

Mail Stop 4720

December 14, 2009

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

**Re: Idera Pharmaceuticals, Inc.  
Form 10-K for the year ended 12/31/2008  
Filed March 11, 2009  
File No. 001-31918**

Dear Dr. Agrawal:

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

Sincerely,

Jeffrey P. Riedler  
Assistant Director

cc: Louis J. Arcudi, III  
Rosemary G. Reilly  
Wilmer Cutler Pickering Hale and Dorr LLP  
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Boston, Massachusetts 02109  
Fax: 617-526-5000