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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 December 2014

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333-195124 and 333-199033), to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.

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On December 9, 2014, Can-Fite BioPharma Ltd. issued a press release announcing that it will initiate a pre-clinical development program of its next generation drug CF602. A copy of this press release is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

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**Exhibit Index**

**Exhibit No.**

**Description**

99.1 Press Release, dated December 9, 2014

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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 December 9, 2014

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

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**Can-Fite to Initiate the Development Program of its Next Generation Drug CF602*****CF602 is Efficacious in Improving Sexual Dysfunction in Proof of Concept studies; Targeting a Multi-Billion Market***

PETACH TIKVA, Israel, December 9, 2014 -- Can-Fite BioPharma Ltd. (NYSE MKT: CANF) (TASE:CFBI), a biotechnology company with a pipeline of proprietary small molecule drugs that address inflammatory and cancer diseases, today reported that it will initiate a pre-clinical development program of its next generation drug CF602 for the indication of sexual dysfunction. Upon successful completion, the company intends to file an IND with the FDA to allow human Phase I studies.

Can-Fite reports today that it received positive pre-clinical data conducted in experimental animal models demonstrating that CF602 has improved sexual dysfunction in a dose dependent manner. CF602 is a novel A3 adenosine receptor allosteric modulator, enhancing the affinity of the natural ligand adenosine to its A3 adenosine receptor. Since adenosine accumulates in the microenvironment of the pathological cells, CF602 effect is a differential one and is believed not to affect normal body cells and tissues. The mechanism of action related to the improvement of sexual dysfunction stems out of the fact that adenosine, like nitric oxide, is a potent and short-lived vasorelaxant that functions via cAMP signaling to promote smooth muscle relaxation and penile erection.

Can-Fite has a strong intellectual property position which includes an issued "composition of matter" patent and other pending patent applications protecting the use for sexual dysfunction. GlobalData estimates the value of the erectile dysfunction therapeutic market to be approximately \$2.7 billion with few drugs in the market which include Viagra, Cialis and Levitra.

**Can-Fite CEO Pnina Fishman, Ph.D.**, commented, "We are very pleased with the new data supporting our decision to initiate the pre-clinical development of CF602 with a view to commencing Phase I human clinical studies. Our recent fundraising enables us to move forward in our development of this important and unique drug candidate."

**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 and inflammatory diseases. 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 commencing 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. 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](http://www.can-fite.com)

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### 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.

### Contact

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