

Mail Stop 4720

December 8, 2009

Daniel L. Peters
President and Chief Executive Officer
Molecular Insight Pharmaceuticals, Inc.
160 Second Street
Cambridge, MA 02142

**Re: Molecular Insight Pharmaceuticals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2008
File Number: 001-33284**

Dear Mr. Peters:

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: Gabor Garai
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