



DIVISION OF  
CORPORATION FINANCE

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

October 20, 2010

Michael A. Mussallem  
Chairman and Chief Executive Officer  
Edwards Lifesciences Corporation  
One Edwards Way  
Irvine, CA 92614

**Re: Edwards Lifesciences Corporation**  
**Form 10-K for the Fiscal Year Ended December 31, 2009**  
**Filed February 26, 2010**  
**File No. 001-15525**

Dear Mr. Mussallem:

We have completed our review of your Form 10-K for the fiscal year ended December 31, 2009 and related filings and do not, at this time, have any further comments.

Sincerely,

Brian Cascio  
Accounting Branch Chief

cc: Bruce P. Garren, Esq. – Vice President and General Counsel