



**NOTICE OF
SPECIAL GENERAL MEETING OF SHAREHOLDERS
TO BE HELD ON DECEMBER 21, 2017**

To the shareholders and ADS holders of Can-Fite BioPharma Ltd. (the "Company"):

Notice is hereby given that a Special Meeting of Shareholders will be held on Wednesday, December 21, 2017, at 4:00 P.M. Israel time at our offices, 10 Bareket Street, Petach Tikva, Israel.

The agenda of the special meeting will be as follows:

1. To re-elect Israel Shamay as an external director for a three-year term ending December 30, 2020.
2. To approve a grant of options to Yaacov Goldman and Israel Shamay, external directors of the Company.
3. To approve a grant of options to non-executive directors of the Company.

Only shareholders and holders of American Depositary Shares at the close of business on November 20, 2017 (the "Record Date") are entitled to notice of, and to vote at, the special meeting and any adjournment or postponement thereof. You are cordially invited to attend the special meeting in person.

If you are unable to attend the special meeting in person, you are requested to complete, date and sign the enclosed proxy and to return it promptly in the pre-addressed envelope provided. Shareholders who attend the special meeting may revoke their proxies and vote their shares in person.

Beneficial owners who hold ordinary shares through members of the Tel Aviv Stock Exchange, or the TASE, may either vote their shares in person at the special meeting by presenting a certificate signed by the TASE Clearing House member through which the shares or are held, which complies with the Israel Companies Regulations (Proof of Ownership for Voting in General Meetings)-2000 as proof of ownership of the shares on the Record Date, or send such certificate along with a duly executed proxy (in the form filed by us on MAGNA, the distribution site of the Israeli Securities Authority, at www.magna.isa.gov.il), to us at 10 Bareket Street, Kiryat Matalon, PO Box 7537, Petach Tikva, 4951778, Israel Attention: Chief Financial Officer.

By Order of the Board of Directors

Ilan Cohn

Chairman of the Board

November 15, 2017



**10 Bareket Street, Kiryat Matalon
PO Box 7537
Petach Tikva 4951778
Israel**

PROXY STATEMENT

**FOR SPECIAL GENERAL MEETING OF SHAREHOLDERS
TO BE HELD ON DECEMBER 21, 2017**

This Proxy Statement is furnished to our holders of ordinary shares, par value NIS 0.25 per share, including holders of our ordinary shares that are represented by American Depositary Shares, or ADSs, in connection with the Special General Meeting of Shareholders, to be held on Wednesday, December 21, 2017, at 4:00 P.M. Israel time at our offices, 10 Bareket Street, Petach Tikva, Israel, or at any adjournments thereof.

Throughout this Proxy Statement, we use terms such as “Can-Fite”, “we”, “us”, “our” and the “Company” to refer to Can-Fite BioPharma Ltd. and terms such as “you” and “your” to refer to our shareholders and ADS holders.

Agenda Items

The agenda of the special meeting will be as follows:

1. To re-elect Israel Shamay as one of our external directors for a three-year term ending December 30, 2020.
2. To approve a grant of options to Yaacov Goldman and Israel Shamay, external directors of the Company.
3. To approve a grant of options to Ilan Cohn, Guy Regev and Abraham Sartani, non-executive directors of the Company.

We currently are unaware of any other matters that may be raised at the special meeting. Should any other matters be properly raised at the special meeting, the persons designated as proxies shall vote according to their own judgment on those matters.

Board Recommendation

Our board of directors unanimously recommends that you vote “FOR” Proposals No. 1, 2, and 3.

Who Can Vote

Only shareholders and ADS holders at the close of business on November 20, 2017, shall be entitled to receive notice of and to vote at the special meeting.

How You Can Vote

You can vote your ordinary shares by attending the special meeting. If you do not plan to attend the special meeting, the method of voting will differ for shares held as a record holder, shares held in “street name” (through a Tel Aviv Stock Exchange, or TASE, member) and shares underlying ADSs that you hold. Record holders of shares will receive proxy cards. Holders of shares in “street name” through a TASE member will also vote via a proxy card, but through a different procedure (as described below). Holders of ADSs (whether registered in their name or in “street name”) will receive voting instruction cards in order to instruct their banks, brokers or other nominees on how to vote.

Shareholders Holders of Record

If you are a shareholder holder of record, you can submit your vote by completing, signing and submitting an applicable proxy card, which has been published at www.magna.isa.gov.il and www.maya.tase.co.il and which will be accessible at the “Investor Information” portion of our website, as described below under “Shareholder Meetings”.

Please follow the instructions on the applicable proxy card.

Shareholders Holding in “Street Name,” Through the TASE

If you hold ordinary shares in “street name,” that is, through a bank, broker or other nominee that is admitted as a member of the TASE, your shares will only be voted if you provide instructions to the bank, broker or other nominee as to how to vote, or if you attend the special meeting in person.

If voting by mail, you must sign and date an applicable proxy card in the form filed by us on MAGNA on or around December 19, 2017 and attach to it a certificate signed by the TASE Clearing House member through which the shares are held, which complies with the Israel Companies Regulations (Proof of Ownership for Voting in General Meetings)-2000 as proof of ownership of the shares, as applicable, on the Record Date, and return the applicable proxy card, along with the proof of ownership certificate, to us, as described in the instructions available on MAGNA.

If you choose to attend the special meeting (where ballots will be provided), you must bring the proof of ownership certificate from the TASE’s Clearing House member through which the shares are held, indicating that you were the beneficial owner of the shares, as applicable, on the Record Date.

Holders of ADSs

Under the terms of the Deposit Agreement between the Company, The Bank of New York Mellon, as depositary, or BNY Mellon, and the holders of our ADSs, BNY Mellon shall endeavor (insofar as is practicable) to vote or cause to be voted the number of shares represented by ADSs in accordance with the instructions provided by the holders of ADSs to BNY Mellon. For ADSs that are held in “street name”, through a bank, broker or other nominee, the voting process will be based on the underlying beneficial holder of the ADSs directing the bank, broker or other nominee to arrange for BNY Mellon to vote the ordinary shares represented by the ADSs in accordance with the beneficial holder’s voting instructions. If no instructions are received by BNY Mellon from any holder of ADSs (whether held directly by a beneficial holder or in “street name”) with respect to any of the shares represented by the ADSs on or before the date established by BNY Mellon for such purpose, BNY Mellon shall not vote or attempt to vote the shares represented by such ADSs.

Multiple Record Holders or Accounts

You may receive more than one set of voting materials, including multiple copies of this document and multiple proxy cards or voting instruction cards. For example, shareholders who hold ADSs in more than one brokerage account will receive a separate voting instruction card for each brokerage account in which ADSs are held. Shareholders of record whose shares are registered in more than one name will receive more than one proxy card. You should complete, sign, date and return each proxy card and voting instruction card you receive.

Our board of directors urges you to vote your shares so that they will be counted at the special meeting or at any postponements or adjournments of the special meeting.

Solicitation of Proxies

By appointing “proxies”, shareholders and ADS holders may vote at the special meeting whether or not they attend. If a properly executed proxy in the attached form is received by us at least 48 hours prior to the special meeting (and received by BNY Mellon no later than the date indicated on the voting instruction card, in the case of ADS holders), all of the shares represented by the proxy shall be voted as indicated on the form or, if no preference is noted, shall be voted in favor of the matter described above, and in such manner as the holder of the proxy may determine with respect to any other business as may come before the special meeting or any adjournment thereof. Shareholders and ADS holders may revoke their proxies at any time before the deadline for receipt of proxies by filing with us (in the case of holders of ordinary shares) or with BNY Mellon (in the case of holders of ADSs), a written notice of revocation or duly executed proxy bearing a later date.

Proxies are being distributed to shareholders and ADS holders on or about November 15, 2017. Certain officers, directors, employees, and agents of ours, none of whom will receive additional compensation therefor, may solicit proxies by telephone, emails, or other personal contact. We will bear the cost for the solicitation of the proxies, including postage, printing, and handling, and will reimburse the reasonable expenses of brokerage firms and others for forwarding material to beneficial owners of shares and ADSs.

To the extent you would like to submit a position statement with respect to the proposal described in this proxy statement pursuant to the Companies Law, you may do so by delivery of appropriate notice to the our offices (Attention: Chief Financial Officer) located at 10 Bareket Street, Kiryat Matalon, PO Box 7537, Petach Tikva 4951778, Israel, not later than ten days before the special meeting (i.e., December 11, 2017). Response of the Board to the position statement may be submitted not later than five days after the deadline for sending the position statement (i.e., December 15, 2017).

Quorum

At the close of business on November 14, 2017, we had outstanding 32,709,901 ordinary shares. The foregoing number of outstanding ordinary shares excludes 446,827 ordinary shares that are held in treasury and have no voting rights. Each ordinary share (including ordinary shares represented by ADSs) outstanding as of the close of business on the Record Date is entitled to one vote upon each of the matters to be voted on at the special meeting.

Under our articles of association, the special meeting will be properly convened if at least two shareholders attend the meeting in person or sign and return proxies, provided that they hold shares representing at least 25% of our voting power. If such quorum is not present within half an hour from the time scheduled for the meeting, the meeting will be adjourned for one week (to the same day, time and place), or to later date if so specified in the notice of the meeting. At the reconvened meeting, if there is no quorum within half an hour from the time scheduled for the meeting, any number of our shareholders present in person or by proxy shall constitute a lawful quorum.

Vote Required for Each Proposal

The approval of Proposal 1 is subject to the affirmative vote of the holders of a majority of the voting power represented and voting on this proposal in person or by proxy. In addition, the shareholders’ approval must *either* include at least a majority of the ordinary shares voted by shareholders who are not controlling shareholders nor are they shareholders who have a personal interest in the election of the external director (excluding a personal interest that is not related to a relationship with the controlling shareholders), *or* the total ordinary shares of non-controlling shareholders and non-interested shareholders voted against this proposal must not represent more than 2% of the outstanding ordinary shares.

Under the Israeli Companies Law, in general, you will be deemed to be a controlling shareholder if you have the power to direct our activities, otherwise than by reason of being a director or other office holder of ours, and you are deemed to have a personal interest if any member of your immediate family or their spouse has a personal interest in the adoption of the proposal. In addition, you are deemed to have a personal interest if a company, other than Can-Fite, that is affiliated to you has a personal interest in the adoption of the proposal. Such company is a company in which you or a member of your immediate family serves as a director or chief executive officer, has the right to appoint a director or the chief executive officer, or owns 5% or more of the outstanding shares. However, you are not deemed to have a personal interest in the adoption of the proposal if your interest in such proposal arises solely from your ownership of our shares, or to a matter that is not related to a relationship with a controlling shareholder.

Proposals 2 and 3 to be presented at the special meeting require the affirmative vote of holders of at least a majority of the ordinary shares, including those represented by ADSs, voted in person or by proxy at the special meeting on the matter presented for passage.

In the proxy card attached to the proxy statement you will be asked to indicate whether you have a personal interest with respect to Proposal 1. If any shareholder casting a vote in connection hereto does not notify us whether or not they have a personal interest with respect to Proposal 1, their vote with respect to Proposal 1 will be disqualified.

If you provide specific instructions (mark boxes) with regard to certain proposals, your shares will be voted as you instruct. If you sign and return your proxy card or voting instruction form without giving specific instructions, your shares will be voted in accordance with the recommendations of our Board of Directors. The proxy holders will vote in their discretion on any other matters that properly come before the meeting.

If you are a shareholder of record and do not return your proxy card, your shares will not be voted. If you hold shares (or ADSs representing shares) beneficially in street name, your shares will also not be voted at the meeting if you do not return your proxy card or voting instruction card to instruct your broker or BNY Mellon how to vote. This will be true even for a routine matter, such as Proposal 1 (the approval of the re-appointment of our independent external director), as your broker and BNY Mellon will not be permitted to vote your shares in their discretion on any proposal at the special meeting. For all proposals, a broker (and BNY Mellon) may only vote in accordance with instructions from a beneficial owner of shares or ADSs.

Availability of Proxy Materials

Copies of the applicable proxy card and voting instruction card, the Notice of the Special General Meeting and this Proxy Statement are available at the "Investor Information" portion of our website, www.canfite.com. The contents of that website are not a part of this Proxy Statement.

Reporting Requirements

We are subject to the information reporting requirements of the Securities Exchange Act of 1934, as amended, or Exchange Act, applicable to foreign private issuers. We fulfill these requirements by filing reports with the Securities and Exchange Commission, or Commission. Our filings with the Commission may be inspected without charge at the Commission's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the Commission at 1-800-SEC-0330. Our filings are also available to the public on the Commission's website at <http://www.sec.gov>.

As a foreign private issuer, we are exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements. The circulation of this notice and proxy statement should not be taken as an admission that we are subject to the proxy rules under the Exchange Act.

PROPOSAL 1: RE-ELECTION OF EXTERNAL DIRECTOR

Background

In accordance with the Israeli Companies Law and the relevant regulations, we must have at least two external directors who meet the statutory requirements of independence. Under Israeli Companies Law, an external director serves for a term of three years, which may be extended for two additional three-year terms. Further, an external director can be removed from office only under very limited circumstances. In addition, under the Israeli Companies Law, all of the external directors must serve on our audit committee and compensation committee (including one external director serving as the chair of our audit committee and as the chair of our compensation committee), and at least one external director must serve on each other committee of our board of directors. If re-elected as an external director, Israel Shamay will continue to serve as a member of our audit committee and compensation committee.

To qualify as an external director, an individual must meet various independence requirements, including that such individual may not have, and may not have had at any time during the previous two years, any “affiliation” (as defined in the Israeli Companies Law) with the company or with certain of its affiliates. In addition, no individual may serve as an external director if the individual’s position or other activities create or may create a conflict of interest with his or her role as an external director.

Yaacov Goldman and Israel Shamay are our external directors under the Israeli Companies Law. The current term of office of Mr. Shamay expires on December 30, 2017 and he may serve for up to another two three-year terms subject to re-election every three years. Biographical information concerning Mr. Shamay is set forth below.

Israel Shamay has served as external director on our Board of Directors since December 2014 and serves as a member on both the Audit Committee and Compensation Committee. Since 2012 Mr. Shamay has served as Executive Director, Strategic Initiatives and Head of the Americas Operations of MATIMOP (Israeli Industry Center for R&D), the International Operations agency of the Israeli Office of the Chief Scientist, focusing on developing and implementing cooperation platforms for industrial R&D and innovation projects in the Americas region. From 2006 until 2012 Mr. Shamay served as Executive Director of European Cooperations at MATIMOP, where he was in charge of architecting, realizing and evaluating industrial innovation cooperation frameworks at bilateral and European level, making them a major R&D cooperation instrument for Israeli industry with Europe. Between 2010 and 2011, Mr. Shamay was Head of the Israeli EUREKA Chairmanship Program (EUREKA is Europe's largest innovation network with nearly 40 member states). The Israeli EUREKA Chairmanship focused on developing new financial instruments for innovative small and medium sized enterprises and on expanding EUREKA's international dimension. From 2002 Mr. Shamay served as Israel's National Representative in several international R&D programs, from 2005 as an expert evaluator for the EU Framework Programs for R&D and from 2006 until 2009 managed the Israeli R&D collaboration with the EU Global Satellite Navigation Program – GALILEO. From 1991 till 2001 Mr. Shamay served in senior technical, marketing and executive positions in Israeli hi-tech companies operating globally, including the RAD group and Converse Technologies. Mr. Shamay is an MBA graduate of the Recanati School of Business at the Tel-Aviv University and a graduate of the Technion in Haifa, faculty of Information Systems Engineering.

Proposed Resolution

It is proposed that at the special meeting the following resolution be adopted:

“RESOLVED, that the re-election of Israel Shamay as an external director of the Company, to serve for a three-year term ending December 30, 2020, be, and hereby is, approved in all respects.”

PROPOSAL 2: GRANT OF OPTIONS TO EXTERNAL DIRECTORS

Background

On November 8, 2017, the Company’s Compensation Committee and board of directors approved the issuance, subject to shareholder approval, of the following options to Yaacov Goldman and, Israel Shamay, if he is re-elected, external directors of the Company.

Mr. Goldman and Mr. Shamay shall each be entitled, subject to shareholder approval, to 48,000 options to purchase 48,000 ordinary shares of the Company. The options will be issued under the following terms: (i) the exercise price per each such option shall be NIS 2.926; (ii) such options shall vest on a quarterly basis over four years such that 3,000 options shall vest at the end of each calendar quarter and that the options shall be granted in accordance with the Company’s 2013 Share Option Plan.

Proposed Resolution

It is therefore proposed that the following resolution be adopted at the meeting:

“RESOLVED, to grant an aggregate number of 48,000 options to purchase 48,000 shares to Yaacov Goldman upon the terms described above.”

“RESOLVED, to grant an aggregate number of 48,000 options to purchase 48,000 shares to Israel Shamay, if re-elected as external director for an additional three-year term, upon the terms described above.”

**PROPOSAL 3:
GRANT OF OPTIONS TO NON-EXECUTIVE DIRECTORS**

On November 8, 2017, the Company’s Compensation Committee and board of directors approved the issuance, subject to shareholder approval, of options to all non-executive directors of the Company.

Each non-executive director, Ilan Cohn, Guy Regev and Abraham Sartani, shall be entitled, subject to shareholder approval, to 48,000 options to purchase 48,000 shares of the Company. The options will be issued under the following terms: (i) the exercise price per each such option shall be NIS 2.926; (ii) such options shall vest on a quarterly basis over four years such that 3,000 options shall vest at the end of each calendar quarter and that the options shall be granted in accordance with the Company’s 2013 Share Option Plan.

Proposed Resolution

It is therefore proposed that the following resolution be adopted at the meeting:

“RESOLVED, to grant an aggregate number of 48,000 options to purchase 48,000 ordinary shares to each of Ilan Cohn, Guy Regev and Abraham Sartani, upon the terms described above.”

YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS PROXY STATEMENT OR THE INFORMATION FURNISHED TO YOU IN CONNECTION WITH THIS PROXY STATEMENT WHEN VOTING ON THE MATTERS SUBMITTED TO SHAREHOLDER AND ADS HOLDERS VOTE HEREUNDER. WE HAVE NOT AUTHORIZED ANYONE TO PROVIDE YOU WITH INFORMATION THAT IS DIFFERENT FROM WHAT IS CONTAINED IN THIS DOCUMENT. THIS PROXY STATEMENT IS DATED NOVEMBER 15, 2017. YOU SHOULD NOT ASSUME THAT THE INFORMATION CONTAINED IN THIS DOCUMENT IS ACCURATE AS OF ANY DATE OTHER THAN NOVEMBER 15, 2017, AND THE MAILING OF THIS DOCUMENT TO SHAREHOLDERS AND ADS HOLDERS SHOULD NOT CREATE ANY IMPLICATION TO THE CONTRARY.

OTHER BUSINESS

Other than as set forth above, as of the mailing of this Proxy Statement, management knows of no business to be transacted at the special meeting, but, if any other matters are properly presented at the special meeting, the persons named in the enclosed form of proxy will vote upon such matters in accordance with their best judgment.

By Order of the Board of Directors

Ilan Cohn

Chairman of the Board

Dated: November 15, 2017