



DIVISION OF
CORPORATION FINANCE

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

January 29, 2013

Via E-mail

John Nicols
Chief Executive Officer
Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063

**RE: Codexis, Inc.
Form 10-Q for the Fiscal Quarter Ended September 30, 2012
Filed November 7, 2012
File No. 001-34705**

Dear Mr. Nichols:

We have reviewed your response letter dated January 14, 2013, and have the following additional comments. If you disagree, we will consider your explanation as to why our comments are inapplicable.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. 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 the information you provide in response to these comments, we may have additional comments.

Form 10-Q for the Fiscal Quarter Ended September 30, 2012

Critical Accounting Policies and Estimates, page 24

1. In your response to prior comment 1, you discuss a quantitative impairment test of goodwill on October 1, 2012, in connection with ASC 350-20-35-30. It appears your quantitative impairment test consisted of a comparison of your market capitalization to net assets. Your accounting policy disclosure on page 62 of your Form 10-K discusses the assessment of cash flows but does not discuss comparison of market capitalization. Please tell us whether you use a cash flow method as part of your impairment test of goodwill or under what circumstances you would and describe your method. We note market capitalization has dipped below total stockholders' equity, you have a sizable accumulated deficit, and you have reported losses from operations for each of the last five years. Tell us the date of your annual test of goodwill under ASC 350-20-35-28.

2. We have read your response to comment 2 from our letter dated December 14, 2012. In your response you state that you prepared your forecasted undiscounted cash flow analysis using projections which included assumptions surrounding new collaborations for your CodeXol™ detergent alcohols program. Based on disclosures in your filings we did not observe material contracts for your detergent or discussion of negotiations to enter a material contract. Please tell us more about the new collaborations assumed as part of your analysis, including the status of any new collaborations, the amount of revenue and cash flows included in your analysis that is not based on a signed contract, the expected growth rate through 2016, and your basis for including these amounts in your assumptions. Tell us whether the undiscounted cash flows, without inclusion of amounts not based on signed contracts, would be sufficient to exceed the carrying value of the asset group and the amount of the difference.

You may contact Tracey McKoy, Staff Accountant, at (202) 551-3772 or, in her absence the undersigned Accounting Branch Chief at (202) 551-3355 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

/s/ Terence O'Brien

Terence O'Brien
Accounting Branch Chief