UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER

THE SECURITIES ACT OF 1933

Cortexyme, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 90-1024039 (I.R.S. Employer Identification No.)

269 East Grand Ave. South San Francisco, CA 94080 (415) 910-5717 (Address of Principal Executive Offices) (Zip Code)

Cortexyme, Inc. 2019 Equity Incentive Plan Cortexyme, Inc. 2019 Employee Stock Purchase Plan (Full title of the plans)

> Casey C. Lynch Chief Executive Officer Cortexyme, Inc. 269 East Grand Ave. South San Francisco, CA 94080 (415) 910-5717

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

Please send copies of all communications to:

Gordon K. Ho Cooley LLP 3175 Hanover Street Palo Alto, California 94304 (650) 843-5000

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	X
Non-accelerated filer	
Emerging growth company	

Accelerated filer

Smaller reporting 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 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common stock, \$0.001 par value per share				

- Reserved for future issuance under the 2019 Equity				
Incentive Plan	1,181,729 (2)	\$31.49 (3)	\$37,212,646.21	\$4,060.00
- Reserved for future issuance the 2019 Employee Stock				
Purchase Plan	295,432 (4)	\$26.77 (5)	\$7,908,714.64	\$863.00
TOTAL	1,477,161		\$45,121,360.85	\$4,923.00

(1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement on Form S-8 ("Registration Statement") shall also cover any additional shares of the common stock of Cortexyme, Inc. (the "Registrant") that become issuable in respect of the securities identified in the above table by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the Registrant's receipt of consideration that results in an increase in the number of the outstanding shares of the Registrant's common stock.

- (2) Represents 1,181,729 additional shares of the Registrant's common stock that were automatically added to the shares authorized for issuance under the Registrant's 2019 Equity Incentive Plan (the "2019 Plan") on January 1, 2021, pursuant to an annual "evergreen" increase provision contained in the 2019 ESPP.
- (3) Estimated in accordance with Rules 457(c) and (h) of the Securities Act, solely for the purpose of calculating the registration fee. The proposed maximum offering price per share of \$31.49 was computed by averaging the high and low prices of a share of the Registrant's common stock as reported on The Nasdaq Global Select Market on February 23, 2021.
- (4) Represents 295,432 additional shares of the Registrant's common stock that were automatically added to the shares authorized for issuance under the Registrant's 2019 Employee Stock Purchase Plan (the "2019 ESPP") on January 1, 2021, pursuant to an annual "evergreen" increase provision contained in the 2019 ESPP.
- (5) Estimated in accordance with Rules 457(c) and (h) of the Securities Act, solely for the purpose of calculating the registration fee. The proposed maximum offering price per share is equal to 85% of \$31.49, which was computed by averaging the high and low prices of a share of the Registrant's common stock as reported on The Nasdaq Global Select Market on February 23, 2021. Under the 2019 ESPP, the purchase price of a share of common stock is equal to 85% of the fair market value of the Registrant's common stock on the offering date or the purchase date, whichever is less.

REGISTRATION OF ADDITIONAL SHARES PURSUANT TO GENERAL INSTRUCTION E

Pursuant to General Instruction E of Form S-8, the Registrant is filing this Registration Statement with the Securities and Exchange Commission (the "Commission") to register 1,181,729 additional shares of common stock under the 2019 Plan and 295,432 additional shares of common stock under the 2019 ESPP pursuant to the provisions of those plans providing for an automatic increase in the number of shares reserved for issuance under such plans. This Registration Statement hereby incorporates by reference the contents of the Registrant's registration statement on Form S-8 filed with the Commission on <u>May 9, 2019 (Registration No. 333-231307)</u> and on March 16, 2020 (File No. 333-237199).

PART II

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE

The following documents filed by Registrant with the Commission are incorporated by reference into this Registration Statement:

- (a) The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2020, filed with the Commission on March 1, 2021;
- (b) The Registrant's Current Reports on Form 8-K filed with the Commission on January 25, 2021, January 26, 2021 (only with respect to Item 8.01), February 10, 2021 and February 16, 2021; and
- (c) The description of the Registrant's Common Stock contained in the registration statement on <u>Form 8-A</u> registering the Registrant's Common Stock under Section 12 of the Exchange Act filed with the Commission on May 1, 2019, including any amendments or reports filed for purposes of updating such description.

All other reports and documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits furnished on such form that relate to such items) on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part of this Registration Statement from the date of the filing of such reports and documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document that also 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.

Item 8. Exhibits.

The following exhibits are filed herewith:

5 1 1 1 %		Incorporated by Reference				
Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
4.1	Amended and Restated Certificate of Incorporation	8-K	001-38890	3.1	5/13/2019	
4.2	Amended and Restated Bylaws	8-K	001-38890	3.2	5/13/2019	
4.3	Specimen Stock Certificate	S-1/A	333-230853	4.1	4/29/2019	
5.1	Opinion of Cooley LLP					Х
23.1	Consent of Cooley LLP (included in Exhibit 5.1)					Х
23.2	Consent of Independent Registered Public Accounting Firm					Х
24.1	<u>Power of Attorney (included on the signature page of this Registration</u> <u>Statement)</u>					X
99.1	2019 Equity Incentive Plan, and forms of stock award agreements thereunder	S-1/A	333-230853	10.4	4/29/2019	
99.2	2019 Employee Stock Purchase Plan	S-1/A	333-230853	10.5	4/29/2019	

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 San Francisco, State of California, on March 1, 2021.

CORTEXYME, INC.

/s/ (Casey	C.	Lynch	
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Casey C. Lynch

President, Chief Executive Officer and Chairman

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Casey C. Lynch, Christopher Lowe and Caryn McDowell, and each of them, as his or her true and lawful attorney-in-fact and agent with the full power of substitution, for him or her, in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments to this Registration Statement on Form S-8), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Commission, 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 for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or her 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 on behalf of the Registrant in the capacities and on the dates indicated:

Name	Title	Date
/s/ Casey C. Lynch Casey C. Lynch	President, Chief Executive Officer and Chairman of our Board of Directors (Principal Executive Officer)	March 1, 2021
/s/ Christopher Lowe Christopher Lowe	Chief Operating Officer and Chief Financial Officer (Principal Financial Officer)	March 1, 2021
/s/ Ted Monohon Ted Monohon	Chief Accounting Officer and Vice President, Finance (Principal Accounting Officer)	March 1, 2021
/s/ Stephen S. Dominy Stephen S. Dominy	Director	March 1, 2021
/s/ David A. Lamond David A. Lamond	Director	March 1, 2021
/s/ Margaret McLoughlin, Ph.D. Margaret McLoughlin, Ph.D.	Director	March 1, 2021
/s/ Una Ryan, OBE, Ph.D. Una Ryan, OBE, Ph.D.	Director	March 1, 2021
/s/ Christopher J. Senner Christopher J. Senner	Director	March 1, 2021
/s/ Kevin Young, CBE Kevin Young, CBE	Director	March 1, 2021



Gordon K. Ho T: +1 650 843 5190 gho@cooley.com

March 1, 2021

Cortexyme, Inc. 269 East Grand Ave. South San Francisco, CA 94080

Ladies and Gentlemen:

We have acted as counsel to Cortexyme, Inc., a Delaware corporation (the "*Company*"), and you have requested our opinion in connection with the filing by the Company of a Registration Statement on Form S-8 (the "*Registration Statement*") with the Securities and Exchange Commission, covering the offering of up to 1,477,161 shares (the "*Shares*") of the Company's Common Stock, par value \$0.001 per share (the "*Common Stock*"), including (i) 1,181,729 shares of Common Stock pursuant to the Company's 2019 Equity Incentive Plan (the "*2019 EIP*"), and (ii) 295,432 shares of Common Stock pursuant to the Company's 2019 Equity Incentive Plan (the "*Plans*").

In connection with this opinion, we have examined and relied upon the Registration Statement and the related prospectuses, the Company's Amended and Restated Certificate of Incorporation, and Amended and Restated Bylaws, each as currently in effect, the Plans and such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials; and the due authorization, execution and delivery of all documents where authorization, execution and delivery are prerequisites to the effectiveness of such documents. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Plans, the Registration Statement and related prospectuses, will be validly issued, fully paid, and nonassessable (except as to Shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

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

Sincerely,

Cooley LLP

By: /s/ Gordon K. Ho Gordon K. Ho

> Cooley LLP 3175 Hanover Street, Palo Alto, CA 94304-1130 t: (650) 843-5000 f: (650) 849-7400 cooley.com

Cortexyme, Inc. South San Francisco, California

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 of our reports dated March 1, 2021, relating to the financial statements and the effectiveness of Cortexyme, Inc.'s internal control over financial reporting of Cortexyme, Inc. appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2020.

/s/ BDO USA, LLP San Jose, California

March 1, 2021