

Via Facsimile and U.S. Mail
Mail Stop 6010

February 17, 2009

Michael W. Bonney
President and Chief Executive Officer
65 Hayden Avenue
Lexington, MA 02421

Re: Cubist Pharmaceuticals, Inc.
Form 10-K for the Year Ended December 31, 2007
Filed February 29, 2008
File No. 000-21379

Dear Mr. Bonney:

We have reviewed your filing and have the following comments. In our comments, we ask you to provide us with information to better understand your disclosure. Where it requests you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or quarterly filing, as applicable, in which you intend to first include it. If you do not believe that revised disclosure is necessary, explain the reason in your response. After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Definitive Proxy Statement filed April 28, 2008

Item 11. Executive Compensation, page 9

1. We note your response to our prior comment 6. Your disclosure should be more specific about each named executive officer's individual goals. For example:
 - You state that a "substantial portion" of Mr. Perez's individual goals related to the achievement of worldwide sales and supporting launches of Cubicin

outside the US. Was there a target level of sales? What were Mr. Perez's other goals?

- Please describe Mr. McGirr's operational finance, corporate finance and people development goals.

Please make similar changes to the descriptions of Messrs. Fellows' and Guiffre's goals.

* * * *

Please provide us the information requested within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response that keys your responses to our comments and provide any requested information. Detailed cover letters greatly facilitate our review. Please furnish your letter on EDGAR under the form type label CORRESP.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

In connection with responding to our comments, please provide, in your letter, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comment on your filing.

Michael W. Bonney
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Please contact Laura Crotty at (202) 551-3575, Suzanne Hayes, Legal Branch Chief, at (202) 551-3675 or myself at (202) 551-3715 if you have questions regarding the processing of your response as well as any questions regarding comments and related matters.

Sincerely,

Jeff Riedler
Assistant Director