

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

FORM 6-K

**REPORT OF FOREIGN ISSUER PURSUANT TO RULE 13a-16 AND 15d-16 UNDER
THE SECURITIES EXCHANGE ACT OF 1934**

For the Month of October 2012

File No. 000-54598

Stellar Biotechnologies Inc.

(Name of Registrant)

332 E. Scott Street, Port Hueneme, CA 93041

(Address of principal executive offices)

Indicate by check mark whether the Registrant files or will file annual reports under cover of Form 20-F or Form 40-F.
FORM 20-F FORM 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Form 6-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Stellar Biotechnologies Inc.
(Registrant)

Dated: October 16, 2012

By: /s/ "Darrell Brookstein"
Darrell Brookstein
Director

Exhibits:

99.1 News Release dated October 4, 2012

STELLAR BIOTECHNOLOGIES ANNOUNCES FILING A US LETTERS PATENT APPLICATION

PORT HUENEME, CA (October 4, 2012) -- Stellar Biotechnologies, Inc. (“Stellar” or the “Company”) (TSX-V: KLH) (PINKSHEETS: SBOTF) (Frankfurt: RBT) is very pleased to announce the filing of a US Letters Patent Application directed to protecting certain proprietary KLH manufacturing controls, KLH formulations and kits used in immunotoxicology and immune status testing which were invented by Drs. Chow, Sundsmo and Sagermann.

John Sundsmo, Ph.D., Stellar’s VP, Research & IP Management said, “This patent application filing represents another key step in the Company’s intellectual property strategy for protecting its technology through a combination of patents and trade secrets, and also recognizes the evolving novel technology advances created by our scientific team. This brings the number of issued Stellar US and International patents to 4 and the number of pending patent applications also to 4, with 2 additional applications presently in draft form for filing in the near future.”

About Stellar Biotechnologies, Inc. (www.StellarBiotech.com)

Stellar Biotechnologies, Inc. (TSX-V: KLH) (PINKSHEETS: SBOTF) (Frankfurt: RBT) is the world leader in sustainable manufacture of Keyhole Limpet Hemocyanin (KLH). KLH is an important immune-stimulating protein used in wide-ranging therapeutic and diagnostic markets. Potent, yet proven safe in humans, KLH operates as both a vital component for conjugate vaccines (targeting cancer, autoimmune, and infectious diseases) as well as an antigen for measuring immune status. Stellar Biotechnologies was founded to address the growing demand for renewable, commercial-scale supplies of high-quality, GMP-grade KLH. Stellar has developed leading practices, facilities and proprietary capabilities to address this need. To receive regular updates, enter email at bottom of http://stellarbiotechnologies.com/investors/news_releases/

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There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Readers should not place undue reliance on such statements. Except in accordance with applicable securities laws, the Company expressly disclaims any obligation to update any forward-looking statements or forward-looking statements that are incorporated by reference herein. This news release does not constitute an offer to sell, or a solicitation of an offer to buy any of the Company’s securities set out herein in the United States, or to, or for the benefit or account of, a U.S. Person or person in the United States. Neither TSX Venture Exchange nor its Regulation Services Provider accepts responsibility for the adequacy or accuracy of these releases.