

1,219,418,700 Ordinary Shares represented by 4,064,729 American Depositary Shares

This prospectus supplement, or the Supplement, modifies, supersedes and supplements certain information contained in, and should be read in conjunction with, that certain prospectus originally filed with the Securities and Exchange Commission, or the SEC, by Can-Fite Biopharma Ltd., the Company, dated January 5, 2024, or the Prospectus, related to the resale by the selling shareholders named therein of up to 1,219,418,700 ordinary shares, no par value of the Company, or ordinary shares, represented by 4,064,729 American Depository Shares, or ADSs.

The ADSs are listed on NYSE American under the symbol "CANF." On June 27, 2024, the closing price of our ADSs on the NYSE American was \$2.56 per ADS. Our ordinary shares also trade on the Tel Aviv Stock Exchange, or TASE, under the symbol "CANF". On June 27, 2024, the last reported sale price of our ordinary shares on the TASE was NIS 3.30 or \$0.8788 per share (based on the exchange rate reported by the Bank of Israel on the same day, which was NIS 3.7550 = \$1.00).

The information contained in this Supplement modifies and supersedes, in part, the information in the Prospectus. This Supplement is not complete without, and may not be delivered or used except in connection with, the Prospectus. Any information that is modified or superseded in the Prospectus shall not be deemed to constitute a part of the Prospectus, except as modified or superseded by this Supplement.

We may amend or supplement the Prospectus from time to time by filing amendments or supplements as required. You should read the entire Prospectus and any amendments or supplements carefully before you make an investment decision. This Supplement amends only those sections of the Prospectus contained in this Supplement; all other sections of the prospectus supplement remain unchanged.

Investing in our securities involves risks. See "Risk Factors" on page 3 of the Prospectus and in the documents incorporated by reference into the Prospectus, including the risks described under "Risk Factors" in our Annual Report on Form 20-F for the year ended December 31, 2023.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this Supplement or the Prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Effective as of January 9, 2023, the ratio of our ADSs to ordinary shares changed from one (1) ADS representing thirty (30) ordinary shares to a new ratio of one (1) ADS representing three hundred (300) ordinary shares, which ratio change had the same effect as a one-for-ten reverse ADS split, or the ADS Ratio Change. All share and per share prices in this Supplement have been adjusted to reflect the ADS Ratio Change.

FORWARD-LOOKING STATEMENTS

You should carefully consider the risk factors set forth in or incorporated by reference into the Prospectus, as well as the other information contained in or incorporated by reference into this Supplement and the Prospectus. This Supplement, the Prospectus and documents incorporated therein by reference contain forward-looking statements regarding events, conditions, and financial trends that may affect our plan of operation, business strategy, operating results, and financial position. You are cautioned that any forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties. Actual results may differ materially from those included within the forward-looking statements as a result of various factors. Cautionary statements in the "Risk Factors" section of the Prospectus and the reports incorporated by reference therein identify important risks and uncertainties affecting our future, which could cause actual results to differ materially from the forward-looking statements made or included in this Supplement and the Prospectus.

SELLING SHAREHOLDERS

The ordinary shares represented by ADSs being offered by the selling shareholders are those ordinary shares represented by ADSsissuable upon exercise of the New Warrants and Placement Agent Warrants previously issued in connection with the Warrant Repricing. For additional information regarding the issuance of those ADSs and warrants to purchase ADSs, see "Prospectus Summary — Recent Developments — Warrant Repricing" above. We are registering the ordinary shares represented by ADSs in order to permit the selling shareholders to offer the ordinary shares represented by ADSs for resale from time to time. Other than with respect to Wainwright, which acted as our placement agent in the Warrant Repricing and in each of our January 2023, August 2021, July 2020, June 2020, February 2020, January 2020, May 2019, April 2019 and January 2019, and has acted as a placement agent for us in financings in September and October 2015 and December 2014, except for the ownership of the warrants and placements issued, and the ADSs issued and issuable, pursuant to prior financings, the selling shareholders have not had any material relationship with us within the past three years.

The table below lists the selling shareholders and other information regarding the beneficial ownership of the ordinary shares represented by ADSs by each of the selling shareholders. The second column lists the number of ordinary shares represented by ADSs beneficially owned by each selling stockholder, based on its ownership of ADSs and the Warrants, as of June 19, 2024, assuming exercise of the Warrants held by the selling shareholders on that date, without regard to any limitations on conversions or exercises. The third column lists the maximum number of ordinary shares represented by ADSs being offered in this prospectus by the selling shareholders. The fourth and fifth columns list the amount of ordinary shares represented by ADSs owned after the offering, by number of ordinary shares represented by ADSs and percentage of outstanding ordinary shares (assuming for the purpose of such percentage, 1,656,728,493 shares outstanding as of June 19, 2024) assuming in both cases the sale of all of the ordinary shares represented by ADSs offered by the selling shareholders pursuant to this prospectus, and without regard to any limitations on conversions or exercises.

Under the terms of the Warrants, a selling shareholder may not exercise the warrants to the extent such exercise would cause such selling shareholder, together with its affiliates, to beneficially own a number of ordinary shares which would exceed 4.99% or 9.99% of our then outstanding ordinary shares following such exercise, excluding for purposes of such determination ordinary shares not yet issuable upon exercise of the Warrants which have not been exercised. The number of ordinary shares does not reflect

Selling Shareholder	Number of Ordinary Shares Owned Prior to Offering	Maximum Number of Ordinary Shares to be Sold Pursuant to this Prospectus	Number of Ordinary Shares Owned After the Offering	Percentage of Ordinary Shares Owned After the Offering
Armistice Capital, LLC ⁽¹⁾	2,494,876,050(2)	1,178,182,200(3)	1,316,594,850(4)	46.4%
Warberg WF XII LP ⁽⁵⁾	32,164,500(6)	32,164,500(7)	-	-
Noam Rubinstein ⁽⁸⁾	25,256,010(9)	9,072,000(10)	16,184,010(11)	*

^{*} Denotes less than 1%

- (1) The securities are directly held by Armistice Capital Master Fund Ltd., a Cayman Islands exempted company (the "Master Fund"), and may be deemed to be beneficially owned by: (i) Armistice Capital, LLC ("Armistice Capital"), as the investment manager of the Master Fund; and (ii) Steven Boyd, as the Managing Member of Armistice Capital. The warrants are subject to a beneficial ownership limitation of 4.99%, which such limitation restricts the Selling Stockholder from exercising that portion of the warrants that would result in the Selling Stockholder and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation. The address of Armistice Capital Master Fund Ltd. is c/o Armistice Capital, LLC, 510 Madison Avenue, 7th Floor, New York, NY 10022.
- (2) Represents (i) 9,750,000 ordinary shares represented by 32,500 ADSs issuable upon exercise of warrants issued in our May 2019 financing, (ii) 14,634,150 ordinary shares represented by 48,781 ADSs issuable upon exercise of warrants issued in our June 2020 financing, (iii) 8,527,500 ordinary shares represented by 28,425 ADSs issuable upon exercise of warrants issued in our July 2020 financing, (iv) 180,000,000 ordinary shares represented by 600,000 ADSs issuable upon the exercise of warrants issued in our July 2020 financing, (iv) 180,000,000 ordinary shares represented by 600,000 ADSs issuable upon the exercise of warrants issued in our December 2021 offering, (v) 818,182,200 ordinary shares represented by 2,727,274 ADSs issuable upon exercise of warrants issued in our January 2023 financing, (vi) 109,091,100 ordinary shares represented by 363,637 ADSs issued upon the exercise of pre-funded warrants issued in our January 2023 financing, and (vii) 108,900,000 ordinary shares represented by 225,363 ADSs issuable upon the exercise of pre-funded warrants issued in our January 2023 financing, (viii) 67,608,900 ordinary shares represented by 225,363 ADSs issuable upon exercise of the foregoing warrants issued in our January 3,927,274 ADSs issuable upon exercise of New Warrants issued in our January 2023 financing. The exercise of the foregoing warrants is subject to a 4.99% blocker, except that the exercise of the pre-funded warrants mentioned in (vii) above is subject to a 9.99% blocker.
- (3) Represents 1,178,182,200 ordinary shares represented by 3,927,274 ADSs issuable upon exercise of New Warrants issued in connection with the Warrant Repricing.
- (4) Represents (i) 9,750,000 ordinary shares represented by 32,500 ADSs issuable upon exercise of warrants issued in our May 2019 financing, (ii) 14,634,150 ordinary shares represented by 48,781 ADSs issuable upon exercise of warrants issued in our June 2020 financing, (iii) 8,527,500 ordinary shares represented by 28,425 ADSs issuable upon exercise of warrants issued in our July 2020 financing, (iv) 180,000,000 ordinary shares represented by 600,000 ADSs issuable upon the exercise of warrants issued in our July 2020 financing, (iv) 180,000,000 ordinary shares represented by 600,000 ADSs issuable upon the exercise of warrants issued in our January 2023 financing, (vi) 109,091,100 ordinary shares represented by 2,727,274 ADSs issuable upon exercise of warrants issued in our January 2023 financing, and (vii) 108,900,000 ordinary shares represented by 363,637 ADSs issuable upon the exercise of pre-funded warrants issued in our January 2023 financing, and (vii) 108,900,000 ordinary shares represented by 22,363 ADSs issuable upon the exercise of the foregoing warrants is subject to a 4.99% blocker, except that the exercise of the pre-funded warrants mentioned in (vii) above is subject to a 9.99% blocker.
- (5) Warberg Asset Management LLC, the general partner of Warberg WF XII LP, or Warberg LP, has voting and investment control over the reported securities. Mr. Daniel Warsh and Mr. Jonathan Blumberg have voting and investment control over Warberg Asset Management LLC. As a result, Messrs. Warsh and Blumberg may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended) of the reported securities that are held by Warberg LP. The address for Warberg LP is c/o Warberg Asset Management LLC, 716 Oak Street, Winnetka, IL 60093.
- (6) Represents 32,164,500 ordinary shares represented by 107,215 ADSs issuable upon exercise of New Warrants issued in connection with the Warrant Repricing and assigned to the selling shareholder in June 2024.
- (7) Represents 32,164,500 ordinary shares represented by 107,215 ADSs issuable upon exercise of New Warrants issued in connection with the Warrant Repricing and assigned to the selling shareholder in June 2024.
- (8) Referenced person is affiliated with Wainwright. Wainwright is a registered broker-dealer and acted as the placement agent in the Warrant Repricing and in our December 2021, August 2021, July 2020, June 2020, January 2020, May 2019, April 2019, January 2019 and January 2017 financings. The address of H.C. Wainwright is 430 Park Avenue, New York, NY 10022. Referenced person has sole voting and dispositive power over the securities held. The number of shares beneficially owned prior to this offering consist of ordinary shares represented by ADSs issuable upon exercise of placement agent warrants, which were received as compensation. Referenced person acquired the placement agent warrants in the ordinary course of business and, at the time the placement agent warrants were acquired, the selling stockholder had no agreement or understanding, directly or indirectly, with any person to distribute such securities.
- (9) Represents (i) 9,072,000 ordinary shares represented by 30,240 ADSs issuable upon exercise of Placement Agent Warrants issued in connection with the Warrant Repricing, (ii) 495,000 ordinary shares represented by 1,650 ADSs issuable upon exercise of placement agent warrants issued in our May 2019 financing, (iii) 343,080 ordinary shares represented by 1,144 ADSs issuable upon exercise of placement agent warrants issued in our January 2020 financing, (iv) 1,650,000 ordinary shares represented by 5,500 ADSs issuable upon exercise of placement agent warrants issued in our January 2020 financing, (iv) 1,650,000 ordinary shares represented by 5,500 ADSs issuable upon exercise of placement agent warrants issued in our February 2020 financing, (v) 1,931,700 ordinary shares represented by 6,439 ADSs issuable upon exercise of placement agent warrants issued in our February 2020 financing, (v) 1,931,700 ordinary shares represented by 6,439 ADSs issuable upon exercise of placement agent warrants issued in our July 2020 financing, (vi) 2,310,000 ordinary shares represented by 7,700 ADSs issuable upon exercise of placement agent warrants issued in our August 2021 financing, (viii) 6,300,000 ordinary shares represented by 2,1000 ADSs issuable upon exercise of placement agent warrants issued in our January 2023 financing and (ix) 2,310,000 ordinary shares represented by 7,000 ADSs issuable upon exercise of placement agent warrants issued in our January 2023 financing and (ix) 2,310,000 ordinary shares represented by 7,000 ADSs issuable upon exercise of placement agent warrants issued in our January 2023 financing.
- (10) Represents 9,072,000 ordinary shares represented by 30,240 ADSs issuable upon exercise of Placement Agent Warrants issued in connection with the Warrant Repricing.

(11) Represents (i) 495,000 ordinary shares represented by 1,650 ADSs issuable upon exercise of placement agent warrants issued in our May 2019 financing, (ii) 343,080 ordinary shares represented by 1,144 ADSs issuable upon exercise of placement agent warrants issued in our January 2020 financing, (iii) 1,650,000 ordinary shares represented by 5,500 ADSs issuable upon exercise of placement agent warrants issued in our February 2020 financing, (iv) 1,931,700 ordinary shares represented by 6,439 ADSs issuable upon exercise of placement agent warrants issued in our June 2020 financing, (v) 844,230 ordinary shares represented by 2,814 ADSs issuable upon exercise of placement agent warrants issued in our June 2020 financing, (v) 844,230 ordinary shares represented by 2,814 ADSs issuable upon exercise of placement agent warrants issued in our June 2020 financing, (v) 844,230 ordinary shares represented by 2,814 ADSs issuable upon exercise of placement agent warrants issued in our June 2020 financing, (v) 844,230 ordinary shares represented by 2,814 ADSs issuable upon exercise of placement agent warrants issued in our June 2020 financing, (v) 2,310,000 ordinary shares represented by 7,700 ADSs issuable upon exercise of placement agent warrants issued in our January 2023 financing and (viii) 2,310,000 ordinary shares represented by 7,700 ADSs issuable upon exercise of placement agent warrants issued in our January 2023 financing and (viii) 2,310,000 ordinary shares represented by 7,700 ADSs issuable upon exercise of placement agent warrants issued in our January 2023 financing and (viii) 2,310,000 ordinary shares represented by 7,700 ADSs issuable upon exercise of placement agent warrants issued in our January 2023 financing and (viii) 2,310,000 ordinary shares represented by 7,700 ADSs issuable upon exercise of placement agent warrants issued in our January 2023 financing and (viii) 2,310,000 ordinary shares represented by 7,700 ADSs issuable upon exercise of placement agent warrants issued in our January 2023 fina

The date of this Prospectus Supplement is June 28, 2024