

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 12b-25  
NOTIFICATION OF LATE FILING**

SEC FILE NUMBER  
0-54598

CUSIP NUMBER  
85855A 10 4

(Check One):  Form 10-K  Form 20-F  Form 11-K  Form 10-Q  Form N-SAR  Form N-CSR

For Period Ended: August 31, 2012

Transition Report on Form 10-K  Transition Report on Form 10-Q  
 Transition Report on Form 20-F  Transition Report on Form N-SAR  
 Transition Report on Form 11-K

For the Transition Period Ended: \_\_\_\_\_

**PART I — REGISTRANT INFORMATION**

Full name of registrant Stellar Biotechnologies Inc.

Former name if applicable \_\_\_\_\_

Address of Principal Executive Office (*Street and Number*) 332 E. Scott Street

City, State and Zip Code Port Hueneme, California, 93041

**PART II — RULE 12b-25 (b) AND (c)**

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate).

- (a) The reasons described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
- (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-SAR or Form N-CSR, or portion thereof, will be filed on or before the 15th calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q, or portion thereof will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

**PART III — NARRATIVE**

State below in reasonable detail why the Form 10-K, 20-F, 11-K, 10-Q, N-SAR, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

**(Attach extra sheets if needed.)**

The completion of the Form 20-F Annual Report has been delayed due to the finalization of the Company's initial IFRS annual financial statements.

**PART IV — OTHER INFORMATION**

(1) Name and telephone number of person to contact in regard to this notification

Darrell H. Brookstein (805) 488-2147  
(Name) (Area Code) (Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s).  Yes  No

- (3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof? [ ] Yes [ **X** ] No

If so: attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

**Stellar Biotechnologies Inc.**  
**(Name of Registrant as Specified in Charter)**

has caused this notification to be signed on its behalf by the undersigned thereunto duly authorized.

Dated: **December 31, 2012**

By: **/s/ "Darrell H. Brookstein"**

Darrell H. Brookstein  
Executive Vice-President and Director