

CAN-FITE BIOPHARMA LTD.

10 Bareket Street
Kiryat Matalon, P.O. Box 7537
Petah-Tikva 4951778, Israel

July 1, 2013

VIA EDGAR AND FEDERAL EXPRESS

Securities and Exchange Commission
100 F. Street, N.E.
Washington, DC 20549
Attn: Jeffrey P. Riedler, Assistant Director

**Re: Can-Fite BioPharma Ltd.
Amendment No. 3 to Draft Registration Statement on Form 20-F
Submitted April 15, 2013
CIK No. 0001536196**

Dear Mr. Riedler:

On behalf of Can-Fite BioPharma Ltd., an Israeli limited company (the "Company"), I am writing to respond to the comments of the staff (the "Staff") of the United States Securities and Exchange Commission (the "SEC") contained in its letter to the Company, dated June 27, 2013, regarding Amendment No. 2, confidentially submitted with the SEC on June 14, 2013 ("Amendment No. 2"), to the Company's Draft Registration Statement on Form 20-F, originally confidentially submitted with the SEC on April 15, 2013 (CIK No. 0001536196) (the "Registration Statement").

Concurrently with this response, the Company is also filing Amendment No. 3 to the Registration Statement ("Amendment No. 3") incorporating the revisions to the Registration Statement described herein. To expedite your review, we have enclosed with this letter a clean copy of Amendment No. 3, as well as a marked copy of Amendment No. 3 showing all changes from Amendment No. 2.

For your convenience, we have set forth the text of each of the Staff's comments in bold, followed in each case by the Company's response thereto.

1. We note your response to our prior comment 21 and reissue the comment in part. Please expand your disclosure on page 51 to indicate whether any adverse events were experienced by patients in the second round of Phase II clinical studies of CF102.

Company's Response:

The Company has revised its disclosure to indicate whether any adverse events were experienced by patients in the second round of Phase II clinical studies of CF102. See page 51 of Amendment No. 3.

In addition to the foregoing revisions to Amendment No. 2 in response to the Staff's comments and certain non-substantive conforming changes, the Company has revised Amendment No. 2 (including the exhibits and financial statements thereto) to: (i) add a risk factor to disclose that, as an emerging growth company, the Company is permitted to, and intends to, rely on exemptions from certain disclosure requirements; (ii) add a disclosure indicating that the Company is choosing to "opt out" of the provisions of the JOBS Act that would extend the transition period to comply with certain new or revised accounting standards; (iii) update certain information regarding the Company's warrants; (iv) include certain recent events that occurred since the submission of Amendment No. 2; and (v) update the date of the auditor's report and consent.

On behalf of the Company, I acknowledge that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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We thank you in advance for your consideration of this response. If you have any questions regarding this response, please call the Company's outside counsel, Robert L. Grossman, Esq. of Greenberg Traurig, P.A. at (305) 579-0756.

Sincerely,

/s/ Motti Farbstein

Motti Farbstein

Chief Operating and Financial Officer

cc: Robert L. Grossman, Esq.,
Greenberg Traurig, P.A.