Prospectus



Up to 5,000,000 Ordinary Shares

We have entered into an amended and restated sales agreement (the "Sales Agreement") with B. Riley Securities, Inc. ("B. Riley Securities" or the "sales agent"), dated May 27, 2022, relating to the sale of our ordinary shares, par value NIS 0.0000769 per share (the "ordinary shares"), offered by this prospectus. In accordance with the terms of the Sales Agreement, under this prospectus, we may offer and sell up to 5,000,000 ordinary shares from time to time through or to B. Riley Securities, acting as our sales agent or principal.

Sales of our ordinary shares, if any, under this prospectus will be made by any method deemed an "at the market offering" as defined in Rule 415 under the Securities Act of 1933, as amended (the "Securities Act"). B. Riley Securities is not required to sell any specific amount, but will act as our sales agent or principal using commercially reasonable efforts consistent with its normal trading and sales practices. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

B. Riley Securities will be entitled to compensation at a commission rate equal to up to 3.0% of the gross sales price per share sold under the Sales Agreement. See "Plan of Distribution" beginning on page 16 for additional information regarding the compensation to be paid to B. Riley Securities. In connection with the sale of the ordinary shares on our behalf, B. Riley Securities will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation to B. Riley Securities will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to B. Riley Securities with respect to certain liabilities, including liabilities under the Securities Act.

Our ordinary shares trade on the Nasdaq Capital Market ("Nasdaq") under the trading symbol "ENTX". On May 25, 2022, the closing price for our ordinary shares on Nasdaq was \$2.225 per share.

As of April 19, 2022, the aggregate market value of our outstanding ordinary shares held by non-affiliates was approximately \$71.4 million based on 28,809,923 outstanding ordinary shares, of which approximately 24,198,756 ordinary shares were held by non-affiliates. Pursuant to General Instruction I.B.6 of Form S-3, in no event may we offer securities pursuant to this prospectus with an aggregate offering price of more than one-third of the aggregate market value of our ordinary shares held by non-affiliates in any twelve-month period, or approximately \$23.8 million, for as long as the aggregate market value of our ordinary shares held by non-affiliates is less than \$75,000,000. We have not offered any of our securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on, and includes, the date of this prospectus. Based on a price of \$2.225 per share, which was the closing price of our ordinary shares as reported on Nasdaq on May 25, 2022, the aggregate offering price of the 5,000,000 ordinary shares offered hereby is within the limitation set forth under General Instruction I.B.6 of Form S-3, and, for so long as we are subject to such limitation, we will not sell ordinary shares with an aggregate market value in excess of \$23.8 million in any 12 calendar-month period.

If, subsequent to the date of this prospectus, the aggregate market value of our outstanding ordinary shares held by non-affiliates equals or exceeds \$75,000,000, then the one-third limitation on sales will not apply to additional sales made pursuant to this prospectus or any related prospectus supplement.

Investing in our ordinary shares involves risks. See "Risk Factors" beginning on page 4 of this prospectus and in the reports we file with the Securities and Exchange Commission (the "SEC") pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), incorporated by reference in this prospectus before making a decision to invest in our ordinary shares.

Neither the SEC nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

B. Riley Securities

June 9, 2022

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the SEC, using a "shelf" registration process. Under this shelf registration process, we may from time to time sell ordinary shares, debt securities, warrants, rights or units comprising any combination of these securities, in one or more offerings up to a total dollar amount of \$100.0 million. Under this prospectus, we may from time to time offer and sell up to 5,000,000 ordinary shares at prices and on terms to be determined by market conditions at the time of the offering. The 5,000,000 ordinary shares that may be sold under this prospectus are included in the \$100.0 million of securities that may be sold under the registration statement. However, pursuant to General Instruction I.B.6 of Form S-3, in no event may we offer securities pursuant to this prospectus with an aggregate offering price of more than one-third of the aggregate market value of our ordinary shares held by non-affiliates, or \$23.8 million, in any twelve-month period, for as long as the aggregate market value of our ordinary shares held by non-affiliates is less than \$75,000,000. Based on a price of \$2.225 per share, which was the closing price of our ordinary shares as reported on Nasdaq on May 25, 2022, the aggregate offering price of the 5,000,000 ordinary shares offered hereby is within the limitation set forth under General Instruction I.B.6 of Form S-3, and, for so long as we are subject to such limitation, we will not sell ordinary shares with an aggregate market value in excess of \$23.8 million in any 12 calendar-month period.

As permitted by the rules and regulations of the SEC, the registration statement, of which this prospectus forms a part, includes additional information not contained in this prospectus. You may read the registration statement and the other reports we file with the SEC at the SEC's web site or at the SEC's offices described below under the headings "Where You Can Find Additional Information" and "Incorporation of Certain Documents By Reference."

We have not authorized anyone to provide any information other than that contained in or incorporated by reference in this prospectus and any related free writing prospectus filed by us with the SEC. We have not, and B. Riley Securities has not, authorized anyone to provide you with different information. We take no responsibility for, and provide no assurance as to the reliability of any other information that others may give you. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, the documents incorporated by reference and any related free writing prospectus are accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

You should also read and consider the information in the documents to which we have referred you in the sections entitled "Where You Can Find More Information" and "Incorporation of Certain Documents by Reference" in this prospectus.

In this prospectus, the terms "Entera," "we," "us," "our," "the Company" and "our company" refer to Entera Bio Ltd and its consolidated subsidiaries, unless the context otherwise requires.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus and in the documents we incorporate by reference. This summary does not contain all of the information you should consider before making an investment decision. You should read this entire prospectus carefully, especially the risks of investing in our ordinary shares discussed under "Risk Factors" beginning on page 4 of this prospectus and under the section "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 8, 2022, and any amendment or update thereto reflected in subsequent filings with the SEC and incorporated by reference in this prospectus, along with our consolidated financial statements and notes to those consolidated financial statements and the other information incorporated by reference in this prospectus.

Entera Bio Ltd.

Our Business

We are a clinical-stage biopharmaceutical company focused on the development and commercialization of orally delivered macromolecule therapeutics for use in areas with significant unmet medical need where adoption of injectable therapies is limited due to cost, convenience and compliance challenges for patients. Our current strategy for our lead product candidates is to use our technology to develop an oral formulation of human parathyroid hormone (1-34), or PTH, which has been approved in the United States in injectable form for over a decade. Our lead oral PTH product candidates are EB613 for the treatment of osteoporosis and EB612 for the treatment of hypoparathyroidism.

Corporate Information

Our principal and registered office is located at Kiryat Hadassah Minrav Building - Fifth Floor, Jerusalem, Israel, and our telephone number is +972-2-532-7151. Our corporate website is located at www.enterabio.com. The information on our website shall not be deemed part of this prospectus.

Implications of Being an "Emerging Growth Company"

We qualify as an "emerging growth company" as defined in the Jumpstart our Business Startups Act of 2012 (the "JOBS Act"). An emerging growth company may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies. These provisions include an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002.

We may take advantage of these provisions for a period of five years following the completion of our initial public offering (which occurred in July 2018) or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than \$1.07 billion in annual revenue, have more than \$700 million in market value of our ordinary shares held by non-affiliates or issue more than \$1.0 billion of non-convertible debt over a three-year period. We may choose to take advantage of some but not all of these reduced burdens.

THE OFFERING

Ordinary Shares Offered by Us

Up to 5,000,000 ordinary shares.

Ordinary Shares to be Outstanding after this Offering

Up to 33,809,923 ordinary shares assuming sales of 5,000,000 ordinary shares, at a price of \$2.225 per share, which was the closing price of our ordinary shares as reported on Nasdaq on May 25, 2022. The actual number of shares issued will vary depending on the sales price under this offering.

Plan of Distribution

Sales of ordinary shares, if any, will be made from time to time in sales deemed to be an "at the market offering" as defined in Rule 415 promulgated under the Securities Act. B. Riley Securities will act as agent or principal and will use reasonable best efforts to sell on our behalf all of the ordinary shares requested to be sold by us, consistent with its normal trading and sales practices. See "Plan of Distribution."

Use of Proceeds

We intend to use the net proceeds from this offering, if any, primarily for general corporate purposes, which may include, but are not limited to, research and development costs, including the conduct of one or more clinical trials and process development and manufacturing of our product candidates, potential strategic acquisitions of complementary businesses, services or technologies, expansion of our technology infrastructure and capabilities, working capital, capital expenditures and other general corporate purposes. See "Use of Proceeds."

Risk Factors

You should read the "Risk Factors" section of this prospectus and in our Annual Report on Form 10-K for the year ended December 31, 2021, and in any updates to those risk factors in our Quarterly Reports on Form 10-Q or subsequent Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q incorporated by reference herein, for a discussion of factors to consider carefully before deciding to purchase our ordinary shares.

Nasdaq Capital Market Symbol

Our ordinary shares are listed for trading on Nasdaq under the symbol "ENTX."

Passive Foreign Investment Company Considerations

We may be a passive foreign investment company for the current or any other taxable year, which generally would result in adverse U.S. federal income tax consequences to our U.S. investors. See "Risk Factors" beginning on page 4 for further information.

The number of shares to be outstanding after this offering above is based on our actual ordinary shares outstanding as of May 25, 2022 and excludes:

- 6,118,485 of our ordinary shares issuable upon the exercise of options outstanding as of May 25, 2022, at a weighted average exercise price of \$3.22 per ordinary share;
- 941,130 of our ordinary shares issuable upon the exercise of warrants outstanding as of May 25, 2022, at a weighted average exercise price of \$6.15 per ordinary share; and
- 135 of our ordinary shares reserved for future issuance under our 2018 Equity Incentive Plan as of May 25, 2022.

RISK FACTORS

You should carefully consider the risks and uncertainties described under "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 8, 2022 and in any updates to those risk factors in our Quarterly Reports on Form 10-Q or subsequent Annual Reports on Form 10-Ks and Quarterly Reports on Form 10-Q incorporated by reference herein, as well as the other information in this prospectus before making an investment in our ordinary shares. Our business, financial condition or results of operations could be materially and adversely affected if any of these risks occurs, and as a result, the market price of our ordinary shares could decline and you could lose all or part of your investment. This prospectus also contains forward-looking statements that involve risks and uncertainties. See "Cautionary Note Regarding Forward-Looking Statements." Our actual results could differ materially and adversely from those anticipated in these forward-looking statements as a result of certain factors.

Risks related to this offering and ownership of our ordinary shares

The price of our ordinary shares and tradeable warrants may be volatile, and holders of our ordinary shares could lose all or part of their investment.

The price of securities for publicly traded emerging biopharmaceutical and drug discovery and development companies has been highly volatile and is likely to remain highly volatile in the future. The market price of our ordinary shares and tradeable warrants on Nasdaq may fluctuate as a result of a number of factors, some of which are beyond our control, including, but not limited to:

- clinical trial results and the timing of the release of such results;
- the amount of our cash resources and our ability to obtain additional funding;
- actual or anticipated fluctuations in our and our competitors' results of operations and financial condition;
- announcements of research activities, business developments, technological innovations or new products, or acquisitions or expansion plans by us or our competitors;
- success or failure of our research and development projects or those of our competitors;
- our entering into or terminating strategic relationships;
- · changes in laws or government regulation;
- · regulatory developments and the decisions of regulatory authorities as to the approval or rejection of new or modified products;
- · departure of our key personnel;
- disputes related to proprietary rights, including patents, litigation matters and our ability to obtain intellectual property protection for our technologies;
- our sale, or the sale by our significant shareholders, of ordinary shares, warrants or other securities in the future;
- public concern regarding the safety, efficacy or other aspects of the products or methodologies we are developing;
- market conditions in our industry and changes in estimates of the future size and growth rate of our markets;
- market acceptance of our products;
- the mix of products that we sell and related services that we provide;
- the success or failure of our licensees to develop, obtain approval for and commercialize our licensed products, for which we are entitled to contingent payments and royalties;
- publication of the results of preclinical or clinical trials for EB613, EB612 or any other product candidates we may develop;
- failure by us to achieve a publicly announced milestone;
- delays between our expenditures to develop and market new or enhanced products and the generation of sales from those products;

- changes in the amounts that we spend to develop, acquire or license new products, technologies or businesses;
- changes in our expenditures to promote our products;
- variance in our financial performance from the expectations of market analysts;
- the limited trading volume of our ordinary shares and tradeable warrants;
- impacts or disruptions resulting from the COVID-19 pandemic; and
- general economic and market conditions, including factors unrelated to our industry or operating performance.

In addition, the stock market in general has recently experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of individual companies. Broad market and industry factors may materially affect the market price of companies' stock, including ours, regardless of actual operating performance.

Our ordinary shares may become the target of a "short squeeze."

In 2021, the securities of several companies increasingly experienced significant and extreme volatility in share price due to short sellers of ordinary shares and buy-and-hold decisions of longer investors, resulting in what is sometimes described as a "short squeeze." Short squeezes have caused extreme volatility in those companies and in the market and have led to the price per share of those companies to trade at a significantly inflated rate that is disconnected from the underlying value of the company. Sharp rises in a company's share price may force traders in a short position to buy the shares to avoid even greater losses. Many investors who have purchased shares in those companies at an inflated rate face the risk of losing a significant portion of their original investment as the price per share has declined steadily as interest in those shares have abated. We may be a target of a short squeeze, and investors may lose a significant portion or all of their investment if they purchase our shares at a rate that is significantly disconnected from our underlying value.

Future sales of our ordinary shares, other securities convertible into our ordinary shares or preferred shares could cause the market value of our ordinary shares to decline and could result in dilution of your shares.

We may issue up to 5,000,000 of our ordinary shares as part of the offering contemplated by this prospectus. In addition, our board of directors is authorized, without your approval, to cause us to issue additional shares of our ordinary shares or to raise capital through the issuance of debt securities convertible into ordinary shares, options, warrants and other rights, on terms and for consideration as our board of directors in its sole discretion may determine. Sales of substantial amounts of our ordinary shares could cause the market price of our ordinary shares to decrease significantly. We cannot predict the effect, if any, of future sales of our ordinary shares, or the availability of our ordinary shares for future sales, on the value of our ordinary shares. Sales of substantial amounts of our ordinary shares by our directors or officers or another large shareholder, or the perception that such sales could occur, may adversely affect the market price of our ordinary shares.

There is a risk that we may be a passive foreign investment company, for U.S. federal income tax purposes for any taxable year, which generally would result in certain adverse U.S. federal income tax consequences to our U.S. investors.

There is a risk that we may be treated as a passive foreign investment company, or PFIC, for any taxable year. The application of the PFIC rules to a company like us is subject to uncertainties, and for the reasons described below, we cannot express a view as to whether we will be a PFIC for the current or any future taxable year. In general, a non-U.S. corporation is a PFIC for any taxable year in which (i) 75% or more of its gross income consists of passive income, or the income test, or (ii) 50% or more of the average value of its assets consists of assets (generally determined on a quarterly basis) that produce, or are held for the production of, passive income, or the assets test. Generally, passive income includes interest, dividends, rents, royalties and certain gains, and cash is generally treated as a passive asset that produces passive income for PFIC purposes. The assets shown on our balance sheet consist, and are expected to continue to consist, primarily of cash and cash equivalents for the foreseeable future. Therefore, whether we will satisfy the assets test for the current or any future taxable year will depend largely on the quarterly value of our goodwill and on how quickly we utilize our cash in our business. Because (i) the value of our goodwill may be determined by reference to the market price of our ordinary shares, which has been, and may continue to be volatile given the nature and early stage of our business, (ii) we hold, and expect to continue to hold, a significant amount of cash, and (iii) a company's annual PFIC status can be determined only after the end of each taxable year, we cannot express a view as to whether we will be a PFIC for the current or any future taxable year. In addition, it is not clear how to apply the income test to a company like us, which is still developing its key intangible assets and whose overall losses from research activities significantly exceed the amount of its income (including passive income). If our losses from research and development activities are disregarded for purposes of the income test, we may be a PFIC for any taxable year if 75% or more of our gross income (as determined for U.S. federal income tax purposes) for the relevant year is from interest and financial investments. Because the revenue shown on our

financial statements is not calculated based on U.S. tax principles, and because for any taxable year we may not have sufficient (or any) non-passive revenue, there is a risk that we may be or become a PFIC under the income test for any taxable year. If we were a PFIC for any taxable year during which a U.S. investor owned our ordinary shares, such U.S. shareholder generally will be subject to certain adverse U.S. federal income tax consequences, including increased tax liability on gains from dispositions of the ordinary shares and certain distributions and a requirement to file annual reports with the Internal Revenue Service. U.S. investors should consult with their tax advisers regarding the application of the PFIC rules as they may relate to an investment in our company and should read the discussion below under "Material U.S. Federal Income Tax Considerations for U.S. Holders—Passive Foreign Investment Company Rules."

We have broad discretion to use the proceeds from this offering, and our investment of those proceeds may not yield a favorable return.

Our management has broad discretion to use the proceeds from this offering in ways with which you may not agree. The failure of our management to apply these funds effectively could result in unfavorable returns. This could harm our business and could cause the market value of our ordinary shares to decline. See "Use of Proceeds."

You may experience immediate and substantial dilution.

The offering price per share in this offering may exceed the net tangible book value per share of our ordinary shares prior to this offering. Assuming that an aggregate of 5,000,000 shares of our ordinary shares are sold pursuant to the Sales Agreement at a price of \$2.225 per share, the closing price of our ordinary shares on Nasdaq on May 25, 2022, for aggregate gross proceeds of approximately \$11.1 million, after deducting commissions and estimated aggregate offering expenses payable by us, you will experience immediate dilution of \$1.325 per share, representing the difference between our as adjusted net tangible book value per share as of March 31, 2022 after giving effect to this offering and the assumed offering price. The exercise of outstanding stock options and warrants may result in further dilution of your investment. See the section entitled "Dilution" below for a more detailed illustration of the dilution you would incur if you participate in this offering.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our ordinary shares, including pursuant to our at-the-market sales program. We cannot predict the effect, if any, of future sales of our ordinary shares, or the availability of our ordinary shares for future sales, on the value of our ordinary shares, and investors purchasing shares or other securities in the future could have rights superior to existing shareholders, including investors who purchase shares of ordinary shares pursuant to our at-the-market sales program.

It is not possible to predict the actual number of shares we will sell under the Sales Agreement, or the gross proceeds resulting from those sales.

Subject to certain limitations in the Sales Agreement and compliance with applicable law, we have the discretion to deliver a placement notice to the sales agent at any time throughout the term of the Sales Agreement. The number of shares that are sold through the sales agent after delivering a placement notice will fluctuate based on a number of factors, including the market price of the ordinary shares during the sales period, the limits we set with the sales agent in any applicable placement notice, and the demand for our ordinary shares during the sales period. Because the price per share of each share sold will fluctuate during the sales period, it is not currently possible to predict the number of shares that will be sold or the gross proceeds to be raised in connection with those sales, if any.

The ordinary shares offered hereby will be sold in "at the market offerings," and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares in this offering at different times will likely pay different prices, and so they may experience different levels of dilution and different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares sold in this offering. In addition, there is no minimum or maximum sales price for shares to be sold in this offering. Investors may experience a decline in the value of the shares they purchase in this offering as a result of sales made at prices lower than the prices they paid.

If securities or industry analysts fail to continue publishing research about our business, if they change their recommendations adversely or if our results of operations do not meet their expectations, our share price and trading volume could decline.

The trading market for our ordinary shares will be influenced by the research and reports that industry or securities analysts publish about us or our business. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our share price or trading volume to decline. In addition, it is likely that in some future period our operating results will be below the expectations of securities analysts or investors. If one or more of the analysts who cover us downgrade our shares, or if our results of operations do not meet their expectations, our share price could decline.

Because we do not intend to declare cash dividends on our ordinary shares in the foreseeable future, shareholders must rely on appreciation of the value of our ordinary shares for any return on their investment and may not receive any funds without selling their ordinary shares.

We have never declared or paid cash dividends on our ordinary shares and do not anticipate declaring or paying any cash dividends in the foreseeable future. As a result, we expect that only appreciation of the price of our ordinary shares, if any, will provide a return to investors in this offering for the foreseeable future. In addition, because we do not pay cash dividends, if our shareholders want to receive funds in respect of our ordinary shares, they must sell their ordinary shares to do so.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains "forward-looking statements," as that term is defined under the Private Securities Litigation Reform Act of 1995 ("PSLRA"), Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Various statements in this report are "forward-looking statements" within the meaning of the PSLRA and other U.S. Federal securities laws. In addition, historic results of scientific research and clinical and preclinical trials do not guarantee that the conclusions of future research or trials would not be different, and historic results referred to in this prospectus may be interpreted differently in light of additional research and clinical and preclinical trial results. Forward-looking statements include all statements that are not historical facts. We have based these forward-looking statements largely on our management's current expectations and future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. Forward-looking statements involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this report regarding our strategy, future operations, future financial position, projected costs, prospects, plans and objectives of management are forward-looking statements. These statements are subject to risks and uncertainties and are based on information currently available to our management. Words such as, but not limited to, "anticipate," "believe," "contemplates," "continue," "could," "design," "estimate," "expect," "intend," "likely," "may," "ongoing," "plan," "potential," "predict," "project," "will," "would," "seek," "should," "target," or the negative of these terms and similar expressions or words, identify forward-looking statements. The events and circumstances reflected in our forward-looking statements may not occur and actual results could differ materially from those projected in our forward-looking statements. These factors include those described in "Item 1A-Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 8, 2022. Meaningful factors which could cause actual results to differ include, but are not limited to:

- the scope, progress and costs of developing our product candidates such as EB613 for Osteoporosis and EB612 for Hypoparathyroidism, including without limitation any changes to the design of the Phase 3 clinical trial of EB613;
- the accuracy of our estimates regarding expenses, capital requirements, the sufficiency of our cash resources and the need for additional financing;
- our ability to raise additional funds on commercially reasonable terms, including via our at the market program;
- our ability to develop, advance product candidates into, and successfully complete, clinical studies such as our Phase 2 clinical trial of EB613 in osteoporosis;
- our reliance on third parties to conduct our clinical trials and on third-party suppliers to supply or produce our product candidates;
- our interpretation of U.S. Food and Drug Administration (the "FDA") feedback and guidance and how such guidance may impact our clinical development plans, specifically our ability to utilize the 505(b)(2) pathway for the development and potential approval of EB613 and any other product candidates we may develop;
- · our expectations regarding licensing, business transactions and strategic collaborations, including our ongoing collaboration with Amgen;
- our ability to use and expand our drug delivery technology to additional product candidates;
- our operation as a development stage company with limited operating history and a history of operating losses and our ability to fund our operations going forward;
- our ability to continue as a going concern absent access to sources of liquidity;

- our ability to obtain and maintain regulatory approval for any of our product candidates;
- our competitive position, especially with respect to Forteo® and other products on the market or in development for the treatment of osteoporosis;
- our ability to establish and maintain development and commercialization collaborations;
- any potential commercial launch of current or future product candidates, and the timing, cost or other aspects of such commercialization;
- our ability to manufacture and supply sufficient amounts of material to support our clinical trials and any potential future commercial requirements;
- the safety and efficacy of therapeutics marketed by competitors that are targeted toward indications for which we are developing product candidates;
- the size of any market we may target and the adoption of our product candidates, if approved, by physicians and patients;
- our ability to obtain, maintain and protect our intellectual property and operate our business without infringing misappropriating or otherwise violating any intellectual property rights of others;
- our ability to retain key personnel and recruit additional qualified personnel;
- the possibility that competing products or technologies may make any product candidates we may develop and commercialize or our oral delivery technology obsolete;
- the pricing and reimbursement of our product candidates, if approved;
- our ability to develop a sales, marketing and distribution infrastructure, if any;
- · our ability to manage growth; and
- the duration and severity of the coronavirus (COVID-19) pandemic, the actions that may be required to contain the coronavirus or treat its impact, and its impact on our operations and workforce, including our research and development and clinical trials.

All forward-looking statements contained in this prospectus are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We caution investors not to rely too heavily on the forward-looking statements we make or that are made on our behalf. Except as required by applicable law, we are under no duty, and expressly disclaim any obligation, to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise. You are advised, however, to consult any further disclosures we make on related subjects in any annual, quarterly or current reports that we may file with the SEC.

USE OF PROCEEDS

We may issue and sell our ordinary shares having aggregate gross sales proceeds of up to 5,000,000 of our ordinary shares from time to time. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time.

We currently intend to use the net proceeds from this offering, if any, primarily for general corporate purposes, which may include, but are not limited to, research and development costs, including the conduct of one or more clinical trials and process development and manufacturing of our product candidates, potential strategic acquisitions of complementary businesses, services or technologies, expansion of our technology infrastructure and capabilities, working capital, capital expenditures and other general corporate purposes.

Our expected use of net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering, if any, or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of net proceeds will vary depending on numerous factors, including our ability to obtain additional financing, the relative success and cost of our research, preclinical and clinical development programs, the amount and timing of additional revenues, if any, received from our collaborations and whether we enter into future collaborations. As a result, management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds of this offering. In addition, we might decide to postpone or not pursue other clinical trials or preclinical activities if the net proceeds from this offering and our other sources of cash are less than expected.

Pending their use, we plan to invest the net proceeds, if any, from this offering in short- and intermediate-term interest-bearing financial assets and certificates of deposit.

DIVIDEND POLICY

We have never paid or declared any cash dividends on our ordinary shares, and we do not anticipate paying any cash dividends on our ordinary shares in the foreseeable future. We intend to retain all available funds and any future earnings to fund the development and expansion of our business.

DILUTION

If you invest in our ordinary shares in this offering, your ownership interest will be diluted immediately to the extent of the difference between the price you pay in this offering and the net tangible book value per ordinary share after this offering.

Our net tangible book value as of March 31, 2022 was \$19.7 million, or \$0.69 per ordinary share, based on 28,804,411 ordinary shares then outstanding. After giving effect to the assumed sale by us of 5,000,000 our ordinary shares at an assumed public offering price of \$2.225 per share (the closing price of our ordinary shares on May 25, 2022 as reported on Nasdaq), less the estimated commissions and estimated offering expenses payable by us, our adjusted net tangible book value at March 31, 2022 would have been \$30.4 million, or \$0.90 per ordinary share. This represents an immediate increase in net tangible book value of \$0.21 per share to existing shareholders and an immediate dilution of \$1.325 per share to new investors in this offering. The following table illustrates this per share dilution.

Assumed public offering price per share	\$	2.225
Net tangible book value per share as of March 31, 2022	\$ 0.69	
Increase in net tangible book value per share after giving effect to this offering	\$ 0.21	
Adjusted net tangible book value per share after giving effect to this offering	\$	0.90
Dilution per share to new investors	\$	1.325

The as adjusted information is illustrative only and will vary based on the actual sale price to the public, the actual number of shares sold and other terms of the offering determined at the time our ordinary shares are sold pursuant to this prospectus. The shares sold in this offering, if any, will be sold from time to time at various prices.

The above is based on our actual ordinary shares outstanding as of March 31, 2022 and excludes:

- 5,425,372 of our ordinary shares issuable upon the exercise of options outstanding as of March 31, 2022, at a weighted average exercise price of \$3.35 per ordinary share;
- 941,130 of our ordinary shares issuable upon the exercise of warrants outstanding as of March 31, 2022, at a weighted average exercise price of \$6.15 per ordinary share; and
- 693,248 of our ordinary shares reserved for future issuance under our 2018 Equity Incentive Plan as of March 31, 2022.

To the extent that outstanding options or warrants are exercised, you may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of such securities may result in further dilution to our shareholders.

DESCRIPTION OF ORDINARY SHARES

This section describes the general terms of our ordinary shares. The following description is a summary only and is qualified by reference to the relevant provisions of Israeli law and our Amended and Restated Articles of Association, a copy of which is incorporated by reference in this prospectus.

General

We are an Israeli company incorporated with limited liability, and our affairs are governed by the provisions of our Amended and Restated Articles of Association (the "Articles"), as amended and restated from time to time, and by the provisions of applicable Israeli law, including the Companies Law of 1999 (the "Companies Law"). Our number with the Israeli Registrar of Companies is 514330604. The purpose of our company appears in Article 3 of our Articles, which is to engage in any lawful activity. In addition, our Articles authorize us to donate reasonable amounts to any charitable cause. Our registered office is at Kiryat Hadassah, Minray Building — Fifth Floor, Jerusalem 9112002, Israel

Ordinary Shares

Our authorized share capital consists of 140,010,000 ordinary shares, par value NIS 0.0000769 per share. All of our issued ordinary shares have been validly issued, fully paid and are non-assessable. The ordinary shares are listed on Nasdaq under the symbol "ENTX."

Our Ordinary Shares

Dividends and Liquidation Rights

We currently have only one class of shares. We have never paid or declared any cash dividends on our ordinary shares, and we do not anticipate paying any cash dividends on our ordinary shares in the foreseeable future. We intend to retain all available funds and any future earnings to fund the development and expansion of our business. Subject to the rights of holders of shares with preferential or special rights that may be authorized in the future, holders of our ordinary shares are entitled to participate in the payment of dividends pro rata in accordance with the amounts paid-up or credited as paid-up on the par value of such ordinary shares at the time of payment without taking into account any premium paid thereon. In the event that we were to go into liquidation, holders of our ordinary shares are entitled to a pro rata share of surplus assets remaining over liabilities, subject to rights conferred on any class of shares which may be issued in the future, in accordance with the amounts paid-up or credited as paid-up on the par value of such ordinary shares, without taking into account any premium paid thereon.

According to the Companies Law, a company may make a distribution of dividends out of its profits on the condition that there is no reasonable concern that the distribution may prevent the company from meeting its existing and expected obligations when they fall due. The Companies Law defines such profit as retained earnings or earnings generated in the last two years, whichever is greater, according to the last reviewed or audited financial statements of the company, provided that the end of the period to which the financial statements relate is not more than six months before the distribution. Declaration of dividends requires a resolution of our Board, and the court, if applicable and as required by the Companies Law, the board determines that there is no reasonable concern that payment of the dividend will prevent us from satisfying our existing and foreseeable obligations as they become due, and does not require shareholder approval. Payment of dividends and proceeds from the sale of the shares or interest or other payments to non-residents of Israel, may be subject to Israeli withholding taxes. There are currently no Israeli currency control restrictions on remittances of dividends on our ordinary shares, proceeds from the sale of the shares or interest or other payments to non-residents of Israel, except for shareholders who are subjects of countries that are, or have been, in a state of war with Israel.

Voting Rights

Holders of our ordinary shares are entitled to one vote for each ordinary share on all matters submitted to a vote of shareholders, subject to any special rights of any class of shares that may be authorized in the future. Cumulative voting for the election of directors is not permitted.

Quorum

As permitted under the Companies Law, pursuant to our Articles, a quorum is required to conduct business at a shareholders' meeting. Pursuant to our Articles, the presence, in person or by proxy, of at least two shareholders who hold in the aggregate at least 25% of the voting power of our issued and outstanding shares constitutes a quorum. A proxy may be deemed to be two (2) or more shareholders pursuant to the number of shareholders it represents. If a quorum is not present within half an hour from the time scheduled for such meeting, the meeting will be adjourned to the same day in the next week (at the same time and place), or to a later time and date if so specified in the notice of the meeting, unless such day shall fall on a statutory holiday (either in Israel or in the United States), in which case the meeting will be adjourned to the first Business Day afterwards. If at such adjourned meeting a quorum as specified above is not present within half an hour from the time designated for holding the meeting, subject to certain exceptions, any two shareholders present in person or by proxy shall constitute a quorum.

Shareholders' Meetings and Resolutions

The Chairman of our board of directors is entitled to preside as Chairman of each shareholders' meeting. If he is absent, his deputy or another person elected by the present shareholders will preside.

A simple majority is sufficient to approve most shareholders' resolutions, including any amendment to our Articles, unless otherwise required by law or by our Articles.

We are required to hold an annual meeting of our shareholders once every calendar year, but no later than 15 months after the date of the previous annual meeting. All meetings other than the annual meeting of shareholders are referred to as special meetings. Our board of directors may call special meetings whenever it sees fit, at such time and place as it may determine. In addition, the Companies Law provides that the board of directors of a public company is required to convene a special meeting upon the request of:

- any two directors of the company or one quarter of the board of directors; or
- one or more shareholders holding, in the aggregate: (i) five percent of the outstanding shares of the company and one percent of the voting power in the company; or (ii) five percent of the voting power in the company.

The Companies Law enables our board of directors to fix a record date to allow us to determine the shareholders entitled to notice of, or to vote at, any meeting of our shareholders. Under current regulations, the record date may be not more than forty days and not less than four days prior to the date of the meeting and notice is required to be published at least 21 or 35 days prior to the meeting, depending on the items on the agenda. Under the Companies Law and regulations promulgated thereunder and pursuant to our Articles, one or more shareholders holding at least 1% of the voting rights at a general meeting of shareholders may request that the board of directors include a matter in the agenda of a general meeting of shareholders to be convened in the future, by submitting such proposal within seven days of publication of the Company's notice with respect to such meeting of shareholders and provided that certain resolutions are brought before the shareholders in such meeting.

Modification of Shareholders' Rights

We currently have only one class of shares. The rights attached to a class of shares may be altered by the approval of the shareholders of such class holding a majority of the voting rights of such class. The provisions in our Articles pertaining to general meetings also apply to any special meeting of a class of shareholders. Pursuant to our Articles, the presence, in person or by proxy, of at least two shareholders who hold in the aggregate at least 25% of the voting power of our issued and outstanding shares constitutes a quorum. A proxy may be deemed to be two (2) or more shareholders pursuant to the number of shareholders it represents. If a quorum is not present within half an hour from the time scheduled for such meeting, the meeting will be adjourned to the same day in the next week (at the same time and place), or to a later time and date if so specified in the notice of the meeting, unless such day shall fall on a statutory holiday (either in Israel or in the United States), in which case the meeting will be adjourned to the first business day afterwards. If at such adjourned meeting a quorum as specified above is not present within half an hour from the time designated for holding the meeting, subject to certain exceptions, any two shareholders present in person or by proxy shall constitute a quorum.

Preemptive Rights

Pursuant to our Articles of Association, no preemptive rights are attached to our ordinary shares.

Restrictions on Non-Residents of Israel

The ownership or voting of our ordinary shares by non-residents of Israel is not restricted in any way by our Articles or the laws of Israel, except for ownership by nationals of some countries that are, or have been, in a state of war with Israel.

Preferred Shares

Currently there are no preferred shares authorized under the terms of our Articles. No preferred shares are outstanding.

Transfer Agent and Registrar

The transfer agent and registrar for the ordinary shares is American Stock Transfer & Trust Company, LLC.

PLAN OF DISTRIBUTION

We have entered into a Sales Agreement with B. Riley Securities under which we may issue and sell up to 5,000,000 of our ordinary shares from time to time through or to B. Riley Securities acting as our sales agent or principal.

Upon delivery of a placement notice and subject to the terms and conditions of the Sales Agreement, B. Riley Securities may sell our ordinary shares by any method permitted by law deemed to be an "at the market offering" as defined in Rule 415 promulgated under the Securities Act. We may instruct B. Riley Securities not to sell ordinary shares if the sales cannot be effected at or above the price designated by us from time to time. We or B. Riley Securities may suspend the offering of ordinary shares upon notice and subject to other conditions.

We will pay B. Riley Securities commissions, in cash, for its services in acting as agent in the sale of our ordinary shares. B. Riley Securities will be entitled to compensation at a fixed commission rate equal to up to 3.0% of the gross sales price per share sold pursuant to the Sales Agreement. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We have also agreed to reimburse B. Riley Securities for certain specified expenses, including the fees and disbursements of its legal counsel, in an amount not to exceed \$25,000. Additionally, pursuant to the terms of the Sales Agreement, we agreed to reimburse B. Riley Securities for the documented fees and costs of its legal counsel reasonably incurred in connection with B. Riley Securities' ongoing diligence arising from the transactions contemplated by the Sales Agreement in an amount not to exceed \$2,500 per calendar quarter. We estimate that the total expenses for the offering, excluding compensation and reimbursement payable to B. Riley Securities under the terms of the Sales Agreement, will be approximately \$150,000.

Settlement for sales of ordinary shares will occur on the second business day following the date on which any sales are made, or on some other date that is agreed upon by us and B. Riley Securities in connection with a particular transaction, in return for payment of the net proceeds to us. Sales of our ordinary shares as contemplated in this prospectus will be settled through the facilities of the Depository Trust Company or by such other means as we and B. Riley Securities may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

B. Riley Securities will use its commercially reasonable efforts, consistent with its sales and trading practices, to solicit offers to purchase the ordinary shares under the terms and subject to the conditions set forth in the Sales Agreement. In connection with the sale of the ordinary shares on our behalf, B. Riley Securities will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of B. Riley Securities will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to B. Riley Securities against certain civil liabilities, including liabilities under the Securities Act.

This offering of our ordinary shares pursuant to Sales Agreement will terminate upon the earlier of (1) sale of all shares of our ordinary shares subject to this prospectus or (2) the termination of the Sales Agreement as permitted therein. We and B. Riley Securities may each terminate the Sales Agreement at any time upon five days' prior written notice.

Any portion of the ordinary shares included in this prospectus that is not previously sold or included in an active placement notice pursuant to the Sales Agreement is available for sale in other offerings pursuant to our registration statement, of which this prospectus forms a part, and the accompanying base prospectus.

Our ordinary shares are listed on the Nasdaq Capital Market and trades under the symbol "ENTX." The transfer agent of our ordinary shares is American Stock Transfer & Trust Company.

SERVICE OF PROCESS AND ENFORCEMENT OF JUDGMENTS

We are incorporated under the laws of the State of Israel. Service of process upon us and upon our directors and officers and any Israeli experts named in this prospectus, may be difficult to obtain within the United States. Furthermore, because substantially all of our assets and a significant number of our directors and officers are located outside the United States, any judgment obtained in the United States against us or any of our directors and officers may not be collectible within the United States.

We have been informed by our legal counsel in Israel, Herzog Fox & Neeman, that it may be difficult to initiate an action with respect to U.S. securities law in Israel. Israeli courts may refuse to hear a claim based on an alleged violation of U.S. securities laws reasoning that Israel is not the most appropriate forum to hear such a claim. In addition, even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not U.S. law is applicable to the claim. If U.S. law is found to be applicable, the content of applicable U.S. law must be proved as a fact by expert witnesses, which can be a time-consuming and costly process. Certain matters of procedure may also be governed by Israeli law. There is little case law in Israel addressing these matters.

Subject to certain time limitations and legal procedures, Israeli courts may enforce a U.S. judgment in a civil matter which, subject to certain exceptions, is non-appealable, including judgments based upon the civil liability provisions of the Securities Act and the Exchange Act and including a monetary or compensatory judgment in a non-civil matter, provided that:

- the judgment was rendered after due process by a court which was, according to the laws of the state of the court, competent jurisdiction to render the judgment;
- the judgment is final and is not subject to any right of appeal; and
- the obligations imposed by the judgment are enforceable according to the laws of the State of Israel and according to the laws of the state in which the judgment was given and the substance of the judgment is not contrary to public policy;

Even if these conditions are met, an Israeli court will not declare a foreign civil judgment enforceable if:

- the judgment was given in a state whose laws do not provide for the enforcement of judgments of Israeli courts (subject to exceptional cases);
- the enforcement of the judgment is likely to prejudice the sovereignty or security of the State of Israel;
- the judgment was obtained by fraud;
- the opportunity given to the defendant to bring its arguments and evidence before the court was not reasonable in the opinion of the Israeli court;
- the judgment was rendered by a court not competent to render it according to the laws of private international law as they apply in Israel;
- the judgment is contradictory to another judgment that was given in the same matter between the same parties and that is still valid; or
- at the time the action was brought in the foreign court, a lawsuit in the same matter and between the same parties was pending before a court or tribunal in Israel.

If a foreign judgment is enforced by an Israeli court, it generally will be payable in Israeli currency, which can then be converted into non-Israeli currency and transferred out of Israel. The usual practice in an action before an Israeli court to recover an amount in a non-Israeli currency is for the Israeli court to issue a judgment for the equivalent amount in Israeli currency at the rate of exchange in force on the date of the judgment, but the judgment debtor may make payment in foreign currency. Pending collection, the amount of the judgment of an Israeli court stated in Israeli currency ordinarily will be linked to the Israeli consumer price index plus interest at the annual statutory rate set by Israeli regulations prevailing at the time. Judgment creditors must bear the risk of unfavorable exchange rates.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR U.S. HOLDERS

The following are material U.S. federal income tax consequences to the U.S. Holders described below of owning and disposing of our ordinary shares, but it does not purport to be a comprehensive description of all the tax considerations that may be relevant to a particular person's decision to own the ordinary shares. This discussion applies only to a U.S. Holder that holds our ordinary shares as capital assets for U.S. federal income tax purposes. In addition, it does not describe all of the tax consequences that may be relevant in light of a U.S. Holder's particular circumstances, including alternative minimum tax consequences, the Medicare tax on certain net investment income, and tax consequences to U.S. Holders subject to special provisions of the Internal Revenue Code of 1986, as amended, or the Code, such as:

- financial institutions, underwriters, insurance companies, real estate investment trusts, or regulated investment companies;
- dealers or traders in securities that use a mark-to-market method of tax accounting;
- persons holding ordinary shares as part of a "straddle" or integrated transaction or persons entering into a constructive sale with respect to the ordinary shares;
- persons whose functional currency for U.S. federal income tax purposes is not the U.S. dollar;
- partnerships or other pass-through entities for U.S. federal income tax purposes;
- tax exempt organizations, qualified retirement plans, individual retirement accounts or other tax-deferred accounts;
- persons that own or are deemed to own 10% or more of our stock by vote or value; or
- persons holding our ordinary shares in connection with a trade or business conducted outside of the United States.

If an entity or arrangement that is classified as a partnership for U.S. federal income tax purposes owns our ordinary shares, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. Partnerships owning our ordinary shares and partners in such partnerships should consult their tax advisers as to the particular U.S. federal tax consequences of owning and disposing of the ordinary shares.

This discussion is based on the Code, administrative pronouncements, judicial decisions, and final and proposed Treasury regulations, changes to any of which subsequent to the date of this prospectus may affect the tax consequences described herein.

For purposes of this discussion, a "U.S. Holder" is a person who, for U.S. federal income tax purposes, is a beneficial owner of ordinary shares and is:

- a citizen or individual resident of the United States:
- a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein or the District of Columbia; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

U.S. Holders should consult their tax advisers concerning the U.S. federal, state, local and foreign tax consequences of owning and disposing of our ordinary shares in their particular circumstances.

Taxation of Distributions on Ordinary Shares

We currently do not expect to make distributions on our ordinary shares. Subject to the discussion below under "—Passive Foreign Investment Company Rules," any distributions paid on our ordinary shares (other than certain pro-rata distributions of ordinary shares) will be treated as dividends to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Because we do not calculate our earnings and profits under U.S. federal income tax principles, it is expected that distributions generally will be reported to U.S. Holders as dividends.

Individuals and other non-corporate U.S. Holders will be subject to tax on any such dividends at the lower capital gains tax rate applicable to "qualified dividend income," provided that certain conditions are satisfied, including that (i) the ordinary shares on which the dividends are paid are readily tradable on an established securities market in the United States or we are eligible for the benefits of the income tax treaty between Israel and the United States, (ii) we are not a PFIC nor treated as such with respect to a U.S. Holder (as discussed below) for either our taxable year in which the dividend was paid or for the preceding taxable year, and (iii) certain holding period requirements are met. For this purpose, the ordinary shares will generally be considered to be readily tradable on an established securities market in the United States as long as they remain listed on the Nasdaq. Non-corporate U.S. Holders should consult their tax advisers regarding the availability of these favorable rates on dividends in their particular circumstances. Dividends will not be eligible for the dividends received deduction generally available to U.S. corporations in respect of dividends received from other U.S. corporations under the Code and will generally be included in a U.S. Holder's income on the date of actual or constructive receipt.

Dividend income will include any amounts withheld in respect of Israeli taxes and will be treated as foreign source income for foreign tax credit purposes. Subject to applicable limitations, some of which vary depending upon the U.S. Holder's circumstances, Israeli taxes withheld from dividends on our ordinary shares will be creditable against the U.S. Holder's U.S. federal income tax liability. The rules governing foreign tax credits are complex and U.S. Holders should consult their tax advisers regarding the creditability of foreign taxes in their particular circumstances. In lieu of claiming a foreign tax credit, U.S. Holders may elect to deduct foreign taxes (including Israeli taxes) in computing their taxable income, subject to applicable limitations. An election to deduct foreign taxes instead of claiming foreign tax credits applies to all foreign taxes paid or accrued in the taxable year.

If any dividend is paid in foreign currency, the amount of dividend income will be the dividend's U.S. dollar amount calculated by reference to the exchange rate in effect on the date of receipt, regardless of whether the payment is in fact converted into U.S. dollars. If the dividend is converted into U.S. dollars on the date of receipt, a U.S. Holder should not be required to recognize foreign currency gain or loss in respect of the dividend income. A U.S. Holder may have foreign currency gain or loss if the dividend is converted into U.S. dollars after the date of receipt. Such gain or loss would generally be treated as U.S.-source ordinary income or loss.

Sale or Other Taxable Disposition of Ordinary Shares

Subject to the discussion below under "Passive Foreign Investment Company Rules," gain or loss realized on the sale or other taxable disposition of our ordinary shares will be capital gain or loss and will be long-term capital gain or loss if the U.S. Holder held the ordinary shares for more than one year. The amount of the gain or loss will equal the difference between the U.S. Holder's tax basis in the ordinary shares disposed of and the amount realized on the disposition. This gain or loss will generally be U.S. source gain or loss for foreign tax credit purposes. The deductibility of capital losses is subject to limitations.

Passive Foreign Investment Company Rules

There is a risk that we may be treated as a PFIC for any taxable year. The application of the PFIC rules to a company like us is subject to uncertainties, and for the reasons described below, we cannot express a view as to whether we will be a PFIC for the current or any future taxable year. In general, a non-U.S. corporation is a PFIC for any taxable year in which (i) 75% or more of its gross income consists of passive income, or the income test, or (ii) 50% or more of the average value of its assets consists of assets (generally determined on a quarterly basis) that produce, or are held for the production of, passive income, or the assets test. Generally, passive income includes interest, dividends, rents, royalties and certain gains, and cash is a passive asset for PFIC purposes.

The assets shown on our balance sheet consist, and are expected to continue to consist, primarily of cash and cash equivalents for the foreseeable future. Further, the cash we raise in this offering will generally be considered to be held for the production of passive income and thus will be considered a passive asset. Therefore, whether we will satisfy the assets test for the current or any future taxable year will depend largely on the quarterly value of our goodwill and on how quickly we utilize our cash in our business. Because (i) the value of our goodwill may be determined by reference to the market price of our ordinary shares, which has been, and may continue to be volatile given the nature and early stage of our business, (ii) we hold, and expect to continue to hold, a significant amount of cash, and (iii) a company's annual PFIC status can be determined only after the end of each taxable year, we cannot express a view as to whether we will be a PFIC for the current or any future taxable year. In addition, it is not clear how to apply the income test to a company like us, which is still developing its key intangible assets and whose overall losses from research activities significantly exceed the amount of its income (including passive income). If our losses from research and development activities are disregarded for purposes of the income test, we may be a PFIC for any taxable year if 75% or more of our gross income (as determined for U.S. federal income tax purposes) for the relevant year is from interest and financial investments. Because the revenue shown on our financial statements is not calculated based on U.S. tax principles, and

because for any taxable year we may not have sufficient (or any) non-passive revenue, there is a risk that we may be or become a PFIC under the income test for any taxable year.

For purposes of the PFIC rules for any taxable year, a non-U.S. corporation that directly or indirectly owns at least 25% by value of the shares of another corporation is treated as if it held its proportionate share of the assets of the other corporation and received directly its proportionate share of the income of the other corporation.

Under attribution rules, if we were a PFIC for any taxable year and had any subsidiaries or other entities in which we held a direct or indirect equity interest that are also PFICs, or Lower-tier PFICs, U.S. Holders would be deemed to own their proportionate share of any such Lower-tier PFICs and would be subject to U.S. federal income tax according to the rules described in the following paragraph on (i) certain distributions by a Lower-tier PFIC and (ii) a disposition of shares of a Lower-tier PFIC, in each case as if the U.S. Holders held such shares or equity interests directly, even if the U.S. Holders do not receive the proceeds of those distributions or dispositions.

If we were a PFIC for any taxable year during which a U.S. Holder held our ordinary shares, an adverse tax regime would apply to the U.S. Holder's investment in our ordinary shares. Generally, gain recognized upon a taxable disposition (including, under certain circumstances, a pledge) of ordinary shares by the U.S. Holder would be allocated ratably over the U.S. Holder's holding period for such ordinary shares. The amounts allocated to the taxable year of disposition and to taxable years prior to the first taxable year in which we were a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest tax rate in effect for that taxable year for individuals or corporations, as appropriate, and an interest charge would be imposed on the resulting tax liability for each such year. Further, to the extent that any distribution received by a U.S. Holder on ordinary shares exceeded 125% of the average of the annual distributions received on such ordinary shares during the preceding three years or the U.S. Holder's holding period, whichever is shorter, that distribution would be subject to taxation in the same manner.

If we were a PFIC for any year during which a U.S. Holder owns ordinary shares, we generally would continue to be treated as a PFIC with respect to such U.S. Holder's ordinary shares unless (a) we ceased to be a PFIC and (b) the U.S. Holder has made a deemed sale election under the PFIC rules which may result in recognition of gain (but not loss), taxable under the PFIC rules described above, without the receipt of any corresponding cash.

Alternatively, if we were a PFIC and if the ordinary shares were regularly traded on a qualified exchange, a U.S. Holder might be able to make a mark-to-market election with respect to our ordinary shares (but generally not with respect to Lower-tier PFICs, if any) that would result in tax treatment different from the general tax treatment for PFICs described above. The ordinary shares would be treated as regularly traded in any calendar year in which more than a de minimis quantity of the ordinary shares were traded on a qualified exchange on at least 15 days during each calendar quarter. The Nasdaq, where our ordinary shares are listed, is a qualified exchange for this purpose. If a U.S. Holder makes the mark-to-market election, the U.S. Holder generally will recognize in each year that we are a PFIC as ordinary income any excess of the fair market value of the ordinary shares at the end of the taxable year over their adjusted tax basis, and will recognize an ordinary loss in respect of any excess of the adjusted tax basis of the ordinary shares over their fair market value at the end of the taxable year (but only to the extent of the net amount of income previously included as a result of the mark-to-market election). If a U.S. Holder makes the election, the U.S. Holder makes the mark-to-market election, any gain that the U.S. Holder recognizes on the sale or other disposition of ordinary shares in a year in which we are a PFIC will be treated as ordinary income and any loss will be treated as an ordinary loss (but only to the extent of the net amount of income previously included as a result of the mark-to-market election). U.S. Holders should consult their tax advisers regarding the availability and advisability of making a mark-to-market election in their particular circumstances.

We have not determined whether, if we were to be classified as a PFIC for a taxable year, we will provide information necessary for a U.S. Holder to make a "qualified electing fund" election which, if available, would result in tax treatment different from (and generally less adverse than) the general tax treatment for PFICs described above. Accordingly, U.S. Holders should assume that they will not be able to make a qualified electing fund election with respect to the ordinary shares.

If we were a PFIC or, with respect to a particular U.S. Holder, were treated as a PFIC for the taxable year in which we pay a dividend or the prior taxable year, the preferential rates discussed above with respect to dividends paid to certain non-corporate U.S. Holders of our ordinary shares would not apply. In addition, if we were a PFIC for any taxable year during which a U.S. Holder owns ordinary shares, the U.S. Holder would be required to file annual reports with the IRS, subject to certain exceptions.

U.S. Holders should consult their tax advisers regarding the potential application of the PFIC rules to their ownership in our ordinary shares.

Information Reporting and Backup Withholding

Payments of distributions and sales proceeds that are made within the United States or through certain U.S. related financial intermediaries generally are subject to information reporting, and may be subject to backup withholding, unless (i) the U.S. Holder is a corporation or other exempt recipient or (ii) in the case of backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding. Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability and may entitle it to a refund, provided that the required information is timely furnished to the IRS.

Information with Respect to Foreign Financial Assets

Certain U.S. Holders may be required to file information returns with respect to their investment in ordinary shares. For example, U.S. Holders who are individuals and certain specified entities may be required to report information relating to the ordinary shares, unless the ordinary shares are held in an account maintained by a financial institution (in which case the account itself may be reportable if maintained by a non-U.S. financial institution). U.S. Holders should consult their tax advisors regarding their reporting obligations with respect to their ownership and disposition of the ordinary shares.

LEGAL MATTERS

The validity of the issuance of our ordinary shares offered in this prospectus and certain matters of Israeli law will be passed upon for us by Herzog, Fox & Neeman, Tel Aviv, Israel, our Israeli counsel. Certain matters of U.S. federal and New York State law will be passed upon for us by Greenberg Traurig, LLP. B. Riley Securities, Inc. is being represented in connection with this offering by Duane Morris LLP, New York, New York.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2021 have been so incorporated in reliance on the report which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in note 1d to the financial statements) of Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act. Accordingly, we are required to file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the SEC's website is www.sec.gov.

We make available free of charge on or through our website, www.enterabio.com, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with or otherwise furnish it to the SEC.

We have filed with the SEC a registration statement under the Securities Act relating to the securities offered under this prospectus. The registration statement, including the attached exhibits, contains additional relevant information about us and the securities. If a document has been filed as an exhibit to the registration statement, we refer you to the copy of the document that has been filed. Each statement in this prospectus relating to a document filed as an exhibit is qualified in all respects by the filed exhibit. This prospectus does not contain all of the information set forth in the registration statement. You can obtain a copy of the registration statement for free at www.sec.gov. The registration statement and the documents referred to below under "Incorporation of Certain Documents by Reference" are also available on our website, www.enterabio.com.

Information contained on or accessible through our website is not incorporated by reference in this prospectus and does not constitute a part hereof.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" the information we have filed with it, which means that we can disclose important information to you by referring you to the documents containing such information. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future documents (excluding information furnished pursuant to Items 2.02, 7.01 and 9.01 of Form 8-K or any other information that is identified as "furnished" rather than filed) we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this prospectus and prior to the termination of this offering:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, filed with the SEC on March 8, 2022 as amended by our Form 10-K/A Amendment No. 1 filed with the SEC on April 29, 2022;
- Our Quarterly Report on Form 10-Q for the three months ended March 31, 2022, filed with the SEC on May 12, 2022; and
- Our Current Reports on Form 8-K (not including any information furnished under Item 2.02, 7.01 or 9.01 of such Form 8-K or any other
 information that is identified as "furnished" rather than filed, which information is not incorporated by reference herein), filed with the SEC
 on May 16, 2022 and May 27, 2022; and
- The description of our ordinary shares contained in our registration statement on <u>Form 8-A</u>, filed on June 25, 2018, and any amendment or report filed for the purpose of updating such description, including without limitation, <u>Exhibit 2.2</u> of our Annual Report on <u>Form 20-F</u> for the year ended December 31, 2020 filed with the SEC on March 18, 2021.

All filings filed by us pursuant to the Exchange Act after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to the effectiveness of such registration statement (excluding information furnished pursuant to Items 2.02, 7.01 and 9.01 of Form 8-K or any other information that is identified as "furnished" rather than filed) shall also be deemed to be incorporated by reference into this prospectus.

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. Any statement contained in a document incorporated by reference into this prospectus will be deemed to be modified or superseded for the purposes of this prospectus to the extent that a later statement contained in this prospectus or in any other document incorporated by reference into this prospectus modifies or supersedes the earlier statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.

We will provide without charge to each person to whom a copy of this prospectus is delivered, upon written or oral request, a copy of any or all of the reports or documents that have been incorporated by reference in this prospectus but not delivered with this prospectus (other than an exhibit to these filings, unless we have specifically incorporated that exhibit by reference in this prospectus). Any such request should be addressed to us at: Kiryat Hadassah, Minrav Building - Fifth Floor, Jerusalem, Israel, Attention: Spiros Jamas, Chief Executive Officer, or made by phone at +972-2-532-7151. You may also access the documents incorporated by reference in this prospectus through our website at www.enterabio.com. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.



5,000,000 Ordinary Shares

Prospectus

B. Riley Securities

June 9, 2022