



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

DIVISION OF  
CORPORATION FINANCE

*Via Facsimile and U.S. Mail*

April 5, 2011

Philip R. Jacoby, Jr.  
Osiris Therapeutics, Inc.  
7015 Albert Einstein Drive  
Columbia, MD 21046

**Re: Osiris Therapeutics, Inc.**  
**Form 10-K for the fiscal year ended December 31, 2009**  
**Filed March 12, 2010**  
**Form 10-Q for the quarter ended September 30, 2010**  
**Filed November 5, 2010**  
**Definitive Proxy Statement on Schedule 14A**  
**Filed April 16, 2010**  
**File No. 001-32966**

Dear Mr. Jacoby:

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

Sincerely,

Jeffrey Riedler  
Assistant Director

cc: Douglas M. Fox, Esq.  
Ballard Spahr LLP  
300 East Lombard Street  
18th Floor  
Baltimore, MD 21202-3268