



DIVISION OF  
CORPORATION FINANCE

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

October 25, 2010

Roger L. Hawley  
Chief Executive Officer  
Zogenix, Inc.  
12671 High Bluff Drive, Suite 200  
San Diego, CA 92130

**Re: Zogenix, Inc.**  
**Amendment No. 1 to Registration Statement on Form S-1**  
**Filed October 12, 2010**  
**File No. 333-169210**

Dear Mr. Hawley:

We have reviewed your response letter and amended registration statement each filed October 12, 2010 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.

Management's Discussion and Analysis of Financial Condition and Results of Operations  
Critical Accounting Policies and Estimates  
Revenue Recognition  
Product Sales Allowances, page 77

1. Refer to your disclosure in response to our prior comment 13. It is unclear if any changes were made in response to the second bullet of our comment. Please revise your disclosure to discuss any shipments made as a result of incentives and/or in excess of your customer's ordinary course of business inventory level and discuss your revenue recognition policy for such shipments. If this is not applicable to you, please clarify that fact.

Stock Based Compensation  
Common Stock Valuation, page 81

2. We have reviewed your revised disclosure in response to comment 14 and have the following comments:
  - With respect to the second bullet, please disclose the estimated enterprise value at each valuation date.
  - With respect to the fourth bullet, please provide quantitative disclosure surrounding the probability of completing an initial public offering at September 30, 2009 and December 31, 2009.
  - With respect to the sixth bullet, please expand your disclosure to clarify the statistical algorithms and historical trends used in your discounted cash flows analysis.
  - With respect to the ninth bullet, please update your table on page 84, as appropriate.

Business

Our Product and Product Candidates

Sumavel DosePro Post-Approval Clinical Program, page 109

3. In response to prior comment 16, you disclose on page 109 that the Phase 4 open-label study met its primary endpoint of demonstrating a significant and clinically relevant improvement in patient satisfaction after treatment with Sumavel DosePro as measured by the Patient Perception of Migraine Questionnaire-Revised (PPMQ-R). In order to put this disclosure in the proper context, please disclose each endpoint of the study and each of the related p-values.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

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You may contact Tabatha Akins at (202) 551-3658 or Don Abbott at (202) 551-3608 if you have questions regarding comments on the financial statements and related matters. Please contact Jennifer Riegel at (202) 551-3575 or me at (202) 551-3715 with any other questions.

Sincerely,

Jeffrey Riedler  
Assistant Director

cc: Scott N. Wolfe, Esq.  
Cheston J. Larson, Esq.  
Matthew T. Bush, Esq.  
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