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 October 2013

000-55041
(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): ____

On October 31, 2013, Can-Fite BioPharma Ltd. (the "Company") filed in Israel an investor presentation titled "Can-Fite Investor Presentation – Fall 2013" with respect to the Company's business and uploaded a copy of the same to the Company's website at *www.canfite.com*. A copy of such investor presentation is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

EXHIBIT INDEX

Exhibit No.	Description
99.1	Can-Fite Investor Presentation – Fall 2013

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: October 31, 2013

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

Can-Fite Investor Presentation – Fall 2013

Pnina Fishman, PhD CEO

CAN-FITE BioPharma Ltd.

Small Molecules For Big Clinical Needs™

FORWARD LOOKING STATEMENT

This presentation contains 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 (the "SEC"), 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 Tel-Aviv Stock Exchange.

Company Profile

- **Can-Fite BioPharma -** advanced clinical stage drug development company
- **Platform technology – A3 Adenosine Receptor Ligands**
  small molecules; addressing multi-billion $ markets:
  - Autoimmune Inflammatory diseases
  - Cancer
  - Ophthalmic diseases
- **Clinical Development Stage -** Phase II and Phase III clinical trials
- **Two out-licensing deals -** for $21.8 million in up-front fees and milestone payments + royalties; over $8M has been received to date

Equity Profile

Ticker on Israeli TASE: CFBI

Ticker on OTCQB ADR Level II: CANFY

Price of ADR: $6.29 (1 ADR = 2 Ordinary Shares)

52 Week Range: $3.30 - $7.00

Shares Out: 16.11 M Ordinary Shares

Market Capitalization: $50.7 M

Avg. Trading Volume (30 day): 17,284 ADRs

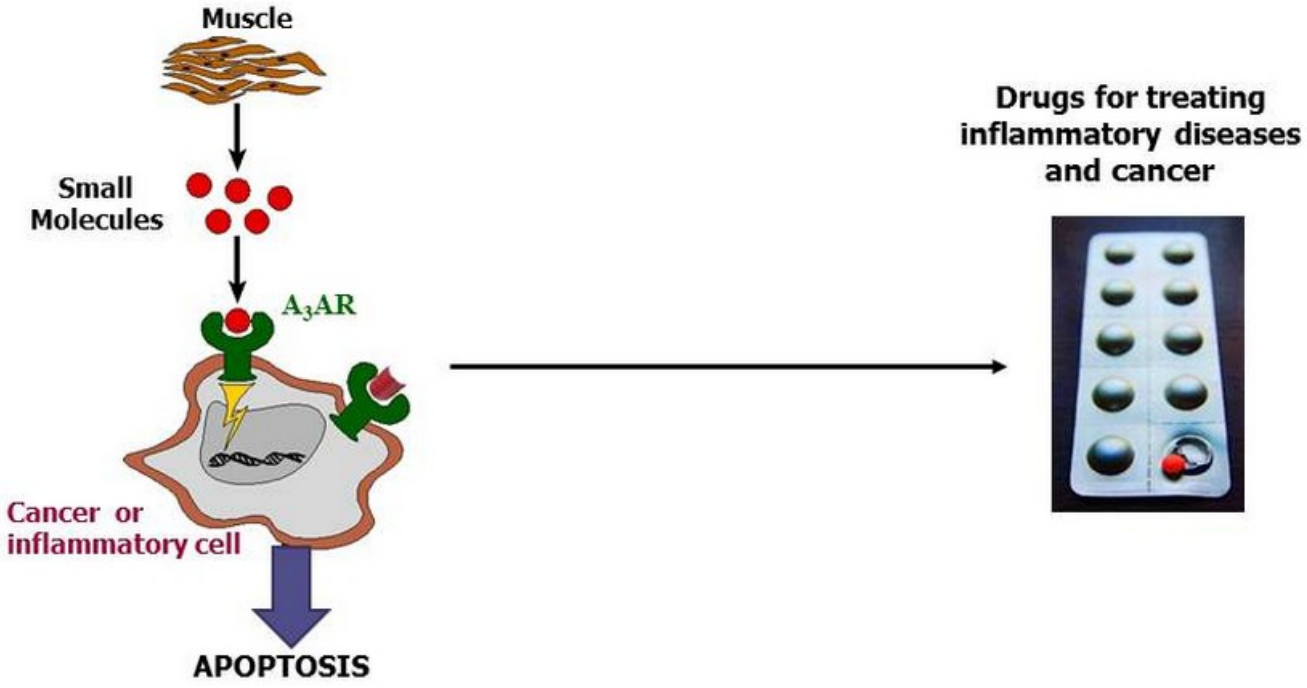
As of October 28, 2013

Scientific Concept

- Why does cancer not metastasize to muscle?

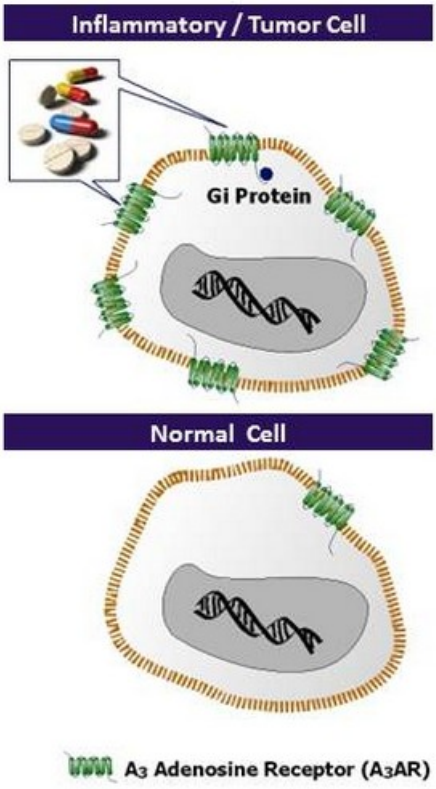
- While most of the world asked "Why is there cancer?" we asked the opposite question.

From Concept to Technology



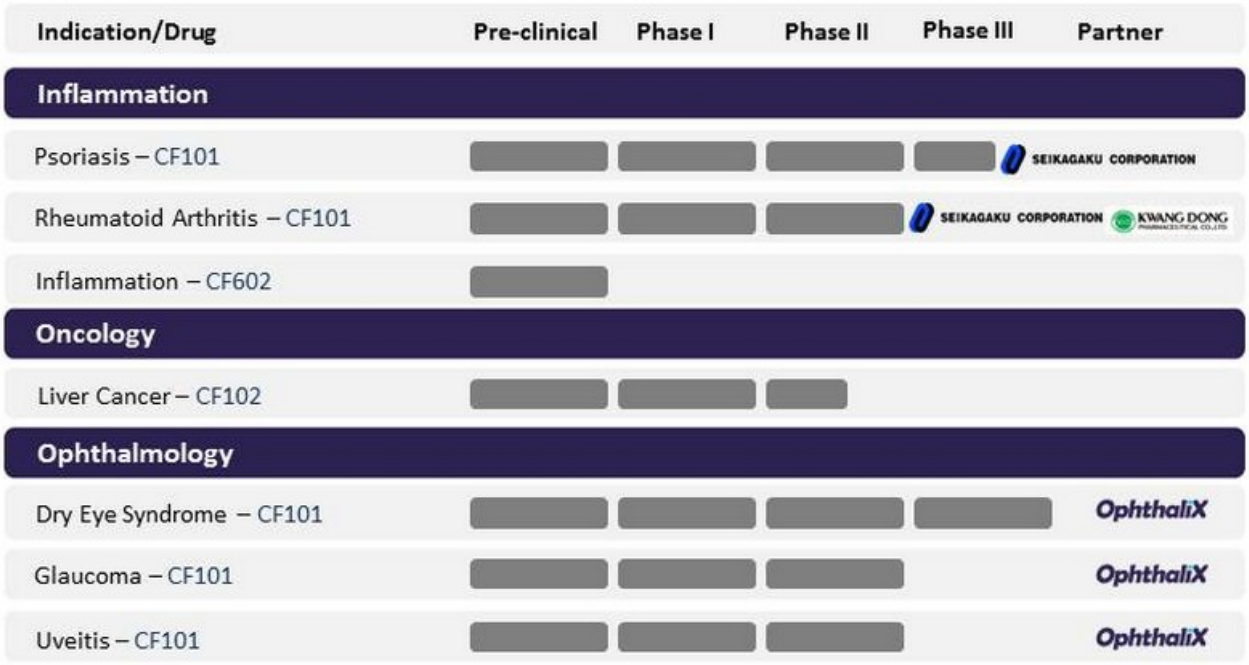
Platform Technology: Small Molecule Drugs

- **Therapeutic Target** – A_3 adenosine receptor (A_3AR), highly expressed in pathological cells
- **Drug product** – small molecule orally bioavailable drugs, A_3AR agonists
- **Pharmacology profile** – anti-inflammatory and anti-cancer effects
- **Therapeutic index** – high safety profile and proven efficacy in Phase II clinical studies
- **A3AR is a Biological Predictive Marker** –used to predict patient's response to the drug



Targeted therapy, specifically aimed at diseased cells

Drug Development Pipeline



Investment Highlights

CANFITE BioPharma Ltd.

- **Platform Technology Addresses Multiple Billion Dollar Markets**
  - $5.5 B by 2022 Dry Eye Syndrome (Phase III) (*)
  - $3.3 B per year Psoriasis (Phase II/III) (**)
  - $18 B by 2020 Rheumatoid Arthritis (Phase II) (***)
  - $1.2 B by 2017 Liver Cancer (Phase II) (*)
  - $3 B by 2018 Glaucoma (Phase II) (*)
  - $3 B Sexual Dysfunction in 2010 (*)
- **Out-Licensing Deals**
  - Up to $20 M + Royalties Deal with Seikagaku of Japan
  - Up to $1.8 M + Royalties Deal with Kwang Dong of South Korea
- **82% Ownership of OphthaliX (OTCBB:OPLI) Currently Worth ~$47 Million** (as of October 28, 2013)

(*) GlobalData
(*) Nature Biotechnology
(***) DataMonitor

Corporate Partnerships

- SEIKAGAKU CORPORATION Tokyo Stock Exchange (Ticker:4548)
- Exclusive license to develop and commercialize CF101 in Japan
- Up to $20 M in upfront and milestone payments plus up to 12% royalties. Such payments are subject to development and marketing milestones. To date $7.5M has been received

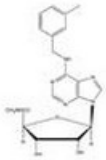
- KWANG DONG PHARMACEUTICAL CO., LTD. South Korean Stock Exchange (Ticker: A009290)
- Exclusive license to develop and commercialize CF101 for the treatment of rheumatoid arthritis in Korea
- $1.8 M in upfront and milestone payments plus up to 7% royalties. Such payments are subject to development and marketing milestones. To date $0.8M has been received
- Purchased 1% of Can-Fite's outstanding shares

- OphthaliX U.S. OTCQB (Ticker: OPLI)
- Can-Fite holds 82% ownership; OphthaliX market cap ~47M (as of October 28, 2013)
- Can-Fite spun-off all ophthalmic indications of CF101 into OphthaliX

- Can Fite spun-off all ophthalmic indications of CF101 to OphthaliX
- Traded on the OTCQB (Ticker: OPLI)
- Current market cap ~$47M (as of October 28, 2013)
- Can-Fite holds 82% of OphthaliX

CF101 – Profile

Chemical Profile



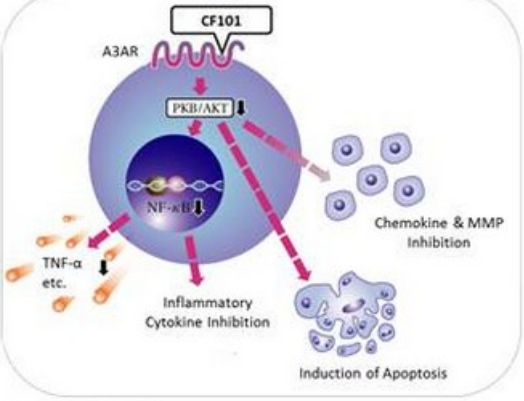
- Highly Selective A3AR Agonist
- Nucleoside derivative
- Molecular weight - 510.29
- Water insoluble
- Orally bioavailable
- Half life time – 8-9 hours

Anti-Inflammatory Effect

Proof of concept in pre-clinical pharmacology studies:

- Rheumatoid Arthritis
- Osteoarthritis
- Inflammatory Bowel Disease
- Uveitis

MOA

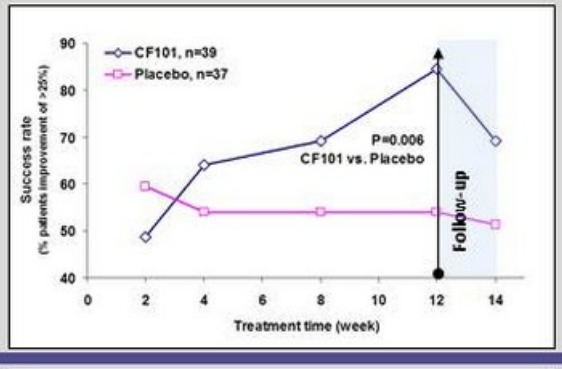
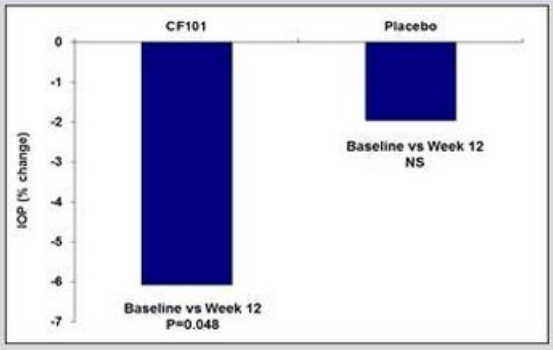


Excellent safety profile

- More than 1,000 patients participated in our clinical studies to date
- CF101 is safe and well tolerated
- No dose-response relationship is evident between CF101 and adverse events
- Low incidence (<2%) of serious AEs and similar across all dose groups including placebo

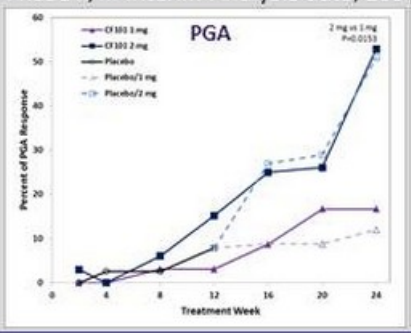
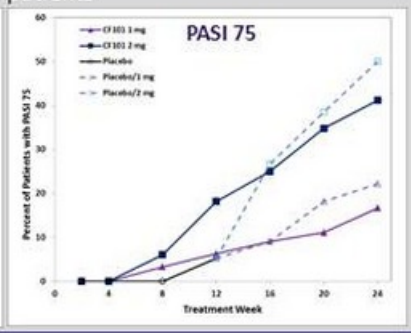
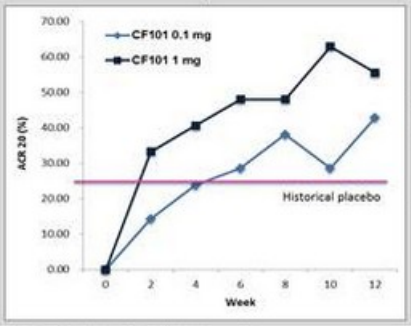
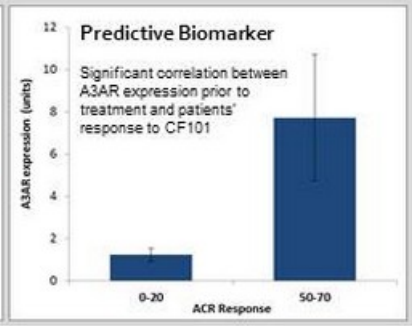
Proof of Concept from Phase II Studies

CANFITE BioPharma Ltd.

Indication	Protocol	Results
Dry Eye Syndrome	A Phase II, Randomized, Double-Masked, Placebo-Controlled, Parallel-Group Study of the Safety and Efficacy of Twice Daily CF101 (1 mg) Administered Orally to Patients with Dry Eye Syndrome	Dry Eye Syndrome; Phase II data; 76 patients 
Glaucoma		

Proof of Concept from Phase II Studies

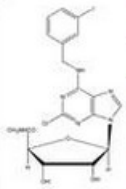
CANFITE BioPharma Ltd.

Indication	Protocol	Results
Psoriasis	A Phase II/III Randomized, Double-Blind, Placebo-Controlled, Dose-Finding Study of the Efficacy and Safety of Twice Daily CF101 Administered Orally in 288 Patients with Moderate-to-Severe Plaque Psoriasis	Phase II/III Interim Analysis data; 103 patients  
Rheumatoid Arthritis	Phase IIa, Randomized, Double-blind, Dose-ranging Study of the Safety And Efficacy of Twice Daily CF101 (0.1 Mg, 1 Mg And 4 Mg) Administered Orally to Patients with Rheumatoid Arthritis	Phase IIa data; 74 patients  

Silverman et al. J Rheumatology. 2008

CF102 – Profile

Chemical Profile



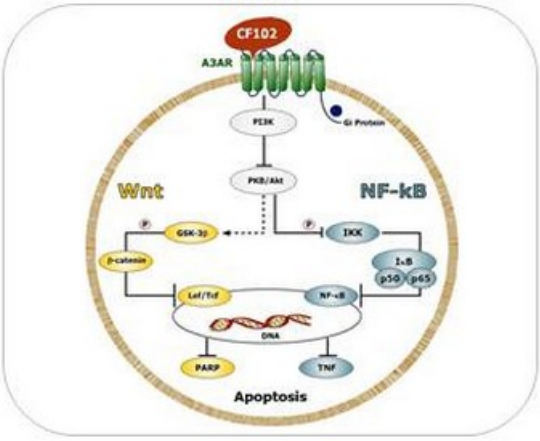
- Highly Selective A3AR Agonist
- Nucleoside derivative
- Molecular weight - 544.73
- Water insoluble
- Orally bioavailable
- Half life time – 12 hours

Anti-Cancer effect

Proof of concept in pre-clinical pharmacology studies:

- Hepatocellular Carcinoma
- Colon Carcinoma
- Prostate Cancer
- Melanoma

MOA



Market Size

- Currently only one targeted therapy drug in circulation: Nexavar.
- Global liver cancer drug market is expected to exceed $1.2 billion by 2017. (1)

(1) GlobalData

CF102 – Primary Liver Cancer – Phase II

CANFITE BioPharma Ltd.

Proof of Concept from Phase II Study

Study Protocol:

- Phase I/II, open-label, dose-escalation study evaluating the safety, tolerability, pharmacokinetics, and pharmacodynamics of orally administered CF102 in patients with advanced primary liver cancer.

- **Results:**
  - Excellent safety profile and lack of hepatotoxicity
  - Prolongation of survival time
  - Regression of skin tumor metastases
  - Stable disease (22%)
  - Proof of concept for A3AR utilization as a biomarker
  - U.S. FDA Orphan Drug Approval (Feb 2012)

  Stemmer et al. The Oncologist, 2012

Current Status

Preparation for Phase II study - Second-Line Treatment of Advanced Hepatocellular Carcinoma in Subjects with Child-Pugh B

130 patients; US, Europe and Israel

Intellectual Property Portfolio

- Exclusive licensee of the U.S. National Institutes of Health (NIH) and Leiden University in the Netherlands for patents covering A3AR Agonists
- 15 patent families
- 150 patents issued and pending patents applications internationally
- IP covers composition of matter, synthesis of matter, and clinical applications

Management Team

- **Dr. Pnina Fishman, CEO and Scientific Founder**
  - Accomplished scientist; authored or co-authored over 150 publications
  - Her scientific work is the foundation of Can-Fite's technology
  - This work is one of the leading approaches for next-generation therapies for cancer and other diseases
  - Served for 7 years as CEO of Mor Research Application
- **Motti Farbstein, CFO**
  - 15+ years of financial, operation and clinical trial management
  - Formerly Vice President at Mor Research Application
- **Barak Singer, VP Business Development**
  - 13+ years of investment banking, venture capital and business development experience
  - Formerly VP Business Development at Xenia Venture Capital
  - Formerly Managing Director Co-Head of Investment Banking at Tamir Fishman & Co. (affiliated with RBC Capital Markets)

Financials – Balance Sheet / Income Statement

INCOME STATEMENT (ILS=$USD 0.2764 as of June 30, 2013)	
in thousands $USD	LTM June 30th, 2013
Total Revenue	-
Operating Income	($7,189)
EBITDA	($7,171)
Net Income / (Loss)	($7,135)

BALANCE SHEET
(ILS=$USD 0.2764 as of June 30, 2013)

ASSETS *in thousands $USD*	June 30th, 2013
Current Assets	
Cash & Equivalents [1]	$4,128
Accounts Receivable	460
Total Current Assets	4,588
Fixed Assets	46
Total Assets	$4,634

LIABILITIES & EQUITY *in thousands $USD*	June 30th 2013
Current Liabilities	
Trade Payables	$406
Other accounts payable	949
Other current liabilities	259
Total Current Liabilities	1,614
Other liabilities [2]	1,754
Total Liabilities	3,368
Total Equity	1,266
Total Liabilities & Equity	$4,634

[1] Includes short term bank deposit;
The company raised $6M on October 23.

[2] Includes $1,736 options exercisable into shares (series 10 and 11) which as of August 20, 2013 were classified as an equity. This change will be reflected on September 30, 2013 Balance sheet

MONTHLY CASH BURN RATE	
in thousands $USD	
Research	$15
Development	$225
Patent & Royalties	$20
G&A	$200
Total	$460

Spotlight on Near Future Clinical Milestones

CANFITE BioPharma Ltd.

Indication	Milestone	Status
Rheumatoid Arthritis	**Results from Phase IIb Trial** 80 patient study	Data release: Q4-2013
Dry Eye Syndrome	**Results From Phase III Trial** 231 patient study	Data release: Q4-2013
Psoriasis	**Phase II/III Trial** 300 patient study	Completion of patient enrollment : Q4-2013
Liver Cancer	**Phase II Trial** 130 patient study	Protocol Submission to FDA: Q1-2014
Uveitis	**Phase II Trial** 45 patient study	Initiation: Q1-2014
Glaucoma	**Interim Analysis of Phase II Trial** 132 patient study	Data release: Q2-2014
Liver Cancer	**Phase II Trial** 130 patient study	Initiation: Q2-2014