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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 October 2023

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 ☐

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On October 26, 2023, Can-Fite BioPharma Ltd. issued a press release entitled “Can-Fite to Harness Artificial Intelligence to Develop Novel Anti-Cancer Drugs”. A copy of this press release is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

**Exhibit Index**

<b>Exhibit No.</b>	<b>Description</b>
99.1	<a href="#">Press Release dated October 26, 2023</a>

## 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.

Date: October 26, 2023

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

**Can-Fite to Harness Artificial Intelligence to Develop Novel Anti-Cancer Drugs**

- Can-Fite signed an agreement with Collaborations Pharmaceuticals, a leading expert in Artificial Intelligence and Machine Learning

PETACH TIKVA, Israel, October 26, 2023 -- Can-Fite BioPharma Ltd. (NYSE American: CANF) (TASE: CANF), a biotechnology company advancing a pipeline of proprietary small molecule drugs that address oncology and inflammatory diseases, today announced that it entered into an agreement with Collaborations Pharmaceuticals, Inc. (CPI) to develop anti-cancer drugs utilizing artificial intelligence (AI) and machine learning (ML) techniques. This project will aim to develop a next-generation A3 adenosine receptor drug agonists that significantly reduce the development time and cost of bringing such drugs to market.

CPI will utilize, apply and use AI and ML tools, including their MegaSyn generative AI method, to design new molecules with high affinity and selectivity to the A3AR Can-Fite target. CPI will also perform the chemical synthesis of the newly designed molecules with the ultimate goal of developing novel and robust anti-cancer drug candidates. Can-Fite will perform the testing of the biological anti-cancer effects and validate the molecular mechanism of the novel, chemically synthesized drug candidates.

“Our vision is to deliver *in silico* small molecule drug candidates in a better and faster way to patients via a collaboration with Collaborations Pharmaceuticals. Our accumulated experience of bringing anti-cancer drugs which target the A3AR from lab to patients will be implemented into this AI drug development project,” stated Prof. Pnina Fishman, Executive Chairman and CSO at Can-Fite.

“We are delighted that Can-Fite chose our team of experts for this AI-led drug discovery collaboration and look forward to demonstrating what our technology can do,” said Sean Ekins, PhD, DSc., CEO and Founder of Collaborations Pharmaceuticals, Inc. We also look forward to complementing their outstanding scientific approach with our integrated technology platform and ability to generate novel and selective molecules.”

**About Can-Fite BioPharma Ltd.**

Can-Fite BioPharma Ltd. (NYSE American: CANF) (TASE: CANF) 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, liver, and inflammatory disease. The Company’s lead drug candidate, Piclidenoson recently reported topline results in a Phase III trial for psoriasis and is expected to commence a pivotal Phase III. Can-Fite’s cancer and liver drug, Namodenoson, is being evaluated in a Phase IIb trial for the treatment of steatotic liver disease (SLD), a Phase III pivotal trial for hepatocellular carcinoma (HCC), and the Company is planning a Phase IIa study in pancreatic cancer. Namodenoson has been granted Orphan Drug Designation in the U.S. and Europe and Fast Track Designation as a second line treatment for HCC by the U.S. Food and Drug Administration. Namodenoson has also shown proof of concept to potentially treat other cancers including colon, prostate, and melanoma. CF602, the Company’s third drug candidate, has shown efficacy in the treatment of erectile dysfunction. These drugs have an excellent safety profile with experience in over 1,600 patients in clinical studies to date. For more information please visit: [www.can-fite.com](http://www.can-fite.com).

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## About Collaborations Pharmaceuticals:

Collaborations Pharmaceuticals, Inc. developed MegaSyn for generative drug design. In addition they have developed Assay Central<sup>®</sup> software for data curation and machine learning as well as curated model collections such as MegaTox<sup>®</sup>, MegaTrans<sup>®</sup> and MegaPredict<sup>®</sup>. Collaborations Pharmaceuticals, Inc. performs research and development on innovative therapeutics for multiple rare and neglected diseases and consults for pharmaceutical and consumer product companies. For more information, <http://www.collaborationspharma.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. 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, our history of losses and needs for additional capital to fund our operations and our inability to obtain additional capital on acceptable terms, or at all; uncertainties of cash flows and inability to meet working capital needs; the initiation, timing, progress and results of our preclinical studies, clinical trials and other product candidate development efforts; our ability to advance our product candidates into clinical trials or to successfully complete our preclinical studies or clinical trials; our receipt of regulatory approvals for our product candidates, and the timing of other regulatory filings and approvals; the clinical development, commercialization and market acceptance of our product candidates; our ability to establish and maintain strategic partnerships and other corporate collaborations; the implementation of our business model and strategic plans for our business and product candidates; the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates and our ability to operate our business without infringing the intellectual property rights of others; competitive companies, technologies and our industry; risks related to the COVID-19 pandemic and the Russian invasion of Ukraine; risks related to not satisfying the continued listing requirements of NYSE American; and statements as to the impact of the political and security situation in Israel on our 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, 2023 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.

## Contact

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Collaborations Pharmaceuticals, Inc.

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