

PROSPECTUS SUPPLEMENT

(To Prospectus dated January 19, 2018 and the Prospectus Supplement dated January 19, 2018)



BIOLINERX LTD.

**American Depositary Shares Representing Ordinary Shares Under an At-The-Market Sales Agreement
Having an Aggregate Offering Price of Up to
\$8,520,000**

This prospectus supplement dated April 17, 2020, or this Prospectus Supplement, amends and supplements the information in our prospectus dated January 19, 2018 that forms a part of our registration statement on Form F-3 (File No. 333-222332) and our prospectus supplement dated January 19, 2018, which together with the prospectus we refer to as the Original Prospectus. This Prospectus Supplement, which is being filed as a result of changes in the extent to which we can utilize an existing at-the-market sales agreement, should be read in conjunction with the Original Prospectus and is qualified in its entirety by reference to the Original Prospectus, except to the extent that the information in this Prospectus Supplement amends or supersedes the information contained in the Original Prospectus. This Prospectus Supplement is not complete without, and may only be delivered or utilized in connection with, the Original Prospectus and any future amendments or supplements thereto. The Original Prospectus, as amended and supplemented by this Prospectus Supplement, is sometimes referred to herein as the Prospectus.

The Original Prospectus relates to the offer and sale from time to time of American Depositary Shares, or ADSs, representing our ordinary shares, par value NIS 0.10 per share, having an aggregate offering price of up to \$30,000,000, pursuant to the terms of an at-the-market sales agreement dated October 31, 2017, or the Sales Agreement, that we entered into with BTIG, LLC, or BTIG, as our sales agent thereunder. As of the date of this Prospectus Supplement, we have sold an aggregate of 2,725,916 of our ADSs through BTIG under the Sales Agreement having an aggregate offering price of \$12.6 million, leaving an available balance of \$17.4 million aggregate offering price of ADSs that we may offer and sell under the Sales Agreement, without giving effect to any offering limitations that may apply as set forth in the Sales Agreement, including those described herein.

On March 12, 2020, the date we filed our Annual Report on Form 20-F for the fiscal year ended December 31, 2019, the offer and sale of our ADSs under the Original Prospectus and our registration statement on Form F-3 (File No. 333-222332) of which the Original Prospectus forms a part, or the Registration Statement, became subject to the offering limits imposed by General Instruction I.B.5 of Form F-3. At that time and as of the date of this Prospectus Supplement, the aggregate market value of our ADSs held by non-affiliates pursuant to General Instruction I.B.5 of Form F-3 is \$25,558,200, which was calculated based on 11,887,538 outstanding ADSs held by non-affiliates and a price of \$2.15 per ADS, the closing price of our ADSs on February 19, 2020, which is the highest closing sale price of our ADSs on The Nasdaq Capital Market within the 60-day period immediately preceding the date of this Prospectus Supplement. As of the date of this Prospectus Supplement, we have not sold any securities pursuant to General Instruction I.B.5 of Form F-3 during the 12 calendar months prior to, and including, the date of this Prospectus Supplement.

We are filing this Prospectus Supplement to reflect the maximum amount of ADSs that we may now offer and sell through BTIG under the Sales Agreement while subject to the offering limitations under General Instruction I.B.5. of Form F-3. As a result of these offering limitations and the current public float of our ADSs, and in accordance with the terms of the Sales Agreement, we may offer and sell ADSs having an aggregate offering price of up to \$8,520,000 pursuant to this Prospectus. If the public float of our ADSs increases after the date of this Prospectus Supplement such that we may sell additional amounts of our ADSs through BTIG under the Sales Agreement and the Registration Statement, we will file another prospectus supplement with the Securities and Exchange Commission that will amend and supplement this Prospectus to include such additional amount of ADSs that we may sell through BTIG under the Sales Agreement and the Registration Statement before we sell any such additional ADSs under the Sales Agreement.

The sales of our ADSs, if any, under this Prospectus Supplement will be made by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on The Nasdaq Capital Market, on any other existing trading market for our ADSs, or to or through a market maker.

Our ADSs trade on The Nasdaq Capital Market under the symbol “BLRX.” On April 16, 2020, the last reported sale price of our ADSs on The Nasdaq Capital Market was \$1.73 per share. Our ordinary shares currently trade on the Tel Aviv Stock Exchange, or TASE, under the symbol “BLRX.” On April 16, 2020, the last reported sale price of our ordinary shares on the TASE was NIS 0.462, or \$0.129 per share (based on the exchange rate reported by the Bank of Israel on such date).

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

Investing in our securities involves risks. You should read this prospectus supplement and the documents we incorporate herein by reference carefully before you make your investment decision. See “Risk Factors” set forth in the documents we file with the Securities and Exchange Commission that are incorporated by reference herein for more information.



The date of this Prospectus Supplement is April 17, 2020.
