

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