



DIVISION OF
CORPORATION FINANCE

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

November 3, 2015

Mail Stop 4631

Via E-mail

Tyler W. Painter
Chief Operating Officer and Chief Financial Officer
Solazyme, Inc.
225 Gateway Blvd.
South San Francisco, CA 94080

**Re: Solazyme, Inc.
Form 10-Q for Fiscal Quarter Ended March 31, 2015
Filed May 8, 2015
Response Letter Dated October 6, 2015
File No. 1-35189**

Dear Mr. Painter:

We have reviewed your filing 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 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 any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-Q for Fiscal Quarter Ended March 31, 2015

Financial Statements

Note 11- Investments in Joint Ventures and Related Party Transactions, page 15

1. We have read your response to prior comment 2, in our letter to you dated September 21, 2015, in which you indicate that you believe the \$6.8 million equity loss pickup from the Solazyme Bunge JV, when compared to your total losses for fiscal 2013 of \$116 million, did not represent a material impact on pre-tax results. As previously requested, please provide us with a qualitative and quantitative analysis of your determination that the loss

was not material to your financial statements for the year ended December 31, 2013. Refer to the guidance in ASC 250-10-S99.

2. We have read your response to prior comment 3. Please tell us and expand your disclosure, under this heading or elsewhere in your filing as appropriate, to discuss the impact that crude oil prices have on your operating results, including the Solazyme Bunge joint venture's, given the following statement made in your response letter dated August 13, 2015, "*...commodity prices for crude oil and substitutable semi-commodity oils with which most of the Company's first-generation oil products compete had fallen dramatically. Consideration of these factors led the Company to make adjustments in its global manufacturing and commercialization strategies to drive capital efficiency and position it for commercial success. With respect to the Solazyme Bunge JV production facility, the Company determined (in conjunction with Bunge) to narrow the production focus to smaller volumes of higher value, higher margin products.*"
3. We have read your response to prior comment 4. Please further expand your disclosure, under this heading or in your Management's Discussion and Analysis, of each bullet point either containing the goals which need to be reached to recover your investment in the joint venture to discuss what has been and what will need to be done to achieve each of the respective goals.
4. We have read your response to prior comment 5 in which you indicate you prepared a five year baseline projection of the operating results of the Solazyme Bunge JV. However, only a narrative summary of the results were provided. Please provide us with a copy of the five year projection of operating results for the joint venture.

You may contact Tracie Mariner, Staff Accountant, at (202) 551-3744, or Alfred Pavot, Staff Accountant, at (202) 551-3738, if you have questions regarding comments on the financial statements and related matters. You may contact me at (202) 551-3355 with any other questions.

Sincerely,

/s/ Terence O'Brien

Terence O'Brien
Branch Chief
Office of Manufacturing and
Construction