

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 2013

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 21, 2013

By: /s/ "Kathi Niffenegger"
Kathi Niffenegger
Corporate Secretary

Exhibits:

99.1 News Release dated October 21, 2013

Stellar Biotechnologies Immunotherapy Technology Demonstrates Protection Against Clostridium Difficile Infection in Preclinical Study

PORT HUENEME, CA, (October 21, 2013) -- Stellar Biotechnologies, Inc. ("Stellar" or "the Company") (OTCQB: SBOTF) (TSX-V: KLH), announced today presentation of positive results from a preclinical study of the Company's KLH-conjugate active immunotherapy vaccine demonstrating protection against *Clostridium difficile* ("C. diff") infection in mice. The study results are being presented this week at the 8th International Conference on the Molecular Biology and Pathogenesis of the Clostridia (ClostPath 8) in Queensland, Australia, October 22-26, 2013.

Clostridium difficile is a bacteria found in the intestines that can cause severe and life-threatening intestinal conditions. C. diff infections are at an all-time high and related hospitalizations have tripled in the last decade.

The oral presentation titled "An Anti-C. difficile PSII Polysaccharide-KLH Conjugate Vaccine is Efficacious in Mice" is the result of preclinical research conducted together by scientists from Stellar and the University of Guelph (Ontario, Canada) ("Guelph"). The work relates to Stellar's newly acquired active immunotherapy technology targeting the treatment and diagnosis of C. diff.

Stellar's active immunotherapy technology for C. diff targets cell-surface antigens expressed across many strains of C. diff bacteria. Stellar's approach combines selected polysaccharides of C. diff with Stellar KLH as carrier and adjuvant. The presentation at ClostPath 8 describes the design of a PSII-KLH immunotherapy vaccine and its evaluation in a murine model of C. diff infection.

In the study, the data demonstrated that vaccination with a PSII-KLH conjugate vaccine was effective in conferring protective immunity against C. diff infection, by improving survival in vaccinated mice compared to unvaccinated controls. The study results suggest that Stellar's PSII-KLH active immunotherapy technology shows promise as an effective approach to treating C. diff. Additional preclinical research is underway.

ClostPath 8 is the preeminent scientific conference in the field of clostridial pathogenesis. The meeting covers the latest discoveries presented by leading international researchers.

About Clostridium difficile

Clostridium difficile is a major and growing cause of mortality and morbidity in hospitalized patients. C. diff is a type of bacteria normally present in the intestine, but which can overgrow as a result of antibiotic use. It causes severe diarrhea and life-threatening intestinal conditions such as colitis. Incidence of C. diff is at a record high in the U.S. with more than 330,000 cases reported annually. Deaths related to C. diff increased 400% in recent years. The cost of C. diff related treatment in the U.S. and Europe is estimated at more than \$7 billion annually.

About Stellar Biotechnologies, Inc.

Stellar Biotechnologies, Inc. (TSX-V: KLH) (US OTCQB: SBOTF) is the world leader in sustainable manufacture of Keyhole Limpet Hemocyanin (KLH), an important immune-stimulating protein used in wide-ranging therapeutic and diagnostic markets. KLH is both an active pharmaceutical ingredient (API) in many new immunotherapies (targeting cancer, infectious diseases, and immune disorders) as well as a finished product for measuring immune status. Stellar Biotechnologies is unique in its proprietary methods, facilities, and KLH technology. We are committed to meeting the growing demand for commercial-scale supplies of GMP grade KLH, ensuring environmentally sound KLH production, and developing KLH-based active immunotherapies.

To receive regular updates, enter email at <http://stellarbiotechnologies.com/contact/>

Visit www.StellarBiotech.com and the KLH knowledge base www.KLHSite.com.

Contacts:

Frank Oakes
President and CEO
Phone +1 (805) 488-2800
investorrelations@stellarbiotech.com

Investor Relations:

MZ Group
Mark A. McPartland
Senior Vice President
Phone: +1 (646) 593-7140
markmcp@mzgroup.us
Web: www.mzgroup.us

Forward Looking Statements

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 (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of these releases.