

October 12, 2006

By EDGAR Transmission

 (LetterHead)

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, NE
Washington, D.C. 20549
Attention: Jim B. Rosenberg

RE: Idera Pharmaceuticals, Inc. (File No. 011-31918)
Form 10-K for the Fiscal Year Ended December 31, 2005
Filed March 31, 2006
Form 10-Q for the Fiscal Quarter Ended June 30, 2006
Filed August 14, 2006

Ladies and Gentlemen:

On behalf of our client Idera Pharmaceuticals, Inc. (“Idera” or the “Company”), we have set forth below responses to the comments orally provided to me and Mr. Robert G. Andersen, Chief Financial Officer of the Company, by Ms. Amy Bruckner, Staff Accountant of the staff of the Commission in a telephone call on October 11, 2006. Such responses are based upon information provided to us by the Company.

August 2003 Placement

The Company acknowledges that the disclosure included in the Company’s December 31, 2005 Form 10-K stated that the referenced warrants could be settled by “invoking a cashless exercise feature.” The feature disclosed refers to a “net share settlement feature”. The Company will use the term “net share settlement feature” in future filings.

2006 Private Financing

The Company acknowledges that it has relied upon View A in Issue Summary No. 1 to EITF Issue 05-4, *The Effect of a Liquidated Damages Clause on a Freestanding Financial Instrument Subject to EITF Issue No. 00-19, “Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company’s Own Stock”*, in determining the accounting treatment for warrants issued in the 2006 financing. Unless a different conclusion is reached by the EITF on this issue, the Company intends to apply this view consistently in future financings involving the issuance of warrants with similar characteristics.

Management’s Discussion and Analysis of Financial Condition and Results of Operations

The Company acknowledges the exclusion in FAS 2, Paragraph 10i of “legal work in connection with patent applications or litigation, and the sale or licensing of patents” from Research and Development expenses. In future filings, the Company intends to classify all fees associated with filing, prosecuting and maintaining patents as General and Administrative expenses, and will reclassify previously reported patent-related amounts from Research and Development expenses to General and Administrative expenses.

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If you require additional information, please telephone the undersigned at the telephone number indicated above.

Very truly yours,

/s/ Stuart M. Falber

Stuart M. Falber

cc: Jeffrey Riedler (Securities and Exchange Commission)
Amy Bruckner (Securities and Exchange Commission)
Sudhir Agrawal (Idera Pharmaceuticals, Inc.)
Robert G. Andersen (Idera Pharmaceuticals, Inc.)
Brendan McCorry (Ernst & Young LLP)