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 2017

001-36203
(Commission File Number)

CAN-FITE BIOPHARMA LTD.

(Exact name of Registrant as specified in its charter)

10 Bareket Street
KiryatMatalon, 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 September 8, 2017, Can-Fite BioPharma Ltd. made available an updated investor presentation on its website. A copy of the investor presentation is attached hereto as Exhibit 99.1 and may be viewed in the Investor Information section of the Company's website at www.canfite.com.

Exhibit Index

Exhibit No.	Description
99.1	Investor Presentation dated September 2017

SIGNATURES

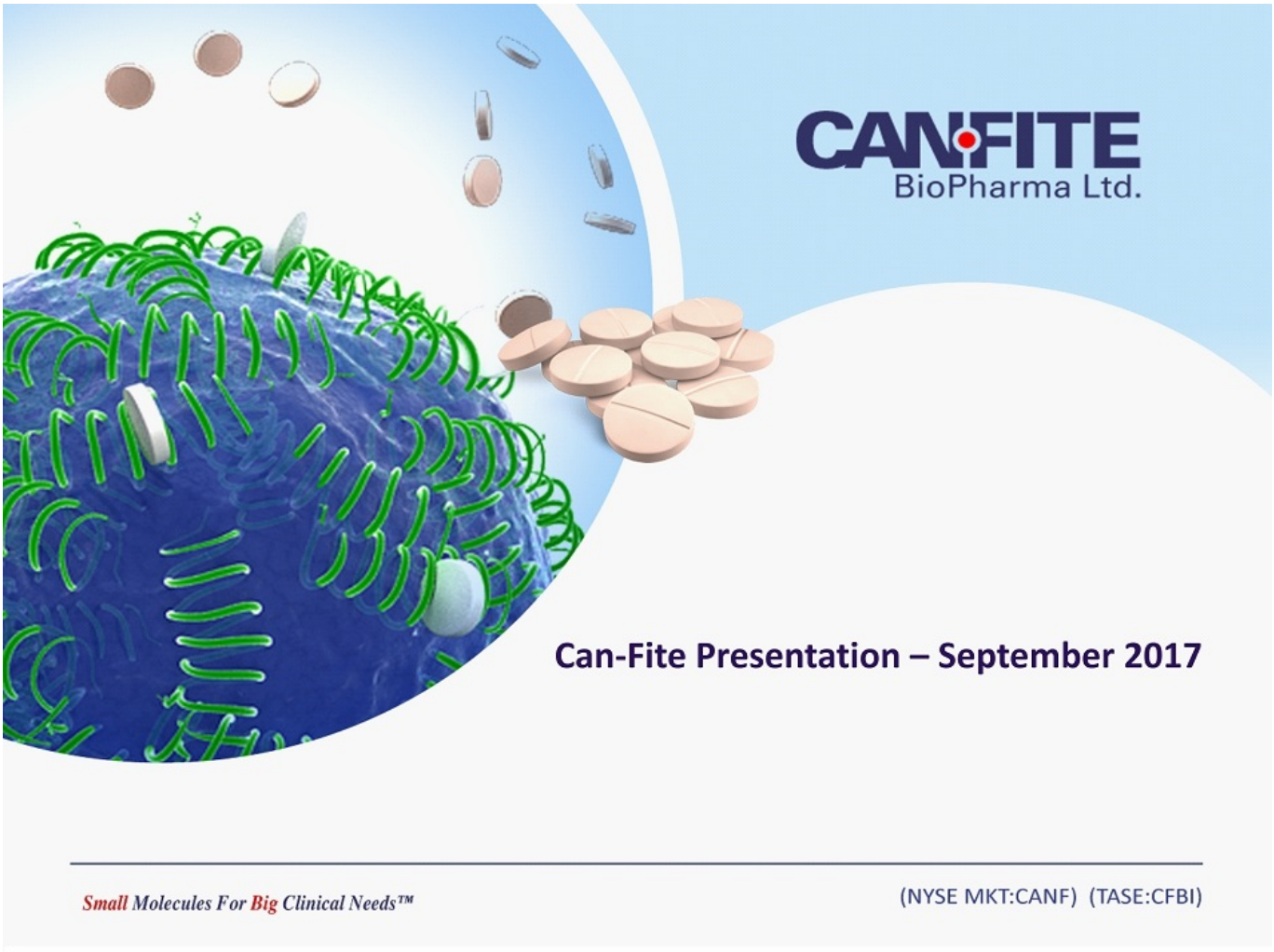
Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Can-Fite BioPharma Ltd.

Date: September 8, 2017

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

Exhibit 99.1


CAN-FITE
BioPharma Ltd.
Can-Fite Presentation – September 2017
Small Molecules For Big Clinical Needs™
(NYSE MKT:CANF) (TASE:CFBI)

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. All statements in this communication, other than those relating to historical facts, are "forward looking statements".

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. 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 known and unknown risks, uncertainties and other factors that may cause Can-Fite's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Important factors that could cause actual results, performance or achievements to differ materially from those anticipated in these forward-looking statements include, among other things the initiation, timing, progress and results of Can-Fite's preclinical studies, clinical trials and other product candidate development efforts; Can-Fite's ability to advance its product candidates into clinical trials or to successfully complete our preclinical studies or clinical trials; Can-Fite's receipt of regulatory approvals for its product candidates, and the timing of other regulatory filings and approvals; the clinical development, commercialization and market acceptance of Can-Fite's product candidates; Can-Fite's ability to establish and maintain corporate collaborations; Can-Fite's implementation of its business model and strategic plans for its business and product candidates; the scope of protection Can-Fite is able to establish and maintain for intellectual property rights covering its product candidates and its ability to operate its business without infringing the intellectual property rights of others; estimates of Can-Fite's expenses, future revenues, capital requirements and its needs for additional financing; competitive companies, technologies and Can-Fite's industry; and statements as to the impact of the political and security situation in Israel on Can-Fite's business. More information on these risks, uncertainties and other factors is included from time to time in the "Risk Factors" section of Can-Fite's Annual Report on Form 20-F filed with the SEC on March 30, 2017 and other public reports filed with the SEC and in its periodic filings with the TASE.

Existing and prospective investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. Can-Fite undertakes no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by any applicable securities laws.

Company Profile

Proprietary Core Technology

- Advanced clinical stage drug development company with a compelling platform technology
- Several small molecule drug products in Phase II and Phase III clinical studies covered by 14 Patent Families

Financial Summary

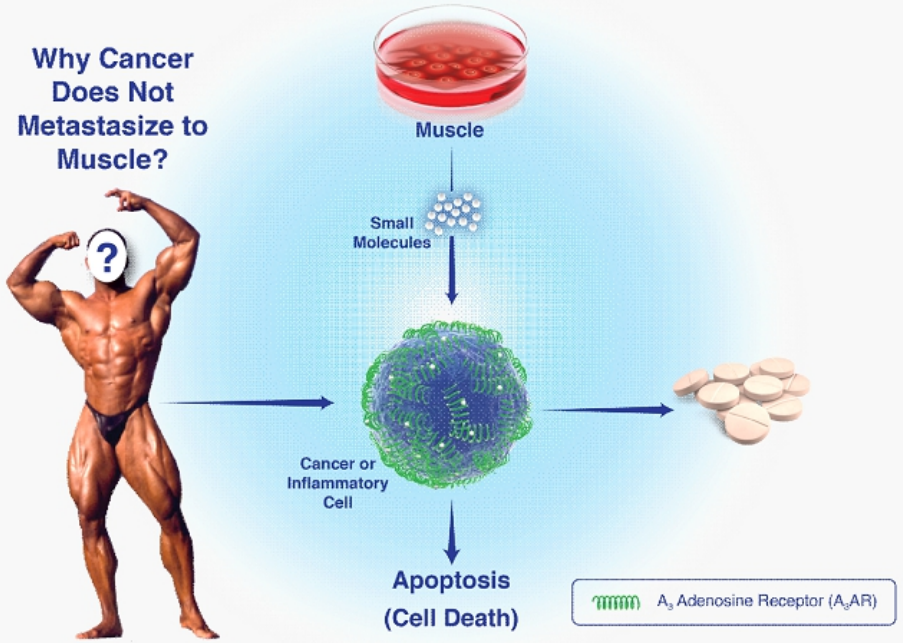
- Cash: ~$6.9 M as of 6/30/2017
- Listed on Tel-Aviv Stock Exchange (CFBI) and NYSE American (CANF)
- Price per ADR* traded on NYSE MKT = $1.79 (as of 09/01/2017)
- Market Cap = ~$28 million
- ~32 million ordinary shares outstanding; 47.5 million fully diluted
- US shareholders represent ~65% of investors

*1 ADR = 2 Ordinary Shares

Operations

- Headquarters & Discovery Labs – Petach-Tikva, Israel
- Drug Development & Clinical Trials Group – Boston
- Highly experienced team in clinical trials / regulatory

From Concept to Technology



Company platform technology mimics natural body mechanism to combat cancer and inflammation

Platform Technology

Therapeutic Target

- A_3 adenosine receptor (A_3AR)
- Highly expressed in inflammatory and cancer cells

Drug product

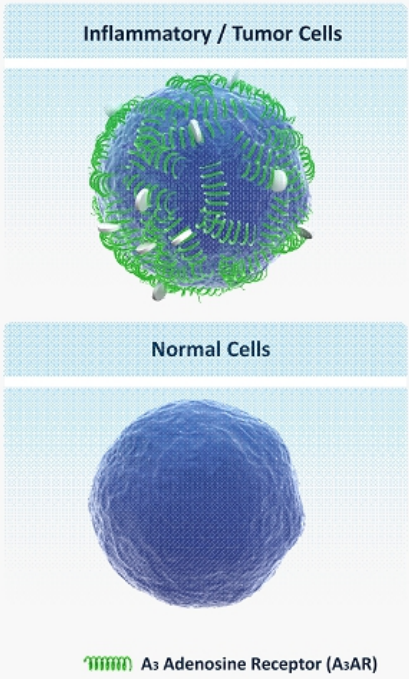
- Small molecules
- Orally bioavailable drugs

Therapeutic Effect

- Anti-inflammatory and anti-cancer effects shown in Phase II studies; Excellent safety profile

A_3AR is utilized as a Predictive Biomarker

- Utilized to predict patient's response to the drug



Targeted therapy, specifically aimed at diseased cells

Drug Development Pipeline

Indication/Drug	Pre-clinical	Phase I	Phase II	Phase III
Inflammation				
Rheumatoid Arthritis - Piclidenoson (CF101)			Enrollment to Commence Q3 2017	
Psoriasis - Piclidenoson (CF101)			Enrollment to Commence 2018	
Oncology/Liver Diseases				
Liver Cancer - Namodenoson (CF102)			Completed Enrollment Q3 2017	
NASH - Namodenoson (CF102)			Enrollment to Commence Q3 2017	
Erectile Dysfunction				
CF602		On-going		

Corporate Partnerships

Regional out-licensing deals ~$11.5 million* received to date

KWANG DONG PHARMACEUTICAL CO., LTD. [Traded on South Korean Stock Exchange (Ticker: A009290)]

- Exclusive regional license to develop and commercialize Piclidenoson for the treatment of rheumatoid arthritis in Korea
- Up to $1.5M in upfront and milestone payments ($0.5M received to date)
- 7% royalties

cipher PHARMACEUTICALS INC [Traded on Nasdaq (Ticker: CPHR); TSX: (Ticker: CPH]

- Exclusive regional license to distribute Piclidenoson for the treatment of rheumatoid arthritis and moderate to severe psoriasis in Canada
- Up to CDN$3.65M in upfront and milestone payments (CDN$1.65M received to date)
- 16.5% royalties

Chong Kun Dang Pharm. Seoul, Korea [Traded on South Korean Stock Exchange (Ticker: 185750)]

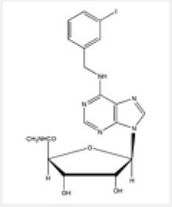
- Exclusive distribution agreement in South Korea for distribution of Namodenoson for treatment of liver cancer
- Up to $3.0M in upfront and milestone payments ($1.0M received to date)
- 20% + royalties

* $8.5M was from a license with a Japanese company ,SKK; the license was terminated due to SKK's strategic change of focus to indications not related to autoimmune diseases

Piclidenoson (CF101)– Anti-Inflammatory Effect

Properties

- Highly Selective A3AR Agonist
- Nucleoside derivative
- Molecular weight - 510.29
- Water insoluble
- Orally bioavailable
- Half life time in blood – 8-9 hours
- Is not metabolized in the body; secreted unchanged



Piclidenoson

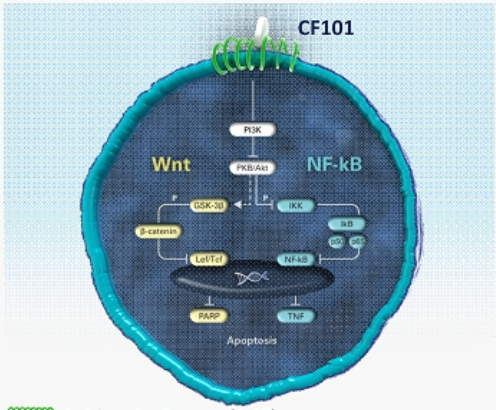
Fishman et al. Drug Discovery Today 17:359-366. 2011.

Anti-Inflammatory Effect

Proof of concept in pre-clinical pharmacology studies:

- Rheumatoid Arthritis
- Osteoarthritis
- Inflammatory Bowel Disease
- Uveitis

Mechanism of Action



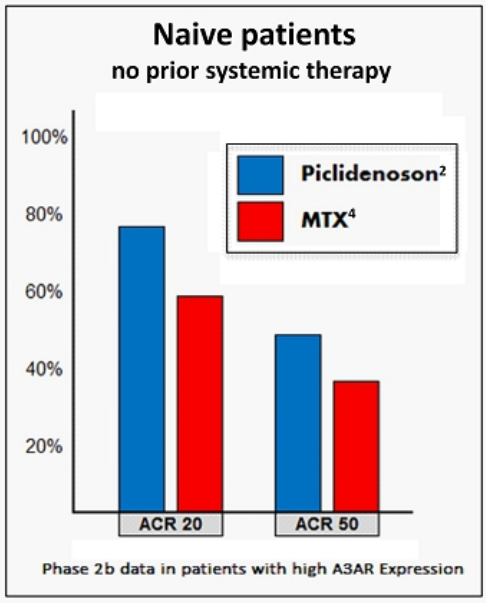
A3 Adenosine Receptor (A3AR)

(NYSE MKT:CANF) (TASE:CFBI)

CANFITE BioPharma Ltd.

Piclidenoson as First-Line RA Oral DMARD Therapy

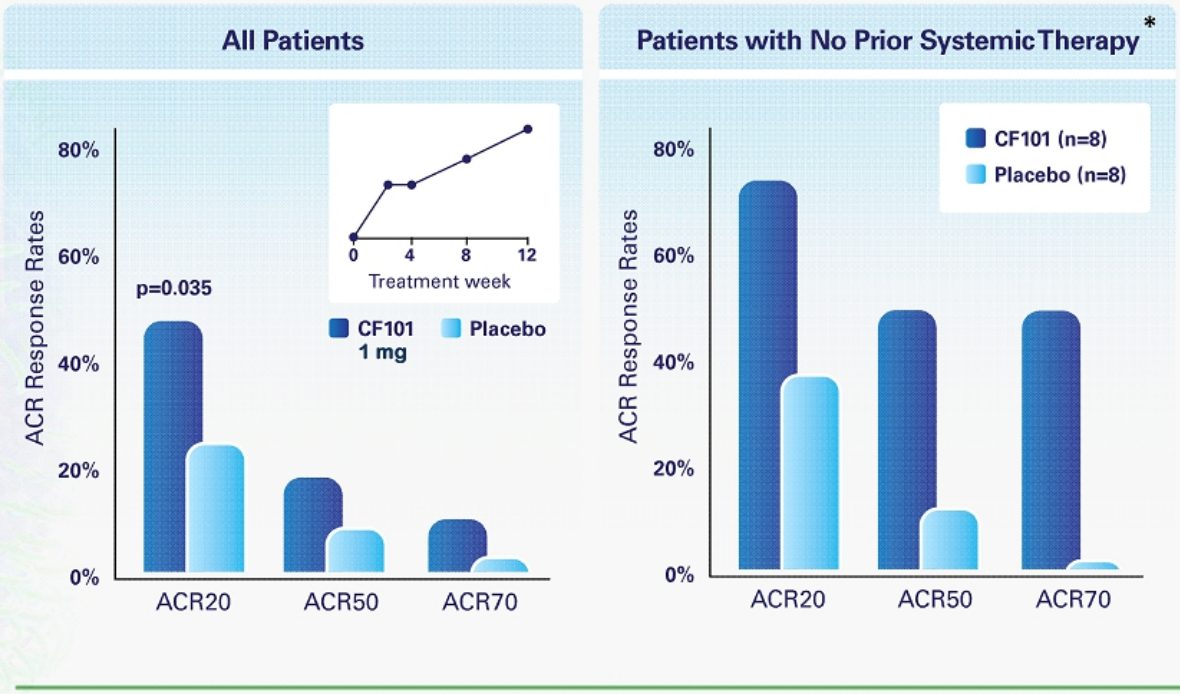
- Entering Phase III for treatment of Rheumatoid Arthritis (RA)
- Methotrexate (MTX) is the recommended first-line therapy according to EULAR and ACR
- Approximately 70% of RA patients requiring DMARD therapy will start on MTX[1]; Over 90% will take MTX at some point
- 34% discontinuation rate for MTX due to adverse events[3]
- Piclidenoson demonstrated a statistically significant improvement in Phase IIb trial
- **Opportunity to replace MTX as first-line oral DMARD therapy based on Phase II data**



Sources: 1) Bassel K., et al., 2013, 2) Company filings, 3) Nikiphorou E, et al., 2014, 4) MTX data is average of six P3 trials of various RA drugs

Piclidenoson Phase IIb Results in RA

Phase IIb study, Placebo controlled; 79 patients – Positively concluded



*MTX, Biological Drugs

CANFITE BioPharma Ltd.

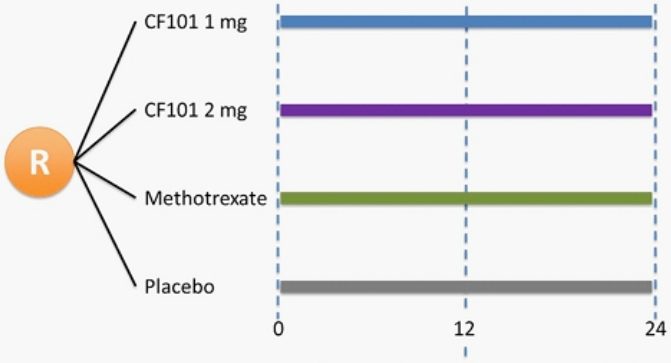
Piclidenoson ACRobat Phase III to Commence Q3 2017

ACRobat – Can-Fite's Phase III clinical study is designed to establish Piclidenoson is non-inferior to MTX in newly diagnosed patients with moderate-to-severe RA

- Randomized, double-blind, active and placebo-controlled
- 500 patients to be enrolled in Europe, Canada and Israel
- Primary endpoint will be DAS at week 12
- Secondary endpoints will include ACR 20, 50, 70 scores
- 24 week total duration
- Correlation between A3AR expression and response to Piclidenoson will be analyzed
- Patient enrollment to commence Q3 2017

ACRobat

CF101 1 mg, CF101 2 mg, Methotrexate , or matching placebo tablets every 12 hours in a 2:2:2:1 ratio

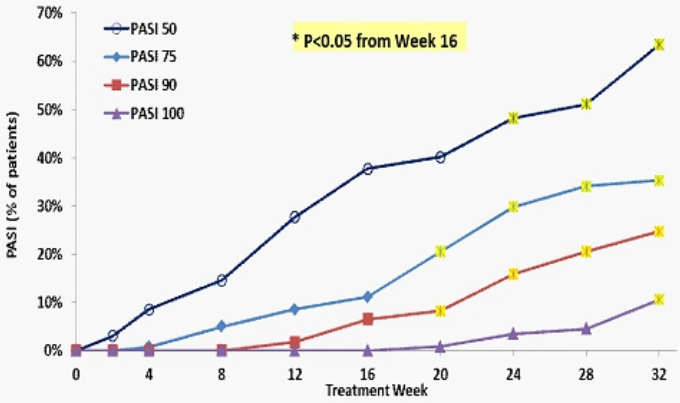


At Week 12, any subject who has not experienced at least 20% improvement in both the number of swollen and number of tender joints will be given escape therapy with open-label oral MTX

Piclidenoson for Moderate to Severe Psoriasis

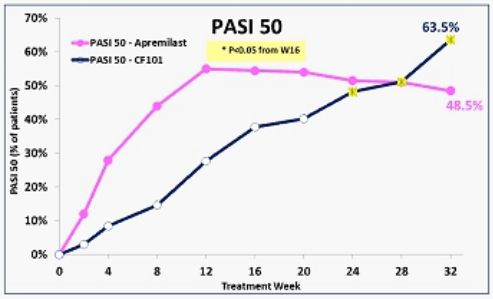
- Entering Phase III for treatment of moderate-to-severe plaque Psoriasis
- Excellent safety profile for long-term use
- Compares very favorably with leading oral therapy Oztela®
- Phase II/III study did not achieve the primary endpoint of PASI 75 at 12 weeks
- Phase II/III study showed patient response improved over time with positive linear data on weeks 12 to 32

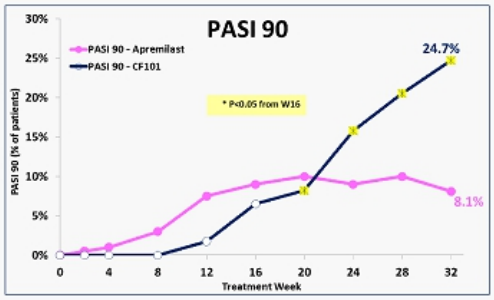
Phase II/III Study Results
Placebo Controlled with 325 Patients

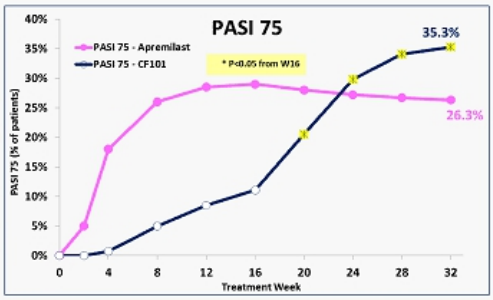


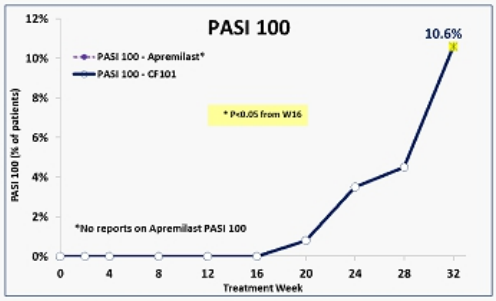
Piclidenoson Compares Favorably To Celgene's Otezla

- **Otezla® sales were $1 billion in 2016, a 116% increase over 2015[1]**
- **Peak Otezla® sales estimated at $2.35 billion in 2020[2]**
- **Piclidenoson compares well to Otezla® at weeks 24-32[3]**







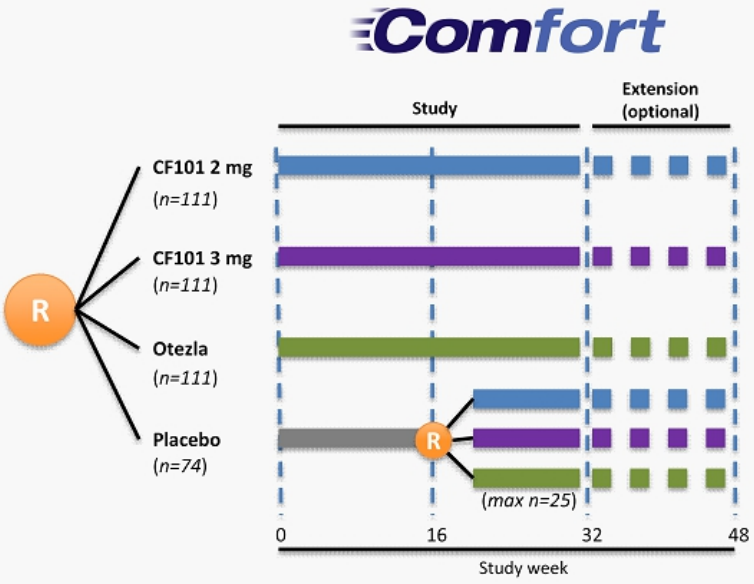


Sources: 1) Celgene 2016 annual report 2) DrugAnalyst, Ltd. 3) Based on Otezla Phase 3 data vs. CF101 Phase 2 data.

Piclidenoson Comfort Phase III

Comfort – Phase III clinical study is designed to establish Piclidenoson superiority vs. placebo and non-inferiorty vs. Otezla in patients with moderate-to-severe Plaque Psoriasis

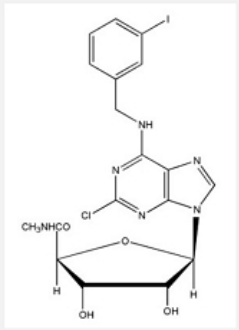
- Randomized, double-blind, active and placebo-controlled
- 407 patients to be enrolled in Europe, Canada and Israel
- Primary endpoint will be PASI 75 at week 16 vs. placebo
- Secondary endpoints will include non-inferiority vs. Otezla at week 32
- Patients will be selected to the study based on over expression of the A3AR biomarker
- 32 week total duration; optional extension to 48 week



Namodenoson (CF102) – Anti-Cancer & NAFLD/NASH

Drug Profile

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



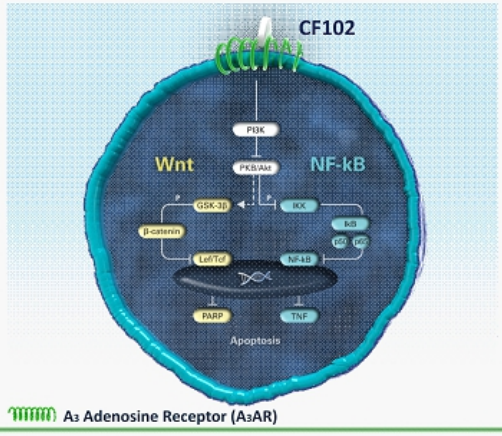
Namodenoson

Pharmacology Profile

Proof of concept in pre-clinical pharmacology studies:

- Hepatocellular Carcinoma; Colon Carcinoma; Prostate Cancer; Melanoma
- Liver protective effects
- NAFLD/NASH

Mechanism of Action



A3 Adenosine Receptor (A3AR)

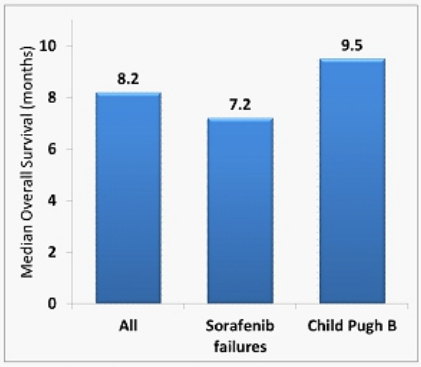
Namodenoson for the Treatment of Liver Cancer

Market Opportunity

- Significant Unmet Need: There is only one drug registered to treat primary liver cancer patients - Nexavar® (sorafenib) and only one for those who fail Nexavar, Regorafenib. No drug for Child Pugh B patients
- Market for hepatocellular carcinoma drugs projected to reach $1.4 billion[1] in 2019. Nexavar® annual sales were €870 million in 2016[2]

Phase I/II Positive Results

- Very favorable 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



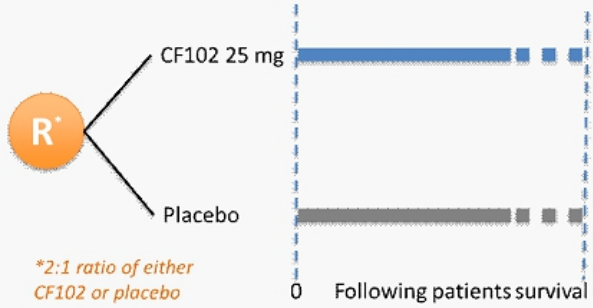
Stemmer et al. The Oncologist, 2012

Sources: 1) Datamonitor 2) Bayer Annual Report 2016

Liver Cancer Phase II Study Completed Enrollment

Phase II - Study Protocol

- Second-Line Treatment
- Advanced Hepatocellular Carcinoma; Child-Pugh B
- 78 patients
- US, Europe and Israel
- Primary end point: overall survival
- Patient enrollment completed August 2017
- Currently following survival data and will perform survival analysis at earliest possible opportunity



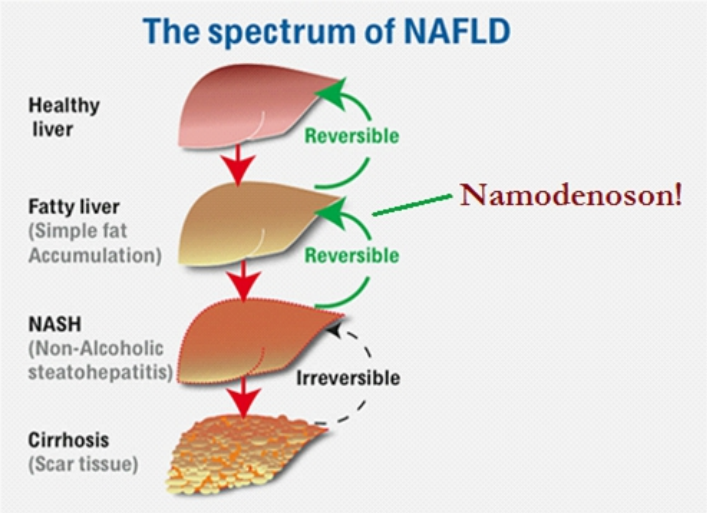
Regulatory Status

- FDA and EMA have granted **Orphan Drug** status
- FDA granted **Fast Track** status as a second line treatment

Namodenoson for the Treatment of NASH

"America's Greatest Health Risk" – *Scientific American, 2015*

- ✓ 17% - 33% Prevalence of NAFLD in the U.S.[1]
- ✓ 2-5% of U.S. Population has NASH[2]
- ✓ 3rd Leading Cause of Liver Transplant in U.S. & on Trajectory to Become Leading Cause[3]
- ✓ $35-40 Billion Market by 2030[4]

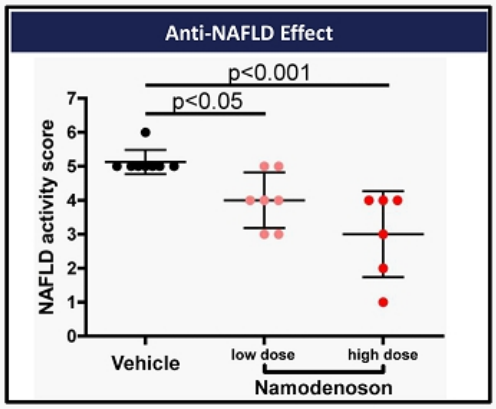


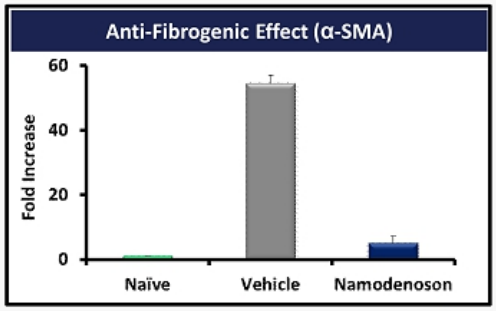
Sources: 1) Study published in Hepatology, 2) NIH, 3) Study published in Gastroenterology, 4) Deutsche Bank

Namodenoson's Efficacy in NAFLD & NASH

Namodenoson markedly improved liver function & pathology in NAFLD and NASH experimental models (STAM & CCL4)

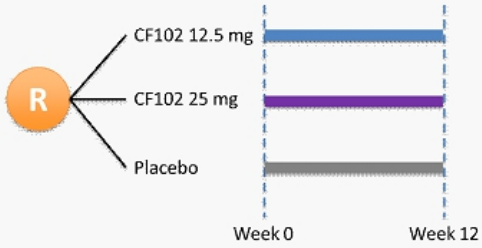
- ✓ Namodenoson reduces NAFLD Activity Score (NAS) in STAM model
- ✓ Robust anti-Fibrogenic effect in vitro and in the CCL4 model
- ✓ Significant decrease in steatosis, ballooning and lobular inflammation (STAM)
- ✓ A decrease in plasma ALT and triglyceride levels (STAM & CCL4)
- ✓ Protects the liver against Ischemia/Reperfusion injury





Namodenoson – Phase II in Treatment NAFLD/NASH

Phase II - Study Protocol



- Namodenoson in the treatment of non-alcoholic fatty liver disease (NAFLD), the precursor to non-alcoholic steatohepatitis (NASH)
- Multicenter, randomized, double-blinded, placebo-controlled, dose-finding efficacy and safety study
- 60 patients with NAFLD with or without NASH
- Primary end point: percentage change from baselines in liver triglyceride (fat) concentration measured by nuclear magnetic resonance spectroscopy and safety

Protocol Approved & Ready to Commence

- Leading KOLs on board and have advised on protocol design
- Protocol has been approved by leading IRBs in Israel
- Patient enrollment to commence Q3 2017

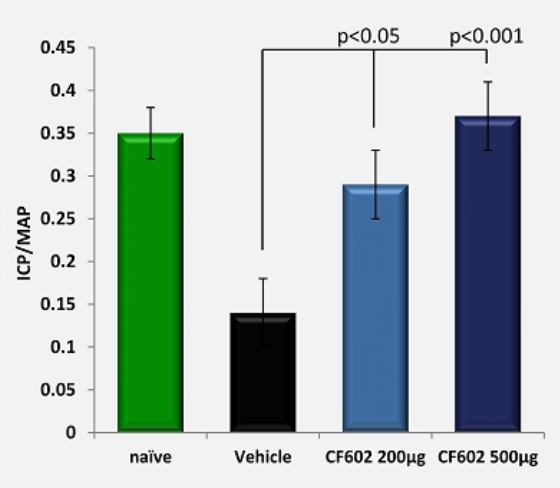
CF602 – Reverse Erectile Dysfunction

Significant full recovery from erectile dysfunction in diabetic rat model

- Dose-dependent, linear effect
- Response after single dose of CF602

Novel mechanism of action

- Up-regulation of eNOS and VEGF
- Improves vasodilation and smooth muscle relaxation



Worldwide Sales In 2016

Viagra® = $1.564 Billion[1]

Cialis® = $2.471 Billion[2]

1) Pfizer 2016 annual report; 2) Eli Lilly 2016 annual report

Spotlight on 12 Month Milestones

Piclidenoson – Rheumatoid Arthritis (~$35B Opportunity)	
Phase III Trial Initiation Based on Agreement Reached with EMA	Q3 2017
Piclidenoson– Psoriasis (~$9B Opportunity)	
Phase III Trial Initiation Based on Agreement Reached with EMA	2018
Namodenoson – Liver Cancer (~$1.4B Opportunity)	
Announce Phase II Results (completed enrollment in August 2017)	H2 2018
Namodenoson – NAFLD/NASH (~$35B Opportunity)	
Phase II Trial Initiation	Q3 2017
CF602 – Sexual Dysfunction (~$2.6B Opportunity)	
Preclinical Studies Ongoing	2017

**Sources: Visiongain estimates global psoriasis drug market will be $8.9 b by 2018 and the global rheumatoid arthritis drug market will be $38 b by 2017; Datamonitor estimates the HCC drug market at $1.4 b in 2019; GlobalData estimates the global erectile dysfunction drug market at $2.6 b by 2018; Deutsche Bank puts the peak market for NASH therapies at $35 b to $40 b by 2025.*