



DIVISION OF  
CORPORATION FINANCE

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

August 6, 2012

Via E-Mail

Mr. Frank Oates  
President and Chief Executive Officer  
Stellar Biotechnologies, Inc.  
332 E. Scott Street  
Port Hueneme, California 93041

**Re: Stellar Biotechnologies, Inc.  
Registration Statement on Form 20-F  
Filed February 3, 2012  
File No. 000-54598**

Dear Mr. Oates:

We have completed our review of your filing and related amendments. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or the filings and the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Daniel Greenspan

Daniel Greenspan  
Legal Branch Chief