

Via Facsimile and U.S. Mail
Mail Stop 4720

October 21, 2009

Mr. 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
Schedule 14A filed April 30, 2009
File Number: 000-31191**

Dear Mr. Sblendorio:

We have reviewed your September 16, 2009 response to our August 19, 2009 letter 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.

Schedule 14A filed April 30, 2009

Annual Cash Bonus Plan, page 29

1. We note your response to our prior comment 3 and the following statement: "We note that in the proposed disclosure above, we did not include the specific minimum and maximum targets for each 2009 goal as we do not expect that they will be material to an investor's understanding of the bonus plan or our compensation policies or decisions generally unless they are implicated in the

decision of the compensation committee in determining the cash bonus to be paid or the overall company bonus factor.” We again advise you that in evaluating executive compensation disclosure we consider each element of the company’s compensation policies and practices material to the total mix of information needed to inform investors of the process undertaken by the compensation committee and chief executive officer in making compensation decisions. We believe that the minimum and maximum targets for each 2009 goal are material to an understanding of your compensation plans, regardless of whether or not they are implicated in the final decision of the committee, and therefore ask that you provide proposed disclosure to be included in your next proxy statement quantifying the minimum and maximum targets for each goal. To the extent you are concerned about the release of our correspondence you may request confidential treatment pursuant to Rule 83.

2. We note your response to our prior comment 4; however, it does not appear that you have confirmed that in future proxy statements you will discuss the factors considered by the committee when the committee exercises its discretion in determining bonus payments. Please confirm that you will include such information in all future proxy statements, as applicable.

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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.

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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.

Please contact Laura Crotty at (202) 551-3563, Suzanne Hayes, Legal Branch Chief, at (202) 551-3675 or myself at (202) 551-3715 if you have questions regarding comments and related matters.

Sincerely,

Jeffrey P. Riedler
Assistant Director