

Via Facsimile and U.S. Mail
Mail Stop 6010

December 15, 2006

Mr. Thomas R. Staab, II
Chief Financial Officer and Treasurer
Inspire Pharmaceuticals, Inc.
4222 Emperor Boulevard, Suite 200
Durham, NC 27703

Re: Form 10-K for the Fiscal Year Ended December 31, 2005
Filed March 16, 2006
File No. 001-31577

Dear Mr. Staab:

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