

Via Facsimile and U.S. Mail
Mail Stop 6010

June 6, 2007

Mr. Richard P. Shea
Chief Financial Officer
Momenta Pharmaceuticals, Inc.
675 West Kendall Street
Cambridge, MA 02142

**Re: Momenta Pharmaceuticals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2006
Filed March 15, 2007
File No. 000-50797**

Dear Mr. Shea:

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 so we may better understand your disclosure.

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.

Form 10-K for the Fiscal Year Ended December 31, 2006

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 48

Liquidity and Capital Resources, page 54

1. Your operating cash flow discussion merely repeats amounts disclosed on the statements of cash flows. Please provide us, in a disclosure-type format, information that addresses the underlying reasons for the comparative changes in your working capital components for the financial statement periods presented. In doing so, please refer to Commission Release No. 33-8350: "Interpretation-

Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations," which you can find on our website at www.sec.gov/rules/interp/33-8350.htm.

Critical Accounting Policies and Estimates, page 55

Revenue, page 55

2. Your discussion of critical accounting policies does not explain how the specified estimates have affected your results of operations. Please provide us disclosure that quantifies how accurate your estimates and assumptions have been in the past. Refer to Release No. 33-8350.
3. In addition to the above, please provide us with additional information, in a disclosure-type format, regarding the information that you rely on in estimating your continuing obligations under your 2003 collaboration and license agreement with Sandoz N.V. and Sandoz, Inc. ("Sandoz"). Specifically, tell us what factors management considers in estimating your remaining performance obligation under the agreement and how any changes in that estimate impacted your results of operations for the financial statement periods presented.

Notes to Consolidated Financial Statements, page 64

4. Collaborations and License Agreements, page 73

4. You disclose in Note 1 that you recognize revenue pursuant to the provisions of EITF No. 00-21. You also disclose that you recognize revenue from reimbursable research and development costs associated with providing services that have "stand alone value" as you perform those services, net of any amounts due back to your collaborative partner. In order to assist us in understanding how you apply the accounting policy outlined in Note 1 to your agreements with Sandoz, please provide us with the information that follows, in a disclosure-type format.
 - Quantify the amount of the up-front fee received and the amount recognized within revenue for each financial statement period presented as well as the related amortization period and management's basis for that period.
 - Provide us with an analysis of the 2003 Sandoz agreement and the various deliverables there under in relation to the provisions of EITF No. 00-21. Specifically, please clarify whether you attributed the up-front fee received to the extension of a technology license to Sandoz and support your decision to defer that fee and recognize it over the estimated performance period.

- Specify the terms of your joint steering committee agreement, including whether or not you have a right or an obligation to sit on the committee.
- Contrast your accounting for the up-front fee to your decision to recognize the research and development expense reimbursement payments as you perform the related services, as it appears you have not bundled those services with the license as a single unit of accounting.
- Tell us why you net shared development expense costs reimbursable to Sandoz against collaboration revenue, which appears inconsistent with recognizing the related reimbursements received on a gross basis within your statements of operations. Reference the applicable authoritative literature under GAAP that supports your accounting treatment.
- Tell us how you intend to account for the milestones and any profit-sharing or royalty payments associated with the Sandoz agreement in the context of EITF No. 00-21. Describe the related milestone achievement triggers.

* * * *

Please provide us the information requested within 10 business days of the date of this letter or tell us when you will provide a response prior to the expiration of the 10-day period. Please furnish a letter with your response that keys your response to our comments. Detailed letters greatly facilitate our review. You should furnish the letter to us via EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your response to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that they have provided 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

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- 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 Amy Bruckner, Senior Accountant, at (202) 551-3657, or Mary Mast, Senior Accountant, at (202) 551-3613 if you have questions regarding comments on the financial statements and related matters. In this regard, please do not hesitate to contact me at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief Accountant