

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

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

**NeuBase Therapeutics, Inc.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

350 Technology Drive  
Pittsburgh, Pennsylvania  
(Address of Principal Executive Offices)

46-5622433  
(I.R.S. Employer  
Identification No.)

15219  
(Zip Code)

**2019 Stock Incentive Plan**

(Full title of the plan)

**Dr. Dietrich Stephan**  
Chief Executive Officer  
NeuBase Therapeutics, Inc.  
350 Technology Drive

Pittsburgh, Pennsylvania 15219  
(Name and address of agent for service)

(412) 763-3350

(Telephone number, including area code, of agent for service)

*Copies of all correspondence to:*

**Jeffrey T. Hartlin, Esq.**  
Paul Hastings LLP  
1117 S. California Avenue  
Palo Alto, California 94304  
(650) 320-1800

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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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**

NeuBase Therapeutics, Inc. (the "Registrant") has prepared this Registration Statement in accordance with the requirements of Form S-8 under the Securities Act to register 1,320,346 additional shares of Common Stock issuable pursuant to the 2019 Stock Incentive Plan (the "Plan").

Pursuant to the Registration Statements on Form S-8 (File Nos. 333-233346, 333-252025, and 333-264211) filed by the Registrant with the U.S. Securities and Exchange Commission (the "Commission") on August 16, 2019, January 11, 2021, and April 8, 2022, respectively (collectively, the "Prior Registration Statements"), the Registrant previously registered an aggregate of 6,018,136 shares of Common Stock under the Plan.

In accordance with General Instruction E to Form S-8, the contents of the Prior Registration Statements are hereby incorporated by reference.

**PART II**

**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**ITEM 3. Incorporation of Documents by Reference.**

The Registrant hereby incorporates by reference into this Registration Statement the following documents previously filed by the Registrant with the Commission:

- [the Registrant's Annual Report on Form 10-K \(No. 001-35963\) for the fiscal year ended September 30, 2022, filed with the Commission on December 21, 2022;](#)
- [the Registrant's Quarterly Report on Form 10-Q \(No. 001-35963\) for the fiscal period ended December 31, 2022, filed with the Commission on February 14, 2023;](#)
- the Registrant's Current Reports on Form 8-K (No. 001-35963) filed with the Commission on [October 3, 2022](#), [October 14, 2022](#), [October 24, 2022](#), and [December 29, 2022](#); and
- the description of the Registrant's Common Stock, contained in [Exhibit 4.5](#) to the Registrant's Annual Report on Form 10-K (No. 001-35963) for the fiscal year ended September 30, 2019, filed with the Commission on January 10, 2020, including any amendments or reports filed for the purpose of updating such description.

All other reports and other documents that the Registrant subsequently filed pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), prior to the filing of a post-effective amendment to this Registration Statement which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of the filing of such reports and documents, except as to any portion of any future annual or quarterly report to stockholders or document or current report furnished under Items 2.02 or 7.01 of Form 8-K that is not deemed filed under such provisions.

For the purposes of this Registration Statement, any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Notwithstanding the above, information that is "furnished to" the Commission shall not be deemed "filed with" the Commission and shall not be deemed incorporated by reference into this Registration Statement.

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You should rely only on the information provided or incorporated by reference in this Registration Statement or any related prospectus. The Registrant has not authorized anyone to provide you with different information. You should not assume that the information in this Registration Statement or any related prospectus is accurate as of any date other than the date on the front of the document.

You may contact the Registrant in writing or orally to request copies of the above-referenced filings, without charge (excluding exhibits to such documents unless such exhibits are specifically incorporated by reference into the information incorporated into this Registration Statement). Requests for such information should be directed to:

NeuBase Therapeutics, Inc.  
350 Technology Drive  
Pittsburgh, PA 15219  
(412) 763-3350  
Attn: Chief Financial Officer

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**ITEM 9. Exhibits.**

**EXHIBIT INDEX**

<b>Exhibit Number</b>	<b>Description</b>
<a href="#">4.1</a>	<a href="#">Form of Consulting Warrants (incorporated herein by reference to Exhibit 10.21 to the Registrant's Quarterly Report on Form 10-Q, for the fiscal quarter ended June 30, 2011, filed on August 15, 2011)</a>
<a href="#">4.2</a>	<a href="#">Form of Warrant (incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed on April 6, 2017)</a>
<a href="#">4.3</a>	<a href="#">NeuBase Therapeutics, Inc. 2019 Stock Incentive Plan (incorporated herein by reference to Annex E to the Registrant's Registration Statement on Form S-4, as amended, filed on June 3, 2019)</a>
<a href="#">4.4</a>	<a href="#">Form of Option Agreement under the NeuBase Therapeutics, Inc. 2019 Stock Incentive Plan (incorporated herein by reference to Exhibit 4.6 to the Registrant's Registration Statement on Form S-8, filed on August 16, 2019)</a>
<a href="#">4.5</a>	<a href="#">Form of Common Stock Certificate (incorporated herein by reference to Exhibit 4.17 to the Registrant's Registration Statement on Form S-8, filed on August 16, 2019)</a>
<a href="#">5.1*</a>	<a href="#">Opinion of Paul Hastings LLP</a>
<a href="#">23.1*</a>	<a href="#">Consent of Marcum, LLP, Independent Registered Public Accounting Firm</a>
<a href="#">23.2*</a>	<a href="#">Consent of Paul Hastings LLP (included in Exhibit 5.1 of this Registration Statement)</a>
<a href="#">24.1*</a>	<a href="#">Power of Attorney (included on signature page of this Registration Statement)</a>

\* Filed herewith

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 Pittsburgh and the State of Pennsylvania, on March 6, 2023.

**NEUBASE THERAPEUTICS, INC.**

By: /s/ Dietrich Stephan  
 Dr. Dietrich Stephan  
 President and Chief Executive Officer

**POWER OF ATTORNEY**

KNOW ALL PERSONS BY THESE PRESENTS, that each of Dr. Dov A. Goldstein, Mr. Gerry J. McDougall, Dr. Franklyn G. Prendergast, Mr. Eric I. Richman, and Dr. Eric J. Ende constitutes and appoints Dr. Dietrich Stephan and Mr. Todd P. Branning, and each of them, and that Dr. Dietrich Stephan constitutes and appoints Mr. Todd P. Branning, and that Mr. Todd P. Branning constitutes and appoints Dr. Dietrich Stephan, as his true and lawful attorney-in-fact and agent, upon the action of such appointee, with full power of substitution and resubstitution, to do any and all acts and things and execute, in the name of the undersigned, any and all instruments which each of said attorneys-in-fact and agents may deem necessary or advisable in order to enable the Registrant to comply with the Securities Act of 1933, as amended (the "Securities Act"), and any requirements of the Securities and Exchange Commission (the "Commission") in respect thereof, in connection with the filing with the Commission of this Registration Statement on Form S-8 under the Securities Act, including specifically but without limitation, power and authority to sign the name of the undersigned to such Registration Statement, and any amendments to such Registration Statement (including post-effective amendments), and to file the same with all exhibits thereto and other documents in connection therewith, with the Commission, to sign any and all applications, Registration Statements, notices or other documents necessary or advisable to comply with applicable state securities laws, and to file the same, together with other documents in connection therewith with the appropriate state securities authorities, granting unto each of said attorneys-in-fact and agents full power and authority to do and to perform each and every act and thing requisite or necessary to be done in and about the premises, as fully and to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents 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.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
/s/ Dietrich A. Stephan Dietrich A. Stephan, Ph.D.	Chief Executive Officer and Director (Principal Executive Officer)	March 6, 2023
/s/ Todd P. Branning Todd P. Branning	Chief Financial Officer and Secretary (Principal Financial and Accounting Officer)	March 6, 2023
/s/ Dov A. Goldstein Dov A. Goldstein, M.D.	Director	March 6, 2023
/s/ Gerald J. McDougall Gerald J. McDougall	Director	March 6, 2023
/s/ Franklyn G. Prendergast Franklyn G. Prendergast, M.D., Ph.D.	Director	March 6, 2023
/s/ Eric I. Richman Eric I. Richman	Director	March 6, 2023
/s/ Eric J. Ende Eric J. Ende, M.D.	Director	March 6, 2023

March 6, 2023

98993.00001

NeuBase Therapeutics, Inc.  
350 Technology Drive  
Pittsburgh, PA 15219

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to NeuBase Therapeutics, Inc., a Delaware corporation (the “*Company*”), in connection with the Registration Statement on Form S-8 to be filed by the Company with the U.S. Securities and Exchange Commission (the “*Commission*”) on or about the date hereof (the “*Registration Statement*”) to effect registration under the Securities Act of 1933, as amended (the “*Securities Act*”), of 1,320,346 shares (the “*Shares*”) of the Company’s common stock, \$0.0001 par value per share (“*Common Stock*”), issuable upon the vesting and exercise of awards to be granted by the Company pursuant to the Company’s 2019 Stock Incentive Plan (the “*Plan*”).

As such counsel and for purposes of our opinion set forth below, we have examined and relied upon originals or copies, certified or otherwise identified to our satisfaction, of such documents, resolutions, certificates and instruments of the Company and corporate records furnished to us by the Company, and have reviewed certificates of public officials, statutes, records and such other instruments and documents as we have deemed necessary or appropriate as a basis for the opinion set forth below, including, without limitation:

- (i) the Registration Statement;
- (ii) the Amended and Restated Certificate of Incorporation of the Company, as certified by the Office of the Secretary of State of the State of Delaware on March 6, 2023;
- (iii) the Amended and Restated Bylaws of the Company as presently in effect, as certified by an officer of the Company on March 6, 2023;
- (iv) the Plan and the forms of award agreements related thereto;
- (v) a certificate, dated as of March 6, 2023, from the Office of the Secretary of State of the State of Delaware, as to the existence and good standing of the Company in the State of Delaware (the “*Good Standing Certificate*”);
- (vi) the resolutions adopted by the board of directors (the “*Board*”) of the Company, dated March 6, 2019, regarding the Plan and other matters related thereto, as certified by an officer of the Company on March 6, 2023;
- (vii) the approval by the stockholders of the Company on July 10, 2019, regarding the Plan and other matters related thereto, as certified by an officer of the Company on March 6, 2023;

- (viii) the unanimous written consent of the Board, dated March 6, 2023, regarding the Registration Statement and other matters related thereto, as certified by an officer of the Company on March 6, 2023; and
- (ix) the unanimous written consent of the Compensation Committee of the Board, dated July 12, 2019, regarding the Plan and other matters related thereto, as certified by an officer of the Company on March 6, 2023.

In addition to the foregoing, we have made such investigations of law as we have deemed necessary or appropriate as a basis for the opinion set forth in this opinion letter.

In such examination and in rendering the opinion expressed below, we have assumed, without independent investigation or verification: (i) the genuineness of all signatures on all agreements, instruments, corporate records, certificates and other documents submitted to us; (ii) the authenticity and completeness of all agreements, instruments, corporate records, certificates and other documents submitted to us as originals; (iii) that all agreements, instruments, corporate records, certificates and other documents submitted to us as certified, electronic, facsimile, conformed, photostatic or other copies conform to originals thereof, and that such originals are authentic and complete; (iv) the legal capacity and authority of all persons or entities (other than the Company) executing all agreements, instruments, corporate records, certificates and other documents submitted to us; (v) the due authorization, execution and delivery of all agreements, instruments, corporate records, certificates and other documents by all parties thereto (other than the Company); (vi) that no documents submitted to us have been amended or terminated orally or in writing except as has been disclosed to us in writing; (vii) that the statements contained in the certificates and comparable documents of public officials, officers and representatives of the Company and other persons on which we have relied for the purposes of this opinion letter are true and correct; (viii) that there has not been any change in the good standing status of the Company from that reported in the Good Standing Certificate; and (ix) that each of the officers and directors of the Company has properly exercised his or her fiduciary duties. As to all questions of fact material to this opinion letter, and as to the materiality of any fact or other matter referred to herein, we have relied (without independent investigation or verification) upon representations and certificates or comparable documents of officers and representatives of the Company. Our knowledge of the Company and its legal and other affairs is limited by the scope of our engagement, which scope includes the delivery of this opinion letter. We do not represent the Company with respect to all legal matters or issues. The Company may employ other independent counsel and, to our knowledge, handles certain legal matters and issues without the assistance of independent counsel. We have also assumed that the individual issuances, grants, awards or grants of purchase rights under the Plan will be duly authorized by all necessary corporate action of the Company and duly issued, granted or awarded and exercised in accordance with the requirements of law, the Plan and the agreements, forms of instrument, awards and grants duly adopted thereunder.

Based upon the foregoing, and in reliance thereon, and subject to the assumptions, limitations, qualifications and exceptions set forth herein, we are of the opinion that the

Shares are duly authorized and, when issued and sold as described in the Registration Statement and in accordance with the Plan and the applicable award agreements or forms of instrument evidencing purchase rights thereunder (including the receipt by the Company of the full consideration therefor), will be validly issued, fully paid and nonassessable.

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**PAUL**  
**HASTINGS**

NeuBase Therapeutics, Inc.  
March 6, 2023  
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Without limiting any of the other limitations, exceptions and qualifications stated elsewhere herein, we express no opinion with regard to the applicability or effect of the laws of any jurisdiction other than the General Corporation Law of the State of Delaware, as in effect on the date of this opinion letter.

This opinion letter deals only with the specified legal issues expressly addressed herein, and you should not infer any opinion that is not explicitly stated herein from any matter addressed in this opinion letter.

This opinion letter is rendered solely in connection with the issuance and delivery of the Shares as described in the Registration Statement and in accordance with the terms of the Plan and the applicable award agreement or form of instrument evidencing purchase rights thereunder. This opinion letter is rendered as of the date hereof, and we assume no obligation to advise you or any other person with regard to any change after the date hereof in the circumstances or the law that may bear on the matters set forth herein even if the change may affect the legal analysis or a legal conclusion or other matters in this opinion letter.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement. In giving such consent, we do not hereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules or regulations of the Commission thereunder.

Very truly yours,

/s/ Paul Hastings LLP

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INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in this Registration Statement of NeuBase Therapeutics, Inc. on Form S-8 of our report dated December 21, 2022, with respect to our audits of the consolidated financial statements of NeuBase Therapeutics, Inc. as of September 30, 2022 and 2021 and for the years ended September 30, 2022 and 2021 appearing in the Annual Report on Form 10-K of NeuBase Therapeutics, Inc. for the year ended September 30, 2022.

/s/ Marcum llp

Marcum llp  
New York, NY  
March 6, 2023

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## Calculation of Filing Fee Tables

**Form S-8**  
(Form Type)**NeuBase Therapeutics, Inc.**  
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered <sup>(1)(2)</sup>	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee <sup>(4)</sup>
Equity	Common Stock, \$0.0001 par value per share, reserved for issuance under the Plan (as defined below)	457(h)	1,320,346	\$ 0.21 <sup>(3)</sup>	\$ 277,273	.00011020	\$ 31
<b>Total Offering Amounts</b>					<b>\$ 277,273</b>		<b>\$ 31</b>
<b>Total Fee Offsets</b>							
<b>Net Fee Due</b>							<b>\$ 31</b>

(1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement on Form S-8 (the "Registration Statement") also covers an indeterminate number of additional shares of common stock, \$0.0001 par value per share (the "Common Stock") of NeuBase Therapeutics, Inc. (the "Registrant") that become issuable under the Registrant's 2019 Stock Incentive Plan (the "Plan"), by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant's outstanding shares of Common Stock.

(2) Represents shares of Common Stock that were added to the shares available for issuance under the Plan on October 1, 2022 pursuant to the automatic increase feature of the Plan, which provides that the number of shares reserved for issuance under the Plan will automatically increase on October 1st of each year for ten years, starting on October 1, 2019 and ending on (and including) October 1, 2028, by the lesser of (a) four percent (4.0%) of the total number of the Registrant's Common Stock outstanding as of September 30th of the immediately preceding fiscal year and (b) such number of shares of Common Stock determined by the Registrant's board of directors.

(3) Estimated solely for the purpose of calculating the registration fee and computed in accordance with Rule 457(c) and (h) under the Securities Act using the average of the high and low sale prices of the Common Stock as reported on The NASDAQ Capital Market on March 2, 2023, which was \$0.21 per share of Common Stock.

(4) The registrant does not have any fee offsets.