UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

Post-Effective Amendment No. 4 to

FORM S-1 ON FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

LION BIOTECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction of incorporation or organization)

75-3254381 (I.R.S. Employer Identification Number)

112 West 34th Street, 17th Floor, New York, New York, 10120 (212) 946-4856

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Maria Fardis,
President and Chief Executive Officer
Lion Biotechnologies, Inc.
112 West 34th Street,
17th Floor, New York, New York, 10120
(212) 946-4856

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With copies to:
Istvan Benko
TroyGould PC
1801 Century Park East, 16th Floor
Los Angeles, California 90067
(310) 553-4441

Approximate date of commencement of proposed sale to the public: This Post-Effective Amendment is being filed to deregister all of the unsold securities previously registered under the Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, check the following box. £

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. £

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. £

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. £

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. £

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer £

Accelerated filer R

Non-accelerated filer $\mathfrak E$ (Do not check if a smaller reporting company)

Smaller reporting company £

EXPLANATORY NOTE: DEREGISTRATION OF SECURITIES

This Post-Effective Amendment No. 4 ("Post-Effective Amendment") is filed by Lion Biotechnologies, Inc. (the "Company") and amends the registration statement initially filed on Form S-1 (File No. 333-192649) with the Securities and Exchange Commission (the "Commission") on December 4, 2013 (the "Registration Statement"). By Post-Effective Amendment No. 3 to the Registration Statement that was filed with the Commission on July 6, 2015, the Company converted the Form S-1 into a registration statement on Form S-3.

The Company has determined to terminate the Registration Statement. Accordingly, pursuant to the undertaking contained in the Registration Statement to remove from registration by means of a post-effective amendment all of the securities being registered which remain unsold, the Company hereby amends the Registration Statement to remove from registration all of the securities covered by the Registration Statement which remain unsold.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Post-Effective Amendment No. 4 to Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of New York, State of New York, on October 11, 2016.

LION BIOTECHNOLOGIES, INC.

By: /s/ Maria Fardis

President and Chief Executive Officer

Note: No other person is required to sign this Post-Effective Amendment No. 4 to Registration Statement in reliance upon Rule 478 under the Securities Act of 1933, as amended.