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 September 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 R 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 Statement on Form F-3 (File No. 333-195124), to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.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 September 30, 2014, Can-Fite BioPharma Ltd. issued a press release announcing that the US Patent and Trademark Office issued a patent for its CF102 drug candidate in the treatment of liver regeneration and function following liver surgery. A copy of the 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 September 30, 2014

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 September 30, 2014

By: /s/ Motti Farbstein
Motti Farbstein
Chief Operating and Financial Officer

Exhibit 99.1

U.S. Patent and Trademark Office Issues Can-Fite Patent for CF102 in the Treatment of Liver Regeneration and Function Following Surgery

CF102 has shown to induce healthy liver cell proliferation resulting in improved liver status

PETACH TIKVA, Israel, September 30, 2014 -- Can-Fite BioPharma Ltd. (NYSE MKT: CANF) (TASE: CFBI), a biotechnology company advancing a pipeline of proprietary small molecule drugs that address cancer and inflammatory diseases, today announced the United States Patent and Trademark Office has issued a patent to the Company which covers its drug candidate, CF102, in the treatment of liver regeneration and function following liver surgery. The issued patent # 8,846,635 is titled," Method for inducing hepatocyte proliferation and uses thereof." Can-Fite has recently been granted a patent for this technology in Japan and the European Union.

CF 102 is now entering Phase II trials for the treatment of hepatocellular carcinoma, the most common form of liver cancer in the U.S., Europe and Israel. The U.S. Food and Drug Administration has granted Orphan Drug Status to Can-Fite's CF102 for this indication and Israel's Ministry of Health has approved CF102 for Compassionate Use in liver cancer.

"The treatment of post-surgery liver function is an indication that would complement our current portfolio of indications in clinical trials. CF102 may offer important healing benefits for the liver not only to cancer patients, but also for patients who have other diseases or injuries of the liver," stated Can-Fite CEO Pnina Fishman.

In preclinical studies, CF102 has induced proliferation of hepatocytes following liver resection (surgery), increased liver weight and reduced elevated levels of serum liver enzymes, reflecting improved liver status. In patients with preexisting liver diseases, such as cirrhosis or cancer, normal hepatocellular proliferation following injury is impaired, exposing patients to liver dysfunction and associated complications that can lead to liver failure and death.

Can-Fite's intellectual property portfolio consists of 150 issued and pending patents worldwide. Additional patents relating to induction of hepatocyte proliferation and uses thereof are pending in several other markets, including Israel.

About CF102

CF102 is a small orally bioavailable drug that binds with high affinity and selectivity to the A3 adenosine receptor (A3AR). A3AR is highly expressed in tumor cells whereas low expression is found in normal cells. This differential effect accounts for the excellent safety profile of the drug. In Can-Fite's pre-clinical and clinical studies, CF102 has demonstrated a robust anti-tumor effect via deregulation of the Wnt signaling pathway, resulting in apoptosis of liver cancer cells. CF102 is in Phase II clinical trials for the treatment of liver cancer in the U.S., Israel, and Europe. The U.S. Food and Drug Administration has agreed with Can-Fite's Phase II study protocol and had previously granted Can-Fite Orphan Drug Designation for CF102 in the treatment of hepatocellular carcinoma, the most common form of liver cancer.

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

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:

Can-Fite BioPharma
Motti Farbstein
info@canfite.com
+972-3-9241114

Argot Partners (Investors and Media)
Matthew Haines
matthew@argotpartners.com
646-681-8192