

Mail Stop 6010

October 21, 2008

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

Re: OXiGENE, Inc.
Schedule 14A
Filed October 10, 2008
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: Megan N. Gates
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
One Financial Center
Boston, MA 02111