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:

Scott Iyama, Esq. Niki Fang, Esq. Orrick, Herrington & Sutcliffe LLP 405 Howard Street San Francisco, CA 94105 (415) 773-5700

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	
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Non-accelerated filer

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.

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	1,074,776 (2)	\$37.69(3)	\$40,508,307.44	\$5,257.98
- Reserved for future issuance the 2019 Employee Stock				
Purchase Plan	268,694 (4)	\$32.0365 (5)	\$8,608,015.34	\$1,117.33
TOTAL	1,343,470		\$49,116,322.78	\$6,375.31

(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 1,074,776 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, 2020, 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 \$37.69 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 March 10, 2020.

(4) Represents 268,694 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, 2020, 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 \$37.69, 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 March 10, 2020. 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 1,074,776 additional shares of common stock under the 2019 Plan and 268,694 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>

Item 8. <u>Exhibits</u>.

The following exhibits are filed herewith:

		Incorporated by Reference				
Exhibit <u>Number</u>	Exhibit Description	Form	<u>File No.</u>	Exhibit	Filing Date	Filed <u>Herewith</u>
5.1	Opinion of Orrick, Herrington & Sutcliffe LLP					Х
23.1	Consent of Orrick, Herrington & Sutcliffe LLP (included in Exhibit 5.1)					Х
23.2	Consent of Independent Registered Public Accounting Firm					Х
24.1	Power of Attorney (included on the signature page of this Registration Statement)					Х
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 16, 2020.

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 Kristen Gafric, 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 16, 2020
/s/ Christopher Lowe	Chief Financial Officer	March 16, 2020
Christopher Lowe	(Principal Financial and Accounting Officer)	
/s/ Stephen S. Dominy	Director	March 16, 2020
Stephen S. Dominy		
/s/ David A. Lamond	Director	March 16, 2020
David A. Lamond		
/s/ Margaret McLoughlin, Ph.D.	Director	March 16, 2020
Margaret McLoughlin, Ph.D.		
/s/ Una Ryan, OBE, Ph.D.	Director	March 16, 2020
Una Ryan, OBE, Ph.D.		
/s/ Christopher J. Senner	Director	March 16, 2020
Christopher J. Senner		
/s/ Kevin Young, CBE	Director	March 16, 2020
Kevin Young, CBE		



Orrick, Herrington & Sutcliffe LLP

THE ORRICK BUILDING 405 HOWARD STREET SAN FRANCISCO, CA 94105-2669

+1-415-773-5700

March 16, 2020

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

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel for Cortexyme, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of the Company's registration statement on Form S-8 (the "Registration Statement"), under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of 1,074,776 shares of the Company's common stock, par value \$0.001 per share (the "Common Stock"), reserved for issuance pursuant to the Company's 2019 Equity Incentive Plan, and 268,694 shares of Common Stock reserved for issuance pursuant to the Company's 2019 Employee Stock Purchase Plan (which plans are referred to herein as the "Plans" and which shares of Common Stock are referred to herein as the "Shares"). As your legal counsel, we have reviewed the actions proposed to be taken by you in connection with the issuance and sale of the Shares to be issued under the Plans.

In connection with this opinion, we have examined originals or copies, certified or otherwise identified to our satisfaction, of (i) the Company's Amended and Restated Certificate of Incorporation, (ii) the Company's Amended and Restated Bylaws, (iii) the Plans, and (iv) such corporate records, agreements, documents and other instruments, and such certificates or comparable documents of public officials and of officers and representatives of the Company, and have made such inquiries of such officers and representatives, as we have deemed relevant and necessary or appropriate as a basis for the opinion set forth below.

In our examination, we have assumed the legal capacity of all-natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as facsimile, electronic, certified or photostatic copies, and the authenticity of the originals of such copies. In making our examination of documents executed or to be executed, we have assumed that the parties thereto, other than the Company, had or will have the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and the execution and delivery by such parties of such documents and the validity and binding effect thereof on such parties. As to any facts material to the opinions expressed herein that we did not independently establish or verify, we have relied upon statements and representations of officers and other representatives of the Company and others and of public officials.

Based on the foregoing and subject to the limitations, qualifications and assumptions set forth herein, we are of the opinion that the Shares to be issued pursuant to the terms of the Plan have been duly authorized and, when issued, delivered and paid for in accordance with the terms of the Plan, will be validly issued, fully paid and non-assessable.



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The opinion expressed herein is limited to the corporate laws of the State of Delaware and the federal laws of the United States of America, and we express no opinion as to the effect on the matters covered by this letter of the laws of any other jurisdictions.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not hereby admit that we are included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ ORRICK, HERRINGTON & SUTCLIFFE LLP

ORRICK, HERRINGTON & SUTCLIFFE LLP

Cortexyme, Inc. South San Francisco, California

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 of our report dated March 16, 2020, relating to the financial statements of Cortexyme, Inc. appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2019.

/s/ BDO USA, LLP San Jose, California

March 16, 2020