

Mail Stop 6010

April 6, 2009

James B. Murphy  
Vice President and Chief Financial Officer  
OXiGENE, Inc.  
230 Third Avenue  
Waltham, MA 02451

**Re: OXiGENE, Inc.**  
**Schedule 14A**  
**Filed March 25, 2009**  
**File No. 0-21990**

Dear Mr. Murphy:

We have completed our review of your preliminary proxy statement on Schedule 14A and have no further comments at this time.

Sincerely,

Jeffrey P. Riedler  
Assistant Director

cc: Asya S. Alexandrovich  
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111