

DIANTHUS THERAPEUTICS, INC.

21,326,988 Shares

Common Stock

Offered by the Selling Stockholders

This prospectus supplement no. 4 is being filed to update and supplement information contained in the prospectus dated March 27, 2024 (the "Prospectus") related to the offering on a resale basis by the selling stockholders identified in the Prospectus (the "Selling Stockholders") of up to 21,326,988 shares of our common stock, par value \$0.001 per share ("Common Stock"), with the information contained in our Current Report on Form 8-K filed with the Securities and Exchange Commission (the "SEC") on September 16, 2024 (the "Report"). Accordingly, we have attached the Report to this prospectus supplement. Any document, exhibit or information contained in the Report that has been deemed furnished and not filed in accordance with SEC rules shall not be included in this prospectus supplement.

This prospectus supplement updates and supplements the information in the Prospectus and is not complete without, and may not be delivered or utilized except in combination with, the Prospectus, including any amendments or supplements thereto. This prospectus supplement should be read in conjunction with the Prospectus and if there is any inconsistency between the information therein and this prospectus supplement, you should rely on the information in this prospectus supplement.

Our Common Stock is traded on The Nasdaq Capital Market under the symbol "DNTH." On September 13, 2024, the last reported sales price for our Common Stock was \$28.96 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 9 of the Prospectus and any applicable prospectus supplement.

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 supplement 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 supplement is September 16, 2024.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 Date of Report (Date of earliest event reported): September 16, 2024

DIANTHUS THERAPEUTICS, INC.

(Exact name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation) 001-38541 (Commission File Number)

7 Times Square 43rd Floor New York, New York (Address of Principal Executive Offices) 81-0724163 (IRS Employer Identification No.)

> 10036 (Zip Code)

Registrant's Telephone Number, Including Area Code: 929 999-4055

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

	Trading	
Title of each class	Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.001 Par Value	DNTH	The Nasdaq Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company \Box

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 13(a) of the Exchange Act.

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On September 16, 2024, the Board of Directors (the "Board") of Dianthus Therapeutics, Inc. (the "Company") appointed Steven Romano, M.D. as a Class III director of the Company and as a member of the Science and Technology Committee of the Board (the "S&T Committee"), effective immediately.

In accordance with the Company's current Non-Employee Director Compensation Policy (the "Policy"), Dr. Romano will receive an initial grant of an option to purchase 22,000 shares of the Company's common stock. The option will vest as to one-third of the shares subject to the option on each of the first, second and third anniversaries of the date of grant, subject to Dr. Romano's continued service to the Board through the applicable vesting date.

In addition, consistent with the Policy, Dr. Romano will receive cash compensation of \$40,000 per year for his service on the Board, and cash compensation of \$5,000 per year for his service as a member of the S&T Committee, payable quarterly and prorated for any calendar quarter of partial service. Dr. Romano will also be eligible to receive annual grants of equity awards pursuant to, and in accordance with, the Policy as in effect from time to time.

In connection with his appointment, Dr. Romano will enter into a standard indemnification agreement in the form previously approved by the Board.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

DIANTHUS THERAPEUTICS, INC.

Date: September 16, 2024

By: /s/ Adam M. Veness, Esq.

Adam M. Veness, Esq. SVP, General Counsel and Secretary