

Via Facsimile and U.S. Mail
Mail Stop 4720

December 2, 2009

Dr. Jean-Pierre Sommadossi
Chief Executive Officer
Idenix Pharmaceuticals, Inc.
60 Hampshire Street
Cambridge, Massachusetts 02139

**Re: Idenix Pharmaceuticals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2008
DEF 14A filed April 28, 2009
File No. 000-49839**

Dear Dr. Sommadossi:

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 interim 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 filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Definitive Proxy Statement

Compensation Discussion and Analysis
Review of Management's Actual Performance Compared to Pre-determined Goals
2008 Corporate Objectives, page 20

We note that bonus payments are based upon the Compensation Committee's consideration of corporate goals and performance objectives and the qualitative performance of each officer during the previous year. The Compensation Discussion and Analysis does not disclose the corporate performance objectives the Compensation

Committee considered with respect to your discovery program to determine your executive officers' bonus payments. In this regard, we note your concern that disclosure of the specific objectives of the discovery program would be competitively harmful to the company by providing competitors with insights into your planning and strategy.

Without disclosing competitively harmful information pertaining to your discovery program, e.g individual research projects or topics, please provide us with draft disclosure for your 2010 proxy statement which provides the following:

- A general description of what is included in your discovery program;
- A more detailed specific description of each of the discovery program's performance objectives.
- Confirmation that you will discuss the achievement of the objectives; and
- A discussion of how the level of achievement will affect the actual bonuses to be paid.

If you continue to believe that disclosure of additional information concerning your discovery program is competitively harmful, please provide a comprehensive analysis supporting your conclusion that the disclosure of this information would cause competitive harm if it is disclosed. To avoid the disclosure of the sensitive information in the analysis when our comment letters are released publicly, you may submit a confidential treatment request pursuant to Rule 83.

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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 response to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please furnish the letter to us via EDGAR under the form type label CORRESP.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include 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 filings or in response to our comments on your filings.

If you have any questions, please contact John Krug, Senior Counsel at (202) 551-3862, Suzanne Hayes, Branch Chief, at (202) 551-3675, Daniel Greenspan, Special Counsel, at (202) 551-3623, or me at (202) 551-3679.

Sincerely,

Jeffrey Riedler
Assistant Director