

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 April 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 X 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: April 4, 2012

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

Exhibits:

99.1 News Release dated April 3, 2012

Stellar Biotechnologies Launches Stellar KLHTm ELISA Test Kits

New Anti-KLH ELISA Assays for Pharmaceutical Immunotoxicology Research

PORT HUENEME, CA, (April 3, 2012) -- Stellar Biotechnologies, Inc. ("Stellar") (TSX-V: KLH) (U.S. OTC: SBOTF) (Frankfurt: RBT), the world leader in sustainable manufacture of Keyhole Limpet Hemocyanin (KLH), announced today the launch of the Company's Stellar KLH TM ELISA Test Kits.

Stellar KLH TM ELISA Kits are designed for the rapid, quantitative measure of anti-KLH antibodies in serum or plasma samples. Stellar's product launch includes six different kits to measure either IgG or IgM antibodies in a range of preclinical models. The new assay kits are the first anti-KLH ELISA's (enzyme-linked immunosorbent assays) made with the Company's proprietary Stellar KLH TM Protein. This provides the unique benefits of quantitative measurements with wide dynamic range, low assay background and reproducible linearity.

"We saw that the quality of KLH used to make anti-KLH ELISA's can affect test results," said Frank Oakes, CEO and President of Stellar Biotechnologies. "Our goal was to apply Stellar KLH TM technology to improve the predictive value of pharmaceutical immunotoxicology testing using higher quality, standardized products - both KLH protein and assays - not available to researchers before."

In pharmaceutical research settings, KLH protein is often used as a test agent to determine a candidate drug's effects on the immune system. The tests are particularly relevant to new classes of immune modulating drugs in development. KLH can be used to assess both humoral and cellular immune responses. The Stellar KLH TM ELISA measures anti-KLH antibody levels following KLH immune stimulation.

Stellar KLH TM ELISA Test Kits, together with Stellar KLH TM Protein test agent, are intended to provide high level of control and consistency in immune response testing. Stellar's product line targets the increasing need among clinical researchers and pharmaceutical developers for improved assay sensitivity and analytical performance.

About Stellar KLHTm ELISA Test Kits

Download Stellar KLH TM ELISA Brochure

Stellar KLH TM Test Kits are research use only (RUO) solid-phase, enzyme-linked immunosorbent assays for detecting IgG or IgM antibodies. The kits are validated with controls and packaged complete with all components necessary for rapid, quantitative measure of anti-KLH antibodies in serum or plasma samples from murine and NHP models. The plates are pre-coated with proprietary Stellar KLH TM protein which improves performance of the assay. Stellar KLH TM protein is manufactured by Stellar Biotechnologies, Inc. using industry-leading, environmentally sound methods that ensure quality and consistent KLH. Visit www.stellarbiotech.com/products to learn more.

About Stellar Biotechnologies, Inc.

Stellar Biotechnologies, Inc. (TSX-V: KLH) (U.S. OTC: 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/

Contacts:

Herbert Chow, Ph.D.,
Vice President, Product Development
hchow@stellarbiotech.com
Phone: (805) 488-2147

Frank Oakes, President & CEO
foakes@stellarbiotech.com
Phone: (805) 488-2147 ext. 101

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.