

Via Facsimile and U.S. Mail  
Mail Stop 6010

August 4, 2008

Ms. Kim Cobleigh Drapkin  
Chief Financial Officer  
EPIX Pharmaceuticals, Inc.  
33 Hayden Avenue  
Lexington, MA 02421

**Re: EPIX Pharmaceuticals, Inc.**  
**Form 10-K for the Year Ended December 31, 2007**  
**Filed March 17, 2008**  
**File No. 000-21863**

Dear Ms. Drapkin:

We have reviewed your filing and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. In our comments, we ask you to provide us with information to better understand your disclosure. Where a comment 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.

Consolidated Financial Statements

Notes to Consolidated Financial Statements, page F-7

2. Significant Accounting Policies, page F-7

Revenue, page F-10

1. It appears from your disclosure that you recognize non-refundable upfront license fees and guaranteed time-based payments differently depending on the facts and circumstances. Revise your disclosure to include the facts and circumstances for recording each as revenue for each method (i.e. ratably or based upon the level of research services performed). Describe the nature of your guaranteed time-based payments. Further, F-12 indicates that you recognize non-refundable license fees only ratably. If this is the case, and you do not recognize non-refundable license fees based upon the level of research service performed, it appears you may need to clarify your disclosure on F-10.

13. Strategic Alliances and Collaborations, page F-24

2. Please revise your disclosure of your agreement with GlaxoSmithKline to include a description of all of your rights and obligations, the performance period, all deliverables including your obligation to participate in a joint steering committee and the contractual cash flows as stipulated in the agreement. A tabular disclosure may be useful. Describe the revenue recognition method you employ for each deliverable and the basis for using each revenue recognition method.

\* \* \* \*

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provide the requested information. Detailed 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:

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- 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.

You may contact Ibolya Ignat, Staff Accountant at (202) 551-3656, or Joel Parker, Branch Chief, at (202) 551-3651 if you have questions regarding the comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief Accountant