



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

December 21, 2010

Richard E. Bagley  
President and Chief Financial Officer  
ZIOPHARM Oncology, Inc.  
1180 Avenue of the Americas, 19th Floor,  
New York, NY 10036

**Re: ZIOPHARM Oncology, Inc.  
Form 10-K for the Fiscal Year Ended December 31, 2009  
Filed March 17, 2010  
Form 10-K/A for the Fiscal Year Ended December 31, 2009  
Filed April 30, 2010  
File Number: 001-33038**

Dear Mr. Bagley:

We have completed our review of your filing and do not have any further comments at this time.

Sincerely,

Melissa N. Rocha  
Accounting Branch Chief