UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

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 81-0724163 (I.R.S. Employer Identification No.)

7 Times Square, 43rd Floor New York, NY 10036 (Address of Principal Executive Offices, Zip Code)

Second Amended and Restated Dianthus Therapeutics, Inc. Stock Option and Incentive Plan (Full title of the plan)

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

> > Copies to: Ryan A. Murr, Esq. Branden C. Berns, Esq. Chris W. Trester, Esq. Gibson, Dunn & Crutcher LLP One Embarcadero Center, Suite 2600 San Francisco, CA 94111 Telephone: (415) 393-8200 Facsimile: (415) 393-8306

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	X	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.

EXPLANATORY NOTE

This Registration Statement on Form S-8 (this "*Registration Statement*") registers an additional 2,931,820 shares of common stock, \$0.001 par value per share ("*Common Stock*"), of Dianthus Therapeutics, Inc. (the "*Registrant*") available for issuance under the Second Amended and Restated Dianthus Therapeutics, Inc. Stock Option and Incentive Plan (the "*Incentive Plan*"), which was adopted by the Registrant's board of directors on March 14, 2024 and approved by the Registrant's stockholders on May 23, 2024 to amend and restate the Amended and Restated Dianthus Therapeutics, Inc. Stock Option and Incentive Plan.

The additional shares are of the same class as other securities relating to the Incentive Plan for which the Registrant's registration statement filed Form S-8 filed with the Securities and Exchange Commission (the "*SEC*") on March 21, 2024, October 4, 2023, March 8, 2022, March 3, 2021, March 3, 2020, March 19, 2019, and June 22, 2018 (Registration Nos. <u>333-278151</u>, <u>333-274865</u>, <u>333-263358</u>, <u>333-253815</u>, <u>333-236853</u>, <u>333-230387</u>, and <u>333-225838</u>), and which, together with all exhibits filed therewith or incorporated therein by reference, are hereby incorporated by reference pursuant to General Instruction E to Form S-8 and the shares of Common Stock registered hereunder with respect to the Incentive Plan are in addition to the shares of Common Stock registered on such registration statements.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information

The documents containing the information specified in Part I of this Registration Statement will be delivered to employees as specified by Rule 428(b)(1) of the Securities Act of 1933, as amended (the "*Securities Act*"). In accordance with the instructions to Part I of Form S-8, such documents are not being filed with the SEC either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act. Such documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of Form S-8, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

Exhibit	
Number	Description
4.1	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)
4.2	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)
5.1*	Opinion of Gibson, Dunn & Crutcher LLP
23.1*	Consent of Deloitte & Touche LLP, independent registered public accounting firm
23.2*	Consent of Gibson, Dunn & Crutcher LLP (included in Exhibit 5.1)
24.1*	Power of Attorney (included on the signature page to this Registration Statement)
99.1	Second Amended and Restated Dianthus Therapeutics, Inc. Stock Option and Incentive Plan (incorporated by reference to Exhibit 10.1 to
	the Registrant's Current Report on Form 8-K filed with the SEC on May 28, 2024)
107.1*	Filing Fee Table

* Filed herewith.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

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

provided, however; that paragraphs (a)(1)(i) and (a)(1)(ii) 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.

(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.

(b) The undersigned Registrant hereby undertakes 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.

(h) 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-8 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 August 8, 2024.

DIANTHUS THERAPEUTICS, INC.

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

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints each of Marino Garcia, Ryan Savitz and Adam Veness and each of them acting individually, as his or her true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution in each of them singly, for him or her and in his or her name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the SEC, granting to the attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in or about the premises, as full to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that the attorneys-in-fact and agents or any of each of them or their substitutes 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 indicated on the dates indicated.

<u>Signature</u>	Title	Date
/s/ Marino Garcia Marino Garcia	Chief Executive Officer, President and Director (Principal Executive Officer)	August 8, 2024
/s/ Ryan Savitz Ryan Savitz	Chief Financial Officer and Chief Business Officer (Principal Financial Officer)	August 8, 2024
/s/ Edward Carr Edward Carr	Chief Accounting Officer (Principal Accounting Officer)	August 8, 2024
/s/ Alison F. Lawton Alison F. Lawton	Director and Chair of the Board	August 8, 2024
/s/ Tomas Kiselak Tomas Kiselak	Director	August 8, 2024
/s/ Anne McGeorge Anne McGeorge	Director	August 8, 2024
/s/ Leon O. Moulder, Jr. Leon O. Moulder, Jr.	Director	August 8, 2024
/s/ Paula Soteropoulos Paula Soteropoulos	Director	August 8, 2024
/s/ Jonathan Violin Jonathan Violin	Director	August 8, 2024

GIBSON DUNN

August 8, 2024

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

> Re: Dianthus Therapeutics, Inc. Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the "*Registration Statement*"), of Dianthus Therapeutics, Inc., a Delaware corporation (the "*Company*") filed with the Securities and Exchange Commission (the "*Commission*") pursuant to the Securities Act of 1933, as amended (the "*Securities Act*"), in connection with the offering by the Company of up to 2,931,820 shares of the Company's common stock, par value \$0.001 per share (the "*Common Stock*"), issuable to eligible individuals under the Second Amended and Restated Dianthus Therapeutics, Inc. Stock Option and Incentive Plan (the "*Incentive Plan*").

We have examined the Incentive Plan and the originals, or photostatic or certified copies, of such records of the Company and certificates of officers of the Company and of public officials and such other documents as we have deemed relevant and necessary as the basis for the opinions set forth below. We have also made such other investigations as we have deemed relevant and necessary or appropriate in connection with the opinion hereinafter set forth. 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. We have also assumed that there are no agreements or understandings between or among the Company and any participants in the Incentive Plan that would expand, modify or otherwise affect the terms of the Incentive Plan or the respective rights or obligations of the participants thereunder. Finally, we have assumed the accuracy of all other information provided to us by the Company during the course of our investigations, on which we have relied in issuing the opinion expressed below.

Based upon the foregoing examination and in reliance thereon, and subject to the assumptions stated and in reliance on statements of fact contained in the documents that we have examined, we are of the opinion that the shares of Common Stock issuable under the Incentive Plan, when issued and sold in accordance with the terms of the Incentive Plan and against payment therefor, and when the Registration Statement has become effective under the Securities Act, will be validly issued, fully paid and non-assessable.

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Gibson, Dunn & Crutcher LLP 2029 Century Park East Los Angeles, CA 90067-3026 Tel 310.552.8500 aibsondunn.com Dianthus Therapeutics, Inc. Page 2

We render no opinion herein as to matters involving the laws of any jurisdiction other than the Delaware General Corporation Law (the "DGCL"). We are not admitted to practice in the State of Delaware; however, we are generally familiar with the DGCL as currently in effect and have made such inquiries as we consider necessary to render the opinions above. This opinion is limited to the effect of the current state of the law of the DGCL and the facts as they currently exist. We assume no obligation to revise or supplement this opinion in the event of future changes in such law or the interpretations thereof or such facts. We express no opinion regarding any state securities laws or regulations.

We consent to the filing of this opinion as an exhibit to the Registration Statement. In giving this consent, 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

GIBSON, DUNN & CRUTCHER LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 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.

/s/ Deloitte & Touche LLP

Morristown, New Jersey August 8, 2024

Calculation of Filing Fee Tables

Form S-8 (Form Type)

Dianthus Therapeutics, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Title	Fee Calculation Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common stock, \$0.001	Rule 457(a) ⁽²⁾	2,931,820 ⁽³⁾	\$26.78	\$78,514,139.60	\$147.60 per	\$11,588.69
	par value per share					\$1,000,000	
Total Offering Amounts				\$78,514,139.60		\$11,588.69	
Total Fee Offsets						—	
Net Fee Due						\$11,588.69	

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement on Form S-8 (this "Registration Statement") shall also cover any additional shares of common stock, par value \$0.001 per share (the "Common Stock") of Dianthus Therapeutics, Inc. (the "Registrant") that become issuable under the Second Amended and Restated Dianthus Therapeutics, Inc. Stock Option and Incentive Plan (the "Incentive Plan") to prevent dilution in the event of stock splits, stock dividends or similar transactions.
- (2) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and (h) of the Securities Act, and based on the average of the high and low sale prices of the Common Stock, as quoted on The Nasdaq Capital Market, on August 5, 2024.
- (3) Represents additional shares of Common Stock issuable under the Incentive Plan as a result of the increase in shares reserved under the Incentive Plan on May 23, 2024 upon the amendment and restatement of the Amended and Restated Dianthus Therapeutics, Inc. Stock Option and Incentive Plan adopted by the Board of Directors and approved by the stockholders of the Company.