

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

December 14, 2010

Sudhir Agrawal President and Chief Executive Officer Idera Pharmaceuticals, Inc. 167 Sidney Street Cambridge, Massachusetts 02139

Re: Idera Pharmaceuticals, Inc.

Form 10-K for the Fiscal Year Ended December 31, 2009 Filed March 10, 2010 Proxy Statement on Schedule 14A

Filed April 29, 2010 File Number: 001-31918

Dear Mr. Agrawal:

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

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

### Definitive Proxy Statement on Schedule 14A

#### Director Nomination Process, page 12

1. We note your disclosure here that your, "nominating and corporate governance committee considers the value of diversity of the board of directors when evaluating particular candidates." Please provide draft disclosure for future filings which explains how the committee considers diversity in evaluating particular candidates.

## Compensation Discussion and Analysis, page 18

2. We note that you have not included any disclosure in response to Item 402(s) of Regulation S-K. Please advise us of the basis for your conclusion that disclosure is not necessary and describe the process you undertook to reach that conclusion.

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## Elements of Compensation, page 20

3. Please describe how the compensation committee determined each executive officer's cash bonus and equity grant based on corporate goals and performance criteria identified. Your discussion should describe the factors the committee considered in determining the bonus percentages and option awards.

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.

Please contact Michael Rosenthall at 202-551-3674 or me at 202-551-3715 with any other questions.

Sincerely,

Jeffrey P. Riedler Assistant Director