

Via Facsimile and U.S. Mail  
Mail Stop 4720

June 12, 2009

Glenn P. Sblendorio  
Executive Vice President and Chief Financial Officer  
The Medicines Company  
8 Sylvan Way  
Parsippany, NJ 07054

**Re: The Medicines Company**  
**Form 10-K for the fiscal year ended December 31, 2008**  
**Form 10-Q for the quarterly period ended March 31, 2009**  
**File Number: 000-31191**

Dear Mr. Sblendorio:

We have reviewed your filings and have the following 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.

**Form 10-K for the fiscal year ended December 31, 2008**

Item 1. Business  
Sales, page 13

1. Please disclose the name of the third party sole source distributor discussed on pages 13 and 21 which accounted for 96% of the company's net revenue for the 2008 fiscal year. See Item 101(c)(1)(vii) of Regulation S-K. Also, please disclose the material terms of your agreement with this party and file the agreement as an exhibit to the

Form 10-K. See Item 601(b)(10) of Regulation S-K. Alternatively, explain the basis for your determination that you are not required to file the agreement as an exhibit.

License Agreements, page 16

2. Please revise the description of your license agreement with AstraZeneca dated December 18, 2003 to disclose the following information:

- Quantify all amounts paid to date;
- Quantify the aggregate potential milestone payments; and
- Provide a royalty range or a statement that the royalty percentage is in the single digits, teens, etc.

We note that you have been granted confidential treatment on the individual payments. However, the confidential treatment does not cover aggregate amounts.

Annual Cash Bonus Plan, page 29

3. We note your discussion of corporate goals for 2008 on page 29. Your disclosure should be more specific about each goal. For example:
- a) You state that one goal was the achievement of a “minimum sales revenue for Angiomax in the United States.” Please disclose the amount of the minimum sales revenue.
  - b) The next goal listed includes the attainment of a “minimum sales revenue for Cleviprex in the United States.” Please disclose the amount of the minimum sales revenue target.

Please make similar changes to the descriptions of the remaining corporate goals listed on page 29.

4. We note your statement on page 29 that “each corporate goal is weighted based upon the priority attributed to such goal by the committee and based on such weighting, each goal is given a corporate goal award value.” Please quantify the priority and corporate award value for each listed goal.
5. Please disclose the minimum, target and maximum level for each corporate goal which was used to determine the company bonus factor, as discussed on pages 29 and 30
6. We note your statement on page 30 that if a NEO achieves at least 80% of each objective such individual is eligible to receive a “relative portion of the payout ranging from 0% to 150% of the individual’s target award.” Please explain how the relative portion of the payout is determined.
7. We note your discussion on page 30 of the achievement of the company’s corporate goals. Your disclosure should be more specific about the specific level of achievement of each goal. For example: you state that you “partially met” your CHAMPION enrollment targets and your earnings per share goal. Please disclose the percentage of completion of your CHAMPION study participant enrollment and the actual earnings per share of the company in 2008. Please make similar changes to the descriptions of the remaining corporate goals discussed.
8. Please disclose how the company bonus factor was calculated.

Management’s Discussion and Analysis of Financial Condition and Results of Operations  
Application of Critical Accounting Estimates  
Revenue Recognition, page 50

9. You disclose that your customers have the right to return any unopened product during the 18-month period beginning six months prior to the labeled expiration date and ending 12 months after the labeled expiration date. Please tell us and revise your disclosure to disclose whether you exchange product from your inventory for the returned product, and if so, how you account for your estimate of returns at the time of the product sale and how you account for returns when they are actually returned and make the exchange. Provide us an analysis supporting your accounting treatment with reference to authoritative literature. It also may be helpful to provide us an example showing the journal entries made.
10. Please revise your table of activity with respect to your sales allowances and other accruals to break out your allowances by allowances established for sales from current years and allowances for sales from prior years.

Income Taxes, page 54

11. Given that you have incurred net losses on an annual basis since inception except for 2004 and 2006, and you will likely need to generate significantly greater revenue in future periods to achieve and maintain profitability in light of your planned expenditures to further develop and commercialize your products, please tell us how you determined that no valuation allowance was required for the remaining \$48 million of net deferred tax assets at December 31, 2008. Please expand your disclosure to specify the positive and negative evidence you evaluated in concluding that the deferred tax assets were more likely than not to be realized in future periods. Include separate quantified disclosure of each source of taxable income under paragraph 21 of SFAS 109 or explain to us why you believe such disclosure would not be meaningful.

Consolidated Financial Statements

Notes to Consolidated Financial Statements

Note 9. Intangible Assets, page F-24

12. Based on your disclosure on page five it appears that you assumed control of the marketing of Angiox immediately after the agreements in 2007. Please explain to us why you believe that the economic benefits received from the intangible assets did not begin until 2008. Since you recorded no amortization expense in 2007 and \$580,000 in 2008, tell us how you determined the pattern in which the economic benefits of each asset are consumed in accordance with paragraph 12 of SFAS 142.

Note 13. Income Taxes, page F-32

13. Please revise your statutory rate reconciliation and related disclosure to disclose what is in the "other" line item. Please separately disclose any items that are greater than 5% of the statutory rate pre-tax loss (income). Please refer to Rule 4-08(h)(2) of Regulation S-X.

**Form 10-Q for the Quarterly Period Ended March 31, 2009**

Note 7. Acquisitions, page 14

14. Please revise your disclosure for acquired in-process research and development to disclose by individual material project the following:
- The method used to determine fair value and the amount assigned to each project.
  - The significant assumptions, such as:
    - Risk adjusted discount rate applied to cash flows;
    - the period in which material net cash inflows are expected to commence;
    - and,

- material anticipated changes from historical pricing, margins and expense levels.
- The completeness, complexity and uniqueness at the acquisition date.
- The nature, timing and estimated costs of the efforts necessary to complete the project, and the anticipated completion date.
- The risks and uncertainties associated with completing development on schedule, and consequences if it is not completed timely.
- In subsequent periods, disclose the status of efforts to complete the project, and the impact of any delays on expected investment return, results of operations and financial condition.

\* \* \* \*

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 response to our comments. 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 filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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 filings or in response to our comments on your filings.

Glenn P. Sblendorio  
The Medicines Company  
June 12, 2009  
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Please contact Dana Hartz, Staff Accountant, at (202) 551-3648 or Don Abbott, Review Accountant, at (202) 551-3608 if you have any questions regarding the processing of your response as well as any questions regarding comments on the financial statements and related matters. You may contact Laura Crotty, Staff Attorney, at (202) 551-3563 or Suzanne Hayes, Legal Branch Chief, at (202) 551-3675 with questions on any of the other comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief  
Accountant