



DIVISION OF  
CORPORATION FINANCE

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

August 11, 2010

Thomas B. King  
President and CEO  
Alexza Pharmaceuticals, Inc.  
2091 Stierlin Court  
Mountain View, CA 94043

**Re: Alexza Pharmaceuticals, Inc.**  
**Form 10-K for the year ended December 31, 2009**  
**Form 10-Q for the quarter ended June 30, 2010**  
**File No. 0-51820**

Dear Mr. King:

We have reviewed your filings and have the following comments. In our comments, we ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. 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 a comment applies to your facts and circumstances, please tell us why in your response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your responses to our comments.

After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Form 10-K Fiscal Year Ended December 31, 2009

Item 1. Business

Patents and Proprietary Rights, page 24

1. Please revise your disclosure to provide the expiration dates of your material patents.

Critical Accounting Policies

Symphony Allegro, page 51

2. Regarding your estimate of the fair value of the liability associated with the contingent cash payments to the Symphony Allegro stockholders, please disclose the significant assumptions used in your discounted cash flow model. Tell us how you determined the 18% discount and why it is reasonable. In your response, please tell us how you

separately considered the cash flows associated with your Biovail license agreement and other “future partnering transactions” and why different risk discounts were apparently not utilized.

Notes to Consolidated Financial Statements

8. Commitments

Manufacturing and Supply Agreement, page 86

3. You disclose the capitalization of costs associated with development of a manufacturing line at Autoliv. Please explain to us why capitalization of these costs is appropriate under GAAP and reference for us the authoritative literature you rely upon to support your accounting. In your response please differentiate between equipment costs, facility or leasehold improvements that cannot be removed from Autoliv and qualification costs, and tell us whether each of these categories of costs has an alternative future use if Staccato loxapine is not approved by the FDA.
4. Additionally, in Note 13 of your June 30, 2010 Form 10-Q, you indicate that you amended the terms of this manufacturing agreement and paid Autoliv \$4 million in cash and issued a \$4 million unsecured promissory note in return for a production line for the commercial manufacture of Chemical Heat Packages. It appears that approximately \$4 million of this consideration may have been charged to other assets on your June 30, 2010 balance sheet. Please revise your disclosure to clarify your accounting for this amended agreement. Please separately reference for us the authoritative literature you relied upon to support your accounting.

Form 10-Q for the quarter ended June 30, 2009

Condensed Consolidated Statements of Cash Flows, page 5

5. Please explain to us why you classified payments associated with your contingent obligation to Symphony Allegro Holdings, LLC as a financing activity. Please reference for us the authoritative literature you relied upon to support your accounting.

12. License Agreements

Biovail Laboratories International SRL, page 16

6. You indicate that you are treating your agreement with Biovail as a single unit of account. Please address the following:
  - Disclose the terms of the supply agreement and your accounting treatment. Tell us why the supply agreement does not qualify as a separate unit of accounting in accordance with ASC 605-25.
  - You disclose that you will recognize revenue associated with the \$40 million upfront payment over the period beginning with the first supply of commercial product as, for a single unit of accounting, payments received are recognized in a manner consistent with the final deliverable. Please also disclose your accounting treatment for the

payments to be received upon the achievement of predetermined regulatory, clinical and commercial manufacturing milestones and, if not consistent with your accounting for the upfront payment, explain your rationale.

- Please disclose your accounting treatment for the \$5 million repayment obligation and the nature of the “certain other milestones” that, if not met, would trigger payment of this obligation.

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 Exchange Act of 1934 and all applicable Exchange 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.

In responding to our comments, please provide a written 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.

You may contact Sasha Parikh, Staff Accountant, at (202) 551-3627 or Mark Brunhofer, Review Accountant, at (202) 551-3638 if you have questions regarding comments on the financial statements and related matters. Please contact Jennifer Riegel, Staff Attorney, at (202) 551-3575 with any other questions. In this regard, do not hesitate to contact me at (202) 551-3679.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief Accountant