



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

DIVISION OF
CORPORATION FINANCE

November 10, 2010

James B. Murphy
Vice President and Chief Financial Officer
OXiGENE, Inc.
701 Gateway Boulevard, Suite 210
South San Francisco, CA 94080

Re: OXiGENE, Inc.
Preliminary Proxy Statement on Form PRE14A
Filed November 2, 2010
File No. 000-21990

Dear Mr. Murphy:

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

Sincerely,

Jeffrey Riedler
Assistant Director

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