SEC. The SEC maintains an Internet website (<http://www.sec.gov>) that contains reports, proxy statements and other information about us.

Information about us is also available at our website at <http://www.dianhustx.com>. You may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. However, the information on our website is not a part of this prospectus and is not incorporated by reference into this prospectus.

This prospectus is part of a registration statement that 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 subsidiaries and the securities we are offering. 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.

PART II**INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution**

The expenses payable by us in connection with the issuance and distribution of the securities being registered hereunder on Form S-3 (other than underwriting discounts and commissions, if any) are set forth below. The Selling Stockholders will not bear any portion of such expenses. Each item listed is estimated, except for the SEC registration fee:

SEC registration fee	\$ 97,856.64
Legal fees and expenses	\$ 25,000
Accounting fees and expenses	\$ 25,000
Printing and miscellaneous expenses	\$ 25,000
Total	\$ 172,856.64

Item 15. Indemnification of Officers and Directors

Section 145 of the DGCL authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

Dianthus has adopted provisions in its charter that limit or eliminate the personal liability of Dianthus' directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to Dianthus or its stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to Dianthus or its stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

Dianthus' bylaws provide that:

- Dianthus will indemnify its directors, officers and, in the discretion of its board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and

Table of Contents

- Dianthus will advance expenses, including attorneys' fees, to its directors and, in the discretion of its board of directors, to its officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of Dianthus, subject to limited exceptions.

Dianthus has entered into indemnification agreements with its directors and executive officers. These agreements provide that Dianthus will indemnify each of its directors and executive officers to the fullest extent permitted by Delaware law. Dianthus will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director or executive officer in connection with any proceeding in which indemnification is available and Dianthus will indemnify its directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of Dianthus or in furtherance of Dianthus' rights. Additionally, certain of Dianthus' directors may have certain rights to indemnification, advancement of expenses or insurance provided by their affiliates or other third parties, which indemnification relates to and might apply to the same proceedings arising out of such director's services as a director referenced herein. Nonetheless, Dianthus has agreed in the indemnification agreements that Dianthus' obligations to those same directors are primary and any obligation of such affiliates or other third parties to advance expenses or to provide indemnification for the expenses or liabilities incurred by those directors are secondary.

Dianthus also maintains general liability insurance which covers certain liabilities of its directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits

<u>Exhibit Number</u>	<u>Description</u>
2.1†	<u>Agreement and Plan of Merger, dated as of May 2, 2023, by and among Magenta Therapeutics, Inc., Dio Merger Sub, Inc. and Dianthus Therapeutics, Inc. (incorporated by reference to Exhibit 2.1 to the Registrant's Registration Statement on Form S-4 filed with the SEC on July 31, 2023).</u>
4.1	<u>Fifth Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on September 12, 2023).</u>
4.2	<u>Third Amended and Restated By-laws (incorporated by reference to Exhibit 3.2 to the Registrant's Annual Report on Form 10-K filed with the SEC on March 21, 2024).</u>
4.3	<u>Form of Pre-Funded Warrant of Dianthus Therapeutics, Inc. (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on September 12, 2023).</u>
4.4	<u>Registration Rights Agreement, dated September 11, 2023, by and among Dianthus Therapeutics, Inc., Dianthus Therapeutics OpCo, Inc. and certain parties thereto (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed with the SEC on September 12, 2023).</u>
4.5	<u>Form of Pre-Funded Warrant of Dianthus Therapeutics, Inc. (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on January 22, 2024).</u>
4.6	<u>Registration Rights Agreement, dated January 22, 2024, by and among Dianthus Therapeutics, Inc. and certain parties thereto (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on January 22, 2024).</u>
4.7	<u>Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934, as amended (incorporated by reference to Exhibit 4.5 to the Registrant's Annual Report on Form 10-K filed with the SEC on March 21, 2024).</u>

Table of Contents

<u>Exhibit Number</u>	<u>Description</u>
5.1*	Opinion of Gibson, Dunn & Crutcher LLP.
23.1*	Consent of Deloitte & Touche LLP, independent registered public accounting firm of Dianthus Therapeutics, Inc.
23.2*	Consent of Gibson, Dunn & Crutcher LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (included on the signature page to the registration statement).
107*	Filing Fee Table.

* Filed herewith.

† The annexes, schedules and certain exhibits to the Merger Agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. Dianthus Therapeutics, Inc. hereby agrees to furnish supplementally a copy of any omitted annex, schedule or exhibit to the SEC upon request.

(b) Financial statement schedules

None.

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 20 percent change in the maximum aggregate offering price set forth in the "Filing 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 subparagraphs (i), (ii), and (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 SEC 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.
 - (b) 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 Section 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.
 - (c) 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 SEC 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.

SIGNATURES

Pursuant to the requirements of the Securities Act, 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 registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on October 1, 2024.

DIANTHUS THERAPEUTICS, INC.

By: /s/ Ryan Savitz
Ryan Savitz
Chief Financial Officer and
Chief Business Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Marino Garcia, Ryan Savitz and Adam Veness, and each of them, as true and lawful attorneys-in-fact and agents, with full powers of substitution and resubstitution, for them and in their name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the SEC, and generally to do all such things in their names and behalf in their capacities as officers and directors to enable the Dianthus Therapeutics, Inc. to comply with the provisions of the Securities Act and all requirements of the SEC, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their, his or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
<u>/s/ Marino Garcia</u> Marino Garcia	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	October 1, 2024
<u>/s/ Ryan Savitz</u> Ryan Savitz	Chief Financial Officer and Chief Business Officer <i>(Principal Financial Officer)</i>	October 1, 2024
<u>/s/ Edward Carr</u> Edward Carr	Chief Accounting Officer <i>(Principal Accounting Officer)</i>	October 1, 2024
<u>/s/ Alison F. Lawton</u> Alison F. Lawton	Director and Chair of the Board	October 1, 2024
<u>/s/ Tomas Kiselak</u> Tomas Kiselak	Director	October 1, 2024

[Table of Contents](#)

<u>/s/ Anne McGeorge</u> Anne McGeorge	Director	October 1, 2024
<u>/s/ Leon O. Moulder, Jr.</u> Leon O. Moulder, Jr.	Director	October 1, 2024
<u>/s/ Steven Romano, M.D.</u> Steven Romano, M.D.	Director	October 1, 2024
<u>/s/ Paula Soteropoulos</u> Paula Soteropoulos	Director	October 1, 2024
<u>/s/ Jonathan Violin, Ph.D.</u> Jonathan Violin, Ph.D.	Director	October 1, 2024

October 1, 2024

Dianthus Therapeutics, Inc.
7 Times Square, 43rd Floor
New York, New York 10036

Re: Dianthus Therapeutics, Inc.
Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Dianthus Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of a Registration Statement on Form S-3 (the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), relating to the resale from time to time by the selling stockholders named therein of up to 23,655,372 shares of the Company's common stock, par value \$0.001 per share (the "Shares").

In arriving at the opinion expressed below, we have examined originals, or copies certified or otherwise identified to our satisfaction as being true and complete copies of the originals, of the specimen common stock certificates and such other documents, corporate records, certificates of officers of the Company and of public officials and other instruments as we have deemed necessary or advisable to enable us to render these opinions. In our examination, we have assumed the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies.

Based on the foregoing, and subject to the assumptions, exceptions, qualifications and limitations set forth herein, we are of the opinion that the Shares, when issued against payment therefor as set forth in the Registration Statement, will be validly issued, fully paid and non-assessable.

We consent to the filing of this opinion as an exhibit to the Registration Statement, and we further consent to the use of our name under the caption "Legal Matters" in the Registration Statement and the prospectus that forms a part thereof. In giving these consents, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Gibson, Dunn & Crutcher LLP

Abu Dhabi • Beijing • Brussels • Century City • Dallas • Denver • Dubai • Frankfurt • Hong Kong • Houston • London •
Los Angeles • Munich • New York • Orange County • Palo Alto • Paris • Riyadh • San Francisco • Singapore • Washington, D.C.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 21, 2024 relating to the financial statements of Dianthus Therapeutics, Inc., appearing in the Annual Report on Form 10-K of Dianthus Therapeutics, Inc. for the year ended December 31, 2023. We also consent to the reference to us under the heading “Experts” in such Registration Statement.

/s/ Deloitte & Touche LLP

Morristown, New Jersey

October 1, 2024

Calculation of Filing Fee Tables
FORM S-3
(Form Type)

Dianthus Therapeutics, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial effective date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to Be Paid	Equity	Common stock, par value \$0.001 per share ⁽¹⁾	Other	23,655,372 ⁽²⁾	\$27.02 ⁽³⁾	\$639,168,151.44 ⁽³⁾	0.0001531	\$97,856.64	—	—	—	—
Carry Forward Securities												
Carry Forward Securities	N/A	N/A	N/A	N/A		N/A			N/A	N/A	N/A	N/A
	Total Offering Amounts					\$639,168,151.44		\$97,856.64				
	Total Fees Previously Paid							—				
	Total Fee Offsets							—				
	Net Fee Due							\$97,856.64				

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the “**Securities Act**”), this registration statement also covers such an indeterminate amount of shares of common stock of the registrant as may become issuable to prevent dilution resulting from stock splits, stock dividends and similar events.
- (2) The amount registered consists of (i) 18,778,720 shares of common stock of the registrant held by certain selling stockholders and (ii) 4,876,652 shares of common stock of the registrant issuable upon the exercise of 4,876,652 pre-funded warrants of the registrant held by certain selling stockholders.
- (3) Estimated solely for the purpose of calculating the registration fee, based on the average of the high and low prices of the shares of common stock of the registrant on The Nasdaq Capital Market on September 26, 2024 (such date being within five business days of the date that this registration statement was filed with the U.S. Securities and Exchange Commission, in accordance with Rule 457(c) under the Securities Act).