



DIVISION OF  
CORPORATION FINANCE

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

April 25, 2019

Casey C. Lynch  
Chief Executive Officer  
Cortexyme, Inc.  
269 East Grand Ave.  
South San Francisco, CA 94080

**Re: Cortexyme, Inc.**  
**Amendment No. 1 to Registration Statement on Form S-1**  
**Filed April 16, 2019**  
**File No. 333-230853**

Dear Ms. Lynch:

We have reviewed your amended registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our April 2, 2019 letter.

Amendment No. 1 to Registration Statement on Form S-1 Filed April 16, 2019

Summary of Our Clinical and Preclinical Data, page 86

1. We note your revisions in response to prior comment 4. Please revise the descriptions of the fifth and sixth studies to indicate the type of cells studied. Also tell us where in the prospectus you discuss the final study referenced in the table.

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Exploratory Cognitive Testing, page 99

2. We note your response to prior comment 14 and note your revisions in this section and in the Summary. Please tell us whether the three WLA measurements you present are the only WLA parameters that you consider to be key measurements for indicating the presence and severity of Alzheimer's disease. In your response, tell us about the WLA testing that you will conduct in your Phase 2/3 GAIN trial, including whether all 35 markers will be assessed.

You may contact SiSi Cheng at 202-551-5004 or Jim Rosenberg at 202-551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Jeffrey Gabor at 202-551-2544 or Joe McCann at 202-551-6262 with any other questions.

Sincerely,

Division of Corporation Finance  
Office of Healthcare & Insurance

cc: Andrew D. Thorpe, Esq.