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

FORM 6-K

Report of Foreign Private Issuer Pursuant to Rule 13a-16 or 15d-16
Under the Securities Exchange Act of 1934

For the Month of March 2015

001-36203
(Commission File Number)

CAN-FITE BIOPHARMA LTD.

(Exact name of Registrant as specified in its charter)

10 Bareket Street
Kiryat Matalon, P.O. Box 7537
Petach-Tikva 4951778, Israel
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover 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): ____

_____

This Report on Form 6-K (including exhibits thereto) is hereby incorporated by reference into the registrant's Registration Statements on Form F-3 (File Nos.. 333-195124 and 333-199033), to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.

On March 18, 2015, Can-Fite BioPharma Ltd. (the "Company") issued a press release announcing the completion of the development of a commercial predictive biomarker test to predict patients' response to the Company's drugs. A copy of this press release is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Exhibit Index

Exhibit No.	Description
99.1	Press Release, dated March 18, 2015

SIGNATURES

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

Can-Fite BioPharma Ltd.

Date March 18, 2015

By: /s/ Pnina Fishman
Pnina Fishman
Chief Executive Officer

Exhibit 99.1

Can-Fite Completes Development of Commercial Biomarker Test to Predict Patients' Response to Company Drugs

Patented blood test to be used in clinical trials and as a companion diagnostic for Can-Fite's Drugs

PETACH TIKVA, Israel, March 18, 2015 -- Can-Fite BioPharma Ltd. (NYSE MKT: CANF) (TASE:CFBI), a biotechnology company with a pipeline of proprietary small molecule drugs that are being developed to treat inflammatory diseases, cancer and sexual dysfunction, announced today it has completed the development of a commercial predictive biomarker blood test kit for the A3 adenosine receptor (A3AR). The biomarker test can be used at any molecular biology lab, where a small blood sample from a prospective patient would be tested and within just a few hours, results indicate if the patient would benefit from treatment with Can-Fite's drugs, which are currently in clinical trials for rheumatoid arthritis, psoriasis, and liver cancer.

A3AR is present in high concentrations in inflammatory cells and cancer cells. Can-Fite's proprietary drugs target and bind to A3AR, causing cancer and inflammatory cell apoptosis (programmed cell death). This creates a targeted anti-cancer and anti-inflammatory effect, while leaving normal cells unharmed. Identifying patients with elevated A3AR levels would indicate which patients would benefit most from Can-Fite's drugs, thereby offering personalized medicine.

"The completion of the development of our commercial A3AR biomarker test kit comes at a very important time since we plan to use the test kit in our upcoming advanced clinical studies. We believe the test kit will create efficiencies in our trials in patient enrollment and monitoring. As we progress into late-stage clinical trials for CF101 in auto-immune diseases, our A3AR biomarker test kit is ready for wide-scale use to help doctors and their patients identify who will be most responsive to Can-Fite's drugs. We believe these patients can significantly benefit from personalized medicine due to the high degree of clinical heterogeneity," stated Can-Fite CEO Dr. Pnina Fishman.

The U.S. Patent and Trademark Office issued Can-Fite a patent for the utilization of A3AR as a biomarker to predict patient response to its drug CF101 in autoimmune inflammatory indications. In December 2013, Can Fite reported favorable results from its Phase IIb rheumatoid arthritis clinical trial for CF101, an A3AR agonist. Only patients with elevated baseline expression levels of the biomarker A3AR were enrolled in the study. CF101 met all primary efficacy endpoints, showing statistically significant superiority over placebo in reducing signs and symptoms of rheumatoid arthritis.

About Can-Fite BioPharma Ltd.

Can-Fite BioPharma Ltd. (NYSE MKT: CANF) (TASE: CFBI) is an advanced clinical stage drug development Company with a platform technology that is designed to address multi-billion dollar markets in the treatment of cancer, inflammatory disease and sexual dysfunction. The Company's CF101 is in Phase II/III trials for the treatment of psoriasis and the Company is preparing for a Phase III CF101 trial for rheumatoid arthritis. Can-Fite's liver cancer drug CF102 is in Phase II trials and has been granted Orphan Drug Designation by the U.S. Food and Drug Administration. CF102 has also shown proof of concept to potentially treat other cancers including colon, prostate, and melanoma. The Company's CF602 has shown efficacy in the treatment of erectile dysfunction. Can-Fite has initiated a full pre-clinical program for CF602 in preparation for filing an IND with the U.S. FDA in this indication. These drugs have an excellent safety profile with experience in over 1,200 patients in clinical studies to date. For more information please visit: www.can-fite.com

Forward-Looking Statements

This press release may contain forward-looking statements, about Can-Fite's expectations, beliefs or intentions regarding, among other things, its product development efforts, business, financial condition, results of operations, strategies or prospects. In addition, from time to time, Can-Fite or its representatives have made or may make forward-looking statements, orally or in writing. Forward-looking statements can be identified by the use of forward-looking words such as "believe," "expect," "intend," "plan," "may," "should" or "anticipate" or their negatives or other variations of these words or other comparable words or by the fact that these statements do not relate strictly to historical or current matters. These forward-looking statements may be included in, but are not limited to, various filings made by Can-Fite with the U.S. Securities and Exchange Commission, press releases or oral statements made by or with the approval of one of Can-Fite's authorized executive officers. Forward-looking statements relate to anticipated or expected events, activities, trends or results as of the date they are made. Because forward-looking statements relate to matters that have not yet occurred, these statements are inherently subject to risks and uncertainties that could cause Can-Fite's actual results to differ materially from any future results expressed or implied by the forward-looking statements. Many factors could cause Can-Fite's actual activities or results to differ materially from the activities and results anticipated in such forward-looking statements, including, but not limited to, the factors summarized in Can-Fite's filings with the SEC and in its periodic filings with the TASE. In addition, Can-Fite operates in an industry sector where securities values are highly volatile and may be influenced by economic and other factors beyond its control. Can-Fite does not undertake any obligation to publicly update these forward-looking statements, whether as a result of new information, future events or otherwise.

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