Via Facsimile and U.S. Mail Mail Stop 6010

October 20, 2006

Mr. Robert G. Andersen Chief Financial Officer and Vice President of Operations Idera Pharmaceuticals, Inc. 345 Vassar Street Cambridge, MA 02139

Re: Idera Pharmaceuticals, Inc.

Form 10-K for the Fiscal Year Ended December 31, 2005

File No. 001-31918

Dear Mr. Andersen:

We have completed our review of your Form 10-K and have no further comments at this time.

Sincerely,

Joseph J. Roesler Accounting Branch Chief