

Via Facsimile and U.S. Mail  
Mail Stop 6010

October 16, 2008

Ms. Adelene Q. Perkins  
Executive Vice President & Chief Business Officer  
Infinity Pharmaceuticals, Inc.  
780 Memorial Drive  
Cambridge, Massachusetts 02139

Re: **Infinity Pharmaceuticals, Inc.**  
**Form 10-K for Fiscal Year Ended December 31, 2007**  
**Filed on March 14, 2008**  
**Form 10-Q for Period Ended June 30, 2008**  
**Filed on August 6, 2008**  
**File No. 000-31141**

Dear Ms. Perkins:

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

Sincerely,

Joel Parker  
Accounting Branch Chief